
F5 Errors and Warnings

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4. Operation

The following chapter describes the fundamentals of the software structure as well as the operating of the unit.

4.1 Fundamentals

The COMBIVERT F5 contains the following operating modes:

Display mode of the control board		
Customer mode	Application mode	Drive mode
<ul style="list-style-type: none"> - is a list of parameters (CP parameters), freely definable, which are necessary or important for the user - supplied with a parameter list defined by KEB 	<ul style="list-style-type: none"> - all parameters, parameter groups (exception: CP-parameter) and parameter sets can be selected and, if necessary, changed - usually it is activated only for the adaption to the application 	<ul style="list-style-type: none"> - with this special mode, the unit can be put into operation via operator - with the exception of the control release no terminal wiring is needed

4.1.1 Parameter, parameter groups, parameter sets

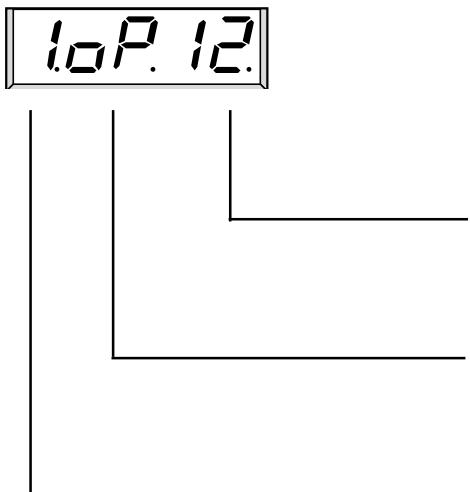
What are parameter, parameter groups und parameter sets?

Parameters are values changeable by the operator in a program, which have an influence on the program flow.
A parameter consists of:

Parameter designation

and

Parameter value



The **parameter value** displays the current settings.

The **parameter number** specifies the parameter within a group.

To maintain a cleary-to-survey operation inspite of the great number of parameters, we have combined function-related parameters into parameter groups (e.g. all motor-related parameters are combined in the drive(dr)-group).

8 parameter sets (0...7) exists to adjust several values for one parameter. If the active values shall be displayed for a running unit the digit is set to „A“. There is no digit for non set-programmable parameters.

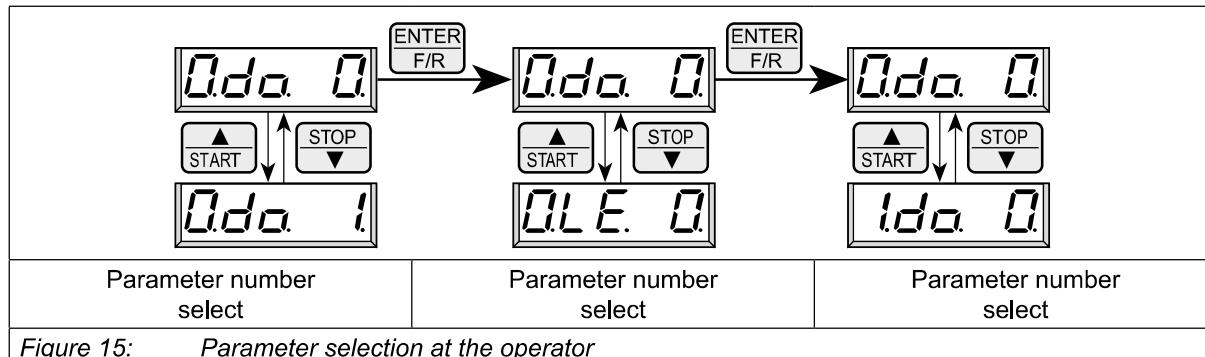
Example:

A conveyor belt shall be used with 3 different speeds. A parameter set is programmed for each "speed" ...acceleration, deceleration etc. can be adjusted individually.

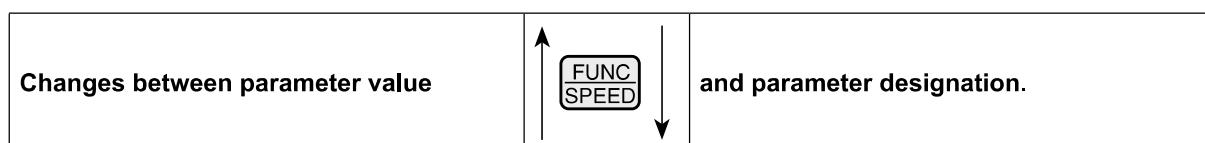
Operation

4.1.2 Selection of a parameter

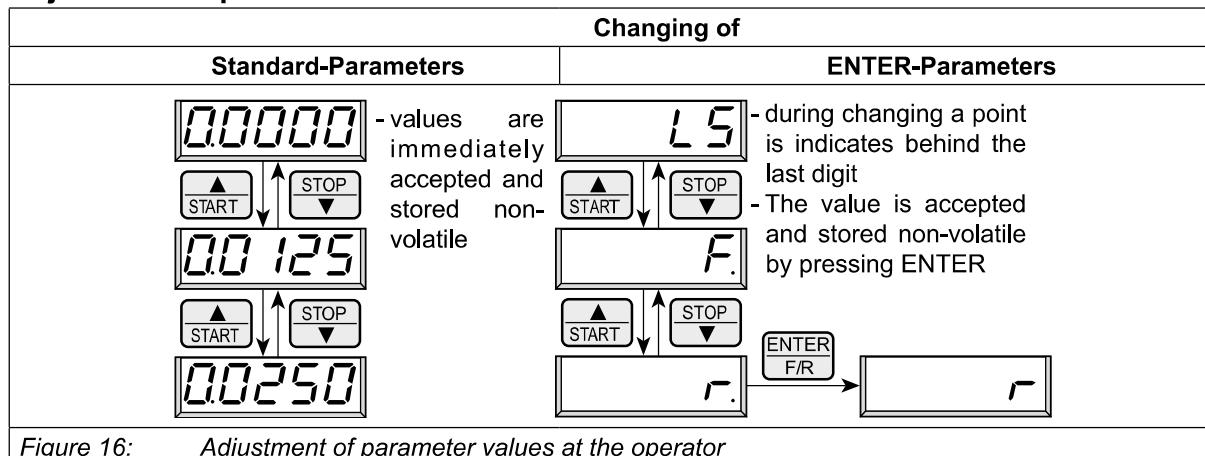
The blinking point indicates the changeable area. By pressing the ENTER key the blinking point is shifted.



A parameter set number is not displayed for non set-programmable parameters (see chapter „Non set-programmable parameters“)! □



4.1.3 Adjustment of parameter value



Parameter values can be changed only, when the parameter set is not adjusted to "Active parameter set" (A)! (see chapter „Resetting of error messages“)

4.1.4 ENTER-Parameters

For some parameters it is not sensible that the selected values become active immediately. For that reason they are called ENTER-parameters, they do not become active until the ENTER-key is pressed.

Example: At digital setting of rotation direction the rotation reverse (r) shall be selected from standstill (LS). As seen above it must be switched at this in forward direction of rotation (F). The drive shall start only if the direction of rotation reverse is selected and confirmed with ENTER.

4.1.5 Not set-programmable parameters

Certain parameters are not set-programmable, since its value must be equal in all sets (e.g. bus address or baud rate). For an easy identification of these parameters the parameter set number is missing in the parameter identification. **The same value is valid for all non-programmable parameters independent of the selected parameter set!**

4.1.6 Resetting of error messages

If a malfunction occurs during operation, the actual display is overwritten by a blinking error message. The error message can be deleted by pressing the ENTER key, so the initial value is displayed again.

ATTENTION! The resetting of the error message with ENTER is no error reset, i.e. the error status in the inverter is not reset. Thus is possible to correct adjustments before the error reset. Error reset is possible by the reset terminal, digital inputs or control release.

4.1.7 Resetting of peak values

To permit conclusions on the operational performance of the drive, parameters are provided that indicate the peak values. Peak value means that the highest measured value is stored for the ON-time of the inverter (slave pointer principle). The peak value is cancelled by ▲ or ▼ and the actual measured value is shown in the display.

4.1.8 Acknowledgement of status signals

To monitor the correct execution of an action some parameters send a status signal. For example, "PASS" is displayed after copying a set to indicate that the function was completed error-free.

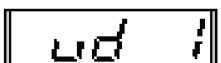
Operation

4.2 Password structure

The KEB COMBIVERT is provided with extensive password protection. The different passwords are used to

- change the operating mode
- set a write protection
- activate the service mode
- switch to the drive-mode

Depending on the actual operating mode the password can be entered in the following parameters:

	when the CP mode is active
	when the application mode is active

4.2.1 Passwords and password levels

By selecting one of the following passwords you can switch to the respective password level:

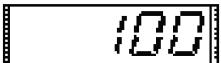
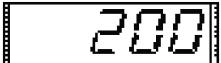
Password level	Password	Description
		Only the customer parameter group is visible, except for CP.00 all parameters are in the read-only status.
		Only the customer parameter group is visible. All parameters can be changed.
		Like CP-on, but the parameter identification is indicated according to the original parameter.
		All application parameters are visible and can be changed. The CP parameters are not visible.
Drive Mode		The Drive mode is a special operating mode, here the unit can be put into operation via the operator

Figure 17: Password levels

	To finish the drive mode press ENTER + FUNCT key for approx. 3 sec. The passwords are only valid for the display. These passwords are irrelevant in COMBIVIS, since the inverter is not in CP mode. The password input is dependent on the current operating mode. The password must be changed in parameter CP.00 if the inverter is in the CP mode. The password must be changed in parameter Ud.01 if the inverter is in the application mode.
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4.2.2 Changing of password level

Example 1: Switching from CP mode to the application mode

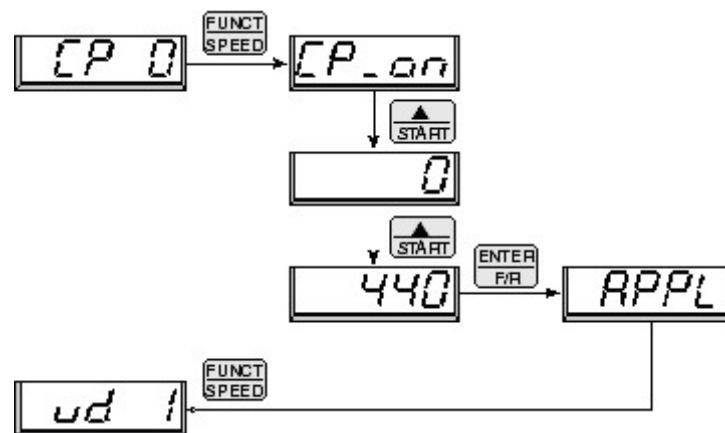


Figure 18: Changing the password level 1

Example 2: Switching from application mode to the CP-read-only mode

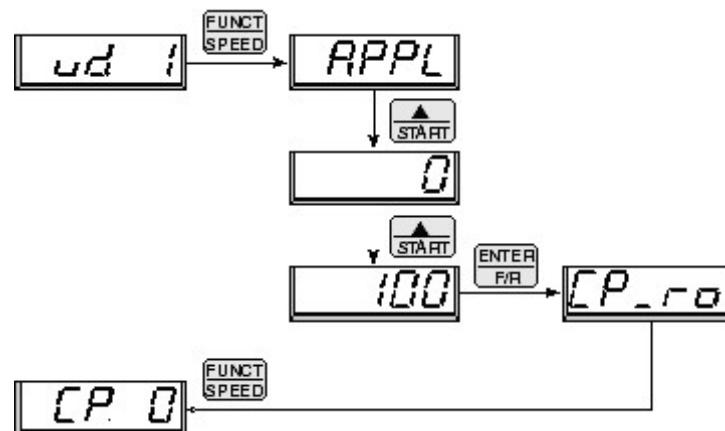


Figure 19: Changing the password level 2



With the exception of the service password all entered password levels are generally stored non-volatile!

4.3.2 Factory Setting

The following list shows the CP-parameter group predefined by us. The definition of the CP-parameters is done in the User-Definition-Parameters (ud). How you can define your own parameters is described in Chapter 6.13.

Display	Parameter	Setting range	Resolution	Factory setting	Appl. Parameter
CP. 0	Password input	0...9999	1	—	ud.1 / 0801h
CP. 1	Actual frequency display	—	0,0125 Hz	—	ru.3 / 0203h
CP. 2	Set frequency display	—	0,0125 Hz	—	ru.1 / 0201h
CP. 3	Inverter status display	—	—	—	ru.0 / 0200h
CP. 4	Apparent current	—	0,1 A	—	ru.15 / 020Fh
CP. 5	Apparent current / Peak value	—	0,1 A	—	ru.16 / 0210h
CP. 6	Utilization	—	1 %	—	ru.13 / 020Dh
CP. 7	Intermediate circuit voltage	—	1 V	—	ru.18 / 0212h
CP. 8	Intermediate circuit voltage/ Peak value	—	1 V	—	ru.19 / 0213h
CP. 9	Output voltage	—	1 V	—	ru.20 / 0214h
CP.10	Minimal frequency	0...400 Hz	0,0125 Hz	0 Hz	op.6 / 0306h
CP.11	Maximal frequency	0...400 Hz	0,0125 Hz	70 Hz	op.10 / 030Ah
CP.12	Acceleration time	0,00...300,00 s	0,01 s	5,00 s	op.28 / 031Ch
CP.13 031Eh	Deceleration time (-1 = CP.12)	-0,01; 0,00...300,00\$		0,01 s	5,00 sop.30 /
CP.14	S-curve time	0,00 (off)...5,00 s	0,01 s	0,00 s (off)	op.32 / 0320h
CP.15	Boost	0,0...25,5 %	0,1 %	2,0 %	uf.1 / 0501h
CP.16	Rated frequency	0...400 Hz	0,0125 Hz	50 Hz	uf.0 / 0500h
CP.17 ¹⁾	Voltage stabilization	1...650 V (off)	1 V	650 (off)	uf.9 / 0509h
CP.18 ¹⁾	Carrier frequency	2/4/8/12/16 kHz ²⁾	1	— ²⁾	uf.11 / 050Bh
CP.19	Fixed frequency 1	-400...400 Hz	0,0125 Hz	5 Hz	op.21 / 0315h
CP.20	Fixed frequency 2	-400...400 Hz	0,0125 Hz	50 Hz	op.22 / 0316h
CP.21	Fixed frequency 3	-400...400 Hz	0,0125 Hz	70 Hz	op.23 / 0317h
CP.22 ¹⁾	DC-braking / Mode	0...9	1	7	pn.28 / 041Ch
CP.23	DC-braking / Time	0,00...100,00 s	0,01 s	10,00 s	pn.30 / 041Eh
CP.24	Max. ramp current	0...200 %	1 %	140 %	pn.24 / 0418h
CP.25	Max. constant current	0...200 % (off)	1 %	200 % (off)	pn.20 / 0414h
CP.26 ¹⁾	Speed search condition	0...15	1	8	pn.26 / 041Ah
CP.27	Quick stop time	0,00...300,00 s	0,01 s	2,00 s	pn.60 / 043Ch
CP.28	Reaction of ext. overtemperature	0...7	1	7	pn.12 / 040Ch
CP.29 ¹⁾	Analog output 1 / Function	0...20	1	2	an.31 / 0A1Fh
CP.30	Analog output 1 / Amplification	-20,00...20,00	0,01	1,00	an.33 / 0A21h
CP.31 ¹⁾	Relay output 1 / function	0...75	1	4	do.2 / 0C02h
CP.32 ¹⁾	Relay output 2 / function	0...75	1	27	do.3 / 0C03h
CP.33 0D03h	Relay output 2 / switching level	-30000,00...30000,00		0,01	4,00 le.3/
CP.34 ¹⁾	Source of rotation direction	0...9	1	2	op.1 / 0301h
CP.35 ¹⁾	AN1 interface selection	0...2	1	0	an.0 / 0A00h
+ Enter-Parameter					
²⁾ CP.36	AN1 zero point hysteresis depending on power circuit	-10,0...10,0 %	0,1 %	0,2 %	an.4 / 0A04h

9. Error Assistance

The following chapter shall help you to avoid errors as well as help you to determine and remove the cause of errors on your own.

