

CYME

Power Engineering Software

**CYME 8.2 - ASCII File Structure
(Importing / Exporting Databases)-
Reference Manual**

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Getting Started

Overview of the Import / Export Functions

The CYME software simulates distribution networks to aid in planning and operation. It allows the users to calculate voltage drops, power flows, and perform other simulations like Optimal Capacitor Placement, Load Balancing, etc. The CYME software uses databases to store network, equipment, and load information.

The import (or export) function reads in (or writes to) nine preformatted ASCII files (network, equipment, load, maps, reliability, meter demands, TCC, profiles and billings). Note that these nine files can be imported (or exported) independently from one another.

The combined import / export functions can be used to:

- Upgrade database files created by CYMDIST version 8.1 or earlier to CYME version 8.2.
- Import data from other sources to build feeder networks in CYME.
- Provide third party software a method of parsing the CYME database for reporting.
- Access and modify database directly with third party software like Microsoft Excel® or Access®, Corel™ Quattro-Pro® or Paradox, etc.

The import or export of data is done using the CYME Database Utilities wizard that can be accessed via the **Database > Import** or the **Database > Export** menu options. To learn how to use the import / export functions; refer to the **CYME Reference Manual**.

Notes:

This reference manual describes the data structure of these ASCII files.

This reference is applicable to CYME version 8.2 and higher and is not backward compatible. The ASCII files generated by the export function cannot be used by versions earlier than 8.2.

File Syntax and Structure

There are no restrictions on the names of the ASCII files.

Each file is subdivided into sections that group together data of the same type or related data. Sections are delimited by headers.

Header	A header is a topic enclosed in square brackets ([]). For example, cables data are described under the header “[CABLE]”.
Data Format Line	<p>A data format line defines the data format – the order – that the CYME software uses to interpret data value lines. It is inserted immediately below a header.</p> <p>Each line is continuous (no hard return), and is comma delimited (no blank spaces).</p> <p>Following the “=” sign is the list of topic-relevant keywords (delimited by commas).</p> <p>If a data format line is missing, or if no keywords are defined after the “=” sign, then the data will be interpreted using the default format (CYMDIST pre version 4.1), which may introduce errors.</p> <p>E.g. “Format_XY=”; where “XY” stands for any topic.</p> <p>When the keyword “InvalidValue” is used, the associated values are ignored.</p> <p>Note: <i>You can use different data formats within the same ‘header’ by leading each set of ‘data value lines’ with its own ‘data format line’.</i></p> <p>Note: <i>The order of the keywords is not important as long as the data value follows the specified format. However, it is highly recommended that the first keyword of the table be the first one in the format line.</i></p>
Data Value Line	<p>A data value line defines the specific setting and values of a device.</p> <p>Each line is continuous (no hard return), and is comma delimited (no blank spaces).</p> <p>An optional field can be left blank - if left blank, default values will be used.</p> <p>Data values should be in upper case, if they were not, they would be converted automatically; except for the comments.</p>

Common Headers for ASCII Database Files

At the top of each ASCII database file are three common headers: [GENERAL], [SI] or [IMPERIAL].

The [GENERAL] header is used for declaring the application version number, and the 'date of last modification'. The CYME software interprets (decodes) the data value lines based on version information given here. If this information is missing, or cannot be read for any reasons, then CYME will use the default format (CYMDIST pre version 4.1), which may introduce errors.

Example:

```
[GENERAL]
Cymdist_Version=5.0
Date=March 12, 2009 at 08:31:05
```

Note: *It is highly recommended that you include the “[GENERAL]” header in your database files to ensure data integrity.*

The [SI] or the [IMPERIAL] headers specify the ‘system unit’ your data is based on. Thus, only one of these headers is declared. Under [IMPERIAL], you may add ‘TemperatureInSI=1’, if you want to use Celcius as the temperature unit (instead of Farenheit).

These headers are placed after the [GENERAL] header and do not have supporting ‘data format line’ or ‘data value lines’.

[SI] = Metric

[IMPERIAL] = Imperial

Note: *It is highly recommended that you include these two headers in your database files, if these headers are not included in the file, CYME will interpret the data value as metric-based.*

Header Definitions

Equipment Database File

The equipment database file contains a header for each equipment type followed by the data format line. Then the lines of data values for equipment of that type will follow. (For information on equipment and their settings, refer to the CYME Equipment Reference Manual).

For each type of equipment, the CYME software will automatically create one item called "DEFAULT" in addition to the items you have defined.

[ACDCCONVERTER]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		
Manufacturer	NO	STRING(64)		
Model	NO	STRING(64)		
Standard	NO	STRING(64)		
PhaseType	NO	PhaseType		See 0 for possible values.
ConverterRating	NO	FLOAT		
ActivePowerRating	NO	FLOAT		
ReactivePowerRating	NO	FLOAT		
MinimumPowerFactor	NO	FLOAT		
Efficiency	NO	FLOAT		
InternalLosses	NO	FLOAT		
UseDCCapacitor	NO	BOOLEAN		
DCCapacitor	NO	FLOAT		
RatedDCVoltage	NO	FLOAT		
InternalCouplingElement	NO	BOOLEAN		
CouplingResistance	NO	FLOAT		
CouplingInductance	NO	FLOAT		
Favorite	NO	BOOLEAN		
Flags	NO	INTEGER		Internal use only. Leave undefined.
Comments	NO	STRING(1000)		

[ARC FURNACE]

This block is particular. An Arc Furnace takes a list of 'Frequency, Magnitude' pairs. So, to import Arc Furnace data, you must supply multiple lines with the same Arc Furnace ID but with different values of Frequency and Magnitude. All other values are the same for each text line.

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		ID label of the equipment
Frequency	NO	FLOAT	p.u.	
MagnitudePercent	NO	FLOAT	%	
SymbolID	NO	INTEGER		
Favorite	NO	BOOLEAN		

Key	Mandatory	Type	Units	Description
Flags	NO	INTEGER		Internal use only. Leave undefined.
Comments	NO	STRING(1000)		

[AUTOTRANSFORMER]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		ID label of the transformer
Type	NO	TransformerPhaseType		See 0 for possible values.
WindingType	NO	TransformerWindin gType		See 0 for possible values.
KVA	NO	FLOAT	kVA	Total nominal rating according to Type value
VoltageUnit	NO	TransformerVoltag eUnit		See 0 for possible values.
KVLLprim	NO	FLOAT	kV	Primary line-to-line voltage
KVLLsec	NO	FLOAT	kV	Secondary line-to-line voltage
Z1	NO	FLOAT	%	Positive sequence impedance
Z0	NO	FLOAT	%	Zero sequence impedance
Z0PrimSec	NO	FLOAT		
Z0PrimMag	NO	FLOAT		
Z0SecMag	NO	FLOAT		
XR	NO	FLOAT		X / R ratio of positive sequence impedance
XR0	NO	FLOAT		X / R ratio of zero sequence impedance
XR0PrimSec	NO	FLOAT		
XR0PrimMag	NO	FLOAT		
XR0SecMag	NO	FLOAT		
MagnetizingCurrent	NO	FLOAT	%	
ConnectionConfiguration	NO	ConnectionConfigu ration		See 0 for possible values.
RG	NO	FLOAT		Grounding resistance, primary side
XG	NO	FLOAT		Grounding reactance, primary side
IsLTC	NO	STRING(2)		Load Tap Changer
Taps	NO	INTEGER		Number of taps
LowerBandwidth	NO	FLOAT	%	Lower tolerance limit.
UpperBandwidth	NO	FLOAT	%	Upper tolerance limit.
MinReg_Range	NO	FLOAT	%	Minimum Buck/Boost capability
MaxReg_Range	NO	FLOAT	%	Maximum Buck/Boost capability
Reversible	NO	BOOLEAN		To indicate if transformer is reversible,
SelfCooledKVA_1	NO	FLOAT	kVA	Total transformer cooled rating according to Type value
SelfCooledKVA_2	NO	FLOAT	kVA	Total transformer cooled rating (first rating) according to Type value
SelfCooledKVA_3	NO	FLOAT	kVA	Total transformer cooled rating (second rating) according to Type value

Key	Mandatory	Type	Units	Description
SelfCooledKVA_4	NO	FLOAT	kVA	Total transformer cooled rating (third rating) according to Type value
NoLoadLosses	NO	FLOAT	kVA	Total transformer cooled rating (fourth rating) according to Type value
FailRate	NO	FLOAT		
TmpFailRate	NO	FLOAT		
MajorRepairTime	NO	FLOAT		
MinorRepairTime	NO	FLOAT		
MajorFailureProportion	NO	FLOAT		
SymbolID	NO	INTEGER		
Favorite	NO	BOOLEAN		
Flags	NO	INTEGER		Internal use only. Leave undefined.
Comments	NO	STRING(1000)		

[BATTERY]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		
NominalVoltage	NO	FLOAT	V	
NumberCell	NO	INTEGER		
NominalCapacity	NO	FLOAT	Ah	
IntResistancePerCell	NO	FLOAT	mOhms	
BatteryDischargeCurrent	NO	FLOAT	A	
BatterySCCurrent	NO	FLOAT	A	
VoltPerCell	NO	FLOAT	V	
Capacity	NO	FLOAT	Ah	
NumberOfPlates	NO	INTEGER		
ResistancePosPlate	NO	FLOAT	mOhms	
CellDischargeCurrent	NO	FLOAT	A	
CellSCCurrent	NO	FLOAT	A	
BatteryType	NO	BatteryType		See 0 for possible values.
SymbolID	NO	INTEGER		
Favorite	NO	BOOLEAN		
Flags	NO	INTEGER		Internal use only. Leave undefined.
Comments	NO	STRING(1000)		

[BESS]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		
RatedStorageEnergy	NO	FLOAT	kWh	
MaxChargingPower	NO	FLOAT	kW	
MaxDischargingPower	NO	FLOAT	kW	
ChargeEfficiency	NO	FLOAT	Percent	
DischargeEfficiency	NO	FLOAT	Percent	
IdlingActiveLosses	NO	FLOAT	W	
IdlingReactiveLosses	NO	FLOAT	Var	
Favorite	NO	BOOLEAN		
Flags	NO	INTEGER		Internal use only. Leave undefined.

Key	Mandatory	Type	Units	Description
Comments	NO	STRING(1000)		

[BREAKER]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		ID label of the breaker
Amps	NO	FLOAT	Amps	Rated current
Amps_1	NO	FLOAT	Amps	Rated current first rating
Amps_2	NO	FLOAT	Amps	Rated current second rating
Amps_3	NO	FLOAT	Amps	Rated current third rating
Amps_4	NO	FLOAT	Amps	Rated current fourth rating
KVLL	NO	FLOAT	kV	Rated line-to-line voltage
Reversible	NO	BOOLEAN		To indicate if device is reversible.
InterruptingRating	NO	FLOAT	Amps	
FailRate	NO	FLOAT	interruption / year / km	Failure rate
TmpFailRate	NO	FLOAT	interruption / year / km	Temporary failure rate
MajorRepairTime	NO	FLOAT		
MinorRepairTime	NO	FLOAT		
MajorFailureProportion	NO	FLOAT		
StuckProbability	NO	FLOAT		Stuck probability
SwitchTime	NO	FLOAT	hours	Switching time
SymbolOpenID	NO	INTEGER		Symbol ID when the device is open
SymbolCloseID	NO	INTEGER		Symbol ID when the device is closed
SinglePhaseLocking	NO	BOOLEAN		0 = No and 1 = Yes
SinglePhaseTripping	NO	BOOLEAN		0 = No and 1 = Yes
RemoteControlled	NO	BOOLEAN		0 = No and 1 = Yes
Automated	NO	BOOLEAN		To indicate if device is automated (0 or 1)
Standard	NO	Standard		See 0 for possible values.
Manufacturer	NO	STRING(64)		
Model	NO	STRING(64)		
ANSIMaxRatedVoltage	NO	FLOAT		
ANSIRatedRangeKFactor	NO	FLOAT		
ANSIMaxSymmetricalRMS	NO	FLOAT		
ANSIClosingLatchingRMS	NO	FLOAT		
ANSIClosingLatchingCrest	NO	FLOAT		
IECMakingCurrent	NO	FLOAT		
InterruptingTime	NO	FLOAT		
Favorite	NO	BOOLEAN		
Flags	NO	INTEGER		Internal use only. Leave undefined.
Comments	NO	STRING(1000)		

[BUSWAY]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		ID label of the breaker
SymbolID	NO	INTEGER		
Favorite	NO	BOOLEAN		

Key	Mandatory	Type	Units	Description
Flags	NO	INTEGER		Internal use only. Leave undefined.
RatedVoltage	NO	FLOAT		
NominalRating	NO	FLOAT		
FirstRating	NO	FLOAT		
SecondRating	NO	FLOAT		
ThirdRating	NO	FLOAT		
FourthRating	NO	FLOAT		
WithstandRating	NO	FLOAT		
Material	NO	ConductorMaterialType		See 0 for possible values.
PositiveSequenceResistance	NO	FLOAT		
PositiveSequenceReactance	NO	FLOAT		
ZeroSequenceResistance	NO	FLOAT		
ZeroSequenceReactance	NO	FLOAT		
Manufacturer	NO	STRING(32)		
Model	NO	STRING(32)		
Comments	NO	STRING(1000)		

[CABLE]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		
R1	NO	FLOAT	Ω/km	Positive sequence resistance
R0	NO	FLOAT	Ω/km	Zero sequence resistance
X1	NO	FLOAT	Ω/km	Positive sequence reactance
X0	NO	FLOAT	Ω/km	Zero sequence reactance
B1	NO	FLOAT	μS/km or μS/mile	Positive sequence shunt susceptance
B0	NO	FLOAT	μS/km or μS/mile	Zero sequence shunt susceptance
Amps	NO	FLOAT	Amps	Cable ampacity
Amps_1	NO	FLOAT	Amps	First cable ampacity
Amps_2	NO	FLOAT	Amps	Second cable ampacity
Amps_3	NO	FLOAT	Amps	Third cable ampacity
Amps_4	NO	FLOAT	Amps	Fourth cable ampacity
WithstandRating	NO	FLOAT	Amps	
FailRate	NO	FLOAT	interruption / year / km or interruption / year / mile	Failure rate
TmpFailRate	NO	FLOAT	interruption / year / km or interruption / year / mile	Temporary failure rate
MajorRepairTime	NO	FLOAT		
MinorRepairTime	NO	FLOAT		
MajorFailureProportion	NO	FLOAT		
RatedLevel	NO	FLOAT		
PositiveSequenceShuntConductance	NO	FLOAT		
ZeroSequenceShuntConductance	NO	FLOAT		
LockImpedance	NO	BOOLEAN		
Manufacturer	NO	STRING(64)		

Key	Mandatory	Type	Units	Description
Standard	NO	STRING(64)		
CableType	NO	CableType		See 0 for possible values.
NumberOfGroundingConductors	NO	INTEGER		
ArmorOuterDiameter	NO	FLOAT		
OverallDiameter	NO	FLOAT		
ConcentricNeutralBeforeSheath	NO	BOOLEAN		
UserDefinedImpedances	NO	BOOLEAN		
Frequency	NO	FLOAT		
Temperature	NO	FLOAT		
ImpedancesNote	NO	STRING(1000)		
Favorite	NO	BOOLEAN		
Flags	NO	INTEGER		Internal use only. Leave undefined.
Comments	NO	STRING(1000)		

[CABLE CONCENTRIC NEUTRAL]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		
CableConcentricNeutralLocation	YES	CableConcentricNeutralLocation		See 0 for possible values.
MaterialID	NO	STRING(64)		
LayerPosition	NO	CableLayerPosition		See 0 for possible values.
Thickness	NO	FLOAT		
ConcentricNeutralsType	NO	CableConcentricNeutralType		See 0 for possible values.
NumberOfWires	NO	INTEGER		
StrapWidth	NO	FLOAT		
LayLength	NO	FLOAT		

[CABLE SHEATH]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		
CableSheathLocation	YES	CableSheathLocation		See 0 for possible values.
MaterialID	NO	STRING(64)		
LayerPosition	NO	CableLayerPosition		See 0 for possible values.
Thickness	NO	FLOAT		
SheathType	NO	CableSheathType		See 0 for possible values.
TapeThickness	NO	FLOAT		
NumberOfTapes	NO	INTEGER		
TapeWidth	NO	FLOAT		
OverlapRatio	NO	FLOAT		

[CABLE INSULATION]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		
CableInsulationLocation	YES	CableInsulationLocation		See 0 for possible values.

Key	Mandatory	Type	Units	Description
InsulationMaterialID	NO	STRING(64)		
Thickness	NO	FLOAT		

[CABLE CONDUCTOR]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		
CableConductorLocation	YES	CableConductorLocation		See 0 for possible values.
MaterialID	NO	STRING(64)		
CableSize	NO	CableSize		See 0 for possible values.
Size_mm2	NO	FLOAT		
Diameter	NO	FLOAT		
ConstructionType	NO	CableConstructionType		See 0 for possible values.
NumberOfStrands	NO	INTEGER		

[CHARGER]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		ID label of the breaker
ChargerType	NO	ChargerType		See 0 for possible values.
PhaseType	NO	PhaseType		See 0 for possible values.
NominalPower	NO	FLOAT	kW	
FirstRating	NO	FLOAT	kW	
SecondRating	NO	FLOAT	kW	
ThirdRating	NO	FLOAT	kW	
FourthRating	NO	FLOAT	kW	
InputACVoltage	NO	FLOAT	kV	
OutputDCVoltage	NO	FLOAT	V	
PowerFactor	NO	FLOAT	Percent	
Efficiency	NO	FLOAT	Percent	
MaxOutputCurrent	NO	FLOAT	A	
Favorite	NO	BOOLEAN		
Flags	NO	INTEGER		Internal use only. Leave undefined.
Comments	NO	STRING(1000)		

[CONDUCTOR]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		ID label of the conductor
Diameter	NO	FLOAT		
GMR	NO	FLOAT	cm or inch	Geometric mean radius
R25	NO	FLOAT	Ω/km or Ω/mile	First resistance
R50	NO	FLOAT	Ω/km or Ω/mile	Second resistance
Amps	NO	FLOAT	Amps	Nominal rating
Amps_1	NO	FLOAT	Amps	First rating
Amps_2	NO	FLOAT	Amps	Second rating

Key	Mandatory	Type	Units	Description
Amps_3	NO	FLOAT	Amps	Third rating
Amps_4	NO	FLOAT	Amps	Fourth rating
WithstandRating	NO	FLOAT	Amps	
FailRate	NO	FLOAT	interruption / year / km or interruption / year / mile	Failure rate
TmpFailRate	NO	FLOAT	interruption / year / km or interruption / year / mile	Temporary Failure rate
MajorRepairTime	NO	FLOAT		
MinorRepairTime	NO	FLOAT		
MajorFailureProportion	NO	FLOAT		
CodeWord	NO	STRING(64)		
ConstructionType	NO	ConductorConstructio nType		See 0 for possible values
FirstResistanceDC	NO	FLOAT		
SecondResistanceDC	NO	FLOAT		
MaterialID	NO	STRING(64)		
AWGSize	NO	ConductorAWGSize		See 0 for possible values.
SizeUnit	NO	ConductorSizeUnit		See 0 for possible values.
Size_mm2	NO	FLOAT		
OutsideArea	NO	FLOAT		
NumberOfStrands	NO	INTEGER		
TemperatureAC1	NO	FLOAT		
TemperatureAC2	NO	FLOAT		
TemperatureDC1	NO	FLOAT		
TemperatureDC2	NO	FLOAT		
Favorite	NO	BOOLEAN		
Flags	NO	INTEGER		Internal use only. Leave undefined.
Comment	NO	STRING(255)		

[CONDUCTOR MATERIAL]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		
ElectricalResistivity	NO	FLOAT		
TemperatureCoefficient	NO	FLOAT		
Favorite	NO	BOOLEAN		
Flags	NO	INTEGER		Internal use only. Leave undefined.
Comments	NO	STRING(1000)		

[CONVERTERCONTROL]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		
Control Model	NO	ConverterControlDBModel		See 0 for possible values.
Favorite	NO	BOOLEAN		
Flags	NO	INTEGER		Internal use only. Leave undefined.
Comments	NO	STRING(1000)		

[CTYPE FILTER]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		ID label of the equipment
R1	NO	FLOAT	Ohms	
L1	NO	FLOAT	mH	
C1	NO	FLOAT	uF	
R2	NO	FLOAT	Ohms	
L2	NO	FLOAT	mH	
C2	NO	FLOAT	uF	
R3	NO	FLOAT	Ohms	
L3	NO	FLOAT	mH	
C3	NO	FLOAT	uF	
TunedFrequency	NO	FLOAT		
FilterTotalReactivePower	NO	FLOAT		
RatedVoltage	NO	FLOAT	kV, V	
QualityFactor	NO	FLOAT		
SymbolID	NO	INTEGER		
Favorite	NO	BOOLEAN		
Flags	NO	INTEGER		Internal use only. Leave undefined.
Comments	NO	STRING(1000)		

[DCDCCONVERTER]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		ID label of the equipment
NominalPower	NO	FLOAT	kW	
InputVoltage	NO	FLOAT	V	
RatedOutputVoltage	NO	FLOAT	V	
Efficiency	NO	FLOAT	Percent	
MaxOutputCurrent	NO	FLOAT	A	
FirstLoadingLimit	NO	FLOAT	kW	
SecondLoadingLimit	NO	FLOAT	kW	
ThirdLoadingLimit	NO	FLOAT	kW	
FourthLoadingLimit	NO	FLOAT	kW	
SymbolID	NO	INTEGER		
Favorite	NO	BOOLEAN		
Flags	NO	INTEGER		Internal use only. Leave undefined.
Comments	NO	STRING(1000)		

[DCFUSE]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		
RatedCurrent	NO	FLOAT	A	
FirstRatedCurrent	NO	FLOAT	A	
SecondRatedCurrent	NO	FLOAT	A	
ThirdRatedCurrent	NO	FLOAT	A	
FourthRatedCurrent	NO	FLOAT	A	
RatedVoltage	NO	FLOAT	V	
InterruptingRating	NO	FLOAT	A	

Key	Mandatory	Type	Units	Description
VoltageClassification	NO	VoltageClassification		See 0 for possible values.
Standard	NO	Standard		See 0 for possible values.
Reversible	NO	BOOLEAN		To indicate if device is reversible
Manufacturer	NO	STRING(32)		
Model	NO	STRING(32)		
TCCRating	NO	STRING(32)		
SymbolID	NO	INTEGER		
Favorite	NO	BOOLEAN		
Flags	NO	INTEGER		Internal use only. Leave undefined.
Comments	NO	STRING(1000)		

[DCLVCB]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		
RatedCurrent	NO	FLOAT	A	
FirstRatedCurrent	NO	FLOAT	A	
SecondRatedCurrent	NO	FLOAT	A	
ThirdRatedCurrent	NO	FLOAT	A	
FourthRatedCurrent	NO	FLOAT	A	
RatedVoltage	NO	FLOAT	V	
InterruptingRating	NO	FLOAT	A	
Reversible	NO	BOOLEAN		To indicate if device is reversible
LVCBType	NO	LVCBType		See 0 for possible values.
Manufacturer	NO	STRING(32)		
Model	NO	STRING(32)		
TripUnit	NO	STRING(64)		
FrameType	NO	STRING(64)		
FrameSize	NO	STRING(64)		
SensorRangeMin	NO	INTEGER		
SensorRangeMax	NO	INTEGER		
Standard	NO	Standard		See 0 for possible values.
SymbolID	NO	INTEGER		
Favorite	NO	BOOLEAN		
Flags	NO	INTEGER		Internal use only. Leave undefined.
Comments	NO	STRING(1000)		

[DCSWITCH]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		
RatedCurrent	NO	FLOAT	A	
FirstRatedCurrent	NO	FLOAT	A	
SecondRatedCurrent	NO	FLOAT	A	
ThirdRatedCurrent	NO	FLOAT	A	
FourthRatedCurrent	NO	FLOAT	A	
RatedVoltage	NO	FLOAT	V	
Reversible	NO	BOOLEAN		To indicate if device is reversible
SymbolID	NO	INTEGER		

Key	Mandatory	Type	Units	Description
Favorite	NO	BOOLEAN		
Flags	NO	INTEGER		Internal use only. Leave undefined.
Comments	NO	STRING(1000)		

[DCMOTOR]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		
MechanicalPower	NO	FLOAT	HP	
RatedVoltage	NO	FLOAT	V	
Speed	NO	FLOAT	RPM	
Efficiency	NO	FLOAT	Percent	
SymbolID	NO	INTEGER		
Favorite	NO	BOOLEAN		
Flags	NO	INTEGER		Internal use only. Leave undefined.
Comments	NO	STRING(1000)		

[DCUPS]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		
PhaseType	NO	PhaseType		See 0 for possible values.
NominalPower	NO	FLOAT	kW	
FirstRating	NO	FLOAT	kW	
SecondRating	NO	FLOAT	kW	
ThirdRating	NO	FLOAT	kW	
FourthRating	NO	FLOAT	kW	
InputACVoltage	NO	FLOAT	kV	
OutputDCVoltage	NO	FLOAT	V	
PowerFactor	NO	FLOAT	Percent	
Efficiency	NO	FLOAT	Percent	
MaxOutputCurrent	NO	FLOAT	A	
SymbolID	NO	INTEGER		
Favorite	NO	BOOLEAN		
Flags	NO	INTEGER		Internal use only. Leave undefined.
Comments	NO	STRING(1000)		

[DEFAULT EQUIPMENT]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		ID label of the equipment to be replaced.
EquipmentType	YES	EquipmentDBType		Type of equipment concerned by the replacement. See 0 for possible values.
NewID	YES	STRING(64)		ID label of the equipment replacing the other one.

[DOUBLECIRCUITSPACING]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		
PosOfCond1_X	NO	FLOAT		
PosOfCond1_Y	NO	FLOAT		
PosOfCond2_X	NO	FLOAT		
PosOfCond2_Y	NO	FLOAT		
PosOfCond3_X	NO	FLOAT		
PosOfCond3_Y	NO	FLOAT		
PosOfNeutralCond_X	NO	FLOAT		
PosOfNeutralCond_Y	NO	FLOAT		
PosOfCond1_C2_X	NO	FLOAT		
PosOfCond1_C2_Y	NO	FLOAT		
PosOfCond2_C2_X	NO	FLOAT		
PosOfCond2_C2_Y	NO	FLOAT		
PosOfCond3_C2_X	NO	FLOAT		
PosOfCond3_C2_Y	NO	FLOAT		
PosOfNeutralCond_N2_X	NO	FLOAT		
PosOfNeutralCond_N2_Y	NO	FLOAT		
BundleDistance	NO	FLOAT		
NBPhasesPerCircuit	NO	INTEGER		
NBCconductorsPerPhase	NO	INTEGER		
NBNeutrals	NO	INTEGER		
TowerType	NO	TowerType		See 0 for possible values.
DistanceA	NO	FLOAT		
DistanceB	NO	FLOAT		
DistanceC	NO	FLOAT		
DistanceD	NO	FLOAT		
DistanceE	NO	FLOAT		
DistanceF	NO	FLOAT		
ConductorStatusN1	NO	NeutralConductorStatus		See 0 for possible values.
ConductorStatusN2	NO	NeutralConductorStatus		See 0 for possible values.
FootingResistanceN1	NO	FLOAT		
FootingResistanceN2	NO	FLOAT		
TowerSpanN1	NO	FLOAT		
TowerSpanN2	NO	FLOAT		
Favorite	NO	BOOLEAN		
Flags	NO	INTEGER		Internal use only. Leave undefined.
Comments	NO	STRING(1000)		

[DOUBLE TUNED FILTER]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		ID label of the equipment
R1	NO	FLOAT	Ohms	
L1	NO	FLOAT	mH	
C1	NO	FLOAT	uF	
R2	NO	FLOAT	Ohms	
L2	NO	FLOAT	mH	

Key	Mandatory	Type	Units	Description
C2	NO	FLOAT	uF	
R3	NO	FLOAT	Ohms	
TunedFrequency1	NO	FLOAT	harmonic order	
TunedFrequency2	NO	FLOAT	harmonic order	
FirstTunedQ	NO	FLOAT		
FirstTunedQualityFactor	NO	FLOAT		
FirstTunedV	NO	FLOAT		
SecondTunedQ	NO	FLOAT		
SecondTunedQualityFactor	NO	FLOAT		
SecondTunedV	NO	FLOAT		
SymbolID	NO	INTEGER		
Favorite	NO	BOOLEAN		
Flags	NO	INTEGER		Internal use only. Leave undefined.
Comments	NO	STRING(1000)		

[ELECTRONIC CONVERTER GENERATOR]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		ID label of the generator
KVA	NO	FLOAT	KVA	Rated KVA
KVLL	NO	FLOAT	kV	Rated line-to-line voltage
ActiveGeneration	NO	FLOAT	kW	Active generation
PF	NO	FLOAT	%	Power factor
FaultContribution	NO	FLOAT	%	Percent of rated current
Converter	NO	Converter		See 0 for possible values.
SymbolID	NO	INTEGER		Symbol ID
Favorite	NO	BOOLEAN		
Flags	NO	INTEGER		Internal use only. Leave undefined.
Comments	NO	STRING(1000)		

[EQUIPMENTUDD]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		
Type	YES	EquipmentDBType		See 0 for possible values.
DataID	YES	STRING(64)		
DataType	YES	ValueType		See 0 for possible values.
DataValue	NO	STRING(255)		

[FREQUENCY SOURCE]

This block is particular. A Frequency Source is defined by multiple Frequency, Magnitude and Angle values. So, to import Frequency Source data, you must supply multiple text lines that have the same Frequency Source ID but with different values of Frequency, Magnitude and Angle. All the other values are the same for each text line.

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		ID label of the equipment
Frequency	NO	FLOAT	p.u.	
Magnitude	NO	FLOAT	Amps	
Angle	NO	FLOAT	deg.	
InPercent	NO	INTEGER		0 for FALSE and 1 for TRUE
SymbolID	NO	INTEGER		
VoltageSource	NO	INTEGER		0 for FALSE and 1 for TRUE
Favorite	NO	BOOLEAN		
Flags	NO	INTEGER		Internal use only. Leave undefined.
Comments	NO	STRING(1000)		

[FUSE]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		ID label of the fuse
Amps	NO	FLOAT	Amps	Rated current
Amps_1	NO	FLOAT	Amps	Rated current first rating
Amps_2	NO	FLOAT	Amps	Rated current second rating
Amps_3	NO	FLOAT	Amps	Rated current third rating
Amps_4	NO	FLOAT	Amps	Rated current fourth rating
KVLL	NO	FLOAT	kV	Rated line-to-line voltage
Reversible	YES	BOOLEAN		To indicate if device is reversible.
InterruptingRating	NO	FLOAT	Amps	
TestCircuitPF	NO	FLOAT		
VoltageClassification	NO	VoltageClassification		See 0 for possible values.
Standard	NO	Standard		See 0 for possible values.
FailRate	NO	FLOAT	interruption / year / km	Failure rate
TmpFailRate	NO	FLOAT	interruption / year / km	Temporary failure rate
MajorRepairTime	NO	FLOAT		
MinorRepairTime	NO	FLOAT		
MajorFailurePorportion	NO	FLOAT		
StuckProbability	NO	FLOAT		Stuck probability
SwitchTime	NO	FLOAT	hours	Switching time
SymbolOpenID	NO	INTEGER		Symbol ID when the device is open
SymbolCloseID	NO	INTEGER		Symbol ID when the device is closed
SinglePhaseLocking	NO	BOOLEAN		0 = No and 1 = Yes
Favorite	NO	BOOLEAN		
Flags	NO	INTEGER		Internal use only. Leave undefined.
Comments	NO	STRING(1000)		
Manufacturer	NO	STRING(32)		

Key	Mandatory	Type	Units	Description
Model	NO	STRING(32)		
TCCRating	NO	STRING(32)		

[GENERATION CURVE MODEL]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		
SymbolID	NO	INTEGER		
Favorite	NO	BOOLEAN		
Flags	NO	INTEGER		Internal use only. Leave undefined.
CurveModel	NO	CurveModel		See 0 for possible values.
FromFile	NO	BOOLEAN		
FileName	NO	STRING(255)		
Comments	NO	STRING(1000)		

[GENERATOR COST CURVE MODEL]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		
SymbolID	NO	INTEGER		
Favorite	NO	BOOLEAN		
Flags	NO	INTEGER		Internal use only. Leave undefined.
GeneratorCostCurveType	NO	GeneratorCostCurveType		See 0 for possible values.
IntegrationConstant	NO	FLOAT		
LinearCoefficientPerKW	NO	FLOAT		
QuadraticCoefficientPerKW2	NO	FLOAT		
ExponentialCoefficient	NO	FLOAT		
ExponentialScaleFactorPerKW	NO	FLOAT		
Comments	NO	STRING(1000)		

[GENERATOR COST CURVE MODEL POINTS]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		
PointIndex	YES	FLOAT		
CoordX	NO	FLOAT		
CoordY	NO	FLOAT		

[GROUNDING TRANSFORMER]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		ID label of the equipment to be replaced.
Z0	NO	FLOAT		
X0_R0	NO	FLOAT		
RatedCapacity	NO	FLOAT		
RatedVoltage	NO	FLOAT		

Key	Mandatory	Type	Units	Description
ConnectionConfiguration	NO	ConnectionConfiguration		See 0 for possible values.
ImpedanceFormat	NO	ImpedanceFormat		
FailRate	NO	FLOAT		
TmpFailRate	NO	FLOAT		
MajorRepairTime	NO	FLOAT		
MinorRepairTime	NO	FLOAT		
MajorFailureProportion	NO	FLOAT		
SymbolID	NO	INTEGER		Symbol ID
Favorite	NO	BOOLEAN		
Flags	NO	INTEGER		Internal use only. Leave undefined.
Comments	NO	STRING(1000)		

[HIGH PASS FILTER]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		ID label of the equipment
R	NO	FLOAT	Ohms	
L	NO	FLOAT	mH	
C	NO	FLOAT	uF	
KVAR	NO	FLOAT	kVAR	Q
KV	NO	FLOAT	kV	V
TunedFrequency	NO	FLOAT		
FilterTotalReactivePower	NO	FLOAT		
QualityFactor	NO	FLOAT		
SymbolID	NO	INTEGER		
Favorite	NO	BOOLEAN		
Flags	NO	INTEGER		Internal use only. Leave undefined.
Comments	NO	STRING(1000)		

[IDEAL CONVERTER]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		ID label of the equipment
PulseNumber	NO	INTEGER		Pulse number of the converter.
KVA	NO	FLOAT	kVA	Three-Phase apparent power.
KV	NO	FLOAT	kV	Line-to-line voltage.(as reference only)
SymbolID	NO	INTEGER		
Favorite	NO	BOOLEAN		
Flags	NO	INTEGER		Internal use only. Leave undefined.
Comments	NO	STRING(1000)		

[INDUCTION GENERATOR]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		ID label of the generator
KVA	NO	FLOAT	KVA	Rated KVA
KVLL	NO	FLOAT	kV	Rated line-to-line voltage
ActiveGeneration	NO	FLOAT	kW	Active generation
PF	NO	FLOAT	%	Power factor
RatedSpeed	NO	FLOAT	RPM	
ANSIMotorGroup	NO	INTEGER		
SubTransientResistance	NO	FLOAT	Ω	Transient resistance
SubTransientReactance	NO	FLOAT	Ω	Transient reactance
SymbolID	NO	INTEGER		Symbol ID
AutoComputeFromEQCircuit	NO	BOOLEAN		0 or 1
ImpedanceUnit	NO	ImpedanceUnit		See 0 for possible values
Efficiency	NO	FLOAT		
Favorite	NO	BOOLEAN		
Flags	NO	INTEGER		Internal use only. Leave undefined.
Comments	NO	STRING(1000)		

[INDUCTION MACHINE EQ CIRCUIT]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		
Type	YES	EquipmentDBType		See 0 for possible values.
RotorType	NO	RotorType		See 0 for possible values.
EstimationMethod	NO	EstimationMethodType		See 0 for possible values.
StatorRS_Ohms	NO	FLOAT		
StatorXS_Ohms	NO	FLOAT		
MagnetisingRM_Ohms	NO	FLOAT		
MagnetisingXM_Ohms	NO	FLOAT		
OuterCageRotorRR1_Ohms	NO	FLOAT		
OuterCageRotorXR1_Ohms	NO	FLOAT		
InnerCageRotorRR2_Ohms	NO	FLOAT		
InnerCageRotorXR2_Ohms	NO	FLOAT		
CageFactorR	NO	FLOAT		
CageFactorX	NO	FLOAT		
InertiaUnit	NO	InertiaUnitType		See 0 for possible values.
Inertia	NO	FLOAT		
ImpedanceUnit	NO	ImpedanceUnit		See 0 for possible values

[INDUCTION MOTOR]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		ID label of the motor
RatedPower	NO	FLOAT	HP	Rated power
RatedVoltageKVLL	NO	FLOAT	kV	Rated line-to-line voltage
Efficiency	NO	FLOAT	%	Motor efficiency
Efficiency75	NO	FLOAT	%	Motor efficiency

Key	Mandatory	Type	Units	Description
Efficiency50	NO	FLOAT	%	Motor efficiency
FullLoadPF	NO	FLOAT	%	Full load power factor
PowerFactor75	NO	FLOAT	%	Power factor
PowerFactor50	NO	FLOAT	%	Power factor
Type	NO	PhaseType		See 0 for possible values.
RatedSpeed	NO	FLOAT	RPM	
SubTransientResistance	NO	FLOAT	Ω	
SubTransientReactance	NO	FLOAT	Ω	
ANSIMotorGroup	NO	INTEGER		
LockedRotorPF	NO	FLOAT	%	Locked rotor power factor
NEMA	NO	NEMA_CODE		NEMA locked-rotor code letter See 0 for possible values.
KVA_HPRatio	NO	FLOAT		Locked rotor KVA / HP ratio
SymbolID	NO	INTEGER		Symbol ID
ComputeMode	NO	INTEGER		0 or 1
ImpedanceUnit	NO	ImpedanceUnit		See 0 for possible values
Favorite	NO	BOOLEAN		
Flags	NO	INTEGER		Internal use only. Leave undefined.
Comments	NO	STRING(1000)		

[INSULATION MODEL]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		
FromFile	NO	BOOLEAN		
FileName	NO	STRING(255)		
Favorite	NO	BOOLEAN		
Flags	NO	INTEGER		Internal use only. Leave undefined.
Comments	NO	STRING(1000)		

[INSOLATIONMODELPOINT BLOCK]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		
PointIndex	YES	INTEGER		
Time	NO	FLOAT		
Insolation	NO	FLOAT		

[INSULATION MATERIAL]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		
RelativePermittivity	NO	FLOAT		
ContinuousTemperature	NO	FLOAT		
EmergencyTemperature	NO	FLOAT		
ShortCircuitTemperature	NO	FLOAT		
Favorite	NO	BOOLEAN		
Flags	NO	INTEGER		Internal use only. Leave undefined.

Key	Mandatory	Type	Units	Description
Comments	NO	STRING(1000)		

[LINE]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		ID label of the line
PhaseCondID	NO	STRING(64)		ID label of the phase conductor
NeutralCondID	NO	STRING(64)		ID label of the neutral conductor
SpacingID	NO	STRING(64)		ID label of the line configuration
UserDefinedImpedances	NO	BOOLEAN		
R1	NO	FLOAT	Ω/km or Ω/mile	Positive sequence resistance
R0	NO	FLOAT	Ω/km or Ω/mile	Zero sequence resistance
X1	NO	FLOAT	Ω/km or Ω/mile	Positive sequence reactance
X0	NO	FLOAT	Ω/km or Ω/mile	Zero sequence reactance
B1	NO	FLOAT	μS/km or μS/mile	Positive sequence shunt susceptance
B0	NO	FLOAT	μS/km or μS/mile	Zero sequence shunt susceptance
Amps	NO	FLOAT	Amps	Line ampacity
Amps_1	NO	FLOAT	Amps	Line ampacity (first rating)
Amps_2	NO	FLOAT	Amps	Line ampacity (second rating)
Amps_3	NO	FLOAT	Amps	Line ampacity (third rating)
Amps_4	NO	FLOAT	Amps	Line ampacity (fourth rating)
LockImpedance	NO	BOOLEAN		0 = Not locked and 1 = Locked.
PositiveSequenceShuntConductance	NO	FLOAT		
ZeroSequenceShuntConductance	NO	FLOAT		
Temperature	NO	FLOAT	C	
Frequency	NO	FLOAT	Hz	
Favorite	NO	BOOLEAN		
Flags	NO	INTEGER		Internal use only. Leave undefined.
Comments	NO	STRING(1000)		

[LINE UNBALANCED]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		ID label of the line
CondID_A	NO	STRING(64)		ID label of the conductor on phase A
CondID_B	NO	STRING(64)		ID label of the conductor on phase B
CondID_C	NO	STRING(64)		ID label of the conductor on phase C
CondID_N1	NO	STRING(64)		ID label of the first neutral conductor
CondID_N2	NO	STRING(64)		ID label of the second neutral conductor
SpacingID	NO	STRING(64)		ID label of the line configuration
UserDefinedImpedances	NO	BOOLEAN		
Ra	NO	FLOAT	Ω/km or Ω/mile	Resistive component of the self impedance on phase A
Rb	NO	FLOAT	Ω/km or Ω/mile	Resistive component of the self impedance on phase B
Rc	NO	FLOAT	Ω/km or Ω/mile	Resistive component of the self impedance on phase C

Key	Mandatory	Type	Units	Description
Xa	NO	FLOAT	Ω/km or Ω/mile	Reactive component of the self impedance on phase A
Xb	NO	FLOAT	Ω/km or Ω/mile	Reactive component of the self impedance on phase B
Xc	NO	FLOAT	Ω/km or Ω/mile	Reactive component of the self impedance on phase C
Ba	NO	FLOAT	μS/km or μS/mile	Line charging susceptance of phase A
Bb	NO	FLOAT	μS/km or μS/mile	Line charging susceptance of phase B
Bc	NO	FLOAT	μS/km or μS/mile	Line charging susceptance of phase C
AmpsA	NO	FLOAT	Amps	Line ampacity for phase A
AmpsB	NO	FLOAT	Amps	Line ampacity for phase B
AmpsC	NO	FLOAT	Amps	Line ampacity for phase C
AmpsA_1	NO	FLOAT	Amps	Line ampacity for phase A (first rating)
AmpsB_1	NO	FLOAT	Amps	Line ampacity for phase B (first rating)
AmpsC_1	NO	FLOAT	Amps	Line ampacity for phase C (first rating)
AmpsA_2	NO	FLOAT	Amps	Line ampacity for phase A (second rating)
AmpsB_2	NO	FLOAT	Amps	Line ampacity for phase B (second rating)
AmpsC_2	NO	FLOAT	Amps	Line ampacity for phase C (second rating)
AmpsA_3	NO	FLOAT	Amps	Line ampacity for phase A (third rating)
AmpsB_3	NO	FLOAT	Amps	Line ampacity for phase B (third rating)
AmpsC_3	NO	FLOAT	Amps	Line ampacity for phase C (third rating)
AmpsA_4	NO	FLOAT	Amps	Line ampacity for phase A (fourth rating)
AmpsB_4	NO	FLOAT	Amps	Line ampacity for phase B (fourth rating)
AmpsC_4	NO	FLOAT	Amps	Line ampacity for phase C (fourth rating)
LockImpedance	NO	BOOLEAN		0 = Not Locked and 1 = Locked.
ShuntConductanceA	NO	FLOAT		
ShuntConductanceB	NO	FLOAT		
ShuntConductanceC	NO	FLOAT		
MutualResistanceAB	NO	FLOAT		
MutualResistanceBC	NO	FLOAT		
MutualResistanceCA	NO	FLOAT		
MutualReactanceAB	NO	FLOAT		
MutualReactanceBC	NO	FLOAT		
MutualReactanceCA	NO	FLOAT		
MutualShuntSusceptance_AB	NO	FLOAT		
MutualShuntSusceptance_BC	NO	FLOAT		
MutualShuntSusceptance_CA	NO	FLOAT		
MutualShuntConductance_AB	NO	FLOAT		
MutualShuntConductance_BC	NO	FLOAT		
MutualShuntConductance_CA	NO	FLOAT		
Temperature	NO	FLOAT	C	
Frequency	NO	FLOAT	Hz	
Transposed	NO	BOOLEAN		
Favorite	NO	BOOLEAN		
Flags	NO	INTEGER		Internal use only. Leave undefined.

Key	Mandatory	Type	Units	Description
Comments	NO	STRING(1000)		

[LOAD CURVE MODEL]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		
SymbolID	NO	INTEGER		
Favorite	NO	BOOLEAN		
Flags	NO	INTEGER		Internal use only. Leave undefined.
CurveModel	NO	CurveModel		See 0 for possible values.
FromFile	NO	BOOLEAN		
FileName	NO	STRING(255)		
Comments	NO	STRING(1000)		

[LVCB]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		ID label of the LVCB
Amps	NO	FLOAT	Amps	Rated current
Amps_1	NO	FLOAT	Amps	Rated current first rating
Amps_2	NO	FLOAT	Amps	Rated current second rating
Amps_3	NO	FLOAT	Amps	Rated current third rating
Amps_4	NO	FLOAT	Amps	Rated current fourth rating
KVLL	NO	FLOAT	kV	Rated line-to-line voltage
Reversible	NO	BOOLEAN		To indicate if device is reversible.
FailRate	NO	FLOAT	interruption / year / km	Failure rate
TmpFailRate	NO	FLOAT	interruption / year / km	Temporary failure rate
MajorRepairTime	NO	FLOAT		
MinorRepairTime	NO	FLOAT		
MajorFailureProportion	NO	FLOAT		
StuckProbability	NO	FLOAT		Stuck probability
SwitchTime	NO	FLOAT	hours	Switching time
SymbolOpenID	NO	INTEGER		Symbol ID when the device is open
SymbolCloseID	NO	INTEGER		Symbol ID when the device is closed
SinglePhaseLocking	NO	BOOLEAN		0 = No and 1 = Yes
SinglePhaseTripping	NO	BOOLEAN		0 = No and 1 = Yes
RemoteControlled	NO	BOOLEAN		0 = No and 1 = Yes
Automated	NO	BOOLEAN		To indicate if device is automated (0 or 1)
Favorite	NO	BOOLEAN		
LVCBType	NO	LVCBType		See 0 for possible values.
Manufacturer	NO	STRING(32)		
Model	NO	STRING(32)		
TripUnit	NO	STRING(64)		
FrameType	NO	STRING(64)		
FrameSize	NO	STRING(64)		
SensorRangeMin	NO	INTEGER		
SensorRangeMax	NO	INTEGER		

Key	Mandatory	Type	Units	Description
Standard	NO	Standard		See 0 for possible values.
Fused	NO	BOOLEAN		
Favorite	NO	BOOLEAN		
Flags	NO	INTEGER		Internal use only. Leave undefined.
Comments	NO	STRING(1000)		

[LVCB INTERRUPTING RATINGS]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		
Index	YES	INTEGER		
Voltage	NO	FLOAT		
InterruptingRating	NO	FLOAT		
TestCircuitPF	NO	FLOAT		
UltimateCurrentMultiplier	NO	FLOAT		

[MICRO TURBINE]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		
GovernorKp	NO	FLOAT		
GovernorKi	NO	FLOAT		
TurbineTimeConstant	NO	FLOAT		
Inertia	NO	FLOAT		
InertiaUnitType	NO	InertiaUnitType		See 0 for possible values.
RatedCapacity	NO	FLOAT		
RatedVoltage	NO	FLOAT		
RatedPower	NO	FLOAT		
RatedSpeed	NO	FLOAT		
SynchronousReactance	NO	FLOAT		
SymbolID	NO	INTEGER		
Favorite	NO	BOOLEAN		
Flags	NO	INTEGER		Internal use only. Leave undefined.
Comments	NO	STRING(1000)		

[MISCELLANEOUS]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		ID label of the device
Amps	NO	FLOAT	Amps	Rated current
Amps_1	NO	FLOAT	Amps	Rated current first rating
Amps_2	NO	FLOAT	Amps	Rated current second rating
Amps_3	NO	FLOAT	Amps	Rated current third rating
Amps_4	NO	FLOAT	Amps	Rated current fourth rating
KVLL	NO	FLOAT	kV	Rated line-to-line voltage
FailRate	NO	FLOAT	interruption / year / km	Failure rate
TmpFailRate	NO	FLOAT	interruption / year / km	Temporary failure rate

Key	Mandatory	Type	Units	Description
MajorRepairTime	NO	FLOAT		
MinorRepairTime	NO	FLOAT		
MajorFailureProportion	NO	FLOAT		
SymbolOpenID	NO	INTEGER		Symbol ID when the device is open
SymbolCloseID	NO	INTEGER		Symbol ID when the device is closed
Favorite	NO	BOOLEAN		
Flags	NO	INTEGER		Internal use only. Leave undefined.
Comments	NO	STRING(1000)		

[MOTOR CURVE MODEL]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		
SymbolID	NO	INTEGER		
Favorite	NO	BOOLEAN		
Flags	NO	INTEGER		Internal use only. Leave undefined.
CurveModel	NO	CurveModel		See 0 for possible values.
FromFile	NO	BOOLEAN		
FileName	NO	STRING(255)		
Comments	NO	STRING(1000)		

[NETWORKPROTECTOR]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		ID label of the fuse
Amps	NO	FLOAT	Amps	Rated current
Amps_1	NO	FLOAT	Amps	Rated current first rating
Amps_2	NO	FLOAT	Amps	Rated current second rating
Amps_3	NO	FLOAT	Amps	Rated current third rating
Amps_4	NO	FLOAT	Amps	Rated current fourth rating
KVLL	NO	FLOAT	kV	Rated line-to-line voltage
Reversible	NO	BOOLEAN		To indicate if device is reversible.
InterruptingRating	NO	FLOAT	Amps	
FailRate	NO	FLOAT	interruption / year / km	Failure rate
TMPFailRate	NO	FLOAT	interruption / year / km	Temporary failure rate
MajorRepairTime	NO	FLOAT		
MinorRepairTime	NO	FLOAT		
MajorFailureProportion	NO	FLOAT		
StuckProbability	NO	FLOAT		Stuck probability
SwitchTime	NO	FLOAT	hours	Switching time
SymbolOpenID	NO	INTEGER		Symbol ID when the device is open
SymbolCloseID	NO	INTEGER		Symbol ID when the device is closed
SinglePhaseLocking	NO	BOOLEAN		0 = No and 1 = Yes
Favorite	NO	BOOLEAN		
Flags	NO	INTEGER		Internal use only. Leave undefined.
Comments	NO	STRING(1000)		

[NON IDEAL CONVERTER]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		ID label of the equipment
PulseNumber	YES	INTEGER		
KVA	YES	FLOAT	kVA	Three-Phase converter rated power.
KV	YES	FLOAT	kV	Rated AC Input Voltage.
SymbolID	NO	INTEGER		
Favorite	NO	BOOLEAN		
Flags	NO	INTEGER		Internal use only. Leave undefined.
Comments	NO	STRING(1000)		

[PHASE SHIFTER TRANSFORMER]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		
SymbolID	NO	INTEGER		
Favorite	NO	BOOLEAN		
Flags	NO	INTEGER		Internal use only. Leave undefined.
Reversible	NO	BOOLEAN		
RatedVoltage	NO	FLOAT		
NominalRating	NO	FLOAT		
FirstLoadingLimit	NO	FLOAT		
SecondLoadingLimit	NO	FLOAT		
ThirdLoadingLimit	NO	FLOAT		
FourthLoadingLimit	NO	FLOAT		
PositiveSequencelmpedance	NO	FLOAT		
ZeroSequencelmpedancePrimary	NO	FLOAT		
ZeroSequencelmpedanceSecondary	NO	FLOAT		
ZeroSequencelmpedanceTertiary	NO	FLOAT		
XRRatio	NO	FLOAT		
XR0RatioPrimary	NO	FLOAT		
XR0RatioSecondary	NO	FLOAT		
XR0RatioTertiary	NO	FLOAT		
MinimumPhaseShift	NO	FLOAT		
MaximumPhaseShift	NO	FLOAT		
NumberOfTaps	NO	INTEGER		
FailRate	NO	FLOAT		
TmpFailRate	NO	FLOAT		
MajorRepairTime	NO	FLOAT		
MinorRepairTime	NO	FLOAT		
MajorFailureProportion	NO	FLOAT		
Comments	NO	STRING(1000)		

[PHOTOVOLTAIC]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		
MPPCurrent	NO	FLOAT		
MPPVoltage	NO	FLOAT		
SCCurrent	NO	FLOAT		
OCVoltage	NO	FLOAT		
SCCurrentTempCoeff	NO	FLOAT		
OCVoltageTempCoeff	NO	FLOAT		
OperatingTemperature	NO	FLOAT		
RefAmbientTemperature	NO	FLOAT		
STCTemperature	NO	FLOAT		
STCInsolation	NO	FLOAT		
SymbolID	NO	INTEGER		
Favorite	NO	BOOLEAN		
Flags	NO	INTEGER		Internal use only. Leave undefined.
Comments	NO	STRING(1000)		

[POINTS]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		
EquipmentType	YES	EquipmentDBType		See 0 for possible values.
PointIndex	YES	INTEGER		
CoordX	NO	FLOAT		
CoordY	NO	FLOAT		

[PYTHONDEVICESCRIPT]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		
ScriptCategory	NO	PythonDeviceScriptCategory		See 0 for possible values.
ScriptCode	NO	STRING(8196)		
UserScript	NO	BOOLEAN		
Favorite	NO	BOOLEAN		
Flags	NO	INTEGER		Internal use only. Leave undefined.
Comments	NO	STRING(1000)		

[PYTHONSCRIPTPARAMETERS]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		
ParameterName	YES	STRING(64)		
ParameterType	NO	PythonParameterType		See 0 for possible values.
ParameterDirection	NO	PythonParameterDirection		See 0 for possible values.
ParameterValue	NO	STRING(255)		
ParameterComment	NO	STRING(1000)		

[REACTIVE POWER CAPABILITY POINTS]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		
PointIndex	YES	INTEGER		
Power	NO	FLOAT		
MaxReactivePower	NO	FLOAT		
MinReactivePower	NO	FLOAT		

