APPENDIX D—Register List

Reg	Name	Size	Туре	Access	NV	Units	Notes
System Set	up & Status						
Product & Fe	<u> </u>						
30	Meter Name	20	UTF8	RWC	Υ		
50	Meter Model	20	UTF8	RWC	Y		
70	Manufacturer	20	UTF8	RWC	Y		
90	Product ID Number	1	INT16U	RWC	Y		PM5350 = 15234
Manufacturin		<u>.</u>		1,110			Timesee Tezer
Meter							
130	Serial Number	2	INT32U	R	Υ	l	
132	Date of Manufacture	4	DATETIME	R	Y		
136	Hardware Revision	5	UTF8	R	Y		
Firmware Ver			0110		<u> </u>		
Operating Syst	Present Firmware Version (DLF Format)	ı	1	l		l	
1637	X.Y.T	1	INT16U	R	Υ		
1642	Previous Firmware Version (DLF Format) X.Y.T	1	INT16U	R	Υ		
1647	Date/Time of Last Firmware Download	4	DATETIME	R	Υ		
Reset		•	•			•	
1669	Present Firmware Version (DLF Format) X.Y.T	1	INT16U	R	Υ		
Language						I.	
1701	Present Firmware Version (DLF Format) X.Y.T	1	INT16U	R	Υ		
Meter Resets			L				
1824	Last Unit Restart DateTime	4	DATETIME	R	Υ		
1828	Number of Metering System Restarts	1	INT16U	R	Υ		
1829	Number of Control Power Failures	1	INT16U	R	Υ		
1830	Date/Time of Last Control Power Failure	4	DATETIME	R	Υ		
1834	Duration of Last Control Power Failure	2	INT32U	R	Υ	seconds	
1836	Cause of Last Meter Reset	1	INT16U	R	Υ		0 = Unknown 1 = Reset command 2 = Power failure
Timekeeping							
Present Date &	Time (7 register format)						
1837	Year	1	INT16U	R	N	year	
1838	Month	1	INT16U	R	N	month	
1839	Day	1	INT16U	R	N	days	
1840	Hour	1	INT16U	R	N	hours	
1841	Minute	1	INT16U	R	N	minutes	
1842	Second	1	INT16U	R	N	seconds	
1843	Millisecond	1	INT16U	R	N	msec	
Present Date &	Time (4 register format)	_			•		
1845	Year	1	INT16U	R	N		
1846	Month & Day	1	INT16U	R	N		
1847	Hour & Minute	1	INT16U	R	N		



Reg	Name	Size	Туре	Access	NV	Units	Notes
1848	Milliseconds	1	INT16U	R	N		
Time Management S		<u> </u>		.,			
1850	Time Zone Offset From GMT	1	INT16U	RWC	Υ		
1851	GMT or Local Date/Time Selection	1	INT16U	RWC	Υ		0 = GMT 1 = Local Date/Time
Security							
Revenue Security							
1920	Revenue Security Switch Status	1	INT16U	R	Υ		0 = disabled 1 = enabled
1921	Revenue Security Status	1	INT16U	R	Y		0 = inactive 1= active
1922	Date/Time of Last Revenue Security State Change	4	DATETIME	R	Υ		
Meter Setup & \$	Status						
Miscellaneous Co	ontrol & Status						
2002	Active Load Timer	2	INT32U	R	Υ	seconds	Increments when average current exceeds the Active Load Timer Setpoint.
2004	Meter Operation Timer	2	INT32U	R	Υ	seconds	
Metering Setup							
Power System							
2014	Number of Phases	1	INT16U	RWC	Υ		
2015	Number of Wires	1	INT16U	RWC	Υ		
2016	Power System Configuration	1	INT16U	RWC	Y		0 = 1ph, 2w, LN 1 = 1ph, 2w, LL 2 = 1ph, 3w, LL with N 3 = 3ph, 3w, Delta, Ungrounded 4 = 3ph, 3w, Delta, Corner Grounded 5 = 3ph, 3w, Wye, Ungrounded 6 = 3ph, 3w, Wye Grounded 7 = 3ph, 3w, Wye, Resistance Grounded 8 = 3ph, 4w, Open Delta, Center-Tapped 9 = 3ph, 4w, Delta, Center-Tapped 10 = 3ph, 4w, Wye, Ungrounded 11 = 3ph, 4w, Wye Grounded 12 = 3ph, 4w, Wye, Resistance Grounded 13 = Multiple 1ph, 2w, LN
2017	Nominal Frequency	1	INT16U	RWC	Υ	Hz	
2018	Nominal Voltage	2	FLOAT32	RWC	Υ	V	
2020	Nominal Current	2	FLOAT32	RWC	Υ	Α	
2022	Nominal Power Factor	2	PF32	RWC	Υ		
2024	Normal Phase Rotation	1	INT16U	RWC	Υ		
Instrument Transfor			1	ı		1	
2025	Number VTs	1	INT16U	RWC	Υ		
2026	VT Primary	2	FLOAT32	RWC	Υ	V	
2028	VT Secondary	1	INT16U	RWC	Υ	V	
2029	Number CTs	1	INT16U	RWC	Υ		
2030	CT Primary	1	INT16U	RWC	Υ	Α	
2031	CT Secondary CT Location for 1 CT Metering	1	INT16U INT16U	RWC	Y		1 = Phase A, 2 = Phase B 3 = Phase C
2035	VT Location for 1 VT Metering	1	INT16U	RWC	Υ		1 = Phase A 2 = Phase B 3 = Phase C

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• •	rable – i Register List						
Reg	Name	Size	Type	Access	NV	Units	Notes
2036	VT Connection Type	1	INT16U	RWC	Υ		0 = Direct Connect 1 = Delta (2 VT) 2 = Wye (3 VT) 3 = L-N (1 VT) 4 = L-L (1 VT) 5 = L-L W/N (2 VT)
Operating Mod	des	1	1			1	I
2048	Peak Current Demand Over Last Year	2	FLOAT32	RWC	Υ	А	Entered by the user for use in calculation of Total Demand Distortion. 0 = Calculation performed using peak demand of 3-phase average current.
2050	Active Load Timer Setpoint	2	FLOAT32	RWC	Υ	Α	
Energy Pulse	e Output Setup						
Alarm / Energy	y LED Mode						
2126	Alarm / Energy LED Mode	1	INT16U	RWC	Υ		0 = Disable 1 = Active Alarm (default) 2 = Energy
Energy Pulse (Output Channel 01				_		
2130	Energy Channel	1	INT16U	RWC	Υ		0 = Not Used 1 = Active Energy Delivered (Into Load) 2 = Active Energy Received (Out of Load) 3 = Active Energy Delivered + Received 4 = Reactive Energy Delivered 5 = Reactive Energy Received 6 = Reactive Energy Delivered + Received 7 = Apparent Energy Delivered 8 = Apparent Energy Received 9 = Apparent Energy Delivered + Received
2131	Digital Output Association	1	INT16U	RWC	Υ		0 = No association 1 - 2 = Digital Output 99 = LED
2132	Pulse Weight	2	FLOAT32	RWC	Υ	kWh, kVAh, kVAh	
Meter Data	(Basic)			<u> </u>			
1s Metering	(50/60 Cycles)						
Current							
3000	Current A	2	FLOAT32	R	N	Α	
3002	Current B	2	FLOAT32	R	N	Α	
3004	Current C	2	FLOAT32	R	N	Α	
3006	Current N	2	FLOAT32	R	N	Α	
3008	Current G	2	FLOAT32	R	N	Α	
3010	Current Avg	2	FLOAT32	R	N	Α	
Current Unbala		T .				1 0/	I
3012	Current Unbalance A	2	FLOAT32	R	N	%	
3014	Current Unbalance B	2	FLOAT32	R	N	%	
3016	Current Unbalance C	2	FLOAT32	R	N	%	
3018	Current Unbalance Worst	2	FLOAT32	R	N	%	
Voltage 3020	Voltage A-B	2	FLOAT32	R	N	V	
3020	Voltage B-C	2	FLOAT32	R	N	V	
3024	Voltage C-A	2	FLOAT32	R	N	V	
3024	Voltage L-L Avg	2	FLOAT32	R	N	V	
3028	Voltage A-N	2	FLOAT32	R	N	V	
3030	Voltage B-N	2	FLOAT32	R	N	V	
3032	Voltage C-N	2	FLOAT32	R	N	V	
3036	Voltage L-N Avg	2	FLOAT32	R	N	V	
				1		1	t