9.1 Troubleshooting

9.1.1 General

If error messages or malfunctions occur repeatedly during operation, the first thing to do is to pinpoint the exact error. To do that go through the following checklist:

- **Is the error reproducible ?**

For that reset the error and try to repeat it under the same conditions. If the error can be reproduced, the next step is to find out during which operating phase the error occurs.

- **Does the error occur during a certain operating phase (e.g. always during acceleration)?**

If so, consult the error messages and remove the causes listed there.

- **Does the error occur or disappear after a certain time?**

That may be an indication for thermal causes. Check, whether the inverter is used in accordance to the ambient conditions and that no moisture condensation takes place.

9.1.2 Error Messages and their Cause

At KEB COMBIVERT **error messages** are always represented with an „E.“ and the appropriate error in the display. Error messages cause the immediate deactivation of the modulation. Restart possible only after reset.

Malfunction are represented with an „A.“ and the appropriate message. Reactions to malfunctions can vary.

Status messages have no addition. The status message shows the current operating status of the inverter (e.g. forward constant run, standstill etc.).

In the following the display and their cause are described.

Display	COMBIVIS Status Messages	Value	Meaning
bbL	base block	76	Power modules for motor de-excitation locked
bon	close brake	85	Brake control, brake engaged (see chapter 6.9)
boFF	open brake	86	Brake control, brake released (see chapter 6.9)
Cdd	calculate drive	82	Measurement of the motor stator resistance
dcb	DC brake	75	Motor is decelerated by a DC-voltage at the output.
dLS	low speed / DC brake	77	Modulation is switched off after DC-braking (see chapter 6.9 „DC-Braking“).
FAcc	forward acceleration	64	Acceleration with the adjusted ramps in clockwise direction of rotation.
Fcon	forward constant	66	Acceleration / deceleration phase is completed and it is driven with constant speed / frequency in clockwise direction of rotation.
FdEc	forward deceleration	65	It is stopped with the adjusted ramp times in clockwise direction of rotation.
HCL	hardware current limit	80	The message is output if the output current reaches the hardware current limit.

Error Assistance

Display	COMBIVIS	Value	Meaning
IdAtA	invalid Data	-	The parameter address adjusted for this parameter value is invalid.
LAS	LA stop	72	This message is displayed if during acceleration the load is limited to the adjusted load level.
LdS	Ld stop	73	This message is displayed if during deceleration the load is limited to the adjusted load level or the DC-link current to the adjusted voltage level.
LS	low speed	70	No direction of rotation pre-set, modulation is off.
nO_PU	power unit not ready	13	Power circuit not ready or not identified by the control.
noP	no operation	0	Control release (terminal ST) is not switched.
PA	positioning active	122	This message is displayed during a positioning process.
PLS	low speed / power off	84	No modulation after Power-Off
PnA	position not reachable	123	The specified position cannot be reached within the pre-set ramps. The abort of the positioning can be programmed.
POFF	power off function	78	Depending on the programming of the function (see chapter 6.9 „Power-off Function“) the inverter restarts automatically upon system recovery or after a reset.
POSI	positioning	83	Positioning function active (F5-G).
rAcc	reverse acceleration	67	Acceleration with the adjusted ramp times in anti-clockwise direction of rotation.
rcon	reverse constant	69	The acceleration / deceleration phase is completed and it is driven with constant speed / frequency in anti-clockwise direction of rotation.
rdEc	reverse deceleration	68	It is stopped with the adjusted ramp times in anti-clockwise direction of rotation.
rFP	ready for positioning	121	The drive signals that it is ready to start the positioning process.
SLL	stall	71	This message is displayed if during constant operation the load is limited to the adjusted current limit.
SrA	search for ref. active	81	Search for reference point approach active.
SSF	speed search	74	Speed search function active, that means that the inverter attempts to synchronize onto a running down motor.
StOP	quick stop	79	The message is output if as response to a warning signal the quick-stop function becomes active.
Error Messages			
E. br	ERROR brake	56	Error: This error can occur in the case of switched on brake control (see Chapter 6.9.5), if <ul style="list-style-type: none"> • the load is below the minimum load level (Pn.43) at start up or the absence of an engine phase was detected. • the load is too high and the hardware current limit is reached
E.bus	ERROR bus	18	Error: Adjusted monitoring time (Watchdog) of communication between operator and PC / operator and inverter has been exceeded.
E.Cdd	ERROR calc. drive data	60	Error: During the automatic motor stator resistance measurement.
E.co1	ERROR counter overrun 1	54	Counter overflow encoder channel 1

Display	COMBIVIS	Value	Meaning
E.co2	ERROR counter overrun 2	55	Counter overflow encoder channel 2
E.dOH	ERROR drive overheat	9	Error: Overtemperature of motor PTC. Error can only be reset at E.ndOH, if PTC is again low-resistance. Causes: <ul style="list-style-type: none">• resistance at the terminals T1/T2 >1650 Ohm• motor overloaded• line breakage to the temperature sensor
E.dri	ERROR driver relay	51	Error: Driver relay. Relay for driver voltage on power circuit has not picked up even though control release was given.
E.EEP	ERROR EEPROM defective t	21	After reset the operation is again possible (without storage in the EEPROM)
E.EF	ERROR external fault	31	Error: External error. Is triggered, if a digital input is being programmed as external error input and trips.
E.EnC1	Error! Encoder 1	32	Cable breakage of encoder at encoder interface 1 Encoder temperature is too high Speed is too high Encoder signals are out of specification Encoder has an internal error
E.EnC2	Error! Encoder 2	34	Cable breakage of encoder at encoder interface 2 Encoder temperature is too high Speed is too high Encoder signals are out of specification Encoder has an internal error
E.EnCC	Error! Encoder change	35	Operation of a synchronous motor with intelligent interface: <ul style="list-style-type: none">• Encoder is not connected during the start• Encoder was changed The error can be reset by writing on ec.0.
E.Hyb	ERROR hybrid	52	Invalid encoder interface identifier
E.HybC	ERROR hybrid changed	59	Error: Encoder interface identifier has changed, it must be confirmed over ec.0 or ec.10.
E.iEd	ERROR input error detect	53	Error at PNP/NPN switching or input failure.
E.InI	ERROR initialisation MFC	57	MFC not booted.
E.LSF	ERROR load shunt fault	15	Error: Load-shunt relay has not picked up, occurs for a short time during the switch-on phase, but must automatically be reset immediately. If the error message remains the following causes may be applicable: <ul style="list-style-type: none">• load-shunt defective• input voltage wrong or too low• high losses in the supply cable• braking resistor wrongly connected or damaged• braking module defective
E.ndOH	no ERROR drive overheat	11	Motor temperature switch or PTC at the terminals T1/T2 is again in the normal operating range. The error can be reset now.
E.nOH	no E. over heat pow.mod.	36	Temperature of the heat sink is again in the permissible operating range. The error can be reset now.
E.nOHI	no ERROR overheat int.	7	No longer overheating in the interior E.OHI, interior temperature has fallen by at least 3°C

Error Assistance

Display	COMBIVIS	Value	Meaning
E.nOL	no ERROR overload	17	No more overload, OL-counter has reached 0%; after the error E. OL a cooling phase must elapse. This message appears upon completion of the cooling phase. The error can be reset. The inverter must remain switched on during the cooling phase.
E.nOL2	no ERROR overload 2	20	The cooling time has elapsed. The error can be reset.
E. OC	ERROR overcurrent	4	Error: Overcurrent Occurs, if the specified peak current is exceeded. Causes: <ul style="list-style-type: none">• acceleration ramps too short• the load is too big at turned off acceleration stop and turned off constant current limit• short-circuit at the output• ground fault• deceleration ramp too short• motor cable too long• EMC• DC brake at high ratings active (see 6.9.3)
E. OH	ERROR overheat pow.mod.	8	Error: Overtemperature of power module. Error can only be reset at E.nOH. Causes: <ul style="list-style-type: none">• insufficient air flow at the heat sink (soiled)• ambient temperature too high• ventilator clogged
E.OH2	ERROR motor protection	30	Electronic motor protective relay has tripped.
E.OHI	ERROR overheat internal	6	Error: Overheating in the interior: error can only be reset at E.nOHI, if the interior temperature has dropped by at least 3°C
E. OL	ERROR overload (Ixt)	16	Error: Overload error can only be reset at E.nOL, if OL-counter reaches 0% again. Occurs, if an excessive load is applied longer than for the permissible time (see technical data). Causes: <ul style="list-style-type: none">• poor control adjustment (overshooting)• mechanical fault or overload in the application• inverter not correctly dimensioned• motor wrongly wired• encoder damaged
E.OL2	ERROR overload 2	19	Occurs if the standstill constant current is exceeded (see technical data and overload characteristics). The error can only be reset if the cooling time has elapsed and E.nOL2 is displayed.
E. OP	Error! Overvoltage	1	Voltage in the DC-link circuit too high. Occurs if the DC-link circuit voltage exceeds the permissible value. Causes: <ul style="list-style-type: none">• poor controller adjustment (overshooting)• input voltage too high• interference voltages at the input• deceleration ramp too short• braking resistor defective or too small
E.OS	ERROR over speed	58	Real speed is bigger than the max. Output speed.
E.PFC	ERROR Power factor control	33	Error in the power factor control
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Display	COMBIVIS	Value	Meaning
E.PrF	ERROR prot. rot. for.	46	The drive has driven onto the right limit switch. Programmed response "Error, restart after reset" (see chapter 6.7 "Response to errors or warning messages").
E.Prr	ERROR prot. rot. rev.	47	The drive has driven onto the left limit switch. Programmed response "Error, restart after reset" (see chapter 6.7 "Response to errors or warning messages").
E.Pu	ERROR power unit	12	Error: General power circuit fault
E.Puci	ERROR pow. unit code inv.	49	Error: During the initialization the power circuit could not be recognized or was identified as invalid.
E.Puch	ERROR power unit changed	50	Error: Power circuit identification was changed; with a valid power circuit this error can be reset by writing to SY.3. If the value displayed in SY.3 is written, only the power-circuit dependent parameters are reinitialized. If any other value is written, then the default set is loaded. On some systems after writing Sy.3 a Power-On-Reset is necessary.
E.PUCO	ERROR power unit commun.	22	Error: Parameter value could not be written to the power circuit. Acknowledgement from PC <> OK
E.PUIN	ERROR power unit invalid	14	Error: Software version for power circuit and control card are different. Error cannot be reset (only at F5-G B-housing)
E.Sbus	ERROR bus synchron	23	Synchronization over sercos-bus not possible. Programmed response "Error, restart after reset" (see chapter 6.7 "Response to errors or warning messages").
E.SEt	ERROR set	39	It has been attempted to select a locked parameter set. Programmed response "Error, restart after reset" (see chapter 6.7 "Response to errors or warning messages").
E.SLF	ERROR! Software limit switch forward	44	The target position lies outside of the limit defined with the right software limit switch. Programmed response "Error, restart after reset" (see chapter 6.7 "Response to errors or warning messages").
E.SLr	ERROR software limit switch reverse	45	The target position lies outside of the limit defined with the left software limit switch. Programmed response "Error, restart after reset" (see chapter 6.7 "Response to errors or warning messages").
E.UP	ERROR underpotential	2	Error: Undervoltage (DC-link circuit). Occurs, if DC-link voltage falls below the permissible value. Causes: <ul style="list-style-type: none"> • input voltage too low or instable • inverter rating too small • voltage losses through wrong cabling • the supply voltage through generator / transformer breaks down at very short ramps • At F5-G housing B E.UP is also displayed if no communication takes place between power circuit and control card. • Jump factor (Pn.56) too small (see 6.9.20) • if a digital input was programmed as external error input with error message E.UP (Pn.65).
E.UPh	ERROR Phase failure	3	One phase of the input voltage is missing (ripple-detection)
	Warning Messages		

Error Assistance

Display	COMBIVIS	Value	Meaning
A.buS	ABN.STOP bus	93	Warning: Watchdog for communication between operator/control card or operator/PC has responded. The response to this warning can be programmed (see chapter 6.7 "Response to errors and warning messages").
A.dOH	ABN.STOP drive over heat	96	The motor temperature has exceeded an adjustable warning level. The switch off time is started. The response to this warning can be programmed (see chapter 6.7 "Response to errors or warning messages"). This warning can be generated only with a special power circuit.
A.EF	ABN.STOP external fault	90	This warning is triggered via an external input. The response to this warning can be programmed (see chapter 6.7 "Response to errors or warning messages").
A.ndOH	no A. drive overheat	91	The motor temperature is again below the adjusted warning level. The switch off time is stopped.
A.nOH	no A. overheat pow.mod.	88	The heat sink temperature is again below the adjusted warning level.
A.nOHI	no A.STOP overheat int.	92	The temperature in the interior of the inverter is again below the warning threshold.
A.nOL	no ABN.STOP overload	98	Warning: no more overload, OL counter has reached 0 %.
A.nOL2	no ABN.STOP overload 2	101	The cooling time after "Warning! Overload during standstill" has elapsed. The warning message can be reset.
A.OH	A.STOP overheat pow.mod	89	A level can be defined, when it is exceeded this warning is output. A response to this warning can be programmed (see chapter 6.7 "Response to errors or warning messages").
A.OH2	ABN.STOP motor protect.	97	Warning: electronic motor protective relay has tripped. The response to this warning can be programmed (see chapter 6.7 "Response to error or warning messages").
A.OHI	ABN.STOP overheat int.	87	The temperature in the interior of the inverter lies above the permissible level. The switch off time was started. The programmed response to this warning message is executed (see chapter 6.7 "Response to errors or warning messages").
A.OL	ABN.STOP overload	99	A level between 0 and 100 % of the load counter can be adjusted, when it is exceeded this warning is output. The response to this warning can be programmed (see chapter 6.7 "Response to errors or warning messages").
A.OL2	ABN.STOP overload 2	100	The warning is output when the standstill continuous current is exceeded (see technical data and overload characteristics). The response to this warning can be programmed (see chapter 6.7 "Response to errors and warning messages"). The warning message can only be reset after the cooling time has elapsed and A.nOL2 is displayed.
A.PrF	ABN.STOP prot. rot. for.	94	The drive is driven onto the right limit switch. The response to this warning can be programmed (see chapter 6.7 "Response to errors and warning messages").
A.Prr	ABN.STOP prot. rot. rev.	95	The drive is driven onto the left limit switch. The response to this warning can be programmed (see chapter 6.7 "Response to errors and warning messages").
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Display	COMBIVIS	Value	Meaning
A.Sbus	ABN.Bus synchron	103	Synchronization over sercos-bus not possible. The response to this warning can be programmed (see chapter 6.7 "Response to errors and warning messages").
A.SEt	ABN.STOP set	102	Warning: set selection: It has been attempted to select a locked parameter set. The response to this warning can be programmed (see chapter 6.7 "Response to errors or warning messages").
A.SLF	ABN.Software limit switch forward	104	The target position lies outside of the limit defined with the right software limit switch. The response to this warning can be programmed (see chapter 6.7 "Response to errors or warning messages").
A.SLr	ABN.Software limit switch reverse	105	The target position lies outside of the limit defined with the left software limit switch. The response to this warning can be programmed (see chapter 6.7 "Response to errors or warning messages").