[RECLOSER]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		ID label of the recloser
Amps	NO	FLOAT	Amps	Rated current
Amps_1	NO	FLOAT	Amps	Rated current first rating
Amps_2	NO	FLOAT	Amps	Rated current second rating
Amps_3	NO	FLOAT	Amps	Rated current third rating
Amps_4	NO	FLOAT	Amps	Rated current fourth rating
KVLL	NO	FLOAT	kV	Rated line-to-line voltage
Reversible	NO	BOOLEAN		To indicate if device is reversible.
InterruptingRating	NO	FLOAT	Amps	
FailRate	NO	FLOAT	interruption / year / km	Failure rate
TmpFailRate	NO	FLOAT	interruption / year / km	Temporary failure rate
MajorRepairTime	NO	FLOAT		
MinorRepairTime	NO	FLOAT		
MajorFailureProportion	NO	FLOAT		
StuckProbability	NO	FLOAT		Stuck probability
SwitchTime	NO	FLOAT	hours	Switching time
SymbolOpenID	NO	INTEGER		Symbol ID when the device is open
SymbolCloseID	NO	INTEGER		Symbol ID when the device is closed
SinglePhaseLocking	NO	BOOLEAN		0 = No and 1 = Yes
SinglePhaseTripping	NO	BOOLEAN		0 = No and 1 = Yes
RemoteControlled	NO	BOOLEAN		0 = No and 1 = Yes
Automated	NO	BOOLEAN		To indicate if device is automated (0 or 1)
Favorite	NO	BOOLEAN		
Flags	NO	INTEGER		Internal use only. Leave undefined.
Comments	NO	STRING(1000)		
RecloserType	NO	RecloserType		See 0 for possible values.
ControlType	NO	STRING(32)		
Model	NO	STRING(32)		

[REGULATOR]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		ID label of the regulator
Type	NO	REG_TYPE		Type of regulator See 0 for possible values.
KVA	NO	FLOAT	kVA	Rated KVA (per phase)

Key	Mandatory	Type	Units	Description
KVA_1	NO	FLOAT	kVA	Rated kVA (per phase) (first rating)
KVA_2	NO	FLOAT	kVA	Rated kVA (per phase) (second rating)
KVA_3	NO	FLOAT	kVA	Rated kVA (per phase) (third rating)
KVA_4	NO	FLOAT	kVA	Rated kVA (per phase) (fourth rating)
KVNL	NO	FLOAT	kV	Rated kV (line-to-neutral for wye-ground connection, line-to-line for open delta)
MaxBuck	NO	FLOAT	%	Maximum buck
MaxBoost	NO	FLOAT	%	Maximum boost
Taps	NO	INTEGER		Number of taps
ForwardBandwidth	NO	FLOAT	Volts	ForwardBandwith
ReverseBandwidth	NO	FLOAT	Volts	ReverseBandwith
CT	NO	FLOAT	Amps	CT primary rating
PT	NO	FLOAT	Vprim/Vsecond	PT Ratio (Vprimary/Vsecondary)
Reversible	NO	BOOLEAN		To indicate if regulator is reversible
FailRate	NO	FLOAT		
TmpFailRate	NO	FLOAT		
MajorRepairTime	NO	FLOAT		
MinorRepairTime	NO	FLOAT		
MajorFailureProportion	NO	FLOAT		
ConstructionType	NO	RegulatorConstructionType		See 0 for possible values.
EnableBonusRating	NO	BOOLEAN		
BonusRating1	NO	FLOAT		
BonusRating2	NO	FLOAT		
BonusRating3	NO	FLOAT		
BonusRating4	NO	FLOAT		
RegulationRange1	NO	FLOAT		
RegulationRange2	NO	FLOAT		
RegulationRange3	NO	FLOAT		
RegulationRange4	NO	FLOAT		
MaxRatingCurrent	NO	FLOAT		
SymbolID	NO	INTEGER		Symbol ID
Favorite	NO	BOOLEAN		
Flags	NO	INTEGER		Internal use only. Leave undefined.
Comments	NO	STRING(1000)		

[SECTIONALIZER]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		ID label of the sectionalizer
Amps	NO	FLOAT	Amps	Rated current
Amps_1	NO	FLOAT	Amps	Rated current first rating
Amps_2	NO	FLOAT	Amps	Rated current second rating
Amps_3	NO	FLOAT	Amps	Rated current third rating
Amps_4	NO	FLOAT	Amps	Rated current fourth rating
KVLL	NO	FLOAT	kV	Rated line-to-line voltage
Reversible	NO	BOOLEAN		To indicate if device is reversible.
FailRate	NO	FLOAT	interruption / year / km	Failure rate

Key	Mandatory	Type	Units	Description
TmpFailRate	NO	FLOAT	interruption / year / km	Temporary failure rate
MajorRepairTime	NO	FLOAT		
MinorRepairTime	NO	FLOAT		
MajorFailureProportion	NO	FLOAT		
StuckProbability	NO	FLOAT		Stuck probability
SwitchTime	NO	FLOAT	hours	Switching time
SymbolOpenID	NO	INTEGER		Symbol ID when the device is open
SymbolCloseID	NO	INTEGER		Symbol ID when the device is closed
SinglePhaseLocking	NO	BOOLEAN		0 = No and 1 = Yes
RemoteControlled	NO	BOOLEAN		0 = No and 1 = Yes
Automated	NO	BOOLEAN		To indicate if device is automated (0 or 1)
InterruptingRating	NO	FLOAT	Amps	
ControlType	NO	SectionalizerControlType		See 0 for possible values.
MomentaryCurrent	NO	FLOAT		
Favorite	NO	BOOLEAN		
Flags	NO	INTEGER		Internal use only. Leave undefined.
Comments	NO	STRING(1000)		

[SERIE CAPACITOR]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		ID label of the capacitor
Amps	NO	FLOAT	Amps	Rated current
Amps_1	NO	FLOAT	Amps	Rated current (first rating)
Amps_2	NO	FLOAT	Amps	Rated current (second rating)
Amps_3	NO	FLOAT	Amps	Rated current (third rating)
Amps_4	NO	FLOAT	Amps	Rated current (fourth rating)
Reactance	NO	FLOAT	Ω	Reactance
SymbolID	NO	INTEGER		Symbol ID
Favorite	NO	BOOLEAN		
Flags	NO	INTEGER		Internal use only. Leave undefined.
Comments	NO	STRING(1000)		

[SERIE REACTOR]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		ID label of the serie reactor
Amps	NO	FLOAT	Amps	Rated current
Amps_1	NO	FLOAT	Amps	Rated current (first rating)
Amps_2	NO	FLOAT	Amps	Rated current (second rating)
Amps_3	NO	FLOAT	Amps	Rated current (third rating)
Amps_4	NO	FLOAT	Amps	Rated current (fourth rating)
Reactance	NO	FLOAT	Ω	Reactance
SymbolID	NO	INTEGER		Symbol ID
Favorite	NO	BOOLEAN		

Key	Mandatory	Type	Units	Description
Flags	NO	INTEGER		Internal use only. Leave undefined.
Comments	NO	STRING(1000)		

[SHIELDED DCCABLE]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		
NominalRating	NO	FLOAT	Amps	
FirstRating	NO	FLOAT		
SecondRating	NO	FLOAT		
ThirdRating	NO	FLOAT		
FourthRating	NO	FLOAT		
WithstandRating	NO	FLOAT		
LockImpedance	NO	BOOLEAN		
Resistance	NO	FLOAT	Ohms by km	
Inductance	NO	FLOAT	mH by km	
RatedVoltage	NO	FLOAT	V	
Temperature	NO	FLOAT	C	
SymbolID	NO	INTEGER		
Favorite	NO	BOOLEAN		
Flags	NO	INTEGER		Internal use only. Leave undefined.
Comments	NO	STRING(1000)		
ShieldedDCCableType	NO	ShieldedDCCableType		See 0 for possible values.
ConductorID	NO	STRING(64)		
DistanceBetweenConductors	NO	FLOAT	cm	

[SHUNT CAPACITOR]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		ID label of the shunt capacitor
KVAR	NO	FLOAT	kVAR	Nominal KVAR
KV	NO	FLOAT	kV	Rated kV (line-to-neutral for wye-grounded configuration, line-to-line for delta configuration)
Losses	NO	FLOAT	kW	Nominal losses
CostForFixedBank	NO	FLOAT	\$	Cost for a fixed bank
CostForSwitchedBank	NO	FLOAT	\$	Cost for a switched bank
SymbolID	NO	INTEGER		Symbol ID
Type	NO	PhaseType		See 0 for possible values.
InterruptingRating	NO	FLOAT		
Favorite	NO	BOOLEAN		
Flags	NO	BOOLEAN		Internal use only. Leave undefined.
Comments	NO	STRING(1000)		

[SHUNT REACTOR]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		ID label of the shunt reactor

Key	Mandatory	Type	Units	Description
KVAR	NO	FLOAT	kVAR	Nominal KVAR
KV	NO	FLOAT	kV	Nominal line-to-ground voltage
Losses	NO	FLOAT	kW	Nominal losses
CostForFixedBank	NO	FLOAT	\$	Cost for a fixed bank
CostForSwitchedBank	NO	FLOAT	\$	Cost for a switched bank
SymbolID	NO	INTEGER		Symbol ID
Type	NO	PhaseType		See 0 for possible values.
InterruptingRating	NO	FLOAT		
Favorite	NO	BOOLEAN		
Flags	NO	INTEGER		Internal use only. Leave undefined.
Comments	NO	STRING(1000)		

[SINGLE TUNED FILTER]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		ID label of the equipment
R	NO	FLOAT	Ohms	
L	NO	FLOAT	mH	
C	NO	FLOAT	uF	
TunedFrequency	NO	FLOAT	harmonic order	
KVAR	NO	FLOAT	kVAR	Q
KV	NO	FLOAT	kV	V
ConnectionConfiguration	NO	ConnectionConfiguration		See 0 for possible values.
QualityFactor	NO	FLOAT		
UseFilterReactivePower	NO	INTEGER		
FilterTotalReactivePower	NO	FLOAT		
SymbolID	NO	INTEGER		
Favorite	NO	BOOLEAN		
Flags	NO	INTEGER		Internal use only. Leave undefined.
Comments	NO	STRING(1000)		

[SOFC]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		
RatedPower	NO	FLOAT		
N0	NO	INTEGER		
SymbolID	NO	INTEGER		
Favorite	NO	BOOLEAN		
Flags	NO	INTEGER		Internal use only. Leave undefined.
Comments	NO	STRING(1000)		

[SOURCE HARMONIC ENVELOPPE EQ]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		
nIndex	YES	INTEGER		
HarmonicOrder	NO	FLOAT		
Z	NO	FLOAT		
Angle	NO	FLOAT		
Voltage	NO	FLOAT		
VoltageAngle	NO	FLOAT		

[SPACING TABLE FOR LINE]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		ID of the spacing
GMDPh-Ph	NO	FLOAT		
GMDPh-N	NO	FLOAT		
AvgPhCondHeight	NO	FLOAT		
AvgNeutralHeight	NO	FLOAT		
PosOfCond1_X	NO	FLOAT		
PosOfCond1_Y	NO	FLOAT		
PosOfCond2_X	NO	FLOAT		
PosOfCond2_Y	NO	FLOAT		
PosOfCond3_X	NO	FLOAT		
PosOfCond3_Y	NO	FLOAT		
PosOfNeutralCond_X	NO	FLOAT		
PosOfNeutralCond_Y	NO	FLOAT		
PosOfNeutralCond_N2_X	NO	FLOAT		
PosOfNeutralCond_N2_Y	NO	FLOAT		
BundleDistance	NO	FLOAT		
NBPhasesPerCircuit	NO	INTEGER		
NBCconductorsPerPhase	NO	INTEGER		
NBNeutrals	NO	INTEGER		
TowerType	NO	TowerType		See 0 for possible values.
DistanceA	NO	FLOAT		
DistanceB	NO	FLOAT		
DistanceC	NO	FLOAT		
DistanceD	NO	FLOAT		
DistanceE	NO	FLOAT		
DistanceF	NO	FLOAT		
ConductorStatusN1	NO	NeutralConductorStatus		See 0 for possible values.
ConductorStatusN2	NO	NeutralConductorStatus		See 0 for possible values.
FootingResistanceN1	NO	FLOAT		
FootingResistanceN2	NO	FLOAT		
TowerSpanN1	NO	FLOAT		
TowerSpanN2	NO	FLOAT		
Favorite	NO	BOOLEAN		
Flags	NO	INTEGER		Internal use only. Leave undefined.
Comments	NO	STRING(1000)		

[SUBSTATION]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		ID label of the substation
MVA	NO	FLOAT	MVA	Nominal capacity
MVA_1	NO	FLOAT	MVA	Nominal capacity (first rating)
MVA_2	NO	FLOAT	MVA	Nominal capacity (second rating)
MVA_3	NO	FLOAT	MVA	Nominal capacity (third rating)
MVA_4	NO	FLOAT	MVA	Nominal capacity (fourth rating)
KVLL	NO	FLOAT	kV	Nominal line-to-line voltage
KVLLdesired	NO	FLOAT	kV	Desired line-to-line voltage
FirstLevelR1	NO	FLOAT	Ω	Positive sequence resistance
FirstLevelX1	NO	FLOAT	Ω	Positive sequence reactance
FirstLevelR0	NO	FLOAT	Ω	Zero sequence resistance
FirstLevelX0	NO	FLOAT	Ω	Zero sequence reactance
FirstLevelR2	NO	FLOAT	Ω	Negative sequence resistance
FirstLevelX2	NO	FLOAT	Ω	Negative sequence reactance
SecondLevelR1	NO	FLOAT	Ω	Positive sequence resistance
SecondLevelX1	NO	FLOAT	Ω	Positive sequence reactance
SecondLevelR0	NO	FLOAT	Ω	Zero sequence resistance
SecondLevelX0	NO	FLOAT	Ω	Zero sequence reactance
SecondLevelR2	NO	FLOAT	Ω	Negative sequence resistance
SecondLevelX2	NO	FLOAT	Ω	Negative sequence reactance
Connection	NO	ConnectionConfiguration		See 0 for possible values.
PhaseAngle	NO	FLOAT	degrees	Phase angle of the source
HarmonicEnveloppe	NO	INTEGER		0 or 1
BackgroundHarmonicVoltage	NO	BOOLEAN		0 or 1
BaseMVA	NO	FLOAT		
ImpedanceUnit	NO	ImpedanceUnit		See 0 for possible values
PrimaryEquivalentType	NO	PREQTYPE		Equivalent type. See 0 for possible values.
SubEqVal1	NO	FLOAT		Is equal to R1 (Ohms) if PrEqType = 0, else if PrEqType = 1 then it is the three-phase power in MVA
SubEqVal2	NO	FLOAT		Is equal to X1 (Ohms) if PrEqType = 0, else if PrEqType = 1 then it is X/R ratio of the three-phase power
SubEqVal3	NO	FLOAT		Is equal to R0 (Ohms) if PrEqType = 0, else if PrEqType = 1 then it is the single-phase power in MVA
SubEqVal4	NO	FLOAT		Is equal to X0 (Ohms) if PrEqType = 0, else if PrEqType = 1 then it is X/R ratio of the single-phase power
SubPrimaryLLVoltage	NO	FLOAT	kV	Primary voltage
SecondaryFaultReactance	NO	FLOAT	Ω	Fault limiting reactance on the secondary circuit
TxfoConnection	NO	TXFO_CONN		Transformer connection. See 0 for possible values.
BranchID_1	NO	STRING(64)		ID Label of branch 1
PrimProtDevID_1	NO	STRING(64)		ID of the protective device on the primary side of branch 1
PrimProtDevNum_1	NO	STRING(64)		Protective device number on the primary side of branch 1
TransformerID_1	NO	STRING(64)		ID of the transformer of branch 1

Key	Mandatory	Type	Units	Description
TransformerNum_1	NO	STRING(64)		Transformer number of branch 1
SubXs_1	NO	FLOAT	Ω	Fault limiting reactance on the transformer secondary on branch 1
SecProtDevID_1	NO	STRING(64)		ID of the protective device on the secondary side of branch 1
SecProtDevNum_1	NO	STRING(64)		Protective device number on the secondary side of branch 1
BranchStatus_1	NO	BOOLEAN		Status of branch 1.
BranchID_2	NO	STRING(64)		ID Label of branch 2
PrimProtDevID_2	NO	STRING(64)		ID of the protective device on the primary side of branch 2
PrimProtDevNum_2	NO	STRING(64)		Protective device number on the primary side of branch 2
TransformerID_2	NO	STRING(64)		ID of the transformer of branch 2
TransformerNum_2	NO	STRING(64)		Transformer number of branch 2
SubXs_2	NO	FLOAT	Ω	Fault limiting reactance on the transformer secondary on branch 2
SecProtDevID_2	NO	STRING(64)		ID of the protective device on the secondary side of branch 2
SecProtDevNum_2	NO	STRING(64)		Protective device number on the secondary side of branch 2
BranchStatus_2	NO	BOOLEAN		Status of branch 2
BranchID_3	NO	STRING(64)		ID Label of branch 3
PrimProtDevID_3	NO	STRING(64)		ID of the protective device on the primary side of branch 3
PrimProtDevNum_3	NO	STRING(64)		Protective device number on the primary side of branch 3
TransformerID_3	NO	STRING(64)		ID of the transformer of branch 3
TransformerNum_3	NO	STRING(64)		Transformer number of branch 3
SubXs_3	NO	FLOAT	Ω	Fault limiting reactance on the transformer secondary on branch 3
SecProtDevID_3	NO	STRING(64)		ID of the protective device on the secondary side of branch 3
SecProtDevNum_3	NO	STRING(64)		Protective device number on the secondary side of branch 3
BranchStatus_3	NO	BOOLEAN		Status of branch 3
BranchID_4	NO	STRING(64)		ID Label of branch 4
PrimProtDevID_4	NO	STRING(64)		ID of the protective device on the primary side of branch 4
PrimProtDevNum_4	NO	STRING(64)		Protective device number on the primary side of branch 4
TransformerID_4	NO	STRING(64)		ID of the transformer of branch 4
TransformerNum_4	NO	STRING(64)		Transformer number of branch 4
SubXs_4	NO	FLOAT	Ω	Fault limiting reactance on the transformer secondary on branch 4
SecProtDevID_4	NO	STRING(64)		ID of the protective device on the secondary side of branch 4
SecProtDevNum_4	NO	STRING(64)		Protective device number on the secondary side of branch 4
BranchStatus_4	NO	BOOLEAN		Status of branch 4.
BranchID_5	NO	STRING(64)		ID Label of branch 5

Key	Mandatory	Type	Units	Description
PrimProtDevID_5	NO	STRING(64)		ID of the protective device on the primary side of branch 5
PrimProtDevNum_5	NO	STRING(64)		Protective device number on the primary side of branch 5
TransformerID_5	NO	STRING(64)		ID of the transformer of branch 5
TransformerNum_5	NO	STRING(64)		Transformer number of branch 5
SubXs_5	NO	FLOAT	Ω	Fault limiting reactance on the transformer secondary on branch 5
SecProtDevID_5	NO	STRING(64)		ID of the protective device on the secondary side of branch 5
SecProtDevNum_5	NO	STRING(64)		Protective device number on the secondary side of branch 5
BranchStatus_5	NO	BOOLEAN		Status of branch 5.
SecondLevelPrimaryEquivalentType	NO	PREQTYPE		Equivalent type. See 0 for possible values.
SecondLevelSubEqVal1	NO	FLOAT		Is equal to R1 (Ohms) if PrEqType = 0, else if PrEqType = 1 then it is the three-phase power in MVA
SecondLevelSubEqVal2	NO	FLOAT		Is equal to X1 (Ohms) if PrEqType = 0, else if PrEqType = 1 then it is X/R ratio of the three-phase power
SecondLevelSubEqVal3	NO	FLOAT		Is equal to R0 (Ohms) if PrEqType = 0, else if PrEqType = 1 then it is the single-phase power in MVA
SecondLevelSubEqVal4	NO	FLOAT		Is equal to X0 (Ohms) if PrEqType = 0, else if PrEqType = 1 then it is X/R ratio of the single-phase power
SecondLevelSubPrimaryLVoltage	NO	FLOAT	kV	Primary voltage
SecondLevelSecondaryFaultReactance	NO	FLOAT	Ω	Fault limiting reactance on the secondary circuit
SecondLevelTxoConnection	NO	TXFO_CONN		Transformer connection. See 0 for possible values.
SecondLevelBranchID_1	NO	STRING(64)		ID Label of branch 1
SecondLevelPrimProtDevID_1	NO	STRING(64)		ID of the protective device on the primary side of branch 1
SecondLevelPrimProtDevNum_1	NO	STRING(64)		Protective device number on the primary side of branch 1
SecondLevelTransformerID_1	NO	STRING(64)		ID of the transformer of branch 1
SecondLevelTransformerNum_1	NO	STRING(64)		Transformer number of branch 1
SecondLevelSubXs_1	NO	FLOAT	Ω	Fault limiting reactance on the transformer secondary on branch 1
SecondLevelSecProtDevID_1	NO	STRING(64)		ID of the protective device on the secondary side of branch 1
SecondLevelSecProtDevNum_1	NO	STRING(64)		Protective device number on the secondary side of branch 1
SecondLevelBranchStatus_1	NO	BOOLEAN		Status of branch 1.
SecondLevelBranchID_2	NO	STRING(64)		ID Label of branch 2
SecondLevelPrimProtDevID_2	NO	STRING(64)		ID of the protective device on the primary side of branch 2
SecondLevelPrimProtDevNum_2	NO	STRING(64)		Protective device number on the primary side of branch 2
SecondLevelTransformerID_2	NO	STRING(64)		ID of the transformer of branch 2
SecondLevelTransformerNum_2	NO	STRING(64)		Transformer number of branch 2

Key	Mandatory	Type	Units	Description
SecondLevelSubXs_2	NO	FLOAT	Ω	Fault limiting reactance on the transformer secondary on branch 2
SecondLevelSecProtDevID_2	NO	STRING(64)		ID of the protective device on the secondary side of branch 2
SecondLevelSecProtDevNum_2	NO	STRING(64)		Protective device number on the secondary side of branch 2
SecondLevelBranchStatus_2	NO	BOOLEAN		Status of branch 2
SecondLevelBranchID_3	NO	STRING(64)		ID Label of branch 3
SecondLevelPrimProtDevID_3	NO	STRING(64)		ID of the protective device on the primary side of branch 3
SecondLevelPrimProtDevNum_3	NO	STRING(64)		Protective device number on the primary side of branch 3
SecondLevelTransformerID_3	NO	STRING(64)		ID of the transformer of branch 3
SecondLevelTransformerNum_3	NO	STRING(64)		Transformer number of branch 3
SecondLevelSubXs_3	NO	FLOAT	Ω	Fault limiting reactance on the transformer secondary on branch 3
SecondLevelSecProtDevID_3	NO	STRING(64)		ID of the protective device on the secondary side of branch 3
SecondLevelSecProtDevNum_3	NO	STRING(64)		Protective device number on the secondary side of branch 3
SecondLevelBranchStatus_3	NO	BOOLEAN		Status of branch 3
SecondLevelBranchID_4	NO	STRING(64)		ID Label of branch 4
SecondLevelPrimProtDevID_4	NO	STRING(64)		ID of the protective device on the primary side of branch 4
SecondLevelPrimProtDevNum_4	NO	STRING(64)		Protective device number on the primary side of branch 4
SecondLevelTransformerID_4	NO	STRING(64)		ID of the transformer of branch 4
SecondLevelTransformerNum_4	NO	STRING(64)		Transformer number of branch 4
SecondLevelSubXs_4	NO	FLOAT	Ω	Fault limiting reactance on the transformer secondary on branch 4
SecondLevelSecProtDevID_4	NO	STRING(64)		ID of the protective device on the secondary side of branch 4
SecondLevelSecProtDevNum_4	NO	STRING(64)		Protective device number on the secondary side of branch 4
SecondLevelBranchStatus_4	NO	BOOLEAN		Status of branch 4.
SecondLevelBranchID_5	NO	STRING(64)		ID Label of branch 5
SecondLevelPrimProtDevID_5	NO	STRING(64)		ID of the protective device on the primary side of branch 5
SecondLevelPrimProtDevNum_5	NO	STRING(64)		Protective device number on the primary side of branch 5
SecondLevelTransformerID_5	NO	STRING(64)		ID of the transformer of branch 5
SecondLevelTransformerNum_5	NO	STRING(64)		Transformer number of branch 5
SecondLevelSubXs_5	NO	FLOAT	Ω	Fault limiting reactance on the transformer secondary on branch 5
SecondLevelSecProtDevID_5	NO	STRING(64)		ID of the protective device on the secondary side of branch 5
SecondLevelSecProtDevNum_5	NO	STRING(64)		Protective device number on the secondary side of branch 5
SecondLevelBranchStatus_5	NO	BOOLEAN		Status of branch 5.
FailRate	NO	FLOAT		

Key	Mandatory	Type	Units	Description
TmpFailRate	NO	FLOAT		
MajorRepairTime	NO	FLOAT		
MinorRepairTime	NO	FLOAT		
MajorFailureProportion	NO	FLOAT		
SymbolID	NO	INTEGER		
Favorite	NO	BOOLEAN		
Flags	NO	INTEGER		Internal use only. Leave undefined.
Comments	NO	STRING(1000)		

[SVC]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		
PulseNumber	NO	INTEGER		
RatedVoltage	NO	FLOAT		
MaxReactivePower	NO	FLOAT		
MinReactivePower	NO	FLOAT		
SymbolID	NO	INTEGER		
Favorite	NO	BOOLEAN		
Flags	NO	INTEGER		Internal use only. Leave undefined.
Comments	NO	STRING(1000)		

[SWITCH]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		ID label of the switch
Amps	NO	FLOAT	Amps	Rated current
Amps_1	NO	FLOAT	Amps	Rated current first rating
Amps_2	NO	FLOAT	Amps	Rated current second rating
Amps_3	NO	FLOAT	Amps	Rated current third rating
Amps_4	NO	FLOAT	Amps	Rated current fourth rating
KVLL	NO	FLOAT	kV	Rated line-to-line voltage
Reversible	NO	BOOLEAN		To indicate if device is reversible..
FailRate	NO	FLOAT	interruption / year / km	Failure rate
TmpFailRate	NO	FLOAT	interruption / year / km	Temporary failure rate
MajorRepairTime	NO	FLOAT		
MinorRepairTime	NO	FLOAT		
MajorFailureProportion	NO	FLOAT		
StuckProbability	NO	FLOAT		Stuck probability
SwitchTime	NO	FLOAT	hours	Switching time
SymbolOpenID	NO	INTEGER		Symbol ID when the device is open
SymbolCloseID	NO	INTEGER		Symbol ID when the device is closed
SinglePhaseLocking	NO	INTEGER		0 = No and 1 = Yes
RemoteControlled	NO	INTEGER		0 = No and 1 = Yes
Automated	NO	INTEGER		To indicate if device is automated (0 or 1)
Favorite	NO	BOOLEAN		
Flags	NO	INTEGER		Internal use only. Leave undefined.

Key	Mandatory	Type	Units	Description
Comments	NO	STRING(1000)		

[SYNCHRONOUS GENERATOR]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		ID label of the generator
KVA	NO	FLOAT	KVA	Rated KVA
KVLL	NO	FLOAT	kV	Rated line-to-line voltage
PF	NO	FLOAT	%	Power factor
MaxKVAR	NO	FLOAT	kVAR	Maximum reactive generation
MinKVAR	NO	FLOAT	kVAR	Minimum reactive generation
ConnectionConfiguration	NO	ConnectionConfiguration		See 0 for possible values.
R1	NO	FLOAT	Ω	Positive sequence resistance
X1	NO	FLOAT	Ω	Positive sequence reactance
R0	NO	FLOAT	Ω	Zero sequence resistance
X0	NO	FLOAT	Ω	Zero sequence reactance
Rg	NO	FLOAT	Ω	Grounding resistance
Xg	NO	FLOAT	Ω	Grounding reactance
TransientResistance	NO	FLOAT	Ω	Transient resistance
TransientReactance	NO	FLOAT	Ω	Transient reactance
SubTransientResistance	NO	FLOAT	Ω	Subtransient resistance
SubTransientReactance	NO	FLOAT	Ω	Subtransient reactance
NumberOfPoles	NO	INTEGER		
SymbolID	NO	INTEGER		Symbol ID
ImpedanceUnit	NO	ImpedanceUnit		See 0 for possible values
FixedQLimits	NO	BOOLEAN		
NegativeSequenceResistance	NO	FLOAT		
NegativeSequenceReactance	NO	FLOAT		
Favorite	NO	BOOLEAN		
Flags	NO	INTEGER		Internal use only. Leave undefined.
Comments	NO	STRING(1000)		

[SYNCHRONOUS MACHINE EQ CIRCUIT]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		
Type	YES	EquipmentDBType		See 0 for possible values.
SynchronousXD	NO	FLOAT		
SynchronousXQ	NO	FLOAT		
SynchronousXP	NO	FLOAT		
TransientXD	NO	FLOAT		
TransientXQ	NO	FLOAT		
TransientTDO	NO	FLOAT		
TransientTQO	NO	FLOAT		
SubtransientXD	NO	FLOAT		
SubtransientXQ	NO	FLOAT		
SubtransientTDO	NO	FLOAT		
SubtransientTQO	NO	FLOAT		

Key	Mandatory	Type	Units	Description
InertiaUnits	NO	InertiaUnitType		See 0 for possible values.
Inertia	NO	FLOAT		

[SYNCHRONOUS MACHINE EXT HARMO]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		
Type	YES	EquipmentDBType		See 0 for possible values.
SkinEffect A	NO	FLOAT		
SkinEffect B	NO	FLOAT		

[SYNCHRONOUS MACHINE EXT STAB]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		
Type	YES	EquipmentDBType		See 0 for possible values.
StabilityModel	NO	SynchronousMachineStabilityModel		See 0 for possible values.
DampingConstant	NO	FLOAT		
SaturationSGU	NO	FLOAT		
SaturationSGL	NO	FLOAT		
SaturationEU	NO	FLOAT		
SaturationEL	NO	FLOAT		

[SYNCHRONOUS MOTOR]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		ID label of the motor
RatedVoltageKVLL	NO	FLOAT	kV	Rated line-to-line voltage
RatedPower	NO	FLOAT	HP	Rated power
Efficiency	NO	FLOAT	%	Motor efficiency
FullLoadPF	NO	FLOAT	%	Full load power factor
SynchronousSpeed	NO	FLOAT	RPM	
NumberOfPoles	NO	INTEGER		
Connection	NO	ConnectionConfiguration		See 0 for possible values.
SubTransientResistance	NO	FLOAT	Ω	
SubTransientReactance	NO	FLOAT	Ω	
XdSaturated	NO	FLOAT	Ω	
ZeroSequenceResistance	NO	FLOAT	Ω	
ZeroSequenceReactance	NO	FLOAT	Ω	
GroundingResistance	NO	FLOAT	Ω	
GroundingReactance	NO	FLOAT	Ω	
SymbolID	NO	INTEGER		Symbol ID
ImpedanceUnit	NO	ImpedanceUnit		See 0 for possible values
NegativeSequenceResistance	NO	FLOAT		
NegativeSequenceReactance	NO	FLOAT		
Favorite	NO	BOOLEAN		

Key	Mandatory	Type	Units	Description
Flags	NO	INTEGER		Internal use only. Leave undefined.
Comments	NO	STRING(1000)		

[THREE WINDING AUTO TRANSFORMER]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		ID label of the transformer
PrimaryRatedCapacity	NO	FLOAT	kVA	
PrimaryCapacityLimit1	NO	FLOAT	kVA	
PrimaryCapacityLimit2	NO	FLOAT	kVA	
PrimaryCapacityLimit3	NO	FLOAT	kVA	
PrimaryCapacityLimit4	NO	FLOAT	kVA	
PrimaryVoltage	NO	FLOAT	kV	
PrimarySecondaryConnection	NO	ConnectionConfiguration		See 0 for possible values.
PrimaryRg	NO	FLOAT	Ω	
PrimaryXg	NO	FLOAT	Ω	
PrimaryToSecondaryZ1	NO	FLOAT	%	
PrimaryToSecondaryZ0	NO	FLOAT	%	
PrimaryToSecondaryXR1	NO	FLOAT		
PrimaryToSecondaryXR0	NO	FLOAT		
PrimaryToTertiaryZ1	NO	FLOAT	%	
PrimaryToTertiaryZ0	NO	FLOAT	%	
PrimaryToTertiaryXR1	NO	FLOAT		
PrimaryToTertiaryXR0	NO	FLOAT		
SecondaryToTertiaryZ1	NO	FLOAT	%	
SecondaryToTertiaryZ0	NO	FLOAT	%	
SecondaryToTertiaryXR1	NO	FLOAT		
SecondaryToTertiaryXR0	NO	FLOAT		
SecondaryRatedCapacity	NO	FLOAT	kVA	
SecondaryCapacityLimit1	NO	FLOAT	kVA	
SecondaryCapacityLimit2	NO	FLOAT	kVA	
SecondaryCapacityLimit3	NO	FLOAT	kVA	
SecondaryCapacityLimit4	NO	FLOAT	kVA	
SecondaryVoltage	NO	FLOAT	kV	
SecondaryRg	NO	FLOAT	Ω	
SecondaryXg	NO	FLOAT	Ω	
TertiaryRatedCapacity	NO	FLOAT	kVA	
TertiaryCapacityLimit1	NO	FLOAT	kVA	
TertiaryCapacityLimit2	NO	FLOAT	kVA	
TertiaryCapacityLimit3	NO	FLOAT	kVA	
TertiaryCapacityLimit4	NO	FLOAT	kVA	
TertiaryVoltage	NO	FLOAT	kV	
TertiaryConnection	NO	ConnectionConfiguration		See 0 for possible values.

Key	Mandatory	Type	Units	Description
TertiaryRG	NO	FLOAT	Ω	
TertiaryXG	NO	FLOAT	Ω	
MagnetizingCurrent	NO	FLOAT	%	
LTC1_NumberOfTaps	NO	INTEGER		
LTC1_UpperBandwidth	NO	FLOAT	%	
LTC1_LowerBandwidth	NO	FLOAT	%	
LTC1_MaximumRegulationRange	NO	FLOAT	%	
LTC1_MinimumRegulationRange	NO	FLOAT	%	
LTC2_NumberOfTaps	NO	INTEGER	%	
LTC2_UpperBandwidth	NO	FLOAT	%	
LTC2_LowerBandwidth	NO	FLOAT	%	
LTC2_MaximumRegulationRange	NO	FLOAT	%	
LTC2_MinimumRegulationRange	NO	FLOAT	%	
NoLoadLosses	NO	FLOAT		
FailRate	NO	FLOAT		
TmpFailRate	NO	FLOAT		
MajorRepairTime	NO	FLOAT		
MinorRepairTime	NO	FLOAT		
MajorFailureProportion	NO	FLOAT		
SymbolID	NO	INTEGER		
Favorite	NO	BOOLEAN		
Flags	NO	INTEGER		Internal use only. Leave undefined.
Comments	NO	STRING(1000)		

[THREE WINDING TRANSFORMER]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		ID label of the transformer
PrimaryRatedCapacity	NO	FLOAT	kVA	
PrimaryCapacityLimit1	NO	FLOAT	kVA	
PrimaryCapacityLimit2	NO	FLOAT	kVA	
PrimaryCapacityLimit3	NO	FLOAT	kVA	
PrimaryCapacityLimit4	NO	FLOAT	kVA	
PrimaryVoltage	NO	FLOAT	kV	
PrimaryConnection	NO	ConnectionConfiguration		See 0 for possible values.
PrimaryRg	NO	FLOAT	Ω	
PrimaryXg	NO	FLOAT	Ω	
PrimaryToSecondaryZ1	NO	FLOAT	%	
PrimaryToSecondaryZ0	NO	FLOAT	%	
PrimaryToSecondaryXR1	NO	FLOAT		
PrimaryToSecondaryXR0	NO	FLOAT		
PrimaryToSecondaryPhaseShiftType	NO	XFoPhaseShift		See 0 for possible values.
PrimaryToTertiaryZ1	NO	FLOAT	%	
PrimaryToTertiaryZ0	NO	FLOAT	%	
PrimaryToTertiaryXR1	NO	FLOAT		

Key	Mandatory	Type	Units	Description
PrimaryToTertiaryXR0	NO	FLOAT		
PrimaryToTertiaryPhaseShiftType	NO	XFoPhaseShift		See 0 for possible values.
SecondaryToTertiaryZ1	NO	FLOAT	%	
SecondaryToTertiaryZ0	NO	FLOAT	%	
SecondaryToTertiaryXR1	NO	FLOAT		
SecondaryToTertiaryXR0	NO	FLOAT		
SecondaryRatedCapacity	NO	FLOAT	kVA	
SecondaryCapacityLimit1	NO	FLOAT	kVA	
SecondaryCapacityLimit2	NO	FLOAT	kVA	
SecondaryCapacityLimit3	NO	FLOAT	kVA	
SecondaryCapacityLimit4	NO	FLOAT	kVA	
SecondaryVoltage	NO	FLOAT	kV	
SecondaryConnection	NO	ConnectionConfiguration		See 0 for possible values.
SecondaryRg	NO	FLOAT	Ω	
SecondaryXg	NO	FLOAT	Ω	
TertiaryRatedCapacity	NO	FLOAT	kVA	
TertiaryCapacityLimit1	NO	FLOAT	kVA	
TertiaryCapacityLimit2	NO	FLOAT	kVA	
TertiaryCapacityLimit3	NO	FLOAT	kVA	
TertiaryCapacityLimit4	NO	FLOAT	kVA	
TertiaryVoltage	NO	FLOAT	kV	
TertiaryConnection	NO	ConnectionConfiguration		See 0 for possible values.
TertiaryRg	NO	FLOAT	Ω	
TertiaryXg	NO	FLOAT	Ω	
MagnetizingCurrent	NO	FLOAT	%	
LTC1_NumberOfTaps	NO	INTEGER		
LTC1_UpperBandwidth	NO	FLOAT	%	
LTC1_LowerBandwidth	NO	FLOAT	%	
LTC1_MaximumRegulationRange	NO	FLOAT	%	
LTC1_MinimumRegulationRange	NO	FLOAT	%	
LTC2_NumberOfTaps	NO	INTEGER	%	
LTC2_UpperBandwidth	NO	FLOAT	%	
LTC2_LowerBandwidth	NO	FLOAT	%	
LTC2_MaximumRegulationRange	NO	FLOAT	%	
LTC2_MinimumRegulationRange	NO	FLOAT	%	
NoLoadLosses	NO	FLOAT		
FailRate	NO	FLOAT		
TmpFailRate	NO	FLOAT		
MajorRepairTime	NO	FLOAT		
MinorRepairTime	NO	FLOAT		
MajorFailureProportion	NO	FLOAT		
SymbolID	NO	INTEGER		Symbol ID
Favorite	NO	BOOLEAN		
Flags	NO	INTEGER		Internal use only. Leave undefined.
Comments	NO	STRING(1000)		

[TRANSFORMER]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		ID label of the transformer
Type	NO	TransformerPhaseType		See 0 for possible values.
WindingType	NO	TransformerWindingType		See 0 for possible values.
KVA	NO	FLOAT	kVA	Total nominal rating according to Type value
VoltageUnit	NO	TransformerVoltageUnit		See 0 for possible values.
KVLLprim	NO	FLOAT	kV	Primary line-to-line voltage
KVLLsec	NO	FLOAT	kV	Secondary line-to-line voltage
Z1	NO	FLOAT	%	Positive sequence impedance
Z0	NO	FLOAT	%	Zero sequence impedance
Z0PrimSec	NO	FLOAT		
Z0PrimMag	NO	FLOAT		
Z0SecMag	NO	FLOAT		
XR	NO	FLOAT		X / R ratio of positive sequence impedance
XR0	NO	FLOAT		X / R ratio of zero sequence impedance
XR0PrimSec	NO	FLOAT		
XR0PrimMag	NO	FLOAT		
XR0SecMag	NO	FLOAT		
MagnetizingCurrent	NO	FLOAT	%	
Conn	NO	CONN_TYPE		Connection See 0 for possible values.
Rg_prim	NO	FLOAT	Ω	Grounding resistance, primary side
Xg_prim	NO	FLOAT	Ω	Grounding reactance, primary side
Rg_sec	NO	FLOAT	Ω	Grounding resistance, secondary side
Xg_sec	NO	FLOAT	Ω	Grounding reactance, secondary side
IsLTC	NO	BOOLEAN		Load Tap Changer.
Taps	NO	INTEGER		Number of taps
LowerBandwidth	NO	FLOAT	%	Lower tolerance limit.
UpperBandwidth	NO	FLOAT	%	Upper tolerance limit.
MinReg_Range	NO	FLOAT	%	Minimum Buck/Boost capability
MaxReg_Range	NO	FLOAT	%	Maximum Buck/Boost capability
Reversible	NO	BOOLEAN		To indicate if transformer is reversible.
SelfCooledKVA	NO	FLOAT	kVA	Total transformer cooled rating (first rating) according to Type value
SelfCooledKVA_2	NO	FLOAT	kVA	Total transformer cooled rating (second rating) according to Type value
SelfCooledKVA_3	NO	FLOAT	kVA	Total transformer cooled rating (third rating) according to Type value
SelfCooledKVA_4	NO	FLOAT	kVA	Total transformer cooled rating (fourth rating) according to Type value
NoLoadLosses	NO	FLOAT	kW	Transformer no load losses
FailRate	NO	FLOAT		
TmpFailRate	NO	FLOAT		
MajorRepairTime	NO	FLOAT		
MinorRepairTime	NO	FLOAT		
MajorFailureProportion	NO	FLOAT		
SymbolID	NO	INTEGER		Symbol ID
PhaseShift	NO	XFoPhaseShift		See 0 for possible values.

Key	Mandatory	Type	Units	Description
InsulationType	NO	TransformerInsulationType		See 0 for possible values.
Favorite	NO	BOOLEAN		
Flags	NO	INTEGER		Internal use only. Leave undefined.
Comments	NO	STRING(1000)		

[TWO VALUE POINTS]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		
EquipmentType	YES	EquipmentDBType		See 0 for possible values.
PointIndex	YES	INTEGER		
CoordX	NO	FLOAT		
Value1	NO	FLOAT		
Value2	NO	FLOAT		

[UNSHIELDED DCCABLE]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		
NominalRating	NO	FLOAT	Amps	
FirstRating	NO	FLOAT		
SecondRating	NO	FLOAT		
ThirdRating	NO	FLOAT		
FourthRating	NO	FLOAT		
WithstandRating	NO	FLOAT		
LockImpedance	NO	BOOLEAN		
Resistance	NO	FLOAT	Ohms by km	
Inductance	NO	FLOAT	mH by km	
RatedVoltage	NO	FLOAT	V	
Temperature	NO	FLOAT	C	
SymbolID	NO	INTEGER		
Favorite	NO	BOOLEAN		
Flags	NO	INTEGER		Internal use only. Leave undefined.
Comments	NO	STRING(1000)		
ConductorID	NO	STRING(64)		
DistanceBetweenConductors	NO	FLOAT		

[VARCOMPENSATOR]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		
Manufacturer	NO	STRING(64)		
Model	NO	STRING(64)		
PhaseType	NO	PhaseType		See 0 for possible values.
RatedVoltage	NO	FLOAT		
DisplayedVoltageUnit	NO	VoltageUnit		See 0 for possible values.
RatedPower	NO	FLOAT		

SymbolID	NO	INTEGER		
Favorite	NO	BOOLEAN		
Flags	NO	INTEGER		Internal use only. Leave undefined.
Comments	NO	STRING(1000)		

[VARIABLE FREQUENCY DRIVE]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		
Amps	NO	FLOAT		
Amps_1	NO	FLOAT		
Amps_2	NO	FLOAT		
Amps_3	NO	FLOAT		
Amps_4	NO	FLOAT		
KVLL	NO	FLOAT		
RatedPower	NO	FLOAT		
Efficiency	NO	FLOAT		
SymbolOpenID	NO	INTEGER		
SymbolCloseID	NO	INTEGER		
Favorite	NO	BOOLEAN		
Flags	NO	INTEGER		Internal use only. Leave undefined.
Comments	NO	STRING(1000)		

[WECS]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		
RatedPower_KW	NO	FLOAT		
MaxPower_KW	NO	FLOAT		
RatedWindspeed_MS	NO	FLOAT		
CutInWindspeed_MS	NO	FLOAT		
CutOutWindspeed_MS	NO	FLOAT		
NbOfRotorBlades	NO	INTEGER		
BLADELENGTH	NO	FLOAT		
RatedSpeed_RPM	NO	FLOAT		
MinSpeed_RPM	NO	FLOAT		
MaxSpeed_RPM	NO	FLOAT		
WindTurbineInertia_KGM2	NO	FLOAT		
SpringConstant_NMSRAD	NO	FLOAT		
DampingConstant_NMSRAD	NO	FLOAT		
GearBoxRatio	NO	FLOAT		
GeneratorType	NO	WecsGeneratorType		See 0 for possible values.
GeneratorRatedCapacity_KVA	NO	FLOAT		
GeneratorRatedVoltage_kv	NO	FLOAT		
GeneratorRatedPower_kw	NO	FLOAT		
GeneratorPowerFactor_Percent	NO	FLOAT		
GeneratorEfficiency_Percent	NO	FLOAT		
GeneratorRatedSpeed_RPM	NO	FLOAT		
SymbolID	NO	INTEGER		
Favorite	NO	BOOLEAN		

Key	Mandatory	Type	Units	Description
Flags	NO	INTEGER		Internal use only. Leave undefined.
Comments	NO	STRING(1000)		

[WIND MODEL]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		
FromFile	NO	BOOLEAN		
FileName	NO	STRING(255)		
Favorite	NO	BOOLEAN		
Flags	NO	INTEGER		Internal use only. Leave undefined.
Comments	NO	STRING(1000)		

[WIND MODEL POINTS]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		
PointIndex	YES	INTEGER		
Time_S	NO	FLOAT		
WindSpeed_MS	NO	FLOAT		

Network Database File

The network database file contains all headers required to define the feeder sections and how they are interconnected, the settings of individual pieces of equipment, and the interconnections between feeders. All headers are followed by the corresponding lines of data values.

[AMMETER INSTRUMENT]

Key	Mandatory	Type	Units	Description
InstrumentNumber	YES	STRING(64)		
InstrumentIndex	NO	INTEGER		
Flags	NO	INTEGER		Internal use only. Leave undefined.
Location	NO	Location		See 0 for possible values.
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
ConnectorIndex	NO	INTEGER		
CurrentUnit	NO	CurrentUnit		See 0 for possible values.
LossesPerPhase	NO	FLOAT		
AccuracyType	NO	AccuracyType		See 0 for possible values.
OwnerDeviceNumber	NO	STRING(64)		OwnerDeviceNumber + OwnerDeviceType
OwnerDeviceType	NO	DeviceType		See 0 for possible values.
TagText	NO	STRING(255)		
TagDeltaX	NO	FLOAT		
TagDeltaY	NO	FLOAT		
TagAngle	NO	FLOAT		
TagLocation	NO	GUITagItemLocation		See 0 for possible values.
TagProp	NO	INTEGER		

Key	Mandatory	Type	Units	Description
TagAlignment	NO	GUITagItemTextAlign		See 0 for possible values.
TagBorder	NO	GUITagItemBorder		See 0 for possible values.
TagBackground	NO	GUITagItemBackground		See 0 for possible values.
TagTextColor	NO	INTEGER		
TagBorderColor	NO	INTEGER		
TagBackgroundColor	NO	INTEGER		
TagFont	NO	STRING(32)		
TagTextSize	NO	FLOAT		
TagOffset	NO	FLOAT		

[ANTIISLANDING]

Key	Mandatory	Type	Units	Description
DeviceNumber	YES	STRING(64)		
DeviceType	YES	DeviceType		See 0 for possible values.
EnableAntislidingRelay	NO	BOOLEAN		
OverCurrentRating	NO	FLOAT		
OverCurrentRatingOpeningTime	NO	FLOAT		
OverCurrentInstantaneouSpeak	NO	FLOAT		
OverCurrentInstantaneousOpeningTim e	NO	FLOAT		
OverVoltageLimitSlow	NO	FLOAT		
OverVoltageOpeningTimeSlow	NO	FLOAT		
OverVoltageLimitFast	NO	FLOAT		
OverVoltageOpeningTimeFast	NO	FLOAT		
UnderVoltageLimitSlow	NO	FLOAT		
UnderVoltageOpeningTimeSlow	NO	FLOAT		
UnderVoltageOpeningTimeFast	NO	FLOAT		
OverFrequencyLimit	NO	FLOAT		
OverFrequencyOpeningTime	NO	FLOAT		
UnderFrequencyLimit	NO	FLOAT		
UnderFrequencyOpeningTime	NO	FLOAT		

[ARC FURNACE SETTING]

Key	Mandatory	Type	Units	Description
SectionID	YES	STRING(64)		ID label of the section
Location	YES	Location		Location of the equipment. See 0 for possible values.
EqID	YES	STRING(64)		Label of the equipment
DeviceNumber	YES	STRING(64)		Identifies this equipment on the network
DeviceStage	NO	STRING(64)		Stage of the device
Flags	NO	INTEGER		Internal use only. Leave undefined.
InitFromEquipFlags	NO	INTEGER		
MVA	NO	FLOAT	MVA	S
PowerFactor	NO	FLOAT	%	
CurrentSource	NO	BOOLEAN		0 : Balanced, 1 : Unbalanced
CurrentSourceA	NO	STRING(64)		Shunt Multi Frequency Source ID for phase A
CurrentSourceB	NO	STRING(64)		Shunt Multi Frequency Source ID for phase B
CurrentSourceC	NO	STRING(64)		Shunt Multi Frequency Source ID for phase C

Key	Mandatory	Type	Units	Description
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.

[AUTO TAP CHANGING EXTENSION]

Key	Mandatory	Type	Units	Description
DeviceNumber	YES	STRING(64)		Device number of the limiting element
DeviceType	YES	DeviceType		Device type of the limiting element. See 0 for possible values.
LTCIndex	YES	INTEGER		ID label of the network
TapChangingAlgo	NO	BOOLEAN		(0 or 1)
ActivationDelayFirstTap	NO	FLOAT		
ActivationDelaySubTap	NO	FLOAT		
MechanismDelay	NO	FLOAT		
ControlOnTapSide	NO	BOOLEAN		(0 or 1)
WantIntegration	NO	BOOLEAN		(0 or 1)
UseInverseTimeDelayChar	NO	BOOLEAN		(0 or 1)

[AUTO TRANSFORMER SETTING]

Key	Mandatory	Type	Units	Description
SectionID	YES	STRING(64)		ID label of the section
Location	YES	LOCATION		Location of the equipment. See 0 for possible values.
EqID	YES	STRING(64)		ID label of the equipment
DeviceNumber	YES	STRING(64)		Identifies this equipment on the network
DeviceStage	NO	STRING(64)		Stage of the device
Flags	NO	INTEGER		Internal use only. Leave undefined.
InitFromEquipFlags	NO	INTEGER		
CoordX	NO	FLOAT		
CoordY	NO	FLOAT		
ConnectionConfiguration	NO	ConnectionConfiguration		See 0 for possible values.
PrimTap	NO	FLOAT	%	Tap setting
SecondaryTap	NO	FLOAT		
Rg	NO	FLOAT	Ω	Primary Grounding Resistance
Xg	NO	FLOAT	Ω	Primary Grounding Reactance
PrimaryBaseVoltage	NO	FLOAT	KV	To force primary system voltage to a specific value
SecondaryBaseVoltage	NO	FLOAT	KV	To force primary system voltage to a specific value
FromNodeID	NO	STRING(64)		Parent section ID in the normal configuration. Set to NULL if the device is on the first section of the feeder.
SettingOption	NO	SETTINGOPTION		See 0 for possible values.
SetPoint	NO	FLOAT		
ControlType	NO	LTCControlType		See 0 for possible values.
LowerBandwidth	NO	FLOAT	%	Tolerance
UpperBandwidth	NO	FLOAT	%	Tolerance
TapLocation	NO	TapLocation		See 0 for possible values.
InitialTapPosition	NO	FLOAT		Initial tap position.

Key	Mandatory	Type	Units	Description
InitialTapPositionMode	NO	TapPositionMode		See 0 for possible values.
Tap	NO	FLOAT		Tap position
MaxBuck	NO	FLOAT	%	Maximum buck capability
MaxBoost	NO	FLOAT	%	Maximum boost capability
CT	NO	FLOAT	Amps	CT primary rating
PT	NO	FLOAT		PT ratio (V primary / V secondary)
Rset	NO	FLOAT	Ω	R setting
Xset	NO	FLOAT	Ω	X setting
FirstHouseHigh	NO	FLOAT		
FirstHouseLow	NO	FLOAT		
PhaseON	NO	PHASE		See 0 for possible values.
AtSectionID	NO	STRING(64)		Node ID of the load center point
MasterID	NO	STRING(64)		Section ID of the controlling device or NULL if device is a slave.
FaultIndicator	NO	FaultIndicatorType		To indicate fault via a signal. See 0 for possible values.
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
TCCRepositoryID	NO	STRING(64)		
Reversible	NO	INTEGER		
SymbolSize	NO	FLOAT		

[BATTERY SETTINGS]

Key	Mandatory	Type	Units	Description
SectionID	YES	STRING(64)		
DeviceNumber	YES	STRING(64)		
DeviceStage	NO	STRING(64)		Stage of the device
Flags	NO	INTEGER		Internal use only. Leave undefined.
InitFromEquipFlags	NO	INTEGER		
Location	NO	Location		See 0 for possible values.
EquipmentID	YES	STRING(64)		
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
SymbolSize	NO	FLOAT		
NumberBatteriesPerString	NO	INTEGER		
NumberString	NO	INTEGER		
ResistanceConnection	NO	FLOAT	Ω	
ModelAsConstantCurrentSource	NO	BOOLEAN		
FaultContributionUnit	NO	FaultContributionUnitType		See 0 for possible values.
FaultContribution	NO	FLOAT		

[BESS SETTINGS]

Key	Mandatory	Type	Units	Description
SectionID	YES	STRING(64)		
Location	YES	LOCATION		Location of the equipment. See 0 for possible values.
DeviceNumber	YES	STRING(64)		
DeviceStage	NO	STRING(64)		
Flags	NO	INTEGER		Internal use only. Leave undefined.
InitFlags	NO	INTEGER		Internal use only. Leave undefined.
EquipmentID	YES	STRING(64)		
Phase	NO	PHASE		See 0 for possible values.
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
ConnectionConfiguration	NO	ConnectionConfiguration		See 0 for possible values.
CTConnection	NO	CTConnection		See 0 for possible values.
SymbolSize	NO	FLOAT		
MaximumSOC	NO	FLOAT		
MinimumSOC	NO	FLOAT		
FaultContributionBasedOnRatedPower	NO	BOOLEAN		
FaultContributionUnit	NO	FaultContributionUnitType		See 0 for possible values.
FaultContribution	NO	FLOAT		
FrequencySourceID	NO	STRING(64)		
SourceHarmonicModelType	NO	SourceHarmonicModel		See 0 for possible values.
PulseNumber	NO	INTEGER		
FiringAngle	NO	FLOAT		
OverlapAngle	NO	FLOAT		
InitialSOC	NO	FLOAT		
GridOutput	NO	StorageControllerGridOutput		See 0 for possible values.
RiseFallUnit	NO	ControlRiseFallUnit		See 0 for possible values.
PowerFallLimit	NO	FLOAT		
PowerRiseLimit	NO	FLOAT		
ChargeDelayUnit	NO	TimeStepUnits		See 0 for possible values.
ChargeDelay	NO	FLOAT		
DischargeDelayUnit	NO	TimeStepUnits		See 0 for possible values.
DischargeDelay	NO	FLOAT		
PythonDeviceScriptID	NO	STRING(64)		

[BREAKER SETTING]

Key	Mandatory	Type	Units	Description
SectionID	YES	STRING(64)		ID label of the section
Location	YES	LOCATION		Location of the equipment. See 0 for possible values.
EqID	YES	STRING(64)		Label of the equipment
DeviceNumber	YES	STRING(64)		Identifies this equipment on the network
DeviceStage	NO	STRING(64)		Stage of the device
Flags	NO	INTEGER		Internal use only. Leave undefined.