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Reg	Name	Size	Туре	Access	NV	Units	Notes
3248	Apparent Energy Delivered – Received	4	INT64	R	Υ	VAh	
Demand	3.	<u> </u>					
Demand Syst	om 1 (Power)						
3701	Power Demand Method	1	INT16U	RWC	Y		0 = Thermal Demand 1 = Timed Interval Sliding Block 2 = Timed Interval Block 3 = Timed Interval Rolling Block 4 = Input Synchronized Block 5 = Input Synchronized Rolling Block 6 = Command Synchronized Block 7 = Command Synchronized Rolling Block
3702	Power Demand Interval Duration	1	INT16U	RWC	Υ	minutes	
3703	Power Demand Subinterval Duration	1	INT16U	RWC	Y	minutes	For Thermal and Block demand methods, must be same as Interval Duration. Must be evenly divisible into Interval Duration.
3704	Power Demand Elapsed Time in Interval	1	INT16U	R	Ν	seconds	
3705	Power Demand Elapsed Time in Subinterval	1	INT16U	R	N	seconds	
3706	Power Demand Peak Reset Date/Time	4	DATETIME	R	Υ		
Demand Syst	em 2 (Current)						
3711	Current Demand Method	1	INT16U	RWC	Y		"0 = Thermal Demand 1 = Timed Interval Sliding Block 2 = Timed Interval Block 3 = Timed Interval Rolling Block 4 = Input Synchronized Block 5 = Input Synchronized Rolling Block 6 = Command Synchronized Block 7 = Command Synchronized Rolling Block
3712	Current Demand Interval Duration	1	INT16U	RWC	Υ	minutes	
3713	Current Demand Subinterval Duration	1	INT16U	RWC	Υ	minutes	"For Thermal and Block demand methods, must be same as Interval Duration."
3714	Current Demand Elapsed Time in Interval	1	INT16U	R	N	seconds	
3715	Current Demand Elapsed Time in Subinterval	1	INT16U	R	N	seconds	
3716	Current Demand Peak Reset Date/Time	4	DATETIME	R	Υ		
Demand Char	nnel 1 (Active Power)				•		
3761	Demand System Assignment – Active Power	1	INT16U	R	Υ		Power Demand
3762	Register Number of Metered Quantity – Active Power	1	INT16U	R	Υ		Active Power Total
3763	Units Code – Active Power	1	INT16U	R	Υ		
3764	Last Demand – Active Power	2	FLOAT32	R	Υ	kW	
3766	Present Demand – Active Power	2	FLOAT32	R	N	kW	
3768	Predicted Demand – Active Power	2	FLOAT32	R	N	kW	
3770	Peak Demand – Active Power	2	FLOAT32	R	Υ	kW	
3772	Peak Demand DateTime – Active Power	4	DATETIME	R	Υ		
Demand Char	nnel 2 (Reactive Power)		_	1		1	
3777	Demand System Assignment – Reactive Power	1	INT16U	R	Υ		Power Demand
3778	Register Number of Metered Quantity – Reactive Power	1	INT16U	R	Υ		Reactive Power Total
3779	Units Code – Reactive Power	1	INT16U	R	Υ		
3780	Last Demand – Reactive Power	2	FLOAT32	R	Υ	kVAR	
3782	Present Demand – Reactive Power	2	FLOAT32	R	N	kVAR	
3784	Predicted Demand – Reactive Power	2	FLOAT32	R	N	kVAR	
3786	Peak Demand – Reactive Power	2	FLOAT32	R	Υ	kVAR	
3788	Peak Demand DateTime – Reactive Power	4	DATETIME	R	Υ		



Reg	Name	Size	Туре	Access	NV	Units	Notes
Demand Channel	3 (Apparent Power)						
3793	Demand System Assignment – Apparent Power	1	INT16U	R	Υ		Power Demand
3794	Register Number of Metered Quantity – Apparent Power	1	INT16U	R	Υ		Apparent Power Total
3795	Units Code – Apparent Power	1	INT16U	R	Υ		
3796	Last Demand – Apparent Power	2	FLOAT32	R	Υ	kVA	
3798	Present Demand – Apparent Power	2	FLOAT32	R	Ν	kVA	
3800	Predicted Demand – Apparent Power	2	FLOAT32	R	Ν	kVA	
3802	Peak Demand – Apparent Power	2	FLOAT32	R	Υ	kVA	
3804	Peak Demand DateTime – Apparent Power	4	DATETIME	R	Y		
Demand Channel 8	· · · · · · · · · · · · · · · · · · ·						
3873	Demand System Assignment – Current Avg	1	INT16U	R	Υ		Current Demand
3874	Register Number of Metered Quantity – Current Avg	1	INT16U	R	Υ		Current, Average
3875	Units Code – Current Avg	1	INT16U	R	Υ		
3876	Last Demand – Current Avg	2	FLOAT32	R	Υ	Α	
3878	Present Demand – Current Avg	2	FLOAT32	R	N	Α	
3880	Predicted Demand – Current Avg	2	FLOAT32	R	Ν	Α	
3882	Peak Demand – Current Avg	2	FLOAT32	R	Υ	Α	
3884	Peak Demand DateTime – Current Avg	4	DATETIME	R	Υ		
Command Inte	erface						
Commands							
Protected Comma	nd Interface						
5000	Requested Command	1	INT16U	RW	Z		
5001	Command Semaphore	1	INT16U	RW	Z		
5002	Command Parameter 001	1	INT16U	RW	Z		
5124	Command Parameter 123	1	INT16U	RW	Ν		
5125	Command Status	1	INT16U	R	Ν		
5126	Command Result	1	INT16U	R	Z	1	"0 = Valid Operation 3000 = Invalid Command 3001 = Invalid Parameter 3002 = Invalid Number of Parameters 3003 = Invalid Password 3004 = Command Failed Security Check 3005 = Invalid Command Interface 3006 = Revenue Security Active 3007 = Operation Not Performed 3008 = Invalid ID 3010 = Invalid Semaphore 3009 = Feature Not Supported 6000 = Invalid Control Mode 6001 = Digital Output Disabled'
5127	Command Data 001	1	INT16U	R	N		
5249	Command Data 123	1	INT16U	R	N		
02 10				_			
Unprotected Comr	mand Interface						
	mand Interface Requested Command	1	INT16U	RW	N		
Unprotected Comr		1 1	INT16U INT16U	RW RW	N N		
Unprotected Comr 5250	Requested Command						
Unprotected Comr 5250 5252	Requested Command Command Parameter 001	1	INT16U	RW	N		
Unprotected Comm 5250 5252 5374	Requested Command Command Parameter 001 Command Parameter 123	1	INT16U INT16U	RW RW	N N		
Unprotected Comr 5250 5252 5374 5375	Requested Command Command Parameter 001 Command Parameter 123 Command Status	1 1 1	INT16U INT16U INT16U	RW RW R	N N N		

Reg	Name	Size	Туре	Access	NV	Units	Notes
Mailbox Registers							
5580	Mailbox Register 001	1	INT16U	RW	Υ		
5679	Mailbox Register 100	1	INT16U	RW	Υ		
Command Semaph	ore						
5680		1	INT16U	RW	N		
Command Session	Active			1		ı	
5681		1	INT16U	R	N		
НМІ							
Setup							
Basic HMI Setup							
6001	HMI Contrast Setting	1	INT16U	RWC	Υ		1 = Brightest9 = Dimmest
6003	HMI Language	1	INT16U	RWC	Υ		"0 = EnglishUS 9 = Chinese"
6004	HMI Date Format	1	INT16U	RWC	Υ		"0 = MM/DD/YYYY 1 = YYYY/MM/DD 2 = DD/MM/YYYY"
6005	HMI Time Format	1	INT16U	RWC	Υ		"0 = 2400hr
6006	HMI IEC/IEEE Mode	1	INT16U	RWC	Υ		"0 = IEC 1 = IEEE"
6007	HMI Screen Timeout	1	INT16U	RWC	Υ	minutes	0 = disabled
6008	HMI Backlight Timeout	1	INT16U	RWC	Υ	minutes	0 = disabled
Communicatio	ns						
RS-485							
RS-485 Base Unit							
6500	RS-485 Comm Port (M/S) Protocol	1	INT16U	RWC	Y		"0 = Modbus 1 = Jbus 2 = Modbus ASCII 8-Bit 3 = Modbus ASCII 7-Bit"
6501	RS-485 Comm Port (M/S) Address	1	INT16U	RWC	Υ		"Valid Addresses: Modbus: 1 – 247 Jbus: 1 – 255"
6502	RS-485 Comm Port (M/S) Baud Rate	1	INT16U	RWC	Υ		"0 = 9600 1 = 19200 2 = 38400"
6503	RS-485 Comm Port (M/S) Parity	1	INT16U	RWC	Υ		"0 = Even 1 = Odd 2 = None"
6504	RS-485 Comm Port (M/S) Modbus ASCII Default Timeout	1	INT16U	RWC	Υ	msec	Timeout for end of ASCII packet when no control delimitation is detected.
6508	RS-485 Comm Port (M/S) Packets To This Unit	1	INT16U	R	Υ		Number of valid messages addressed to this unit
6509	RS-485 Comm Port (S) Packets To Other Units	1	INT16U	R	Υ		Number of valid messages addressed to other units
6510	RS-485 Comm Port (M/S) Packets With Bad CRC	1	INT16U	R	Υ		Number of messages received with bad CRC
6511	RS-485 Comm Port (M/S) Packets With Error	1	INT16U	R	Υ		Number of messages received with errors
6512	RS-485 Comm Port (M/S) Packets With Illegal Opcode	1	INT16U	R	Υ		Number of messages received with an illegal opcode
6513	RS-485 Comm Port (M/S) Number Of Exceptions	1	INT16U	R	Υ		Number of exception replies
Inputs & Outpu	ıts						
Demand Sync Se	etup						
			_				
Digital Input Assoc	iations With Demand Systems				,		,