11. Parameter Overview

11.1 Parameter Groups

The frequency inverters KEB COMBIVERT F5-A / E / H include 19 fixed and one free definable parameter group. In the fixed parameter groups the parameters are combined function-related.

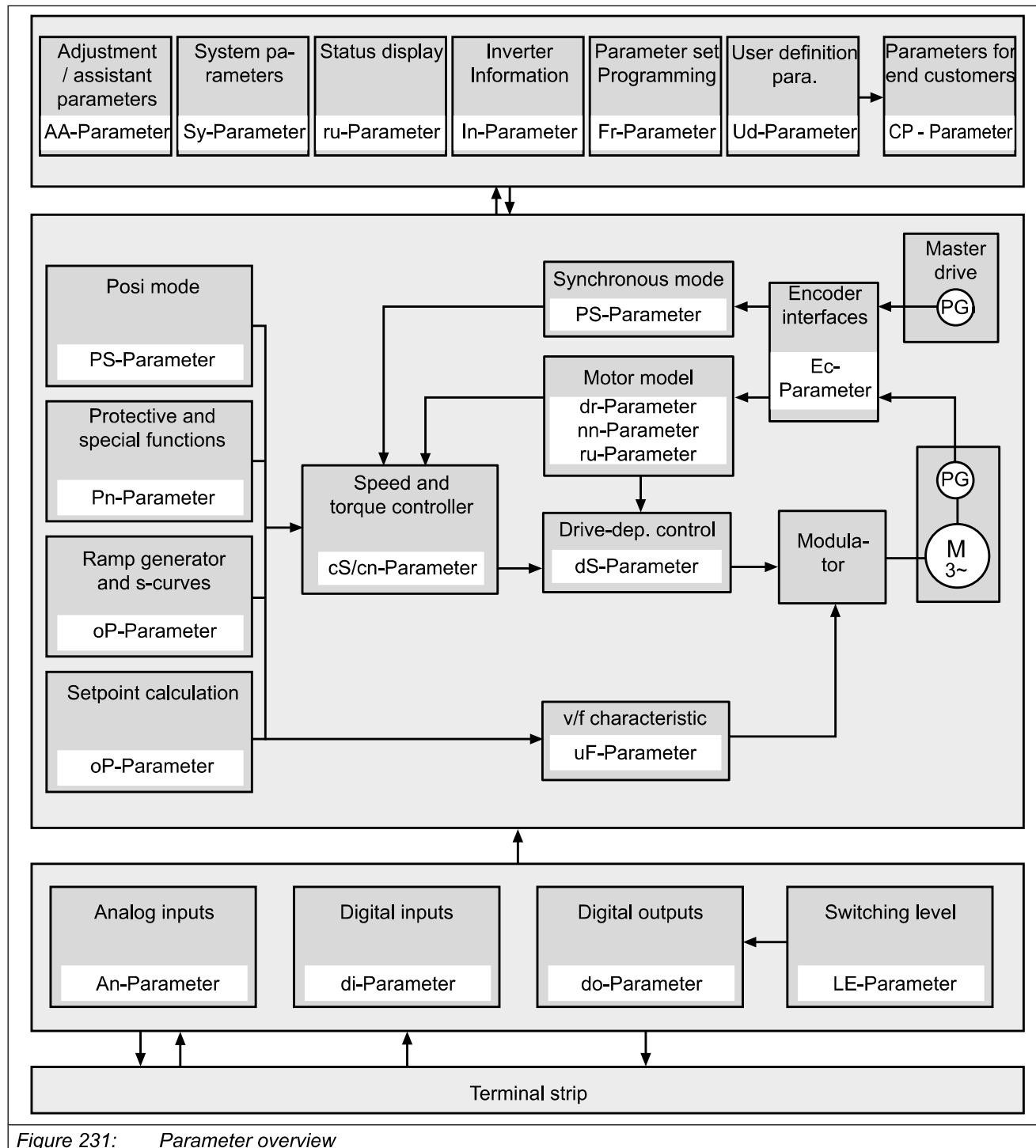


Figure 231: Parameter overview

11.2 Characteristics of the F5-S in A housing

11.2.1 The following parameters are not available at A-Servo:

ru.29, ru.30, ru.31, ru.32, ru.35, ru.36
An.10...An.29, An.36...An.52
di.19...di.21, di.32...di.34
do.28, do.36
LE.31...LE.33
cS.36, cS.38, cS.41, cS.43...cS.45
Ec.53...Ec.55

11.2.2 The following parameters are available at A-Servo:

Ec.08, Ec.09
Ud.01, Ud.05, Ud.07

11.3 Parameter list F5-A, E and H

Legend

- Parameter:** Parameter group, number and name (ordered by parameter group and number)
- Addr.:** Parameter address in hex
- R:** Password level appl => application, ro => read only
- P:** p => set-programmable; np => not set-programmable
- E:** E => Enter-Parameter
- Lower limit:** Min. value (normalized); the non-normalized value results on division by the step range
- Upper limit:** Max. value (normalized); the non-normalized value results on division by the step range
- Step:** Step size, resolution
- Default:** Default value (normalized); the non-normalized value results on division by the step range
LTK => the default value is dependent on the power circuit identification
- Unit:** Unit
- Reference:** further information to this parameter on stated page

Parameter	Addr.	R	P	E	Lower limit	Upper limit	Default	Step	Unit
AA.16 speed diff. filter	1210h	appl	np	---	0: off	1: on	0: off	1	---
AA.59 mode isd_ref	123Bh	appl	np	---	0	2	0	1	---
AA.60 PT1-Tau isd_ref	123Ch	appl	np	---	0	65535	1024	1	---
AA.61 appc.act.torquePT1-Time	123Dh	appl	np	---	0	10	3	1	---
AA.62 sel. int. data addr.	123Eh	appl	np	---	0	41	0	1	---
AA.63 int. data address	123Fh	RO	np	---	0	0FFFFh	0	1	hex
AA.64 act. value PT1-time	1240h	appl	np	---	0	16	0	1	---
AA.65 act. value filter level	1241h	appl	np	---	0	200.000	0.500	0.125	rpm
An.00 AN1 interface selection	0A00h	appl	np	E	0	2	0	1	---
An.01 AN1 noise filter	0A01h	appl	np	E	0	4	0	1	---
An.02 AN1 save mode	0A02h	appl	np	E	0	3	0	1	---
An.03 AN1 save trig. inp. sel.	0A03h	appl	np	E	0	4095	0	1	---
An.04 AN1 zero clamp	0A04h	appl	np	---	-10.0	10.0	0.2	0.1	%
An.05 AN1 gain	0A05h	appl	p	---	-20.00	20.00	1.00	0.01	---
An.06 AN1 offset X	0A06h	appl	p	---	-100.0	100.0	0.0	0.1	%
An.07 AN1 offset Y	0A07h	appl	p	---	-100.0	100.0	0.0	0.1	%
An.08 AN1 lower limit	0A08h	appl	p	---	-400.0	400.0	-400.0	0.1	%
An.09 AN1 upper limit	0A09h	appl	p	---	-400.0	400.0	400.0	0.1	%
An.10 AN2 interface selection	0A0Ah	appl	np	E	0	2	0	1	---
An.11 AN2 noise filter	0A0Bh	appl	np	E	0	4	0	1	---
An.12 AN2 save mode	0A0Ch	appl	np	E	0	3	0	1	---
An.13 AN2 save trig. inp. sel.	0A0Dh	appl	np	E	0	4095	0	1	---
An.14 AN2 zero clamp	0A0Eh	appl	np	---	-10.0	10.0	0.2	0.1	%
An.15 AN2 gain	0A0Fh	appl	p	---	-20.00	20.00	1.00	0.01	---
An.16 AN2 offset X	0A10h	appl	p	---	-100.0	100.0	0.0	0.1	%
An.17 AN2 offset Y	0A11h	appl	p	---	-100.0	100.0	0.0	0.1	%
An.18 AN2 lower limit	0A12h	appl	p	---	-400.0	400.0	0.0	0.1	%
An.19 AN2 upper limit	0A13h	appl	p	---	-400.0	400.0	400.0	0.1	%
An.20 AN3 interface selection	0A14h	appl	np	E	0	1	0	1	---
An.21 AN3 noise filter	0A15h	appl	np	E	0	4	0	1	---
An.22 AN3 save mode	0A16h	appl	np	E	0	3	0	1	---
An.23 AN3 save trig. inp. sel.	0A17h	appl	np	E	0	4095	0	1	---
An.24 AN3 zero clamp	0A18h	appl	np	---	-10.0	10.0	0.0	0.1	%
An.25 AN3 gain	0A19h	appl	p	---	-20.00	20.00	1.00	0.01	---
An.26 AN3 offset X	0A1Ah	appl	p	---	-100.0	100.0	0.0	0.1	%
An.27 AN3 offset Y	0A1Bh	appl	p	---	-100.0	100.0	0.0	0.1	%
An.28 AN3 lower limit	0A1Ch	appl	p	---	-400.0	400.0	-400.0	0.1	%
An.29 AN3 upper limit	0A1Dh	appl	p	---	-400.0	400.0	400.0	0.1	%
An.30 sel. REF inp./AUX-funct.	0A1Eh	appl	p	E	0	24575	2112	1	---
An.31 ANOUT1 function	0A1Fh	appl	p	E	0	30	2	1	---
An.32 ANOUT1 value	0A20h	appl	p	---	-100.0	100.0	0.0	0.1	%
An.33 ANOUT1 gain	0A21h	appl	p	---	-20.00	20.00	1.00	0.01	---
An.34 ANOUT1 offset X	0A22h	appl	p	---	-100.0	100.0	0.0	0.1	%
An.35 ANOUT1 offset Y	0A23h	appl	p	---	-100.0	100.0	0.0	0.1	%
An.36 ANOUT2 function	0A24h	appl	p	E	0	30	6	1	---
An.37 ANOUT2 value	0A25h	appl	p	---	-100.0	100.0	0.0	0.1	%
An.38 ANOUT2 gain	0A26h	appl	p	---	-20.00	20.00	1.00	0.01	---
An.39 ANOUT2 offset X	0A27h	appl	p	---	-100.0	100.0	0.0	0.1	%
An.40 ANOUT2 offset Y	0A28h	appl	p	---	-100.0	100.0	0.0	0.1	%
An.41 ANOUT3 function	0A29h	appl	np	E	0	30	12	1	---
An.42 ANOUT3 value	0A2Ah	appl	np	---	-100.0	100.0	0.0	0.1	%