Key	Mandatory	Type	Units	Description
InitFromEquipFlags	NO	INTEGER		
CoordX	NO	FLOAT		
CoordY	NO	FLOAT		
ClosedPhase	NO	PHASE		See 0 for possible values.
Locked	NO	BOOLEAN		To indicate if switch is locked.
RC	NO	BOOLEAN		Remote controlled.
NStatus	NO	NORM_STAT		Normal status. See 0 for possible values.
TCCID	NO	STRING(64)		Setting ID given to this device in the CYMTCC program
PhPickup	NO	FLOAT	Amps	Phase pickup current
GrdPickup	NO	FLOAT	Amps	Ground pickup current
Alternate	NO	BOOLEAN		Use the alternate ratings.
PhAltPickup	NO	FLOAT	Amps	Phase alternate pickup current
GrdAltPickup	NO	FLOAT	Amps	Ground alternate pickup current
FromNodeID	NO	STRING(64)		Parent section ID in the normal configuration
EnableReclosing	NO	BOOLEAN		To enable the reclosing scheme (0 by default or 1)
FaultIndicator	NO	FaultIndicatorType		To indicate fault via a signal. See 0 for possible values.
EnableFuseSaving	NO	BOOLEAN		0 = No and 1 = Yes
MinRatedCurrentForFuseSaving	NO	FLOAT		
Automated	NO	BOOLEAN		0 = No and 1 = Yes.
SensorMode	NO	SensorMode		See 0 for possible values.
Strategic	NO	BOOLEAN		0 or 1
RestorationMode	NO	RestorationMode		See 0 for possible values.
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
ByPassOnRestoration	NO	BOOLEAN		
Speed	NO	FLOAT		
SeqOpFirstPhase	NO	INTEGER		
SeqOpFirstGround	NO	INTEGER		
SeqOpLockoutPhase	NO	INTEGER		
SeqOpLockoutGround	NO	INTEGER		
SeqResetTime	NO	FLOAT		
SeqReclosingTime1	NO	FLOAT		
SeqReclosingTime2	NO	FLOAT		
SeqReclosingTime3	NO	FLOAT		
Reversible	NO	INTEGER		

[BUSWAY SETTING]

Key	Mandatory	Type	Units	Description
SectionID	YES	STRING(64)		
Location	YES	LOCATION		See 0 for possible values.
EqID	YES	STRING(64)		
DeviceNumber	YES	STRING(64)		
DeviceStage	NO	STRING(64)		Stage of the device
Flags	NO	INTEGER		Internal use only. Leave undefined.
InitFromEquipFlags	NO	INTEGER		.
EqPhase	NO	PHASE		See 0 for possible values.

Key	Mandatory	Type	Units	Description
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
SymbolSize	NO	FLOAT		
CoordX	NO	FLOAT		
CoordY	NO	FLOAT		
Length	NO	FLOAT		

[CAPACITOR EXTLTD]

Key	Mandatory	Type	Units	Description
DeviceNumber	YES	STRING(64)		
DeviceType	YES	DeviceType		See 0 for possible values.
EnableDelays	NO	BOOLEAN		
CloseDelay	NO	FLOAT		
TripDelay	NO	FLOAT		
BreakerDelay	NO	FLOAT		

[CENTRALIZED CAPACITOR CONTROL SYSTEM INSTRUMENT]

Key	Mandatory	Type	Units	Description
InstrumentNumber	YES	STRING(64)		
InstrumentIndex	NO	INTEGER		
Flags	NO	INTEGER		Internal use only. Leave undefined.
Location	NO	Location		See 0 for possible values.
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
ConnectorIndex	NO	INTEGER		
ControlType	NO	CCCSControlType		See 0 for possible values.
MonitoredSectionID	NO	STRING(64)		
PythonDeviceScriptID	NO	STRING(64)		
ReferencePhase	NO	Phase		See 0 for possible values.
CloseValue	NO	FLOAT		
TripValue	NO	FLOAT		
OwnerNodeID	YES	STRING(64)		
TagText	NO	STRING(255)		
TagDeltaX	NO	FLOAT		
TagDeltaY	NO	FLOAT		
TagAngle	NO	FLOAT		
TagLocation	NO	GUITagItemLocation		See 0 for possible values.
TagProp	NO	INTEGER		
TagAlignment	NO	GUITagItemTextAlign		See 0 for possible values.
TagBorder	NO	GUITagItemBorder		See 0 for possible values.
TagBackground	NO	GUITagItemBackground		See 0 for possible values.
TagTextColor	NO	INTEGER		
TagBorderColor	NO	INTEGER		
TagBackgroundColor	NO	INTEGER		
TagFont	NO	STRING(32)		
TagTextSize	NO	FLOAT		
TagOffset	NO	FLOAT		

[CHARGER SETTINGS]

Key	Mandatory	Type	Units	Description
SectionID	YES	STRING(64)		
DeviceNumber	YES	STRING(64)		
DeviceStage	NO	STRING(64)		Stage of the device
Flags	NO	INTEGER		Internal use only. Leave undefined.
InitFromEquipFlags	NO	INTEGER		
Location	NO	Location		See 0 for possible values.
EquipmentID	YES	STRING(64)		
Phase	NO	Phase		See 0 for possible values.
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
SymbolSize	NO	FLOAT		
CoordX	NO	FLOAT		
CoordY	NO	FLOAT		
ControlType	NO	ChargerControlType		See 0 for possible values.
OperatingDCVoltage	NO	FLOAT	V	
FixedPF	NO	FLOAT	Percent	
FloatVoltage	NO	FLOAT	V	
EqualizationVoltage	NO	FLOAT		
FaultContribution	NO	FLOAT		
FaultContributionUnit	NO	FaultContributionUnitType		See 0 for possible values.
ModelAsConstantCurrentSource	NO	BOOLEAN		
FreqSourceID	NO	STRING(64)		
SourceHarmonicModelType	NO	SourceHarmonicModel		See 0 for possible values.
PulseNumber	NO	INTEGER		
FiringAngle	NO	FLOAT		
OverlapAngle	NO	FLOAT		

[CONTROLLED DEVICE INSTRUMENT]

Key	Mandatory	Type	Units	Description
InstrumentNumber	YES	STRING(64)		
InstrumentType	YES	InstrumentType		See 0 for possible values.
SeqNumber	YES	INTEGER		
Active	NO	BOOLEAN		
DeviceNumber	NO	STRING(64)		
DeviceType	NO	DeviceType		See 0 for possible values.
OverCondition	NO	BOOLEAN		
Threshold	NO	FLOAT		
Operation	NO	SwitchStatus		See 0 for possible values.

[CONVERTER]

Key	Mandatory	Type	Units	Description
DeviceNumber	YES	STRING(64)		
DeviceType	YES	DeviceType		See 0 for possible values.
ACDCConverterID	NO	STRING(64)		

Key	Mandatory	Type	Units	Description
Manufacturer	NO	STRING(64)		
Model	NO	STRING(64)		
Standard	NO	STRING(64)		
PhaseType	NO	PhaseType		See 0 for possible values.
ConverterRating	NO	FLOAT		
ActivePowerRating	NO	FLOAT		
ReactivePowerRating	NO	FLOAT		
MinimumPowerFactor	NO	FLOAT		
Efficiency	NO	FLOAT		
InternalLosses	NO	FLOAT		
UseDCCapacitor	NO	BOOLEAN		
DCCapacitor	YES	FLOAT		
RatedDCVoltage	YES	FLOAT		
InternalCouplingElement	NO	BOOLEAN		
CouplingResistance	YES	FLOAT		
CouplingInductance	YES	FLOAT		
ModelControl	NO	BOOLEAN		
ReactivePowerRef	NO	FLOAT		
DCVoltageRef	NO	FLOAT		
CurrentRef	NO	FLOAT		
KPQ	NO	FLOAT		
KIQ	NO	FLOAT		
KPD	NO	FLOAT		
KID	NO	FLOAT		
KPI	NO	FLOAT		
KII	NO	FLOAT		
PowerFallLimit	NO	FLOAT		
PowerRiseLimit	NO	FLOAT		
RiseFallUnit	NO	ControlRiseFallUnit		See 0 for possible values.

[CONVERTER CONTROL SETTING]

Key	Mandatory	Type	Units	Description
DeviceNumber	YES	STRING(64)		
DeviceType	YES	DeviceType		See 0 for possible values.
ControlIndex	YES	INTEGER		
TimeTriggerIndex	YES	ConverterControlType		See 0 for possible values.
FixedVarInjection	NO	FLOAT		
InjectionReference	NO	ConverterVarReference		See 0 for possible values.
ConverterControlID	NO	STRING(64)		
PowerReference	NO	ConverterActivePowerReference		See 0 for possible values.
PowerFactor	NO	FLOAT		
StartTime	NO	INTEGER		
Status	NO	StorageControllerStatus		See 0 for possible values.
Power	NO	FLOAT		
ActivePowerReference	NO	ConverterActivePowerReference		See 0 for possible values.
PowerLimit	NO	FLOAT		
MonitorRemoteLocation	NO	BOOLEAN		
RemoteItemID	NO	STRING(64)		

Key	Mandatory	Type	Units	Description
RemoteItemType	NO	ItemType		See 0 for possible values.
DischargeTrigger	NO	FLOAT		
DischargeIdleTrigger	NO	FLOAT		
DischargeTriggerUnit	NO	PowerTriggerUnit		See 0 for possible values.
ChargeTrigger	NO	FLOAT		
ChargeIdleTrigger	NO	FLOAT		
ChargeTriggerUnit	NO	PowerTriggerUnit		See 0 for possible values.
ChargePower	NO	FLOAT		
DischargePower	NO	FLOAT		
ChargePowerReference	NO	ConverterActivePowerReference		See 0 for possible values.
DischargePowerReference	NO	ConverterActivePowerReference		See 0 for possible values.
LevelTriggerPower	NO	FLOAT		
Tolerance	NO	FLOAT		
RiseLimit	NO	FLOAT		
FallLimit	NO	FLOAT		
RiseFallUnit	NO	ControlRiseFallUnit		See 0 for possible values.
VoltageReference	NO	FLOAT		
HysteresisOffset	NO	FLOAT		
MinimumDeadbandVoltage	NO	FLOAT		
MaximumDeadbandVoltage	NO	FLOAT		
LowVoltageGradient	NO	FLOAT		
HighVoltageGradient	NO	FLOAT		

[CTYPE FILTER SETTING]

Key	Mandatory	Type	Units	Description
SectionID	YES	STRING(64)		ID label of the section
Location	YES	Location		Location of the equipment. See 0 for possible values.
EqID	YES	STRING(64)		Label of the equipment
DeviceNumber	YES	STRING(64)		Identifies this equipment on the network
DeviceStage	NO	STRING(64)		Stage of the device
Flags	NO	INTEGER		Internal use only. Leave undefined.
InitFromEquipFlags	NO	INTEGER		
EqPhase	NO	PHASE		Phase to which equipment is connected. See 0 for possible values.
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.

[CURRENT TRANSFORMER INSTRUMENT]

Key	Mandatory	Type	Units	Description
InstrumentNumber	YES	STRING(64)		
InstrumentIndex	NO	INTEGER		
Flags	NO	INTEGER		Internal use only. Leave undefined.
Location	NO	Location		See 0 for possible values.
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
PhasePrimaryRating	NO	FLOAT		
PhaseSecondaryRating	NO	FLOAT		
GroundPrimaryRating	NO	FLOAT		
GroundSecondaryRating	NO	FLOAT		
PhaseConnection	NO	BOOLEAN		
GroundConnection	NO	BOOLEAN		
DeltaConnection	NO	BOOLEAN		
OwnerNodeID	YES*	STRING(64)		*Either OwnerNodeID is needed or
OwnerDeviceNumber	YES*	STRING(64)		OwnerDeviceNumber + OwnerDeviceType
OwnerDeviceType	YES*	DeviceType		See 0 for possible values.
TagText	NO	STRING(255)		
TagDeltaX	NO	FLOAT		
TagDeltaY	NO	FLOAT		
TagAngle	NO	FLOAT		
TagLocation	NO	GUITagItemLocation		See 0 for possible values.
TagProp	NO	INTEGER		
TagAlignment	NO	GUITagItemTextAlign		See 0 for possible values.
TagBorder	NO	GUITagItemBorder		See 0 for possible values.
TagBackground	NO	GUITagItemBackground		See 0 for possible values.
TagTextColor	NO	INTEGER		
TagBorderColor	NO	INTEGER		
TagBackgroundColor	NO	INTEGER		
TagFont	NO	STRING(32)		
TagTextSize	NO	FLOAT		
TagOffset	NO	FLOAT		

[DCCABLE SETTINGS]

Key	Mandatory	Type	Units	Description
SectionID	YES	STRING(64)		
DeviceNumber	YES	STRING(64)		
DeviceStage	NO	STRING(64)		Stage of the device
Flags	NO	INTEGER		Internal use only. Leave undefined.
InitFromEquipFlags	NO	INTEGER		
Location	NO	Location		See 0 for possible values.
EquipmentID	YES	STRING(64)		
Phase	NO	Phase		See 0 for possible values.
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
SymbolSize	NO	FLOAT		
CoordX	NO	FLOAT		
CoordY	NO	FLOAT		
Length	NO	FLOAT	Meter or feet	
NumberOfCableInParallel	NO	INTEGER		

Key	Mandatory	Type	Units	Description
NominalRating	NO	FLOAT	Amps	
FirstRating	NO	FLOAT	Amps	
SecondRating	NO	FLOAT	Amps	
ThirdRating	NO	FLOAT	Amps	
FourthRating	NO	FLOAT	Amps	

[DCDCCONVERTER SETTINGS]

Key	Mandatory	Type	Units	Description
SectionID	YES	STRING(64)		
DeviceNumber	YES	STRING(64)		
DeviceStage	NO	STRING(64)		Stage of the device
Flags	NO	INTEGER		Internal use only. Leave undefined.
InitFromEquipFlags	NO	INTEGER		
Location	NO	Location		See 0 for possible values.
EquipmentID	YES	STRING(64)		
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
SymbolSize	NO	FLOAT		
CoordX	NO	FLOAT		
CoordY	NO	FLOAT		
NormalFeedingNodeID	NO	STRING(32)		
OperatingOutputVoltageUnit	NO	VoltageUnitType		See 0 for possible values.
OperatingOutputVoltage	NO	FLOAT		
FaultContributionUnit	NO	FaultContributionUnitType		See 0 for possible values.
FaultContribution	NO	FLOAT		
ModelAsConstantCurrentSource	NO	BOOLEAN		

[DCFUSE SETTINGS]

Key	Mandatory	Type	Units	Description
SectionID	YES	STRING(64)		
DeviceNumber	YES	STRING(64)		
DeviceStage	NO	STRING(64)		Stage of the device
Flags	NO	INTEGER		Internal use only. Leave undefined.
InitFromEquipFlags	NO	INTEGER		
EquipmentID	YES	STRING(64)		
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
Reversible	NO	INTEGER		
SymbolSize	NO	FLOAT		
CoordX	NO	FLOAT		
CoordY	NO	FLOAT		
FromNodeID	NO	STRING(64)		
TCCRepositoryID	NO	STRING(64)		
Restriction	NO	BOOLEAN		
Closed	NO	BOOLEAN		

[DCIMPEDANCE SETTINGS]

Key	Mandatory	Type	Units	Description
SectionID	YES	STRING(64)		
DeviceNumber	YES	STRING(64)		
DeviceStage	NO	STRING(64)		Stage of the device
Flags	NO	INTEGER		Internal use only. Leave undefined.
InitFromEquipFlags	NO	INTEGER		
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
SymbolSize	NO	FLOAT		
Resistance	NO	FLOAT	Ohms	
Inductance	NO	FLOAT	mH	

[DCLINK SETTING]

Key	Mandatory	Type	Units	Description
SectionID	YES	STRING(64)		
Location	YES	Location		See 0 for possible values.
DeviceNumber	YES	STRING(64)		
DeviceStage	NO	STRING(64)		Stage of the device
Flags	NO	INTEGER		Internal use only. Leave undefined.
InitFromEquipFlags	NO	INTEGER		
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
SymbolSize	NO	FLOAT		
CoordX	NO	FLOAT		
CoordY	NO	FLOAT		
NormalFeedingNodeID	NO	STRING(64)		
DCLineResistance	NO	FLOAT		
NumberOfBridges	NO	INTEGER		
ControlMode	NO	DCLinkControlMode		See 0 for possible values.
DesiredDCVoltage	NO	FLOAT		
DesiredDCPower	NO	FLOAT		
DesiredDCCurrent	NO	FLOAT		
DCCurrentMargin	NO	FLOAT		
CompoundingR	NO	FLOAT		
MinFiringAngle	NO	FLOAT		
MaxFiringAngle	NO	FLOAT		
MinExtinctionAngle	NO	FLOAT		
MaxExtinctionAngle	NO	FLOAT		
NominalRatingRectifier	NO	FLOAT		
PrimaryVoltageRectifier	NO	FLOAT		
SecondaryVoltageRectifier	NO	FLOAT		
PositiveSequencelmpedanceRectifier	NO	FLOAT		
ZeroSequencelmpedanceRectifier	NO	FLOAT		
XRRatioRectifier	NO	FLOAT		
XR0RatioRectifier	NO	FLOAT		
TransformerConnectionRectifier	NO	TransformerConnection		See 0 for possible values.
PhaseShiftRectifier	NO	XFoPhaseShift		See 0 for possible values.
SetVoltageRectifier	NO	FLOAT		

Key	Mandatory	Type	Units	Description
LowerBandwidthRectifier	NO	FLOAT		
UpperBandwidthRectifier	NO	FLOAT		
MaximumRangeRectifier	NO	FLOAT		
MinimumRangeRectifier	NO	FLOAT		
NumberOfTapsRectifier	NO	INTEGER		
NominalRatingInverter	NO	FLOAT		
PrimaryVoltageInverter	NO	FLOAT		
SecondaryVoltageInverter	NO	FLOAT		
PositiveSequenceImpedanceInverter	NO	FLOAT		
ZeroSequenceImpedanceInverter	NO	FLOAT		
XRRatioInverter	NO	FLOAT		
XR0RatioInverter	NO	FLOAT		
TransformerConnectionInverter	NO	TransformerConnection		See 0 for possible values.
PhaseShiftInverter	NO	XFoPhaseShift		See 0 for possible values.
SetVoltageInverter	NO	FLOAT		
LowerBandwidthInverter	NO	FLOAT		
UpperBandwidthInverter	NO	FLOAT		
MaximumRangeInverter	NO	FLOAT		
MinimumRangeInverter	NO	FLOAT		
NumberOfTapsInverter	NO	INTEGER		
FreqSourceRectifierID	NO	STRING(64)		
SourceHarmonicModelTypeRectifier	NO	SourceHarmonicModel		See 0 for possible values.
PulseNumberRectifier	NO	INTEGER		
FiringAngleRectifier	NO	FLOAT		
OverlapAngleRectifier	NO	FLOAT		
FreqSourceInverterID	NO	STRING(64)		
SourceHarmonicModelTypeInverter	NO	SourceHarmonicModel		See 0 for possible values.
PulseNumberInverter	NO	INTEGER		
ExtinctionAngleInverter	NO	FLOAT		
OverlapAngleInverter	NO	FLOAT		

[DCLOAD SETTINGS]

Key	Mandatory	Type	Units	Description
SectionID	YES	STRING(64)		
DeviceNumber	YES	STRING(64)		
DeviceStage	NO	STRING(64)		Stage of the device
Flags	NO	INTEGER		Internal use only. Leave undefined.
InitFromEquipFlags	NO	INTEGER		
Location	NO	Location		See 0 for possible values.
Phase	NO	Phase		See 0 for possible values.
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
SymbolSize	NO	FLOAT		
NominalVoltage	NO	FLOAT	V	
CustomerType	NO	STRING(64)		

[DCLOADMODEL]

Key	Mandatory	Type	Units	Description
DeviceNumber	YES	STRING(64)		
LoadModelName	YES	STRING(64)		
RatedPower	NO	FLOAT	kW	

[DCLVCB SETTINGS]

Key	Mandatory	Type	Units	Description
SectionID	YES	STRING(64)		
DeviceNumber	YES	STRING(64)		
DeviceStage	NO	STRING(64)		Stage of the device
Flags	NO	INTEGER		Internal use only. Leave undefined.
InitFromEquipFlags	NO	INTEGER		
EquipmentID	YES	STRING(64)		
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
Reversible	NO	INTEGER		
SymbolSize	NO	FLOAT		
CoordX	NO	FLOAT		
CoordY	NO	FLOAT		
FromNodeID	NO	STRING(64)		
TCCRepositoryID	NO	STRING(64)		
Restriction	NO	BOOLEAN		
Closed	NO	BOOLEAN		

[DCMOTOR SETTINGS]

Key	Mandatory	Type	Units	Description
SectionID	YES	STRING(64)		
DeviceNumber	YES	STRING(64)		
DeviceStage	NO	STRING(64)		Stage of the device
Flags	NO	INTEGER		Internal use only. Leave undefined.
InitFromEquipFlags	NO	INTEGER		
Location	NO	Location		See 0 for possible values.
EquipmentID	YES	STRING(64)		
Phase	NO	Phase		See 0 for possible values.
NumberOfMotors	NO	INTEGER		
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
SymbolSize	NO	FLOAT		
LoadFactor	NO	FLOAT	Percent	
FaultContribution	NO	FLOAT		
FaultContributionUnit	NO	FaultContributionUnityType		See 0 for possible values.

[DCSWITCH SETTINGS]

Key	Mandatory	Type	Units	Description
SectionID	YES	STRING(64)		
DeviceNumber	YES	STRING(64)		

Key	Mandatory	Type	Units	Description
DeviceStage	NO	STRING(64)		Stage of the device
Flags	NO	INTEGER		Internal use only. Leave undefined.
InitFromEquipFlags	NO	INTEGER		
EquipmentID	YES	STRING(64)		
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
Reversible	NO	INTEGER		
SymbolSize	NO	FLOAT		
CoordX	NO	FLOAT		
CoordY	NO	FLOAT		
FromNodeID	NO	STRING(64)		
Restriction	NO	BOOLEAN		
Closed	NO	BOOLEAN		

[DCUPS SETTINGS]

Key	Mandatory	Type	Units	Description
SectionID	YES	STRING(64)		
DeviceNumber	YES	STRING(64)		
DeviceStage	NO	STRING(64)		Stage of the device
Flags	NO	INTEGER		Internal use only. Leave undefined.
InitFromEquipFlags	NO	INTEGER		
Location	NO	Location		See 0 for possible values.
EquipmentID	YES	STRING(64)		
Phase	NO	Phase		See 0 for possible values.
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
SymbolSize	NO	FLOAT		
CoordX	NO	FLOAT		
CoordY	NO	FLOAT		
ControlType	NO	ChargerControlType		See 0 for possible values.
OperatingDCVoltage	NO	FLOAT	V	
FixedPF	NO	FLOAT	percent	
FaultContribution	NO	FLOAT		
FaultContributionUnit	NO	FaultContributionUnitType		See 0 for possible values.
ModelAsConstantCurrentSource	NO	BOOLEAN		
FreqSourceID	NO	STRING(64)		
SourceHarmonicModelType	NO	SourceHarmonicModel		See 0 for possible values.
PulseNumber	NO	INTEGER		
FiringAngle	NO	FLOAT		
OverlapAngle	NO	FLOAT		

[DEVICECOMPONENTUDD]

Key	Mandatory	Type	Units	Description
DeviceComponentNumber	YES	STRING(64)		
DeviceComponentType	YES	DeviceComponentType		See 0 for possible values.
DataId	NO	STRING(64)		

Key	Mandatory	Type	Units	Description
DataType	NO	ValueType		See 0 for possible values.
DataValue	NO	STRING(255)		

[DEVICEPOINTS]

Key	Mandatory	Type	Units	Description
DeviceNumber	YES	STRING(64)		
DeviceType	YES	DeviceType		See 0 for possible values.
PointIndex	NO	INTEGER		
CoordX	NO	FLOAT		
CoordY	NO	FLOAT		

[DEVICE STAGE]

Key	Mandatory	Type	Units	Description
DeviceStageName	YES	STRING(64)		Name of the Device Stage
DeviceStageID	NO	INTEGER		ID of the Device Stage
Description	NO	STRING(1000)		Description of the Device Stage
Color	NO	COLORS		Color associated to the Device Stage. See 0 for possible values.
DefaultStage	NO	BOOLEAN		

[DEVICETAG]

Key	Mandatory	Type	Units	Description
DeviceNumber	YES	STRING(64)		
DeviceType	YES	DeviceType		See 0 for possible values.
TagText	NO	STRING(255)		Text to be included in the box.
TagProperties	NO	INTEGER		
TagDeltaX	NO	FLOAT		X axis tag offset from device position.
TagDeltaY	NO	FLOAT		Y axis tag offset from device position.
TagAngle	NO	FLOAT		Angle in degrees of the tag.
TagAlignment	NO	GUITagItemTextAlign		Text alignment within the tag. See 0 for possible values.
TagBorder	NO	GUITagItemBorder		See 0 for possible values.
TagBackground	NO	GUITagItemBackground		Tag background type. See 0 for possible values.
TagTextColor	NO	INTEGER		Numeric value representing color. Set to -1 for default color.
TagBorderColor	NO	INTEGER		Numeric value representing color. Set to -1 for default color.
TagBackgroundColor	NO	INTEGER		Numeric value representing color. Set to -1 for default color.
Tag_Location	NO	GUITagItemLocation		See 0 for possible values.
TagFont	NO	STRING(32)		
TagFontSize	NO	FLOAT		
TagOffset	NO	FLOAT		

[DEVICEUDD]

Key	Mandatory	Type	Units	Description
DeviceNumber	YES	STRING(64)		
DeviceType	YES	DeviceType		See 0 for possible values.
DataId	NO	STRING(64)		
DataType	NO	ValueType		See 0 for possible values.
DataValue	NO	STRING(255)		

[DGGENERATIONMODEL]

Key	Mandatory	Type	Units	Description
DeviceNumber	YES	STRING(64)		
DeviceType	YES	DeviceType		See 0 for possible values.
LoadModelName	YES	STRING(64)		Name for the load model
ActiveGeneration	NO	FLOAT		
PowerFactor	NO	FLOAT		

[DIVERSITY FACTOR]

Key	Mandatory	Type	Units	Description
DeviceNumber	YES	STRING(64)		
DeviceType	YES	DeviceType		See 0 for possible values.
DiversityFactorIndex	NO	INTEGER		
LoadModelName	NO	STRING(64)		
DiversityFactorA	NO	FLOAT		
DiversityFactorB	NO	FLOAT		
DiversityFactorC	NO	FLOAT		

[DISTANCE RELAY INSTRUMENT]

Key	Mandatory	Type	Unit	Description
InstrumentNumber	YES	STRING(64)		
InstrumentIndex	NO	INTEGER		
Flags	NO	INTEGER		Internal use only. Leave undefined.
Location	NO	Location		See 0 for possible values.
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
SymbolText	NO	STRING(64)		
ProtectionType	NO	ProtectionType		See 0 for possible values.
DistanceRelayGroup	NO	DistanceRelayGroup		See 0 for possible values.
Manufacturer	NO	STRING(64)		
Model	NO	STRING(64)		
DistanceRelayType	NO	DistanceRelayType		See 0 for possible values.
LoadEncroachment	NO	BOOLEAN		
MinLoadImpedance	NO	FLOAT		
MaxLoadAngle	NO	FLOAT		
DirectBlinder	NO	BOOLEAN		
BlinderAngle1	NO	FLOAT		
BlinderAngle2	NO	FLOAT		
Offset	NO	BOOLEAN		

Key	Mandatory	Type	Unit	Description
OffsetImpedance	NO	FLOAT		
OffsetAngle	NO	FLOAT		
OffsetCenterX	NO	FLOAT		
OffsetCenterY	NO	FLOAT		
ForwardNodeID	NO	STRING(64)		
PTPrimaryRating	NO	FLOAT		
PTSecondaryRating	NO	FLOAT		
EnableLeftResistance	NO	BOOLEAN		
EnableLeftReactance	NO	BOOLEAN		
UserDefinedLineImpedances	NO	BOOLEAN		
SecondarySettings	NO	BOOLEAN		
OwnerNodeID	YES *	STRING(64)		* Either OwnerNodeID is needed or
OwnerDeviceNumber	YES *	STRING(64)		OwnerDeviceNumber + OwnerDeviceType
OwnerDeviceType	YES *	DeviceType		See 0 for possible values.
TagText	NO	STRING(255)		
TagDeltaX	NO	FLOAT		
TagDeltaY	NO	FLOAT		
TagAngle	NO	FLOAT		
TagLocation	NO	GUITagItemLocation		See 0 for possible values.
TagProp	NO	INTEGER		
TagAlignment	NO	GUITagItemTextAlign		Text alignment within the tag. See 0 for possible values.
TagBorder	NO	GUITagItemBorder		See 0 for possible values.
TagBackground	NO	GUITagItemBackground		Tag background type. See 0 for possible values.
TagTextColor	NO	INTEGER		
TagBorderColor	NO	INTEGER		
TagBackgroundColor	NO	INTEGER		
TagFont	NO	STRING(32)		
TagTextSize	NO	FLOAT		
TagOffset	NO	FLOAT		

[DOUBLE CIRCUIT]

Key	Mandatory	Type	Units	Description
DoubleCircuitID	YES	STRING(64)		
SpacingID	YES	STRING(64)		
Color	NO	INTEGER		
EarthResistivity	NO	FLOAT		

[DOUBLECIRCUITLINE SETTING]

Key	Mandatory	Type	Units	Description
SectionID	YES	STRING(64)		
DeviceNumber	NO	STRING(64)		
DeviceStage	NO	STRING(64)		Stage of the device
Flags	NO	INTEGER		Internal use only. Leave undefined.
InitFromEquipFlagsFlags	NO	INTEGER		
CondID_A	NO	STRING(64)		
CondID_B	NO	STRING(64)		

Key	Mandatory	Type	Units	Description
CondID_C	NO	STRING(64)		
CondID_N	NO	STRING(64)		
Length	NO	FLOAT		
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
NominalRatingA	NO	FLOAT		
NominalRatingB	NO	FLOAT		
NominalRatingC	NO	FLOAT		
FirstRatingA	NO	FLOAT		
FirstRatingB	NO	FLOAT		
FirstRatingC	NO	FLOAT		
SecondRatingA	NO	FLOAT		
SecondRatingB	NO	FLOAT		
SecondRatingC	NO	FLOAT		
ThirdRatingA	NO	FLOAT		
ThirdRatingB	NO	FLOAT		
ThirdRatingC	NO	FLOAT		
FourthRatingA	NO	FLOAT		
FourthRatingB	NO	FLOAT		
FourthRatingC	NO	FLOAT		
AmpacityDeratingFactor	NO	FLOAT		
ConductorPosition	NO	ConductorPosition		See 0 for possible values.
CoordX	NO	FLOAT		
CoordY	NO	FLOAT		
HarmonicModel	NO	LineHarmonicModel		See 0 for possible values.
TCCRepositoryID	NO	STRING(64)		
CircuitIndex	NO	INTEGER		
DoubleCircuitID	NO	STRING(64)		
FlowConstraintActive	NO	BOOLEAN		
FlowConstraintUnit	NO	OPFFlowConstraints Unit		See 0 for possible values.
MaximumFlow	NO	FLOAT		

[DOUBLECIRCUITUDD]

Key	Mandatory	Type	Units	Description
DoubleCircuitID	YES	STRING(64)		
DataId	NO	STRING(64)		
DataType	NO	ValueType		See 0 for possible values.
DataValue	NO	STRING(255)		

[DOUBLE TUNED FILTER SETTING]

Key	Mandatory	Type	Units	Description
SectionID	YES	STRING(64)		ID label of the section
Location	YES	Location		Location of the equipment. See 0 for possible values.
EqID	YES	STRING(64)		Label of the equipment
DeviceNumber	YES	STRING(64)		Identifies this equipment on the network
DeviceNumber	YES	STRING(64)		Identifies this equipment on the network
Flags	NO	INTEGER		Internal use only. Leave undefined.

Key	Mandatory	Type	Units	Description
InitFromEquipFlags	NO	INTEGER		
EqPhase	NO	PHASE		Phase to which equipment is connected. See 0 for possible values.
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.

[ELECTRONIC CONVERTER GENERATOR SETTING]

Key	Mandatory	Type	Units	Description
SectionID	YES	STRING(64)		ID label of the section
Location	YES	Location		Location of the equipment. See 0 for possible values.
EqID	YES	STRING(64)		Label of the equipment
DeviceNumber	YES	STRING(64)		Identifies this equipment on the network
DeviceStage	NO	STRING(64)		Stage of the device
Flags	NO	INTEGER		Internal use only. Leave undefined.
InitFromEquipFlags	NO	INTEGER		
EqPhase	NO	PHASE		Phase to which equipment is connected. See 0 for possible values.
NumberOfGenerators	NO	INTEGER		
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
ConnectionConfiguration	NO	ConnectionConfiguration		See 0 for possible values.
FaultContributionBasedOnRatedPower	NO	BOOLEAN		
FaultContributionUnit	NO	FaultContributionUnitType		See 0 for possible values.
FaultContribution	NO	FLOAT	%	Maximum reactive generation
CTConnection	NO	CTConnection		See 0 for possible values.
FrequencySourceId	NO	STRING(64)		

[FAULT INDICATOR INSTRUMENT]

Key	Mandatory	Type	Units	Description
InstrumentNumber	YES	STRING(64)		
InstrumentIndex	NO	INTEGER		
Flags	NO	INTEGER		Internal use only. Leave undefined.
Location	NO	Location		See 0 for possible values.
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
FaultIndicatorType	NO	FaultIndicatorType		See 0 for possible values.
TripThreshold	NO	FLOAT	A	
OwnerDeviceNumber	YES	STRING(64)		
OwnerDeviceType	YES	DeviceType		See 0 for possible values.
TagText	NO	STRING(255)		
TagDeltaX	NO	FLOAT		
TagDeltaY	NO	FLOAT		
TagAngle	NO	FLOAT		
TagLocation	NO	GUITagItemLocation		See 0 for possible values.
TagProp	NO	INTEGER		
TagAlignment	NO	GUITagItemTextAlign		Text alignment within the tag. See 0 for possible values.
TagBorder	NO	GUITagItemBorder		See 0 for possible values.

Key	Mandatory	Type	Units	Description
TagBackground	NO	GUITagItemBackground		Tag background type. See 0 for possible values.
TagTextColor	NO	INTEGER		
TagBorderColor	NO	INTEGER		
TagBackgroundColor	NO	INTEGER		
TagFont	NO	STRING(32)		
TagTextSize	NO	FLOAT		
TagOffset	NO	FLOAT		

[FREQUENCY RELAY INSTRUMENT]

Key	Mandatory	Type	Units	Description
InstrumentNumber	YES	STRING(64)		
InstrumentIndex	NO	INTEGER		
Flags	NO	INTEGER		Internal use only. Leave undefined.
Location	NO	Location		See 0 for possible values.
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
OperatingTime	NO	FLOAT		
SymbolText	NO	STRING(32)		
OwnerNodeID	YES*	STRING(64)		* Either OwnerNodeID is needed or
OwnerDeviceNumber	YES*	STRING(64)		OwnerDeviceNumber + OwnerDeviceType
OwnerDeviceType	YES*	DeviceType		See 0 for possible values.
TagText	NO	STRING(255)		
TagDeltaX	NO	FLOAT		
TagDeltaY	NO	FLOAT		
TagAngle	NO	FLOAT		
TagLocation	NO	GUITagItemLocat ion		See 0 for possible values.
TagProp	NO	INTEGER		
TagAlignment	NO	GUITagItemTextA lign		See 0 for possible values.
TagBorder	NO	GUITagItemBord er		See 0 for possible values.
TagBackground	NO	GUITagItemBack ground		See 0 for possible values.
TagTextColor	NO	INTEGER		
TagBorderColor	NO	INTEGER		
TagBackgroundColor	NO	INTEGER		
TagFont	NO	STRING(32)		
TagTextSize	NO	FLOAT		
TagOffset	NO	FLOAT		

[FUSE SETTING]

Key	Mandatory	Type	Units	Description
SectionID	YES	STRING(64)		ID label of the section
Location	YES	Location		Location of the equipment. See 0 for possible values.
EqID	YES	STRING(64)		Label of the equipment
DeviceNumber	YES	STRING(64)		Identifies this equipment on the network
DeviceStage	NO	STRING(64)		Stage of the device

Key	Mandatory	Type	Units	Description
Flags	NO	INTEGER		Internal use only. Leave undefined.
InitFromEquipFlags	NO	INTEGER		
CoordX	NO	FLOAT		
CoordY	NO	FLOAT		
ClosedPhase	NO	PHASE		Phase to which equipment is connected. See 0 for possible values.
Locked	NO	BOOLEAN		To indicate if switch is locked.
RC	NO	BOOLEAN		Remote controlled.
NStatus	NO	NORM_STAT		Normal status. See 0 for possible values.
TCCID	NO	STRING(64)		Setting ID given to this device in the CYMTCC program
PhPickup	NO	FLOAT	Amps	Phase pickup current
GrdPickup	NO	FLOAT	Amps	Ground pickup current
Alternate	NO	BOOLEAN		Use the alternate ratings.
PhAltPickup	NO	FLOAT	Amps	Phase alternate pickup current
GrdAltPickup	NO	FLOAT	Amps	Ground alternate pickup current
FromNodeID	NO	STRING(64)		Parent section ID in the normal configuration
FaultIndicator	NO	FaultIndicatorType		To indicate fault via a signal. See 0 for possible values.
Strategic	NO	BOOLEAN		0 or 1
RestorationMode	NO	RestorationMode		See 0 for possible values.
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
TCCRepositoryID	NO	STRING(64)		
ByPassOnRestoration	NO	BOOLEAN		
Reversible	NO	INTEGER		

[GENERIC UDM INSTRUMENT]

Key	Mandatory	Type	Units	Description
InstrumentNumber	YES	STRING(64)		
InstrumentIndex	NO	INTEGER		
Flags	NO	INTEGER		Internal use only. Leave undefined.
Location	NO	Location		Location of the equipment. See 0 for possible values.
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
ConnectorIndex	NO	INTEGER		
Description	NO	STRING(128)		
OwnerNodeID	YES*	STRING(64)		* Either OwnerNodeID is needed or
OwnerDeviceNumber	YES*	STRING(64)		OwnerDeviceNumber + OwnerDeviceType
OwnerDeviceType	YES*	DeviceType		See 0 for possible values.
TagText	NO	STRING(255)		
TagDeltaX	NO	FLOAT		
TagDeltaY	NO	FLOAT		
TagAngle	NO	FLOAT		
TagLocation	NO	GUITagItemLocation		See 0 for possible values.
TagProp	NO	INTEGER		
TagAlignment	NO	GUITagItemTextAlign		See 0 for possible values.
TagBorder	NO	GUITagItemBorder		See 0 for possible values.
TagBackground	NO	GUITagItemBackground		See 0 for possible values.

Key	Mandatory	Type	Units	Description
		d		
TagTextColor	NO	INTEGER		
TagBorderColor	NO	INTEGER		
TagBackgroundColor	NO	INTEGER		
TagFont	NO	STRING(32)		
TagTextSize	NO	FLOAT		
TagOffset	NO	FLOAT		

[GRAPHICALELEMENTS]

Key	Mandatory	Type	Units	Description
ElementId	YES	INTEGER		ID of the graphical element
ElementType	YES	ELEM_TYPE		Type of graphical element. See 0 for possible values.
Color	NO	INTEGER		Numeric value representing the color used for lines in the graphical element.
Width	NO	INTEGER		Width of line in the graphical element.
Category	NO	STRING(32)		User defined category to group graphical elements together
IsVisible	NO	BOOLEAN		1 to display and 0 to hide
LineType	NO	GraphicalLineType		Type of line in the graphical element. See 0 for possible values.
FillType	NO	GraphicalFillType		Type of fill used for polygons and ellipses. See 0 for possible values.
FillColor	NO	INTEGER		Numeric value representing the color used for the fill of the polygons or ellipses.
Proportional	NO	INTEGER		1 if arrow element is proportional and 0 if not.
TextData	NO	STRING(255)		Text within the graphical element.
Height	NO	FLOAT		Height of the text in the graphical element.
Angle	NO	INTEGER		Angle of the graphical element text.
Points	NO	STRING(2048)		List of points separated by .

Here are the keyword combinations you must use for the different graphical elements.

	Line	Polygon	Ellipse	Text	Arrow
ElementId	●	●	●	●	●
ElementType	●	●	●	●	●
Color	●	●	●	●	●
Width	●	●	●	●	●
Category	●	●	●	●	●
IsVisible	●	●	●	●	●
LineType	●	●	●	●	●
FillType		●	●		
FillColor		●	●		
Proportional					●
TextData				●	
Height				●	
Angle				●	
Points	●	●	●	●	●

[GROUNDINGTRANSFORMER SETTINGS]

Key	Mandatory	Type	Units	Description
SectionID	YES	STRING(64)		
Location	YES	Location		See 0 for possible values.
DeviceNumber	YES	STRING(64)		
DeviceStage	NO	STRING(64)		Stage of the device
Flags	NO	INTEGER		Internal use only. Leave undefined.
InitFromEquipFlags	NO	INTEGER		
EquipmentID	YES	STRING(64)		
Description	NO	STRING(1000)		
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
SymbolSize	NO	FLOAT		
ConnectionConfiguration	NO	ConnectionConfiguration		See 0 for possible values.
RG	NO	FLOAT		
XG	NO	FLOAT		

[HEADNODES]

Key	Mandatory	Type	Units	Description
NodeID	YES	STRING(64)		ID label of the node
NetworkID	YES	STRING(64)		Label of the Network
ConnectorIndex	NO	INTEGER		
StructureID	NO	STRING(64)		Structure Id to which the source belongs
HarmonicEnveloppe	NO	BOOLEAN		0 or 1
EquivalentSourceConfiguration	NO	ConnectionConfiguration		See 0 for possible values.
EquivalentSourceSinglePhaseCT	NO	BOOLEAN		0 or 1
EquivSourceCenterTapPhase	NO	PHASE		See 0 for possible values.
BackgroundHarmonicVoltage	NO	BOOLEAN		

[HIGH PASS FILTER SETTING]

Key	Mandatory	Type	Units	Description
SectionID	YES	STRING(64)		ID label of the section
Location	YES	Location		Location of the equipment. See 0 for possible values.
EqID	YES	STRING(64)		Label of the equipment
DeviceNumber	YES	STRING(64)		Identifies this equipment on the network
DeviceStage	NO	STRING(64)		Stage of the device
Flags	NO	INTEGER		Internal use only. Leave undefined.
InitFromEquipFlags	NO	INTEGER		
EqPhase	NO	PHASE		Phase to which equipment is connected. See 0 for possible values.
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.

[IDEAL CONVERTER SETTING]

Key	Mandatory	Type	Units	Description
SectionID	YES	STRING(64)		ID label of the section

Key	Mandatory	Type	Units	Description
Location	YES	Location		Location of the equipment. See 0 for possible values.
EqID	YES	STRING(64)		Label of the equipment
DeviceNumber	YES	STRING(64)		Identifies this equipment on the network
DeviceStage	NO	STRING(64)		Stage of the device
Flags	NO	INTEGER		Internal use only. Leave undefined.
InitFromEquipFlags	NO	INTEGER		
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
KW	NO	FLOAT	kW	P

[IMPEDANCE RELAY UDM INSTRUMENT]

Key	Mandatory	Type	Units	Description
InstrumentNumber	YES	STRING(64)		
InstrumentIndex	NO	INTEGER		
Flags	NO	INTEGER		Internal use only. Leave undefined.
Location	NO	Location		See 0 for possible values.
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
ConnectorIndex	NO	INTEGER		
Description	NO	STRING(128)		
OwnerNodeID	YES*	STRING(64)		* Either OwnerNodeID is needed or
OwnerDeviceNumber	YES*	STRING(64)		OwnerDeviceNumber + OwnerDeviceType
OwnerDeviceType	YES*	DeviceType		See 0 for possible values.
TagText	NO	STRING(255)		
TagDeltaX	NO	FLOAT		
TagDeltaY	NO	FLOAT		
TagAngle	NO	FLOAT		
TagLocation	NO	GUITagItemLocation		See 0 for possible values.
TagProp	NO	INTEGER		
TagAlignment	NO	GUITagItemTextAlign		See 0 for possible values.
TagBorder	NO	GUITagItemBorder		See 0 for possible values.
TagBackground	NO	GUITagItemBackground		See 0 for possible values.
TagTextColor	NO	INTEGER		
TagBorderColor	NO	INTEGER		
TagBackgroundColor	NO	INTEGER		
TagFont	NO	STRING(32)		
TagTextSize	NO	FLOAT		
TagOffSet	NO	FLOAT		

[INDUCTION GENERATOR SETTING]

Key	Mandatory	Type	Units	Description
SectionID	YES	STRING(64)		ID label of the section
Location	YES	Location		Location of the equipment. See 0 for possible values.
EqID	YES	STRING(64)		Label of the equipment
DeviceNumber	YES	STRING(64)		Identifies this equipment on the network
DeviceStage	NO	STRING(64)		Stage of the device
Flags	NO	INTEGER		Internal use only. Leave undefined.

Key	Mandatory	Type	Units	Description
InitFromEquipFlags	NO	INTEGER		
EqPhase	NO	PHASE		Phase to which equipment is connected. See 0 for possible values.
NumberOfGenerators	NO	INTEGER		
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
CTConnection	NO	CTConnection		See 0 for possible values.
HarmonicModel	NO	HarmonicModel		See 0 for possible values.

[INDUCTION MOTOR SETTING]

Key	Mandatory	Type	Units	Description
SectionID	YES	STRING(64)		ID label of the section
Location	YES	Location		Location of the equipment. See 0 for possible values.
EqID	YES	STRING(64)		Label of the equipment
DeviceNumber	YES	STRING(64)		Identifies this equipment on the network
DeviceStage	NO	STRING(64)		Stage of the device
Flags	NO	INTEGER		Internal use only. Leave undefined.
InitFromEquipFlags	NO	INTEGER		
ConnectedPhase	NO	PHASE		Phase to which equipment is connected. See 0 for possible values.
ConnectionConfiguration	NO	ConnectionCo nfiguration		See 0 for possible values.
NumberOfMotors	NO	INTEGER		
ConnectionStatus	NO	ConnectionStat us		See 0 for possible values.
MotorStatus	NO	MotorStatus		See 0 for possible values.
AssistType	NO	MotorAssistanc eType		Motor assistance type if motor status is STARTING. See 0 for possible values.
AssistTap	NO	FLOAT	%	% of nominal voltage for reduced-voltage start
AssistR	NO	FLOAT	Ω	Resistance for resistor start
AssistCap	NO	FLOAT	kVAR	Capacitor for capacitor start
LoadFactor	NO	FLOAT	%	Loading Factor.
LoadPowerFactor	NO	FLOAT	%	Loading Power Factor.
StartsPerDay	NO	INTEGER		Number of starts in per day.
AutoXFONominalRatingKVA	NO	FLOAT		
AutoXFOPrimaryVoltageKV	NO	FLOAT		
AutoXFOZPercentage	NO	FLOAT		
AutoXFOXRatioKVA	NO	FLOAT		
AutoXFOImpedance	NO	BOOLEAN		0 = No and 1 = Yes
IratedPercentage	NO	FLOAT		
LockedRotorPercentage	NO	FLOAT		
IsVariableFrequencyStarterRated	NO	BOOLEAN		0 = No and 1 = Yes
LoadEfficiency	NO	FLOAT		
UserDefinedLoadFactors	NO	BOOLEAN		0 = No and 1 = Yes
HarmonicModel	NO	HarmonicMode l		See 0 for possible values.
TCCRepositoryID	NO	STRING(64)		
OhmsReactanceAssistance	NO	FLOAT		
CTConnection	NO	CTConnection		See 0 for possible values.

Key	Mandatory	Type	Units	Description
MotorMode	NO	MotorMode		See 0 for possible values.
Slip	NO	FLOAT		

[INDUCTION MOTOR STABILITY EXTENSIONS]

Key	Mandatory	Type	Units	Description
DeviceNumber	YES	STRING(64)		
RunningModel	NO	InductionMotorRunningStabilityModel		See 0 for possible values.
StartingModel	NO	InductionMotorStartingStabilityModel		See 0 for possible values.
ApplySkinEffect	NO	BOOLEAN		(0 or 1)

[INDUCTION MOTOR STARTING ASSISTANCE MSA]

Key	Mandatory	Type	Units	Description
DeviceNumber	YES	STRING(64)		
CapacitorRating	NO	FLOAT		
AssistType	NO	MotorAssistanceType		See 0 for possible values.
SpeedLimit	NO	FLOAT		
VoltageLimit	NO	FLOAT		
TimeLimit	NO	FLOAT		
Time1	NO	FLOAT		
Time2	NO	FLOAT		
Time3	NO	FLOAT		
Time4	NO	FLOAT		
Time5	NO	FLOAT		
R1	NO	FLOAT		
R2	NO	FLOAT		
R3	NO	FLOAT		
R4	NO	FLOAT		
R5	NO	FLOAT		
X1	NO	FLOAT		
X2	NO	FLOAT		
X3	NO	FLOAT		
X4	NO	FLOAT		
X5	NO	FLOAT		
NominalRating	NO	FLOAT		
ZNomPercent	NO	FLOAT		
PrimaryVoltage	NO	FLOAT		
XRRatio	NO	FLOAT		
AutoXFOTransitionScheme	NO	SwitchStatus		See 0 for possible values.
TapPosition1	NO	FLOAT		
TapPosition2	NO	FLOAT		
TapPosition3	NO	FLOAT		
TapPosition4	NO	FLOAT		
Duration1	NO	FLOAT		
Duration2	NO	FLOAT		
Duration3	NO	FLOAT		
Duration4	NO	FLOAT		
Znom1	NO	FLOAT		

Key	Mandatory	Type	Units	Description
Znom2	NO	FLOAT		
Znom3	NO	FLOAT		
Znom4	NO	FLOAT		
TransitionTime1	NO	FLOAT		
TransitionTime2	NO	FLOAT		
TransitionTime3	NO	FLOAT		
TransitionTime4	NO	FLOAT		
SlipTime1	NO	FLOAT		
SlipTime2	NO	FLOAT		
SlipTime3	NO	FLOAT		
SlipTime4	NO	FLOAT		
SlipR1	NO	FLOAT		
SlipR2	NO	FLOAT		
SlipR3	NO	FLOAT		
SlipR4	NO	FLOAT		
StarDeltaT1	NO	FLOAT		
StarDeltaT2	NO	FLOAT		
StarDeltaT3	NO	FLOAT		
StarDeltaR	NO	FLOAT		
StarDeltaTransitionScheme	NO	SwitchStatus		See 0 for possible values.
VoltageRampTime	NO	FLOAT		
VoltageInitialTorque	NO	FLOAT		
VoltageKickStartTime	NO	FLOAT		
VoltageKickStartTorque	NO	FLOAT		
CurrentRampTime	NO	FLOAT		
CurrentInitialCurrent	NO	FLOAT		
CurrentKickStartTime	NO	FLOAT		
CurrentKickStartToque	NO	FLOAT		
CurrentLimit	NO	FLOAT		
UseRatedCurrent	NO	BOOLEAN		(0 or 1)
RatedCurrentMultiplier	NO	FLOAT		
LockedRotorCurrentMultiplier	NO	FLOAT		

[INSTRUMENT CONTROLLED SHUNT CAPACITOR]

Key	Mandatory	Type	Units	Description
InstrumentNumber	YES	STRING(64)		
DeviceNumber	YES	STRING(64)		
InitialStatus	NO	SwitchedCapacitor Status		See 0 for possible values.