Reg	Name	Size	Туре	Access	NV	Units	Notes
7021	Demand System 2 (Current)	1	INT16U	RWC	Υ		
	ociations With Demand Systems			1	<u> </u>		<u> </u>
7026	Demand System 1 (Power)	1 1	INT16U	RWC	Υ		
7027	Demand System 2 (Current)	1	INT16U	RWC	Υ		
Digital Inputs Se						<u> </u>	
Base Unit - Digital	•	1 4 1	INITACLI			ı	Т
7273	Туре	1	INT16U	R	N		IIO – Name al (Alama)
7274	Control Mode	1	INT16U	R	N		"0 = Normal (Alarm) 1 = Demand Interval Sync Pulse 2 = Multi-tariff Control 3 = Input Metering 4 = Conditional Energy Control 5 = Incremental Energy Reset"
7275	Label	20	UTF8	RWC	Υ		
7295	Debounce Time	1	INT16U	RWC	Υ	msec	Must be entered in increments of 10ms.
Base Unit - Digital	Input DI2	, ,		_			
7297	Туре	1	INT16U	R	N		
7298	Control Mode	1	INT16U	R	N		
7299	Label	20	UTF8	RWC	Υ		
7319	Debounce Time	1	INT16U	RWC	Υ	msec	Must be entered in increments of 10ms.
Base Unit - Digital	Input DI3						,
7321	Туре	1	INT16U	R	N		
7322	Control Mode	1	INT16U	R	N		
7323	Label	20	UTF8	RWC	Υ		
7343	Debounce Time	1	INT16U	RWC	Υ	msec	Must be entered in increments of 10ms.
Base Unit - Digital	Input DI4			•			
7345	Туре	1	INT16U	R	N		
7346	Control Mode	1	INT16U	R	N		
7347	Label	20	UTF8	RWC	Υ		
7367	Debounce Time	1	INT16U	RWC	Υ	msec	Must be entered in increments of 10ms.
Digital Inputs Sta	atus						
On/Off Status							
8905	Digital Input Status – Base Unit	2	BITMAP	R	N		
Base Unit - Digital	Input DI1						
8915	Count	2	INT32U	R	Υ		
8917	On Time	2	INT32U	R	Υ	seconds	
Base Unit - Digital	Input DI2						
8919	Count	2	INT32U	R	Υ		
8921	On Time	2	INT32U	R	Υ	seconds	
Base Unit - Digital	Input DI3						
8923	Count	2	INT32U	R	Υ		
8925	On Time	2	INT32U	R	Υ	seconds	
Base Unit - Digital	Input DI4						
8927	Count	2	INT32U	R	Υ		
8929	On Time	2	INT32U	R	Υ	seconds	
Digital Outputs S							
Base Unit - Digital							
9187	Туре	1	INT16U	R	N		

Reg	Name	Size	Туре	Access	NV	Units	Notes
9188	Label	20	UTF8	RWC	Υ		
9209	Behavioral Mode	1	INT16U	RWC	Υ		"0 = Normal 1 = Timed 2 = Coil Hold"
9210	On Time For Timed Mode	1	INT16U	RWC	Υ	seconds	The time for the output to remain energized when the output is energized in timed mode.
Base Unit - Di	gital Output DO2						
9211	Туре	1	INT16U	R	N		
9212	Label	20	UTF8	RWC	Υ		
9233	Behavioral Mode	1	INT16U	RWC	Υ		"0 = Normal 1 = Timed 2 = Coil Hold"
9234	On Time For Timed Mode	1	INT16U	RWC	Υ	seconds	The time for the output to remain energized when the output is energized in timed mode.
Digital Outp	uts Status						
On/Off Status							
9667	Digital Output Status – Base Unit	1	BITMAP	R	Υ		
Base Unit - Di	gital Output DO1						
9672	Operating Mode Status	1	INT16U	R	N		0 = Normal, 1 = Override
9673	Control Mode Status	1	INT16U	R	N		"0 = External 1 = Alarm 2 = Demand Sync 3 = Energy"
9674	Behavioral Mode Status	1	INT16U	R	Υ		"0 = Normal 1 = Timed 2 = Coil Hold"
9675	Count	2	INT32U	R	Υ		
9677	On Time	2	INT32U	R	Υ	seconds	
Base Unit - Di	gital Output DO2			•			
9680	Operating Mode Status	1	INT16U	R	N		
9681	Control Mode Status	1	INT16U	R	N		
9682	Behavioral Mode Status	1	INT16U	R	Υ		
9683	Count	2	INT32U	R	Υ		
9685	On Time	2	INT32U	R	Υ	seconds	
Alarms							
Alarm Status	s						
Detected Prior	rity Status						
11010	Detected Priority Status Bitmap	1	BITMAP	R	N		"Bit 01 = 1 if any priority 1-3 alarm is active Bit 02 = 1 if a "High" (1) priority alarm is active Bit 03 = 1 if a "Medium" (2) priority alarm is active Bit 04 = 1 if a "Low" (3) priority alarm is active Bit 05 = 1 if a ""None"" (0) priority alarm is active"
Enabled Alarn	n Bitmaps					•	
11040	Standard – 1 second 1	1	BITMAP	R	N		0 = Disabled; 1 = Enabled
11041	Standard – 1 second 2	1	BITMAP	R	N		
11042	Standard – 1 second 3	1	BITMAP	R	N		
11050	Unary	1	BITMAP	R	N		
11051	Digital 1	1	BITMAP	R	N		



Reg	Name	Size	Туре	Access	NV	Units	Notes
Detected Aları	m Bitmaps						
11059	Standard – 1 second 1	1	BITMAP	R	N		0 = Not Detected; 1 = Detected
11060	Standard – 1 second 2	1	BITMAP	R	N		
11061	Standard – 1 second 3	1	BITMAP	R	Ν		
11069	Unary	1	BITMAP	R	N		
11070	Digital 1	1	BITMAP	R	N		
Unacknowled	ged High Priority Alarm Bitmaps						
11078	Standard – 1 second 1	1	BITMAP	R	N		0 = Acknowledged; 1 = Unacknowledged
11079	Standard – 1 second 2	1	BITMAP	R	N		
11080	Standard – 1 second 3	1	BITMAP	R	N		
11088	Unary	1	BITMAP	R	Ν		
11089	Digital 1	1	BITMAP	R	Z		
Alarm Event	Queue						
11111	Version of Event Queue	1	INT16U	R	N		
11113	Size of Event Queue	1	INT16U	R	N		
11114	Number of Entries in Event Queue	1	INT16U	R	Υ		
11115	Entry Number of Most Recent Event	1	INT16U	R	Υ		Rolls over from 65535 to 0.
Entry 001		· ·		!			
11116	Entry Number	1	INT16U	R	Ν		
11117	Date/Time	4	DATETIME	R	N		
11121	Record Type	1	INT16U	R	N		"Indicates datatype of Value. 0x0000 Boolean 0x0010 INT16U 0x0011 INT16 0x0020 INT32U 0x0021 INT32 0x0030 INT64U 0x0031 INT64 0x0040 FLOAT32 0x0041 FLOAT64"
11122	Register Number or Event Code	1	INT16U	R	N		
11123	Value	4	INT16U	R	N		
11127	Sequence Number	1	INT16U	R	N		
Entry 40							
11584	Entry Number	1	INT16U	R	Ν		
11585	Date/Time	4	DATETIME	R	Ν		
11589	Record Type	1	INT16U	R	Ν		
11590	Register Number or Event Code	1	INT16U	R	Z		
11591	Value	4	INT16U	R	N		
11595	Sequence Number	1	INT16U	R	Z		
Alarm Histor	ry Log						
12316	Size of History Log	1	INT16U	R	N		
12317	Number of Entries in History Log	1	INT16U	R	Υ		
12318	Entry Number of Most Recent Event	1	INT16U	R	Υ		
Entry 001	•						
12319	Entry Number	1	INT16U	R	Υ		
12320	Date/Time	4	DATETIME	R	Υ		

Reg	Name	Size	Туре	Access	NV	Units	Notes
		0.20	. , pc	.100003		0.1110	
12324	Record Type	1	INT16U	R	Y		"Indicates datatype of Value. 0x0000 Boolean 0x0010 INT16U 0x0011 INT16 0x0020 INT32U 0x0021 INT32 0x0030 INT64U 0x0031 INT64 0x0040 FLOAT32 0x0041 FLOAT64"
12325	Register Number or Event Code	1	INT16U	R	Υ		
12326	Value	4	INT16U	R	Υ		
12330	Sequence Number	1	INT16U	R	Υ		
Entry 040							
12787	Entry Number	1	INT16U	R	Υ		
12788	Date/Time	4	DATETIME	R	Υ		
12792	Record Type	1	INT16U	R	Υ		
12793	Register Number or Event Code	1	INT16U	R	Υ		
12794	Value	4	INT16U	R	Υ		
12798	Sequence Number	1	INT16U	R	Υ		
Alarm Counters							
Summary							
13519	Total Counter	1	INT16U	R	Υ		
13520	Low Priority Counter	1	INT16U	R	Υ		
13521	Medium Priority Counter	1	INT16U	R	Υ		
13522	High Priority Counter	1	INT16U	R	Υ		
1-Second Alarms -	1 .		ı	<u>l</u>		<u>I</u>	
13523	Over Current, Phase	1	INT16U	R	Υ		
13524	Under Current, Phase	1	INT16U	R	Υ		
13525	Over Current, Neutral	1	INT16U	R	Υ		
13526	Over Current, Ground	1	INT16U	R	Υ		
13527	Over Voltage, L-L	1	INT16U	R	Υ		
13528	Under Voltage, L-L	1	INT16U	R	Υ		
13529	Over Voltage, L-N	1	INT16U	R	Υ		
13530	Under Voltage, L-N	1	INT16U	R	Υ		
13531	Over Power, Active	1	INT16U	R	Υ		
13532	Over Power, Reactive	1	INT16U	R	Υ		
13533	Over Power, Apparent	1	INT16U	R	Υ		
13534	Lead Power Factor, True	1	INT16U	R	Υ		
13535	Lag Power Factor, True	1	INT16U	R	Υ		
13536	Lead Power Factor, Displacement	1	INT16U	R	Υ		
13537	Lag Power Factor, Displacement	1	INT16U	R	Υ		
13538	Over Demand, Active Power, Present	1	INT16U	R	Υ		
13539	Over Demand, Active Power, Last	1	INT16U	R	Υ		
13540	Over Demand, Active Power, Predicted	1	INT16U	R	Υ		
13541	Over Demand, Reactive Power, Present	1	INT16U	R	Υ		
13542	Over Demand, Reactive Power, Last	1	INT16U	R	Υ		
13543	Over Demand, Reactive Power, Predicted	1	INT16U	R	Υ		
13544	Over Demand, Apparent Power, Present	1	INT16U	R	Υ		
13545	Over Demand, Apparent Power, Last	1	INT16U	R	Υ		
13546	Over Demand, Apparent Power, Predicted	1	INT16U	R	Υ		
13547	Over Frequency	1	INT16U	R	Υ		
13548	Under Frequency	1	INT16U	R	Υ		