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Parameter Overview

Parameter	Addr.	R	P	E	Lower limit	Upper limit	Default	Step	Unit
An.43 ANOUT3 gain	0A2Bh	appl	np	---	-20.00	20.00	1.00	0.01	---
An.44 ANOUT3 offset X	0A2Ch	appl	np	---	-100.0	100.0	0.0	0.1	%
An.45 ANOUT3 offset Y	0A2Dh	appl	np	---	-100.0	100.0	0.0	0.1	%
An.46 ANOUT3 period	0A2Eh	appl	np	E	1	240	1	1	s
An.47 ANOUT4 function	0A2Fh	appl	np	E	0	30	12	1	---
An.48 ANOUT4 value	0A30h	appl	np	---	-100.0	100.0	0.0	0.1	%
An.49 ANOUT4 gain	0A31h	appl	np	---	-20.00	20.00	1.00	0.01	---
An.50 ANOUT4 offset X	0A32h	appl	np	---	-100.0	100.0	0.0	0.1	%
An.51 ANOUT4 offset Y	0A33h	appl	np	---	-100.0	100.0	0.0	0.1	%
An.52 ANOUT4 period	0A34h	appl	np	E	1	240	1	1	s
An.53 an. para setting source	0A35h	appl	np	E	0	5	0	1	---
An.54 an. para setting dest.	0A36h	appl	np	E	-1: off	7FFFH	-1: off	1	hex
An.55 an. para setting offset	0A37h	appl	np	---	-2^31	2^31-1	0	1	---
An.56 an. para set. max. value	0A38h	appl	np	---	-2^31	2^31-1	0	1	---
An.57 an. para set. set pointer	0A39h	appl	np	E	-1: act set	7	0	1	---
cn.00 PID reference source	0700h	appl	p	---	0	4	0	1	---
cn.01 PID abs. reference	0701h	appl	p	---	-400.0	400.0	0.0	0.1	%
cn.02 PID act. value src.	0702h	appl	p	---	0	7	0	1	---
cn.03 PID abs. actual value	0703h	appl	np	---	-400.0	400.0	0.0	0.1	%
cn.04 PID kp	0704h	appl	p	---	0.00	250.00	0.00	0.01	---
cn.05 PID ki	0705h	appl	p	---	0.000	30.000	0.000	0.001	---
cn.06 PID kd	0706h	appl	p	---	0.00	250.00	0.00	0.01	---
cn.07 PID pos. limit	0707h	appl	p	---	-400.0	400.0	400.0	0.1	%
cn.08 PID neg. limit	0708h	appl	p	---	-400.0	400.0	-400.0	0.1	%
cn.09 PID fading time	0709h	appl	p	---	-0.01: freq	300.00	0.00	0.01	s
cn.10 PID reset condition	070Ah	appl	p	---	0	4	0	1	---
cn.11 PID reset inp. sel.	070Bh	appl	np	E	0	4095	0	1	---
cn.12 I reset inp. sel.	070Ch	appl	np	E	0	4095	0	1	---
cn.13 fade in reset inp. sel.	070Dh	appl	np	E	0	4095	0	1	---
cn.14 PID out freq at 100%	070Eh	appl	p	E	-400,0000	400,0000	0.0000	0.0125	Hz
cS.00 speed control config	0F00h	appl	p	E	4	6	4	1	---
cS.00 speed control (General, Multi)	0F00h	appl	p	E	0	127	0	1	---
cS.01 act. source (Multi)	0F01h	appl	p	E	0	6	0	1	---
cS.01 act. source (Servo)	0F01h	appl	p	E	0	5	0	1	---
cS.01 act. source (General)	0F01h	appl	p	E	0	6	2	1	---
cS.03 slipcomp.regen.gain (vvc)	0F03h	appl	p	---	0.50	2.50	1.00	0.01	---
cS.04 speed ctrl. limit (vvc)	0F04h	appl	p	---	n * 0	n * 4000	n * 750	n * 0.125	rpm
cS.05 speed kp/ki mode	0F05h	appl	p	E	0	3	0	1	---
cS.06 KP speed	0F06h	appl	p	---	0	32767	300	1	---
cS.07 KP speed.gain/pk.gain%	0F07h	appl	p	---	0	32767	0	1	---
cS.08 KP speed limit/hi gain%	0F08h	appl	p	---	0	32767	0	1	---
cS.09 KI speed	0F09h	appl	p	---	0	32767	100	1	---
cS.10 KI offset	0F0Ah	appl	p	---	0	32767	0	1	---
cS.11 max speed for max KI	0F0Bh	appl	p	---	-1 ; -0,125	16000 ; 2000	10 ; 1.25	1 ; 0.125	rpm
cS.12 min. speed for cS.09	0F0Ch	appl	P	---	0	16000 ; 2000	500 ; 62.5	1 ; 0.125	rpm
cS.13 max. speed for q.f.	0F0Dh	appl	p	---	0	32000	32000	1	rpm
cS.14 speed for quad. function	0F0Eh	appl	p	---	0	32000	500	1	rpm
cS.15 torque reference source	0F0Fh	appl	p	E	0	6	2	1	---
cS.16 torque acc. time	0F10h	appl	p	---	0: off	60000	0: off	1	ms
cS.18 torque ref. setting %	0F12h	appl	p	---	-100.0	100.0	100.0	0.1	%
cS.19 abs. torque ref	0F13h	appl	p	---	-32000.00	32000.00	LTK	0.01	Nm
cS.20 torque limit for. mot.	0F14h	appl	p	---	-0.01: off	32000.00	-0.01: off	0.01	Nm
cS.21 torque limit rev. mot.	0F15h	appl	p	---	-0.01: off	32000.00	-0.01: off	0.01	Nm
cS.22 torque limit for. gen.	0F16h	appl	p	---	-0.01: off	32000.00	-0.01: off	0.01	Nm
cS.23 torque limit rev. gen.	0F17h	appl	p	---	-0.01: off	32000.00	-0.01: off	0.01	Nm
cS.24 Standstill position control	0F18h	appl	p	---	0	32767	0	1	---
cS.25 Inertia (kg*cm^2)	0F19h	appl	p	---	0.00	10737418.23	0.00	0.01	---
cS.26 optimisation	0F1Ah	appl	p	E	1.9: off	15.0	1.9: off	0.1	---
cS.27 pretorq. speed PT1-time	0F1Bh	appl	p	---	0	9	3	1	---
cS.28 pretorq. speed fac. %	0F1Ch	appl	p	---	0.0	200.0	0.0	0.1	%
cS.29 act. curr. ref. PT1-time	0F1Dh	appl	P	---	0	9	0	1	---
cS.30 speed ref. PT1-time	0F1Eh	appl	np	---	0	16383.75	0	0.25	ms
cS.31 spline torque control PT1-time	0F1Fh	appl	np	---	0	65535	0	1	ms
cS.32 spline speed ref. PT1	0F20h	appl	np	---	0	65535	0	0.25	ms
cS.33 ref. torque selector	0F21h	appl	np	---	0	127	0	1	---
cS.34 ref. torque isq tab	0F22h	appl	np	---	-32000	32000	0	1	---
cS.35 ref. torque isd tab	0F23h	appl	np	---	-32000	32000	0	1	---

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Parameter	Addr.	R	P	E	Lower limit	Upper limit	Default	Step	Unit
di.00 PNP / NPN selection	0B00h	appl	np	E	0: PNP	SHR	0: PNP	1	---
di.01 select signal source	0B01h	appl	np	E	0	4095	0	1	---
di.02 digital input setting	0B02h	appl	np	E	0	4095	0	1	---
di.03 digital noise filter	0B03h	appl	np	E	0	127	0	1	ms
di.04 input logic	0B04h	appl	np	E	0	4095	0	1	---
di.05 Input trigger	0B05h	appl	np	E	0	4095	0	1	---
di.06 select strobe source	0B06h	appl	np	E	0	4095	0	1	---
di.07 strobe mode	0B07h	appl	np	E	0	2	0	1	---
di.08 input strobe dependence	0B08h	appl	np	E	0	4095	0	1	---
di.09 reset input selection	0B09h	appl	np	E	0	4095	3	1	---
di.10 neg slope f. reset inputs	0B0Ah	appl	np	E	0	4095	3	1	---
di.11 I1 functions	0B0Bh	appl	np	E	-2^31	2^31-1	1	1	hex
di.12 I2 functions	0B0Ch	appl	np	E	-2^31	2^31-1	1	1	hex
di.22 ST functions	0B16h	appl	np	E	-2^31	2^31-1	128	1	hex
di.23 fast dig. noise filter	0B17h	appl	np	E	0.00	31.75	0.00	0.25	ms
di.24 I1+ Function	0B18h	appl	np	E	0	21	0	1	---
di.25 I2+ Function	0B19h	appl	np	E	0	21	0	1	---
di.26 I3+ Function	0B1Ah	appl	np	E	0	21	0	1	---
di.27 I4+ Function	0B1Bh	appl	np	E	0	21	0	1	---
di.28 IA prog. function	0B1Ch	appl	np	E	0	21	0	1	---
di.29 IB prog. function	0B1Dh	appl	np	E	0	21	0	1	---
di.30 IC prog. function	0B1Eh	appl	np	E	0	21	0	1	---
di.31 ID prog. function	0B1Fh	appl	np	E	0	21	0	1	---
di.34 RST prog. function	0B22h	appl	np	E	0	21	0	1	---
di.35 ST prog. function	0B23h	appl	np	E	0	21	0	1	---
di.36 software ST input sel.	0B24h	appl	np	E	0	4095	0	1	---
di.37 ST lock input selection	0B25h	appl	np	E	0	4095	0	1	---
di.38 turn off ST delay time	0B26h	appl	np	---	0	10.0	0	0.1	s
di.39 disable dig. ST inp.sel.	0B27h	appl	np	E	0	4095	0	1	---
di.40 I1 activation delay	0B28h	appl	np	-	0	32.00	0	0.01	s
di.41 I1 deactivation delay	0B29h	appl	np	-	0	32.00	0	0.01	s
di.42 I2 activation delay	0B2Ah	appl	np	-	0	32.00	0	0.01	s
di.43 I2 deactivation delay	0B2Bh	appl	np	-	0	32.00	0	0.01	s
di.44 I3 activation delay	0B2Ch	appl	np	-	0	32.00	0	0.01	s
di.45 I3 deactivation delay	0B2Dh	appl	np	-	0	32.00	0	0.01	s
di.46 I4 activation delay	0B2Eh	appl	np	-	0	32.00	0	0.01	s
di.47 I4 deactivation delay	0B2Fh	appl	np	-	0	32.00	0	0.01	s
di.48 IA activation delay	0B30h	appl	np	-	0	32.00	0	0.01	s
di.49 IA deactivation delay	0B31h	appl	np	-	0	32.00	0	0.01	s
di.50 IB activation delay	0B32h	appl	np	-	0	32.00	0	0.01	s
di.51 IB deactivation delay	0B33h	appl	np	-	0	32.00	0	0.01	s
di.52 IC activation delay	0B34h	appl	np	-	0	32.00	0	0.01	s
di.53 IC deactivation delay	0B35h	appl	np	-	0	32.00	0	0.01	s
di.54 ID activation delay	0B36h	appl	np	-	0	32.00	0	0.01	s
di.55 ID deactivation delay	0B37h	appl	np	-	0	32.00	0	0.01	s
do.00 condition 0	0C00h	appl	p	E	0	112	20	1	---
do.01 condition 1	0C01h	appl	p	E	0	112	3	1	---
do.02 condition 2	0C02h	appl	p	E	0	112	4	1	---
do.03 condition 3	0C03h	appl	p	E	0	112	2	1	---
do.04 condition 4	0C04h	appl	p	E	0	112	0	1	---
do.05 condition 5	0C05h	appl	p	E	0	112	0	1	---
do.06 condition 6	0C06h	appl	p	E	0	112	0	1	---
do.07 condition 7	0C07h	appl	p	E	0	112	0	1	---
do.08 inv. cond. for flag 0	0C08h	appl	p	E	0	255	0	1	---
do.09 inv. cond. for flag 1	0C09h	appl	p	E	0	255	0	1	---
do.10 inv. cond. for flag 2	0C0Ah	appl	p	E	0	255	0	1	---
do.11 inv. cond. for flag 3	0C0Bh	appl	p	E	0	255	0	1	---
do.12 inv. cond. for flag 4	0C0Ch	appl	p	E	0	255	0	1	---
do.13 inv. cond. for flag 5	0C0Dh	appl	p	E	0	255	0	1	---
do.14 inv. cond. for flag 6	0C0Eh	appl	p	E	0	255	0	1	---
do.15 inv. cond. for flag 7	0C0Fh	appl	p	E	0	255	0	1	---
do.16 cond. select. for flag 0	0C10h	appl	p	E	0	255	1	1	---
do.17 cond. select. for flag 1	0C11h	appl	p	E	0	255	2	1	---
do.18 cond. select. for flag 2	0C12h	appl	p	E	0	255	4	1	---
do.19 cond. select. for flag 3	0C13h	appl	p	E	0	255	8	1	---
do.20 cond. select. for flag 4	0C14h	appl	p	E	0	255	16	1	---
do.21 cond. select. for flag 5	0C15h	appl	p	E	0	255	32	1	---
do.22 cond. select. for flag 6	0C16h	appl	p	E	0	255	64	1	---
do.23 cond. select. for flag 7	0C17h	appl	p	E	0	255	128	1	---
do.24 AND/OR conn. for flags	0C18h	appl	p	E	0	255	0	1	---
do.25 inv. flags for O1	0C19h	appl	p	E	0	255	0	1	---
do.26 inv. flags for O2	0C1Ah	appl	p	E	0	255	0	1	---
do.27 inv. flags for R1	0C1Bh	appl	p	E	0	255	0	1	---
do.28 inv. flags for R2	0C1Ch	appl	p	E	0	255	0	1	---

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Parameter Overview

Parameter		Addr.	R	P	E	Lower limit	Upper limit	Default	Step	Unit
do.29	inv. flags for OA	0C1Dh	appl	p	E	0	255	0	1	---
do.30	inv. flags for OB	0C1Eh	appl	p	E	0	255	0	1	---
do.31	inv. flags for OC	0C1Fh	appl	p	E	0	255	0	1	---
do.32	inv. flags for OD	0C20h	appl	p	E	0	255	0	1	---
do.33	flag select. for O1	0C21h	appl	p	E	0	255	1	1	---
do.34	flag select. for O2	0C22h	appl	p	E	0	255	2	1	---
do.35	flag select. for R1	0C23h	appl	p	E	0	255	4	1	---
do.36	flag select. for R2	0C24h	appl	p	E	0	255	8	1	---
do.37	flag select. for OA	0C25h	appl	p	E	0	255	16	1	---
do.38	flag select. for OB	0C26h	appl	p	E	0	255	32	1	---
do.39	flag select. for OC	0C27h	appl	p	E	0	255	64	1	---
do.40	flag select. for OD	0C28h	appl	p	E	0	255	128	1	---
do.41	AND conn. for outputs	0C29h	appl	p	E	0	255	0	1	---
do.42	inverted outputs	0C2Ah	appl	p	---	0	255	0	1	---
do.43	cond. 0 filter time	0C2Bh	appl	p	---	0	1000	0	1	ms
do.44	cond. 1 filter time	0C2Ch	appl	P	---	0	1000	0	1	ms
do.51	hardw. output allocation	0C33h	appl	p	E	0	255	228	1	---
do.52	selection relay for STO-OUT	0C34h		np	---	0	3	0	1	---
dr.00	DASM rated current	0600h	appl	p	---	0.0	1100.0	LTK	0.1	A
dr.01	DASM rated speed	0601h	appl	p	---	0	64000; 8000	LTK	1; 0.125	rpm
dr.02	DASM rated voltage	0602h	appl	p	---	120	830	LTK	1	V
dr.03	DASM rated power	0603h	appl	p	---	0.10	1000.00	LTK	0.01	kW
dr.04	DASM rated cos (phi)	0604h	appl	p	---	0.50	1.00	LTK	0.01	---
dr.05	DASM rated frequency	0605h	appl	p	---	0.0	1600.0	LTK	0.1	Hz
dr.06	DASM stator resistance	0606h	appl	p	E	0.000	250.000	LTK	0.001	Ohm
dr.07	DASM sigma-inductance	0607h	appl	p	---	0.01	655.35	LTK	0.01	mH
dr.08	DASM rotor resistance	0608h	appl	p	---	0.000	250.000	LTK	0.001	Ohm
dr.09	breakdown factor	0609h	appl	p	---	0.5	4.0	2.5	0.1	---
dr.10	DASM head-inductance	060Ah	appl	p	---	0.1	3276.7	LTK	0.1	mH
dr.11	motorprotection mode	060Bh	appl	p	---	0	1	1	1	---
dr.12	motorprot. rated current	060Ch	appl	p	---	0.0	1100.0	LTK	0.1	A
dr.13	DASM mag. current	060Dh	appl	p	---	0.0	1100.0	0.0	0.1	A
dr.14	DASM rated torque	060Eh	RO	p	---	0.01	32000.00	0.01 Motdat	0.01	Nm
dr.15	max. torque FU	060Fh	ro	p	---	0.01	32000.00	0.01 Motdat	0.01	Nm
dr.16	DASM Mmax corn. sp	0610h	appl	p	---	0.01	32000.00	0.01 Adpt	0.01	Nm
dr.17	DASM speed for max. torque	0611h	appl	p	---	1 ; 0.125	64000 ; 8000	900 ; 112.5 Adpt	1 ; 0.125	rpm
dr.18	DASM field weak. speed	0612h	appl	p	---	0	64000 ; 8000	0 Adpt	1 ; 0.125	rpm
dr.19	flux adaption factor	0613h	appl	p	---	25	250	100 Adpt	1	%
dr.20	field weak. curve	0614h	appl	p	---	0.01	2.00	1.20 Adpt	0.01	---
dr.21	no load voltage	0615h	appl	p	---	0.0	100.0	75.0	0.1	%
dr.23	DSM rated current	0617h		np	---	0.0	1100.0	LTK	0.1	A
dr.24	DSM rated speed	0618h	appl	np	---	0	64000 ;	LTK	1 ; 0.125	rpm
dr.25	DSM rated frequency	0619h	appl	np	---	0.0	1600.0	LTK	0.1	Hz
dr.26	DSM EMC voltage constant	061Ah	appl	np	---	0	32000	LTK	1	---
dr.27	DSM rated torque	061Bh	appl	np	---	0.1 ; 1	6553.5 ; 65535	LTK	0.1 ; 1	Nm
dr.28	DSM curr. f. zero speed	061Ch	appl	np	---	0.0	1090.0	LTK	0.1	A
dr.30	DSM stator resistance	061Eh	appl	np	---	0.000	250.000	LTK	0.001	Ohm
dr.31	DSM winding inductance	061Fh	appl	np	---	0.01	655.35	LTK	0.01	mH
dr.32	DSM rated power	0620h	ro	np	---	0.01	1000.00	LTK	0.01	kW
dr.33	DSM max. torque	0621h	appl	np	---	0.1 ; 1	6553.5 ; 65535	LTK	0.1 ; 1	Nm
dr.34	mot.prot. time min. ls/ld	0622h	appl	np	---	0.1	25.5	8.0	0.1	s
dr.34	mot.prot. time min. ls/ld	0622h	appl	np	---	0.1	10.0	0.5	0.1	s
dr.35	mot.prot. time lmax	0623h	appl	np	---	0.1	10.0	0.2	0.1	s
dr.36	mot.prot. recovery time	0624h	appl	np	---	0.1	300.0	5.0	0.1	s
dr.37	maximum current	0625h	appl	np	---	0.0	1100.0	LTK	0.1	A
dr.39	DSM corner speed 1	0627h	appl	np	---	0	64000 ; 8000	32000 ; 4000	1 ; 0.125	rpm
dr.40	DSM corner max. torque 2	0628h	appl	np	---	0.1 ; 1	6553.5 ; 65535	0.1 ; 1	0.1 ; 1	Nm
dr.41	DSM corner speed 1 2	0629h	appl	np	---	0	64000 ; 8000	32000 ; 4000	1 ; 0.125	rpm
dr.42	DSM corn. max. torque 3	062Ah	appl	np	---	0.1 ; 1	6553.5 ; 65535	0.1 ; 1	0.1 ; 1	Nm
dr.43	DSM corner speed 1 3	062Bh	appl	np	---	0	64000 ; 8000	32000 ; 4000	1 ; 0.125	rpm
dr.44	DSM corner max. torque 4	062Ch	appl	np	---	0.1 ; 1	6553.5 ; 65535	0.1 ; 1	0.1 ; 1	Nm
dr.45	DSM corner speed 1 4	062Dh	appl	np	---	0	64000 ; 8000	32000 ; 4000	1 ; 0.125	rpm
dr.46	DSM corner max. torque 5	062Eh	appl	np	---	0.1 ; 1	6553.5 ; 65535	0.1 ; 1	0.1 ; 1	Nm
dr.47	DSM corner speed 1 5	062Fh	appl	np	---	0	64000 ; 8000	32000 ; 4000	1 ; 0.125	rpm