[INSTRUMENT DISTANCE RELAY ZONE]

Key	Mandatory	Type	Units	Description
InstrumentNumber	YES	STRING(64)		
ZoneType	NO	DistanceRelayCharacteristics		See 0 for possible values.
K0	NO	FLOAT		
K0Angle	NO	FLOAT		
LineR1	NO	FLOAT		

Key	Mandatory	Type	Units	Description
LineX1	NO	FLOAT		
LineR0	NO	FLOAT		
LineX0	NO	FLOAT		
LineLength	NO	FLOAT		
TimeDelay	NO	FLOAT		
Reverse	NO	BOOLEAN		
EndSectionID	NO	STRING(64)		
ZoneReach	NO	FLOAT	%	
Resistance	NO	FLOAT		Used by Quad and Polygon
Reactance	NO	FLOAT		Used by Quad Polygon and Reactance
RightResistance	NO	FLOAT		Used by Polygon
RightReactance	NO	FLOAT		Used by Polygon
ResistiveReach	NO	FLOAT		Used by Quad

[INSTRUMENT METER LOADMODEL]

Key	Mandatory	Type	Units	Description
InstrumentNumber	YES	STRING(64)		
InstrumentType	YES	InstrumentType		See 0 for possible values.
LoadModelName	NO	STRING(64)		
Total	NO	BOOLEAN		
UseValue1	NO	BOOLEAN		
UseValue2	NO	BOOLEAN		
UseValue3	NO	BOOLEAN		
MeteredValue1	NO	FLOAT		
MeteredValue2	NO	FLOAT		
MeteredValue3	NO	FLOAT		
Precision1	NO	FLOAT		
Precision2	NO	FLOAT		
Precision3	NO	FLOAT		
ReferenceTime1	NO	INTEGER		
ReferenceTime2	NO	INTEGER		
ReferenceTime3	NO	INTEGER		

[INSTRUMENT PYTHON SCRIPT PARAMETERS]

Key	Mandatory	Type	Units	Description
InstrumentNumber	YES	STRING(64)		
ParameterName	NO	STRING(64)		
ParameterType	NO	PythonParameterType		See 0 for possible values.
ParameterDirection	NO	PythonParameterDirection		See 0 for possible values.
ParameterValue	NO	STRING(255)		
ParameterComment	NO	STRING(1000)		

[INSTRUMENT UDM SETTINGS]

Key	Mandatory	Type	Units	Description

Key	Mandatory	Type	Units	Description
InstrumentNumber	YES	STRING(64)		
InstrumentType	YES	InstrumentType		See 0 for possible values.
EquipmentId	YES	STRING(64)		
Enable	NO	BOOLEAN		

[INSTRUMENT UDM VARIABLE SETTINGS]

Key	Mandatory	Type	Units	Description
InstrumentNumber	YES	STRING(64)		
InstrumentType	YES	InstrumentType		See 0 for possible values.
VariableIndex	YES	INTEGER		
VariableName	NO	STRING(32)		
UdmVariableType	NO	UDMVariableType		See 0 for possible values.
Description	NO	STRING(1000)		
ValueNum	NO	FLOAT		
Unit	NO	STRING(32)		
ValueStr	NO	STRING(32)		
ValidationRule	NO	UDMValidationRules		See 0 for possible values.
UseLocally	NO	BOOLEAN		

[INSTRUMENTUDD]

Key	Mandatory	Type	Units	Description
InstrumentNumber	YES	STRING(64)		
InstrumentType	YES	InstrumentType		See 0 for possible values.
DataId	NO	STRING(64)		
DataType	NO	ValueType		See 0 for possible values.
DataValue	NO	STRING(255)		

[INTERMEDIATE NODES]

Key	Mandatory	Type	Units	Description
SectionID	YES	STRING(64)		ID label of the section to which this intermediate node belongs.
SeqNumber	YES	INTEGER		Intermediate node index starting at 0. If there are two intermediate nodes on a section, the first intermediate node (from the source) should have the sequence number = 0 and the second should be equal to 1
CoordX	NO	FLOAT		X coordinate of the intermediate node
CoordY	NO	FLOAT		Y coordinate of the intermediate node
IsBreakPoint	NO	INTEGER		1 if this intermediate point is also a break point and 0 if it's not.
BreakPointLocation	NO	Location		Side of the section that is shown up to the break point. See 0 for possible values.

[INTERMEDIATE POINTS INSTRUMENT]

Key	Mandatory	Type	Units	Description
InstrumentNumber	YES	STRING(64)		
InstrumentType	YES	InstrumentType		See 0 for possible values.

Key	Mandatory	Type	Units	Description
SeqNumber	YES	INTEGER		
CoordX	NO	FLOAT		
CoordY	NO	FLOAT		

[LIMITINGDEVICE]

Key	Mandatory	Type	Units	Description
DeviceNumber	YES	STRING(64)		Device number of the limiting element
DeviceType	YES	DeviceType		Device type of the limiting element. See 0 for possible values.
NetworkID	YES	STRING(64)		ID label of the network

[LOAD SHEDDING RELAY UDM INSTRUMENT]

Key	Mandatory	Type	Units	Description
InstrumentNumber	YES	STRING(64)		
InstrumentIndex	NO	INTEGER		
Flags	NO	INTEGER		Internal use only. Leave undefined.
Location	NO	Location		Location of the equipment. See 0 for possible values.
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
ConnectorIndex	NO	INTEGER		
Description	NO	STRING(128)		
OwnerNodeID	YES*	STRING(64)		* Either OwnerNodeID is needed or
OwnerDeviceNumber	YES*	STRING(64)		OwnerDeviceNumber + OwnerDeviceType
OwnerDeviceType	YES*	DeviceType		See 0 for possible values.
TagText	NO	STRING(255)		
TagDeltaX	NO	FLOAT		
TagDeltaY	NO	FLOAT		
TagAngle	NO	FLOAT		
TagLocation	NO	GUITagItemLocation		See 0 for possible values.
TagProp	NO	INTEGER		
TagAlignment	NO	GUITagItemTextAlign		See 0 for possible values.
TagBorder	NO	GUITagItemBorder		See 0 for possible values.
TagBackground	NO	GUITagItemBackground		See 0 for possible values.
TagTextColor	NO	INTEGER		
TagBorderColor	NO	INTEGER		
TagBackgroundColor	NO	INTEGER		
TagFont	NO	STRING(32)		
TagTextSize	NO	FLOAT		
TagOffset	NO	FLOAT		

[LOAD EQUIVALENT]

Key	Mandatory	Type	Units	Description
NodeID	YES	STRING(64)		Node ID of the load equivalent
LoadModelName	NO	STRING(64)		Name for the load model
Format	YES	LoadValueType		Load format. See 0 for possible values.

Key	Mandatory	Type	Units	Description
Value1A	NO	FLOAT		First value for phase A. (kW or kVA, depending on load format chosen.)
Value1B	NO	FLOAT		First value for phase B.
Value1C	NO	FLOAT		First value for phase C.
Value2A	NO	FLOAT		Second value for phase A. (kVAR or Power Factor, depending on load format chosen.)
Value2B	NO	FLOAT		Second value for phase B.
Value2C	NO	FLOAT		Second value for phase C.
ValueSinglePhase CT11	NO	FLOAT		First value for single phase CT1
ValueSinglePhase CT12	NO	FLOAT		Second value for single phase CT1
ValueSinglePhase CT21	NO	FLOAT		First value for single phase CT2
ValueSinglePhase CT22	NO	FLOAT		Second value for single phase CT2

[LVCB SETTING]

Key	Mandatory	Type	Units	Description
SectionID	YES	STRING(64)		ID label of the section
Location	YES	Location		Location of the equipment. See 0 for possible values.
EqID	YES	STRING(64)		Label of the equipment
DeviceNumber	NO	STRING(64)		Identifies this equipment on the network
DeviceStage	NO	STRING(64)		Stage of the device
Flags	NO	INTEGER		Internal use only. Leave undefined.
InitFromEquipFlags	NO	INTEGER		
CoordX	NO	FLOAT		
CoordY	NO	FLOAT		
ClosedPhase	NO	PHASE		See 0 for possible values.
Locked	NO	BOOLEAN		To indicate if switch is locked.
RC	NO	BOOLEAN		Remote controlled.
NStatus	NO	NORM_STAT		Normal status. See 0 for possible values.
TCCID	NO	STRING(64)		Setting ID given to this device in the CYMTCC program
PhPickup	NO	FLOAT	Amps	Phase pickup current
GrdPickup	NO	FLOAT	Amps	Ground pickup current
Alternate	NO	BOOLEAN		Use the alternate ratings.
PhAltPickup	NO	FLOAT	Amps	Phase alternate pickup current
GrdAltPickup	NO	FLOAT	Amps	Ground alternate pickup current
FromNodeID	NO	STRING(64)		Parent section ID in the normal configuration
EnableReclosing	NO	BOOLEAN		To enable the reclosing scheme (0 by default or 1)
FaultIndicator	NO	FaultIndicatorType		To indicate fault via a signal. See 0 for possible values.
VoltageLevel	NO	FLOAT		
EnableFuseSaving	NO	BOOLEAN		0 = No and 1 = Yes.
MinRatedCurrentForFuseSaving	NO	FLOAT		
Automated	NO	BOOLEAN		0 = No and 1 = Yes.

Key	Mandatory	Type	Units	Description
SensorMode	NO	SensorMode		See 0 for possible values.
Strategic	NO	BOOLEAN		0 or 1
RestorationMode	NO	RestorationMode		See 0 for possible values.
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
TCCRepositoryID	NO	STRING(64)		
ByPassOnRestoration	NO	BOOLEAN		
Reversible	NO	INTEGER		

[LOAD TAP CHANGER 1PH EXTLTD]

Key	Mandatory	Type	Units	Description
DeviceNumber	YES	STRING(64)		
LTCIndex	YES	INTEGER		
EnableDelays	NO	BOOLEAN		
UseInverseTimeDelay	NO	BOOLEAN		
ActivationDelayFirstTapA	NO	FLOAT		
ActivationDelayFirstTapB	NO	FLOAT		
ActivationDelayFirstTapC	NO	FLOAT		
ActivationDelaySubTapA	NO	FLOAT		
ActivationDelaySubTapB	NO	FLOAT		
ActivationDelaySubTapC	NO	FLOAT		
MechanismDelayA	NO	FLOAT		
MechanismDelayB	NO	FLOAT		
MechanismDelayC	NO	FLOAT		
ResetMode	NO	LTDResetMode		See 0 for possible values.
ResetDelayA	NO	FLOAT		
ResetDelayB	NO	FLOAT		
ResetDelayC	NO	FLOAT		
InductionDiscResetRateA	NO	FLOAT		
InductionDiscResetRateB	NO	FLOAT		
InductionDiscResetRateC	NO	FLOAT		

[LOAD TAP CHANGER EXTLTD]

Key	Mandatory	Type	Units	Description
DeviceNumber	YES	STRING(64)		
DeviceType	YES	DeviceType		See 0 for possible values.
LTCIndex	YES	INTEGER		
EnableDelays	NO	BOOLEAN		
UseInverseTimeDelay	NO	BOOLEAN		
ActivationDelayFirstTap	NO	FLOAT		
ActivationDelaySubTap	NO	FLOAT		
MechanismDelay	NO	FLOAT		
ResetMode	NO	LTDResetMode		See 0 for possible values.
ResetDelay	NO	FLOAT		
InductionDiscResetRate	NO	FLOAT		

[LONG TERM DYNAMICS CURVE EXT]

Key	Mandatory	Type	Units	Description
DeviceNumber	YES	STRING(64)		
DeviceType	YES	DeviceType		See 0 for possible values.
AdjustmentSettings	NO	LTDAdjustmentSettings		See 0 for possible values.
PowerCurveModel	NO	CurveModel		See 0 for possible values.
PowerCurveModelId	NO	STRING(64)		
ApplyOutputPowerLimit	NO	BOOLEAN		

[MICROTURBINE SETTINGS]

Key	Mandatory	Type	Units	Description
SectionID	YES	STRING(64)		
Location	YES	LOCATION		See 0 for possible values.
DeviceNumber	YES	STRING(64)		
DeviceStage	NO	STRING(64)		Stage of the device
Flags	NO	INTEGER		Internal use only. Leave undefined.
InitFromEquipFlags	NO	INTEGER		
EquipmentID	YES	STRING(64)		
NumberOfGenerators	NO	INTEGER		
SymbolSize	NO	FLOAT		
FaultContributionBasedOn RatedPower	NO	BOOLEAN		
FaultContributionUnit	NO	FaultContributionUnitType		See 0 for possible values.
FaultContribution	NO	FLOAT		
FrequencySourceID	NO	STRING(64)		
SourceHarmonicModelType	NO	SourceHarmonicModel		See 0 for possible values.
PulseNumber	NO	INTEGER		
FiringAngle	NO	FLOAT		
OverlapAngle	NO	FLOAT		
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
ConnectionConfiguration	NO	ConnectionConfiguration		See 0 for possible values.
CTConnection	NO	CTConnection		See 0 for possible values.
Phase	NO	PHASE		See 0 for possible values.

[MISCELLANEOUS SETTING]

Key	Mandatory	Type	Units	Description
SectionID	YES	STRING(64)		ID label of the section
Location	YES	LOCATION		Location of the equipment. See 0 for possible values.
EqID	YES	STRING(64)		Label of the equipment
DeviceNumber	YES	STRING(64)		Identifies this equipment on the network
DeviceStage	NO	STRING(64)		Stage of the device
Flags	NO	INTEGER		Internal use only. Leave undefined.
InitFromEquipFlags	NO	INTEGER		
CoordX	NO	FLOAT		
CoordY	NO	FLOAT		
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
Desc	NO	STRING(1000)		Description of the device as given by CYMTCC

Key	Mandatory	Type	Units	Description
FaultIndicator	NO	FaultIndicatorType		To indicate fault via a signal. See 0 for possible values.

[MOTOR LOAD CHARACTERISTICS]

Key	Mandatory	Type	Units	Description
DeviceNumber	YES	STRING(64)		
DeviceType	YES	DeviceType		See 0 for possible values.
Slip1	NO	FLOAT		
Slip2	NO	FLOAT		
Slip3	NO	FLOAT		
Slip4	NO	FLOAT		
Slip5	NO	FLOAT		
Torque1	NO	FLOAT		
Torque2	NO	FLOAT		
Torque3	NO	FLOAT		
Torque4	NO	FLOAT		
Torque5	NO	FLOAT		
TorqueCurveT0	NO	FLOAT		
TorqueCurveT1	NO	FLOAT		
TorqueCurveT2	NO	FLOAT		
TorqueCurveT3	NO	FLOAT		
InertiaUnit	NO	InertiaUnitType		See 0 for possible values.
LoadInertia	NO	FLOAT		
SlipUnit	NO	INTEGER		
TorqueUnit	NO	INTEGER		
CurveModel	NO	TorqueCurveModelType		See 0 for possible values.
GearRatioOfOne	NO	BOOLEAN		
LoadSynchronousSpeed	NO	FLOAT		

[MOTOR RELAY INSTRUMENT]

Key	Mandatory	Type	Units	Description
InstrumentNumber	YES	STRING(64)		
InstrumentIndex	NO	INTEGER		
Flags	NO	INTEGER		Internal use only. Leave undefined.
Location	NO	LOCATION		See 0 for possible values.
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
TCCRepositoryID	NO	STRING(64)		
Manufacturer	NO	STRING(32)		
Model	NO	STRING(32)		
Pickup	NO	FLOAT		
OperatingTime	NO	FLOAT		
ObservationDelay	NO	FLOAT		
ProtectionType	NO	ProtectionType		See 0 for possible values.
SymbolText	NO	STRING(32)		
OwnerNodeID	YES*	STRING(64)		* Either OwnerNodeID is needed or
OwnerDeviceNumber	YES*	STRING(64)		OwnerDeviceNumber + OwnerDeviceType
OwnerDeviceType	YES*	DeviceType		See 0 for possible values.

Key	Mandatory	Type	Units	Description
TagText	NO	STRING(255)		
TagDeltaX	NO	FLOAT		
TagDeltaY	NO	FLOAT		
TagAngle	NO	FLOAT		
TagLocation	NO	GUITagItemLocation		See 0 for possible values.
TagProp	NO	INTEGER		
TagAlignment	NO	GUITagItemTextAlign		See 0 for possible values.
TagBorder	NO	GUITagItemBorder		See 0 for possible values.
TagBackground	NO	GUITagItemBackground		See 0 for possible values.
TagTextColor	NO	INTEGER		
TagBorderColor	NO	INTEGER		
TagBackroundColor	NO	INTEGER		
TagFont	NO	STRING(32)		
TagTextSize	NO	FLOAT		
TagOffset	NO	FLOAT		

[NETWORK AREA]

Key	Mandatory	Type	Units	Description
NetworkID	YES	STRING(64)		ID label of the network
CoordX	NO	FLOAT		X coordinate for a point of the network area
CoordY	NO	FLOAT		Y coordinate for a point of the network area

When defining a network area you must define all the points that make the area from start to finish as if you were drawing a line around the network.

[NETWORK EQUIVALENT SETTING]

Key	Mandatory	Type	Units	Description
SectionID	YES	STRING(64)		ID label of the section
Location	YES	LOCATION		See 0 for possible values.
DeviceNumber	YES	STRING(64)		Identifies this equipment on the network
DeviceStage	NO	STRING(64)		Stage of the device
Flags	NO	INTEGER		Internal use only. Leave undefined.
InitFromEquipFlags	NO	INTEGER		
CoordX	NO	FLOAT		
CoordY	NO	FLOAT		
Computed	NO	BOOLEAN		1 for computed and 0 for not.
ZRaa	NO	FLOAT	Ω	
ZRab	NO	FLOAT	Ω	
ZRac	NO	FLOAT	Ω	
ZRba	NO	FLOAT	Ω	
ZRbb	NO	FLOAT	Ω	
ZRbc	NO	FLOAT	Ω	
ZRca	NO	FLOAT	Ω	
ZRcb	NO	FLOAT	Ω	
ZRcc	NO	FLOAT	Ω	
ZXaa	NO	FLOAT	Ω	
ZXab	NO	FLOAT	Ω	
ZXac	NO	FLOAT	Ω	

Key	Mandatory	Type	Units	Description
ZXba	NO	FLOAT	Ω	
ZXbb	NO	FLOAT	Ω	
ZXbc	NO	FLOAT	Ω	
ZXca	NO	FLOAT	Ω	
ZXcb	NO	FLOAT	Ω	
ZXcc	NO	FLOAT	Ω	
LoadFromKwA	NO	FLOAT	kW	
LoadFromKwB	NO	FLOAT	kW	
LoadFromKwC	NO	FLOAT	kW	
LoadFromKvarA	NO	FLOAT	kVAR	
LoadFromKvarB	NO	FLOAT	kVAR	
LoadFromKvarC	NO	FLOAT	kVAR	
LoadToKwA	NO	FLOAT	kW	
LoadToKwB	NO	FLOAT	kW	
LoadToKwC	NO	FLOAT	kW	
LoadToKvarA	NO	FLOAT	kVAR	
LoadToKvarB	NO	FLOAT	kVAR	
LoadToKvarC	NO	FLOAT	kVAR	
TotalLengthA	NO	FLOAT	m or ft	
TotalLengthB	NO	FLOAT	m or ft	
TotalLengthC	NO	FLOAT	m or ft	
TotalConnectedKvaA	NO	FLOAT	kVA	
TotalConnectedKvaB	NO	FLOAT	kVA	
TotalConnectedKvaC	NO	FLOAT	kVA	
TotalKwhA	NO	FLOAT	kWH	
TotalKwhB	NO	FLOAT	kWH	
TotalKwhC	NO	FLOAT	kWH	
TotalKwA	NO	FLOAT	kW	
TotalKwB	NO	FLOAT	kW	
TotalKwC	NO	FLOAT	kW	
TotalKvarA	NO	FLOAT	kVAR	
TotalKvarB	NO	FLOAT	kVAR	
TotalKvarC	NO	FLOAT	kVAR	
TotalCustomerA	NO	FLOAT		
TotalCustomerB	NO	FLOAT		
TotalCustomerC	NO	FLOAT		
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
Description	NO	STRING(255)		

[NETWORKPROTECTOR SETTING]

Key	Mandatory	Type	Units	Description
SectionID	YES	STRING(64)		ID label of the section
Location	YES	LOCATION		See 0 for possible values.
EqID	YES	STRING(64)		Label of the equipment
DeviceNumber	YES	STRING(64)		Identifies this equipment on the network
DeviceStage	NO	STRING(64)		Stage of the device
Flags	NO	INTEGER		Internal use only. Leave undefined.

Key	Mandatory	Type	Units	Description
InitFromEquipFlags	NO	INTEGER		
CoordX	NO	FLOAT		
CoordY	NO	FLOAT		
ClosedPhase	NO	PHASE		See 0 for possible values.
Locked	NO	BOOLEAN		To indicate if switch is locked.
RC	NO	BOOLEAN		Remote controlled.
NStatus	NO	NSTATUS		Normal status. See 0 for possible values.
PhPickup	NO	FLOAT	Amps	Phase pickup current
GrdPickup	NO	FLOAT	Amps	Ground pickup current
Alternate	NO	BOOLEAN		Use the alternate ratings.
PhAltPickup	NO	FLOAT	Amps	Phase alternate pickup current
GrdAltPickup	NO	FLOAT	Amps	Ground alternate pickup current
FromNodeID	NO	STRING(64)		Parent section ID in the normal configuration
TCCID	NO	STRING(64)		
Reversible	NO	INTEGER		Forced to 1 (i.e. reversible) by the software
FaultIndicator	NO	FaultIndicatorType		To indicate fault via a signal. See 0 for possible values.
Strategic	NO	BOOLEAN		
RestorationMode	NO	RestorationMode		See 0 for possible values.
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
ByPassOnRestoration	NO	BOOLEAN		
SymbolSize	NO	FLOAT		
Automated	NO	BOOLEAN		
SensorMode	NO	SensorMode		See 0 for possible values.
TripMode	NO	TripMode		See 0 for possible values.
CTPrimaryRating	NO	FLOAT		
ReverseTrip	NO	FLOAT		
TimeDelay	NO	FLOAT		
OverCurrent	NO	FLOAT		
CloseMode	NO	CloseMode		See 0 for possible values.
PhasingLineVoltageOffSet	NO	FLOAT		
PhasingLineAngle	NO	FLOAT		
MasterLineVoltageOffSet	NO	FLOAT		
MasterLineAngle	NO	FLOAT		
WattTripAngle	NO	FLOAT		
VarTripAngle	NO	FLOAT		
PumpCount	NO	INTEGER		
PumpTime	NO	FLOAT		
PumpDelay	NO	FLOAT		
UseAdjustableDeadNetwork	NO	BOOLEAN		
AdjustableDeadNetwork	NO	FLOAT		
WattVarTrip	NO	BOOLEAN		
GullWingAngle	NO	FLOAT		
OperatingPoint	NO	OperatingPoint		See 0 for possible values.
WattVarCurrent	NO	FLOAT		
CrossPhaseTrip	NO	FLOAT		
LowVoltageTrip	NO	FLOAT		
IOCTrip	NO	FLOAT		
TripPulses	NO	INTEGER		

Key	Mandatory	Type	Units	Description
UseCrossPhaseTrip	NO	BOOLEAN		
UseLowVoltageTrip	NO	BOOLEAN		
UseI OCTrip	NO	BOOLEAN		
UseTripPulses	NO	BOOLEAN		
SensitiveTimeDelay	NO	FLOAT		
ExtendedDelay	NO	FLOAT		
AntiPumping	NO	AntiPumping		See 0 for possible values.
ClosePenalty	NO	INTEGER		
UpperLimit	NO	INTEGER		
LowerLimit	NO	INTEGER		
RemoteMode	NO	RemoteMode		See 0 for possible values.
RecloseAlgorithm	NO	RecloserAlgorithm		See 0 for possible values.
NetworkVoltsTooLow	NO	FLOAT		
RecloseTimeDelay	NO	FLOAT		
RelaxedRecloseTime	NO	FLOAT		

[NETWORKUDD]

Key	Mandatory	Type	Units	Description
NetWorkId	YES	STRING(64)		
DataId	NO	STRING(64)		
DataType	NO	ValueType		See 0 for possible values.
DataValue	NO	STRING(255)		

[NODE]

Key	Mandatory	Type	Units	Description
NodeID	YES	STRING(64)		ID label of the node
Type	NO	STRING(4)		
CoordX	NO *	FLOAT		X coordinate of the node
CoordY	NO *	FLOAT		Y coordinate of the node
CoordX1	NO *	FLOAT		X coordinate of the bus
CoordY1	NO *	FLOAT		Y coordinate of the bus
CoordX2	NO *	FLOAT		X coordinate of the bus
CoordY2	NO *	FLOAT		Y coordinate of the bus
Width	NO *	FLOAT		Width of the bus
TagText	NO	STRING(255)		Text to be included in the box
TagProperties	NO	INTEGER		Should be set to zero for now
TagDeltaX	NO	FLOAT		X axis tag offset from device position.
TagDeltaY	NO	FLOAT		Y axis tag offset from device position.
TagAngle	NO	FLOAT		Angle in degrees of the tag.
TagAlignment	NO	GUITagItemTextAlign		See 0 for possible values.
TagBorder	NO	GUITagItemBorder		See 0 for possible values.
TagBackground	NO	GUITagItemBackground		See 0 for possible values.
TagTextColor	NO	INTEGER		Numeric value representing color. Set to -1 for default color.
TagBorderColor	NO	INTEGER		Numeric value representing color. Set to -1 for default color.

Key	Mandatory	Type	Units	Description
TagBackgroundColor	NO	INTEGER		Numeric value representing color. Set to -1 for default color.
Tag_Location	NO	GUITagItemLocation		See 0 for possible values.
TagFont	NO	STRING(32)		
TagTextSize	NO	FLOAT		
TagOffSet	NO	FLOAT		
ZoneID	NO	STRING(64)		
ExposedCircuitType	NO	AFExposedCircuitType		See 0 for possible values.
BusGap	NO	FLOAT		
WorkingDistance	NO	FLOAT		
UseUserDefinedFaultCurrent	NO	INTEGER		0 or 1
UserDefinedFaultCurrent	NO	FLOAT		
OpeningTimeMode	NO	AFOpeningTimdMode		See 0 for possible values.
UserDefinedOpeningTime	NO	FLOAT		
EnclosureWidth	NO	FLOAT		
EnclosureHeight	NO	FLOAT		
EnclosureDepth	NO	FLOAT		
CoefficientA	NO	FLOAT		
CoefficientK	NO	FLOAT		
UserDefinedTimeConstant	NO	BOOLEAN		
TimeConstant	NO	FLOAT		
OverrideLFVoltageLimit	NO	BOOLEAN		
HighVoltageLimit	NO	FLOAT		
LowVoltageLimit	NO	FLOAT		
LoadSheddingActive	NO	BOOLEAN		
MaximumLoadShed	NO	FLOAT		
ShedLoadCost	NO	FLOAT		
UserDefinedBaseVoltage	NO	FLOAT		
Installation	NO	AFConnectedEquipType		See 0 for possible values.
RatedVoltage	NO	FLOAT		
RatedCurrent	NO	FLOAT		
ANSISymCurrent	NO	FLOAT		
ANSIASymCurrent	NO	FLOAT		
PeakCurrent	NO	FLOAT		
Standard	NO	Standard		See 0 for possible values.
TestCircuitPowerFactor	NO	FLOAT		

* Two 'data format lines' are used under the node block. Use the below 'data format lines' to define a node or a bus block:

Node:

```
Format_Node=NodeID,CoordX,CoordY
```

Bus Block:

```
Format_Node=NodeID,CoordX1,CoordY1,CoordX2,CoordY2,Width
```

[NODE CONNECTOR]

Key	Mandatory	Type	Units	Description
NodeID	YES	STRING(64)		ID label of the node
CoordX	NO	FLOAT		X coordinate of the node
CoordY	NO	FLOAT		Y coordinate of the node
SectionID	NO	STRING(64)		Label of the section

[NODEUDD]

Key	Mandatory	Type	Units	Description
NodeID	YES	STRING(64)		
DataID	NO	STRING(64)		
DataType	NO	ValueType		See 0 for possible values.
DataValue	NO	STRING(255)		

[NON IDEAL CONVERTER SETTING]

Key	Mandatory	Type	Units	Description
SectionID	YES	STRING(64)		ID label of the section
Location	YES	LOCATION		Location of the equipment. See 0 for possible values.
EqID	YES	STRING(64)		Label of the equipment
DeviceNumber	YES	STRING(64)		Identifies this equipment on the network
DeviceStage	NO	STRING(64)		Stage of the device
Flags	NO	INTEGER		Internal use only. Leave undefined.
InitFromEquipFlags	NO	INTEGER		
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
KW	NO	FLOAT	kW	Output Power
KVAFault	NO	FLOAT	kVA	FL
VPKV	NO	FLOAT		
VSKV	NO	FLOAT		
SKVA	NO	FLOAT		
XPU	NO	FLOAT		
FIRINGANGLE	NO	FLOAT		
OVERLAPANGLE	NO	FLOAT		

[OVERCURRENT RELAY INSTRUMENT]

Key	Mandatory	Type	Units	Description
InstrumentNumber	YES	STRING(64)		
InstrumentIndex	NO	INTEGER		
Flags	NO	INTEGER		Internal use only. Leave undefined.
Location	NO	LOCATION		See 0 for possible values.
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
TCCRepositoryID	NO	STRING(64)		
Manufacturer	NO	STRING(32)		
Model	NO	STRING(32)		
RelayType	NO	RelayType		See 0 for possible values.
EnableDirectionalUnit	NO	BOOLEAN		

Key	Mandatory	Type	Units	Description
ForwardNodeID	NO	STRING(64)		
ForwardTripDirection	NO	BOOLEAN		
MaximumTorqueAngle	NO	FLOAT		
PolarizingMode	NO	RelayPolarizingMode		See 0 for possible values.
PolarizingVoltage	NO	FLOAT		
PolarizingCurrent	NO	FLOAT		
IndependentTripSettings	NO	BOOLEAN		
DirectionalPickup	NO	FLOAT		
DirectionalDefiniteTime	NO	FLOAT		
PTPrimaryRating	NO	FLOAT		
PTSecondaryRating	NO	FLOAT		
Pickup	NO	FLOAT		
OperatingTime	NO	FLOAT		
ObservationDelay	NO	FLOAT		
ProtectionType	NO	ProtectionType		See 0 for possible values.
SymbolText	NO	STRING(32)		
OwnerNodeID	YES*	STRING(64)		* Either OwnerNodeID is needed or
OwnerDeviceNumber	YES*	STRING(64)		OwnerDeviceNumber + OwnerDeviceType
OwnerDeviceType	YES*	DeviceType		See 0 for possible values.
TagText	NO	STRING(255)		
TagDeltaX	NO	FLOAT		
TagDeltaY	NO	FLOAT		
TagAngle	NO	FLOAT		
TagLocation	NO	GUITagItemLocation		See 0 for possible values.
TagProp	NO	INTEGER		
TagAlignment	NO	GUITagItemTextAlign		See 0 for possible values.
TagBorder	NO	GUITagItemBorder		See 0 for possible values.
TagBackground	NO	GUITagItemBackground		See 0 for possible values.
TagTextColor	NO	INTEGER		
TagBorderColor	NO	INTEGER		
TagBackgroundColor	NO	INTEGER		
TagFont	NO	STRING(32)		
TagTextSize	NO	FLOAT		
TagOffset	NO	FLOAT		

[OVERHEAD BYPHASE SETTING]

Key	Mandatory	Type	Units	Description
SectionID	YES	STRING(64)		
DeviceNumber	NO	STRING(64)		
DeviceStage	NO	STRING(64)		Stage of the device
Flags	NO	INTEGER		Internal use only. Leave undefined.
InitFromEquipFlags	NO	INTEGER		
CondID_A	NO	STRING(64)		
CondID_B	NO	STRING(64)		
CondID_C	NO	STRING(64)		
CondID_N1	NO	STRING(64)		
CondID_N2	NO	STRING(64)		
SpacingID	NO	STRING(64)		
Length	NO	FLOAT		

Key	Mandatory	Type	Units	Description
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
NominalRatingA	NO	FLOAT		
NominalRatingB	NO	FLOAT		
NominalRatingC	NO	FLOAT		
FirstRatingA	NO	FLOAT		
FirstRatingB	NO	FLOAT		
FirstRatingC	NO	FLOAT		
SecondRatingA	NO	FLOAT		
SecondRatingB	NO	FLOAT		
SecondRatingC	NO	FLOAT		
ThirdRatingA	NO	FLOAT		
ThirdRatingB	NO	FLOAT		
ThirdRatingC	NO	FLOAT		
FourthRatingA	NO	FLOAT		
FourthRatingB	NO	FLOAT		
FourthRatingC	NO	FLOAT		
AmpacityDeratingFactor	NO	FLOAT		
ConductorPosition	NO	ConductorPosition		See 0 for possible values.
CoordX	NO	FLOAT		
CoordY	NO	FLOAT		
HarmonicModel	NO	LineHarmonicModel		See 0 for possible values.
TCCRepositoryID	NO	STRING(64)		
EarthResistivity	NO	FLOAT		
FlowConstraintActive	NO	BOOLEAN		
FlowConstraintUnit	NO	OPFFlowConstraintsUnit		See 0 for possible values.
MaximumFlow	NO	FLOAT		

[OVERHEADLINE SETTING]

Key	Mandatory	Type	Units	Description
SectionID	YES	STRING(64)		
DeviceNumber	NO	STRING(64)		
DeviceStage	NO	STRING(64)		Stage of the device
Flags	NO	INTEGER		Internal use only. Leave undefined.
InitFromEquipFlags	NO	INTEGER		
LineCableID	NO	STRING(64)		
Length	NO	FLOAT		
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
NominalRating	NO	FLOAT		
FirstRating	NO	FLOAT		
SecondRating	NO	FLOAT		
ThirdRating	NO	FLOAT		
FourthRating	NO	FLOAT		
AmpacityDeratingFactor	NO	FLOAT		
CoordX	NO	FLOAT		
CoordY	NO	FLOAT		
HarmonicModel	NO	LineHarmonicModel		See 0 for possible values.
TCCRepositoryID	NO	STRING(64)		
FlowConstraintActive	NO	BOOLEAN		
FlowConstraintUnit	NO	OPFFlowConstraintsUnit		See 0 for possible values.
MaximumFlow	NO	FLOAT		

Key	Mandatory	Type	Units	Description
SeriesCompensationActive	NO	BOOLEAN		
MaxReactanceMultiplier	NO	FLOAT		
SeriesCompensationCost	NO	FLOAT		

[OVERHEADLINEUNBALANCED SETTING]

Key	Mandatory	Type	Units	Description
SectionID	YES	STRING(64)		
DeviceNumber	NO	STRING(64)		
DeviceStage	NO	STRING(64)		Stage of the device
Flags	NO	INTEGER		Internal use only. Leave undefined.
InitFromEquipFlags	NO	INTEGER		
LineCableID	NO	STRING(64)		
Length	NO	FLOAT		
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
NominalRatingA	NO	FLOAT		
NominalRatingB	NO	FLOAT		
NominalRatingC	NO	FLOAT		
FirstRatingA	NO	FLOAT		
FirstRatingB	NO	FLOAT		
FirstRatingC	NO	FLOAT		
SecondRatingA	NO	FLOAT		
SecondRatingB	NO	FLOAT		
SecondRatingC	NO	FLOAT		
ThirdRatingA	NO	FLOAT		
ThirdRatingB	NO	FLOAT		
ThirdRatingC	NO	FLOAT		
FourthRatingA	NO	FLOAT		
FourthRatingB	NO	FLOAT		
FourthRatingC	NO	FLOAT		
AmpacityDeratingFactor	NO	FLOAT		
CoordX	NO	FLOAT		
CoordY	NO	FLOAT		
HarmonicModel	NO	LineHarmonicModel		See 0 for possible values.
TCCRepositoryID	NO	STRING(64)		
FlowConstraintActive	NO	BOOLEAN		
FlowConstraintUnit	NO	OPFFlowConstraintsUnit		See 0 for possible values.
MaximumFlow	NO	FLOAT		

[PHASE SHIFTER TRANSFORMER SETTING]

Key	Mandatory	Type	Units	Description
SectionID	YES	STRING(64)		
Location	YES	LOCATION		See 0 for possible values.
EqID	YES	STRING(64)		
DeviceNumber	YES	STRING(64)		
DeviceStage	NO	STRING(64)		Stage of the device
Flags	NO	INTEGER		Internal use only. Leave undefined.
InitFromEquipFlags	NO	INTEGER		
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.

Key	Mandatory	Type	Units	Description
Reversible	NO	BOOLEAN		
SymbolSize	NO	FLOAT		
CoordX	NO	FLOAT		
CoordY	NO	FLOAT		
NormalFeedingNodeID	NO	STRING(64)		
FaultIndicator	NO	FaultIndicatorType		See 0 for possible values.
SettingOption	NO	PhaseShifterSettingOption		See 0 for possible values.
DesiredPowerFlow	NO	FLOAT		
PowerTolerance	NO	FLOAT		
MaximumPhaseShift	NO	FLOAT		
MinimumPhaseShift	NO	FLOAT		
InitialTapPosition	NO	FLOAT		
TapPosition	NO	FLOAT		

[PHOTOVOLTAIC SETTINGS]

Key	Mandatory	Type	Units	Description
SectionID	YES	STRING(64)		
Location	YES	LOCATION		See 0 for possible values.
DeviceNumber	YES	STRING(64)		
DeviceStage	NO	STRING(64)		Stage of the device
Flags	NO	INTEGER		Internal use only. Leave undefined.
InitFromEquipFlags	NO	INTEGER		
EquipmentID	YES	STRING(64)		
NumberOfGenerators	NO	INTEGER		
SymbolSize	NO	FLOAT		
NS	NO	INTEGER		
NP	NO	INTEGER		
AmbientTemperature	NO	FLOAT		
FaultContributionBasedOnRatedPower	NO	BOOLEAN		
FaultContributionUnit	NO	FaultContributionUnitType		See 0 for possible values.
FaultContribution	NO	FLOAT		
ConstantInsolation	NO	BOOLEAN		0 or 1
ForceTO	NO	BOOLEAN		0 or 1
InsolationModelID	NO	STRING(64)		
FrequencySourceID	NO	STRING(64)		
SourceHarmonicModelType	NO	SourceHarmonicModel		See 0 for possible values.
PulseNumber	NO	INTEGER		
FiringAngle	NO	FLOAT		
OverlapAngle	NO	FLOAT		
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
ConnectionConfiguration	NO	ConnectionConfiguration		See 0 for possible values.
CTConnection	NO	CTConnection		See 0 for possible values.
Phase	NO	PHASE		See 0 for possible values.

[PITCH CONTROL]

Key	Mandatory	Type	Units	Description
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Key	Mandatory	Type	Units	Description
DeviceNumber	YES	STRING(64)		
ActuatorTimeConstant	NO	FLOAT		
MaxControlRate	NO	FLOAT		
PWRegulationPropGain	NO	FLOAT		
PWRegulationIntGain	NO	FLOAT		
Enable	NO	BOOLEAN		
BMin	NO	FLOAT		
BOpt	NO	FLOAT		
BMax	NO	FLOAT		
CurveEquation	NO	BOOLEAN		(0 or 1)
CurveEquationA1	NO	FLOAT		
CurveEquationA2	NO	FLOAT		
CurveEquationA3	NO	FLOAT		
CurveEquationA4	NO	FLOAT		
CurveEquationA5	NO	FLOAT		
CurveEquationA6	NO	FLOAT		
CurveEquationX	NO	FLOAT		

[PITCH CONTROL POINTS]

Key	Mandatory	Type	Units	Description
DeviceNumber	YES	STRING(64)		
PointIndex	YES	INTEGER		
Lambda	NO	FLOAT		
CpBMin	NO	FLOAT		
CpBMax	NO	FLOAT		
CpBOpt	NO	FLOAT		

[POTENTIAL TRANSFORMER INSTRUMENT]

Key	Mandatory	Type	Units	Description
InstrumentNumber	YES	STRING(64)		
InstrumentIndex	NO	INTEGER		
Flags	NO	INTEGER		Internal use only. Leave undefined,
Location	NO	LOCATION		See 0 for possible values.
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
PrimaryRating	NO	FLOAT		
SecondaryRating	NO	FLOAT		
OwnerNodeID	YES*	STRING(64)		* Either OwnerNodeID is needed or
OwnerDeviceNumber	YES*	STRING(64)		OwnerDeviceNumber + OwnerDeviceType
OwnerDeviceType	YES*	DeviceType		See 0 for possible values.
ConnectorIndex	NO	INTEGER		
TagText	NO	STRING(255)		
TagDeltaX	NO	FLOAT		
TagDeltaY	NO	FLOAT		
TagAngle	NO	FLOAT		
TagLocation	NO	GUITagItemLocation		See 0 for possible values.
TagProp	NO	INTEGER		
TagAlignment	NO	GUITagItemTextAlign		See 0 for possible values.

Key	Mandatory	Type	Units	Description
TagBorder	NO	GUITagItemBorder		See 0 for possible values.
TagBackground	NO	GUITagItemBackground		See 0 for possible values.
TagTextColor	NO	INTEGER		
TagBorderColor	NO	INTEGER		
TagBackroundColor	NO	INTEGER		
TagFont	NO	STRING(32)		
TagTextSize	NO	FLOAT		
TagOffset	NO	FLOAT		

[PYTHON SCRIPT PARAMETERS SETTING]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		
DeviceNumber	YES	STRING(64)		
DeviceType	YES	DeviceType		See 0 for possible values.
ParameterName	NO	STRING(64)		
ParameterType	NO	PythonParameterType		See 0 for possible values.
ParameterDirection	NO	PythonParameterDirection		See 0 for possible values.
ParameterValue	NO	STRING(255)		
ParameterComment	NO	STRING(1000)		

[RECLOSER SETTING]

Key	Mandatory	Type	Units	Description
SectionID	YES	STRING(64)		ID label of the section
Location	YES	LOCATION		Location of the equipment. See 0 for possible values.
EqID	YES	STRING(64)		Label of the equipment
DeviceNumber	NO	STRING(64)		Identifies this equipment on the network
DeviceStage	NO	STRING(64)		Stage of the device
Flags	NO	INTEGER		Internal use only. Leave undefined.
InitFromEquipFlags	NO	INTEGER		Internal use only. Leave undefined.
CoordX	NO	FLOAT		
CoordY	NO	FLOAT		
ClosedPhase	NO	PHASE		See 0 for possible values.
Locked	NO	BOOLEAN		To indicate if switch is locked.
RC	NO	BOOLEAN		Remote controlled.
NStatus	NO	NORM_STAT		Normal status. See 0 for possible values.
TCCID	NO	STRING(64)		Setting ID given to this device in the CYMTCC program
PhPickup	NO	FLOAT	Amps	Phase pickup current
GrdPickup	NO	FLOAT	Amps	Ground pickup current
Alternate	NO	BOOLEAN		Use the alternate ratings.
PhAltPickup	NO	FLOAT	Amps	Phase alternate pickup current
GrdAltPickup	NO	FLOAT	Amps	Ground alternate pickup current
FromNodeID	NO	STRING(64)		Parent section ID in the normal configuration

Key	Mandatory	Type	Units	Description
EnableReclosing	NO	BOOLEAN		To enable the reclosing scheme (0 by default or 1)
FaultIndicator	NO	FaultIndicatorType		To indicate fault via a signal. See 0 for possible values.
EnableFuseSaving	NO	BOOLEAN		0 = No and 1 = Yes.
MinRatedCurrentForFuseSaving	NO	FLOAT		
Automated	NO	BOOLEAN		0 = No and 1 = Yes.
SensorMode	NO	SensorMode		See 0 for possible values.
Strategic	NO	BOOLEAN		0 or 1
RestorationMode	NO	RestorationMode		See 0 for possible values.
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
TCCRepositoryID	NO	STRING(64)		
TCCRepositoryAlternat elD1	NO	STRING(64)		
TCCRepositoryAlternat elD2	NO	STRING(64)		
TCCRepositoryAlternat elD3	NO	STRING(64)		
TCCRepositoryAlternat elD4	NO	STRING(64)		
TCCRepositoryAlternat elD5	NO	STRING(64)		
TCCRepositoryAlternat elD6	NO	STRING(64)		
TCCRepositoryAlternat elD7	NO	STRING(64)		
TCCRepositoryAlternat elD8	NO	STRING(64)		
TCCRepositoryAlternat elD9	NO	STRING(64)		
TCCRepositoryAlternat elD10	NO	STRING(64)		
IntellirupterTCCReposit oryID	NO	STRING(64)		
ByPassOnRestoration	NO	BOOLEAN		
Reversible	NO	INTEGER		
TccSettingsSelection	NO	INTEGER		

[REGULATOR SETTING]

Key	Mandatory	Type	Units	Description
SectionID	YES	STRING(64)		ID label of the section
Location	YES	LOCATION		Location of the equipment. See 0 for possible values.
EqID	YES	STRING(64)		ID label of the equipment
DeviceNumber	YES	STRING(64)		Identifies this equipment on the network
DeviceStage	NO	STRING(64)		Stage of the device
Flags	NO	INTEGER		Internal use only. Leave undefined.
InitFromEquipFlags	NO	INTEGER		
CoordX	NO	FLOAT		
CoordY	NO	FLOAT		
PhaseON	NO	PHASE		See 0 for possible values.
MaxBuck	NO	FLOAT	%	Maximum allowable buck

Key	Mandatory	Type	Units	Description
MaxBoost	NO	FLOAT	%	Maximum allowable boost
CT	NO	FLOAT	Amps	CT primary rating
PT	NO	FLOAT	Vprim/Vs ec	PT Ratio (Vprimary/Vsecondary)
SettingOption	NO	REG_CONT		See 0 for possible values.
AtSectionID	NO	STRING(64)		ID of the LOAD CENTER (Node ID). Needed only if the setting option is LOAD CENTER
VsetA	NO	FLOAT	Volts	Setting of the regulator, phase A, if LOAD CENTER or REGULATOR TERMINAL is selected otherwise enter 0
VsetB	NO	FLOAT	Volts	Setting of the regulator, phase B, if LOAD CENTER or REGULATOR TERMINAL is selected otherwise enter 0
VsetC	NO	FLOAT	Volts	Setting of the regulator, phase C, if LOAD CENTER or REGULATOR TERMINAL is selected otherwise enter 0
RsetA	NO	FLOAT	Ω	R Setting of the regulator, phase A, if R-X SETTINGS is selected otherwise enter 0
RsetB	NO	FLOAT	Ω	R Setting of the regulator, phase B, if R-X SETTINGS is selected otherwise enter 0
RsetC	NO	FLOAT	Ω	R Setting of the regulator, phase C, if R-X SETTINGS is selected otherwise enter 0
XsetA	NO	FLOAT	Ω	X Setting of the regulator, phase A, if R-X SETTINGS is selected otherwise enter 0
XsetB	NO	FLOAT	Ω	X Setting of the regulator, phase B, if R-X SETTINGS is selected otherwise enter 0
XsetC	NO	FLOAT	Ω	X Setting of the regulator, phase C, if R-X SETTINGS is selected otherwise enter 0
BandWidthA	NO	FLOAT	Volts	Bandwidth Setting of the regulator, phase A
BandWidthB	NO	FLOAT	Volts	Bandwidth Setting of the regulator, phase B
BandWidthC	NO	FLOAT	Volts	Bandwidth Setting of the regulator, phase C
TapA	NO	FLOAT		Tap setting of the regulator in phase A, if FIXED TAP is selected otherwise enter 0
TapB	NO	FLOAT		Tap setting of the regulator in phase B, if FIXED TAP is selected otherwise enter 0
TapC	NO	FLOAT		Tap setting of the regulator in phase C, if FIXED TAP is selected otherwise enter 0
Conn	NO	ConnectionConfiguration		Connection. See 0 for possible values.
Lagging	NO	BOOLEAN		Lagging
FromNodeID	NO	STRING(64)		Parent section ID in the normal configuration
RevMode	NO	REV_MODE		Reverse mode. See 0 for possible values.
RevTreshold	NO	FLOAT	%	Reverse threshold
RevVsetA	NO	FLOAT	Volts	Reverse setting of the regulator voltage, phase A. If LOAD CENTER or REGULATOR terminal is selected otherwise 0
RevVsetB	NO	FLOAT	Volts	Reverse setting of the regulator voltage, phase B. If LOAD CENTER or REGULATOR terminal is selected otherwise 0
RevVsetC	NO	FLOAT	Volts	Reverse setting of the regulator voltage, phase C. If LOAD CENTER or REGULATOR terminal is selected otherwise 0
RevRsetA	NO	FLOAT	Ω	Reverse R setting of the regulator, phase A, if R-X SETTINGS is selected otherwise enter 0
RevRsetB	NO	FLOAT	Ω	Reverse R setting of the regulator, phase B, if R-X SETTINGS is selected otherwise enter 0

Key	Mandatory	Type	Units	Description
RevRsetC	NO	FLOAT	Ω	Reverse R setting of the regulator, phase C, if R-X SETTINGS is selected otherwise enter 0
RevXsetA	NO	FLOAT	Ω	Reverse X setting of the regulator, phase A, if R-X SETTINGS is selected otherwise enter 00
RevXsetB	NO	FLOAT	Ω	Reverse X setting of the regulator, phase B, if R-X SETTINGS is selected otherwise enter 0
RevXsetC	NO	FLOAT	Ω	Reverse X setting of the regulator, phase C, if R-X SETTINGS is selected otherwise enter 0
RevBandWidthA	NO	FLOAT	Volts	Bandwidth Reverse Setting of the regulator, phase A
RevBandWidthB	NO	FLOAT	Volts	Bandwidth Reverse Setting of the regulator, phase B
RevBandWidthC	NO	FLOAT	Volts	Bandwidth Reverse Setting of the regulator, phase C
FirstHouseLow	NO	FLOAT	Volts	First house low voltage
FirstHouseHigh	NO	FLOAT	Volts	First house high voltage
FaultIndicator	NO	FaultIndicatorType		To indicate fault via a signal. See 0 for possible values.
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
ByPassOnRestoration	NO	BOOLEAN		
PythonDeviceScriptID	NO	STRING(64)		
Reversible	NO	INTEGER		

[REGULATOR BYPHASE SETTING]

Key	Mandatory	Type	Units	Description
SectionID	YES	STRING(64)		
Location	YES	LOCATION		See 0 for possible values.
DeviceNumber	YES	STRING(64)		
DeviceStage	NO	STRING(64)		Stage of the device
Flags	NO	INTEGER		Internal use only. Leave undefined.
InitFromEquipFlags	NO	INTEGER		
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
SymbolSize	NO	FLOAT		
CoordX	NO	FLOAT		
CoordY	NO	FLOAT		
Reversible	NO	INTEGER		
FromNodeID	NO	STRING(64)		
EqlID1	NO	STRING(64)		
EqlID2	NO	STRING(64)		
EqlID3	NO	STRING(64)		
Conn	NO	ConnectionConfiguraiton		See 0 for possible values.
Lagging	NO	BOOLEAN		
CTA	NO	FLOAT		
CTB	NO	FLOAT		
CTC	NO	FLOAT		
PTA	NO	FLOAT		
PTB	NO	FLOAT		
PTC	NO	FLOAT		
MaxBoostA	NO	FLOAT		
MaxBoostB	NO	FLOAT		

Key	Mandatory	Type	Units	Description
MaxBoostC	NO	FLOAT		
MaxBuckA	NO	FLOAT		
MaxBuckB	NO	FLOAT		
MaxBuckC	NO	FLOAT		
FaultIndicator	NO	FaultIndicatorType		See 0 for possible values.
ByPassOnRestoration	NO	BOOLEAN		
SettingOption	NO	SETTINGOPTION		See 3.138 for possible values.
TapA	NO	FLOAT		
TapB	NO	FLOAT		
TapC	NO	FLOAT		
AtSectionID	NO	STRING(64)		
PhaseON	NO	PHASE		Phase. See 0 for possible values.
RevMode	NO	REV_MODE		Reverse mode. See 0 for possible values.
RevTreshold	NO	FLOAT		
FirstHouseLow	NO	FLOAT		
FirstHouseHigh	NO	FLOAT		
VsetA	NO	FLOAT		
VsetB	NO	FLOAT		
VsetC	NO	FLOAT		
RsetA	NO	FLOAT		
RsetB	NO	FLOAT		
RsetC	NO	FLOAT		
XsetA	NO	FLOAT		
XsetB	NO	FLOAT		
XsetC	NO	FLOAT		
BandWidthA	NO	FLOAT		
BandWidthB	NO	FLOAT		
BandWidthC	NO	FLOAT		
RevVsetA	NO	FLOAT		
RevVsetB	NO	FLOAT		
RevVsetC	NO	FLOAT		
RevRsetA	NO	FLOAT		
RevRsetB	NO	FLOAT		
RevRsetC	NO	FLOAT		
RevXsetA	NO	FLOAT		
RevXsetB	NO	FLOAT		
RevXsetC	NO	FLOAT		
RevBandWidthA	NO	FLOAT		
RevBandWidthB	NO	FLOAT		
RevBandWidthC	NO	FLOAT		

[SECONDARY NETWORK CONNECTIONS]

Key	Mandatory	Type	Units	Description
SecondaryNetworkID	YES	STRING(64)		
NodeID	YES	STRING(64)		

Key	Mandatory	Type	Units	Description
ConnectorCoordX	NO	FLOAT		
ConnectorCoordY	NO	FLOAT		
ConnectorIndex	NO	INTEGER		
SymbolConnectorIndex	NO	INTEGER		
Description	NO	STRING(255)		

[SECTION]

This block is particular because the 'Section' and the 'Topo' blocks are related. This block starts with the Section header followed by the Section and the Topo data format line. Then, a line of data values for Topo will follow and the line of data values for all the sections owned by a network. Repeat these steps for each network. See also [TOPO].