Reg	Name	Size	Туре	Access	NV	Units	Notes
13549	Over Voltage Unbalance	1	INT16U	R	Υ		
13550	Over Voltage Total Harmonic Distortion	1	INT16U	R	Y		
13551	Phase Loss	1	INT16U	R	Y		
Unary Alarms	1 11000 2000	<u> </u>	1111100			l .	
13623	Phase Reversal	1	INT16U	R	Υ		
13624	Meter Powerup (Control Power Loss)	1	INT16U	R	Y		
13625	Meter Reset	1	INT16U	R	Y		
13626	Meter Diagnostic	1	INT16U	R	Y		
Digital Alarms	Weter Blagnostic	<u> </u>	1111100	'`	<u> </u>		
13633	Digital Alarm DI1	1	INT16U	R	Υ	I	
13634	Digital Alarm DI2	1	INT16U	R	Y		
13635	Digital Alarm DI3	1	INT16U	R	Y		
13636	Digital Alarm DI4	1	INT16U	R	Y		
			INTIOU	K	ī		
1-Second Alarms							
Over Current, Phase	9	_	T	T		,	
14000	Attributes	2	INT32U	RWC	Υ		See Alarm Attributes for details.
14002	Source Register A	1	INT16U	R	N		
14003	Source Register B	1	INT16U	R	N		
14004	Source Register C	1	INT16U	R	N		
14005	Pickup Setpoint	2	FLOAT32	RWC	Y	А	The maximum pickup setpoint allowed is the maximum current that can be reported under the present configuration of CT ratio.
14007	Pickup Time Delay	2	INT32U	RWC	Υ	seconds	
14009	Dropout Setpoint	2	FLOAT32	RWC	Υ	Α	Must be <= Pickup Setpoint.
14011	Dropout Time Delay	2	INT32U	RWC	Υ	seconds	
14013	Digital Outputs to Associate – Standard	1	BITMAP	RWC	Υ		Bitmap of digital outputs to associate with this alarm.
Under Current, Phas	se						
14020	Attributes	2	INT32U	RWC	Υ		See Alarm Attributes for details.
14022	Source Register A	1	INT16U	R	N		
14023	Source Register B	1	INT16U	R	N		
14024	Source Register C	1	INT16U	R	N		
14025	Pickup Setpoint	2	FLOAT32	RWC	Υ	Α	Must be <= Dropout Setpoint.
14027	Pickup Time Delay	2	INT32U	RWC	Υ	seconds	
14029	Dropout Setpoint	2	FLOAT32	RWC	Υ	А	"The maximum pickup setpoint allowed is the maximum current that can be reported under the present configuration of CT ratio."
14031	Dropout Time Delay	2	INT32U	RWC	Υ	seconds	
14033	Digital Outputs to Associate – Standard	1	BITMAP	RWC	Υ		"Bitmap of digital outputs to associate with this alarm."
Over Current, Neutra	al						
14040	Attributes	2	INT32U	RWC	Υ		See Alarm Attributes for details.
14042	Source Register A	1	INT16U	R	N		
14043	Source Register B	1	INT16U	R	N		
14044	Source Register C	1	INT16U	R	N		
14045	Pickup Setpoint	2	FLOAT32	RWC	Υ	А	"The maximum pickup setpoint allowed is the maximum current that can be reported under the present configuration of CT ratio."
14047	Pickup Time Delay	2	INT32U	RWC	Υ	seconds	
14049	Dropout Setpoint	2	FLOAT32	RWC	Υ	Α	Must be <= Pickup Setpoint.
14051	Dropout Time Delay	2	INT32U	RWC	Υ	seconds	
14053	Digital Outputs to Associate – Standard	1	BITMAP	RWC	Υ		"Bitmap of digital outputs to associate with this alarm."

Reg	Name	Size	Туре	Access	NV	Units	Notes
Over Current, G	Ground						
14060	Attributes	2	INT32U	RWC	Υ		See Alarm Attributes for details.
14062	Source Register A	1	INT16U	R	N		
14063	Source Register B	1	INT16U	R	N		
14064	Source Register C	1	INT16U	R	N		
14065	Pickup Setpoint	2	FLOAT32	RWC	Y	Α	The maximum pickup setpoint allowed is the maximum current that can be reported under the present configuration of CT ratio.
14067	Pickup Time Delay	2	INT32U	RWC	Υ	seconds	
14069	Dropout Setpoint	2	FLOAT32	RWC	Υ	Α	Must be <= Pickup Setpoint.
14071	Dropout Time Delay	2	INT32U	RWC	Υ	seconds	
14073	Digital Outputs to Associate – Standard	1	BITMAP	RWC	Υ		Bitmap of digital outputs to associate with this alarm.
Over Voltage, L	-L		l	l		<u>I</u>	
14080	Attributes	2	INT32U	RWC	Υ		See Alarm Attributes for details.
14082	Source Register A	1	INT16U	R	N		
14083	Source Register B	1	INT16U	R	N		
14084	Source Register C	1	INT16U	R	N		
14085	Pickup Setpoint	2	FLOAT32	RWC	Υ	V	The maximum pickup setpoint allowed is the maximum voltage that can be reported under the present configuration of VT ratio.
14087	Pickup Time Delay	2	INT32U	RWC	Υ	seconds	
14089	Dropout Setpoint	2	FLOAT32	RWC	Υ	V	Must be <= Pickup Setpoint.
14091	Dropout Time Delay	2	INT32U	RWC	Υ	seconds	
14093	Digital Outputs to Associate – Standard	1	BITMAP	RWC	Υ		Bitmap of digital outputs to associate with this alarm.
Under Voltage,	L-L		•				
14100	Attributes	2	INT32U	RWC	Υ		See Alarm Attributes for details.
14102	Source Register A	1	INT16U	R	N		
14103	Source Register B	1	INT16U	R	N		
14104	Source Register C	1	INT16U	R	N		
14105	Pickup Setpoint	2	FLOAT32	RWC	Υ	V	Must be <= Dropout Setpoint.
14107	Pickup Time Delay	2	INT32U	RWC	Υ	seconds	
14109	Dropout Setpoint	2	FLOAT32	RWC	Υ	V	The maximum dropout setpoint allowed is the maximum voltage that can be reported under the present configuration of VT ratio.
14111	Dropout Time Delay	2	INT32U	RWC	Υ	seconds	
14113	Digital Outputs to Associate – Standard	1	BITMAP	RWC	Υ		Bitmap of digital outputs to associate with this alarm.
Over Voltage, L	-N						
14120	Attributes	2	INT32U	RWC	Υ		See Alarm Attributes for details.
14122	Source Register A	1	INT16U	R	N		
14123	Source Register B	1	INT16U	R	N		
14124	Source Register C	1	INT16U	R	N		
14125	Pickup Setpoint	2	FLOAT32	RWC	Υ	٧	The maximum pickup setpoint allowed is the maximum voltage that can be reported under the present configuration of VT ratio.
14127	Pickup Time Delay	2	INT32U	RWC	Υ	seconds	
14129	Dropout Setpoint	2	FLOAT32	RWC	Υ	V	Must be <= Pickup Setpoint.
14131	Dropout Time Delay	2	INT32U	RWC	Υ	seconds	
14133	Digital Outputs to Associate – Standard	1	BITMAP	RWC	Υ		Bitmap of digital outputs to associate with this alarm.
Under Voltage,	L-N						
14140	Attributes	2	INT32U	RWC	Υ		See Alarm Attributes for details.
14142	Source Register A	1	INT16U	R	N		
				i	1	i	1