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Parameter	Addr.	R	P	E	Lower limit	Upper limit	Default	Step	Unit
dr.48 motor identification	0630h	appl	np	E	0	255	0	1	---
dr.49 Lh ident. acc/dec time	0631h	appl	np	---	0.00	300,00	5,00	0,01	s
dr.50 mot.prot. min. Is/Id	0632h	appl	np	---	100	500	150	1	%
dr.51 motortemp.for Rs corr.	0633h	appl	np	---	0	200	20	1	°C
dr.52 temperature coefficient	0634h	appl	np	---	0,0: off	25,0	0,0: off	0,1	---
dr.53 Rs corr delta temp.	0635h	appl	np	---	0: off	200	0: off	1	°C
dr.54 Rs corr warming time	0636h	appl	np	---	240	16000	4000	1	s
dr.55 Rs corr cooling time	0637h	appl	np	---	240	16000	4000	1	s
dr.56 Rs corr max. temp.	0638h	appl	np	---	30	200	90	1	°C
dr.58 torque offset selector	063Ah	appl	np	E	0	79	0	1	---
dr.59 torque offset	063Bh	appl	np	---	-320,00	320,00	0,00	0,01	Nm
dr.60 Rs corr auto temp. mode	063Ch	appl	np	---	0: off	1: on	0: off	1	---
dr.61 Rs corr auto temp.insel.	063Dh	appl	np	E	0	4095	0	1	---
dr.62 state motor ident.	063Eh	ro	np	---	0	255	0	1	---
dr.63 DSM EMF HR (Vpk/1000rpm)	063Fh	appl	np	---	0	255,996	0	0,004	---
dr.64 DSM inductance max	0640h	appl	np	---	0,01	655,35	LTK	0,01	mH
dr.65 DASM head-ind. 50% flux	0641h	appl	p	---	99	305	99	0,006	%
dr.66 motor ident. error	0642h	ro	np	---	0	255	0	1	---
dr.67 current for Ls/loff iden	0643h	appl	np	---	10	250	100	1	%
dr.69 frequency search max. current (SCL)	0644h	appl	np	---	0,0	100,0	25,0	0,1	%
dS.00 KP current	1100h	appl	p	---	0	32767	1500 Adpt	1	---
dS.01 KI current	1101h	appl	p	---	0	32767	1500 Adpt	1	---
dS.02 current decoupling	1102h	appl	p	E	0: off	4	0: off	1	---
dS.02 current decoupling	1102h	appl	p	E	0: off	1	0: off	1	---
dS.03 curr./torq. mode	1103h	appl	p	E	0	255	0	1	---
dS.04 flux/rotor adaption mode	1104h	appl	p	E	0	8191	0	1	---
dS.05 KP current (q)	1105h	appl	p	---	0	32767	0		
dS.06 KI current (q)	1106h	appl	p	---	0	32767	0		
dS.07 KI rotor adaption	1107h	appl	p	---	0	32767	1000	1	---
dS.08 KP Umax	1108h	appl	np	---	0	32767	0	1	---
dS.09 KI Umax	1109h	appl	np	---	0	32767	50	1	---
dS.10 Umax modulation ref.	110Ah	appl	p	---	0	110	97	1	%
dS.11 KP flux	110Bh	appl	p	---	0	32767	1000	1	---
dS.12 KI flux	110Ch	appl	p	---	0	32767	300	1	---
dS.13 magn. current limit	110Dh	appl	np	---	-1500,0	1500,0	0	0,1	A
dS.14 KP speed calc. ASCL	110Eh	appl	p	---	0	32767	1500	1	---
dS.15 KI speed calc. ASCL	110Fh	appl	p	---	0	32767	1500	1	---
dS.17 speed PT1-time ASCL	1111h	appl	p	---	0	9	3	1	---
dS.18 function mode	1112h	appl	p	---	0	2048	0	1	---
dS.19 limit uf-contr. dec. ASCL	1113h	appl	p	---	0	32000 ; 4000	0	1 ; 0,125	rpm
dS.20 delay time uf-control	1114h	appl	p	---	-1	4000	0	1	ms
dS.21 startup speed	1115h	appl	p	---	0	n * 4000	0	n * 0,125	rpm
dS.22 startup time	1116h	appl	p	---	0,00	300,00	5,00	0,01	s
dS.23 observer factor	1117h	appl	p	---	0	100	0,02	0,006	%
dS.24 KI current mult	1118h	appl	np	---	0	65535	65535	1	---
dS.25 current decoupling time	1119h	appl	np	---	0,000	4095,938	0,000	0,063	ms
dS.26 wait for min. flux	111Ah	appl	p	---	40	110	95	0,006	%
dS.30 rotor position detection	111Eh	appl	np	E	0	15	0	1	---
dS.31 rotor position mode	111Fh	appl	np	E	0	1	0	1	---
dS.32 KI HF detection	1120h	appl	np	---	0	32767	1500	1	---
dS.33 step current	1121h	appl	np	---	0	15000	0	1	A
dS.34 difference Ld Lq level	1122h	appl	np	---	0	1000	200	1	%
dS.35 diff saturation level	1123h	appl	np	---	0	1000	50	1	%
dS.36 difference actual saturation	1124h	appl	np	---	0	1000	0	1	%
dS.37 usd max modulation ref.	1125h	appl	np	---	0	100	95	0,006	%
dS.38 encoder delay	1126h	appl	np	---	0	1	0	1	---
dS.39 reserved modulation grad	1127h	appl	np	---	0	50	0	0,006	%
dS.40 torque mode	1128h	appl	np	---	0	2	0	1	---
Ec.00 encoder interface 1	1000h	appl	np	E	-127	127	GBK	1	---
Ec.01 encoder 1 (inc/r)	1001h	appl	np	E	1	65535	GBK	1	inc
Ec.02 absolute position encoder 1	1002h	appl	np	E	0	65535	57057	1	---
Ec.03 time 1 for speed calc. 1	1003h	appl	np	E	0	9	3	1	---
Ec.04 gear 1 numerator	1004h	appl	np	---	-32000	32000	1000	1	---
Ec.05 gear 1 denominator	1005h	appl	np	---	1	32000	1000	1	---
Ec.06 enc.1 rotation	1006h	appl	np	E	0	19	0	1	---
Ec.07 enc.1 trigger/mult.	1007h	appl	np	E	0	13	GBK	1	---
Ec.08 encoder 1 excitation	1008h	appl	np	E	-1,94	9,14	6,10	0,14	kHz
Ec.09 enc.1 signal level	1009h	appl	np	E	0	4,8	1	0,0379	V
Ec.10 encoder 2 interface	100Ah	appl	np	E	-127	127	GBK	1	---
Ec.11 encoder 2 (inc/r)	100Bh	appl	np	E	1	65535	GBK	1	inc
Ec.12 abs. position 2	100Ch	appl	np	E	0	65535	57057	1	---

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Parameter	Addr.	R	P	E	Lower limit	Upper limit	Default	Step	Unit
Ec.13 time 2 for speed calc.	100Dh	appl	np	E	0	9	3	1	---
Ec.14 gear 2 numerator	100Eh	appl	np	---	-32000	32000	1000	1	---
Ec.15 gear 2 denominator	100Fh	appl	np	---	1	32000	1000	1	---
Ec.16 enc.2 rotation	1010h	appl	np	E	0	19	0	1	---
Ec.17 enc.2 trigger/mult.	1011h	appl	np	E	0	13	GBK	1	---
Ec.20 enc. 2 operating mode	1014h	appl	np	---	0	7	GBK	1	---
Ec.21 SSI multiturn res.	1015h	appl	np	E	0	13	12	1	---
Ec.22 SSI clock frq. sel.	1016h	appl	np	---	0	1	0	1	---
Ec.23 SSI data code	1017h	appl	np	---	0	1	1	1	---
Ec.24 SSI power failure bit	1018h	appl	np	---	0: off	1: on	0: off	1	---
Ec.25 nominal tacho speed	1019h	appl	np	---	1	16000	1500	1	rpm
Ec.27 operation mode output	101Bh	appl	np	E	0	127	0	1	---
Ec.28 position ch2 over bus	101Ch	appl	np	---	-2147483648	2147483647	0	1	inc
Ec.29 position ch1 direct	101Dh	ro	np	---	-2147483648	2147483647	0	1	inc
Ec.30 position ch2 direct	101Eh	ro	np	---	-2147483648	2147483647	0	1	inc
Ec.31 position ch1	101Fh	ro	np	---	-2147483648	2147483647	0	1	inc
Ec.32 position ch2	1020h	ro	np	---	-2147483648	2147483647	0	1	inc
Ec.33 system offset ch1	1021h	appl	np	E	-2147483648	2147483647	0	1	inc
Ec.34 system offset ch2	1022h	appl	np	E	-2147483648	2147483647	0	1	inc
Ec.36 enc.1 encoder type	1024h	ro	np	---	GBK	GBK	GBK	1	---
Ec.37 enc.1 encoder status	1025h	ro	np	---	0	255	0	1	---
Ec.38 encoder 1 r/w	1026h	appl	np	E	0	126	4	1	---
Ec.39 encoder 1 over transmission	1027h	appl	np	E	0	5	0	1	---
Ec.39 encoder 1 over transmission	1027h	appl	np	E	0	4	0	1	---
Ec.40 act.absolute pos. el.	1028h	ro	np	---	0	65535	0	1	---
Ec.41 mode disp. multiturn	1029h	appl	np	E	0	15	0	1	---
Ec.42 encoder alarm mode	102Ah	appl	np	---	0	15	0	1	---
Ec.43 SSI data code ch1	102Bh	appl	np	E	0	1	0	1	---
Ec.44 SSI abs. res. ch1	102Ch	appl	np	E	0	33	10	1	---
Ec.45 UVW commutation per res.	102Dh	appl	np	E	0	127	0	1	---
Ec.46 PT1-time. ch1	102Eh	appl	np	---	0	256	0	1	ms
Ec.47 PT1-time. ch2	102Fh	appl	np	---	0	256	0	1	ms
Ec.48 scan ch2 inp.sel.	1030h	appl	np	E	0	4095	0	1	---
Ec.49 scan ch1+ch2 inp.sel	1031h	appl	np	E	0	4095	0	1	---
Ec.50 scan position ec.60	1032h	ro	np	---	-2^31	2^31-1	0	1	inc
Ec.51 scan position ec.61	1033h	ro	np	---	-2^31	2^31-1	0	1	inc
Ec.53 enc.1 SSI multiturn res	1035h	appl	np	E	0	13	0	1	---
Ec.54 enc.1 SSI mode	1036h	appl	np	E	0	3	0	1	---
Ec.55 enc.2 SSI mode	1037h	appl	np	E	0	2	0	1	---
Ec.56 gear 1 numerator	1038h	appl	np	---	-2^30	2^30-1	0	1	---
Ec.57 gear 1 denominator	1039h	appl	np	---	1	2^30-1	1000	1	---
Ec.58 gear 2 numerator	103Ah	appl	np	---	-2^30	2^30-1	0	1	---
Ec.59 gear 2 denominator	103Bh	appl	np	---	1	2^30-1	1000	1	---
Ec.60 syst. position ch1	103Ch	ro	np	---	-2^31	2^31-1	0	1	inc
Ec.61 syst. position ch2	103Dh	ro	np	---	-2^31	2^31-1	0	1	inc
Ec.62 enc.1 encoder typ	103Eh	appl	np	---	0	2	0	1	---
Ec.63 enc.2 over transmission	103Fh	appl	np	E	0	1	0	1	---
Ec.64 speed ch2 no gear(ec.63)	1040h	appl	np	---	-4000.000	4000.000	0	0.125	rpm
Fr.01 copy parameter set	0901h	appl	p	E	-9	7	0	1	---
Fr.02 parameter set source	0902h	appl	np	E	0	6	0	1	---
Fr.03 parameter set lock	0903h	appl	np	E	0	255	0	1	---
Fr.04 parameter set setting	0904h	appl	np	E	0	7	0	1	---
Fr.05 set activation delay	0905h	appl	p	---	0.00	32.00	0.00	0.01	s
Fr.06 set deactivation delay	0906h	appl	p	---	0.00	32.00	0.00	0.01	s
Fr.07 paraset input sel.	0907h	appl	np	E	0	4095	0	1	---
Fr.08 motor set classification	0908h	appl	p	E	0	7	0	1	---
Fr.09 indirect set pointer	0909h	appl	np	---	-1: act set	7	0	1	---
Fr.10 load mot.dependent para.	090Ah	appl	p	E	1	3	1	1	---
Fr.10 load mot.dependent para.	090Ah	appl	np	E	1	2	1	1	---
Fr.11 reset set input sel.	090Bh	appl	np	E	0	4095	0	1	---
Fr.12 set change mode mod.on	090Ch	appl	np	E	0	3	2	1	---
Fr.12 set change mode mod.on	090Ch	appl	np	E	0	3	0	1	---
In.00 inverter type	0E00h	ro	np	---	0	65535	0	1	hex
In.01 rated inverter current	0E01h	ro	np	---	LTK	LTK	LTK	0.1	A
In.03 max. switching frequency	0E03h	ro	np	---	0	4	LTK	1	---
In.04 rated switching frequency	0E04h	ro	np	---	0	LTK	LTK	1	---
In.06 software version	0E06h	ro	np	---	SW	SW	SW	0.01	---
In.07 software date	0E07h	ro	np	---	SW	SW	SW	0.1	---
In.10 serial no. (date)	0E0Ah	sup	np	---	0	65535	0	1	---
In.11 serial no. (count)	0E0Bh	sup	np	---	0	65535	0	1	---
In.12 serial no.(AB-no. high)	0E0Ch	sup	np	---	0	65535	0	1	---
In.13 serial no.(AB-no. low)	0E0Dh	sup	np	---	0	65535	0	1	---
In.14 customer no. high	0E0Eh	sup	np	---	0	65535	0	1	---