Section and Topo:

```
[SECTION]
FORMAT_SECTION=SectionID,FromNodeID,FromNodeIndex,ToNodeID,ToNodeIndex,Phase
FORMAT_FEEDER=NetworkID,HeadNodeID,CoordSet,Year,Description,Color
FEEDER=FEEDER-1,TOPO_HEADNODE_ID_000001,1,1466005639,0,0
1,TOPO_HEADNODE_ID_000001,0,1,0,ABC
2,1,0,2,0,ABC
3,1,0,3,0,ABC
4,3,0,4,0,ABC
6,4,0,6,0,ABC
FEEDER=FEEDER-2,TOPO_HEADNODE_ID_000002,1,1466005639,0,16711680
201,TOPO_HEADNODE_ID_000002,0,2,0,ABC
202,2,0,202,0,ABC
203,202,0,203,0,ABC
204,203,0,204,0,ABC
205,204,0,205,0,ABC
```

Key	Mandatory	Type	Units	Description
SectionID	YES	STRING(64)		ID label of the section
FromNodeID	YES	STRING(64)		ID label of the first node of the section. No orientation is assumed regarding the content of this field. If the section is a head section for the topo, this field must be set to NULL.
FromNodeIndex	NO	INTEGER		
ToNodeID	NO	STRING(64)		ID label of the second node of the section. No orientation is assumed regarding the content of this field.
ToNodeIndex	NO	INTEGER		
Phase	YES	PHASE		See 0 for possible values.
ZoneID	NO	STRING(64)		Unique ID for the zone
SubNetworkId	NO	STRING(64)		The subnetwork that the section belongs to (when applicable).
EnvironmentID	NO	INTEGER		

[SECTIONALIZER SETTING]

Key	Mandatory	Type	Units	Description
SectionID	YES	STRING(64)		ID label of the section
Location	YES	LOCATION		Location of the equipment. See 0 for possible values.
EqID	YES	STRING(64)		Label of the equipment
DeviceNumber	YES	STRING(64)		Identifies this equipment on the network

Key	Mandatory	Type	Units	Description
DeviceStage	NO	STRING(64)		Stage of the device
Flags	NO	INTEGER		Internal use only. Leave undefined.
InitFromEquipFlags	NO	INTEGER		
CoordX	NO	FLOAT		
CoordY	NO	FLOAT		
ClosedPhase	NO	PHASE		See 0 for possible values.
Locked	NO	BOOLEAN		To indicate if switch is locked.
RC	NO	BOOLEAN		Remote controlled.
NStatus	NO	NORM_STAT		Normal status. See 0 for possible values.
PhPickup	NO	FLOAT	Amps	Phase pickup current
GrdPickup	NO	FLOAT	Amps	Ground pickup current
Alternate	NO	BOOLEAN		Use the alternate ratings.
PhAltPickup	NO	FLOAT	Amps	Phase alternate pickup current
GrdAltPickup	NO	FLOAT	Amps	Ground alternate pickup current
FromNodeID	NO	STRING(64)		Parent section ID in the normal configuration
FaultIndicator	NO	FaultIndicatorType		To indicate fault via a signal. See 0 for possible values.
Automated	NO	BOOLEAN		0 = No and 1 = Yes.
SensorMode	NO	SensorMode		See 0 for possible values.
Strategic	NO	BOOLEAN		0 or 1
RestorationMode	NO	RestorationMode		See 0 for possible values.
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
ByPassOnRestoration	NO	BOOLEAN		
PhaseActuatingCurrent	NO	FLOAT		
GroundActuatingCurrent	NO	FLOAT		
DeadlineCurrent	NO	FLOAT		
NbCountToLockout	NO	INTEGER		
ResetTime	NO	FLOAT		
EnableGroundCurrentSensing	NO	BOOLEAN		
Reversible	NO	INTEGER		

[SECTIONUDD]

Key	Mandatory	Type	Units	Description
SectionId	YES	STRING(64)		
DataId	NO	STRING(64)		
DataType	NO	ValueType		See 0 for possible values.
DataValue	NO	STRING(255)		

[SERIES CAPACITOR SETTING]

Key	Mandatory	Type	Units	Description
SectionID	YES	STRING(64)		ID label of the section
Location	YES	LOCATION		Location of the equipment. See 0 for possible values.
EqID	YES	STRING(64)		Label of the equipment
DeviceNumber	YES	STRING(64)		Identifies this equipment on the network
DeviceStage	NO	STRING(64)		Stage of the device
Flags	NO	INTEGER		Internal use only. Leave undefined.
InitFromEquipFlags	NO	INTEGER		
CoordX	NO	FLOAT		
CoordY	NO	FLOAT		
Desc	NO	STRING(1000)		User text
FaultIndicator	NO	FaultIndicatorType		To indicate fault via a signal. See 0 for possible values.
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
ByPassOnRestoration	NO	BOOLEAN		
EnableExtst	NO	INTEGER		
ReinsertionDelay	NO	INTEGER		
CompensationMaxCurrent	NO	FLOAT		

[SERIES FREQUENCY DEPENDENT BRANCH SETTING]

Key	Mandatory	Type	Units	Description
SectionID	YES	STRING(64)		
Location	YES	LOCATION		Location of the equipment. See 0 for possible values.
DeviceNumber	YES	STRING(64)		
DeviceStage	NO	STRING(64)		Stage of the device
Flags	NO	INTEGER		Internal use only. Leave undefined.
InitFromEquipFlags	NO	INTEGER		
CoordX	NO	FLOAT		
CoordY	NO	FLOAT		
Frequency	NO	FLOAT		
Magnitude	NO	FLOAT		
Angle	NO	FLOAT		
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
SymbolSize	NO	FLOAT		

[SERIES FREQUENCY SOURCE SETTING]

Key	Mandatory	Type	Units	Description
SectionID	YES	STRING(64)		ID label of the section
Location	YES	LOCATION		Location of the equipment. See 0 for possible values.
EqID	YES	STRING(64)		Label of the equipment
DeviceNumber	YES	STRING(64)		Identifies this equipment on the network
DeviceStage	NO	STRING(64)		Stage of the device
Flags	NO	INTEGER		Internal use only. Leave undefined.
InitFromEquipFlags	NO	INTEGER		
CoordX	NO	FLOAT		
CoordY	NO	FLOAT		
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.

[SERIES MUTUALLY COUPLED THREE PHASES BRANCH SETTING]

Key	Mandatory	Type	Units	Description
SectionID	YES	STRING(64)		
Location	YES	LOCATION		Location of the equipment. See 0 for possible values.
DeviceNumber	YES	STRING(64)		
DeviceStage	NO	STRING(64)		Stage of the device
Flags	NO	INTEGER		Internal use only. Leave undefined.
InitFromEquipFlags	NO	INTEGER		
CoordX	NO	FLOAT		
CoordY	NO	FLOAT		
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
SymbolSize	NO	FLOAT		
R1	NO	FLOAT		
R0	NO	FLOAT		
L1	NO	FLOAT		
L0	NO	FLOAT		

[SERIES PARALLEL RLC BRANCH SETTING]

Key	Mandatory	Type	Units	Description
SectionID	YES	STRING(64)		
Location	YES	LOCATION		Location of the equipment. See 0 for possible values.
DeviceNumber	YES	STRING(64)		
DeviceStage	NO	STRING(64)		Stage of the device
Flags	NO	INTEGER		Internal use only. Leave undefined.
InitFromEquipFlags	NO	INTEGER		
CoordX	NO	FLOAT		
CoordY	NO	FLOAT		
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
SymbolSize	NO	FLOAT		
Resistance	NO	FLOAT		
Inductance	NO	FLOAT		
Capacitance	NO	FLOAT		

Key	Mandatory	Type	Units	Description
ApplySkinEffect	NO	BOOLEAN		
SkinEffectA	NO	FLOAT		
SkinEffectB	NO	FLOAT		

[SERIES REACTOR SETTING]

Key	Mandatory	Type	Units	Description
SectionID	YES	STRING(64)		ID label of the section
Location	YES	Location		Location of the equipment. See 0 for possible values.
EqID	YES	STRING(64)		Label of the equipment
DeviceNumber	YES	STRING(64)		Identifies this equipment on the network
DeviceStage	NO	STRING(64)		Stage of the device
Flags	NO	INTEGER		Internal use only. Leave undefined.
InitFromEquipFlags	NO	INTEGER		
CoordX	NO	FLOAT		
CoordY	NO	FLOAT		
Desc	NO	STRING(1000)		User text
FaultIndicator	NO	FaultIndicatorType		To indicate fault via a signal. See 0 for possible values.
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
ByPassOnRestoration	NO	BOOLEAN		

[SERIES RLC BRANCH SETTING]

Key	Mandatory	Type	Units	Description
SectionID	YES	STRING(64)		
Location	YES	LOCATION		Location of the equipment. See 0 for possible values.
DeviceNumber	YES	STRING(64)		
DeviceStage	NO	STRING(64)		Stage of the device
Flags	NO	INTEGER		Internal use only. Leave undefined.
InitFromEquipFlags	NO	INTEGER		
CoordX	NO	FLOAT		
CoordY	NO	FLOAT		
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
SymbolSize	NO	FLOAT		
Resistance	NO	FLOAT		
Inductance	NO	FLOAT		
Capacitance	NO	FLOAT		
ApplySkinEffect	NO	BOOLEAN		
SkinEffectA	NO	FLOAT		
SkinEffectB	NO	FLOAT		

[SHUNT CAPACITOR SETTING]

Key	Mandatory	Type	Units	Description
SectionID	YES	STRING(64)		ID label of the section to which the capacitor is connected
DeviceNumber	NO	STRING(64)		Device number of the load.
DeviceStage	NO	STRING(64)		Stage of the device
Flags	NO	INTEGER		Internal use only. Leave undefined.
InitFromEquipFlags	NO	INTEGER		
Location	YES	Location		Location of the capacitor. See 0 for possible values.
Connection	NO	CAP_CONN		See 0 for possible values.
FixedKVARA	NO	FLOAT		
FixedKVARB	NO	FLOAT		
FixedKVARC	NO	FLOAT		
FixedLossesA	NO	FLOAT		
FixedLossesB	NO	FLOAT		
FixedLossesC	NO	FLOAT		
SwitchedKVARA	NO	FLOAT		
SwitchedKVARB	NO	FLOAT		
SwitchedKVARC	NO	FLOAT		
SwitchedLossesA	NO	FLOAT		
SwitchedLossesB	NO	FLOAT		
SwitchedLossesC	NO	FLOAT		
ByPhase	NO	BOOLEAN		
VoltageOverride	NO	BOOLEAN		
VoltageOverrideOn	NO	FLOAT		
VoltageOverrideOff	NO	FLOAT		
VoltageOverrideDeadband	NO	FLOAT		
KV	NO	FLOAT	Kv	
Control	NO	CAP_CONTROL		See 0 for possible values.
OnValueA	NO	FLOAT		
OnValueB	NO	FLOAT		
OnValueC	NO	FLOAT		
OffValueA	NO	FLOAT		
OffValueB	NO	FLOAT		
OffValueC	NO	FLOAT		
SwitchingMode	NO	PhaseType		See 0 for possible values.
InitiallyClosedPhase	NO	Phase		See 0 for possible values.
CurrentClosedPhase	NO	Phase		See 0 for possible values.
ControllingPhase	NO	PHASE		See 0 for possible values.
SensorLocation	NO	CapacitorSensorLocation		See 0 for possible values.
ControlledNodeID	NO	STRING(64)		
PythonDeviceScriptID	NO	STRING(64)		
ShuntCapacitorID	NO	STRING(64)		
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
CTConnection	NO	CTConnection		See 0 for possible values.
InterruptingRating	NO	FLOAT		

[SHUNT FREQUENCY DEPENDENT BRANCH SETTING]

Key	Mandatory	Type	Units	Description
SectionID	YES	STRING(64)		
Location	YES	LOCATION		Location of the equipment. See 0 for possible values.
DeviceNumber	YES	STRING(64)		
DeviceStage	NO	STRING(64)		Stage of the device
Flags	NO	INTEGER		Internal use only. Leave undefined.
InitFromEquipFlags	NO	INTEGER		
Frequency	NO	FLOAT		
Magnitude	NO	FLOAT		
Angle	NO	FLOAT		
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
SymbolSize	NO	FLOAT		
EQPhase	NO	PHASE		See 0 for possible values.
ConnectionConfiguration	NO	ConnectionConfig uraiton		See 0 for possible values.

[SHUNT FREQUENCY SOURCE SETTING]

Key	Mandatory	Type	Units	Description
SectionID	YES	STRING(64)		ID label of the section
Location	YES	LOCATION		Location of the equipment. See 0 for possible values.
EqID	YES	STRING(64)		Label of the equipment
DeviceNumber	YES	STRING(64)		Identifies this equipment on the network
DeviceStage	NO	STRING(64)		Stage of the device
Flags	NO	INTEGER		Internal use only. Leave undefined.
InitFromEquipFlags	NO	INTEGER		
EqPhase	NO	PHASE		Phase to which equipment is connected. See 0 for possible values.
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
KW	NO	FLOAT	kW	P
KVAR	NO	FLOAT	kVAR	Q
FundamentalCurrentFromLoad Flow	NO	BOOLEAN		0 : Use LoadFlow values, 1 : use following values
FundamentalAmp	NO	FLOAT	Amps	Current
FundamentalAngle	NO	FLOAT	deg.	Angle

[SHUNT MUTUALLY COUPLED THREE PHASES BRANCH SETTING]

Key	Mandatory	Type	Units	Description
SectionID	YES	STRING(64)		
Location	YES	LOCATION		Location of the equipment. See 0 for possible values.
DeviceNumber	YES	STRING(64)		
DeviceStage	NO	STRING(64)		Stage of the device
Flags	NO	INTEGER		Internal use only. Leave undefined.
InitFromEquipFlags	NO	INTEGER		
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
SymbolSize	NO	FLOAT		

Key	Mandatory	Type	Units	Description
R1	NO	FLOAT		
R0	NO	FLOAT		
L1	NO	FLOAT		
L0	NO	FLOAT		

[SHUNT PARALLEL RLC BRANCH SETTING]

Key	Mandatory	Type	Units	Description
SectionID	YES	STRING(64)		
Location	YES	LOCATION		Location of the equipment. See 0 for possible values.
DeviceNumber	YES	STRING(64)		
DeviceStage	NO	STRING(64)		Stage of the device
Flags	NO	INTEGER		Internal use only. Leave undefined.
InitFromEquipFlags	NO	INTEGER		
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
SymbolSize	NO	FLOAT		
EQPhase	NO	PHASE		See 0 for possible values
ConnectionConfiguration	NO	ConnectionConfig uraiton		See 0 for possible values.
Resistance	NO	FLOAT		
Inductance	NO	FLOAT		
Capacitance	NO	FLOAT		
ApplySkinEffect	NO	BOOLEAN		
SkinEffectA	NO	FLOAT		
SkinEffectB	NO	FLOAT		

[SHUNT REACTOR SETTING]

Key	Mandatory	Type	Units	Description
SectionID	YES	STRING(64)		ID label of the section to which the capacitor is connected
DeviceNumber	NO	STRING(64)		Device number of the load.
DeviceStage	NO	STRING(64)		Stage of the device
Flags	NO	INTEGER		Internal use only. Leave undefined.
InitFromEquipFlags	NO	INTEGER		
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
Location	YES	Location		Location of the capacitor. See 0 for possible values.
Connection	NO	CAP_CONN		See 0 for possible values.
FixedKVARA	NO	FLOAT		
FixedKVARB	NO	FLOAT		
FixedKVARC	NO	FLOAT		
FixedLossesA	NO	FLOAT		
FixedLossesB	NO	FLOAT		
FixedLossesC	NO	FLOAT		
ByPhase	NO	BOOLEAN		
KV	NO	FLOAT	Kv	
ShuntReactorID	NO	STRING(64)		
CTConnection	NO	CTConnection		See 0 for possible values.

Key	Mandatory	Type	Units	Description
InterruptingRating	NO	FLOAT		

[SHUNT RLC BRANCH SETTING]

Key	Mandatory	Type	Units	Description
SectionID	YES	STRING(64)		
Location	YES	LOCATION		Location of the equipment. See 0 for possible values.
DeviceNumber	YES	STRING(64)		
DeviceStage	NO	STRING(64)		Stage of the device
Flags	NO	INTEGER		Internal use only. Leave undefined.
InitFromEquipFlags	NO	INTEGER		
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
SymbolSize	NO	FLOAT		
EqPhase	NO	PHASE		See 0 for possible values.
ConnectionConfiguration	NO	ConnectionConfiguraiton		See 0 for possible values.
Resistance	NO	FLOAT		
Inductance	NO	FLOAT		
Capacitance	NO	FLOAT		
ApplySkinEffect	NO	BOOLEAN		
SkinEffectA	NO	FLOAT		
SkinEffectB	NO	FLOAT		

[SINGLE TUNED FILTER SETTING]

Key	Mandatory	Type	Units	Description
SectionID	YES	STRING(64)		ID label of the section
Location	YES	LOCATION		Location of the equipment. See 0 for possible values.
EqID	YES	STRING(64)		Label of the equipment
DeviceNumber	YES	STRING(64)		Identifies this equipment on the network
DeviceStage	NO	STRING(64)		Stage of the device
Flags	NO	INTEGER		Internal use only. Leave undefined.
InitFromEquipFlags	NO	INTEGER		
EqPhase	NO	PHASE		Phase to which equipment is connected. See 0 for possible values.
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
ConnectionConfiguration	NO	ConnectionConfiguraiton		See 0 for possible values.
RGround	NO	FLOAT	Ohms	
XGround	NO	FLOAT	Ohms	
Balanced	NO	BOOLEAN		0 : Balanced, 1 : Unbalanced
UnbalancedRFactorA	NO	FLOAT	%	
UnbalancedRFactorB	NO	FLOAT	%	
UnbalancedRFactorC	NO	FLOAT	%	
UnbalancedLFactorA	NO	FLOAT	%	
UnbalancedLFactorB	NO	FLOAT	%	
UnbalancedLFactorC	NO	FLOAT	%	
UnbalancedCFactorA	NO	FLOAT	%	

Key	Mandatory	Type	Units	Description
UnbalancedCFactorB	NO	FLOAT	%	
UnbalancedCFactorC	NO	FLOAT	%	

[SOFC SETTINGS]

Key	Mandatory	Type	Units	Description
SectionID	YES	STRING(64)		
Location	YES	LOCATION		See 0 for possible values.
DeviceNumber	YES	STRING(64)		
DeviceStage	NO	STRING(64)		Stage of the device
Flags	NO	INTEGER		Internal use only. Leave undefined.
InitFromEquipFlags	NO	INTEGER		
EquipmentID	YES	STRING(64)		
NumberOfGenerators	NO	INTEGER		
SymbolSize	NO	FLOAT		
FaultContributionBasedOnRatedPower	NO	BOOLEAN		
FaultContributionUnit	NO	FaultContributionUnitType		See 0 for possible values.
FaultContribution	NO	FLOAT		
FrequencySourceID	NO	STRING(64)		
SourceHarmonicModelType	NO	SourceHarmonicModel		See 0 for possible values.
PulseNumber	NO	INTEGER		
FiringAngle	NO	FLOAT		
OverlapAngle	NO	FLOAT		
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
ConnectionConfiguration	NO	ConnectionConfiguration		See 0 for possible values.
CTConnection	NO	CTConnectin		See 0 for possible values.
Phase	NO	PHASE		See 0 for possible values.

[SOURCE]

Key	Mandatory	Type	Units	Description
SourceID	YES	STRING(64)		ID of the source in the equipment database
DeviceNumber	NO	STRING(64)		ID of the source device.
NodeID	YES	STRING(64)		Node ID of the source
NetworkID	YES	STRING(64)		Feeder ID or Substation ID from this source
OperatingVoltageA	NO	FLOAT	kVLN	Operating voltage
OperatingVoltageB	NO	FLOAT	kVLN	Operating voltage
OperatingVoltageC	NO	FLOAT	kVLN	Operating voltage
UseSecondLevelImpedance	NO	BOOLEAN		
SinglePhaseCenterTap	NO	BOOLEAN		
CenterTapPhase	NO	Phase		See 0 for possible values.

[SOURCE EQUIVALENT]

Key	Mandatory	Type	Units	Description

Key	Mandatory	Type	Units	Description
NodeID	YES	STRING(32)		Node ID of the source equivalent
LoadModelName	NO	STRING(32)		Name for the load model.
Voltage	NO	FLOAT	kV	kVLL
OperatingAngle1	NO	FLOAT		
OperatingAngle2	NO	FLOAT		
OperatingAngle3	NO	FLOAT		
UseSecondLevelImpedance	NO	BOOLEAN		
FirstLevelR1	NO	FLOAT		
FirstLevelX1	NO	FLOAT		
FirstLevelR0	NO	FLOAT		
FirstLevelX0	NO	FLOAT		
FirstLevelR2	NO	FLOAT		
FirstLevelX2	NO	FLOAT		
SecondLevelR1	NO	FLOAT		
SecondLevelX1	NO	FLOAT		
SecondLevelR0	NO	FLOAT		
SecondLevelX0	NO	FLOAT		
SecondLevelR2	NO	FLOAT		
SecondLevelX2	NO	FLOAT		
OperatingVoltage1	NO	FLOAT		
OperatingVoltage2	NO	FLOAT		
OperatingVoltage3	NO	FLOAT		
BaseMVA	NO	FLOAT		
ImpedanceUnit	NO	ImpedanceUnit		See 0 for possible values

[SOURCE HARMONIC SETTINGS]

Key	Mandatory	Type	Units	Description
NodeID	YES	STRING(64)		
nIndex	YES	INTEGER		
HarmonicOrder	NO	FLOAT		
Z	NO	FLOAT		
Angle	NO	FLOAT		
Voltage	NO	FLOAT		
VoltageAngle	NO	FLOAT		

[SOURCETAG]

Key	Mandatory	Type	Units	Description
DeviceNumber	YES	STRING(64)		
TagText	NO	STRING(255)		Text to be included in the box.
TagProperties	NO	INTEGER		
TagDeltaX	NO	FLOAT		X axis tag offset from device position.
TagDeltaY	NO	FLOAT		Y axis tag offset from device position.
TagAngle	NO	FLOAT		Angle in degrees of the tag.
TagAlignment	NO	GUITagItemTextAlign		See 0 for possible values.
TagBorder	NO	GUITagItemBorder		See 0 for possible values.
TagBackground	NO	GUITagItemBackground		See 0 for possible values.

Key	Mandatory	Type	Units	Description
TagTextColor	NO	INTEGER		Numeric value representing color. Set to -1 for default color.
TagBorderColor	NO	INTEGER		Numeric value representing color. Set to -1 for default color.
TagBackgroundColor	NO	INTEGER		Numeric value representing color. Set to -1 for default color.
Tag_Location	NO	GUITagItemLocation		See 0 for possible values.
TagFont	NO	STRING(32)		
TagTextSize	NO	FLOAT		
TagOffSet	NO	FLOAT		

[STATCOM SETTING]

Key	Mandatory	Type	Units	Description
SectionID	YES	STRING(64)		
Location	YES	LOCATION		See 0 for possible values.
DeviceNumber	YES	STRING(64)		
DeviceStage	NO	STRING(64)		Stage of the device
Flags	NO	INTEGER		Internal use only. Leave undefined.
InitFromEquipFlags	NO	INTEGER		
EqPhase	NO	PHASE		See 0 for possible values.
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
SymbolSize	NO	FLOAT		
ShuntTransformerReactance	NO	FLOAT		
MaximumShuntCurrent	NO	FLOAT		
DesiredVoltage	NO	FLOAT		
FreqSourceID	NO	STRING(64)		

[STRUCTUREUDD]

Key	Mandatory	Type	Units	Description
StructureId	YES	STRING(64)		
DataId	NO	STRING(64)		
DataType	NO	ValueType		See 0 for possible values.
DataValue	NO	STRING(255)		

[STARTING CURVE POINTS]

Key	Mandatory	Type	Units	Description
DeviceNumber	YES	STRING(64)		
Speed	NO	FLOAT		
Current	NO	FLOAT		
PowerFactor	NO	FLOAT		
ElectricalTorque	NO	FLOAT		
MechanicalTorque	NO	FLOAT		

[SUBNETWORK CONNECTIONS]

Key	Mandatory	Type	Units	Description
SubNetID	YES	STRING(64)		ID label of the substation
NodeID	YES	STRING(64)		ID label of the node
ConnectorCoordX	NO	FLOAT		
ConnectorCoordY	NO	FLOAT		
ConnectorIndex	NO	INTEGER		
SymbolConnectorIndex	NO	INTEGER		
Description	NO	STRING(255)		

[SUBNETWORKS]

Key	Mandatory	Type	Units	Description
SubNetID	YES	STRING(64)		ID label of the subnetwork
Angle	NO	FLOAT		Angle of the subnetwork symbol on the network
X	NO	FLOAT		X coordinate of the subnetwork
Y	NO	FLOAT		Y coordinate of the subnetwork
Height	NO	FLOAT		Height of the subnetwork symbol on the network
Length	NO	FLOAT		Length of the subnetwork symbol on the network
ParentSubNetID	NO	STRING(64)		
ZoneID	NO	STRING(64)		
SymbolID	NO	INTEGER		ID of the subnetwork symbol
TagText	NO	STRING(255)		Text to be included in the box.
TagProperties	NO	INTEGER		Should be set to zero for now.
TagDeltaX	NO	FLOAT		X axis tag offset from device position.
TagDeltaY	NO	FLOAT		Y axis tag offset from device position.
TagAngle	NO	FLOAT		Angle in degrees of the tag.
TagAlignment	NO	GUITagItemTextAlign		See 0 for possible values.
TagBorder	NO	GUITagItemBorder		See 0 for possible values.
TagBackground	NO	GUITagItemBackground		See 0 for possible values.
TagTextColor	NO	INTEGER		Numeric value representing color. Set to -1 for default color.
TagBorderColor	NO	INTEGER		Numeric value representing color. Set to -1 for default color.
TagBackgroundColor	NO	INTEGER		Numeric value representing color. Set to -1 for default color.
Tag_Location	NO	GUITagItemLocation		See 0 for possible values.
TagFont	NO	STRING(32)		
TagTextSize	NO	FLOAT		
TagOffSet	NO	FLOAT		
SubNetTypeID	NO	STRING(64)		
Version	YES	INTEGER		SubNetwork version. Should be 4700 for Cymdist 4.7
SymbolReferenceSize	NO	FLOAT		
TextReferenceSize	NO	FLOAT		
CoordSet	NO	COORDSET		See 0 for possible values.

[SUBSTATION CONNECTIONS]

Key	Mandatory	Type	Units	Description
SubstationID	YES	STRING(64)		
NodeID	YES	STRING(64)		
ConnectorCoordX	NO	FLOAT		
ConnectorCoordY	NO	FLOAT		
ConnectorIndex	NO	INTEGER		
SymbolConnectorIndex	NO	INTEGER		
Description	NO	STRING(255)		

[SVC SETTING]

Key	Mandatory	Type	Units	Description
SectionID	YES	STRING(64)		
Location	YES	LOCATION		See 0 for possible values.
EqID	YES	STRING(64)		
DeviceNumber	YES	STRING(64)		
DeviceStage	NO	STRING(64)		Stage of the device
Flags	NO	INTEGER		Internal use only. Leave undefined.
InitFromEquipFlags	NO	INTEGER		
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
SymbolSize	NO	FLOAT		
VoltageControl	NO	VoltageControlType		See 0 for possible values.
NodeID	NO	STRING(64)		
DesiredVoltage	NO	FLOAT		
UseFrequencySourceModel	NO	BOOLEAN		
FrequencySourceID	NO	STRING(64)		

[SVCGENERATIONMODEL]

Key	Mandatory	Type	Units	Description
DeviceNumber	YES	STRING(64)		
LoadModelName	YES	STRING(64)		Name for the load model
ReactivePower	NO	FLOAT		
MinReactivePower	NO	FLOAT		
MaxReactivePower	NO	FLOAT		

[SWITCH SETTING]

Key	Mandatory	Type	Units	Description
SectionID	YES	STRING(64)		ID label of the section
Location	YES	LOCATION		See 0 for possible values.
EqID	YES	STRING(64)		Label of the equipment
DeviceNumber	YES	STRING(64)		Identifies this equipment on the network
DeviceStage	NO	STRING(64)		Stage of the device
Flags	NO	INTEGER		Internal use only. Leave undefined.
InitFromEquipFlags	NO	INTEGER		

Key	Mandatory	Type	Units	Description
CoordX	NO	FLOAT		
CoordY	NO	FLOAT		
ClosedPhase	NO	PHASE		See 0 for possible values.
Locked	NO	BOOLEAN		To indicate if switch is locked.
RC	NO	BOOLEAN		Remote controlled.
NStatus	NO	NORM_STAT		Normal status. See 0 for possible values.
PhPickup	NO	FLOAT	Amps	Phase pickup current
GrdPickup	NO	FLOAT	Amps	Ground pickup current
Alternate	NO	BOOLEAN		Use the alternate ratings.
PhAltPickup	NO	FLOAT	Amps	Phase alternate pickup current
GrdAltPickup	NO	FLOAT	Amps	Ground alternate pickup current
FromNodeID	NO	STRING(64)		Parent section ID in the normal configuration
FaultIndicator	NO	FaultIndicatorType		To indicate fault via a signal. See 0 for possible values.
Automated	NO	BOOLEAN		0 = No and 1 = Yes
SensorMode	NO	SensorMode		See 0 for possible values.
Strategic	NO	BOOLEAN		0 or 1
RestorationMode	NO	RestorationMode		See 0 for possible values.
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
ByPassOnRestoration	NO	BOOLEAN		
Reversible	NO	INTEGER		

[SWITCHABLE SHUNT BANK SETTING]

Key	Mandatory	Type	Units	Description
SectionID	YES	STRING(64)		ID label of the section
Location	YES	Location		See 0 for possible values.
DeviceNumber	YES	STRING(64)		
DeviceStage	NO	STRING(64)		Stage of the device
Flags	NO	INTEGER		Internal use only. Leave undefined.
InitFromEquipFlags	NO	INTEGER		
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
Phase	NO	PHASE		See 0 for possible values.
ConnectionConfiguration	NO	ConnectionConfiguraion		See 0 for possible values.
SymbolSize	NO	FLOAT		
VoltageControlType	NO	VoltageControlType		See 0 for possible values.
NodeID	NO	STRING(64)		
DesiredVoltage	NO	FLOAT		
Tolerance	NO	FLOAT		
VARAdditionActive	NO	BOOLEAN		
CalculateCost	NO	BOOLEAN		
VARAdditionCost	NO	FLOAT		
BankType	NO	SwitchableShuntBankType		See 0 for possible values.

[SWITCHABLE SHUNT BANK UNITS]

Key	Mandatory	Type	Units	Description
DeviceNumber	YES	STRING(64)		
BankType	YES	INTEGER		
PointIndex	YES	INTEGER		
NumberOfBlocks	NO	INTEGER		
ReactivePowerPerBlock	NO	FLOAT		
ActiveBlocks	NO	INTEGER		

[SYNCHRONOUS GENERATOR SETTING]

Key	Mandatory	Type	Units	Description
SectionID	YES	STRING(64)		ID label of the section
Location	YES	LOCATION		See 0 for possible values.
EqID	YES	STRING(64)		Label of the equipment
DeviceNumber	YES	STRING(64)		Identifies this equipment on the network
DeviceStage	NO	STRING(64)		Stage of the device
Flags	NO	INTEGER		Internal use only. Leave undefined.
InitFromEquipFlags	NO	INTEGER		
EqPhase	NO	PHASE		See 0 for possible values.
NumberOfGenerators	NO	INTEGER		
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
TCCRepositoryID	NO	STRING(64)		
VoltageControlType	NO	VoltageControlType		To indicate if voltage is controlled. See 0 for possible values.
KV	NO	FLOAT	kV	Desired voltage
Rg	NO	FLOAT	Ω	Grounding resistance
Xg	NO	FLOAT	Ω	Grounding reactance
InitialAngle	NO	FLOAT	Degrees	Initial angle.
ApplySkinEffect	NO	BOOLEAN		0 or 1
StabilityModel	NO	SynchronousMachineStabilityModel		See 0 for possible values.
VoltageControlNodeID	NO	STRING(64)		
ModelAsAPowerSystemUnit	NO	BOOLEAN		0 or 1
MaxDispatchablePower	NO	FLOAT		
MinDispatchablePower	NO	FLOAT		
GovernorDroop	NO	FLOAT		
OPFActive	NO	BOOLEAN		
CTConnection	NO	CTConnection		See 0 for possible values.
GeneratorCostModelID	NO	STRING(64)		

[SYNCHRONOUS MOTOR SETTING]

Key	Mandatory	Type	Units	Description
SectionID	YES	STRING(64)		ID label of the section
Location	YES	LOCATION		See 0 for possible values.
EqID	YES	STRING(64)		Label of the equipment
DeviceNumber	NO	STRING(64)		Identifies this equipment on the network

Key	Mandatory	Type	Units	Description
DeviceStage	NO	STRING(64)		Stage of the device
Flags	NO	INTEGER		Internal use only. Leave undefined.
InitFromEquipFlags	NO	INTEGER		
NumberOfMotors	NO	INTEGER		
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
TCCRepositoryID	NO	STRING(64)		
MotorStatus	NO	MotorStatus		See 0 for possible values.
StartsPerDay	NO	INTEGER		Number of starts per day.
GroundingResistance	NO	FLOAT	Ω	Grounding resistance.
GroundingReactance	NO	FLOAT	Ω	Grounding reactance.
LoadFactor	NO	FLOAT	%	Loading Factor
LoadPowerFactor	NO	FLOAT	%	Loading Power Factor
AssistType	NO	MotorAssistanceType		Motor assistance type if motor status is STARTING. See 0 for possible values.
AssistTap	NO	FLOAT	%	% of nominal voltage for reduced-voltage start
AssistR	NO	FLOAT	Ω	Resistance for resistor start
AssistCap	NO	FLOAT	kVAR	Capacitor for capacitor start
AutoXFONominalRatingKVA	NO	FLOAT		
AutoXFOPrimaryVoltageKV	NO	FLOAT		
AutoXFOZPercentage	NO	FLOAT		
AutoXFOXratioKVA	NO	FLOAT		
AutoXFOImpedance	NO	BOOLEAN		0 = No and 1 = Yes
EnableLoadFactor	NO	BOOLEAN		0 = No and 1 = Yes
ApplySkinEffect	NO	BOOLEAN		0 or 1
OhmsReactanceAssistance	NO	FLOAT		

[SYNCHRONOUS MOTOR STABILITY EXTENSION]

Key	Mandatory	Type	Units	Description
DeviceNumber	YES	STRING(64)		
StabilityModel	NO	SynchronousMachineStabilityModel		See 0 for possible values.
SpeedReference	NO	FLOAT		
FieldVoltage	NO	FLOAT		
FieldDischargerResistor	NO	FLOAT		

[SYNCHRONOUS MOTOR STARTING ASSISTANCE MSA]

Key	Mandatory	Type	Units	Description
DeviceNumber	YES	STRING(64)		
CapacitorRating	NO	FLOAT		
AssistType	NO	MotorAssistanceType		See 0 for possible values.
SpeedLimit	NO	FLOAT		
VoltageLimit	NO	FLOAT		
TimeLimit	NO	FLOAT		
Time1	NO	FLOAT		
Time2	NO	FLOAT		
Time3	NO	FLOAT		
Time4	NO	FLOAT		

Key	Mandatory	Type	Units	Description
Time5	NO	FLOAT		
R1	NO	FLOAT		
R2	NO	FLOAT		
R3	NO	FLOAT		
R4	NO	FLOAT		
R5	NO	FLOAT		
X1	NO	FLOAT		
X2	NO	FLOAT		
X3	NO	FLOAT		
X4	NO	FLOAT		
X5	NO	FLOAT		
NominalRating	NO	FLOAT		
ZNomPercent	NO	FLOAT		
PrimaryVoltage	NO	FLOAT		
XRRatio	NO	FLOAT		
AutoXFOTransitionScheme	NO	SwitchStatus		See 0 for possible values.
TapPosition1	NO	FLOAT		
TapPosition2	NO	FLOAT		
TapPosition3	NO	FLOAT		
TapPosition4	NO	FLOAT		
Duration1	NO	FLOAT		
Duration2	NO	FLOAT		
Duration3	NO	FLOAT		
Duration4	NO	FLOAT		
ZNom1	NO	FLOAT		
ZNom2	NO	FLOAT		
ZNom3	NO	FLOAT		
ZNom4	NO	FLOAT		
TransstitionTime1	NO	FLOAT		
TransstitionTime2	NO	FLOAT		
TransstitionTime3	NO	FLOAT		
TransstitionTime4	NO	FLOAT		

[SYNCHRONOUSGENERATIONMODEL]

Key	Mandatory	Type	Units	Description
DeviceNumber	YES	STRING(64)		
LoadModelName	YES	STRING(64)		Name for the load model
ActiveGeneration	NO	FLOAT		
PowerFactor	NO	FLOAT		
MinReactivePower	NO	FLOAT		
MaxReactivePower	NO	FLOAT		

[TERTIARY INTERMEDIATE NODES]

Key	Mandatory	Type	Units	Description
SectionID	YES	STRING(64)		ID label of the section to which this intermediate node belongs.
SeqNumber	YES	INTEGER		Intermediate node index starting at 0. If there are two intermediate nodes on a section, the first intermediate node (from the source) should have the sequence number = 0 and the second should be equal to 1
CoordX	NO	FLOAT		X coordinate of the intermediate node
CoordY	NO	FLOAT		Y coordinate of the intermediate node
BreakPointIndex	NO	INTEGER		

[THREE WINDING AUTO TRANSFORMER SETTING]

Key	Mandatory	Type	Units	Description
SectionID	YES	STRING(64)		ID label of the section
Location	YES	Location		Location of the equipment. See 0 for possible values.
EqID	YES	STRING(64)		ID label of the equipment
DeviceNumber	NO	STRING(64)		Identifies this equipment on the network
DeviceStage	NO	STRING(64)		Stage of the device
Flags	NO	INTEGER		Internal use only. Leave undefined.
InitFromEquipFlags	NO	INTEGER		Internal use only. Leave undefined.
CoordX	NO	FLOAT		
CoordY	NO	FLOAT		
TertiaryNodeID	NO	STRING(64)		
TertiaryNodeIndex	NO	INTEGER		
PrimaryFixedTapSetting	NO	FLOAT	%	Primary Tap setting
SecondaryFixedTapSetting	NO	FLOAT		
TertiaryFixedTapSetting	NO	FLOAT		
PrimaryBaseVoltage	NO	FLOAT	KV	
SecondaryBaseVoltage	NO	FLOAT	KV	
TertiaryBaseVoltage	NO	FLOAT	KV	
LTC1_RSetting	NO	FLOAT	Ω	
LTC1_XSetting	NO	FLOAT	Ω	
LTC1_CTPPrimaryRating	NO	FLOAT	amps	
LTC1_PTRatio	NO	FLOAT		
LTC1_ControlStatusPhase	NO	Phase		See 0 for possible values.
LTC1_TapSetting	NO	FLOAT		
LTC1_MasterID	NO	STRING(64)		
LTC1_LoadCenterID	NO	STRING(64)		
LTC1_SetPoint	NO	FLOAT	%	
LTC1_ControlType	NO	LTCCControlType		See 0 for possible values.
LTC1_UpperBandwidth	NO	FLOAT	%	
LTC1_LowerBandwidth	NO	FLOAT	%	
LTC1_Boost	NO	FLOAT	%	
LTC1_Buck	NO	FLOAT	%	
LTC1_FirstHouseHigh	NO	FLOAT		
LTC1_FirstHouseLow	NO	FLOAT		
LTC1_TapLocation	NO	TapLocation		See 0 for possible values.
LTC1_SettingOption	NO	TransformerSettingOption		See 0 for possible values.

Key	Mandatory	Type	Units	Description
LTC1_InitialTapPosition	NO	FLOAT		
LTC1_InitialTapPositionMode	NO	TapPositionMode		See 0 for possible values.
LTC2_RSetting	NO	FLOAT	Ω	
LTC2_XSetting	NO	FLOAT	Ω	
LTC2_CTPPrimaryRating	NO	FLOAT	amps	
LTC2_PTRatio	NO	FLOAT		
LTC2_ControlStatusPhase	NO	PHASE		See 0 for possible values.
LTC2_TapSetting	NO	FLOAT		
LTC2_MasterID	NO	STRING(64)		
LTC2_LoadCenterID	NO	STRING(64)		
LTC2_SetPoint	NO	FLOAT	%	
LTC2_ControlType	NO	LTCControlType		See 0 for possible values.
LTC2_UpperBandwidth	NO	FLOAT	%	
LTC2_LowerBandwidth	NO	FLOAT	%	
LTC2_Boost	NO	FLOAT	%	
LTC2_Buck	NO	FLOAT	%	
LTC2_FirstHouseHigh	NO	FLOAT		
LTC2_FirstHouseLow	NO	FLOAT		
LTC2_TapLocation	NO	TapLocation		See 0 for possible values.
LTC2_SettingOption	NO	TransformerSettingOption		See 0 for possible values.
LTC2_InitialTapPosition	NO	FLOAT		
LTC2_InitialTapPositionMode	NO	TapPositionMode		See 0 for possible values.
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
SymbolSize	NO	FLOAT		

[THREE WINDING TRANSFORMER SETTING]

Key	Mandatory	Type	Units	Description
SectionID	YES	STRING(64)		ID label of the section
Location	YES	Location		Location of the equipment. See 0 for possible values.
EqID	YES	STRING(64)		ID label of the equipment
DeviceNumber	YES	STRING(64)		Identifies this equipment on the network
DeviceStage	NO	STRING(64)		Stage of the device
Flags	NO	INTEGER		Internal use only. Leave undefined.
InitFromEquipFlags	NO	INTEGER		
CoordX	NO	FLOAT		
CoordY	NO	FLOAT		
TertiaryNodeID	NO	STRING(64)		
TertiaryNodeIndex	NO	INTEGER		
PrimaryFixedTapSetting	NO	FLOAT	%	Primary Tap setting
SecondaryFixedTapSetting	NO	FLOAT	%	Secondary Tap setting
TertiaryFixedTapSetting	NO	FLOAT		
PrimaryBaseVoltage	NO	FLOAT	KV	
SecondaryBaseVoltage	NO	FLOAT	KV	
TertiaryBaseVoltage	NO	FLOAT	KV	
LTC1_RSetting	NO	FLOAT	Ω	
LTC1_XSetting	NO	FLOAT	Ω	
LTC1_CTPPrimaryRating	NO	FLOAT	amps	

Key	Mandatory	Type	Units	Description
LTC1_PTRatio	NO	FLOAT		
LTC1_ControlStatusPhase	NO	PHASE		See 0 for possible values.
LTC1_TapSetting	NO	FLOAT		
LTC1_MasterID	NO	STRING(64)		
LTC1_LoadCenterID	NO	STRING(64)		
LTC1_SetPoint	NO	FLOAT		
LTC1_ControlType	NO	LTCControlType		See 0 for possible values.
LTC1_UpperBandwidth	NO	FLOAT	%	
LTC1_LowerBandwidth	NO	FLOAT	%	
LTC1_Boost	NO	FLOAT	%	
LTC1_Buck	NO	FLOAT	%	
LTC1_FirstHouseHigh	NO	FLOAT		
LTC1_FirstHouseLow	NO	FLOAT		
LTC1_TapLocation	NO	TapLocation		See 0 for possible values.
LTC1_SettingOption	NO	TransformerSettingOption		See 0 for possible values.
LTC1_InitialTapPosition	NO	FLOAT		
LTC1_InitialTapPositionMode	NO	TapPositionMode		See 0 for possible values.
LTC2_RSetting	NO	FLOAT	Ω	
LTC2_XSetting	NO	FLOAT	Ω	
LTC2_CTPPrimaryRating	NO	FLOAT	amps	
LTC2_PTRatio	NO	FLOAT		
LTC2_ControlStatusPhase	NO	PHASE		See 0 for possible values.
LTC2_TapSetting	NO	FLOAT		
LTC2_MasterID	NO	STRING(64)		
LTC2_LoadCenterID	NO	STRING(64)		
LTC2_SetPoint	NO	FLOAT	%	
LTC2_ControlType	NO	LTCControlType		See 0 for possible values.
LTC2_UpperBandwidth	NO	FLOAT	%	
LTC2_LowerBandwidth	NO	FLOAT	%	
LTC2_Boost	NO	FLOAT	%	
LTC1_FirstHouseHigh	NO	FLOAT		
LTC1_FirstHouseLow	NO	FLOAT		
LTC2_Buck	NO	FLOAT	%	
LTC2_TapLocation	NO	TapLocation		See 0 for possible values.
LTC2_SettingOption	NO	TransformerSettingOption		See 0 for possible values.
LTC2_InitialTapPosition	NO	FLOAT		
LTC2_InitialTapPositionMode	NO	TapPositionMode		See 0 for possible values.
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.

[TOPO]

This block is particular because the 'Section' and the 'Topo' blocks are related. This block starts with the Section header followed by the Section and the Topo data format line. Then, a line of data values for Topo will follow and the line of data values for all the sections owned by a network. Repeat these steps for each network. See also [SECTION].

The Topo data format line should start with one of the following:

- FORMAT_FEEDER=
- FORMAT_SUBSTATION=
- FORMAT_SECONDARYNETWORK=
- FORMAT_TRANSMISSIONLINE=
- FORMAT_GENERALNETWORK=
- FORMAT_LOWVOLTAGENETWORK=
- FORMAT_DCNETWORK=

The Topo data value line should start with one of the following keywords:

- FEEDER=
- SUBSTATION=
- SECONDARYNETWORK=
- TRANSMISSIONLINE=
- GENERALNETWORK=
- LOWVOLTAGENETWORK=
- DCNETWORK=

Section and Topo:

```
[SECTION]
FORMAT_SECTION=SectionID,FromNodeID,FromNodeIndex,ToNodeID,ToNodeIndex,Phase
FORMAT_FEEDER=NetworkID,HeadNodeID,CoordSet,Year,Description,Color
FEEDER=FEEDER-1,TOPO_HEADNODE_ID_000001,1,1466005639,0,0
1,TOPO_HEADNODE_ID_000001,0,1,0,ABC
2,1,0,2,0,ABC
3,1,0,3,0,ABC
4,3,0,4,0,ABC
6,4,0,6,0,ABC
FEEDER=FEEDER-2,TOPO_HEADNODE_ID_000002,1,1466005639,0,16711680
201,TOPO_HEADNODE_ID_000002,0,2,0,ABC
202,2,0,202,0,ABC
203,202,0,203,0,ABC
204,203,0,204,0,ABC
205,204,0,205,0,ABC
```

Key	Mandatory	Type	Units	Description
NetworkID	YES	STRING(32)		Should be preceded by a keyword
HeadNodeID	NO	STRING(32)		
CoordSet	YES	COORDSET		See 0 for possible values.
Year	NO	INTEGER		
Description	NO	STRING(1000)		

Key	Mandatory	Type	Units	Description
Color	NO	INTEGER		
LoadFactor	NO	FLOAT		
Group1	NO	STRING(32)		
Group2	NO	STRING(32)		
Group3	NO	STRING(32)		
TagText	NO	STRING(255)		
TagProperties	NO	INTEGER		
TagDeltaX	NO	FLOAT		
TagDeltaY	NO	FLOAT		
TagAngle	NO	FLOAT		
TagAlignment	NO	GUITagItemTextAlign		See 0 for possible values.
TagBorder	NO	GUITagItemBorder		See 0 for possible values.
TagBackground	NO	GUITagItemBackground		See 0 for possible values.
TagTextColor	NO	INTEGER		
TagBorderColor	NO	INTEGER		
TagBackgroundColor	NO	INTEGER		
Tag_Location	NO	GUITagItemLocation		See 0 for possible values.
TagFont	NO	STRING(32)		
TagTextSize	NO	FLOAT		
TagOffSet	NO	FLOAT		
Version	NO	INTEGER		
EnvironmentID	NO	INTEGER		

[TRANSFORMER SETTING]

Key	Mandatory	Type	Units	Description
SectionID	YES	STRING(64)		ID label of the section
Location	YES	LOCATION		Location of the equipment. See 0 for possible values.
EqlID	YES	STRING(64)		ID label of the equipment
DeviceNumber	YES	STRING(64)		Identifies this equipment on the network
DeviceStage	NO	STRING(64)		Stage of the device
Flags	NO	INTEGER		Internal use only. Leave undefined.
InitFromEquipFlags	NO	INTEGER		
CoordX	NO	FLOAT		
CoordY	NO	FLOAT		
Conn	NO	TransformerConnection		Connection See 0 for possible values.
PrimTap	NO	FLOAT	%	Tap setting
SecondaryTap	NO	FLOAT		
RgPrim	NO	FLOAT	Ω	Primary Grounding Resistance
XgPrim	NO	FLOAT	Ω	Primary Grounding Reactance
RgSec	NO	FLOAT	Ω	Secondary Grounding Resistance
XgSec	NO	FLOAT	Ω	Secondary Grounding Reactance
ODPrimPh	NO	PRIM_PHASE		Primary phasing for YO_DO. See 0 for possible values.
PrimaryBaseVoltage	NO	FLOAT	KV	To force primary system voltage to a specific value

Key	Mandatory	Type	Units	Description
SecondaryBaseVoltage	NO	FLOAT	KV	To force primary system voltage to a specific value
FromNodeID	NO	STRING(64)		Parent section ID in the normal configuration. Set to NULL if the device is on the first section of the feeder.
SettingOption	NO	XFO_CONT		Setting options. See 0 for possible values.
SetPoint	NO	FLOAT		
ControlType	NO	LTCControlType		See 0 for possible values.
LowerBandwidth	NO	FLOAT	%	Tolerance
UpperBandwidth	NO	FLOAT	%	Tolerance
TapLocation	NO	TapLocation		See 0 for possible values.
InitialTapPosition	NO	FLOAT		Initial tap position.
InitialTapPositionMode	NO	TapPositionMode		See 0 for possible values.
Tap	NO	FLOAT		Tap position
MaxBuck	NO	FLOAT	%	Maximum buck capability
MaxBoost	NO	FLOAT	%	Maximum boost capability
CT	NO	FLOAT	Amps	CT primary rating
PT	NO	FLOAT		PT ratio (V primary / V secondary)
Rset	NO	FLOAT	Ω	R setting
Xset	NO	FLOAT	Ω	X setting
FirstHouseHigh	NO	FLOAT		
FirstHouseLow	NO	FLOAT		
PhaseON	NO	PHASE		Control On. See 0 for possible values.
AtSectionID	NO	STRING(64)		Node ID of the load center point
MasterID	NO	STRING(64)		Section ID of the controlling device or NULL if device is a slave.
FaultIndicator	NO	FaultIndicatorType		To indicate fault via a signal. See 0 for possible values.
PhaseShiftType	NO	XFoPhaseShift		See 0 for possible values.
GammaPhaseShift	NO	FLOAT		
CTPhase	NO	CTPhase		See 0 for possible values.
PrimaryCornerGroundedPhase	NO	PHASE		See 0 for possible values.
SecondaryCornerGroundedPhase	NO	PHASE		See 0 for possible values.
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
TCCRepositoryID	NO	STRING(64)		
Reversible	NO	INTEGER		

[TRANSFORMER BYPHASE SETTING]

Key	Mandatory	Type	Units	Description
SectionID	YES	STRING(64)		ID label of the section
Location	YES	Location		Location of the equipment. See 0 for possible values.
DeviceNumber	YES	STRING(64)		Identifies this equipment on the network
DeviceStage	NO	STRING(64)		Stage of the device
Flags	NO	INTEGER		Internal use only. Leave undefined.
InitFromEquipFlags	NO	INTEGER		

Key	Mandatory	Type	Units	Description
CoordX	NO	FLOAT		
CoordY	NO	FLOAT		
PhaseTransformerID1	YES/NO*	STRING(64)		* At least one PhaseTransformerId is required
PhaseTransformerID2	YES/NO*	STRING(64)		
PhaseTransformerID3	YES/NO*	STRING(64)		
CenterTap_Phase	YES	PHASE		See 0 for possible values.
PrimaryRg	NO	FLOAT	Ω	
PrimaryXg	NO	FLOAT	Ω	
SecondaryRg	NO	FLOAT	Ω	
SecondaryXg	NO	FLOAT	Ω	
FeedingNode	NO	STRING(64)		
Connection	NO	TransformerConn ection		See 0 for possible values.
PrimaryBaseVoltage	NO	FLOAT	KV	
SecondaryBaseVoltage	NO	FLOAT	KV	
PhaseshiftType	NO	XFoPhaseShift		See 0 for possible values.
GammaPhaseShift	NO	FLOAT		
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
PrimaryCornerGroundedPh ase	NO	PHASE		See 0 for possible values
SecondaryCornerGrounded Phase	NO	PHASE		See 0 for possible values
PrimaryTapSettingA	NO	FLOAT	%	
SecondaryTapSettingA	NO	FLOAT	%	
PrimaryTapSettingB	NO	FLOAT	%	
SecondaryTapSettingB	NO	FLOAT	%	
PrimaryTapSettingC	NO	FLOAT	%	
SecondaryTapSettingC	NO	FLOAT	%	

[UDM SETTINGS]

Key	Mandatory	Type	Units	Description
DeviceNumber	YES	STRING(64)		
DeviceType	YES	DeviceType		See 0 for possible values.
UDMCATEGORY	YES	UDMCATEGORY		See 0 for possible values.
EquipmentID	NO	STRING(32)		
Enable	NO	INTEGER		(0 or 1)

[UDM VARIABLES SETTINGS]

Key	Mandatory	Type	Units	Description
DeviceNumber	YES	STRING(64)		
DeviceType	YES	DeviceType		See 0 for possible values.
UDMCATEGORY	YES	UDMCATEGORY		See 0 for possible values.
VariableIndex	YES	INTEGER		
VariableName	NO	STRING(32)		
UDMVariableType	NO	UDMVariableType		See 0 for possible values.
Description	NO	STRING(1000)		
ValueNum	NO	FLOAT		

Key	Mandatory	Type	Units	Description
Unit	NO	STRING(32)		
ValueStr	NO	STRING(32)		
ValidationRule	NO	UDMValidationRules		See 0 for possible values.
UseLocally	NO	BOOLEAN		(0 or 1)

[UNCONNECTED NODES]

Key	Mandatory	Type	Units	Description
NodeID	YES	STRING(64)		
StructureID	YES	STRING(64)		

[UNDERGROUNDLINE SETTING]

Key	Mandatory	Type	Units	Description
SectionID	YES	STRING(64)		
DeviceNumber	NO	STRING(64)		
DeviceStage	NO	STRING(64)		Stage of the device
Flags	NO	INTEGER		Internal use only. Leave undefined.
InitFromEquipFlags	NO	INTEGER		
LineCableID	NO	STRING(64)		
Length	NO	FLOAT		
NumberOfCableInParallel	NO	INTEGER		
CTConnection	NO	CTConnection		See 0 for possible values.
Amps	NO	FLOAT		
Amps_1	NO	FLOAT		
Amps_2	NO	FLOAT		
Amps_3	NO	FLOAT		
Amps_4	NO	FLOAT		
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
CoordX	NO	FLOAT		
CoordY	NO	FLOAT		
HarmonicModel	NO	LineHarmonicModel		See 0 for possible values.
TCCRepositoryID	NO	STRING(64)		
EarthResistivity	NO	FLOAT		
OperatingTemperature	NO	FLOAT		
Height	NO	FLOAT		
DistanceBetweenConductors	NO	FLOAT		
BondingType	NO	CableSheathBondingType		See 0 for possible values.
CableConfiguration	NO	CableConfiguration		See 0 for possible values.
DuctMaterial	NO	CableDuctMaterial		See 0 for possible values.
Bundled	NO	BOOLEAN		
Neutral1Type	NO	EquipmentDBType		See 0 for possible values.
Neutral2Type	NO	EquipmentDBType		See 0 for possible values.
Neutral3Type	NO	EquipmentDBType		See 0 for possible values.
Neutral1ID	NO	STRING(64)		
Neutral2ID	NO	STRING(64)		
Neutral3ID	NO	STRING(64)		
AmpacityDeratingFactor	NO	FLOAT		
FlowConstraintActive	NO	BOOLEAN		

Key	Mandatory	Type	Units	Description
FlowConstraintUnit	NO	OPFFlowConstraints Unit		See 0 for possible values.
MaximumFlow	NO	FLOAT		

[UPFC SETTING]

Key	Mandatory	Type	Units	Description
SectionID	YES	STRING(64)		
Location	YES	LOCATION		See 0 for possible values.
DeviceNumber	YES	STRING(64)		
DeviceStage	NO	STRING(64)		Stage of the device
Flags	NO	INTEGER		Internal use only. Leave undefined.
InitFromEquipFlags	NO	INTEGER		
ConnectionStatus	NO	ConnectionStat us		See 0 for possible values.
SymbolSize	NO	FLOAT		
CoordX	NO	FLOAT		
CoordY	NO	FLOAT		
NormalFeedingNodeID	NO	STRING(64)		
SeriesTransformerReactance	NO	FLOAT		
ShuntTransformerReactance	NO	FLOAT		
DesiredActivePower	NO	FLOAT		
DesiredReactivePower	NO	FLOAT		
DesiredVoltageSendingSide	NO	FLOAT		
MaxVoltageReceivingSide	NO	FLOAT		
MinVoltageReceivingSide	NO	FLOAT		
ApplyConstraints	NO	BOOLEAN		
SeriesConverterVoltageLimit	NO	FLOAT		
MaximumDCLinkExchange	NO	FLOAT		
MaximumSeriesCurrent	NO	FLOAT		
MaximumShuntCurrent	NO	FLOAT		
FreqSourceID	NO	STRING(64)		

[VARCOMPENSATOR SETTING]

Key	Mandatory	Type	Units	Description
SectionID	YES	STRING(64)		ID label of the section
Location	YES	LOCATION		Location of the equipment See 0 for possible values.
EqlID	YES	STRING(64)		Label of the equipment
DeviceNumber	YES	STRING(64)		Identifies this equipment on the network
DeviceStage	NO	STRING(64)		Stage of the device
Flags	NO	INTEGER		Internal use only. Leave undefined.
InitFromEquipFlags	NO	INTEGER		
Phase	NO	Phase		Phase to which equipment is connected. See 0 for possible values.
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
SymbolSize	NO	FLOAT		
ConnectionConfiguration	NO	ConnectionConfigura tion		See 0 for possible values.
CTConnection	NO	CTConnection		See 0 for possible values.