Reg	Name	Size	Туре	Access	NV	Units	Notes
14143	Source Register B	1	INT16U	R	N		
14144	Source Register C	1	INT16U	R	N		
14145	Pickup Setpoint	2	FLOAT32	RWC	Υ	V	Must be <= Dropout Setpoint.
14147	Pickup Time Delay	2	INT32U	RWC	Υ	seconds	
14149	Dropout Setpoint	2	FLOAT32	RWC	Υ	٧	The maximum dropout setpoint allowed is the maximum voltage that can be reported under the present configuration of VT ratio.
14151	Dropout Time Delay	2	INT32U	RWC	Υ	seconds	
14153	Digital Outputs to Associate – Standard	1	BITMAP	RWC	Υ		Bitmap of digital outputs to associate with this alarm.
Over Power, A	ctive			_			
14160	Attributes	2	INT32U	RWC	Υ		See Alarm Attributes for details.
14162	Source Register A	1	INT16U	R	Ν		
14163	Source Register B	1	INT16U	R	Ν		
14164	Source Register C	1	INT16U	R	Ν		
14165	Pickup Setpoint	2	FLOAT32	RWC	Υ	kW	The maximum pickup setpoint allowed is the maximum power that can be reported under the present configuration of CT and VT ratio.
14167	Pickup Time Delay	2	INT32U	RWC	Υ	seconds	
14169	Dropout Setpoint	2	FLOAT32	RWC	Υ	kW	Must be <= Pickup Setpoint.
14171	Dropout Time Delay	2	INT32U	RWC	Υ	seconds	
14173	Digital Outputs to Associate – Standard	1	BITMAP	RWC	Υ		Bitmap of digital outputs to associate with this alarm.
Over Power, R	leactive						
14180	Attributes	2	INT32U	RWC	Υ		See Alarm Attributes for details.
14182	Source Register A	1	INT16U	R	N		
14183	Source Register B	1	INT16U	R	N		
14184	Source Register C	1	INT16U	R	N		
14185	Pickup Setpoint	2	FLOAT32	RWC	Υ	kVAR	The maximum pickup setpoint allowed is the maximum power that can be reported under the present configuration of CT and VT ratio.
14187	Pickup Time Delay	2	INT32U	RWC	Υ	seconds	
14189	Dropout Setpoint	2	FLOAT32	RWC	Υ	kVAR	Must be <= Pickup Setpoint.
14191	Dropout Time Delay	2	INT32U	RWC	Υ	seconds	
14193	Digital Outputs to Associate – Standard	1	BITMAP	RWC	Υ		Bitmap of digital outputs to associate with this alarm.
Over Power, A	pparent		•				
14200	Attributes	2	INT32U	RWC	Υ		See Alarm Attributes for details.
14202	Source Register A	1	INT16U	R	N		
14203	Source Register B	1	INT16U	R	N		
14204	Source Register C	1	INT16U	R	N		
14205	Pickup Setpoint	2	FLOAT32	RWC	Υ	kVA	The maximum pickup setpoint allowed is the maximum power that can be reported under the present configuration of CT and VT ratio.
14207	Pickup Time Delay	2	INT32U	RWC	Υ	seconds	
14209	Dropout Setpoint	2	FLOAT32	RWC	Υ	kVA	Must be <= Pickup Setpoint.
14211	Dropout Time Delay	2	INT32U	RWC	Υ	seconds	
14213	Digital Outputs to Associate – Standard	1	BITMAP	RWC	Υ		Bitmap of digital outputs to associate with this alarm.
Leading Powe	r Factor, True		<u> </u>	1			
14220	Attributes	2	INT32U	RWC	Υ		See Alarm Attributes for details.
14222	Source Register A	1	INT16U	R	N		
14223	Source Register B	1	INT16U	R	N		

Reg	Name	Size	Туре	Access	NV	Units	Notes
14224	Source Register C	1	INT16U	R	N		
14225	Pickup Setpoint	2	FLOAT32	RWC	Υ		
14227	Pickup Time Delay	2	INT32U	RWC	Υ	seconds	
14229	Dropout Setpoint	2	FLOAT32	RWC	Υ		
14231	Dropout Time Delay	2	INT32U	RWC	Υ	seconds	
14233	Digital Outputs to Associate – Standard	1	BITMAP	RWC	Υ		Bitmap of digital outputs to associate with this alarm.
Lagging Power Fact	or, True			l	l		
14240	Attributes	2	INT32U	RWC	Υ		See Alarm Attributes for details.
14242	Source Register A	1	INT16U	R	N		
14243	Source Register B	1	INT16U	R	N		
14244	Source Register C	1	INT16U	R	N		
14245	Pickup Setpoint	2	FLOAT32	RWC	Υ		
14247	Pickup Time Delay	2	INT32U	RWC	Y	seconds	
14249	Dropout Setpoint	2	FLOAT32	RWC	Y		
14251	Dropout Time Delay	2	INT32U	RWC	Y	seconds	
14253	Digital Outputs to Associate – Standard	1	BITMAP	RWC	Υ		Bitmap of digital outputs to associate with this alarm.
Leading Power Fact	or. Displacement				l	l	
14260	Attributes	2	INT32U	RWC	Υ		See Alarm Attributes for details.
14262	Source Register A	1	INT16U	R	N		
14263	Source Register B	1	INT16U	R	N		
14264	Source Register C	1	INT16U	R	N		
14265	Pickup Setpoint	2	FLOAT32	RWC	Υ		
14267	Pickup Time Delay	2	INT32U	RWC	Y	seconds	
14269	Dropout Setpoint	2	FLOAT32	RWC	Y		
14271	Dropout Time Delay	2	INT32U	RWC	Y	seconds	
14273	Digital Outputs to Associate – Standard	1	BITMAP	RWC	Y		Bitmap of digital outputs to associate with this alarm.
Lagging Power Fact	or, Displacement					l	
14280	Attributes	2	INT32U	RWC	Υ		See Alarm Attributes for details.
14282	Source Register A	1	INT16U	R	N		
14283	Source Register B	1	INT16U	R	N		
14284	Source Register C	1	INT16U	R	N		
14285	Pickup Setpoint	2	FLOAT32	RWC	Υ		
14287	Pickup Time Delay	2	INT32U	RWC	Υ	seconds	
14289	Dropout Setpoint	2	FLOAT32	RWC	Υ		
14291	Dropout Time Delay	2	INT32U	RWC	Υ	seconds	
14293	Digital Outputs to Associate – Standard	1	BITMAP	RWC	Υ		Bitmap of digital outputs to associate with this alarm.
Over Demand, Activ	e Power, Present	•					
14300	Attributes	2	INT32U	RWC	Υ		See Alarm Attributes for details.
14302	Source Register A	1	INT16U	R	N		
14303	Source Register B	1	INT16U	R	N		
14304	Source Register C	1	INT16U	R	N		
14305	Pickup Setpoint	2	FLOAT32	RWC	Υ	kW	The maximum pickup setpoint allowed is the maximum power that can be reported under the present configuration of CT and VT ratio.
14307	Pickup Time Delay	2	INT32U	RWC	Υ	seconds	
14309	Dropout Setpoint	2	FLOAT32	RWC	Υ	kW	Must be <= Pickup Setpoint.
14311	Dropout Time Delay	2	INT32U	RWC	Υ	seconds	
14313	Digital Outputs to Associate – Standard	1	BITMAP	RWC	Υ		Bitmap of digital outputs to associate with this alarm.



Reg	Name	Size	Туре	Access	NV	Units	Notes
Over Demand,	Active Power, Last						
14320	Attributes	2	INT32U	RWC	Υ		See Alarm Attributes for details.
14322	Source Register A	1	INT16U	R	N		
14323	Source Register B	1	INT16U	R	N		
14324	Source Register C	1	INT16U	R	N		
14325	Pickup Setpoint	2	FLOAT32	RWC	Υ	kW	The maximum pickup setpoint allowed is the maximum power that can be reported under the present configuration of CT and VT ratio.
14327	Pickup Time Delay	2	INT32U	RWC	Υ	seconds	
14329	Dropout Setpoint	2	FLOAT32	RWC	Υ	kW	Must be <= Pickup Setpoint.
14331	Dropout Time Delay	2	INT32U	RWC	Υ	seconds	
14333	Digital Outputs to Associate – Standard	1	BITMAP	RWC	Υ		Bitmap of digital outputs to associate with this alarm.
Over Demand,	Active Power, Predicted						
14340	Attributes	2	INT32U	RWC	Υ		See Alarm Attributes for details.
14342	Source Register A	1	INT16U	R	Ν		
14343	Source Register B	1	INT16U	R	Ν		
14344	Source Register C	1	INT16U	R	N		
14345	Pickup Setpoint	2	FLOAT32	RWC	Υ	kW	The maximum pickup setpoint allowed is the maximum power that can be reported under the present configuration of CT and VT ratio.
14347	Pickup Time Delay	2	INT32U	RWC	Υ	seconds	
14349	Dropout Setpoint	2	FLOAT32	RWC	Υ	kW	Must be <= Pickup Setpoint.
14351	Dropout Time Delay	2	INT32U	RWC	Υ	seconds	
14353	Digital Outputs to Associate – Standard	1	BITMAP	RWC	Υ		Bitmap of digital outputs to associate with this alarm.
Over Demand,	Reactive Power, Present						
14360	Attributes	2	INT32U	RWC	Υ		See Alarm Attributes for details.
14362	Source Register A	1	INT16U	R	N		
14363	Source Register B	1	INT16U	R	N		
14364	Source Register C	1	INT16U	R	N		
14365	Pickup Setpoint	2	FLOAT32	RWC	Υ	kVAR	The maximum pickup setpoint allowed is the maximum power that can be reported under the present configuration of CT and VT ratio.
14367	Pickup Time Delay	2	INT32U	RWC	Υ	seconds	
14369	Dropout Setpoint	2	FLOAT32	RWC	Υ	kVAR	Must be <= Pickup Setpoint.
14371	Dropout Time Delay	2	INT32U	RWC	Υ	seconds	
14373	Digital Outputs to Associate – Standard	1	BITMAP	RWC	Υ		Bitmap of digital outputs to associate with this alarm.
Over Demand,	Reactive Power, Last			1		1	
14380	Attributes	2	INT32U	RWC	Υ		See Alarm Attributes for details.
14382	Source Register A	1	INT16U	R	N		
14383	Source Register B	1	INT16U	R	N		
14384	Source Register C	1	INT16U	R	N		
14385	Pickup Setpoint	2	FLOAT32	RWC	Υ	kVAR	The maximum pickup setpoint allowed is the maximum power that can be reported under the present configuration of CT and VT ratio.
14387	Pickup Time Delay	2	INT32U	RWC	Υ	seconds	
14389	Dropout Setpoint	2	FLOAT32	RWC	Υ	kVAR	Must be <= Pickup Setpoint.
14391	Dropout Time Delay	2	INT32U	RWC	Υ	seconds	
14393	Digital Outputs to Associate – Standard	1	BITMAP	RWC	Υ		Bitmap of digital outputs to associate with this alarm.