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Parameter	Addr.	R	P	E	Lower limit	Upper limit	Default	Step	Unit
In.15 customer no. low	0E0Fh	sup	np	---	0	65535	0	1	---
In.16 QS no.	0E10h	sup	np	---	0	65535	0	1	---
In.17 temp.- mode	0E11h	ro	np	---	LTK	LTK	LTK	1	hex
In.18 hardw. curr. inverter	0E12h	ro	np	---	LTK	LTK	LTK	0.1	A
In.20 KEB service selector	0E14h	sup	np	E	0	42	0	1	---
In.21 KEB service data	0E15h	sup	np	---	KEB serv. data	KEB serv. data	KEB serv. data	1	---
In.22 user parameter 1	0E16h	appl	np	---	0	65535	0	1	---
In.23 user parameter 2	0E17h	appl	np	---	0	65535	0	1	---
In.24 last error	0E18h	sup	p	E	0	255	0	1	---
In.25 error diagnosis	0E19h	ro	p	---	0	65535	0	1	hex
In.26 E.OC error counter	0E1Ah	sup	np	---	0	65535	0	1	---
In.27 E.OL error counter	0E1Bh	sup	np	---	0	65535	0	1	---
In.28 E.OP error counter	0E1Ch	sup	np	---	0	65535	0	1	---
In.29 E.OH error counter	0E1Dh	sup	np	---	0	65535	0	1	---
In.30 E.OHi error counter	0E1Eh	sup	np	---	0	65535	0	1	---
In.31 KEB-Hiperface	0E1Fh	RO	np	---	0	65535	GBK	1	---
In.32 interface softw. date	0E20h	ro	np	---	0	6553.5	GBK	0.1	---
In.33 interface softw. version	0E21h	ro	np	---	0	655.35	GBK	0.01	---
In.34 LTK data Id	0E22h	sup	np	E	0	20	0	1	---
In.35 LTK data index	0E23h	sup	np	---	-1	LTK data Id	-1	1	---
In.36 LTK value index	0E24h	sup	np	E	0	LTK	0	1	---
In.37 LTK data	0E25h	ro	np	---	0	65535	0	1	---
In.39 deadtime selector	0E27h	appl	np	E	0	329	0	1	---
In.40 deadtime	0E28h	appl	np	---	0	255	0	1	---
In.41 serial no. 2 (date)	0E29h	sup	np	---	-2147483648	2147483647	0	1	---
In.42 serial no. 2 (count)	0E2Ah	sup	np	---	-2147483648	2147483647	0	1	---
In.43 QS-no. 2	0E2Bh	sup	np	---	0	65535	1	1	---
LE.00 comparison level 0	0D00h	appl	p	---	-10737418.24	10737418.23	0.00	0.01	---
LE.01 comparison level 1	0D01h	appl	p	---	-10737418.24	10737418.23	0.00	0.01	---
LE.02 comparison level 2	0D02h	appl	p	---	-10737418.24	10737418.23	100.00	0.01	---
LE.03 comparison level 3	0D03h	appl	p	---	-10737418.24	10737418.23	4.00	0.01	---
LE.04 comparison level 4	0D04h	appl	p	---	-10737418.24	10737418.23	0.00	0.01	---
LE.05 comparison level 5	0D05h	appl	p	---	-10737418.24	10737418.23	0.00	0.01	---
LE.06 comparison level 6	0D06h	appl	p	---	-10737418.24	10737418.23	0.00	0.01	---
LE.07 comparison level 7	0D07h	appl	p	---	-10737418.24	10737418.23	0.00	0.01	---
LE.08 hysteresis 0	0D08h	appl	p	---	0.00	300.00	0.00	0.01	---
LE.09 hysteresis 1	0D09h	appl	p	---	0.00	300.00	0.00	0.01	---
LE.10 hysteresis 2	0D0Ah	appl	p	---	0.00	300.00	5.00	0.01	---
LE.11 hysteresis 3	0D0Bh	appl	p	---	0.00	300.00	.50	0.01	---
LE.12 hysteresis 4	0D0Ch	appl	p	---	0.00	300.00	0.00	0.01	---
LE.13 hysteresis 5	0D0Dh	appl	p	---	0.00	300.00	0.00	0.01	---
LE.14 hysteresis 6	0D0Eh	appl	p	---	0.00	300.00	0.00	0.01	---
LE.15 hysteresis 7	0D0Fh	appl	p	---	0.00	300.00	0.00	0.01	---
LE.16 freq/speed hysteresis	0D10h	appl	np	---	0	n * 200	n * 15	n * 0.125	rpm
LE.17 timer 1 start inp. sel.	0D11h	appl	np	E	0	4095	0	1	---
LE.18 timer 1 start condition	0D12h	appl	np	E	0	15	0	1	---
LE.19 timer 1 start inp. sel.	0D13h	appl	np	E	0	4095	0	1	---
LE.20 timer 1 reset condition	0D14h	appl	np	E	0	31	16	1	---
LE.21 timer 1 mode	0D15h	appl	np	---	0	63	0	1	---
LE.22 timer 2 start input sel.	0D16h	appl	np	E	0	4095	0	1	---
LE.23 timer 2 start condition	0D17h	appl	np	E	0	15	0	1	---
LE.24 timer 2 reset input sel.	0D18h	appl	np	E	0	4095	0	1	---
LE.25 timer 2 reset condition	0D19h	appl	np	E	0	31	16	1	---
LE.26 timer 2 mode	0D1Ah	appl	np	---	0	63	0	1	---
LE.27 reference torque	0D1Bh	appl	np	---	0.00	32000.00	0.00	0.01	Nm
LE.28 ref. torque mode	0D1Ch	appl	np	---	0	2	1	1	---
nn.00 motor model select	1400h	appl	np	E	0	32767	191	1	---
nn.01 stabilisation current	1401h	appl	np	---	0	1100.0	0	0.1	A
nn.02 min speed for current	1402h	appl	np	---	0	32000 ; 4000	0	1 ; 0.125	rpm
nn.03 max speed for current	1403h	appl	np	---	0	32000 ; 4000	0	1 ; 0.125	rpm
nn.04 time speedcalculation	1404h	appl	np	---	0.000	4095.938	0.125	0.063	ms
nn.05 filter speedcalculation	1405h	appl	np	---	0.000	4095.938	1.000	0.063	ms
nn.06 rs adaption factor	1406h	appl	np	---	0	32767	100	1	---
nn.07 observer factor	1407h	appl	np	---	0	60.00	2.00	0.0015	%
nn.08 startup speed	1408h	appl	np	---	0	n * 4000	0	n * 0.125	rpm
nn.09 startup time	1409h	appl	np	---	0.00	300.00	5.00	0.01	s

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Parameter Overview

Parameter	Addr.	R	P	E	Lower limit	Upper limit	Default	Step	Unit
nn.10 standstill current	140Ah	appl	np	---	0	1100.0	0	0.1	A
nn.11 stabilisation time	140Bh	appl	np	---	0.000	4095.938	0.250	0.063	ms
nn.12 deviation control time	140Ch	appl	np	---	0.000	4095.938	10.000	0.063	ms
nn.13 C filter [uF]	140Dh	appl	np	---	0.00	655.35	0.00	0.01	---
nn.14 amplitude HF injection	140Eh	appl	np	---	0	16383	1500	1	---
nn.15 optimisation HF injection	140Fh	appl	np	E	20	15.0	4.0	0.1	---
nn.17 open loop speed	1411h	appl	np	---	0	4000	0	0.125	rpm
nn.18 motor model select 2	1412h	appl	np	---	0	3	0	1	---
oP.00 reference source	0300h	appl	p	E	0	10	0	1	---
oP.01 rotation source	0301h	appl	p	E	0	11	7	1	---
oP.02 rotation setting	0302h	appl	p	E	0	2	0	1	---
oP.03 dig. setpoint setting	0303h	appl	p	---	n * -4000	n * 4000	0	n * 0.125	rpm
oP.05 reference setting %	0305h	appl	p	---	-100.0	100.0	0.0	0.1	%
oP.06 min. reference forward	0306h	appl	p	---	0	n * 4000	0	n * 0.125	rpm
oP.07 min. reference reverse	0307h	appl	P	---	n * -0.125: =For	n * 4000	n * -0.125: =For	n * 0.125	rpm
oP.10 max. reference forward	030Ah	appl	p	---	0	n * 4000	n * 2100	n * 0.125	rpm
oP.11 max. reference reverse	030Bh	appl	p	---	n * -0.125: =For	n * 4000	n * -0.125: =For	n * 0.125	rpm
oP.14 abs. max. reference for	030Eh	appl	p	---	0	n * 4000	n * 4000	n * 0.125	rpm
oP.15 abs. max. reference rev	030Fh	appl	p	---	n * -0.125: =For	n * 4000	n * -0.125: =For	n * 0.125	rpm
oP.16 rotation delay time	0310h	appl	np	---	0	1000	0	1	s
oP.18 step value rot. source	0312h	appl	p	E	0	11	7	1	---
oP.19 step value input sel. 1	0313h	appl	np	E	0	4095	16	1	---
oP.20 step value input sel. 2	0314h	appl	np	E	0	4095	32	1	---
oP.21 step value 1	0315h	appl	p	---	n * -4000	n * 4000	n * 100	n * 0.125	rpm
oP.22 step value 2	0316h	appl	p	---	n * -4000	n * 4000	n * -100	n * 0.125	rpm
oP.23 step value 3	0317h	appl	p	---	n * -4000	n * 4000	n * 0	n * 0.125	rpm
oP.27 acc dec mode	031Bh	appl	p	E	0	511	0	1	---
oP.28 acc. time for.	031Ch	appl	p	---	0.00	300.00	5.00	0.01	s
oP.29 acc. time rev.	031Dh	appl	p	---	-0.01: = for	300.00	-0.01: = for	0.01	s
oP.30 dec. time for.	031Eh	appl	p	---	-0.01: = acc	300.00	5.00	0.01	s
oP.31 dec. time rev.	031Fh	appl	p	---	-0.01: = for	300.00	-0.01: = for	0.01	s
oP.32 s-curve time acc. for.	0320h	appl	p	---	0.00: off	5.00	0.00: off	0.01	s
oP.33 s-curve acc. rev.	0321h	appl	p	---	-0.01: = for	5.00	-0.01: = for	0.01	s
oP.34 s-curve time dec. for.	0322h	appl	p	---	-0.01: = acc	5.00	-0.01: = acc	0.01	s
oP.35 s-curve time dec. rev.	0323h	appl	p	---	-0.01: = for	5.00	-0.01: = for	0.01	s
oP.36 min. output val. for.	0324h	appl	p	---	0.0000	400.0000	0.0000	0.0125	Hz
oP.37 min. output val. rev.	0325h	appl	p	---	0.0000	-400.0000	0.0000	0.0125	Hz
oP.40 max. output val. for.	0328h	appl	p	---	0	n * 4000	n * 4000	n * 0.125	rpm
oP.41 max. output val. rev.	0329h	appl	p	---	n * -0.125: = for	n * 4000	n * -0.125: = for	n * 0.125	rpm
oP.44 ext. funct. mode/source	032Ch	appl	p	E	0	79	0	1	---
oP.45 ext. funct. dig. source	032Dh	appl	p	---	0.00	100.00	0.00	0.01	%
oP.46 ext. funct. acc/dec time	032Eh	appl	p	---	0.00	20.00	10.00	0.01	s
oP.47 sweep-gen. acc. time	032Fh	appl	p	---	0.00	20.00	10.00	0.01	s
oP.48 sweep-gen. dec. time	0330h	appl	p	---	0.00	20.00	10.00	0.01	s
oP.49 diam. corr. dmin/dmax	0331h	appl	p	---	0.010	0.990	0.500	0.001	---
oP.50 motorpoti function	0332h	appl	np	E	0	7	0	1	---
oP.52 motorpoti value	0334h	appl	p	---	-100.00	100.00	0.00	0.01	%
oP.53 motorpoti min. value	0335h	appl	np	---	-100.00	100.00	0.00	0.01	%
oP.54 motorpoti max. value	0336h	appl	np	---	-100.00	100.00	100.00	0.01	%
oP.55 motorpoti reset value	0337h	appl	np	---	-100.00	100.00	0.00	0.01	%
oP.56 mot.poti inc. input sel.	0338h	appl	np	E	0	4095	0	1	---
oP.57 mot.poti dec. input sel.	0339h	appl	np	E	0	4095	0	1	---
oP.58 mot.poti reset inp. sel.	033Ah	appl	np	E	0	4095	0	1	---
oP.59 motorpoti inc/dec time	033Bh	appl	p	---	0.00	50000.00	66.00	0.01	s
oP.60 dir. forward input sel.	033Ch	appl	np	E	0	4095	4	1	---
oP.61 dir. reverse input sel.	033Dh	appl	np	E	0	4095	8	1	---
oP.62 acc/dec time factor	033Eh	appl	np	E	0	4	0	1	---
oP.63 ref. value high-res	033Fh	appl	np	---	-2^31	2^31-1	0	1	---
oP.64 rel. value high-res	0340h	appl	p	---	n * 600	n * 4000	n * 2100	n * 0.125	rpm