Key	Mandatory	Type	Units	Description
ControlType	NO	VARCompensatorControlType		See 0 for possible values.
ControlledNodeID	NO	STRING(64)		
DesiredVoltage	NO	FLOAT		
DesiredReactivePower	NO	FLOAT		
DesiredPowerFactor	NO	FLOAT		
MinReactivePower	NO	FLOAT		
MaxReactivePower	NO	FLOAT		
Bandwidth	NO	FLOAT		
NumberOfSteps	NO	INTEGER		
BehaviorAtLimits	NO	BehaviorAtLimits		See 0 for possible values.
FreqSourceID	NO	STRING(64)		

[VARIABLE FREQUENCY DRIVE SETTING]

Key	Mandatory	Type	Units	Description
SectionID	YES	STRING(64)		
Location	YES	LOCATION		See 0 for possible values.
EqID	YES	STRING(64)		
DeviceNumber	YES	STRING(64)		
DeviceStage	NO	STRING(64)		Stage of the device
Flags	NO	INTEGER		Internal use only. Leave undefined.
InitFromEquipFlags	NO	INTEGER		
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
SymbolSize	NO	FLOAT		
CoordX	NO	FLOAT		
CoordY	NO	FLOAT		
OperatingMode	NO	VFDControlMode		See 0 for possible values.
ControlOutputSpeed	NO	BOOLEAN		
OutputFrequency	NO	FLOAT		
OutputSpeed	NO	FLOAT		
ForwardContribution	NO	FLOAT		
ReverseContribution	NO	FLOAT		
RegenerativeCapability	NO	BOOLEAN		
RatedCurrentMultiplier	NO	FLOAT		
LockedRotorCurrentMultiplier	NO	FLOAT		
UseRatedCurrent	NO	BOOLEAN		
FreqSourceID	NO	STRING(64)		
SourceHarmonicModelType	NO	SourceHarmonic Model		See 0 for possible values.
PulseNumber	NO	FLOAT		
FiringAngle	NO	FLOAT		
OverlapAngle	NO	FLOAT		

[VARMETER INSTRUMENT]

Key	Mandatory	Type	Units	Description
InstrumentNumber	YES	STRING(64)		
InstrumentIndex	NO	INTEGER		
Flags	NO	INTEGER		Internal use only. Leave undefined.

Key	Mandatory	Type	Units	Description
Location	NO	Location		See 0 for possible values.
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
ConnectorIndex	NO	INTEGER		
ReactivePowerUnit	NO	ReactivePowerUnit		See 0 for possible values.
LossesPerPhase	NO	FLOAT		
AccuracyType	NO	AccuracyType		See 0 for possible values.
OwnerDeviceNumber	NO	STRING(64)		OwnerDeviceNumber + OwnerDeviceType
OwnerDeviceType	NO	DeviceType		See 0 for possible values.
TagText	NO	STRING(255)		
TagDeltaX	NO	FLOAT		
TagDeltaY	NO	FLOAT		
TagAngle	NO	FLOAT		
TagLocation	NO	GUITagItemLocation		See 0 for possible values.
TagProp	NO	INTEGER		
TagAlignment	NO	GUITagItemTextAlign		See 0 for possible values.
TagBorder	NO	GUITagItemBorder		See 0 for possible values.
TagBackground	NO	GUITagItemBackground		See 0 for possible values.
TagTextColor	NO	INTEGER		
TagBorderColor	NO	INTEGER		
TagBackgroundColor	NO	INTEGER		
TagFont	NO	STRING(32)		
TagTextSize	NO	FLOAT		
TagOffset	NO	FLOAT		

[VOLTAGE METER INSTRUMENT]

Key	Mandatory	Type	Units	Description
InstrumentNumber	YES	STRING(64)		
InstrumentIndex	NO	INTEGER		
Flags	NO	INTEGER		Internal use only. Leave undefined.
Location	NO	Location		See 0 for possible values.
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
ConnectorIndex	NO	INTEGER		
VoltageUnit	NO	VoltageUnit		See 0 for possible values.
VoltageUnitReference	NO	VoltageUnitReference		See 0 for possible values.
AccuracyType	NO	AccuracyType		See 0 for possible values.
OwnerNodeID	YES*	STRING(64)		* Either OwnerNodeID is needed or
OwnerDeviceNumber	YES*	STRING(64)		OwnerDeviceNumber + OwnerDeviceType
OwnerDeviceType	YES*	DeviceType		See 0 for possible values.
TagText	NO	STRING(255)		
TagDeltaX	NO	FLOAT		
TagDeltaY	NO	FLOAT		
TagAngle	NO	FLOAT		
TagLocation	NO	GUITagItemLocation		See 0 for possible values.
TagProp	NO	INTEGER		
TagAlignment	NO	GUITagItemTextAlign		See 0 for possible values.
TagBorder	NO	GUITagItemBorder		See 0 for possible values.
TagBackground	NO	GUITagItemBackground		See 0 for possible values.
TagTextColor	NO	INTEGER		
TagBorderColor	NO	INTEGER		

Key	Mandatory	Type	Units	Description
TagBackgroundColor	NO	INTEGER		
TagFont	NO	STRING(32)		
TagTextSize	NO	FLOAT		
TagOffset	NO	FLOAT		

[VOLTAGE RELAY INSTRUMENT]

Key	Mandatory	Type	Units	Description
InstrumentNumber	YES	STRING(64)		
InstrumentIndex	NO	INTEGER		
Flags	NO	INTEGER		Internal use only. Leave undefined.
Location	NO	Location		See 0 for possible values.
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
OperatingTime	NO	FLOAT		
SymbolText	NO	STRING(64)		
OwnerNodeID	YES*	STRING(64)		* Either OwnerNodeID is needed or
OwnerDeviceNumber	YES*	STRING(64)		OwnerDeviceNumber + OwnerDeviceType
OwnerDeviceType	YES*	DeviceType		See 0 for possible values.
TagText	NO	STRING(255)		
TagDeltaX	NO	FLOAT		
TagDeltaY	NO	FLOAT		
TagAngle	NO	FLOAT		
TagLocation	NO	GUITagItemLocation		See 0 for possible values.
TagProp	NO	INTEGER		
TagAlignment	NO	GUITagItemTextAlign		See 0 for possible values.
TagBorder	NO	GUITagItemBorder		See 0 for possible values.
TagBackground	NO	GUITagItemBackground		See 0 for possible values.
TagTextColor	NO	INTEGER		
TagBorderColor	NO	INTEGER		
TagBackgroundColor	NO	INTEGER		
TagFont	NO	STRING(32)		
TagTextSize	NO	FLOAT		
TagOffset	NO	FLOAT		

[WATTMETER INSTRUMENT]

Key	Mandatory	Type	Units	Description
InstrumentNumber	YES	STRING(64)		
InstrumentIndex	NO	INTEGER		
Flags	NO	INTEGER		Internal use only. Leave undefined.
Location	NO	Location		See 0 for possible values.
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
ConnectorIndex	NO	INTEGER		
RealPowerUnit	NO	RealPowerUnit		See 0 for possible values.
LossesPerPhase	NO	FLOAT		
AccuracyType	NO	AccuracyType		See 0 for possible values.
OwnerDeviceNumber	NO	STRING(64)		OwnerDeviceNumber + OwnerDeviceType
OwnerDeviceType	NO	DeviceType		See 0 for possible values.
TagText	NO	STRING(255)		

Key	Mandatory	Type	Units	Description
TagDeltaX	NO	FLOAT		
TagDeltaY	NO	FLOAT		
TagAngle	NO	FLOAT		
TagLocation	NO	GUITagItemLocation		See 0 for possible values.
TagProp	NO	INTEGER		
TagAlignment	NO	GUITagItemTextAlign		See 0 for possible values.
TagBorder	NO	GUITagItemBorder		See 0 for possible values.
TagBackground	NO	GUITagItemBackground		See 0 for possible values.
TagTextColor	NO	INTEGER		
TagBorderColor	NO	INTEGER		
TagBackgroundColor	NO	INTEGER		
TagFont	NO	STRING(32)		
TagTextSize	NO	FLOAT		
TagOffset	NO	FLOAT		

[WECS SETTINGS]

Key	Mandatory	Type	Units	Description
SectionID	YES	STRING(64)		
Location	YES	LOCATION		See 0 for possible values.
DeviceNumber	YES	STRING(64)		
DeviceStage	NO	STRING(64)		Stage of the device
Flags	NO	INTEGER		Internal use only. Leave undefined.
InitFromEquipFlags	NO	INTEGER		
EquipmentID	YES	STRING(64)		
NumberOfGenerators	NO	INTEGER		
SymbolSize	NO	FLOAT		
ConstantWindSpeed	NO	BOOLEAN		(0 or 1)
ForceT0	NO	BOOLEAN		(0 or 1)
WindModelID	NO	STRING(64)		
FrequencySourceID	NO	STRING(64)		
SourceHarmonicModelType	NO	SourceHarmonicModel		See 0 for possible values.
PulseNumber	NO	INTEGER		
FiringAngle	NO	FLOAT		
OverlapAngle	NO	FLOAT		
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
ConnectionConfiguration	NO	ConnectionConfiguration		See 0 for possible values.
Phase	NO	PHASE		See 0 for possible values.
FaultContributionBasedOnRatedPower	NO	BOOLEAN		
FaultContributionUnit	NO	FaultContributionUnitType		See 0 for possible values.
FaultContribution	NO	FLOAT		
CTConnection	NO	CTConnection		See 0 for possible values.

[ZONE]

Key	Mandatory	Type	Units	Description
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Key	Mandatory	Type	Units	Description
ZoneID	YES	STRING(64)		ID of the zone
Comment	NO	STRING(1000)		Comments
Color	NO	COLORS		Color for the zone. See 0 for possible values.
EnvironmentID	NO	INTEGER		

[ZONEUDD]

Key	Mandatory	Type	Units	Description
Zoneld	YES	STRING(64)		
DataId	NO	STRING(64)		
DataType	NO	ValueType		See 0 for possible values.
DataValue	NO	STRING(255)		

Load Database File

The ASCII load data file describes loads connected to the feeder sections in CYME studies.

[CUSTOMER CLASS]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		ID for the customer class.
DCCustomerType	NO	BOOLEAN		
Description	NO	STRING(1000)		Description of the customer class.
Color	NO	COLORS		Color associated to the customer class. See 0 for possible values.
SymbolID	NO	INTEGER		
ConstantPower	NO	FLOAT		
ConstantCurrent	NO	FLOAT		
ConstantImpedance	NO	FLOAT		
UtilizationFactor	NO	FLOAT		
PowerFactor	NO	FLOAT		
MeteredLoads	NO	FLOAT		
NonMeteredLoads	NO	FLOAT		
LoadFactor	NO	FLOAT		
FrequencySensitivityP	NO	FLOAT		
FrequencySensitivityQ	NO	FLOAT		
EnableHarmonic	NO	BOOLEAN		(0 or 1)
HarmonicCurrentSourceInPercent	NO	BOOLEAN		(0 or 1)
IsExponentialModel	NO	BOOLEAN		(0 or 1)
ConstantImpedanceZP	NO	FLOAT		
ConstantImpedanceZQ	NO	FLOAT		
ConstantCurrentIP	NO	FLOAT		
ConstantCurrentIQ	NO	FLOAT		
ConstantPowerPP	NO	FLOAT		
ConstantPowerPQ	NO	FLOAT		
ExponentialModelP	NO	FLOAT		
ExponentialModelQ	NO	FLOAT		

Key	Mandatory	Type	Units	Description
LoadFlowVoltagePercentOfNominal	NO	FLOAT		
LossesPerCustomer	NO	FLOAT		
ConnectedCenterTap1N	NO	FLOAT		
ConnectedCenterTap2N	NO	FLOAT		
AdjustmentSettings	NO	LTDAdjustmentSettings		See 0 for possible values.
PowerCurveModel	NO	CurveModel		See 0 for possible values.
PowerCurveModelId	NO	STRING(64)		

[CUSTOMER LOADS]

Key	Mandatory	Type	Units	Description
SectionID	NO*	STRING(64)		ID of the section to which the load is connected. * SectionID or DeviceNumber is required.
DeviceNumber	NO*	STRING(64)		
LoadType	YES	LOAD_TYPE		See 0 for possible values.
CustomerNumber	YES	STRING(64)		
CustomerType	YES	STRING(64)		
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
LockDuringLoadAllocation	NO	LALockDuringLoadAllocation		See 0 for possible values.
Year	NO	INTEGER		
LoadModelID	NO	INTEGER		
NormalPriority	NO	INTEGER		
EmergencyPriority	NO	INTEGER		
ValueType	NO	LoadValueType		See 0 for possible values.
LoadPhase	YES	PHASE		See 0 for possible values.
Value1	NO	FLOAT		
Value2	NO	FLOAT		
ConnectedKVA	NO	FLOAT	kVA	
KWH	NO	FLOAT	kWH	
NumberOfCustomer	NO	FLOAT		
CenterTapPercent	NO	FLOAT	%	
CenterTapPercent2	NO	FLOAT		
LoadValue1N1	NO	FLOAT		
LoadValue1N2	NO	FLOAT		
LoadValue2N1	NO	FLOAT		
LoadValue2N2	NO	FLOAT		

[CUSTOMERTYPEHARMONIC SETTINGS]

Key	Mandatory	Type	Units	Description
ConsumerClassID	YES	STRING(64)		ID of the section to which the load is connected
SourceIndex	YES	INTEGER		
HarmonicOrder	YES	FLOAT		
Current	NO	FLOAT		
Angle	NO	FLOAT		

[DEVICECOMPONENTUDD]

Key	Mandatory	Type	Units	Description
DeviceComponentNumber	YES	STRING(64)		
DeviceComponentType	YES	DeviceComponentType		See 0 for possible values.
DataId	NO	STRING(64)		
DataType	NO	ValueType		See 0 for possible values.
DataValue	NO	STRING(255)		

[DEVICETAG]

Key	Mandatory	Type	Units	Description
DeviceNumber	YES	STRING(64)		
DeviceType	YES	DeviceType		See 0 for possible values.
TagText	NO	STRING(255)		
TagProperties	NO	INTEGER		
TagDeltaX	NO	FLOAT		
TagDeltaY	NO	FLOAT		
TagAngle	NO	FLOAT		
TagAlignment	NO	GUITagItemTextAlign		See 0 for possible values.
TagBorder	NO	GUITagItemBorder		See 0 for possible values.
TagBackground	NO	GUITagItemBackground		See 0 for possible values.
TagTextColor	NO	INTEGER		
TagBorderColor	NO	INTEGER		
TagBackgroundColor	NO	INTEGER		
TagLocation	NO	GUITagItemLocation		See 0 for possible values.
TagFont	NO	STRING(32)		
TagTextSize	NO	FLOAT		
TagOffset	NO	FLOAT		

[DEVICEUDD]

Key	Mandatory	Type	Units	Description
DeviceNumber	YES	STRING(64)		
DeviceType	YES	DeviceType		See 0 for possible values.
DataId	NO	STRING(64)		
DataType	NO	ValueType		See 0 for possible values.
DataValue	NO	STRING(255)		

[GROWTH]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(64)		Enter the ID according to the DataType
Year	YES	INTEGER		Year for the growth factor
DataType	YES	DATA_TYPE		Data type. See 0 for possible values.
LoadModelID	NO	INTEGER		

Key	Mandatory	Type	Units	Description
SpotCustomerType	NO	STRING(64)		Consumer type for spot load.
SpotValue	NO	FLOAT	%	Consumer spot load value.
DistCustomerType	NO	STRING(64)		Consumer type for distributed load.
DistValue	NO	FLOAT	%	Consumer distributed load value.

[LOAD MODEL INFORMATION]

Key	Mandatory	Type	Units	Description
ID	YES	INTEGER		ID for the load model.
Name	NO	STRING(64)		Name for the load model.

[LOADS]

Key	Mandatory	Type	Units	Description
SectionID	YES	STRING(64)		ID of the section to which the load is connected
DeviceNumber	YES	STRING(64)		
DeviceStage	NO	STRING(64)		Stage of the device
Flags	NO	INTEGER		Internal use only. Leave undefined.
LoadType	YES	LOAD_TYPE		See 0 for possible values.
Connection	NO	ConnectionConfiguration		See 0 for possible values.
Location	NO	Location		See 0 for possible values.

Background Maps Database File

This file works exactly like the others, except that it only contains the data for background maps that may be associated with your network.

[BACKGROUND MAPS]

Key	Mandatory	Type	Units	Description
FileName	YES	STRING(255)		Contains the full path to the background map.(dxf file)
Top	YES	FLOAT		Top coordinate value of the map position on the network.
Left	YES	FLOAT		Left coordinate value of the map position on the network.
Bottom	YES	FLOAT		Bottom coordinate value of the map position on the network.
Right	YES	FLOAT		Right coordinate value of the map position on the network.
MinScale	NO	INTEGER		
MaxScale	NO	INTEGER		
MapType	NO	GeoMapType		See 0 for possible values.

Example:

```
[GENERAL]
Date=June 23, 2009 at 15:21:42
Cymdist_Version=5.0

[SI]

[BACKGROUND MAPS]
Format_BackgroundMaps=FileName,Top,Left,Bottom,Right
C:\Cyme\Network\Maps\0001-SteMarys.dxf,0,0,100,100
C:\Cyme\Network\Maps\0002-Laval.dxf,0,100,100,200
C:\Cyme\Network\Maps\0003-Sherbrooke.dxf,100,0,200,100
C:\Cyme\Network\Maps\0004-bishop.dxf,100,100,200,200
```

Reliability Database File

The ASCII Reliability database file describes Failure Events and Reliability Calibration connected to the devices of sections in CYME studies. (Refer to the **Section Properties** dialog box, *The File Menu, Edit* in the CYME Reference Manual.)

[DEVICE CALIBRATION]

Key	Mandatory	Type	Units	Description
DeviceNumber	YES	STRING(64)		
DeviceType	YES	DeviceType		See 0 for possible values.
OHPermanentFailureRate	NO	FLOAT		
OHTemporaryFailureRate	NO	FLOAT		
OHRepairTime	NO	FLOAT		
UGPermanentFailureRate	NO	FLOAT		
UGTemporaryFailureRate	NO	FLOAT		
UGRepairTime	NO	FLOAT		

[FAILURE EVENTS]

Key	Mandatory	Type	Units	Description
SectionID	YES/NO*	STRING(64)		Id of the section on which the failure is. * SectionID and Location are required or DeviceNumber is required
DeviceType	YES	DeviceType		Device type on which the failure is. See 0 for possible values.
Location	YES/NO*	Location		Location of the device on the section. See 0 for possible values.
FailureID	YES	STRING(64)		Id of the failure
DeviceNumber	NO/YES*	STRING(64)		
FailureEquipType	NO	STRING(64)		Equipment failure type
Date	NO	STRING(8)		Date of occurrence (Format: MMDDYYYY)
Time	NO	STRING(6)		Time of occurrence (Format:HHMMSS)
CauseName	NO	STRING(64)		
TotalOutageTime	NO	FLOAT		
WeatherConditions	NO	STRING(255)		
ExceptionnalEvent	NO	BOOLEAN		0 for false, 1 for true
InterruptedPhase	NO	PHASE		See 0 for possible values.
Description	NO	STRING(255)		

[FEEDER CALIBRATION]

Key	Mandatory	Type	Units	Description
FeederID	YES	STRING(64)		
OHPermanentFailureRate	NO	FLOAT		
OHTemporaryFailureRate	NO	FLOAT		
OHRepairTime	NO	FLOAT		
UGPermanentFailureRate	NO	FLOAT		
UGTemporaryFailureRate	NO	FLOAT		
UGRepairTime	NO	FLOAT		

Capacitor Status Database File

The ASCII Capacitor Status data file is used to update a subset of the shunt capacitor properties. Only the values that are explicitly defined in the ASCII file will be updated in the database. The format used is identical to the one used to define a shunt capacitor in the network file.

[SHUNT CAPACITOR UPDATE SETTING]

Key	Mandatory	Type	Units	Description
SectionID	YES/NO*	STRING(64)		ID label of the section to which the capacitor is connected * SectionID and Location are required or DeviceNumber is required
DeviceNumber	NO/YES*	STRING(64)		Device number of the capacitor.
ConnectionStatus	NO	ConnectionStatus		See 0 for possible values.
SwitchedCapacitorStatus	NO	SwitchedCapacitorStatus		See 0 for possible values.
CTConnection	NO	CTConnection		See 0 for possible values.
Location	YES/NO*	CAP_LOCAT		Location of the capacitor. See 0 for possible values.
Connection	NO	CAP_CONN		See 0 for possible values.
FixedKVARA	NO	FLOAT		
FixedKVARB	NO	FLOAT		
FixedKVARC	NO	FLOAT		
FixedLossesA	NO	FLOAT		
FixedLossesB	NO	FLOAT		
FixedLossesC	NO	FLOAT		
SwitchedKVARA	NO	FLOAT		
SwitchedKVARB	NO	FLOAT		
SwitchedKVARC	NO	FLOAT		
SwitchedLossesA	NO	FLOAT		
SwitchedLossesB	NO	FLOAT		
SwitchedLossesC	NO	FLOAT		
ByPhase	NO	BOOLEAN		
VoltageOverride	NO	BOOLEAN		
VoltageOverrideOn	NO	FLOAT		
VoltageOverrideOff	NO	FLOAT		
VoltageOverrideDeadband	NO	FLOAT		
KV	NO	FLOAT	kV	
Control	NO**	CAP_CONTROL		See 0 for possible values. ** If you want to modify these values, Control should also be specified

Key	Mandatory	Type	Units	Description
OnValueA	NO**	FLOAT		
OnValueB	NO**	FLOAT		
OnValueC	NO**	FLOAT		
OffValueA	NO**	FLOAT		
OffValueB	NO**	FLOAT		
OffValueC	NO**	FLOAT		
SwitchingMode	NO**	PhaseType		See 0 for possible values.
InitiallyClosedPhase	NO**	Phase		See 0 for possible values.
CurrentClosedPhase	NO**	Phase		See 0 for possible values.
ControllingPhase	NO**	PHASE		See 0 for possible values.
SensorLocation	NO**	CapacitorSensorLoc ation		See 0 for possible values.
ControlledNodeID	NO**	STRING(64)		
ShuntCapacitorID	NO	STRING(64)		Equipment ID of the capacitor, or USERDEFINED
InterruptingRating	NO	FLOAT		

Meter Demands Database File

The ASCII Meter Demands data file describes Meter Demands connected to the devices of sections in CYME studies. (Refer to the **Section Properties** dialog box, *The File Menu, Edit* in the CYME Reference Manual.)

[LOWVOLTAGEMETERDEMAND SETTING]

Key	Mandatory	Type	Units	Description
SectionID	YES/NO*	STRING(64)		Id of the section on which the meter is. * SectionID and Location are required or DeviceNumber is required
Location	YES/NO*	LOCATION		See 0 for possible values.
DeviceType	YES	DeviceType		Device type on which the meter is. See 0 for possible values.
DeviceNumber	NO/YES*	STRING(64)		Device number on which the meter is.
MeterLocation	NO	MeterLocation		Location of the meter on the device. See 0 for possible values.
LossesPerPhase	NO	FLOAT		
Load modelName	NO	STRING(64)		Name for the load model.
DemandType	NO	DEMANDTYPE		See 0 for possible values.
Demand1Value1	NO	FLOAT		
Demand1Value2	NO	FLOAT		
Demand1Precision1	NO	FLOAT		
Demand1Precision2	NO	FLOAT		
Demand2Value1	NO	FLOAT		
Demand2Value2	NO	FLOAT		
Demand2Precision1	NO	FLOAT		
Demand2Precision2	NO	FLOAT		
Disconnected	NO	INTEGER		
ReferenceTime	NO	INTEGER		

[LOWVOLTAGESOURCEMETERDEMAND]

Key	Mandatory	Type	Units	Description
NodeID	YES	STRING(64)		
MeterLocation	NO	MeterLocation		See 0 for possible values.
LosesPerPhase	NO	FLOAT		
LoadModelName	NO	STRING(64)		
DemandType	NO	DEMANDTYPE		See 0 for possible values.
Demand1Value1	NO	FLOAT		
Demand1Value 2	NO	FLOAT		
Demand1Precision1	NO	FLOAT		
Demand1Precision2	NO	FLOAT		
Demand2Value1	NO	FLOAT		
Demand2Value 2	NO	FLOAT		
Demand2Precision1	NO	FLOAT		
Demand2Precision2	NO	FLOAT		
Disconnected	NO	INTEGER		
ReferenceTime	NO	INTEGER		

[METERDEMAND SETTING]

Key	Mandatory	Type	Units	Description
SectionID	YES/NO*	STRING(64)		Id of the section on which the meter is. * SectionID and Location are required or DeviceNumber is required
Location	YES/NO*	LOCATION		See 0 for possible values.
DeviceType	YES	DeviceType		Device type on which the meter is. See 0 for possible values.
DeviceNumber	NO/YES*	STRING(64)		Device number on which the meter is.
MeterLocation	NO	MeterLocation		Location of the meter on the device. See 0 for possible values.
MeterIndex	NO	INGEGER		
LossesPerPhase	NO	FLOAT		
LoadModelName	NO	STRING(64)		Name for the load model.
DemandType	NO	DEMANDTYPE		See 0 for possible values.
Value1A	NO	FLOAT		
Value2A	NO	FLOAT		
Precision1A	NO	FLOAT		
Precision2A	NO	FLOAT		
Value1B	NO	FLOAT		
Value2B	NO	FLOAT		
Precision1B	NO	FLOAT		
Precision2B	NO	FLOAT		
Value1C	NO	FLOAT		
Value2C	NO	FLOAT		
Precision1C	NO	FLOAT		
Precision2C	NO	FLOAT		
Value1ABC	NO	FLOAT		
Value2ABC	NO	FLOAT		
Precision1ABC	NO	FLOAT		
Precision2ABC	NO	FLOAT		
Disconnected	NO	INTEGER		

Key	Mandatory	Type	Units	Description
ReferenceTime	NO	INTEGER		
Comments	NO	STRING(1000)		

[SOURCEMETERDEMAND]

Key	Mandatory	Type	Units	Description
NodeID	YES	STRING(64)		
MeterLocation	NO	MeterLocation		See 0 for possible values.
LoadModelName	NO	STRING(64)		
DemandType	NO	DEMANDTYPE		See 0 for possible values.
Value1A	NO	FLOAT		
Value 2A	NO	FLOAT		
Precision1A	NO	FLOAT		
Precision2A	NO	FLOAT		
Value1B	NO	FLOAT		
Value2B	NO	FLOAT		
Precision1B	NO	FLOAT		
Precision2B	NO	FLOAT		
Value1C	NO	FLOAT		
Value2C	NO	FLOAT		
Precision1C	NO	FLOAT		
Precision2C	NO	FLOAT		
Value1ABC	NO	FLOAT		
Value2ABC	NO	FLOAT		
Precision1ABC	NO	FLOAT		
Precision2ABC	NO	FLOAT		
Disconnected	NO	INTEGER		(0 or 1)
ReferenceTime	NO	INTEGER		
Comments	NO	STRING(1000)		

[SOURCEUTILIZATIONFACTOR SETTING]

Key	Mandatory	Type	Units	Description
NodeID	YES	STRING(64)		Id of the sourcenode on which the meter is
LoadModelName	NO	STRING(64)		
ConsumerClass	NO	STRING(64)		
UFPercent	NO	FLOAT		
PFPercent	NO	FLOAT		
LFPercent	NO	FLOAT		
FixedUF	NO	BOOLEAN		(0 or 1)
OverrideDefaultPF	NO	BOOLEAN		(0 or 1)
FixedPF	NO	BOOLEAN		(0 or 1)

[UTILIZATIONFACTOR SETTING]

Key	Mandatory	Type	Units	Description
SectionID	YES/NO*	STRING(64)		Id of the section on which the meter is. * SectionID and Location are required or DeviceNumber is required
Location	YES/NO*	LOCATION		Location of the device on the section. See 0 for possible values.
DeviceType	YES	DeviceType		Device type on which the meter is. See 0 for possible values.
DeviceNumber	NO/YES*	STRING(64)		Device number on which the meter is
MeterIndex	NO	INTEGER		
LoadModelName	NO	STRING(64)		
ConsumerClass	NO	STRING(64)		
UFPercent	NO	FLOAT		
PFPercent	NO	FLOAT		
LFPPercent	NO	FLOAT		
FixedUF	NO	BOOLEAN		(0 or 1)
OverrideDefaultPF	NO	BOOLEAN		(0 or 1)
FixedPF	NO	BOOLEAN		

TCCSettings Database File

[TCCCOORDINATIONCURVE]

Key	Mandatory	Type	Units	Description
OwnerNumber	YES	STRING(64)		
OwnerType	YES	InstrumentType Or DeviceType		If ComponentObjectType is "Instrument", see 0. If ComponentObjectType is "Device", see 0.
AlternateIndex	NO	INTEGER		
ObjectType	YES	ComponentObjectType		See 0 for possible values.
TCCObjectType	YES	TCCObjectType		See 0 for possible values.
CurrentMultiplier	NO	FLOAT		
TimeMultiplier	NO	FLOAT		
TimeAdder	NO	FLOAT	s	
CurrentAdder	NO	FLOAT	A	
ApplyOn	NO	CoordinationApplyOn		See 0 for possible values.
CoordinationMode	NO	CoordinationMode		See 0 for possible values.
UseCurve	NO	BOOLEAN		

[TCCFUSE]

Key	Mandatory	Type	Units	Description
DeviceNumber	YES	STRING(64)		
DeviceType	YES	DeviceType		See 0 for possible values.
ShowMeltingCurve	NO	BOOLEAN		0 or 1

Key	Mandatory	Type	Units	Description
ShowClearingCurve	NO	BOOLEAN		0 or 1
ShowDCAdjustedCurve	NO	BOOLEAN		0 or 1
DCTimeConstant	NO	FLOAT		
InParallel	NO	BOOLEAN		0 or 1
NbOfFusesInPara	NO	INTEGER		
VFITimeAdder	NO	FLOAT		
VFITimeMultiplier	NO	FLOAT		
VFIMinimumResponseTime	NO	FLOAT		
VFIInstMultiplier	NO	FLOAT		
VFIInRushRestraintMultiplier	NO	FLOAT		
VFIInRushRestraintTimeAdder	NO	FLOAT		
VistaDefiniteTime	NO	BOOLEAN		0 or 1
VistaCurve	NO	STRING(32)		
VistaInstantaneous	NO	BOOLEAN		0 or 1
VistaTrip	NO	FLOAT		
UseCurveClipping	NO	INTEGER		0 or 1
ClippingMode	NO	ClippingMode		See 0 for possible values.
SCMax	NO	BOOLEAN		0 or 1
SCMin	NO	BOOLEAN		0 or 1
UserDefinedRight	NO	BOOLEAN		0 or 1
UserDefinedLeft	NO	BOOLEAN		0 or 1
UserDefinedTop	NO	BOOLEAN		0 or 1
UserDefinedBottom	NO	BOOLEAN		0 or 1
UserDefinedRightAmp	NO	FLOAT		
UserDefinedLeftAmp	NO	FLOAT		
UserDefinedTopS	NO	FLOAT		
UserDefinedBottomS	NO	FLOAT		
UseUserDefinedCurrents	NO	BOOLEAN		0 or 1
LLLCurrentMin	NO	FLOAT	A	
LLGCurrentMin	NO	FLOAT	A	
LLCurrentMin	NO	FLOAT		
LGCurrentMin	NO	FLOAT		
LLLCurrentMax	NO	FLOAT		
LLGCurrentMax	NO	FLOAT		
LLCurrentMax	NO	FLOAT		
LGCurrentMax	NO	FLOAT		
FullLoadCurrent	NO	FLOAT		

[TCCGENERATOR]

Key	Mandatory	Type	Units	Description
DeviceNumber	YES	STRING(64)		
ShowThermalCapabilityCurve	NO	BOOLEAN		0 or 1
NoLoadCondition	NO	BOOLEAN		0 or 1
ACDCDecrementCurve	NO	BOOLEAN		0 or 1
ApplyFieldForcing	NO	BOOLEAN		0 or 1
FieldCurrent	NO	FLOAT	PU	
UseCurveClipping	NO	BOOLEAN		0 or 1
ClippingMode	NO	ClippingMode		See 0 for possible values.
SCMax	NO	BOOLEAN		0 or 1

Key	Mandatory	Type	Units	Description
SCMin	NO	BOOLEAN		0 or 1
UserDefinedRight	NO	BOOLEAN		0 or 1
UserDefinedLeft	NO	BOOLEAN		0 or 1
UserDefinedTop	NO	BOOLEAN		0 or 1
UserDefinedBottom	NO	BOOLEAN		0 or 1
UserDefinedRightAmp	NO	FLOAT		
UserDefinedLeftAmp	NO	FLOAT		
UserDefinedTopS	NO	FLOAT		
UserDefinedBottomS	NO	FLOAT		
UseUserDefinedCurrents	NO	BOOLEAN		0 or 1
LLLCurrentMin	NO	FLOAT	A	
LLGCurrentMin	NO	FLOAT	A	
LLCurrentMin	NO	FLOAT	A	
LGCurrentMin	NO	FLOAT	A	
LLLCurrentMax	NO	FLOAT	A	
LLGCurrentMax	NO	FLOAT	A	
LLCurrentMax	NO	FLOAT	A	
LGCurrentMax	NO	FLOAT	A	
FullLoadCurrent	NO	FLOAT	A	

[TCCINSTANTANEOUS]

Key	Mandatory	Type	Units	Description
InstrumentNumber	YES	STRING(64)		
InstrumentType	YES	InstrumentType		See 0 for possible values.
InstantaneousOrder	YES	INTEGER		
Pickup	NO	FLOAT		
Delay	NO	FLOAT		

[TCCINTELLIRUPTER]

Key	Mandatory	Type	Units	Description
DeviceNumber	YES	STRING(64)		
ProfileName	NO	STRING(64)		
Profile	NO	IntellirupterProfile		See 0 for possible values.
Direction	NO	IntellirupterDirection		See 0 for possible values.
UseCurveClipping	NO	BOOLEAN		0 or 1
ClippingMode	NO	ClippingMode		See 0 for possible values.
SCMax	NO	BOOLEAN		0 or 1
SCMin	NO	BOOLEAN		0 or 1
UserDefinedRight	NO	BOOLEAN		0 or 1
UserDefinedLeft	NO	BOOLEAN		0 or 1
UserDefinedTop	NO	BOOLEAN		0 or 1
UserDefinedBottom	NO	BOOLEAN		0 or 1
UserDefinedRightAmp	NO	FLOAT		
UserDefinedLeftAmp	NO	FLOAT		
UserDefinedTopS	NO	FLOAT		
UserDefinedBottomS	NO	FLOAT		

Key	Mandatory	Type	Units	Description
UseUserDefinedCurrents	NO	BOOLEAN		0 or 1
LLLCurrentMin	NO	FLOAT	A	
LLGCurrentMin	NO	FLOAT	A	
LLCurrentMin	NO	FLOAT	A	
LGCurrentMin	NO	FLOAT	A	
LLLCurrentMax	NO	FLOAT	A	
LLGCurrentMax	NO	FLOAT	A	
LLCurrentMax	NO	FLOAT	A	
LGCurrentMax	NO	FLOAT	A	
FullLoadCurrent	NO	FLOAT	A	

[TCCINTELLIRUPTERSETPOINT]

Key	Mandatory	Type	Units	Description
DeviceNumber	YES	STRING(64)		
TestOperation	YES	TestOperation		See 0 for possible values.
TripElement	YES	TripElement		See 0 for possible values.
ShowCurve	NO	BOOLEAN		0 or 1
Manufacturer	NO	STRING(32)		
InverseCurveName	NO	STRING(32)		
FormulaA	NO	FLOAT		
FormulaB	NO	FLOAT		
FormulaC	NO	FLOAT		
FormulaD	NO	FLOAT		
FormulaE	NO	FLOAT		
FormulaStartAt1pu	NO	BOOLEAN		0 or 1
MinTripCurrent	NO	FLOAT	A	
LowCurrentCutoff	NO	FLOAT	A	
TimeMultiplier	NO	FLOAT		
TimeAdder	NO	FLOAT	s	
MinResponseTime	NO	FLOAT	s	
DefiniteTime1	NO	BOOLEAN		0 or 1
DefiniteTime2	NO	BOOLEAN		0 or 1
DTCURRENT1	NO	FLOAT	A	
DTCURRENT2	NO	FLOAT	A	
DTTIME1	NO	FLOAT	s	
DTTIME2	NO	FLOAT		
HighCurrentResponse	NO	BOOLEAN		0 or 1
HCRLockout	NO	FLOAT	A	
HCRCutoff	NO	FLOAT	A	
ResetResponseType	NO	ResetResponseType		See 0 for possible values.
ResetTime	NO	FLOAT	s	

[TCCLINECONFIGURATION]

Key	Mandatory	Type	Units	Description
DeviceNumber	YES	STRING(64)		
DeviceType	YES	DeviceType		See 0 for possible values.
UseCurveClipping	NO	BOOLEAN		0 or 1
ClippingMode	NO	ClippingMode		See 0 for possible values.
SCMax	NO	BOOLEAN		0 or 1
SCMin	NO	BOOLEAN		0 or 1
UserDefinedRight	NO	BOOLEAN		0 or 1
UserDefinedLeft	NO	BOOLEAN		0 or 1
UserDefinedTop	NO	BOOLEAN		0 or 1
UserDefinedBottom	NO	BOOLEAN		0 or 1
UserDefinedRightAmp	NO	FLOAT		
UserDefinedLeftAmp	NO	FLOAT		
UserDefinedTopS	NO	FLOAT		
UserDefinedBottomS	NO	FLOAT		
UseUserDefinedCurrents	NO	BOOLEAN		0 or 1
LLLCurrentMin	NO	FLOAT	A	
LLGCurrentMin	NO	FLOAT	A	
LLCurrentMin	NO	FLOAT	A	
LGCurrentMin	NO	FLOAT	A	
LLLCurrentMax	NO	FLOAT	A	
LLGCurrentMax	NO	FLOAT	A	
LLCurrentMax	NO	FLOAT	A	
LGCurrentMax	NO	FLOAT	A	
FullLoadCurrent	NO	FLOAT	A	

[TCCLVCB]

Key	Mandatory	Type	Units	Description
DeviceNumber	YES	STRING(64)		
DeviceType	YES	DeviceType		See 0 for possible values.
Sensor	NO	FLOAT		
Plug	NO	FLOAT		
LongTimeMultiplier	NO	FLOAT		
LongTimeCurrentSetting	NO	FLOAT		
LongTimeDelayBand	NO	STRING(64)		
UseShortTime	NO	BOOLEAN		0 or 1
ShortTimeMultiplier	NO	FLOAT		
ShortTimeDelayBand	NO	STRING(64)		
USEI2T	NO	BOOLEAN		0 or 1
UseInstantaneous	NO	BOOLEAN		0 or 1
InstantaneousMultiplier	NO	FLOAT		
MoldedCasePickup	NO	FLOAT		
LongTimeTimeDial	NO	FLOAT		
LongTimeFormulaA	NO	FLOAT		
LongTimeFormulaB	NO	FLOAT		
LongTimeFormulaC	NO	FLOAT		
LongTimeFormulaD	NO	FLOAT		
LongTimeFormulaE	NO	FLOAT		

Key	Mandatory	Type	Units	Description
LongTimeFormulaStartAt1pu	NO	BOOLEAN		
AdditionalGroundFault	NO	BOOLEAN		
AdditionalGroundFaultModel	NO	STRING(64)		
UseAdditionalGroundI2t	NO	BOOLEAN		
AdditionalGroundMultiplier	NO	FLOAT		
AdditionalGroundDelayBand	NO	STRING(64)		
UseCurveClipping	NO	BOOLEAN		0 or 1
ClippingMode	NO	ClippingMode		See 0 for possible values.
SCMax	NO	BOOLEAN		0 or 1
SCMin	NO	BOOLEAN		0 or 1
UserDefinedRight	NO	BOOLEAN		0 or 1
UserDefinedLeft	NO	BOOLEAN		0 or 1
UserDefinedTop	NO	BOOLEAN		0 or 1
UserDefinedBottom	NO	BOOLEAN		0 or 1
UserDefinedRightAmp	NO	FLOAT		
UserDefinedLeftAmp	NO	FLOAT		
UserDefinedTopS	NO	FLOAT		
UserDefinedBottomS	NO	FLOAT		
UseUserDefinedCurrents	NO	BOOLEAN		0 or 1
LLLCurrentMin	NO	FLOAT	A	
LLGCurrentMin	NO	FLOAT	A	
LLCurrentMin	NO	FLOAT	A	
LGCurrentMin	NO	FLOAT	A	
LLLCurrentMax	NO	FLOAT	A	
LLGCurrentMax	NO	FLOAT	A	
LLCurrentMax	NO	FLOAT	A	
LGCurrentMax	NO	FLOAT	A	
FullLoadCurrent	NO	FLOAT	A	

[TCCMOTOR]

Key	Mandatory	Type	Units	Description
DeviceNumber	YES	STRING(64)		
DeviceType	YES	DeviceType		See 0 for possible values.
AccelerationTime	NO	FLOAT	s	
HotStallTime	NO	BOOLEAN		0 or 1
ColdStallTime	NO	BOOLEAN		0 or 1
HotStallTimeS	NO	FLOAT		
ColdStallTimeS	NO	FLOAT		
UseDefinedCurve	NO	BOOLEAN		0 or 1
UserDefinedStartingCurrent	NO	FLOAT	A	
UserDefinedCurveDesc	NO	STRING(128)		
UserDefinedCurveTimeUnit	NO	UnitType		See 0 for possible values.
UserDefinedCurveCurrentUnit	NO	UnitType		See 0 for possible values.
InrushCurrentMultiplier	NO	FLOAT		
UseCurveClipping	NO	BOOLEAN		0 or 1
ClippingMode	NO	ClippingMode		See 0 for possible values.
SCMax	NO	BOOLEAN		0 or 1
SCMin	NO	BOOLEAN		0 or 1
UserDefinedRight	NO	BOOLEAN		0 or 1

Key	Mandatory	Type	Units	Description
UserDefinedLeft	NO	BOOLEAN		0 or 1
UserDefinedTop	NO	BOOLEAN		0 or 1
UserDefinedBottom	NO	BOOLEAN		0 or 1
UserDefinedRightAmp	NO	FLOAT		
UserDefinedLeftAmp	NO	FLOAT		
UserDefinedTopS	NO	FLOAT		
UserDefinedBottomS	NO	FLOAT		
UseUserDefinedCurrents	NO	BOOLEAN		0 or 1
LLLCurrentMin	NO	FLOAT	A	
LLGCurrentMin	NO	FLOAT	A	
LLCurrentMin	NO	FLOAT	A	
LGCurrentMin	NO	FLOAT	A	
LLLCurrentMax	NO	FLOAT	A	
LLGCurrentMax	NO	FLOAT	A	
LLCurrentMax	NO	FLOAT	A	
LGCurrentMax	NO	FLOAT	A	
FullLoadCurrent	NO	FLOAT	A	

[TCCPOINTS]

Key	Mandatory	Type	Units	Description
OwnerNumber	YES	STRING(64)		
OwnerType	YES	InstrumentType Or DeviceType		If ComponentObjectType is "Instrument", see 0. If ComponentObjectType is "Device", see 0.
AlternateIndex	NO	INTEGER		
ObjectType	YES	ComponentObjectType		See 0 for possible values.
PointIndex	NO	INTEGER		
CoordX	NO	FLOAT		
CoordY	NO	FLOAT		

[TCCRECLOSER]

Key	Mandatory	Type	Units	Description
DeviceNumber	YES	STRING(64)		
AlternateIndex	NO	INTEGER		
SeqOpFirstPhase	NO	INTEGER		
SeqOpFirstGround	NO	INTEGER		
SeqOpLockoutPhase	NO	INTEGER		
SeqOpLockoutGround	NO	INTEGER		
SeqResetTime	NO	FLOAT		
SeqReclosingTime1	NO	FLOAT		
SeqReclosingTime2	NO	FLOAT		
SeqReclosingTime3	NO	FLOAT		
SequenceDrawingMode	NO	SequenceDrawingMode		See 0 for possible values.
TripRatingPhase	NO	FLOAT		

Key	Mandatory	Type	Units	Description
TripRatingGround	NO	FLOAT		
Group	NO	INTEGER		
RSSetupPF	NO	BOOLEAN		0 or 1
RSSetupPS	NO	BOOLEAN		0 or 1
RSSetupGF	NO	BOOLEAN		0 or 1
RSSetupGS	NO	BOOLEAN		0 or 1
RSTimeAdderPF	NO	FLOAT		
RSTimeAdderPS	NO	FLOAT		
RSTimeAdderGF	NO	FLOAT		
RSTimeAdderGS	NO	FLOAT		
RSMultiplierPF	NO	FLOAT		
RSMultiplierPS	NO	FLOAT		
RSMultiplierGF	NO	FLOAT		
RSMultiplierGS	NO	FLOAT		
RSMinRespTimePF	NO	FLOAT		
RSMinRespTimePS	NO	FLOAT		
RSMinRespTimeGF	NO	FLOAT		
RSMinRespTimeGS	NO	FLOAT		
RSHighCurrentTripPF	NO	BOOLEAN		0 or 1
RSHighCurrentTripPS	NO	BOOLEAN		0 or 1
RSHighCurrentTripGF	NO	BOOLEAN		0 or 1
RSHighCurrentTripGS	NO	BOOLEAN		0 or 1
RSHighCurrentTripPhaseMult	NO	FLOAT		
RSHighCurrentTripPhaseDelay	NO	FLOAT		
RSHighCurrentTripGroundMult	NO	FLOAT		
RSHighCurrentTripGroundDelay	NO	FLOAT		
RSHighCurrentLockoutPF	NO	BOOLEAN		0 or 1
RSHighCurrentLockoutPS	NO	BOOLEAN		0 or 1
RSHighCurrentLockoutGF	NO	BOOLEAN		0 or 1
RSHighCurrentLockoutGS	NO	BOOLEAN		0 or 1
RSHighCurrentLockoutPhaseMult	NO	FLOAT		
RSHighCurrentLockoutGroundMult	NO	FLOAT		
RSUseAlternate	NO	BOOLEAN		0 or 1
RSAAlternateTripRatingPhase	NO	FLOAT		
RSAAlternateTripRatingGround	NO	FLOAT		
REUseInstantaneous	NO	BOOLEAN		0 or 1
REInstantaneousPhaseTrip	NO	FLOAT		
REInstantaneousGroundTrip	NO	FLOAT		
REUseRespTimeAcc	NO	BOOLEAN		0 or 1
RERespTimeAccTime	NO	FLOAT		
RERespTimeAccSwitch	NO	INTEGER		
UseCurveClipping	NO	BOOLEAN		0 or 1
ClippingMode	NO	ClippingMode		See 0 for possible values.
SCMax	NO	BOOLEAN		0 or 1
SCMin	NO	BOOLEAN		0 or 1
UserDefinedRight	NO	BOOLEAN		0 or 1
UserDefinedLeft	NO	BOOLEAN		0 or 1
UserDefinedTop	NO	BOOLEAN		0 or 1
UserDefinedBottom	NO	BOOLEAN		0 or 1
UserDefinedRightAmp	NO	FLOAT		
UserDefinedLeftAmp	NO	FLOAT		

Key	Mandatory	Type	Units	Description
UserDefinedTopS	NO	FLOAT		
UserDefinedBottomS	NO	FLOAT		
SinglePhaseProtectionType	NO	ProtectionType		See 0 for possible values.
SensitiveEarthFault	NO	BOOLEAN		0 or 1
SensEarthFaultMinGroundTrip	NO	FLOAT		
SensEarthFaultTrip	NO	FLOAT		
SensEarthFaultOpLockout	NO	INTEGER		
UseUserDefinedCurrents	NO	BOOLEAN		0 or 1
LLLCurrentMin	NO	FLOAT	A	
LLGCurrentMin	NO	FLOAT	A	
LLCurrentMin	NO	FLOAT	A	
LGCurrentMin	NO	FLOAT	A	
LLLCurrentMax	NO	FLOAT	A	
LLGCurrentMax	NO	FLOAT	A	
LLCurrentMax	NO	FLOAT	A	
LGCurrentMax	NO	FLOAT	A	
FullLoadCurrent	NO	FLOAT	A	
UseCurveKFactorLoad	NO	BOOLEAN		0 or 1
UseCurveKFactorSource	NO	BOOLEAN		0 or 1
UseCurveCumulPF	NO	BOOLEAN		0 or 1
UseCurveCumulPS	NO	BOOLEAN		0 or 1
UseCurveCumulPhase	NO	BOOLEAN		0 or 1
UseCurveCumulGF	NO	BOOLEAN		0 or 1
UseCurveCumulGS	NO	BOOLEAN		0 or 1
UseCurveCumulGround	NO	BOOLEAN		0 or 1

[TCCRECLOSERCURVE]

Key	Mandatory	Type	Units	Description
DeviceNumber	YES	STRING(64)		
AlternateIndex	NO	INTEGER		
RecloserCurvetype	NO	TCCRecloserCurveType		See 0 for possible values.
DrawCurve	NO	BOOLEAN		0 or 1
DrawResponseCurve	NO	BOOLEAN		0 or 1
CurveName	NO	STRING(64)		
TimeDial	NO	FLOAT		
FormulaA	NO	FLOAT		
FormulaB	NO	FLOAT		
FormulaC	NO	FLOAT		
FormulaD	NO	FLOAT		
FormulaE	NO	FLOAT		
FormulaStartAt1pu	NO	BOOLEAN		0 or 1

[TCCRELAY]

Key	Mandatory	Type	Units	Description
InstrumentNumber	YES	STRING(64)		
InstrumentType	YES	InstrumentType		See 0 for possible values.
TimeDial	NO	STRING(32)		

Key	Mandatory	Type	Units	Description
TapRange	NO	STRING(32)		
TapValue	NO	FLOAT		
PrimaryPickup	NO	FLOAT		
PickupTime	NO	FLOAT		
OperationMode	NO	RelayOperation Mode		See 0 for possible values.
FormulaA	NO	FLOAT		
FormulaB	NO	FLOAT		
FormulaC	NO	FLOAT		
FormulaD	NO	FLOAT		
FormulaE	NO	FLOAT		
FormulaStartAt1pu	NO	BOOLEAN		0 or 1
SettingsTable	NO	BOOLEAN		0 or 1
TableMultiplier1	NO	FLOAT		
TableMultiplier2	NO	FLOAT		
TableMultiplier3	NO	FLOAT		
TableMultiplier4	NO	FLOAT		
TableCheckPoint1	NO	FLOAT		
TableCheckPoint2	NO	FLOAT		
TableCheckPoint3	NO	FLOAT		
TableCheckPoint4	NO	FLOAT		
TableDisplayMarker1	NO	BOOLEAN		0 or 1
TableDisplayMarker2	NO	BOOLEAN		0 or 1
TableDisplayMarker3	NO	BOOLEAN		0 or 1
TableDisplayMarker4	NO	BOOLEAN		0 or 1
TableUseMultiplier1	NO	BOOLEAN		
TableUseMultiplier2	NO	BOOLEAN		
TableUseMultiplier3	NO	BOOLEAN		
TableUseMultiplier4	NO	BOOLEAN		
ShortTime	NO	BOOLEAN		0 or 1
STMode	NO	RelayShortTime Mode		See 0 for possible values.
STTapRange	NO	STRING(32)		
STTap	NO	FLOAT		
STPickup	NO	FLOAT		
STDelay	NO	FLOAT		
Instantaneous	NO	BOOLEAN		0 or 1
InstMode	NO	RelayInstMode		See 0 for possible values.
InstTapRange	NO	STRING(32)		
InstTap	NO	FLOAT		
AuxiliaryDevice	NO	BOOLEAN		0 or 1
AuxPickupTime	NO	FLOAT		
OTMode	NO	RelayOvertraval Mode		See 0 for possible values
OTResetTime	NO	FLOAT		
OTImpulseTime	NO	FLOAT		
OTWorstCase	NO	BOOLEAN		0 or 1
OTRecloserDeviceNumber	NO	STRING(64)		
RecloserSettings	NO	BOOLEAN		
RecloserTimeMultiplier	NO	FLOAT		
RecloserTimeAdder	NO	FLOAT		
RecloserMinRespTime	NO	FLOAT		

Key	Mandatory	Type	Units	Description
UseCurveClipping	NO	BOOLEAN		0 or 1
ClippingMode	NO	ClippingMode		See 0 for possible values.
SCMax	NO	INTEGER		0 or 1
SCMin	NO	INTEGER		0 or 1
UserDefinedRight	NO	INTEGER		0 or 1
UserDefinedLeft	NO	INTEGER		0 or 1
UserDefinedTop	NO	INTEGER		0 or 1
UserDefinedBottom	NO	INTEGER		0 or 1
UserDefinedRightAmp	NO	FLOAT		
UserDefinedLeftAmp	NO	FLOAT		
UserDefinedTopS	NO	FLOAT		
UserDefinedBottomS	NO	FLOAT		
UseUserDefinedCurrents	NO	BOOLEAN		0 or 1
LLLCurrentMin	NO	FLOAT	A	
LLGCurrentMin	NO	FLOAT	A	
LLCurrentMin	NO	FLOAT	A	
LGCurrentMin	NO	FLOAT	A	
LLLCurrentMax	NO	FLOAT	A	
LLGCurrentMax	NO	FLOAT	A	
LLCurrentMax	NO	FLOAT	A	
LGCurrentMax	NO	FLOAT	A	
FullLoadCurrent	NO	FLOAT	A	

[TCCTRANSFORMER]

Key	Mandatory	Type	Units	Description
DeviceNumber	YES	STRING(64)		
DrawShiftedCurveLL	NO	BOOLEAN		0 or 1
DrawShiftedCurveLG	NO	BOOLEAN		0 or 1
InRushMode	NO	InRushMode		See 0 for possible values.
InRushCircleMultiplier	NO	FLOAT		
InRushCurveModel	NO	STRING(64)		
InRushCurveCEENe	NO	FLOAT		
InRushCurveCEETe	NO	FLOAT		
UpstreamItemType	NO	TCCItem Type		See 0 for possible values.
UpstreamItemNumber	NO	STRING(32)		
UseCurveClipping	NO	BOOLEAN		0 or 1
ClippingMode	NO	ClippingMode		See 0 for possible values.
SCMax	NO	BOOLEAN		0 or 1
SCMin	NO	BOOLEAN		0 or 1
UserDefinedRight	NO	BOOLEAN		0 or 1
UserDefinedLeft	NO	BOOLEAN		0 or 1
UserDefinedTop	NO	BOOLEAN		0 or 1
UserDefinedBottom	NO	BOOLEAN		0 or 1
UserDefinedRightAmp	NO	FLOAT		
UserDefinedLeftAmp	NO	FLOAT		
UserDefinedTopS	NO	FLOAT		
UserDefinedBottomS	NO	FLOAT		
UseUserDefinedCurrents	NO	BOOLEAN		0 or 1
LLLCurrentMin	NO	FLOAT	A	

Key	Mandatory	Type	Units	Description
LLGCurrentMin	NO	FLOAT	A	
LLCCurrentMin	NO	FLOAT	A	
LGCurrentMin	NO	FLOAT	A	
LLLCurrentMax	NO	FLOAT	A	
LLGCurrentMax	NO	FLOAT	A	
LLCCurrentMax	NO	FLOAT	A	
LGCurrentMax	NO	FLOAT	A	
FullLoadCurrent	NO	FLOAT	A	

Profile Database File

This file works exactly like the others, except that it only contains the data for profiles that may be associated with your network.