Reg	Name	Size	Туре	Access	NV	Units	Notes
Over Demand, F	Reactive Power, Predicted						
14400	Attributes	2	INT32U	RWC	Υ		See Alarm Attributes for details.
14402	Source Register A	1	INT16U	R	N		
14403	Source Register B	1	INT16U	R	N		
14404	Source Register C	1	INT16U	R	N		
14405	Pickup Setpoint	2	FLOAT32	RWC	Υ	kVAR	The maximum pickup setpoint allowed is the maximum power that can be reported under the present configuration of CT and VT ratio.
14407	Pickup Time Delay	2	INT32U	RWC	Υ	seconds	
14409	Dropout Setpoint	2	FLOAT32	RWC	Υ	kVAR	Must be <= Pickup Setpoint.
14411	Dropout Time Delay	2	INT32U	RWC	Υ	seconds	
14413	Digital Outputs to Associate – Standard	1	BITMAP	RWC	Υ		Bitmap of digital outputs to associate with this alarm.
Over Demand, A	Apparent Power, Present		•				
14420	Attributes	2	INT32U	RWC	Υ		See Alarm Attributes for details.
14422	Source Register A	1	INT16U	R	N		
14423	Source Register B	1	INT16U	R	N		
14424	Source Register C	1	INT16U	R	N		
14425	Pickup Setpoint	2	FLOAT32	RWC	Υ	kVA	The maximum pickup setpoint allowed is the maximum power that can be reported under the present configuration of CT and VT ratio.
14427	Pickup Time Delay	2	INT32U	RWC	Υ	seconds	
14429	Dropout Setpoint	2	FLOAT32	RWC	Υ	kVA	Must be <= Pickup Setpoint.
14431	Dropout Time Delay	2	INT32U	RWC	Υ	seconds	
14433	Digital Outputs to Associate – Standard	1	BITMAP	RWC	Υ		Bitmap of digital outputs to associate with this alarm.
Over Demand, A	Apparent Power, Last		•	•			
14440	Attributes	2	INT32U	RWC	Υ		See Alarm Attributes for details.
14442	Source Register A	1	INT16U	R	N		
14443	Source Register B	1	INT16U	R	N		
14444	Source Register C	1	INT16U	R	N		
14445	Pickup Setpoint	2	FLOAT32	RWC	Υ	kVA	The maximum pickup setpoint allowed is the maximum power that can be reported under the present configuration of CT and VT ratio.
14447	Pickup Time Delay	2	INT32U	RWC	Υ	seconds	
14449	Dropout Setpoint	2	FLOAT32	RWC	Υ	kVA	Must be <= Pickup Setpoint.
14451	Dropout Time Delay	2	INT32U	RWC	Υ	seconds	
14453	Digital Outputs to Associate – Standard	1	BITMAP	RWC	Υ		Bitmap of digital outputs to associate with this alarm.
Over Demand, A	Apparent Power, Predicted						
14460	Attributes	2	INT32U	RWC	Υ		See Alarm Attributes for details.
14462	Source Register A	1	INT16U	R	N		
14463	Source Register B	1	INT16U	R	N		
14464	Source Register C	1	INT16U	R	N		
14465	Pickup Setpoint	2	FLOAT32	RWC	Υ	kVA	The maximum pickup setpoint allowed is the maximum power that can be reported under the present configuration of CT and VT ratio.
14467	Pickup Time Delay	2	INT32U	RWC	Υ	seconds	
14469	Dropout Setpoint	2	FLOAT32	RWC	Υ	kVA	Must be <= Pickup Setpoint.
14471	Dropout Time Delay	2	INT32U	RWC	Υ	seconds	
14473	Digital Outputs to Associate – Standard	1	BITMAP	RWC	Υ		Bitmap of digital outputs to associate with this alarm.
Over Frequency		•		•			
14480	Attributes	2	INT32U	RWC	Υ		See Alarm Attributes for details.
14482	Source Register A	1	INT16U	R	N		
	•						



Reg	Name	Size	Туре	Access	NV	Units	Notes
14483	Source Register B	1	INT16U	R	N		
14484	Source Register C	1	INT16U	R	N		
14485	Pickup Setpoint	2	FLOAT32	RWC	Υ	Hz	
14487	Pickup Time Delay	2	INT32U	RWC	Υ	seconds	
14489	Dropout Setpoint	2	FLOAT32	RWC	Υ	Hz	Must be <= Pickup Setpoint.
14491	Dropout Time Delay	2	INT32U	RWC	Υ	seconds	
14493	Digital Outputs to Associate – Standard	1	BITMAP	RWC	Υ		Bitmap of digital outputs to associate with this alarm.
Under Frequen	су						
14500	Attributes	2	INT32U	RWC	Υ		See Alarm Attributes for details.
14502	Source Register A	1	INT16U	R	N		
14503	Source Register B	1	INT16U	R	N		
14504	Source Register C	1	INT16U	R	N		
14505	Pickup Setpoint	2	FLOAT32	RWC	Υ	Hz	Must be <= Dropout Setpoint.
14507	Pickup Time Delay	2	INT32U	RWC	Υ	seconds	
14509	Dropout Setpoint	2	FLOAT32	RWC	Υ	Hz	
14511	Dropout Time Delay	2	INT32U	RWC	Υ	seconds	
14513	Digital Outputs to Associate – Standard	1	BITMAP	RWC	Υ		Bitmap of digital outputs to associate with this alarm.
Over Voltage U	Inbalance		l	I	1	1	l
14520	Attributes	2	INT32U	RWC	Υ		See Alarm Attributes for details.
14522	Source Register A	1	INT16U	R	N		
14523	Source Register B	1	INT16U	R	N		
14524	Source Register C	1	INT16U	R	N		
14525	Pickup Setpoint	2	FLOAT32	RWC	Υ	%	
14527	Pickup Time Delay	2	INT32U	RWC	Υ	seconds	
14529	Dropout Setpoint	2	FLOAT32	RWC	Υ	%	Must be <= Pickup Setpoint.
14531	Dropout Time Delay	2	INT32U	RWC	Υ	seconds	
14533	Digital Outputs to Associate – Standard	1	BITMAP	RWC	Υ		Bitmap of digital outputs to associate with this alarm.
Over Voltage To	otal Harmonic Distortion	1		I			
14540	Attributes	2	INT32U	RWC	Υ		See Alarm Attributes for details.
14542	Source Register A	1	INT16U	R	N		
14543	Source Register B	1	INT16U	R	N		
14544	Source Register C	1	INT16U	R	N		
14545	Pickup Setpoint	2	FLOAT32	RWC	Υ	%	
14547	Pickup Time Delay	2	INT32U	RWC	Υ	seconds	
14549	Dropout Setpoint	2	FLOAT32	RWC	Υ	%	Must be <= Pickup Setpoint.
14551	Dropout Time Delay	2	INT32U	RWC	Υ	seconds	
14553	Digital Outputs to Associate – Standard	1	BITMAP	RWC	Υ		Bitmap of digital outputs to associate with this alarm.
14553 Phase Loss	Digital Outputs to Associate – Standard	1	BITMAP	RWC	Υ		, , , ,
	Digital Outputs to Associate – Standard Attributes	1	BITMAP	RWC	Y		, , , ,
Phase Loss						I	alarm.
Phase Loss 14560	Attributes	2	INT32U	RWC	Υ		alarm.
Phase Loss 14560 14562	Attributes Source Register A Source Register B	2	INT32U INT16U INT16U	RWC R R	Y		alarm.
Phase Loss 14560 14562 14563 14564	Attributes Source Register A Source Register B Source Register C	2 1 1 1 1	INT32U INT16U INT16U INT16U	RWC R R	Y N N		alarm.
Phase Loss 14560 14562 14563 14564 14565	Attributes Source Register A Source Register B Source Register C Pickup Setpoint	2 1 1	INT32U INT16U INT16U INT16U FLOAT32	RWC R R R	Y N N	 V	alarm.
Phase Loss 14560 14562 14563 14564	Attributes Source Register A Source Register B Source Register C	2 1 1 1 2	INT32U INT16U INT16U INT16U	RWC R R	Y N N N		alarm.