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Parameter		Addr.	R	P	E	Lower limit	Upper limit	Default	Step	Unit
oP.65	min. proh. reference 1	0341h	appl	np	---	n * -4000	n * 4000	0	n * 0.125	rpm
oP.66	max. proh. reference 1	0342h	appl	np	---	n * -4000	n * 4000	0	n * 0.125	rpm
oP.67	min. proh. reference 2	0343h	appl	np	---	n * -4000	n * 4000	0	n * 0.125	rpm
oP.68	max. proh. reference 2	0344h	appl	np	---	n * -4000	n * 4000	0	n * 0.125	rpm
oP.69	motorpoti dec time	0345h	appl	p	---	-0.01	50000.00	-0.01	0.01	s
oP.70	s-c.up time acc. for.	0346h	appl	p	---	-0.01: = low	5.00	-0.01: = low	0.01	s
oP.71	s-c. up time acc. rev.	0347h	appl	p	---	-0.02: = for	5.00	-0.01: = low	0.01	s
oP.72	s-c. up time dec. for.	0348h	appl	p	---	-0.02: = acc	5.00	-0.01: = low	0.01	s
oP.73	s-c. up time dec. rev.	0349h	appl	p	---	-0.02: = acc	5.00	-0.01: = low	0.01	s
oP.74	reference splitting	034Ah	appl	np	---	0	127	0	1	ms
Pd.00	PD byte order	0100h	appl	np	E	0	2	2	1	---
Pd.01	PD0 out index	0101h	appl	p	E	0	32767	0	1	---
Pd.02	PD out subindex	0102h	appl	p	E	8	1	1	1	---
Pd.03	PD out offset	0103h	appl	p	E	15	0	0	1	---
Pd.04	PD out type	0104h	appl	p	E	3	0	0	1	---
Pd.05	PD out count	0105h	appl	np	E	0	8	0	1	---
Pd.06	PD0 in index	0106h	appl	p	E	0	32767	0	1	---
Pd.07	PD0 in subindex	0107h	appl	p	E	1	8	1	1	---
Pd.08	PD0 in offset	0108h	appl	p	E	0	15	0	1	---
Pd.09	PD0 in type	0109h	appl	p	E	0	3	0	1	---
Pd.10	PD0 in count	010Ah	appl	np	E	0	8	0	1	---
Pd.11	PD1 out index	010Bh	appl	p	E	0	32767	0	1	---
Pd.12	PD1 out subindex	010Ch	appl	p	E	1	8	1	1	---
Pd.13	PD1 out offset	010Dh	appl	p	E	0	15	0	1	---
Pd.14	PD1 out type	010Eh	appl	p	E	0	3	0	1	---
Pd.15	PD1 out count	010Fh	appl	np	E	0	8	0	1	---
Pd.16	PD1 in index	0110h	appl	p	E	0	32676	0	1	---
Pd.17	PD1 in subindex	0111h	appl	p	E	1	8	1	1	---
Pd.18	PD1 in offset	0112h	appl	p	E	0	15	0	1	---
Pd.19	PD1 in type	0113h	appl	p	E	0	3	0	1	---
Pd.20	PD1 in count	0114h	appl	np	E	0	8	0	1	---
Pd.21	PD2 out index	0115h	appl	p	E	0	32767	0	1	---
Pd.22	PD2 out subindex	0116h	appl	p	E	1	8	1	1	---
Pd.23	PD2 out offset	0117h	appl	p	E	0	15	0	1	---
Pd.24	PD2 out type	0118h	appl	p	E	0	3	0	1	---
Pd.25	PD2 out count	0119h	appl	np	E	0	8	0	1	---
Pd.26	PD2 in index	011Ah	appl	p	E	0	32767	0	1	---
Pd.27	PD2 in subindex	011Bh	appl	p	E	1	8	1	1	---
Pd.28	PD2 in offset	011Ch	appl	p	E	0	15	0	1	---
Pd.29	PD2 in type	011Dh	appl	p	E	0	3	0	1	---
Pd.30	PD2 in count	011Eh	appl	np	E	0	8	0	1	---
Pn.00	auto retry UP	0400h	appl	np	---	0	3	1: on	1	---
Pn.01	auto. retry OP	0401h	appl	np	---	0	1	0: off	1	---
Pn.02	auto retry OC	0402h	appl	np	---	0	1	0: off	1	---
Pn.03	E_EF stopping mode	0403h	appl	np	---	0	6	0	1	---
Pn.04	ext. fault input select	0404h	appl	np	E	0	4095	64	1	---
Pn.05	E_buS stopping mode	0405h	appl	np	---	0	6	6	1	---
Pn.06	watchdog time	0406h	appl	np	E	0.00: off	40.00	0.00: off	0.01	s
Pn.07	proh. rot. stopping mode	0407h	appl	np	---	0	6	6	1	---
Pn.08	warning OL stop. mode	0408h	appl	np	---	0	6	6	1	---
Pn.09	OL warning level	0409h	appl	np	---	0	100	80	1	%
Pn.10	warning OH stop. mode	040Ah	appl	np	---	0	6	6	1	---
Pn.11	OH warning level	040Bh	appl	np	---	0	90	70	1	°C
Pn.12	warning dOH stop. mode	040Ch	appl	np	---	0	8	6	1	---
Pn.13	E_dOH delay time	040Dh	appl	np	---	0	120	0	1	s
Pn.14	warning OH2 stop. mode	040Eh	appl	np	---	0	6	6	1	---
Pn.15	OH2 warning level	040Fh	appl	np	---	0	100	100	1	%
Pn.16	warning OHI stop. mode	0410h	appl	np	---	0	7	7	1	---
Pn.17	E_OHI delay time	0411h	appl	np	---	0	120	0	1	s
Pn.18	E_Set stopping mode	0412h	appl	np	---	0	6	0	1	---
Pn.19	stall mode	0413h	appl	p	E	0	255	0	1	---
Pn.20	stall level	0414h	appl	p	---	0	200	200	1	%
Pn.21	stall acc/dec time	0415h	appl	p	---	0	300.00	2.00	0.01	s
Pn.22	LAD stop function	0416h	appl	p	E	0	7	0	1	---
Pn.23	LAD stop input selection	0417h	appl	np	E	0	4095	0	1	---
Pn.24	LAD load level	0418h	appl	p	---	0	200	140	1	%
Pn.25	LD voltage	0419h	appl	p	---	200	1200	375 ; 720 ; 1100	1	V

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Parameter Overview

Parameter	Addr.	R	P	E	Lower limit	Upper limit	Default	Step	Unit
Pn.26 speed search condition	041Ah	appl	p	E	0	31	8	1	---
Pn.27 speed search mode	041Bh	appl	np	E	0	255	88	1	---
Pn.28 DC braking mode	041Ch	appl	p	E	0	506	7	1	---
Pn.29 DC brake input selection	041Dh	appl	np	E	0	4095	0	1	---
Pn.30 DC braking time	041Eh	appl	p	---	0.00	100.00	10.00	0.01	s
Pn.31 DC braking max. voltage	041Fh	appl	p	---	0.0	25.5	25.5	0.1	%
Pn.32 DC braking start level	0420h	appl	p	---	0	n * 4000	n * 120	n * 0.125	rpm
Pn.33 DC braking max. current ASCL	0421h	appl	p	---	0.0	400.0	100.0	0.1	%
Pn.34 brake ctrl. mode	0422h	appl	p	E	0	4	0	1	---
Pn.35 premagnetizing time	0422h	appl	p	E	0	4	2	1	---
Pn.36 brake release time	0423h	appl	p	---	0.00	100.00	0.25	0.01	s
Pn.37 brake ctrl. start ref.	0424h	appl	p	---	0.00	100.00	0.25	0.01	s
Pn.38 brake fadeout time	0425h	appl	p	---	n * -600	n * 600	0	n * 0.125	rpm
Pn.39 brake delay time	0426h	appl	p	---	0.00	2.55	0.00	0.01	s
Pn.40 brake closing time	0427h	appl	p	---	0.00	100.00	0.25	0.01	s
Pn.41 brake ctrl. stop ref.	0428h	appl	p	---	0.00	100.00	0.25	0.01	s
Pn.42 brake check input sel.	0429h	appl	p	---	n * -600	n * 600	0	n * 0.125	rpm
Pn.43 min. load brake ctrl.	042Ah	appl	np	E	0	4095	0	1	---
Pn.44 power off mode	042Bh	appl	p	---	0: off	100	0: off	1	%
Pn.45 power off start DC volt.	042Ch	appl	np	E	0	1023	0	1	---
Pn.46 power off auto st. level	042Dh	appl	np	---	200	1200	290 ; 500 ; 860	1	V
Pn.46 power off auto st. level	042Eh	appl	np	---	50	90	80	1	%
Pn.47 power off auto st. level	042Eh	appl	np	---	50	100	80	1	%
Pn.47 power off brake torque	042Fh	appl	np	---	0.0	100.0	0.0	0.1	%
Pn.48 power off restart level	0430h	appl	np	---	0	n * 4000	0	n * 0.125	rpm
Pn.49 power off start inp. sel.	0431h	appl	np	E	0	255	0	1	---
Pn.50 power off ref. DC volt.	0432h	appl	np	---	200	1200	290 ; 500 ; 860	1	V
Pn.51 power off KP DC volt.	0433h	appl	np	---	0	32767	128	1	---
Pn.52 power off restart delay	0434h	appl	np	---	0.00	100.00	0.00	0.01	s
Pn.53 power off KP DC volt.	0435h	appl	np	---	0	32767	800	1	---
Pn.54 power off KI	0436h	appl	np	---	0	32767	800	1	---
Pn.55 power off KD	0437h	appl	np	---	0	32767	0	1	---
Pn.56 power off jump factor	0438h	appl	np	---	0	800	100	1	%
Pn.57 power off KI DC volt.	0439h	appl	np	---	0	32767	5	1	---
Pn.58 quick stop mode	043Ah	appl	np	E	0	63	0	1	---
Pn.59 quick stop level	043Bh	appl	np	---	0	200	200	1	%
Pn.60 quick stop dec. time	043Ch	appl	p	---	0	300.00	2.00	0.01	s
Pn.61 quick stop torque limit	043Dh	appl	p	---	0	32000.00	0 Adpt	0.01	Nm
Pn.62 dOH warning level	043Eh	appl	np	---	0	200	100	1	°C
Pn.63 positioning delay	043Fh	appl	p	---	-2	327.67	-1	0.01	s
Pn.64 act.GTR7 / input selection	0440h	appl	np	E	0	4095	0	1	---
Pn.65 special functions	0441h	appl	np	E	0	32768	0	1	---
Pn.66 soft.limit stopping mode	0442h	appl	np	---	0	6	6	1	---
Pn.67 q.stop max. torq.corn. speed	0443h	appl	p	---	0	32000.00	0	0.01	Nm
Pn.68 max. abn. stopping time	0444h	appl	np	---	0.00	100.00	0.00	0.01	s
Pn.69 GTR7 voltage	0445h	appl	np	---	300	1500	380 ; 740 ; 1140	1	V
Pn.70 brake pretorg. source	0446h	appl	p	E	0	3	0	1	---
Pn.71 pretorque ref. setting %	0447h	appl	p	---	-400.0	400.0	100.0	0.1	%
Pn.72 set prog. spec.functions	0448h	appl	p	---	0	2	0	1	---
Pn.74 out phase check mode	044Ah	appl	np	---	0	1	0	1	---
Pn.75 E.SCL stopping mode	044Bh	appl	np	---	0	6	6	1	---
Pn.76 max. E.UP warning time	044Ch	appl	np	---	0.00	32.00	0.00	0.01	s
Pn.77 load-shunt activation voltage	044Dh	appl	np	---	0	1500	0	1	V
Pn.78 UPS operation inp. sel.	044Eh	appl	np	E	0	4095	0	1	---
Pn.79 acceleration limit 1/s's	044Fh	appl	np	---	0.01	10737418.23	0.01	0.01	---
Pn.80 acc. scan time	0450h	appl	np	---	0	60000	0	1	ms
Pn.81 warning acc.stop mode	0451h	appl	np	---	0	6	6	1	---
Pn.82 GTR7 resistance	0452h	appl	np	---	0.000	5000.000	0.000	0.001	Ohm
Pn.83 quick stop s-curve time	0453h	appl	p	---	0	500	0	0	s
Pn.84 no Pu / E.UP delay time	0454h	appl	np	---	0	3200	0	1	s
Pn.85 blockade mode	0455h	appl	np	---	0	27	0	1	---
Pn.86 blockade level	0456h	appl	np	---	0	400.0000	4.0000	0.0125	Hz
Pn.87 blockade waiting time	0457h	appl	np	---	0	100.00	0.25	0.01	s
Pn.88 blockade ramp time	0458h	appl	np	---	0	100.00	0.25	0.01	s
Pn.90 speed limit (ASCL)	045Ah	appl	np	---	-20	20	2.0	0.1	%
Pn.91 flow ctrl. mode	045Bh	appl	np	E	0	3	0	1	---