[PROFILE_VALUES]

Key	Mandatory	Type	Units	Description
ID	YES	STRING(128)		
ProfileType	NO	LoadProfileCategoryType		See 0 for possible values.
IntervalFormat	NO	LoadProfileIntervalFormat		See 0 for possible values.
TimeInterval	NO	LoadProfileDayIntervalType		See 0 for possible values.
GlobalUnit	NO	LoadProfileUnitType		See 0 for possible values.
NetworkID	NO	STRING(128)		
DayType	NO	STRING(32)		
Year	NO	INTEGER		
Month	NO	MonthType		See 0 for possible values.
Day	NO	INTEGER		
Season	NO	MonthType		See 0 for possible values.
Phase	NO	LoadProfilePhaseType		See 0 for possible values.
Unit	NO	LoadProfileSpecificUnitType		See 0 for possible values.
Values	NO	FLOAT		

Billings Database File

This file works exactly like the others, except that it only contains the data for billings that may be associated with your network.

[PROFILE_BILLING]

Key	Mandatory	Type	Units	Description
LoadID	YES	STRING(64)		
NetworkID	NO	STRING(64)		
CustomerType	NO	STRING(64)		
FromDate	NO	STRING(10)		Date in format DD/MM/YYYY
ToDate	NO	STRING(10)		Date in format DD/MM/YYYY
KWH	NO	FLOAT		
UsageFactor	NO	FLOAT		

Type Variables

AFConnectedEquipType

AFNConnectedEquipType

Value	Description
0	Open Air
1	Switch Gear
2	MCC or Panel
3	Cable
4	LowVoltageSwitchgear
5	MediumVoltageSwitchgear
6	PanelBoard
7	Other

Used in **Network Database File**:

[NODE]

AFExposedCircuitType

AFNxposedCircuitType

Value	Description
0	Fixed
1	Movable

Used in **Network Database File**:

[NODE]

AFOpeningTimeMode

AFOpeningTimeMode

Value	Description
0	Default
1	TCC
2	User Defined

Used in **Network Database File**:

[NODE]

AccuracyType

AccuracyType

Value	Description
0	Percentage
1	Constant

Used in **Network Database File:**

[AMMETER INSTRUMENT]
 [VARMETER INSTRUMENT]
 [VOLTAGE METER INSTRUMENT]
 [WATTMETER INSTRUMENT]

AntiPumping

AntiPumping

Value	Description
0	Off
1	SmartAntiPump
2	MotorCutoff

Used in **Network Database File:**

[NETWORKPROTECTOR SETTING]

AutoGenType

AutoGenType

Value	Description
0	NoAutoGen
1	AngleAutoGen
2	OrthoAutoGen
3	SemiAutoGen
4	SemiAutoGenCoordCorrection

BatteryType

BatteryType

Value	Description
0	Battery
1	Cell

Used in Equipment Database File:

[BATTERY]

BehaviorAtLimits

BehaviorAtLimits

Value	Description
0	ConstantCurrent
1	ConstantPower
2	ConstantImpedance

Used in **Network Database File:**

[VARCOMPENSATOR SETTING]

CableConcentricNeutralLocation

CableConcentricNeutralLocation

Value	Description
0	Main
1	Armor

Used in Equipment Database File:

[CABLE CONCENTRIC NEUTRAL]

CableConcentricNeutralsType

CableConcentricNeutralsType

Value	Description
0	RoundWires
1	FlatStraps

Used in Equipment Database File:

[CABLE CONCENTRIC NEUTRAL]

CableConductorLocation

CableConductorLocation

Value	Description
0	Main
1	Neutral

Used in Equipment Database File:

[CABLE CONDUCTOR]

CableConfiguration

CableConfiguration

Value	Description
0	FlatTouching
1	FlatSpaced
2	Trefoil
3	Custom

Used in **Network Database File:**

[UNDERGROUNDLINE SETTING]

CableConstructionType

CableConstructionType

Value	Description
0	CableConstructionSolid
1	CableConstructionStrandedConcentric
2	CableConstructionStrandedCompressed
3	CableConstructionStrandedCompact

Used in Equipment Database File:

[CABLE CONDUCTOR]

CableDuctMaterial

CableDuctMaterial

Value	Description
0	None
1	NonMagneticAluminium
2	NonMagneticPlastic
3	MagneticSteel

Used in **Network Database File:**

[UNDERGROUNDLINE SETTING]

CableInsulationLocation

CableInsulationLocation

Value	Description
0	Main
1	Belt
2	Neutral

Used in Equipment Database File:

[CABLE INSULATION]

CableLayerPosition

CableLayerPosition

Value	Description
0	AroundEachCore
1	Belted

Used in Equipment Database File:

[CABLE CONCENTRIC NEUTRAL]

[CABLE SHEATH]

CableSheathBondingType

CableSheathBondingType

Value	Description
0	SinglePoint
1	TwoPoints

Used in **Network Database File**:

[UNDERGROUNDLINE SETTING]

CableSheathLocation

CableSheathLocation

Value	Description
0	Main
1	Armor

Used in Equipment Database File:

[CABLE SHEATH]

CableSheathType

CableSheathType

Value	Description
0	Tubular
1	HelicallyTapeNotOverlapped
2	HelicallyTapeOverlapped
4	LongitudinallyCorrugated

Used in Equipment Database File:

[CABLE SHEATH]

CableSize

CableSize

Value	Description
0	2000kcmil
1	1500kcmil
2	1250kcmil
3	1000kcmil
4	800kcmil
5	750kcmil
6	700kcmil
7	600kcmil
8	500kcmil
9	400kcmil
10	350kcmil
11	300kcmil
12	250kcmil
13	AWG0000
14	AWG000
15	AWG00
16	AWG0
17	AWG1
18	AWG2
19	AWG3
20	AWG4
21	AWG5
22	AWG6
23	AWG7
24	AWG8
25	AWG9
26	AWG10
27	AWG11
28	AWG12
29	AWG13
30	AWG14
31	AWG15
32	AWG16
33	AWG17
34	AWG18
35	AWG19
36	AWG20
37	AWG21
38	AWG22
39	AWG23
40	AWG24
41	1000mm ²

CableSize

Value	Description
42	800mm ²
43	630mm ²
44	500mm ²
45	400mm ²
46	300mm ²
47	240mm ²
48	185mm ²
49	150mm ²
50	120mm ²
51	95mm ²
52	70mm ²
53	50mm ²
54	35mm ²
55	25mm ²
56	16mm ²
57	10mm ²
58	6mm ² :
59	4mm ² :
60	2_5mm ²
61	1_5mm ²
62	1mm ²
63	0_75mm ²
64	0_5mm ²
65	NonStandard
66	900kcmil
67	1750kcmil

Used in Equipment Database File:

[CABLE CONDUCTOR]

CableType

CableType

Value	Description
0	OneCore
1	ThreeCore
2	Triplex
3	Quadruplex
4	Undefined
5	ThreeCoreWithNeutrals
6	Duplex

Used in Equipment Database File:

[CABLE]

CAP_CONN

CAP_CONN

Value	Alternate Value
0	Y (default value)
1	YNG
2	D

Used in **Network Database File**:

[SHUNT CAPACITOR SETTING]

[SHUNT REACTOR SETTING]

Used in Capacitor Status Database File:

[SHUNT CAPACITOR UPDATE SETTING]

CAP_CONTROL

CAP_CONTROL

Value	Description
0	Manual Control
1	Voltage Control
2	Current Control
3	Reactive Current Control
4	Power Factor Control
5	Temperature Control
6	Time Control
7	KVAR Control

Used in **Network Database File**:

[SHUNT CAPACITOR SETTING]

Used in Capacitor Status Database File:

[SHUNT CAPACITOR UPDATE SETTING]

CAP_LOCAT

CAP_LOCAT

Value	Alternate Value	Description
0	S	Capacitor is at the SOURCE
1	C	Capacitor is at the CENTER
2	L	Capacitor is at the LOAD

Used in Capacitor Status Database File:

[SHUNT CAPACITOR UPDATE SETTING]

CapacitorSensorLocation

CapacitorSensorLocation

Value	Description
1	Capacitor
2	Remote

Used in **Network Database File**:

[SHUNT CAPACITOR SETTING]

Used in Capacitor Status Database File:

[SHUNT CAPACITOR UPDATE SETTING]

CCCSControlType

CCCSControlType

Value	Description
0	Voltage
1	var
2	Percent
3	PythonScript

Used in **Network Database File**:

[CENTRALIZED CAPACITOR CONTROL SYSTEM INSTRUMENT]

ChargerControlType

ChargerControlType

Value	Description
0	FixedVoltage
1	FixedPowerFactor
2	FloatVoltage
3	EqualizationVoltage

Used in **Network Database File**:

[CHARGER SETTINGS]

[DCUPS SETTINGS]

ChargerType

ChargerType

Value	Description
0	BatteryCharger
1	Rectifier

Used in Equipment Database File:

[CHARGER]

ClippingMode

ClippingMode

Value	Description
0	None
1	ShortCircuit
2	UserDefined
3	AsDefined

Used in TCCSettings Database File:

[TCCFUSE]

[TCCGENERATOR]

[TCCINTELLIRUPTER]

[TCCLINECONFIGURATION]

[TCCLVCB]

[TCCMOTOR]

[TCCRECLOSER]

[TCCRELAY]

[TCCTRANSFORMER]

CloseMode

CloseMode

Value	Description
1	Normal Reclose
2	CircularClosingCurve
3	RelaxedClosingCurve

Used in **Network Database File**:

[NETWORKPROTECTOR SETTING]

COLORS

COLORS

Value	Description
0	Black
1	Blue
2	Cyan

COLORS

Value	Description
3	Dark Gray
4	Gray
5	Green
6	Light Gray
7	Magenta
8	Orange
9	Pink
10	Red
11	White
12	Yellow

Used in **Network Database File**:

[DEVICE STAGE]

[ZONE]

Used in Load Database File:

[CUSTOMER CLASS]

CommandType

CommandType

Value	Description
0	LoadFlow
1	ShortCircuit
2	LoadAllocation
3	LoadGrowth
4	CAM
5	MinimumFault
6	InstantaneousProtection
7	EnergyConfinement
8	NetworkProtection
9	VoltVarOptimization
10	LoadFlowShortCircuit
11	SRM
12	SaveNetwork
13	SaveStudy
14	PythonScript
15	LoadAggregation
16	LoadFlowWithProfiles
17	DistributionStateEstimator

ComponentObjectType

ComponentObjectType

Value	Description
0	Device
1	Instrument
2	Node

Used in TCCSettings Database File:

[TCCCOORDINATIONCURVE]

[TCCPOINTS]

ConductorAWGSize

ConductorAWGSize

Value	Description
0	Undefined
1	AWG0000
2	AWG000
3	AWG00
4	AWG0
5	AWG1
6	AWG2
7	AWG3
8	AWG4
9	AWG5
10	AWG6
11	AWG7
12	AWG8
13	AWG9
14	AWG10
15	AWG11
16	AWG12
17	AWG13
18	AWG14
19	AWG15
20	AWG16
21	AWG17
22	AWG18
23	AWG19
24	AWG20
25	AWG21
26	AWG22
27	AWG23
28	AWG24
29	AWG25
30	AWG26
31	AWG27
32	AWG28

ConductorAWGSize

Value	Description
33	AWG29
34	AWG30
35	AWG31
36	AWG32
37	AWG33
38	AWG34
39	AWG35
40	AWG36
41	AWG37
42	AWG38
43	AWG39
44	AWG40

Used in Equipment Database File:

[CONDUCTOR]

ConductorConstructionType

ConductorConstructionType

Value	Description
0	Undefined
1	ACSR
2	ACSRAW
3	Not used
4	Not used
5	Not used
6	Not used
7	Not used
8	Not used
9	Not used
10	Not used
11	Not used
12	AAC
13	AACTW
14	AAAC
15	ACS
16	ACSRTW
17	ACSRSD
18	ACSS
19	ACSSAW
20	ACSTW
21	AACSR
22	AACSRTW
23	ACAR
24	ACARTW
25	CC
26	CCC

ConductorConstructionType

Value	Description
27	CCS

Used in Equipment Database File:

[CONDUCTOR]

ConductorMaterialType**ConductorMaterialType**

Value	Description
0	Other
1	Copper
2	Aluminium
3	Steel
4	AluminiumAlloy

Used in Equipment Database File:

[BUSWAY]

ConductorPosition**ConductorPosition**

Value	Description
0	A
1	B
2	C
3	AB
4	AC
5	BA
6	BC
7	CA
8	CB
9	ABC
10	ACB
11	BAC
12	BCA
13	CAB
14	CBA

Used in **Network Database File**:

[DOUBLECIRCUITLINE SETTING]

[OVERHEAD BYPHASE SETTING]

ConductorSizeUnit

ConductorSizeUnit

Value	Description
0	AWG
1	kcmil
2	mm2

Used in Equipment Database File:

[CONDUCTOR]

CONN_TYPE

CONN_TYPE **

Value	Alternate Value
0	Y_Y
1	D_Y
2	Y_D
3	YNG_YNG
4	D_D
5	DO_DO
6	YO_DO
7	D_YNG
8	YNG_D
9	Y_YNG
10	YNG_Y
11	Yg_Zg
12	D_Zg

** Y is star grounded and YNG is star ungrounded

Used in Equipment Database File:

[TRANSFORMER]

ConnectionConfiguration

ConnectionConfiguration

Value	Description
0	Yg
1	Y
2	Delta
3	Open Delta
4	Closed Delta
5	Zg
6	CT
7	Dg
8	T
9	Tg
99	UndefinedConnection

Used in Equipment Database File:

[AUTOTRANSFORMER]
 [GROUNDING TRANSFORMER]
 [SINGLE TUNED FILTER]
 [SUBSTATION]
 [SYNCHRONOUS GENERATOR]
 [SYNCHRONOUS MOTOR]
 [THREE WINDING AUTO TRANSFORMER]
 [THREE WINDING TRANSFORMER]

Used in **Network Database File**:

[AUTO TRANSFORMER SETTING]
 [BESS SETTINGS]
 [ELECTRONIC CONVERTER GENERATOR SETTING]
 [GROUNDINGTRANSFORMER SETTINGS]
 [HEADNODES]
 [INDUCTION MOTOR SETTING]
 [MICROTURBINE SETTINGS]
 [PHOTOVOLTAIC SETTINGS]
 [REGULATOR SETTING]
 [REGULATOR BYPHASE SETTING]
 [SHUNT FREQUENCY DEPENDENT BRANCH SETTING]
 [SERIES PARALLEL RLC BRANCH SETTING]
 [SHUNT RLC BRANCH SETTING]
 [SINGLE TUNED FILTER SETTING]

[SOFC SETTINGS]
[SWITCHABLE SHUNT BANK SETTING]
[VARCOMPENSATOR SETTING]
[WECS SETTINGS]
Used in Load Database File:
[LOADS]

ConnectionStatus

ConnectionStatus

Value	Description
0	Connected
1	Disconnected
2	ByPassed

Used in **Network Database File**:

[AMMETER INSTRUMENT]
[ARC FURNACE SETTING]
[AUTO TRANSFORMER SETTING]
[BATTERY SETTINGS]
[BEES SETTINGS]
[BREAKER SETTING]
[BUSWAY SETTING]
[CENTRALIZED CAPACITOR CONTROL SYSTEM INSTRUMENT]
[CHARGER SETTINGS]
[CTYPE FILTER SETTING]
[CURRENT TRANSFORMER INSTRUMENT]
[DCCABLE SETTINGS]
[DCDCCONVERTER SETTINGS]
[DCFUSE SETTINGS]
[DCIMPEDANCE SETTINGS]
[DCLINK SETTING]
[DCLOAD SETTINGS]
[DCLVCB SETTINGS]
[DCMOTOR SETTINGS]
[DCSWITCH SETTINGS]
[DCUPS SETTINGS]
[DISTANCE RELAY INSTRUMENT]

[DOUBLECIRCUITLINE SETTING]
[DOUBLE TUNED FILTER SETTING]
[ELECTRONIC CONVERTER GENERATOR SETTING]
[FAULT INDICATOR INSTRUMENT]
[FREQUENCY RELAY INSTRUMENT]
[FUSE SETTING]
[GENERIC UDM INSTRUMENT]
[GROUNDINGTRANSFORMER SETTINGS]
[HIGH PASS FILTER SETTING]
[IDEAL CONVERTER SETTING]
[IMPEDANCE RELAY UDM INSTRUMENT]
[INDUCTION GENERATOR SETTING]
[INDUCTION MOTOR SETTING]
[LOAD SHEDDING RELAY UDM INSTRUMENT]
[LVCB SETTING]
[MICROTURBINE SETTINGS]
[MISCELLANEOUS SETTING]
[MOTOR RELAY INSTRUMENT]
[NETWORK EQUIVALENT SETTING]
[NETWORKPROTECTOR SETTING]
[NON IDEAL CONVERTER SETTING]
[OVERCURRENT RELAY INSTRUMENT]
[OVERHEAD BYPHASE SETTING]
[OVERHEADLINE SETTING]
[OVERHEADLINEUNBALANCED SETTING]
[PHASE SHIFTER TRANSFORMER SETTING]
[PHOTOVOLTAIC SETTINGS]
[POTENTIAL TRANSFORMER INSTRUMENT]
[RECLOSER SETTING]
[REGULATOR SETTING]
[REGULATOR BYPHASE SETTING]
[SECTIONALIZER SETTING]
[SERIES CAPACITOR SETTING]
[SERIES FREQUENCY DEPENDENT BRANCH SETTING]
[SERIES FREQUENCY SOURCE SETTING]
[SERIES MUTUALLY COUPLED THREE PHASES BRANCH SETTING]

[SERIES PARALLEL RLC BRANCH SETTING]
[SERIES REACTOR SETTING]
[SERIES RLC BRANCH SETTING]
[SHUNT CAPACITOR SETTING]
[SHUNT FREQUENCY DEPENDENT BRANCH SETTING]
[SHUNT FREQUENCY SOURCE SETTING]
[SHUNT MUTUALLY COUPLED THREE PHASES BRANCH SETTING]
[SHUNT PARALLEL RLC BRANCH SETTING]
[SHUNT REACTOR SETTING]
[SHUNT RLC BRANCH SETTING]
[SINGLE TUNED FILTER SETTING]
[SOFC SETTINGS]
[STATCOM SETTING]
[SVC SETTING]
[SWITCH SETTING]
[SWITCHABLE SHUNT BANK SETTING]
[SYNCHRONOUS GENERATOR SETTING]
[SYNCHRONOUS MOTOR SETTING]
[THREE WINDING AUTO TRANSFORMER SETTING]
[THREE WINDING TRANSFORMER SETTING]
[TRANSFORMER SETTING]
[TRANSFORMER BYPHASE SETTING]
[UNDERGROUNDLINE SETTING]
[UPFC SETTING]
[VARCOMPENSATOR SETTING]
[VARIABLE FREQUENCY DRIVE SETTING]
[VARMETER INSTRUMENT]
[VOLTAGE METER INSTRUMENT]
[VOLTAGE RELAY INSTRUMENT]
[WATTMETER INSTRUMENT]
[WECS SETTINGS]

Used in Load Database File:

[CUSTOMER LOADS]

Used in Capacitor Status Database File:

[SHUNT CAPACITOR UPDATE SETTING]

ControlRiseFallUnit

ControlRiseFallUnit

Value	Description
0	PercentPerMin
1	WattPerSec

Used in **Network Database File:**

[BESS SETTINGS]

[CONVERTER]

Converter

Converter

Value	Description
0	HVDC
1	Other

Used in Equipment Database File:

[ELECTRONIC CONVERTER GENERATOR]

ConverterActivePowerReference

ConverterActivePowerReference

Value	Description
0	DeviceRating
1	ConverterRating
2	Difference

Used in **Network Database File:**

[CONVERTER CONTROL SETTING]

ConverterControlDBModel

ConverterControlDBModel

Value	Description
0	None
1	VoltVar
2	VoltWatt
3	VoltWattCharge
4	WattPowerFactor
5	Loadshape

Used in Equipment Database File:

[CONVERTERCONTROL]

[POINTS]

ConverterControlType

ConverterControlType

Value	Description
0	VoltVar_VV11
1	VoltVar_VV12
2	VoltVar_VV13
3	VoltVar_VV14
4	VoltVar_VV51
5	VoltWatt_VW52
6	WattPowerFactor_WP41
7	DynamicReactiveCurrent_TV31
8	MaximumGenerationLevel_INV2
9	MaximumChargingLevel
10	AdjustPowerFactor_INV3
11	TimeDriven
12	LoadShapeDriven
13	PowerDriven
14	PowerPeakShaving
15	PowerFollowing
16	PowerLeveling
17	DERDriven
18	DERLeveling
19	DERSupport
20	DERSmoothing

Used in **Network Database File**:

[CONVERTER CONTROL SETTING]

ConverterVarReference

ConverterVarReference

Value	Description
0	ActivePowerRating
1	ReactivePowerRating
2	ReactivePowerAvailable

Used in **Network Database File**:

[CONVERTER CONTROL SETTING]

CoordinationApplyOn

CoordinationApplyOn

Type Variables

Value	Description
0	Minimum
1	Maximum

Used in TCCSettings Database File:

[TCCCOORDINATIONCURVE]

CoordinationMode

CoordinationMode

Value	Description
0	MultiplierFirst
1	AdderFirst
2	MinAdderOrMult
3	MaxAdderOrMult
4	MaxTS2
5	MinTS2

Used in TCCSettings Database File:

[TCCCOORDINATIONCURVE]

COORDSET

COORDSET

Value	Description
0	Angle Auto Generation
1	No Auto Generation
2	OrthoAutoGeneration
3	SemiAutoGen
4	SemiAutoGenCoorCorrection

Used in **Network Database File**:

[SUBNETWORKS]

[TOPO]

CTConnection

CTConnection

Value	Description
0	CTUndefined
1	1N
2	2N
3	12

Used in **Network Database File**:

[BESS SETTINGS]
[ELECTRONIC CONVERTER GENERATOR SETTING]
[INDUCTION GENERATOR SETTING]
[INDUCTION MOTOR SETTING]
[MICROTURBINE SETTINGS]
[PHOTOVOLTAIC SETTINGS]
[SHUNT CAPACITOR SETTING]
[SHUNT REACTOR SETTING]
[SOFC SETTINGS]
[SYNCHRONOUS GENERATOR SETTING]
[UNDERGROUNDLINE SETTING]
[VARCOMPENSATOR SETTING]
[WECS SETTINGS]

Used in Capacitor Status Database File:

[SHUNT CAPACITOR UPDATE SETTING]

CTPhase

CTPhase

Value	Description
1	AB
2	BC
3	CA

Used in **Network Database File**:

[TRANSFORMER SETTING]

CurrentUnit

CurrentUnit

Value	Description
0	A
1	kA

Used in **Network Database File**:

[AMMETER INSTRUMENT]

CurveModel

CurveModel

Value	Description
0	P_Q
1	P_PF
2	LF_PF
3	WindSpeed
4	Insolation
5	DCGeneration

Used in Equipment Database File:

[GENERATION CURVE MODEL]

[LOAD CURVE MODEL]

[MOTOR CURVE MODEL]

Used in **Network Database File**:

[LONG TERM DYNAMICS CURVE EXT]

Used in Load Database File:

[CUSTOMER CLASS]

DCCableType

DCCableType

Value	Description
1	Shielded
2	Unshielded

DCLinkControlMode

DCLinkControlMode

Value	Description
0	PowerControl
1	CurrentControl

Used in **Network Database File**:

[DCLINK SETTING]

DATA_TYPE

DATA_TYPE

Value	Alternate Value	Description
0	FEEDER	Growth factors are to be applied to a Feeder
1	ZONE	Growth factors are to be applied to a Zone
2	SECTION	Growth factors are to be applied to a Section
3	SUBSTATION	Growth factors are to be applied to a Substation
4	SECONDARYNETWORK	Growth factors are to be applied to a Secondary Network

Used in Load Database File:

[GROWTH]

DEMANDTYPE

DEMANDTYPE

Value	Description
0	KVA
1	AMP
2	KW
3	KW_KVAR
5	KVA (Total Demand)
7	KW (Total Demand)
8	KW_KVAR (Total Demand)

Used in Meter Demands Database File:

[LOWVOLTAGEMETERDEMAND SETTING]

[LOWVOLTAGESOURCEMETERDEMAND]

[METERDEMAND SETTING]

[SOURCEMETERDEMAND]

DeviceComponentType

DeviceComponentType

Value	Description
0	LoadCustomer

Used in **Network Database File**:

[DEVICECOMPONENTUDD]

Used in Load Database File:

[DEVICECOMPONENTUDD]

DeviceType

DeviceType

Value	Description
1	UndergroundLine
2	OverheadLine
3	OverheadByPhase
4	Regulator
5	Transformer
6	Not used
7	Not used
8	Breaker
9	LVCB
10	Recloser
11	Not used
12	Sectionalizer
13	Switch
14	Fuse
15	SeriesCapacitor
16	SeriesReactor
17	ShuntCapacitor
18	ShuntReactor
19	Not used
20	SpotLoad
21	DistributedLoad
22	Miscellaneous
23	OverheadLineUnbalanced
24	ArcFurnace
25	CTypeFilter
26	DoubleTunedFilter
27	HighPassFilter
28	IdealConverter
29	NonIdealConverter
30	ShuntFrequencySource
31	Not used
32	SingleTunedFilter
33	InductionMotor
34	SynchronousMotor
35	InductionGenerator
36	SynchronousGenerator
37	ElectronicConverterGenerator
38	TransformerByPhase
39	ThreeWindingTransformer
40	NetworkEquivalent
41	Wecs
42	GroundingTransformer
43	MicroTurbine
44	Sofc
45	Photovoltaic
46	SeriesFrequencySource
47	AutoTransformer
48	ThreeWindingAutoTransformer

DeviceType

Value	Description
49	SVC
50	ShuntParallelRLCBranch
51	ShuntRLCBranch
52	SeriesParallelRLCBranch
53	SeriesRLCBranch
54	ShuntFrequencyDependentBranch
55	SeriesFrequencyDependentBranch
56	ShuntMutuallyCoupledThreePhaseBranch
57	SeriesMutuallyCoupledThreePhaseBranch
58	NetworkProtector
59	Busway
60	Upfc
61	PhaseShifterTransformer
62	Statcom
63	SwitchableShuntBank
64	DcLink
65	Source
66	VariableFrequencyDrive
67	RegulatorByPhase
68	DoubleCircuitLine
69	Charger
70	DCDCConverter
71	Battery
72	DCMotor
73	DCUPS
74	DCCable
75	DCImpedance
76	DCLoad
77	DCFuse
78	DCLVCB
79	DCSwitch
80	BESS
81	VARCompensator

Used in Network Database File:

[AMMETER INSTRUMENT]
 [ANTIISLANDING]
 [AUTOMATIC TAP CHANGING EXTENSION]
 [CAPACITOR EXTLTD]
 [CONTROLLED DEVICE INSTRUMENT]
 [CONVERTER]
 [CONVERTER CONTROL SETTING]
 [CURRENT TRANSFORMER INSTRUMENT]
 [DEVICEPOINTS]

Type Variables

[DEVICETAG]
[DEVICEUDD]
[DISTANCE RELAY INSTRUMENT]
[DIVERSITY FACTOR]
[DGGENERATIONMODEL]
[FAULT INDICATOR INSTRUMENT]
[FREQUENCY RELAY INSTRUMENT]
[GENERIC UDM INSTRUMENT]
[IMPEDANCE RELAY UDM INSTRUMENT]
[LIMITINGDEVICE]
[LOAD SHEDDING RELAY UDM INSTRUMENT]
[LOAD TAP CHANGER EXTLTD]
[LONG TERM DYNAMICS CURVE EXT]
[MOTOR LOAD CHARACTERISTICS]
[MOTOR RELAY INSTRUMENT]
[OVERCURRENT RELAY INSTRUMENT]
[POTENTIAL TRANSFORMER INSTRUMENT]
[PYTHON SCRIPT PARAMETERS SETTING]
[UDM SETTINGS]
[UDM VARIABLES SETTINGS]
[VARMETER INSTRUMENT]
[VOLTAGE METER INSTRUMENT]
[VOLTAGE RELAY INSTRUMENT]
[WATTMETER INSTRUMENT]

Used in Load Database File:

[DEVICETAG]
[DEVICEUDD]

Used in Reliability Database File:

[DEVICE CALIBRATION]
[FAILURE EVENTS]

Used in Meter Demands Database File:

[LOWVOLTAGEMETERDEMAND SETTING]
[METERDEMAND SETTING]
[UTILIZATIONFACTOR SETTING]

Used in TCCSettings Database File:

[TCCCOORDINATIONCURVE]

[TCCFUSE]
[TCCLINECONFIGURATION]
[TCCLVCB]
[TCCMOTOR]
[TCCPOINTS]

DistanceRelayCharacteristics

DistanceRelayCharacteristics

Value	Description
0	None
1	Mho
2	Quad
3	Not used
4	Polygon
5	Not used
6	Not used
7	Not used
8	Reactance

Used in **Network Database File:**

[INSTRUMENT DISTANCE RELAY ZONE]

DistanceRelayGroup

DistanceRelayGroup

Value	Description
0	Numerical
1	Electromechanical

Used in **Network Database File:**

[DISTANCE RELAY INSTRUMENT]

DistanceRelayType

DistanceRelayType

Value	Description
0	Mho
1	KD10
2	HZ
3	Quad
4	Polygon
5	RAZOA
6	GCXY51

Type Variables

7	GCX51A
8	Reactance
9	PolygonMho

Used in **Network Database File:**

[DISTANCE RELAY INSTRUMENT]

ELEM_TYPE

ELEM_TYPE

Value	Alternate Value
0	Graphical Line
1	Graphical Polyline
2	Graphical Polygon
3	Graphical Ellipse
5	Graphical Text
8	Graphical Arrow

Used in **Network Database File:**

[GRAPHICALELEMENTS]

EquipmentDBType

EquipmentDBType

Value	Description
1	Source
2	Transformer
3	Not used
4	Not used
5	Regulator
6	Switch
7	Sectionalizer
8	Fuse
9	Recloser
10	Breaker
11	LVCB
12	Not used
13	Not used
14	Series Capacitor
15	Series Reactor
16	Shunt Capacitor
17	Shunt Reactor
18	Miscellaneous
19	Arc Furnace
20	CType Filter
21	Double Tuned Filter

EquipmentDBType

Value	Description
22	High Pass Filter
23	Ideal Converter
24	Non Ideal Converter
25	Frequency Source
26	Not used
27	Single Tuned Filter
28	Conductor
29	Cable
30	Overhead Line
31	Overhead Line Unbalanced
32	Overhead spacing of conductor
33	Induction Motor
34	Synchronous Motor
35	Induction Generator
36	Synchronous Generator
37	Electronic Converter Generator
38	Three Winding Transformer
39	Grounding Transformer
40	WECS
41	UDM
42	Wind Model
43	MicroTurbine
44	Sofc
45	Photovoltaic
46	InsolationModel
47	NetworkProtector
48	SVC
49	AutoTransformer
50	ThreeWindingAutoTransformer
51	Busway
52	PhaseShifterTransformer
53	GeneratorCostCurveModel
54	GenerationCurveModel
55	MotorCurveModel
56	LoadCurveModel
57	VariableFrequencyDrive
58	DoubleCircuitSpacing
59	Charger
60	DCDCCConverter
61	Battery
62	DCMotor
63	DCUPS
64	DCCable
65	DCFuse
66	DCLVCB
67	DCSwitch
68	ConductorMaterial
69	InsulationMaterial
70	PythonDeviceScript
71	BESS

EquipmentDBType

Value	Description
72	Converter Control
73	ACDCConverter
74	VARCompensator

Used in Equipment Database File:

[DEFAULT EQUIPMENT]

[EQUIPMENTUDD]

[INDUCTION MACHINE EQ CIRCUIT]

[POINTS]

[SYNCHRONOUS MACHINE EQ CIRCUIT]

[SYNCHRONOUS MACHINE EXT HARMO]

[SYNCHRONOUS MACHINE EXT STAB]

[TWO VALUE POINTS]

Used in **Network Database File**:

[UNDERGROUNDLINE SETTING]

EstimationMethodType

EstimationMethodType

Value	Description
0	No Load Test
1	Full Load Test
2	Nominal Conditions
3	Starting Conditions
4	EstimationMethodFromNameplateData
5	EstimationMethodFromPerformanceCharacteristics

Used in Equipment Database File:

[INDUCTION MACHINE EQ CIRCUIT]

FaultContributionUnitType

FaultContributionUnitType

Value	Description
0	Percent
1	Current

Used in **Network Database File**:

[BATTERY SETTINGS]

[BESS SETTINGS]
[CHARGER SETTINGS]
[DCDCCONVERTER SETTINGS]
[DCMOTOR SETTINGS]
[DCUPS SETTINGS]
[ELECTRONIC CONVERTER GENERATOR SETTING]
[MICROTURBINE SETTINGS]
[PHOTOVOLTAIC SETTINGS]
[SOFC SETTINGS]
[WECS SETTINGS]

FaultIndicatorType

FaultIndicatorType

Value	Description
0	No Fault Indicator
1	Visual Fault Indicator
2	Remote Fault Indicator

Used in **Network Database File**:

[AUTO TRANSFORMER SETTING]
[BREAKER SETTING]
[FAULT INDICATOR INSTRUMENT]
[FUSE SETTING]
[LVCB SETTING]
[MISCELLANEOUS SETTING]
[NETWORKPROTECTOR SETTING]
[PHASE SHIFTER TRANSFORMER SETTING]
[RECLOSER SETTING]
[REGULATOR SETTING]
[REGULATOR BYPHASE SETTING]
[SECTIONALIZER SETTING]
[SERIES CAPACITOR SETTING]
[SERIES REACTOR SETTING]
[SWITCH SETTING]
[TRANSFORMER SETTING]

GeneratorCostCurveType

GeneratorCostCurveType

Value	Description
0	Linear
1	Polynomial
2	Quadratic

Used in Equipment Database File:

[GENERATOR COST CURVE MODEL]

GeoMapType

GeoMapType

Value	Description
2	AutoCAD
3	OnlineProviders
4	SHP
6	KML
7	PDF
8	SVG

Used in Background Maps Database File:

[BACKGROUND MAPS]

GraphicalFillType

GraphicalFillType

Value	Description
0	Transparent
1	Opaque

Used in **Network Database File**:

[GRAPHICALELEMENTS]

GraphicalLineType

GraphicalLineType

Value	Description
0	Solid Line
1	Dotted Line
2	Dashed Line

Used in **Network Database File**:

[GRAPHICALELEMENTS]

GUITagItemBackground

GUITagItemBackground

Value	Description
0	Default
1	Transparent
2	Opaque

Used in **Network Database File**:

[AMMETER INSTRUMENT]

[CENTRALIZED CAPACITOR CONTROL SYSTEM INSTRUMENT]

[CURRENT TRANSFORMER INSTRUMENT]

[DEVICETAG]

[DISTANCE RELAY INSTRUMENT]

[FAULT INDICATOR INSTRUMENT]

[FREQUENCY RELAY INSTRUMENT]

[GENERIC UDM INSTRUMENT]

[IMPEDANCE RELAY UDM INSTRUMENT]

[LOAD SHEDDING RELAY UDM INSTRUMENT]

[MOTOR RELAY INSTRUMENT]

[NODE]

[OVERCURRENT RELAY INSTRUMENT]

[POTENTIAL TRANSFORMER INSTRUMENT]

[SOURCETAG]

[SUBNETWORKS]

[TOPO]

[VARMETER INSTRUMENT]

[VOLTAGE METER INSTRUMENT]

[VOLTAGE RELAY INSTRUMENT]

[WATTMETER INSTRUMENT]

Used in Load Database File:

[DEVICETAG]

GUITagItemBorder

GUITagItemBorder

Value	Description
0	Default
1	None
2	Rectangle

Used in **Network Database File:**

[AMMETER INSTRUMENT]
 [CENTRALIZED CAPACITOR CONTROL SYSTEM INSTRUMENT]
 [CURRENT TRANSFORMER INSTRUMENT]
 [DEVICETAG]
 [DISTANCE RELAY INSTRUMENT]
 [FAULT INDICATOR INSTRUMENT]
 [FREQUENCY RELAY INSTRUMENT]
 [GENERIC UDM INSTRUMENT]
 [IMPEDANCE RELAY UDM INSTRUMENT]
 [LOAD SHEDDING RELAY UDM INSTRUMENT]
 [MOTOR RELAY INSTRUMENT]
 [NODE]
 [OVERCURRENT RELAY INSTRUMENT]
 [POTENTIAL TRANSFORMER INSTRUMENT]
 [SOURCETAG]
 [SUBNETWORKS]
 [TOPO]
 [VARMETER INSTRUMENT]
 [VOLTAGE METER INSTRUMENT]
 [VOLTAGE RELAY INSTRUMENT]
 [WATTMETER INSTRUMENT]

Used in Load Database File:

[DEVICETAG]

GUITagItemLocation

GUITagItemLocation

Value	Description
0	Standard
1	Primary

2	Secondary
3	Tertiary

Used in **Network Database File**:

[AMMETER INSTRUMENT]
[CENTRALIZED CAPACITOR CONTROL SYSTEM INSTRUMENT]
[CURRENT TRANSFORMER INSTRUMENT]
[DEVICETAG]
[DISTANCE RELAY INSTRUMENT]
[FAULT INDICATOR INSTRUMENT]
[FREQUENCY RELAY INSTRUMENT]
[GENERIC UDM INSTRUMENT]
[IMPEDANCE RELAY UDM INSTRUMENT]
[LOAD SHEDDING RELAY UDM INSTRUMENT]
[MOTOR RELAY INSTRUMENT]
[NODE]
[OVERCURRENT RELAY INSTRUMENT]
[POTENTIAL TRANSFORMER INSTRUMENT]
[SOURCETAG]
[SUBNETWORKS]
[TOPO]
[VARMETER INSTRUMENT]
[VOLTAGE METER INSTRUMENT]
[VOLTAGE RELAY INSTRUMENT]
[WATTMETER INSTRUMENT]

Used in Load Database File:

[DEVICETAG]

GUITagItemTextAlign

GUITagItemTextAlign

Value	Description
0	Default
1	Left
2	Center
3	Right

Used in Network Database File:

[AMMETER INSTRUMENT]
[CENTRALIZED CAPACITOR CONTROL SYSTEM INSTRUMENT]
[CURRENT TRANSFORMER INSTRUMENT]
[DEVICETAG]
[DISTANCE RELAY INSTRUMENT]
[FAULT INDICATOR INSTRUMENT]
[FREQUENCY RELAY INSTRUMENT]
[GENERIC UDM INSTRUMENT]
[IMPEDANCE RELAY UDM INSTRUMENT]
[LOAD SHEDDING RELAY UDM INSTRUMENT]
[MOTOR RELAY INSTRUMENT]
[NODE]
[OVERCURRENT RELAY INSTRUMENT]
[POTENTIAL TRANSFORMER INSTRUMENT]
[SOURCETAG]
[SUBNETWORKS]
[TOPO]
[VARMETER INSTRUMENT]
[VOLTAGE METER INSTRUMENT]
[VOLTAGE RELAY INSTRUMENT]
[WATTMETER INSTRUMENT]

Used in Load Database File:

[DEVICETAG]

HarmonicModel

HarmonicModel

Value	Description
0	SimplifiedFromNameplateData
1	DetailedFromEqImpedances

Used in **Network Database File**:

[INDUCTION GENERATOR SETTING]

[INDUCTION MOTOR SETTING]

ImpedanceFormat

ImpedanceFormat

Value	Description
0	ZPercent XRRatio
1	ZOhms XRRatio
2	ROhms XOhms

Used in Equipment Database File:

[GROUNDING TRANSFORMER]

ImpedanceUnit

ImpedanceUnit

Value	Description
0	Ohms
1	PU

Used in Equipment Database File:

[INDUCTION GENERATOR]

[INDUCTION MACHINE EQ CIRCUIT]

[INDUCTION MOTOR]

[SUBSTATION]

[SYNCHRONOUS GENERATOR]

[SYNCHRONOUS MOTOR]

Used in **Network Database File**:

[SOURCE EQUIVALENT]

InRushMode

InRushMode

Value	Description
0	None
1	Circle
2	Curves
3	CurveCEE

Used in TCCSettings Database File:

[TCCTRANSFORMER]

InductionMotorRunningStabilityModel

InductionMotorRunningStabilityModel

Value	Description
0	StaticLoad
1	DynamicType1

Used in **Network Database File**:

[INDUCTION MOTOR STABILITY EXTENSIONS]

InductionMotorStartingStabilityModel

InductionMotorStartingStabilityModel

Value	Description
0	DynamicType2
1	DynamicType3

Used in **Network Database File**:

[INDUCTION MOTOR STABILITY EXTENSIONS]

InertiaUnitType

InertiaUnitType

Value	Description
0	MWsMVA
1	kgm2

Used in Equipment Database File:

[INDUCTION MACHINE EQ CIRCUIT]

[MICRO TURBINE]

[SYNCHRONOUS MACHINE EQ CIRCUIT]

Used in **Network Database File:**

[MOTOR LOAD CHARACTERISTICS]

InstrumentType

InstrumentType

Value	Description
1	Potential Transformer
2	Current Transformer
3	Voltage Relay
4	Frequency Relay
5	OverCurrent Relay
6	Motor Relay
7	GenericUDM
8	LoadSheddingRelayUDM
9	ImpedanceRelayUDM
10	VoltageMeter
11	CentralizedCapacitorControlSystem
12	DistanceRelay
13	FaultIndicator
14	Ammeter
15	Varmeter
16	Wattmeter

Used in **Network Database File:**

[CONTROLLED DEVICE INSTRUMENT]

[INSTRUMENT METER LOADMODEL]

[INSTRUMENT UDM SETTINGS]

[INSTRUMENT UDM VARIABLE SETTINGS]

[INSTRUMENTUDD]

[INTERMEDIATE POINTS INSTRUMENT]

Used in TCCSettings Database File:

[TCCCOORDINATIONCURVE]

[TCCINSTANTANEOUS]

[TCCPOINTS]

[TCCRELAY]

IntellirupterDirection

IntellirupterDirection

Value	Description
0	Direction1
1	Direction2

Used in TCCSettings Database File:

[TCCINTELLIRUPTER]

IntellirupterProfile

IntellirupterProfile

Value	Description
1	GeneralProfile1
2	GeneralProfile2
3	GeneralProfile3
4	GeneralProfile4
5	ClosingProfile1
6	ClosingProfile2
7	HotLineTagProfile

Used in TCCSettings Database File:

[TCCINTELLIRUPTER]

ItemType

ItemType

Value	Description
0	None
1	Section
2	Multipoints
3	Failures
4	Conductor
5	Substation
6	Regulator
7	Transformer
8	Motor
9	Generator
10	Cable
11	Overhead
12	OverheadLline
13	OverheadLlineUnbalanced
14	OverheadByPhase
15	Breaker
16	LVCB
17	Recloser
18	Sectionalizer
19	Switch
20	Fuse
21	Series Capacitor
22	Series Reactor
23	Capacitor
24	Load

ItemType

Value	Description
25	Spot Load
26	Distributed Load
27	Lock Distributed Load
28	Lock Spot Load
29	Lock Load
30	Meter
31	Disconnect Spot Load
32	Disconnect Distributed Load
33	Shunt Capacitor
34	Shunt Reactor
35	Miscellaneous
36	Arc Furnace
37	C Type Filter
38	Double Tuned Filter
39	High Pass Filter
40	Ideal Converter
41	Non Ideal Converter
42	Shunt Frequency Source
43	Series Frequency Source
44	Single Tuned Filter
45	Induction Generator
46	Synchronous Generator
47	Induction Motor
48	Synchronous Motor
49	Three Winding Transformer
50	Transformer By Phase
51	Electronic Converter Generator
52	Network Equivalent
53	Node
54	Bus
55	UDM
56	Wechs
57	Wind Model
58	Grounding Transformer
59	Micro Turbine
60	Sofc
61	Photovoltaic
62	Potential Transformer
63	Current Transformer
64	Voltage Relay
65	Frequency Relay
66	Over Current Relay
67	Motor Relay
68	AutoTransforme
69	ThreeWindingAutoTransformer
70	SVC
71	ShuntRLCBranch
72	SeriesRLCBranch
73	ShuntParallelRLCBranch
74	SeriesParallelRLCBranch

ItemType

Value	Description
75	ShuntFrequencyDependentBranch
76	SeriesFrequencyDependentBranch
77	ShuntMutuallyCoupled3phBranch
78	SeriesMutuallyCoupled3phBranch
79	GenericUDM
80	LoadSheddingRelayUDM
81	NetworkProtector
82	Busway
83	PhaseShifterTransformer
84	Statcom
85	Upfc
86	ImpedanceRelayUDM
87	DcLink
88	SwitchableShuntBank
89	VariableFrequencyDrive
90	RegulatorByPhase
91	DoubleCircuitLine
92	Charger
93	DCUPS
94	DCMotor
95	Battery
96	DCDCConverter
97	DCCable
98	DCLoad
99	DCImpedance
100	DCLVCB
101	DCFuse
102	DCSwitch
103	CentralizedCapacitorControlSystem
104	VoltageMeter
105	DistanceRelay
106	BESS
107	FaultIndicator
108	CustomerLoad
109	Network
110	VARCompensator
111	Ammeter
112	Varmeter
113	Wattmeter

Used in **Network Database File**:

[CONVERTER CONTROL SETTING]

LALockDuringLoadAllocation

LALockDuringLoadAllocation

Value	Description

0	Unlocked
1	Locked
2	InitiallyLocked

Used in Load Database File:

[CUSTOMER LOADS]

LineHarmonicModel

LineHarmonicModel

Value	Description
0	SeriesRLPhase
1	SeriesRLSequence
2	NominalPI
3	DistTransposed
4	DistTransposedSkinEffect
5	Not used
6	DistUntransposed
7	IndividualSettings

Used in **Network Database File**:

[DOUBLECIRCUITLINE SETTING]

[OVERHEAD BYPHASE SETTING]

[OVERHEADLINE SETTING]

[OVERHEADLINEUNBALANCED SETTING]

[UNDERGROUNDLINE SETTING]

LoadProfileCategoryType

LoadProfileCategoryType

Value	Description
All	All Category
Network	Feeder
Meter	Meter
Generator	Generator
CustomerType	Customer Type
MeterLoad	Load and Transformer

Used in Profile Database File:

[PROFILE_VALUES]

LoadProfileDayIntervalType

LoadProfileDayIntervalType

Type Variables

Value	Description
5Minutes	5 minutes
15Minutes	15 minutes
30Minutes	30 minutes
Hour	1 hour
10Minutes	10 minutes
1Minute	1 minute

Used in Profile Database File:

[PROFILE_VALUES]

LoadProfileIntervalFormat

LoadProfileIntervalFormat

Value	Description
8760Hours	8760 Hours
4Seasons_1DayType	4 Seasons 1 Day
4Seasons_2DayTypes	4 Seasons 2 Days
4Seasons_3DayTypes	4 Seasons 3 Days
4Seasons_5DayTypes	4 Seasons 5 Days
4Seasons_7DayTypes	4 Seasons 7 Days
12Months_1DayType	12 Months 1 Day
12Months_2DayTypes	12 Months 2 Days
12Months_3DayTypes	12 Months 3 Days
12Months_5DayTypes	12 Months 5 Days
12Months_7DayTypes	12 Months 7 Days
365Days	365 Days
Unknown	Unknown

Used in Profile Database File:

[PROFILE_VALUES]

LoadProfilePhaseType

LoadProfilePhaseType

Value	Description
A	A
B	B
C	C
Total	Total
ByPhase	By Phase

Used in Profile Database File:

[PROFILE_VALUES]

LoadProfileSpecificUnitType

LoadProfileSpecificUnitType

Value	Description
Undefined	Undefined
AverageKW	AverageKW
KWKVAR_KW	KW
KWKVAR_KVAR	KVAR
KWPF_KW	KW
KWPF_PF	PF
KVAPF_KVA	KVA
KVAPF_PF	PF
AMPPF_AMP	AMP
AMPPF_PF	PF
%	Percent
%PQ_P	Percent P
%PQ_Q	Percent Q
PU	PU
PUPF_PU	PU
PUPF_PF	PF

Used in Profile Database File:

[PROFILE_VALUES]

LoadProfileUnitType

LoadProfileUnitType

Value	Description
AverageKW	AverageKW
KW-KVAR	KW_KVAR
KW-PF	KW_PF
KVA-PF	KVA_PF
AMP-PF	AMP_PF
%	Percent
%PQ	Percent_PQ
PU	PU
PU-PF	PU_PF
Unkonwn	Unknown

Used in Profile Database File:

[PROFILE_VALUES]

LoadProfileWeekIntervalType

LoadProfileWeekIntervalType

Value	Description
0	Week2

Type Variables

1	Week3
2	Week7
3	Week1
4	Week5

Used in Profile Database File:

[PROFILE_VALUES]

LoadProfileYearIntervalType

LoadProfileYearIntervalType

Value	Description
0	Day
1	Month
2	Season
3	Year

Used in Profile Database File:

[PROFILE_VALUES]

LoadValueType

LoadValueType

Value	Description
0	KW_KVAR
1	KVA_PF
2	KW_PF
3	AMP_PF

Used in **Network Database File**:

[LOAD EQUIVALENT]

Used in Load Database File:

[CUSTOMER LOADS]

LOAD_TYPE

LOAD_TYPE

Value	Alternate Value
0	SPOT
1	DISTRIBUTED

Used in Load Database File:

[CUSTOMER LOADS]

[LOADS]

Location

Location

Value	Description
0	Middle
1	From
2	To

Used in **Network Database File**:

[AMMETER INSTRUMENT]

[ARC FURNACE SETTING]

[BATTERY SETTINGS]

[CENTRALIZED CAPACITOR CONTROL SYSTEM INSTRUMENT]

[CHARGER SETTINGS]

[CTYPE FILTER SETTING]

[CURRENT TRANSFORMER INSTRUMENT]

[DCCABLE SETTINGS]

[DCDCCONVERTER SETTINGS]

[DCLOAD SETTINGS]

[DCMOTOR SETTINGS]

[DCUPS SETTINGS]

[DISTANCE RELAY INSTRUMENT]

[DOUBLE TUNED FILTER SETTING]

[FAULT INDICATOR INSTRUMENT]

[FREQUENCY RELAY INSTRUMENT]

[GENERIC UDM INSTRUMENT]

[HIGH PASS FILTER SETTING]

[IMPEDANCE RELAY UDM INSTRUMENT]

[INTERMEDIATE NODES]
[LOAD SHEDDING RELAY UDM INSTRUMENT]
[MOTOR RELAY INSTRUMENT]
[OVERCURRENT RELAY INSTRUMENT]
[POTENTIAL TRANSFORMER INSTRUMENT]
[SERIES REACTOR SETTING]
[SHUNT CAPACITOR SETTING]
[SWITCHABLE SHUNT BANK SETTING]
[THREE WINDING AUTO TRANSFORMER SETTING]
[THREE WINDING TRANSFORMER SETTING]
[TRANSFORMER BYPHASE SETTING]
[VARMETER INSTRUMENT]
[VOLTAGE METER INSTRUMENT]
[VOLTAGE RELAY INSTRUMENT]
[WATTMETER INSTRUMENT]
Used in Load Database File:
[LOADS]
Used in Reliability Database File:
[FAILURE EVENTS]

LOCATION

LOCATION

Value	Description
S	Source
L	Load
M	Middle

Used in **Network Database File**:

[AUTO TRANSFORMER SETTING]
[BESS SETTINGS]
[BREAKER SETTING]
[BUSWAY SETTING]
[DCLINK SETTING]
[ELECTRONIC CONVERTER GENERATOR SETTING]
[FUSE SETTING]
[GROUNDINGTRANSFORMER SETTINGS]
[IDEAL CONVERTER SETTING]
[INDUCTION GENERATOR SETTING]
[INDUCTION MOTOR SETTING]
[LVCB SETTING]
[MICROTURBINE SETTINGS]
[MISCELLANEOUS SETTING]
[NETWORK EQUIVALENT SETTING]
[NETWORKPROTECTOR SETTING]
[NON IDEAL CONVERTER SETTING]
[PHASE SHIFTER TRANSFORMER SETTING]
[PHOTOVOLTAIC SETTINGS]
[RECLOSER SETTING]
[REGULATOR SETTING]
[REGULATOR BYPHASE SETTING]
[SECTIONALIZER SETTING]
[SERIES CAPACITOR SETTING]
[SERIES FREQUENCY DEPENDENT BRANCH SETTING]
[SERIES FREQUENCY SOURCE SETTING]
[SERIES MUTUALLY COUPLED THREE PHASES BRANCH SETTING]
[SERIES PARALLEL RLC BRANCH SETTING]
[SERIES RLC BRANCH SETTING]