Reg	Name	Size	Туре	Access	NV	Units	Notes
14573	Digital Outputs to Associate – Standard	1	BITMAP	RWC	Υ		Bitmap of digital outputs to associate with this alarm.
Unary Alarms							
Meter Power Up	(Control Power Loss)						
16200	Attributes	2	INT32U	RWC	Υ		See Alarm Attributes for details.
16202	Digital Outputs to Associate – Standard	1	BITMAP	RWC	Υ		Bitmap of digital outputs to associate with this alarm.
Meter Reset							
16210	Attributes	2	INT32U	RWC	Υ		See Alarm Attributes for details.
16212	Digital Outputs to Associate – Standard	1	BITMAP	RWC	Υ		Bitmap of digital outputs to associate with this alarm.
Meter Diagnostic	С						
16220	Attributes	2	INT32U	RWC	Υ		See Alarm Attributes for details.
16222	Digital Outputs to Associate – Standard	1	BITMAP	RWC	Υ		Bitmap of digital outputs to associate with this alarm.
Phase Reversal							
16230	Attributes	2	INT32U	RWC	Υ		See Alarm Attributes for details.
16232	Digital Outputs to Associate – Standard	1	BITMAP	RWC	Υ		Bitmap of digital outputs to associate with this alarm.
Digital Alarms							
Digital Alarm DI	1						
16300	Attributes	2	INT32U	RWC	Υ		See Alarm Attributes for details.
16302	Pickup Time Delay	2	INT32U	RWC	Υ	seconds	
16304	Dropout Time Delay	2	INT32U	RWC	Υ	seconds	
16306	Digital Outputs to Associate – Standard	1	BITMAP	RWC	Υ		Bitmap of digital outputs to associate with this alarm.
Digital Alarm DI	2						
16314	Attributes	2	INT32U	RWC	Υ		See Alarm Attributes for details.
16316	Pickup Time Delay	2	INT32U	RWC	Υ	seconds	
16318	Dropout Time Delay	2	INT32U	RWC	Υ	seconds	
16320	Digital Outputs to Associate – Standard	1	BITMAP	RWC	Υ		Bitmap of digital outputs to associate with this alarm.
Digital Alarm DI	3						
16328	Attributes	2	INT32U	RWC	Υ		See Alarm Attributes for details.
16330	Pickup Time Delay	2	INT32U	RWC	Υ	seconds	
16332	Dropout Time Delay	2	INT32U	RWC	Υ	seconds	
16334	Digital Outputs to Associate - Standard	1	BITMAP	RWC	Υ		Bitmap of digital outputs to associate with this alarm.
Digital Alarm DI4	4						
16342	Attributes	2	INT32U	RWC	Υ		See Alarm Attributes for details.
16344	Pickup Time Delay	2	INT32U	RWC	Υ	seconds	
16346	Dropout Time Delay	2	INT32U	RWC	Υ	seconds	
16348	Digital Outputs to Associate – Standard	1	BITMAP	RWC	Υ		Bitmap of digital outputs to associate with this alarm.



Reg	Name	Size	Туре	Access	NV	Units	Notes
Diagnostics	3						
Self-Test Res	sults						
Miscellaneous	Self-Test						
20003	Meter Self-Test	5	BITMAP	R	N		"0 = OK, 1 = Error Detected Bit 01 = Summary (on if any other bit is on - Maintenance Icon shown on HMI) Bit 02 = RAM Failure Bit 03 = NVRAM Failure Bit 04 = RTC Failure Bit 05 = Calibration Failure Bit 06 = Clipping Detected Bit 07 = Over-Running Energy Pulse Output Bit 08-16 Not Used"
Meter Data	(Advanced)						
Frequency							
21016	Frequency 1 Cycle	2	FLOAT32	R	N	Hz	
Power Qualit	ty						
Total Harmonic	c Distortion, Current						
21300	THD Current A	2	FLOAT32	R	N	%	THD = (RMS of harmonics / RMS of fundamental) * 100
21302	THD Current B	2	FLOAT32	R	N	%	
21304	THD Current C	2	FLOAT32	R	N	%	
21306	THD Current N	2	FLOAT32	R	N	%	
21308	THD Current G	2	FLOAT32	R	N	%	
21310	thd Current A	2	FLOAT32	R	N	%	thd = (RMS of harmonics / total RMS) * 100
21312	thd Current B	2	FLOAT32	R	N	%	
21314	thd Current C	2	FLOAT32	R	N	%	
21316	thd Current N	2	FLOAT32	R	N	%	
21318	thd Current G	2	FLOAT32	R	N	%	
Total Demand	Distortion						
21320	Total Demand Distortion	2	FLOAT32	R	N	%	
Total Harmonic	c Distortion, Voltage						
21322	THD Voltage A-B	2	FLOAT32	R	N	%	
21324	THD Voltage B-C	2	FLOAT32	R	N	%	
21326	THD Voltage C-A	2	FLOAT32	R	N	%	
21328	THD Voltage L-L	2	FLOAT32	R	N	%	
21330	THD Voltage A-N	2	FLOAT32	R	N	%	
21332	THD Voltage B-N	2	FLOAT32	R	N	%	
21334	THD Voltage C-N	2	FLOAT32	R	N	%	
21338	THD Voltage L-N	2	FLOAT32	R	N	%	
21340	thd Voltage A-B	2	FLOAT32	R	N	%	
21342	thd Voltage B-C	2	FLOAT32	R	N	%	
21344	thd Voltage C-A	2	FLOAT32	R	N	%	
21346	thd Voltage L-L	2	FLOAT32	R	N	%	
21348	thd Voltage A-N	2	FLOAT32	R	N	%	
21350	thd Voltage B-N	2	FLOAT32	R	N	%	
21352	thd Voltage C-N	2	FLOAT32	R	N	%	
21356	thd Voltage L-N	2	FLOAT32	R	N	%	

Reg	Name	Size	Туре	Access	NV	Units	Notes
Minimum Value		0.20	.,,,,,	710000		Cinc	1000
		Ι.	5 A TET!! 4E				T
27214	Min/Max Reset Datetime	4	DATETIME	R	Υ		
Current	Tan a		FI 0 4 T00		I		T
27218	Min Current A	2	FLOAT32	R	Y	A	
27220	Min Current B	2	FLOAT32	R	Y	A	
27222	Min Current C	2	FLOAT32	R	Y	A	
27224	Min Current N	2	FLOAT32	R	Y	Α	
27226	Min Current G	2	FLOAT32	R	Y	Α	
27228	Min Current Avg	2	FLOAT32	R	Υ	Α	
Current Unbalance		_		T _			
27230	Min Current Unbalance A	2	FLOAT32	R	Υ	%	
27232	Min Current Unbalance B	2	FLOAT32	R	Υ	%	
27234	Min Current Unbalance C	2	FLOAT32	R	Υ	%	
27236	Min Current Unbalance Worst	2	FLOAT32	R	Υ	%	
Voltage				1			
27238	Min Voltage A-B	2	FLOAT32	R	Υ	V	
27240	Min Voltage B-C	2	FLOAT32	R	Υ	V	
27242	Min Voltage C-A	2	FLOAT32	R	Υ	V	
27244	Min Voltage L-L Avg	2	FLOAT32	R	Υ	V	
27246	Min Voltage A-N	2	FLOAT32	R	Υ	V	
27248	Min Voltage B-N	2	FLOAT32	R	Υ	V	
27250	Min Voltage C-N	2	FLOAT32	R	Υ	V	
27254	Min Voltage L-N Avg	2	FLOAT32	R	Υ	V	
Voltage Unbaland	e						
27256	Min Voltage Unbalance A-B	2	FLOAT32	R	Υ	%	
27258	Min Voltage Unbalance B-C	2	FLOAT32	R	Υ	%	
27260	Min Voltage Unbalance C-A	2	FLOAT32	R	Υ	%	
27262	Min Voltage Unbalance L-L Worst	2	FLOAT32	R	Υ	%	
27264	Min Voltage Unbalance A-N	2	FLOAT32	R	Υ	%	
27266	Min Voltage Unbalance B-N	2	FLOAT32	R	Υ	%	
27268	Min Voltage Unbalance C-N	2	FLOAT32	R	Υ	%	
27270	Min Voltage Unbalance L-N Worst	2	FLOAT32	R	Υ	%	
Power							
27272	Min Active Power A	2	FLOAT32	R	Υ	kW	
27274	Min Active Power B	2	FLOAT32	R	Υ	kW	
27276	Min Active Power C	2	FLOAT32	R	Υ	kW	
27278	Min Active Power Total	2	FLOAT32	R	Υ	kW	
27280	Min Reactive Power A	2	FLOAT32	R	Υ	kVAR	
27282	Min Reactive Power B	2	FLOAT32	R	Υ	kVAR	
27284	Min Reactive Power C	2	FLOAT32	R	Υ	kVAR	
27286	Min Reactive Power Total	2	FLOAT32	R	Υ	kVAR	
27288	Min Apparent Power A	2	FLOAT32	R	Υ	kVA	
27290	Min Apparent Power B	2	FLOAT32	R	Υ	kVA	
27292	Min Apparent Power C	2	FLOAT32	R	Υ	kVA	
27294	Min Apparent Power Total	2	FLOAT32	R	Υ	kVA	
Power Factor	<u>'</u>	· ·					
27306	Min Power Factor A	2	PF32	R	Υ		
27308	Min Power Factor B	2	PF32	R	Υ		
27310	Min Power Factor C	2	PF32	R	Y		
27312	Min Power Factor Total	2	PF32	R	Y		
				l			1