- [SHUNT FREQUENCY DEPENDENT BRANCH SETTING]
- [SHUNT FREQUENCY SOURCE SETTING]
- [SHUNT MUTUALLY COUPLED THREE PHASES BRANCH SETTING]
- [SHUNT PARALLEL RLC BRANCH SETTING]
- [SHUNT REACTOR SETTING]
- [SHUNT RLC BRANCH SETTING]
- [SINGLE TUNED FILTER SETTING]
- [SOFC SETTINGS]
- [STATCOM SETTING]
- [SVC SETTING]
- [SWITCH SETTING]
- [SYNCHRONOUS GENERATOR SETTING]
- [SYNCHRONOUS MOTOR SETTING]
- [TRANSFORMER SETTING]
- [UPFC SETTING]
- [VARIABLE FREQUENCY DRIVE SETTING]
- [WECS SETTINGS]

Used in Meter Demands Database File:

- [LOWVOLTAGEMETERDEMAND SETTING]
- [METERDEMAND SETTING]
- [UTILIZATIONFACTOR SETTING]

LTCControlType

LTCControlType

Value	Description
0	VoltagePercent
1	Voltage120V
2	ReactivePower

Used in **Network Database File**:

- [AUTO TRANSFORMER SETTING]
- [THREE WINDING AUTO TRANSFORMER SETTING]
- [THREE WINDING TRANSFORMER SETTING]
- [TRANSFORMER SETTING]

LTDAdjustmentSettings

LTDAdjustmentSettings

Value	Description
0	NoAdjustment
1	PowerCurve
2	WindCurve
3	InsolationCurve

Used in **Network Database File**:

[LONG TERM DYNAMICS CURVE EXT]

Used in Load Database File:

[CUSTOMER CLASS]

LTDResetMode

LTDResetMode

Value	Description
0	Fast
1	InductionDisc
2	Delay
3	DelayFreeze
4	VoltageAveraging

Used in **Network Database File**:

[LOAD TAP CHANGER 1PH EXTLTD]

[LOAD TAP CHANGER EXTLTD]

LVCBType

LVCBType

Value	Description
0	GroundFault
1	MoldedCase
2	Electromechanical
3	SolidState

Used in Equipment Database File:

[DCLVCB]

[LVCB]

MeterLocation

MeterLocation

Value	Description
0	Primary
1	Secondary
2	Tertiary

Used in Meter Demands Database File:

[LOWVOLTAGEMETERDEMAND SETTING]
 [LOWVOLTAGESOURCEMETERDEMAND]
 [METERDEMAND SETTING]
 [SOURCEMETERDEMAND]

MonthType

MonthType

Value	Description
January	January
February	February
March	March
April	April
May	May
June	June
July	July
August	August
September	September
October	October
November	November
December	December
AllMonths	All Months
Winter	Winter
Spring	Spring
Summer	Summer
Fall	Fall
AllSeason	All Season

Used in Profile Database File:

[PROFILE_VALUES]

MotorAssistanceType

MotorAssistanceType

Value	Description
0	No Assistance
1	Auto Transformer Assistance

2	Resistor Assistance
3	Capacitor Assistance
4	Star Delta Assistance
5	Variable Frequency Assistance
6	Slip Ring Assistance
7	Soft Starter Voltage Ramp Assistance
8	Soft Starter Current Ramp Assistance
9	Soft Starter Current Limit Assistance
10	Motor Starting Curve Assistance

Used in **Network Database File**:

[INDUCTION MOTOR SETTING]

[INDUCTION MOTOR STARTING ASSISTANCE MSA]

[SYNCHRONOUS MOTOR SETTING]

[SYNCHRONOUS MOTOR STARTING ASSISTANCE MSA]

MotorMode

MotorMode

Value	Description
0	PQ
1	P
2	Slip

Used in **Network Database File**:

[INDUCTION MOTOR SETTING]

MotorStatus

MotorStatus

Value	Description
0	Running
1	Locked
2	Off

Used in **Network Database File**:

[INDUCTION MOTOR SETTING]

[SYNCHRONOUS MOTOR SETTING]

NEMA_CODE

NEMA_CODE

Value	Range	Default

NEMA_CODE

Value	Range	Default
0	0.00 – 3.14	1.6
1	3.15 – 3.54	3.3
2	3.55 – 3.99	3.8
3	4.00 – 4.49	4.3
4	4.50 – 4.99	4.8
5	5.00 – 5.59	5.3
6	5.60 – 6.29	6.0
7	6.30 – 7.09	6.7
8	7.10 – 7.99	7.6
9	8.00 – 8.99	8.5
10	9.00 – 9.99	9.5
11	10.0 – 11.19	10.6
12	11.2 – 12.49	11.8
13	12.5 – 13.99	13.2
14	14.0 – 15.99	15.0
15	16.0 – 17.99	17.0
16	18.0 – 19.99	19.0
17	20.0 – 22.39	21.2
18	22.4 - more	22.4

Used in Equipment Database File:

[INDUCTION MOTOR]

NeutralConductorStatus

NeutralConductorStatus

Value	Description
0	Eliminated
1	Segmented
2	Retained

Used in Equipment Database File:

[DOUBLECIRCUITSPACING]

[SPACING TABLE FOR LINE]

NORM_STAT

NORM_STAT

Value	Description
0	Normally Closed
1	Normally Opened

Used in **Network Database File**:

[BREAKER SETTING]

[FUSE SETTING]

[LVCB SETTING]

[RECLOSER SETTING]

[SECTIONALIZER SETTING]

[SWITCH SETTING]

NSTATUS

NORM_STAT

Value	Description
0	Closed
1	Open

Used in **Network Database File**:

[NETWORKPROTECTOR SETTING]

OPFFlowConstraintsUnit

OPFFlowConstraintsUnit

Value	Description
0	Amp
1	kW
2	Kvar
3	kVA

Used in **Network Database File**:

[DOUBLECIRCUITLINE SETTING]

[OVERHEAD BYPHASE SETTING]

[OVERHEADLINE SETTING]

[OVERHEADLINEUNBALANCED SETTING]

[UNDERGROUNDLINE SETTING]

OperatingPoint

OperatingPoint

Value	Description
0	Dependent
1	Independent

Used in **Network Database File:**

[NETWORKPROTECTOR SETTING]

Phase

Phase

Value	Description
0	None
1	A
2	B
3	C
4	AB
5	AC
6	BC
7	ABC

Used in **Network Database File:**

[CENTRALIZED CAPACITOR CONTROL SYSTEM INSTRUMENT]

[CHARGER SETTINGS]

[DCCABLE SETTINGS]

[DCLOAD SETTINGS]

[DCMOTOR SETTINGS]

[DCUPS SETTINGS]

[HEADNODES]

[SHUNT CAPACITOR SETTING]

[SOURCE]

[VARCOMPENSATOR SETTING]

Used in Capacitor Status Database File:

[SHUNT CAPACITOR UPDATE SETTING]

PHASE

Phase

Value	Alternate Value

0	None
1	A
2	B
3	C
4	AB
5	AC
6	BC
7	ABC

Used in **Network Database File**:

[AUTO TRANSFORMER SETTING]
 [BESS SETTINGS]
 [BREAKER SETTING]
 [BUSWAY SETTING]
 [CTYPE FILTER SETTING]
 [DOUBLE TUNED FILTER SETTING]
 [ELECTRONIC CONVERTER GENERATOR SETTING]
 [FUSE SETTING]
 [HIGH PASS FILTER SETTING]
 [INDUCTION GENERATOR SETTING]
 [INDUCTION MOTOR SETTING]
 [LVCB SETTING]
 [MICROTURBINE SETTINGS]
 [NETWORKPROTECTOR SETTING]
 [PHOTOVOLTAIC SETTINGS]
 [RECLOSER SETTING]
 [REGULATOR SETTING]
 [REGULATOR BYPHASE SETTING]
 [SECTION]
 [SECTIONALIZER SETTING]
 [SHUNT CAPACITOR SETTING]
 [SHUNT FREQUENCY DEPENDENT BRANCH SETTING]
 [SHUNT FREQUENCY SOURCE SETTING]
 [SHUNT PARALLEL RLC BRANCH SETTING]
 [SHUNT RLC BRANCH SETTING]
 [SINGLE TUNED FILTER SETTING]
 [SOFC SETTINGS]
 [STATCOM SETTING]

[SWITCH SETTING]
[SWITCHABLE SHUNT BANK SETTING]
[SYNCHRONOUS GENERATOR SETTING]
[THREE WINDING AUTO TRANSFORMER SETTING]
[THREE WINDING TRANSFORMER SETTING]
[TRANSFORMER SETTING]
[TRANSFORMER BYPHASE SETTING]
[WECS SETTINGS]

Used in Load Database File:
[CUSTOMER LOADS]

Used in Reliability Database File:
[FAILURE EVENTS]

Used in Capacitor Status Database File:
[SHUNT CAPACITOR UPDATE SETTING]

PhaseShifterSettingOption

PhaseShifterSettingOption

Value	Description
0	FlowControl
1	FixedTap

Used in **Network Database File**:

[PHASE SHIFTER TRANSFORMER SETTING]

PhaseType

PhaseType

Value	Description
0	UndefinedPhaseType
1	SinglePhase
2	ThreePhase

Used in Equipment Database File:

[ACDCCONVERTER]

[CHARGER]

[DCUPS]

[INDUCTION MOTOR]

[SHUNT CAPACITOR]

[SHUNT REACTOR]

[VARCOMPENSATOR]

Used in **Network Database File**:

[CONVERTER]

[SHUNT CAPACITOR SETTING]

Used in Capacitor Status Database File:

[SHUNT CAPACITOR UPDATE SETTING]

PowerTriggerUnit

PowerTriggerUnit

Value	Description
0	KWTotal
1	KWperPhase
2	KVATotal
3	KVAperPhase
4	A

Used in **Network Database File**:

[CONVERTER CONTROL SETTING]

PREQTYPE

PREQTYPE

Value	Description
0	Equivalent of the transmission system (primary equivalent) is in Ohms (Z1 and Z0)
1	Equivalent of the transmission system (primary equivalent) is given by the short-circuit power (three-phase and single-phase)

Used in Equipment Database File:

[SUBSTATION]

PRIM_PHASE

PRIM_PHASE

Value	Alternate Value
0	AB
1	BC
2	CA
3	None

Used in **Network Database File**:

[TRANSFORMER SETTING]

ProtectionType

ProtectionType

Value	Description
0	Phase
1	Ground
2	PhaseFast
3	PhaseSlow
4	GroundFast
5	GroundSlow
6	PhaseAndGround

Used in **Network Database File**:

[DISTANCE RELAY INSTRUMENT]

[MOTOR RELAY INSTRUMENT]

[OVERCURRENT RELAY INSTRUMENT]

Used in TCCSettings Database File:

[TCCRECLOSER]

PythonDeviceScriptCategory

PythonDeviceScriptCategory

Value	Description
0	CapacitorControl3ph
1	CapacitorControl1ph
2	CentralizedCapacitorControlSystem
3	RegulatorControl3ph
4	RegulatorControl1ph
5	BESSControl3ph
6	BESSControl1ph
7	DSEBadDataPreScreening

Used in Equipment Database File:

[PYTHONDEVICESCRIPT]

PythonParameterDirection

PythonParameterDirection

Value	Description
0	Input
1	Output

Used in Equipment Database File:

[PYTHONSECRIPTPARAMETERS]

Used in **Network Database File**:

[INSTRUMENT PYTHON SCRIPT PARAMETERS]

[PYTHON SCRIPT PARAMETERS SETTING]

PythonParameterType

PythonParameterType

Value	Description
0	Text
1	Numeric
2	Boolean
3	FilePath

Used in Equipment Database File:

[PYTHONSECRIPTPARAMETERS]

Used in **Network Database File**:

[INSTRUMENT PYTHON SCRIPT PARAMETERS]

[PYTHON SCRIPT PARAMETERS SETTING]

ReactivePowerUnit

ReactivePowerUnit

Value	Description
0	Var
1	Kvar
2	Mvar

Used in **Network Database File:**

[VARMETER INSTRUMENT]

RealPowerUnit

RealPowerUnit

Value	Description
0	W
1	kW
2	MW

Used in **Network Database File:**

[WATTMETER INSTRUMENT]

RecloserAlgorithm

RecloserAlgorithm

Value	Description
0	AverageAllPhases
1	AllPhasesANDd
2	AverageAllAngle1
3	AverageAllAngle2
4	AverageAllAngle3
5	AllPhasesORD

Used in **Network Database File:**

[NETWORKPROTECTOR SETTING]

RecloserType

RecloserType

Value	Description
0	Electronic
1	SinglePhase
2	ThreePhase
3	WithTCCSetup

4	Intellirupter
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Used in Equipment Database File:

[RECLOSER]

RegulatorConstructionType

RegulatorConstructionType

Value	Description
0	TypeA
1	TypeB

Used in Equipment Database File:

[REGULATOR]

REG_CONT

REG_CONT

Value	Alternate Value	Description
0	L	LOAD CENTER
1	R	R-X SETTINGS
2	F	FIXED TAP
3	T	REGULATOR TERMINAL
4	P	PythonScript

Used in **Network Database File**:

[REGULATOR SETTING]

REG_TYPE

REG_TYPE

Value	Description
0	Single Phase
1	Three Phase

Used in Equipment Database File:

[REGULATOR]

RelayInstMode

RelayInstMode

Value	Description
0	CTxTap1

Type Variables

1	CTxTapIxTapL
2	PrimaryAmps

Used in TCCSettings Database File:

[TCCRELAY]

RelayOperationMode

RelayOperationMode

Value	Description
0	TapRange
1	TapNoRange
2	NoTap
3	InstOnly
4	STInstOnly
5	MultiplierOfFLC

Used in TCCSettings Database File:

[TCCRELAY]

RelayOvertravelMode

RelayOvertravelMode

Value	Description
0	Inverse
1	VeryInverse
2	ExtremelyInverse
3	UserDefined

Used in TCCSettings Database File:

[TCCRELAY]

RelayPolarizingMode

RelayPolarizingMode

Value	Description
0	Voltage
1	Current
2	Dual

Used in **Network Database File**:

[OVERCURRENT RELAY INSTRUMENT]

RelayShortTimeMode

RelayShortTimeMode

Value	Description
0	CTxTapS
1	CTxTapSxTapL
2	PrimaryAmps

Used in TCCSettings Database File:

[TCCRELAY]

RelayType

RelayType

Value	Description
1	Electromechanical
2	Electronic
3	Motor
4	DefiniteTime

Used in **Network Database File**:

[OVERCURRENT RELAY INSTRUMENT]

RemoteMode

RemoteMode

Value	Description
0	Blocked
1	Auto

Used in **Network Database File**:

[NETWORKPROTECTOR SETTING]

ResetResponseType

ResetResponseType

Value	Description
1	DefiniteTime
2	Electromechanical

Used in TCCSettings Database File:

[TCCINTELLIRUPTERSETPOINT]

RestorationMode

RestorationMode

Value	Description
0	Restoration_Bidirectional
1	Restoration_Unidirectional_From
2	Restoration_Unidirectional_To

Used in **Network Database File**:

[BREAKER SETTING]

[FUSE SETTING]

[LVCB SETTING]

[NETWORKPROTECTOR SETTING]

[RECLOSER SETTING]

[SECTIONALIZER SETTING]

[SWITCH SETTING]

REV_MODE

REV_MODE

Value	Description
0	Bi-Directional
1	CoGeneration
2	Locked Forward
3	Locked Reverse
4	Neutral Idle
5	No Reverse Mode
6	Reverse Idle
7	Reactive Bi-Directional

Used in **Network Database File**:

[REGULATOR SETTING]

[REGULATOR BYPHASE SETTING]

RotorType

RotorType

Value	Description
0	Single
1	Double
2	DeepBar

Used in Equipment Database File:

[INDUCTION MACHINE EQ CIRCUIT]

SectionalizerControlType

SectionalizerControlType

Value	Description
0	Hydraulic
1	Electronic

Used in Equipment Database File:

[SECTIONALIZER]

SensorMode

SensorMode

Value	Description
0	Both
1	From
2	To

Used in **Network Database File**:

[BREAKER SETTING]

[LVCB SETTING]

[NETWORKPROTECTOR SETTING]

[RECLOSER SETTING]

[SECTIONALIZER SETTING]

[SWITCH SETTING]

SequenceDrawingMode

SequenceDrawingMode

Value	Description
0	KFactor
1	Cumulative
2	None

Used in TCCSettings Database File:

[TCCRECLOSER]

SETTINGOPTION

SETTINGOPTION

Value	Alternate Value
0	Fixed Tap Primary
1	Fixed Tap
2	LTC Transformer Terminal
3	LTC Load Center
4	LTC R-X Settings

Used in **Network Database File**:

[AUTO TRANSFORMER SETTING]

ShieldedDCCableType

ShieldedDCableType

Value	Description
1	TwoCore
2	TwoSingleCore

Used in Equipment Database File:

[SHIELDED DCCABLE]

SourceHarmonicModel

SourceHarmonicModel

Value	Description
0	FrequencySource
1	Inverter

Used in **Network Database File**:

[BESS SETTINGS]

[CHARGER SETTINGS]
[DCLINK SETTING]
[DCUPS SETTINGS]
[MICROTURBINE SETTINGS]
[PHOTOVOLTAIC SETTINGS]
[SOFC SETTINGS]
[VARIABLE FREQUENCY DRIVE SETTING]
[WECS SETTINGS]

Standard

Standard

Value	Description
0	Undefined
1	ANSI
2	IEC
3	UL
4	BS
5	BS1361
6	BS3036
7	BSSTD88
8	DIN
9	VFI

Used in Equipment Database File:

[BREAKER]
[DCFUSE]
[DCLVCB]
[FUSE]
[LVCB]

Used in **Network Database File**:

[NODE]

StorageControllerGridOutput

StorageControllerGridOutput

Value	Description
0	Controls
1	PythonScript

Used in **Network Database File:**

[BESS SETTINGS]

StorageControllerStatus

StorageControllerStatus

Value	Description
0	Charging
1	Discharging
2	Idling

Used in **Network Database File:**

[CONVERTER CONTROL SETTING]

SwitchableShuntBankType

SwitchableShuntBankType

Value	Description
0	Capacitors
1	Reactors
2	Mixed

Used in **Network Database File:**

[SWITCHABLE SHUNT BANK SETTING]

SwitchedCapacitorStatus

SwitchedCapacitorStatus

Value	Description
0	InitiallyOn
1	InitiallyOff

Used in **Network Database File:**

[INSTRUMENT CONTROLLED SHUNT CAPACITOR]

Used in Capacitor Status Database File:

[SHUNT CAPACITOR UPDATE SETTING]

SwitchStatus

SwitchStatus

Value	Description
0	Open
1	Closed

Used in **Network Database File**:

[CONTROLLED DEVICE INSTRUMENT]

[INDUCTION MOTOR STARTING ASSISTANCE MSA]

[SYNCHRONOUS MOTOR STARTING ASSISTANCE MSA]

SynchronousMachineStabilityModel

SynchronousMachineStabilityModel

Value	Description
0	FixedPQ
1	ModelType1
2	ModelType2
3	ModelType3
4	ModelType4
5	ModelType5

Used in Equipment Database File:

[SYNCHRONOUS MACHINE EXT STAB]

Used in **Network Database File**:

[SYNCHRONOUS GENERATOR SETTING]

[SYNCHRONOUS MOTOR STABILITY EXTENSION]

TapLocation

TapLocation

Value	Description
1	Primary
2	Secondary
3	Tertiary

Used in **Network Database File**:

[AUTO TRANSFORMER SETTING]

[THREE WINDING AUTO TRANSFORMER SETTING]

[THREE WINDING TRANSFORMER SETTING]

[TRANSFORMER SETTING]

TapPositionMode

TapPositionMode

Value	Description
1	Fixed
2	Last Load Flow Position

Used in **Network Database File**:

[AUTO TRANSFORMER SETTING]

[THREE WINDING AUTO TRANSFORMER SETTING]

[THREE WINDING TRANSFORMER SETTING]

[TRANSFORMER SETTING]

TCCItemType

TCCItemType

Value	Description
0	Unknown
1	Transformer
2	LVCB
3	Recloser
4	Fuse
5	InductionMotor
6	SynchronousMotor
7	Cable
8	OverheadLineBalanced
9	OverheadLineUnbalanced
10	OverheadByPhase
11	OverCurrentRelay
12	MotorRelay

TCCItemType

Value	Description
13	DCFuse
14	DCLVCB
15	MarginAnchor
16	TestPoint
17	Circle
18	Line
19	Text
20	Miscellaneous
21	Sectionalizer
22	SynchronousGenerator

Used in TCCSettings Database File:

[TCCTRANSFORMER]

TCCObjectType

TCCObjectType

Value	Description
2	Base CoordCurve1
3	Base CoordCurve2
26	Curve Phase Fast CoorCurve1
27	Curve Phase Fast CoorCurve2
32	Curve Phase Slow CoorCurve1
33	Curve Phase Slow CoorCurve2
38	Curve Ground Fast CoorCurve1
39	Curve Ground Fast CoorCurve2
44	Curve Ground Slow CoorCurve1
45	Curve Ground Slow CoorCurve2
49	Seq KFactor Load CoordCurve1
50	Seq KFactor Load CoordCurve2
52	Seq KFactor Display CoordCurve1
53	Seq KFactor Display CoordCurve2
55	Seq Cumul PF CoordCurve1
56	Seq Cumul PF CoordCurve2
58	Seq Cumul PS CoordCurve1
59	Seq Cumul PS CoordCurve2
61	Seq Cumul Phase CoordCurve1
62	Seq Cumul Phase CoordCurve2
64	Seq Cumul GF CoordCurve1
65	Seq Cumul GF CoordCurve2
67	Seq Cumul GS CoordCurve1
68	Seq Cumul GS CoordCurve2
70	Seq Cumul Ground CoordCurve1
71	Seq Cumul Ground CoordCurve2
86	Intellirupter_InitialTrip_Phase_CoordCurve1
87	Intellirupter_InitialTrip_Phase_CoordCurve2
88	Intellirupter_InitialTrip_Ground_CoordCurve1

TCCObjectType

Value	Description
89	Intellirupter_InitialTrip_Ground_CoordCurve2
90	Intellirupter_InitialTrip_NegativeSequence_CoordCurve1
91	Intellirupter_InitialTrip_NegativeSequence_CoordCurve2
92	Intellirupter_InitialTrip_SensitiveEarthFault_CoordCurve1
93	Intellirupter_InitialTrip_SensitiveEarthFault_CoordCurve2
94	Intellirupter_Test1_Phase_CoordCurve1
95	Intellirupter_Test1_Phase_CoordCurve2
96	Intellirupter_Test1_Ground_CoordCurve1
97	Intellirupter_Test1_Ground_CoordCurve2
98	Intellirupter_Test1_NegativeSequence_CoordCurve1
99	Intellirupter_Test1_NegativeSequence_CoordCurve2
100	Intellirupter_Test1_SensitiveEarthFault_CoordCurve1
101	Intellirupter_Test1_SensitiveEarthFault_CoordCurve2
102	Intellirupter_Test2_Phase_CoordCurve1
103	Intellirupter_Test2_Phase_CoordCurve2
104	Intellirupter_Test2_Ground_CoordCurve1
105	Intellirupter_Test2_Ground_CoordCurve2
106	Intellirupter_Test2_NegativeSequence_CoordCurve1
107	Intellirupter_Test2_NegativeSequence_CoordCurve2
108	Intellirupter_Test2_SensitiveEarthFault_CoordCurve1
109	Intellirupter_Test2_SensitiveEarthFault_CoordCurve2
110	Intellirupter_Test3_Phase_CoordCurve1
111	Intellirupter_Test3_Phase_CoordCurve2
112	Intellirupter_Test3_Ground_CoordCurve1
113	Intellirupter_Test3_Ground_CoordCurve2
114	Intellirupter_Test3_NegativeSequence_CoordCurve1
115	Intellirupter_Test3_NegativeSequence_CoordCurve2
116	Intellirupter_Test3_SensitiveEarthFault_CoordCurve1
117	Intellirupter_Test3_SensitiveEarthFault_CoordCurve2
118	Intellirupter_Test4_Phase_CoordCurve1
119	Intellirupter_Test4_Phase_CoordCurve2
120	Intellirupter_Test4_Ground_CoordCurve1
121	Intellirupter_Test4_Ground_CoordCurve2
122	Intellirupter_Test4_NegativeSequence_CoordCurve1
123	Intellirupter_Test4_NegativeSequence_CoordCurve2
124	Intellirupter_Test4_SensitiveEarthFault_CoordCurve1
125	Intellirupter_Test4_SensitiveEarthFault_CoordCurve2
126	Intellirupter_InitialTripIFS_Phase_CoordCurve1
127	Intellirupter_InitialTripIFS_Phase_CoordCurve2
128	Intellirupter_InitialTripIFS_Ground_CoordCurve1
129	Intellirupter_InitialTripIFS_Ground_CoordCurve2
130	Intellirupter_SequenceCoordination_Phase_CoordCurve1
131	Intellirupter_SequenceCoordination_Phase_CoordCurve2
132	Intellirupter_SequenceCoordination_Ground_CoordCurve1
133	Intellirupter_SequenceCoordination_Ground_CoordCurve2
134	Intellirupter_SequenceCoordination_NegativeSequence_CoordCurve1
135	Intellirupter_SequenceCoordination_NegativeSequence_CoordCurve2
136	LVCB_Ground_CoordCurve1
137	LVCB_Ground_CoordCurve2
138	Generator_ThermalCapabilityCoordCurve1

TCCObjectType

Value	Description
139	Generator_ThermalCapabilityCoordCurve2

Used in TCCSettings Database File:

[TCCCOORDINATIONCURVE]

TCCRecloserCurveType

TCCRecloserCurveType

Value	Description
1	CurvePhaseFast
2	CurvePhaseSlow
3	CurveGroundFast
4	CurveGroundSlow

Used in TCCSettings Database File:

[TCCRECLOSERCURVE]

TestOperation

TestOperation

Value	Description
1	InitialTrip
2	InitialTripIIS
3	Test1
4	Test2
5	Test3
6	Test4
7	SequenceCoordination

Used in TCCSettings Database File:

[TCCINTELLIRUPTERSETPOINT]

TimeStepUnits

TimeStepUnits

Value	Description
0	Second
1	Minute
2	Hour

Used in **Network Database File**:

[BESS SETTINGS]

TopoType

TopoType

Value	Description
0	Feeder
1	Substation
2	SecondaryNetwork
3	TransmissionLine
4	GeneralNetwork
5	LowVoltageNetwork
6	DCNetwork

TorqueCurveModelType

TorqueCurveModelType

Value	Description
0	ConstFunction
1	LinearFunction
2	QuadraticFunction
3	UserEquation
4	CurvePoint
5	CentrifugalCompressor
6	ReciprocatingCompressor

Used in **Network Database File:**

[MOTOR LOAD CHARACTERISTICS]

TowerType

TowerType

Value	Description
0	GenericSingle
1	GenericDouble
2	WoodSingle
3	SteelSingle
4	SteelDouble1N
5	SteelDouble2N
6	SpecialSteelDouble
7	RigidSingle
8	GuyedSingle
9	CrossRopeSingle
10	Dist3phPoleTop
11	Dist3phSingleArm
12	Dist3phSideArms
13	Dist3phAltSideArms
14	Dist2phSingleArm
15	Dist1phPoleTop
16	SteelNarrowBase
17	SteelBroadBase
18	SteelCatsHead
19	SteelPortal
20	DoubleSteelStandardHeight
21	DoubleSteelNoNeutral
22	DoubleSteelLowHeight

Used in Equipment Database File:

[DOUBLECIRCUITSPACING]

[SPACING TABLE FOR LINE]

TransformerConnection

TransformerConnection

Value	Description
0	Yg_Yg
1	D_Yg
2	D_D
3	Y_Y
4	DO_DO
5	YO_DO
6	Yg_D
7	D_Y
8	Y_D
9	Yg_Y
10	Y_Yg
11	Yg_Zg
12	D_Zg
13	Zg_Yg
14	Zg_D
15	Yg_CT
16	D_CT
17	Yg_DCT
18	D_DCT
19	Y_DCT
20	DO_DOCT
21	YO_DOCT
22	DO_YO
23	Yg_Dn
24	Y_Dn
25	D_Dn
26	Zg_Dn
27	Dn_Yg
28	Dn_Y
29	Dn_D
30	Dn_Dn
31	Dn_Zg
32	T_T
33	T_Tg
99	EquipConnection

Used in **Network Database File:**

[DCLINK SETTING]

[TRANSFORMER SETTING]

[TRANSFORMER BYPHASE SETTING]

TransformerInsulationType

TransformerInsulationType

Value	Description
0	DryVentilated
1	DrySealed
2	Liquid

Used in Equipment Database File:

[TRANSFORMER]

TransformerPhaseType

TransformerPhaseType

Value	Description
1	SinglePhase
2	ThreePhase
3	Not used
4	SinglePhase CenterTap

Used in Equipment Database File:

[AUTOTRANSFORMER]

[TRANSFORMER]

TransformerSettingOption

TransformerSettingOption

Value	Description
1	Fixed Tap Primary
2	Fixed Tap
3	Terminal
4	Load Center
5	RX Settings

Used in **Network Database File**:

[THREE WINDING AUTO TRANSFORMER SETTING]

[THREE WINDING TRANSFORMER SETTING]

TransformerVoltageUnit

TransformerVoltageUnit

Value	Description
0	KVLL
1	KV
2	VLL
3	V

Used in Equipment Database File:

[AUTOTRANSFORMER]

[TRANSFORMER]

TransformerWindingType

TransformerWindingType

Value	Description
1	ShellForm
2	CoreForm

Used in Equipment Database File:

[AUTOTRANSFORMER]

[TRANSFORMER]

TripElement

TripElement

Value	Description
1	Phase
2	Ground
3	NegativeSequence
4	SensitiveEarthFault

Used in TCCSettings Database File:

[TCCINTELLIRUPTERSETPOINT]

TripMode

TripMode

Value	Description
0	Remote
1	Sensitive
2	TimeDelayed
3	Insensitive
4	SensitivePlusNonSensitive
5	WattVar
6	DelayedWattVar

Used in **Network Database File:**

[NETWORKPROTECTOR SETTING]

TXFO_CONN

TXFO_CONN

Value	Alternate Value
0	Y_Y
1	D_Y
2	Y_D
3	YNG_YNG
4	D_D
F5	DO_DO
6	YO_DO
7	D_YNG
8	YNG_D
9	Y_YNG
10	YNG_Y

Used in Equipment Database File:

[SUBSTATION]

UDMCATEGORY

UDMCATEGORY

Value	Description
0	Exciter
1	Stabilizer
2	Turbine

Used in **Network Database File**:

[UDM SETTINGS]

[UDM VARIABLES SETTINGS]

UDMValidationRules

UDMValidationRule

Value	Description
0	NoRule
1	GreaterThanZero
2	GreaterOrEqualZero
3	ZeroOrOne
4	Between0And2
5	Between0And4
6	LessThanZero
7	LessOrEqualZero

Used in **Network Database File**:

[INSTRUMENT UDM VARIABLE SETTINGS]

[UDM VARIABLES SETTINGS]

UDMVariableType

UDMVariableType

Value	Description
0	Numerical
1	BusId
2	GeneratorId
3	InductionMotorId
4	SVCIId
5	LineSendingEnd
6	LineReceivingEnd
7	LineCircuit
8	DCLineSendingEnd
9	DCLineReceivingEnd
10	DCLineCircuit
11	LineId

Used in Network Database File:

[INSTRUMENT UDM VARIABLE SETTINGS]

[INSTRUMENT UDM SETTINGS]

UnitType

UnitType

Value	Description
0	Custom
1	NoUnit
2	SmallLength_mm
3	SmallLength_cm
4	Length_m
5	MediumLength_m
6	LongLength_km
7	Admittance_uS
8	Capacitance_uF
9	Impedance_mOhms
10	Inductance_mH
11	Impedance_ohms
12	Admittance_S
13	LinearAdmittance_uSkm
14	LinearInductance_mHkm
15	LinearImpedance_ohmskm
16	E8Ohm_m
17	Ohm_m
18	Voltage_V
19	Voltage_kV
20	Voltage_VLL
21	Voltage_kVLL
22	Voltage_VLN
23	Voltage_kVLN
24	Current_Amps
25	Current_kA
26	RealPower_W
27	RealPower_kW
28	RealPower_MW
29	ReactivePower_var
30	ReactivePower_kVAR
31	ReactivePower_MVAR
32	ApparentPower_kVA
33	ApparentPower_MVA
34	LinearActivePower_WattsPerMeter
35	Power_hp
36	PerUnit_pu
37	Percentage
38	PowerFactor
39	Milliseconds_ms
40	Cycle_cycle
41	Seconds_s

UnitType

Value	Description
42	Minutes_min
43	Hours_h
44	Frequency_Hz
45	Temperature_C
46	Torque_Nm
47	Inertia_kgm2
48	Speed_ms
49	RotationSpeed_RPM
50	NmPerRad
51	Money_Dollar
52	Money_kDollar
53	Money_MDollar
54	Angle_Degree
55	Rate_InterPerYear
56	Rate_InterPerYearPerKm
57	Insolation_Wm2
58	CircularArea_mm2
59	Charge_Ah
60	ActiveEnergy_kWh
61	ConnectedCapacity_kVA
62	Energy_kJ
63	PercentPerYear
64	VoltPerHz
65	Inductance_H
66	ActiveEnergy_MWh
67	ReactiveEnergy_kvarh
68	ReactiveEnergy_Mvarh
69	ApparentEnergy_kVAh
70	ApparentEnergy_MVAh

Used in TCCSettings Database File:

[TCCMOTOR]

ValueType

ValueType

Value	Description
0	Invalid
1	Boolean
2	Double
5	Integer
8	String
12	UnsignedInteger
13	Complex
14	Ptr

Used in Equipment Database File:

[EQUIPMENTUDD]

Used in **Network Database File**:

[DEVICECOMPONENTUDD]

[DEVICEUDD]

[DOUBLECIRCUITUDD]

[INSTRUMENTUDD]

[NETWORKUDD]

[NODEUDD]

[SECTIONUDD]

[STRUCTUREUDD]

[ZONEUDD]

Used in Load Database File:

[DEVICECOMPONENTUDD]

[DEVICEUDD]

VARCompensatorControlType

VARCompensatorControlType

Value	Description
0	VoltageControlled
1	DiscreteVoltageControlled
2	PFControlled
3	FixedVar
4	VarControlled
5	VoltVar

Used in **Network Database File**:

[VARCOMPENSATOR SETTING]

VFDControlMode

VFDControlMode

Value	Description
0	SpeedControlStarting
1	Starting

Used in **Network Database File:**

[VARIABLE FREQUENCY DRIVE SETTING]

VoltageClassification

VoltageClassification

Value	Description
0	Undefined
1	LowVoltage
2	MediumVoltage
3	HighVoltage

Used in Equipment Database File:

[DCFUSE]

[FUSE]

VoltageControlType

VoltageControlType

Value	Description
0	Voltage Controlled
1	Fixed
2	Swing

Used in **Network Database File:**

[SVC SETTING]

[SWITCHABLE SHUNT BANK SETTING]

[SYNCHRONOUS GENERATOR SETTING]

VoltageUnit

VoltageUnit

Value	Description
0	V
1	kV
2	PU

3	BaseVoltage
---	-------------

Used in Equipment Database File:

[VARCOMPENSATOR]

Used in **Network Database File**:

[VOLTAGE METER INSTRUMENT]

VoltageUnitReference

VoltageUnitReference

Value	Description
0	LineToLine
1	LineToNeutral

Used in **Network Database File**:

[VOLTAGE METER INSTRUMENT]

VoltageUnitType

VoltageUnitType

Value	Description
0	Percent
1	Not used
2	120V
3	Pu
4	kVLL
5	kVLN

Used in **Network Database File**:

[DCDCCONVERTER SETTINGS]

WecsGeneratorType

WechsGeneratorType

Value	Description
0	IndGenConstantSpeed
1	FullConverterIndGenVariableSpeed
2	FullConverterPermanentMagnetSyncGenVariableSpeed
3	DoubleFedIndGenVariableSpeed

Used in Equipment Database File:

[WECS]

XFO_CONT

XFO_CONT

Value	Alternate Value
0	Fixed Tap Primary
1	Fixed Tap
2	LTC Transformer Terminal
3	LTC Load Center
4	LTC R-X Settings

Used in **Network Database File:**

[TRANSFORMER SETTING]

XFoPhaseShift

XFoPhaseShift

Value	Description
0	0 deg
1	330 deg
2	300 deg
3	270 deg
4	240 deg
5	210 deg
6	180 deg
7	150 deg
8	120 deg
9	90 deg
10	60 deg
11	30 deg

Used in Equipment Database File:

[THREE WINDING TRANSFORMER]

[TRANSFORMER]

Used in **Network Database File:**

[DCLINK SETTING]

[TRANSFORMER SETTING]

[TRANSFORMER BYPHASE SETTING]

Batch Mode

It is possible to convert, import, or export data without using the CYME application. Using the executable impexp.exe (supplied with CYME), user can perform multiple (batch mode) data conversion, import or export.

Functionality

This utility operates in batch mode only and requires a user defined INI file to operate. To use this utility, user must first configure the required INI file using the keys outlined in this chapter.

Command Line

This utility can only be executed via the command line.

The following is the command line structure and expected switches:

Impexp.exe <Action> <Filename>

Where:

Action = C for conversion of data

I for importation of data

E for Exportation of data

Filename = The path to the INI file containing the necessary parameters for the chosen action or actions.

Note:

When you specify the action "I" for importation of data, you may import many files in one operation. To use this function, just separate the file names by a semicolon.

Error Reporting

When the operation generates errors, an 'error report' is generated and is stored in the same path as the INI file used (called by the command line). The filename for the error report is the same as the INI file but with an extension of "ERR".

Example: If you specified the following path and file for the ".INI" file:

C:\Batch\ImpExpSettings.ini

Then the errors will be saved in the following file:

C:\Batch\ImpExpSettings.err

Conversion Keys

[CONVERT MODE]

Key	Description
FromEqDatabaseType	Use : ORACLE or SQL or XML or MDB or CUSTOM
FromEqUserName	Use for Oracle and SQL only. It represents the equipment database name you want to convert from.
FromEqUserPassword	Use for Oracle and SQL only. It represents the equipment database password of the equipment database you want to convert from.
FromEqServiceName	Use for Oracle and SQL only. It represents the server name of the equipment database you want to convert from.
FromEqDatabaseName	Use for Oracle and SQL only. It represents the schema name of the equipment database you want to convert from.
FromNetDatabaseType	Use : ORACLE or SQL or XML or MDB or CUSTOM
FromNetUserName	Use for Oracle and SQL only. It represents the network database name you want to convert from.
FromNetUserPassword	Use for Oracle and SQL only. It represents the network database password of the network database you want to convert from.
FromNetServiceName	Use for Oracle and SQL only. It represents the server name of the network database you want to convert from.
FromNetDatabaseName	Use for Oracle and SQL only. It represents the schema name of the network database you want to convert from.
ToEqDatabaseType	Use : ORACLE or SQL or XML or MDB
ToEqUserName	Use for Oracle and SQL only. It represents the equipment database name you want to convert to.
ToEqUserPassword	Use for Oracle and SQL only. It represents the equipment database password of the equipment database you want to convert to.
ToEqServiceName	Use for Oracle and SQL only. It represents the server name of the equipment database you want to convert to.
ToEqDatabaseName	Use for Oracle and SQL only. It represents the schema name of the equipment database you want to convert to.
ToNetDatabaseType	Use : ORACLE or SQL or XML or MDB
ToNetUserName	Use for Oracle and SQL only. It represents the network database name you want to convert to.
ToNetUserPassword	Use for Oracle and SQL only. It represents the network database password of the network database you want to convert to.
ToNetServiceName	Use for Oracle and SQL only. It represents the server name of the network database you want to convert to.
ToNetDatabaseName	Use for Oracle and SQL only. It represents the schema name of the network database you want to convert to.
FromEqMDBPath	Use for MDB
FromNetMDBPath	Use for MDB
ToEqMdbPath	Use for MDB
ToNetMDBPath	Use for MDB
FromXMLDir	Use for XML database type
FromXML_ListFile	To specify the path of a text file containing many XML files to convert
ToXMLDir	Use for XML database type
FromDLLName	Use for CUSTOM type
FromCustomFile1	Use for CUSTOM type
equip_checked	Use : Y or N
net_checked	Use : Y or N
clear_equip	Use : Y or N
clear_network	Use : Y or N
clear_reliability	Use : Y or N
clear_load	Use : Y or N
clear_growthrate	Use : Y or N
clear_projects	Use : Y or N

Key	Description
clear_maps	Use : Y or N
clear_tccsettings	Use : Y or N
clear_tccinstruments	Use : Y or N
Pack_database	Use : Y or N
NetworkListFile	To specify the complete path of network list file.
DeleteNetworkListFile	To specify the complete path of network list file.

Here is an example that could be found in an INI file:

```
[CONVERT MODE]
FromEqDatabaseType=SQL
FromEqUserName=cyme
FromEqUserPassword=cyme
FromEqServiceName=cyme\cyme
FromNetDatabaseType=SQL
FromNetUserName=cyme
FromNetUserPassword=cyme
FromNetServiceName=cyme\cyme
ToEqDatabaseType=ORACLE
ToEqUserName=cymeORA
ToEqUserPassword=cymeORA
ToEqServiceName=cyme_oracle
ToNetDatabaseType=ORACLE
ToNetUserName=cymeORA
ToNetUserPassword=cymeORA
ToNetServiceName=cyme_oracle
equip_checked=Y
net_checked=Y
clear_network=N
NetworkListFile=C:\temp\NetworkList.txt
```

Import Keys

[IMPORT MODE]

Key	Description
ToEqDatabaseType	Use : ORACLE or SQL or XML or MDB
ToEqUserName	Use for Oracle and SQL only. It represents the equipment database name you want to import to.
ToEqUserPassword	Use for Oracle and SQL only. It represents the equipment database password of the equipment database you want to import to.
ToEqServiceName	Use for Oracle and SQL only. It represents the server name of the equipment database you want to import to.
ToEqDatabaseName	Use for Oracle and SQL only. It represents the schema name of the equipment database you want to import to.
ToNetDatabaseType	Use : ORACLE or SQL or XML or MDB
ToNetUserName	Use for Oracle and SQL only. It represents the network database name you want to import to.
ToNetUserPassword	Use for Oracle and SQL only. It represents the network database password of the network database you want to import to.
ToNetServiceName	Use for Oracle and SQL only. It represents the server name of the network database you want to import to.

Key	Description
ToNetDatabaseName	Use for Oracle and SQL only. It represents the schema name of the network database you want to import to.
ToXMLDir	Use for XML database type
ToEqMDBPath	Use for MDB
ToNetMDBPath	Use for MDB
equip_checked	Use : Y or N
equipFile	
net_checked	Use : Y or N
netFile	
load_checked	Use : Y or N
loadFile	
reliability_checked	Use : Y or N
ReliabilityFile	
backgroundmap_checked	Use : Y or N
BackgroundmapFile	
MeterDemands_checked	Use : Y or N
MeterDemandsFile	
TCCSettings_checked	Use : Y or N
TCCSettingsFile	
UpdateCapacitorStatus_checked	Use : Y or N
UpdateCapacitorStatusFile	
clear_equip	Use : Y or N
clear_network	Use : Y or N
clear_reliability	Use : Y or N
clear_load	Use : Y or N
clear_growthrate	Use : Y or N
clear_projects	Use : Y or N
clear_maps	Use : Y or N
clear_tccsettings	Use : Y or N
clear_tccinstruments	Use : Y or N
Pack_database	Use : Y or N
NetworkListFile	To specify the complete path of network list file.
DeleteNetworkListFile	To specify the complete path of network list file.

Here is an example that could be found in an INI file:

```
[ IMPORT MODE]
ToEqDatabaseType=ORACLE
ToEqUserName=cymeORA
ToEqUserPassword=cymeORA
ToEqServiceName=cyme_oracle
ToNetDatabaseType=ORACLE
ToNetUserName=cymeORA
ToNetUserPassword=cymeORA
ToNetServiceName=cyme_oracle
equip_checked=Y
net_checked=Y
load_checked=Y
clear_network=N
equipFile=C:\equip.txt
netFile=C:\network.txt
loadFile=C:\load.txt
NetworkListFile=C:\temp\NetworkList.txt
```

Here is an example of the network list file content:

GA 6

GA05
GA07

NOTE: The network list file simply contains the list of desired networks Ids, one Id per line.

Export Keys

[EXPORT MODE]

Key	Description
FromEqDatabaseType	Use : ORACLE or SQL or XML or MDB or CUSTOM
FromEqUserName	Use for Oracle and SQL only. It represents the equipment database name you want to export from.
FromEqUserPassword	Use for Oracle and SQL only. It represents the equipment database password of the equipment database you want to export from.
FromEqServiceName	Use for Oracle and SQL only. It represents the server name of the equipment database you want to export from.
FromEqDatabaseName	Use for Oracle and SQL only. It represents the schema name of the equipment database you want to export from.
FromNetDatabaseType	Use : ORACLE or SQL or XML or MDB or CUSTOM
FromNetUserName	Use for Oracle and SQL only. It represents the network database name you want to export from.
FromNetUserPassword	Use for Oracle and SQL only. It represents the network database password of the network database you want to export from.
FromNetServiceName	Use for Oracle and SQL only. It represents the server name of the network database you want to export from.
FromNetDatabaseName	Use for Oracle and SQL only. It represents the schema name of the network database you want to export from.
FromEqMDBPath	Use for MDB
FromNetMDBPath	Use for MDB
FromXMLDir	Use for XML database type
FromXML_ListFile	To specify the path of a text file containing many XML files to convert
FromDLLName	Use for CUSTOM type
FromCustomFile1	Use for CUSTOM type
equip_checked	Use : Y or N
equipFile	
net_checked	Use : Y or N
netFile	
load_checked	Use : Y or N
loadFile	
reliability_checked	Use : Y or N
ReliabilityFile	
backgroundmap_checked	Use : Y or N
BackgroundmapFile	
MeterDemands_checked	Use : Y or N
MeterDemandsFile	
TCCSettings_checked	Use : Y or N
TCCSettingsFile	
NetworkListFile	To specify the complete path of network list file.

Here is an example that could be found in an INI file:

```
[EXPORT MODE]
FromEqDatabaseType=MDB
FromEqMDBPath=C:\Equip.mdb
```

```

FromNetDatabaseType=MDB
FromNetMDBPath=C:\Network.mdb
equip_checked=Y
net_checked=Y
load_checked=Y
clear_network=N
equipFile=C:\exp_equip.txt
netFile=C:\exp_network.txt
loadFile=C:\exp_load.txt
NetworkListFile=C:\temp\NetworkList.txt
Here is an example of a complete INI file :

```

[CONVERT MODE]

```

FromEqDatabaseType=MDB
FromEqMDBPath=C:\Equip.mdb
FromNetDatabaseType=MDB
FromNetMDBPath=C:\Network.mdb
ToEqDatabaseType=ORACLE
ToEqUserName=cymeORA
ToEqUserPassword=cymeORA
ToEqServiceName=cyme_oracle
ToNetDatabaseType=ORACLE
ToNetUserName=cymeORA
ToNetUserPassword=cymeORA
ToNetServiceName=cyme_oracle
equip_checked=Y
net_checked=Y
clear_network=N
NetworkListFile=C:\temp\NetworkList.txt

```

[IMPORT MODE]

```

ToEqDatabaseType=MDB
ToEqMDBPath=C:\Equip.mdb
ToNetDatabaseType=MDB
ToNetMDBPath=C:\Network.mdb
equip_checked=Y
net_checked=Y
load_checked=Y
clear_network=N
equipFile=C:\equip.txt
netFile=C:\network.txt
loadFile=C:\load.txt
NetworkListFile=C:\temp\NetworkList.txt

```

[EXPORT MODE]

```

FromEqDatabaseType=SQL
FromEqUserName=cyme
FromEqUserPassword=cyme
FromEqServiceName=cyme\cyme
FromNetDatabaseType=SQL
FromNetUserName=cyme
FromNetUserPassword=cyme
FromNetServiceName=cyme\cyme
equip_checked=Y
net_checked=Y
load_checked=Y
clear_network=N
equipFile=C:\exp_equip.txt
netFile=C:\exp_network.txt
loadFile=C:\exp_load.txt
NetworkListFile=C:\temp\NetworkList.txt

```

What's new

The tables below indicate the data change from CYME 8.1 to CYME 8.2.

To help migrate the data from the previous version to this one, all changes are listed below (new and obsolete keywords and new blocks). They are group by the corresponding file. When migrating from previous data format, the block [General] should be changed and it's highly recommended that all blocks, keywords and type variables respect the format of the same version.

Equipment Database File

Block	Change	Keyword	Comments
[ACDCCONVERTER]	NEW BLOCK		
[SHUNT CAPACITOR]	ADDED	Losses	
[SHUNT REACTOR]	ADDED	Losses	
[VARCOMPENSATOR]	NEW BLOCK		

Network Database File

Block	Change	Keyword	Comments
[AMMETER INSTRUMENT]	NEW BLOCK		
[BESS]	ADDED	ConnectionConfiguration	
	ADDED	CTConnection	
[CONVERTER]	ADDED	ACDCConverterID	
	ADDED	Manufacturer	
	ADDED	Model	
	ADDED	Standard	
	ADDED	PhaseType	
	ADDED	UseDCCapacitor	
[CONVERTER CONTROL SETTING]	ADDED	DischagelidleTrigger	
	ADDED	DischargeTriggerUnit	
	ADDED	ChargelidleTrigger	
	ADDED	ChargeTriggerUnit	
	RENAME	DischargeTriggerPower to DischargeTrigger	
	RENAME	ChargeTriggerPower to ChargeTrigger	
[ELECTRONIC CONVERTER GENERATOR SETTING]	ADDED	ConnectionConfiguration	

Block	Change	Keyword	Comments
[INSTRUMENT METER LOCATION]	NEW BLOCK		Replace [INSTRUMENT VOLTAGE METER LOADMODEL]
[INSTRUMENT VOLTAGE METER LOADMODEL]	DELETED		Replace by [INSTRUMENT METER LOCATION]
[MICROTURBINE]	ADDED	ConnectionConfiguration	
[PHOTOVOLTAIC]	ADDED	ConnectionConfiguration	
[SOFC]	ADDED	ConnectionConfiguration	
[THREE WINDING AUTO TRANSFORMER SETTING]	ADDED	TertiaryNodeIndex	
[THREE WINDING TRANSFORMER SETTING]	ADDED	TertiaryNodeIndex	
[UNDERGROUNDLINE SETTING]	ADDED	CTConnection	
[VARCOMPENSATOR SETTING]	NEW BLOCK		
[VARMETER INSTRUMENT]	NEW BLOCK		
[VOLTAGE METER INSTRUMENT]	ADDED	VoltageUnitReference	
	ADDED	AccuracyType	
	ADDED	OwnerDeviceNumber	
	ADDED	OwnerDeviceType	
	RENAMED	MeasurementUnit by VoltageUnit	
[WATTMETER INSTRUMENT]	NEW BLOCK		
[WECS SETTINGS]	ADDED	ConnectionConfiguration	

Load Database File

No change from previous version.

Background Maps Database File

No change from previous version.

Reliability Database File

No change from previous version.

Capacitor Status Database File

No change from previous version.

Meter Demands Database File

No change from previous version.

TCCSettings Database File

No change from previous version.

Profiles Database File

Block	Change	Keyword	Comments
[PROFILE_VALUES]	NEW BLOCK		

Billings Database File

Block	Change	Keyword	Comments
[PROFILE_BILLING]	NEW BLOCK		

Type Variables

Block	Change	Value	Comments
AccuracyType	NEW BLOCK		
BehaviorAtLimits	NEW BLOCK		
CTConnection	ADDED	CTUndefined	
CableType	ADDED	Duplex	
ConnectionConfiguration	ADDED	T	
	ADDED	Tg	
	ADDED	UndefinedConnection	
CurrentUnit	NEW BLOCK		
DeviceType	ADDED	VARCompensator	
EquipmentDBType	ADDED	ACDCCConverter	
	ADDED	VARCompensator	
GeoMapType	REMOVED	MapServer	
InstrumentType	ADDED	Ammeter	
	ADDED	Varmeter	
	ADDED	Wattmeter	
ItemType	ADDED	Network	
	ADDED	VARCompensator	
	ADDED	Ammeter	
	ADDED	Varmeter	

Block	Change	Value	Comments
	ADDED	Wattmeter	
LoadProfileCategoryType	NEW BLOCK		
LoadProfileDayIntervalType	NEW BLOCK		
LoadProfileIntervalFormat	NEW BLOCK		
LoadProfilePhaseType	NEW BLOCK		
LoadProfileSpecificUnitType	NEW BLOCK		
LoadProfileUnitType	NEW BLOCK		
LoadProfileWeekIntervalType	NEW BLOCK		
LoadProfileYearIntervalType	NEW BLOCK		
PhaseType	ADDED	UndefinedPhaseType	
PowerTriggerUnit	NEW BLOCK		
ReactivePowerUnit	NEW BLOCK		
RealPowerUnit	NEW BLOCK		
SubProjectType	ADDED	None	
	ADDED	Project	
TransformerConnection	ADDED	T_T	
	ADDED	T_Tg	
UDMType	ADDED	Photovoltaic	
	ADDED	MicroTurbine	
	ADDED	SOFC	
	ADDED	WECS	
	ADDED	BESS	
UnitType	RENAME	Consumption_kWh to ActiveEnergy_kWh	
	ADDED	Induction_H	
	ADDED	ActiveEnergy_MWh	
	ADDED	ReactiveEnergy_kvarh	
	ADDED	ReactiveEnergy_Mvarh	
	ADDED	ApparentEnergy_kVAh	
	ADDED	ApparentEnergy_MVAh	
VARCompensatorControlType	NEW BLOCK		
VoltageUnit	NEW BLOCK		

Block	Change	Value	Comments
VoltageUnitReference	NEW BLOCK		

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