Reg	Name	Size	Туре	Access	NV	Units	Notes
27314	Min Displacement Power Factor A	2	PF32	R	Υ		
27316	Min Displacement Power Factor B	2	PF32	R	Υ		
27318	Min Displacement Power Factor C	2	PF32	R	Υ		
27320	Min Displacement PF Total	2	PF32	R	Υ		
Total Harmonic	Distortion, Current		l			L	
27338	Min THD Current A	2	FLOAT32	R	Υ	%	THD = (RMS of harmonics / RMS of fundamental) * 100
27340	Min THD Current B	2	FLOAT32	R	Υ	%	
27342	Min THD Current C	2	FLOAT32	R	Υ	%	
27344	Min THD Current N	2	FLOAT32	R	Υ	%	
27346	Min THD Current G	2	FLOAT32	R	Υ	%	
27348	Min thd Current A	2	FLOAT32	R	Υ	%	thd = (RMS of harmonics / total RMS) * 100
27350	Min thd Current B	2	FLOAT32	R	Υ	%	,
27352	Min thd Current C	2	FLOAT32	R	Υ	%	
27354	Min thd Current N	2	FLOAT32	R	Y	%	
Total Demand D			. 20/1/02		<u> </u>	,,,	1
27358	Min Total Demand Distortion	2	FLOAT32	R	Υ	%	
	Distortion, Voltage		1 2071102				
27360	Min THD Voltage A-B	2	FLOAT32	R	Υ	%	
27362	Min THD Voltage B-C	2	FLOAT32	R	Y	%	
27364	Min THD Voltage C-A	2	FLOAT32	R	Y	%	
27366	Min THD Voltage U-L	2	FLOAT32	R	Y	%	
27368	Min THD Voltage A-N	2	FLOAT32	R	Y	%	
27370	Min THD Voltage B-N	2	FLOAT32	R	Y	%	
27372	Min THD Voltage C-N	2	FLOAT32	R	Y	%	
27376	Min THD Voltage L-N	2	FLOAT32	R	Y	%	
27378	Min thd Voltage A-B	2	FLOAT32	R	Y	%	
27370	Min thd Voltage A-B	2	FLOAT32	R	Y	%	
27382	Min thd Voltage C-A	2	FLOAT32	R	Y	%	
27384	Min thd Voltage C-A	2	FLOAT32	R	Y	%	
27386	Min thd Voltage A-N	2	FLOAT32	R	Y	%	
27388	Min thd Voltage B-N	2	FLOAT32	R	Y	%	
27390	Min thd Voltage C-N	2	FLOAT32	R	Y	%	
27394	Min thd Voltage L-N	2	FLOAT32	R	Y	%	
	Will the Voltage L-IV		FLOATSZ	I K	<u> </u>	70	
Frequency 27616	Min Frequency	2	FLOAT32	R	Υ	⊔ -7	1
Maximum Val			TLOATSZ	I N	<u>'</u>	Hz	
Current							
27694	Max Current A	2	FLOAT32	R	Υ	Α	
27696	Max Current B	2	FLOAT32	R	Y	A	
27698	Max Current C	2	FLOAT32	R	Y	A	
27700	Max Current N	2	FLOAT32	R	Y	A	
27702	Max Current G	2	FLOAT32	R	Y	A	
27704	Max Current Avg	2	FLOAT32	R	Y	A	
Current Unbala			TLOATOZ		<u> </u>		
27706	Max Current Unbalance A	2	FLOAT32	R	Y	%	I
27708	Max Current Unbalance B	2	FLOAT32	R	Y	%	
27710	Max Current Unbalance C	2	FLOAT32	R	Y	%	
27712	Max Current Unbalance Worst	2	FLOAT32	R	Υ	%	

Reg	Name	Size	Туре	Access	NV	Units	Notes
	Name	O.ZC	Type	Addess		Omio	Hotes
Voltage	Taran yang ang		FI 0 4 T00			.,	T
27714	Max Voltage A-B	2	FLOAT32	R	Y	V	
27716	Max Voltage B-C	2	FLOAT32	R			
27718	Max Voltage C-A	2	FLOAT32	R	Y	V	
27720	Max Voltage L-L Avg	2	FLOAT32	R	Y	V	
27722	Max Voltage A-N	2	FLOAT32	R	Y	V	
27724	Max Voltage B-N	2	FLOAT32	R	Y	V	
27726	Max Voltage C-N	2	FLOAT32	R	Y	V	
27730	Max Voltage L-N Avg	2	FLOAT32	R	Υ	V	
Voltage Unbalance	Tarana and an ana		FI 0 4 T00			2/	T
27732	Max Voltage Unbalance A-B	2	FLOAT32	R	Y	%	
27734	Max Voltage Unbalance B-C	2	FLOAT32	R	Y	%	
27736	Max Voltage Unbalance C-A	2	FLOAT32	R	Y	%	
27738	Max Voltage Unbalance L-L Worst	2	FLOAT32	R	Y	%	
27740	Max Voltage Unbalance A-N	2	FLOAT32	R	Y	%	
27742	Max Voltage Unbalance B-N	2	FLOAT32	R	Y	%	
27744	Max Voltage Unbalance C-N	2	FLOAT32	R	Y	%	
27746	Max Voltage Unbalance L-N Worst	2	FLOAT32	R	Υ	%	
Power	I		FI 0 4 T00				T
27748	Max Active Power A	2	FLOAT32	R	Υ	kW	
27750	Max Active Power B	2	FLOAT32	R	Υ	kW	
27752	Max Active Power C	2	FLOAT32	R	Υ	kW	
27754	Max Active Power Total	2	FLOAT32	R	Υ	kW	
27756	Max Reactive Power A	2	FLOAT32	R	Υ	kVAR	
27758	Max Reactive Power B	2	FLOAT32	R	Υ	kVAR	
27760	Max Reactive Power C	2	FLOAT32	R	Υ	kVAR	
27762	Max Reactive Power Total	2	FLOAT32	R	Υ	kVAR	
27764	Max Apparent Power A	2	FLOAT32	R	Υ	kVA	
27766	Max Apparent Power B	2	FLOAT32	R	Υ	kVA	
27768	Max Apparent Power C	2	FLOAT32	R	Υ	kVA	
27770	Max Apparent Power Total	2	FLOAT32	R	Υ	kVA	
Power Factor			I	ı			
27782	Max Power Factor A	2	PF32	R	Υ		
27784	Max Power Factor B	2	PF32	R	Υ		
27786	Max Power Factor C	2	PF32	R	Υ		
27788	Max Power Factor Total	2	PF32	R	Υ		
27790	Max Displacement Power Factor A	2	PF32	R	Υ		
27792	Max Displacement Power Factor B	2	PF32	R	Υ		
27794	Max Displacement Power Factor C	2	PF32	R	Υ		
27796	Max Displacement PF Total	2	PF32	R	Υ		
Total Harmonic Dist	ortion, Current						
27814	Max THD Current A	2	FLOAT32	R	Υ	%	THD = (RMS of harmonics / RMS of fundamental) * 100
27816	Max THD Current B	2	FLOAT32	R	Υ	%	
27818	Max THD Current C	2	FLOAT32	R	Υ	%	
27820	Max THD Current N	2	FLOAT32	R	Υ	%	
27822	Max THD Current G	2	FLOAT32	R	Υ	%	
27824	Max thd Current A	2	FLOAT32	R	Υ	%	thd = (RMS of harmonics / total RMS) * 100
27826	Max thd Current B	2	FLOAT32	R	Υ	%	
27828	Max thd Current C	2	FLOAT32	R	Υ	%	
27830	Max thd Current N	2	FLOAT32	R	Υ	%	



Reg	Name	Size	Туре	Access	NV	Units	Notes					
Total Demand Distor	otal Demand Distortion											
27834	Max Total Demand Distortion	2	FLOAT32	R	Υ	%						
Total Harmonic Dist	ortion, Voltage											
27836	Max THD Voltage A-B	2	FLOAT32	R	Υ	%						
27838	Max THD Voltage B-C	2	FLOAT32	R	Υ	%						
27840	Max THD Voltage C-A	2	FLOAT32	R	Υ	%						
27842	Max THD Voltage L-L	2	FLOAT32	R	Υ	%						
27844	Max THD Voltage A-N	2	FLOAT32	R	Υ	%						
27846	Max THD Voltage B-N	2	FLOAT32	R	Υ	%						
27848	Max THD Voltage C-N	2	FLOAT32	R	Υ	%						
27852	Max THD Voltage L-N	2	FLOAT32	R	Υ	%						
27854	Max thd Voltage A-B	2	FLOAT32	R	Υ	%						
27856	Max thd Voltage B-C	2	FLOAT32	R	Υ	%						
27858	Max thd Voltage C-A	2	FLOAT32	R	Υ	%						
27860	Max thd Voltage L-L	2	FLOAT32	R	Υ	%						
27862	Max thd Voltage A-N	2	FLOAT32	R	Υ	%						
27864	Max thd Voltage B-N	2	FLOAT32	R	Υ	%						
27866	Max thd Voltage C-N	2	FLOAT32	R	Υ	%						
27870	Max thd Voltage L-N	2	FLOAT32	R	Υ	%						
Frequency												
28092	Max Frequency	2	FLOAT32	R	Υ	Hz						

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