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Parameter	Addr.	R	P	E	Lower limit	Upper limit	Default	Step	Unit
Pn.92 valve ctrl. output select	045Ch	appl	np	E	0	255	0	1	---
Pn.93 flow switch input select	045Dh	appl	np	E	0	4095	0	1	---
Pn.94 flow ctrl. warning delay	045Eh	appl	np	---	0	6000	0	1	s
Pn.95 flow ctrl. min. temp.	045Fh	appl	np	---	0	90	0	1	°C
Pn.96 pow.off max. time f. rest.	0460h	appl	np	---	0	10000	0	1	s
Pn.98 quick stop inp. sel.	0461h	appl	np	---	0	4095	0	1	---
PP.00 prog. parameter 00	3300h	appl	np	---	Ud.31	Ud.30	0	1	---
PP.01 prog. parameter 01	3301h	appl	np	---	Ud.31	Ud.30	0	1	---
PP.02 prog. parameter 02	3302h	appl	np	---	Ud.31	Ud.30	0	1	---
PP.03 prog. parameter 03	3303h	appl	np	---	Ud.31	Ud.30	0	1	---
PP.04 prog. parameter 04	3304h	appl	np	---	Ud.31	Ud.30	0	1	---
PP.05 prog. parameter 05	3305h	appl	np	---	Ud.31	Ud.30	0	1	---
PP.06 prog. parameter 06	3306h	appl	np	---	Ud.31	Ud.30	0	1	---
PP.07 prog. parameter 07	3307h	appl	np	---	Ud.31	Ud.30	0	1	---
PP.08 prog. parameter 08	3308h	appl	np	---	Ud.31	Ud.30	0	1	---
PP.09 prog. parameter 09	3309h	appl	np	---	Ud.31	Ud.30	0	1	---
PP.10 prog. parameter 10	330Ah	appl	np	---	Ud.31	Ud.30	0	1	---
PP.11 prog. parameter 11	330Bh	appl	np	---	Ud.31	Ud.30	0	1	---
PP.12 prog. parameter 12	330Ch	appl	np	---	Ud.31	Ud.30	0	1	---
PP.13 prog. parameter 13	330Dh	appl	np	---	Ud.31	Ud.30	0	1	---
PP.14 prog. parameter 14	330Eh	appl	np	---	Ud.31	Ud.30	0	1	---
PP.15 prog. parameter 15	330Fh	appl	np	---	Ud.31	Ud.30	0	1	---
PP.16 prog. parameter 16	3310h	appl	np	---	Ud.31	Ud.30	0	1	---
PP.17 prog. parameter 17	3311h	appl	np	---	Ud.31	Ud.30	0	1	---
PP.18 prog. parameter 18	3312h	appl	np	---	Ud.31	Ud.30	0	1	---
PP.19 prog. parameter 19	3313h	appl	np	---	Ud.31	Ud.30	0	1	---
PP.20 prog. parameter 20	3314h	appl	np	---	Ud.31	Ud.30	0	1	---
PP.21 prog. parameter 21	3315h	appl	np	---	Ud.31	Ud.30	0	1	---
PP.22 prog. parameter 22	3316h	appl	np	---	Ud.31	Ud.30	0	1	---
PP.23 prog. parameter 23	3317h	appl	np	---	Ud.31	Ud.30	0	1	---
PP.24 prog. parameter 24	3318h	appl	np	---	Ud.31	Ud.30	0	1	---
PP.25 prog. parameter 25	3319h	appl	np	---	Ud.31	Ud.30	0	1	---
PP.26 prog. parameter 26	331Ah	appl	np	---	Ud.31	Ud.30	0	1	---
PP.27 prog. parameter 27	331Bh	appl	np	---	Ud.31	Ud.30	0	1	---
PP.28 prog. parameter 28	331Ch	appl	np	---	Ud.31	Ud.30	0	1	---
PP.29 prog. parameter 29	331Dh	appl	np	---	Ud.31	Ud.30	0	1	---
PP.30 prog. parameter 30	331Eh	appl	np	---	Ud.31	Ud.30	0	1	---
PP.31 prog. parameter 31	331Fh	appl	np	---	Ud.31	Ud.30	0	1	---
PP.32 prog. parameter 32	3320h	appl	np	---	Ud.31	Ud.30	0	1	---
PP.33 prog. parameter 33	3321h	appl	np	---	Ud.31	Ud.30	0	1	---
PP.34 prog. parameter 34	3322h	appl	np	---	Ud.31	Ud.30	0	1	---
PP.35 prog. parameter 35	3323h	appl	np	---	Ud.31	Ud.30	0	1	---
PP.36 prog. parameter 36	3324h	appl	np	---	Ud.31	Ud.30	0	1	---
PP.37 prog. parameter 37	3325h	appl	np	---	Ud.31	Ud.30	0	1	---
PP.38 prog. parameter 38	3326h	appl	np	---	Ud.31	Ud.30	0	1	---
PP.39 prog. parameter 39	3327h	appl	np	---	Ud.31	Ud.30	0	1	---
PP.40 prog. parameter 40	3328h	appl	np	---	Ud.31	Ud.30	0	1	---
PP.41 prog. parameter 41	3329h	appl	np	---	Ud.31	Ud.30	0	1	---
PP.42 prog. parameter 42	332Ah	appl	np	---	Ud.31	Ud.30	0	1	---
PP.43 prog. parameter 43	332Bh	appl	np	---	Ud.31	Ud.30	0	1	---
PP.44 prog. parameter 44	332Ch	appl	np	---	Ud.31	Ud.30	0	1	---
PP.45 prog. parameter 45	332Dh	appl	np	---	Ud.31	Ud.30	0	1	---
PP.46 prog. parameter 46	332Eh	appl	np	---	Ud.31	Ud.30	0	1	---
PP.47 prog. parameter 47	332Fh	appl	np	---	Ud.31	Ud.30	0	1	---
PS.00 pos/syn mode	1300h	appl	p	E	0	65471	0	1	---
PS.01 act. source	1301h	appl	p	---	0	10	1	1	---
PS.02 pos/syn input selection	1302h	appl	np	E	0	4095	0	1	---
PS.03 shift. slave input sel.	1303h	appl	np	E	0	4095	0	1	---
PS.04 shifting slave	1304h	appl	np	---	-2^30	2^30-1	0	1	inc
PS.05 start offset	1305h	appl	p	---	-2^30	2^30-1	0	1	inc
PS.06 KP.pos/syn	1306h	appl	p	---	0	32767	500	1	---
PS.07 Kp speed limit reduction	1307h	appl	p	---	0.0	100,0	100,0	0.1	%
PS.08 speed limit for ps.07	1308h	appl	p	---	n * -0.125: off(ru.63)	n * 4000	n * 4000	n * 0.125	rpm
PS.09 limit for p/s contr.	1309h	appl	p	---	0	n * 4000	n * 250	n * 0.125	rpm
PS.10 shift.slave inv.inp.sel.	130Ah	appl	np	E	0	4095	0	1	---
PS.11 reset m/s diff. inp.sel.	130Bh	appl	np	E	0	4095	0	1	---
PS.13 set ref. point inp.sel.	130Dh	appl	np	E	0	4095	0	1	---
PS.14 mode of position ref.	130Eh	appl	np	E	0	32767	0	1	---
PS.15 limit switch left	130Fh	appl	np	---	-2^31	2^31-1	-2^30	1	inc
PS.16 limit switch right	1310h	appl	np	---	-2^31	2^31-1	2^30-1	1	inc
PS.17 reference point	1311h	appl	np	E	-2^31	2^31-1	0	1	inc

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Parameter Overview

Parameter	Addr.	R	P	E	Lower limit	Upper limit	Default	Step	Unit
PS.18 reference switch inp.sel.	1312h	appl	np	E	0	4095	0	1	---
PS.19 start reference inp.sel.	1313h	appl	np	E	0	4095	0	1	---
PS.20 reference acc/dec time	1314h	appl	np	---	0.00	300.00	0.50	0.01	s
PS.21 reference speed	1315h	appl	np	---	n * -4000	n * 4000	n * 100	n * 0.125	rpm
PS.22 ref. drive free speed	1316h	appl	np	---	0: off	n * 4000	0: off	n * 0.125	rpm
PS.23 index selection	1317h	appl	np	E	0	31	0	1	---
PS.24 index position	1318h	appl	np	---	-2^31	2^31-1	0	1	inc
PS.25 index speed	1319h	appl	np	E	n * -4000	n * 4000	0	n * 0.125	rpm
PS.26 next index	131Ah	appl	np	E	-1: PS.28	31	-1: PS.28	1	---
PS.27 index mode	131Bh	appl	np	E	0	31	0	1	---
PS.28 start index new profil	131Ch	appl	p	E	0	31	0	1	---
PS.29 start posi inp. sel.	131Dh	appl	np	E	0	4095	0	1	---
PS.30 Target window	131Eh	appl	np	E	0	65535	1024	1	inc
PS.31 max. speed setting %	131Fh	appl	np	---	0,0	100,0	100,0	0,1	%
PS.32 limit acc/dec reducing %	1320h	appl	np	---	25,0	100,0	100,0	0,1	%
PS.33 source ctm pos	1321h	appl	np	E	0	7	0	1	---
PS.34 ctm position	1322h	appl	np	E	-2^31	2^31-1	0	1	inc
PS.35 teach mode	1323h	appl	np	---	0	4	0	1	---
PS.36 teach index inp.sel	1324h	appl	np	E	0	4095	0	1	---
PS.37 pos. scan index inp.sel.	1325h	appl	np	E	0	4095	0	1	---
PS.38 rel. pos. f/r inp.sel.	1326h	appl	np	E	0	4095	0	1	---
PS.39 position range	1327h	appl	np	E	0	2^30-1	0	1	inc
PS.40 refpoint window	1328h	appl	np	---	0	2^30-1	0	1	inc
PS.41 reference position 0%	1329h	appl	np	---	-2^30	2^30-1	0	1	inc
PS.42 reference position 100%	132Ah	appl	np	---	-2^30	2^30-1	-2^30	1	inc
PS.43 corr. ref. point inp.sel.	132Bh	appl	np	E	0	4095	0	1	---
PS.44 limit acc/dec corr. %	132Ch	appl	np	---	25,0	100,0	100,0	0,1	%
PS.45 index selection corr.	132Dh	appl	np	E	0	31	0	1	---
PS.46 rel. corr. switch for	132Eh	appl	np	E	0	2^30-1	0	1	inc
PS.47 rel. corr. switch rev	132Fh	appl	np	E	0	2^30-1	0	1	inc
PS.52 auto.exec,pos after STOP	1334h	appl	np	---	0: off	1: on	0: off	1	---
PS.53 distance for no abort	1335h	appl	p	---	0	2^30-1	0	1	inc
PS.55 gear backlash	1337h	appl	p	E	-2^31	2^31-1	-2^30	1	inc
PS.56 posi target source	1338h	appl	np	E	0	5	0	1	---
PS.57 posi target input sel.	1339h	appl	np	E	0	4095	0	1	---
PS.58 teach index selection	133Ah	appl	np	E	0	31	0	1	---
PS.59 teach index position	133Bh	appl	np	---	-2^31	2^31-1	0	1	inc
PS.60 zero puls offset	133Ch	appl	np	---					
PS.61 pre speed	133Dh	appl	np	E	0	1	0	1	---
PS.63 ctm mode	133Fh	appl	np	---	-2147483648	2147483647	0	1	inc
PS.64 spline position PT1-time	1340h	appl	np	---	0	65535	0	1	ms
PS.65 spline points	1341h	appl	np	---	4	15	4	1	---
rG.00 register mode	1700h	appl	p	E	0	15	0	1	---
rG.01 req. max. gear ch./i.	1701h	appl	np	E	0,0	100,0	1,0	0,1	%
rG.02 reg. max. angle ch./i.	1702h	appl	np	E	0	2^30-1	0	1	inc
rG.03 reg. diff.t. angle corr.	1703h	appl	p	E	0,000	(2^31-1)/8	5,000	0,125	ms
rG.04 reg. master inp. sel.	1704h	appl	np	E	0	4095	0	1	---
rG.05 reg. slave inp. sel.	1705h	appl	np	E	0	4095	0	1	---
rG.06 register ratio master	1706h	appl	np	E	0	15	1	1	---
rG.07 register ration slave	1707h	appl	np	E	0	15	1	1	---
rG.08 register angle level 1	1708h	appl	np	E	-2^30	2^30-1	0	1	inc
rG.09 min. speed for level 1	1709h	appl	np	---	n * -4000	n * 4000	0	n * 0,125	rpm
rG.10 register angle level 2	170Ah	appl	np	E	-2^30	2^30-1	0	1	inc
rG.11 max. speed for level 2	170Bh	appl	np	---	n * -4000	n * 4000	0	n * 0,125	rpm
rG.14 register distance master	170Eh	RO	np	---	-2^31	2^31-1	0	1	inc
rG.15 register distance slave	170Fh	RO	np	---	-2^31	2^31-1	0	1	inc
rG.16 register diff dis. m/s	1710h	RO	np	---	-2^31	2^31-1	0	1	inc
rG.17 register time master	1711h	ro	np	---	0,000	12500	0,000	0,125	ms
rG.18 register time slave	1712h	ro	np	---	0,000	(2^31-1)/8	0,000	0,125	ms
rG.19 reg. diff. time m/s	1713h	ro	np	---	-2^31/8	(2^31-1)/8	0,000	0,125	ms
ru.00 inverter state	0200h	ro	np	---	0	255	0	1	---
ru.01 set value display	0201h	ro	np	---	n * -4000	n * 4000	0	n * 0,125	rpm
ru.02 ramp output display	0202h	ro	np	---	n * -4000	n * 4000	0	n * 0,125	rpm
ru.03 actual frequency display	0203h	ro	np	---	n * -400	n * 400	0	n * 0,0125	Hz

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Parameter		Addr.	R	P	E	Lower limit	Upper limit	Default	Step	Unit
ru.04	actual frequency encoder 1	0204h	ro	np	---	n * -400	n * 400	0	n * 0.0125	Hz
ru.05	actual frequency encoder 2	0205h	ro	np	---	n * -400	n * 400	0	n * 0.0125	Hz
ru.06	Calculated actual value	0206h	ro	np	---	n * -4000	n * 4000	0	n * 0.125	rpm
ru.07	actual value display	0207h	ro	np	---	n * -4000	n * 4000	0	n * 0.125	rpm
ru.09	encoder 1 speed	0209h	ro	np	---	n * -4000	n * 4000	0	n * 0.125	rpm
ru.10	encoder 2 speed	020Ah	ro	np	---	n * -4000	n * 4000	0	n * 0.125	rpm
ru.11	set torque display	020Bh	ro	np	---	-32000.00	32000.00	0	0.01	Nm
ru.12	actual torque display	020Ch	ro	np	---	-32000.00	32000.00	0	0.01	Nm
ru.13	actual utilization	020Dh	ro	np	---	0	65535	0	1	%
ru.14	peak utilization	020Eh	appl	np	---	0	65535	0	1	%
ru.15	apparent current	020Fh	ro	np	---	0	6553.5	0	0.1	A
ru.16	peak apparent current	0210h	appl	np	---	0	6553.5	0	0.1	A
ru.17	active current	0211h	ro	np	---	-3276.7	3276.7	0	0.1	A
ru.18	actual DC voltage	0212h	ro	np	---	0	1500	0	1	V
ru.19	peak DC voltage	0213h	appl	np	---	0	1500	0	1	V
ru.20	output voltage	0214h	ro	np	---	0	1167	0	1	V
ru.21	input terminal state	0215h	ro	np	---	0	65535	0	1	---
ru.22	internal input state	0216h	ro	np	---	0	4095	0	1	---
ru.23	output condition state	0217h	ro	np	---	0	255	0	1	---
ru.24	state of output flags 0-7	0218h	ro	np	---	0	255	0	1	---
ru.25	output terminal state	0219h	ro	np	---	0	255	0	1	---
ru.26	active parameter set	021Ah	ro	np	---	0	7	0	1	---
ru.27	AN1 pre amplifier disp.	021Bh	ro	np	---	-100.0	100.0	0	0.1	%
ru.28	AN1 post amplifier disp.	021Ch	ro	np	---	-400.0	400.0	0	0.1	%
ru.29	AN2 pre amplifier disp.	021Dh	ro	np	---	-100.0	100.0	0	0.1	%
ru.30	AN2 post amplifier disp.	021Eh	ro	np	---	-400.0	400.0	0	0.1	%
ru.31	AN3 pre amplifier disp.	021Fh	ro	np	---	-100.0	100.0	0	0.1	%
ru.32	AN3 post amplifier disp.	0220h	ro	np	---	-400.0	400.0	0	0.1	%
ru.33	ANOUT1 pre ampl. disp.	0221h	ro	np	---	-400.0	400.0	0	0.1	%
ru.34	ANOUT1 post ampl. disp.	0222h	ro	np	---	-115.0	115.0	0	0.1	%
ru.35	ANOUT2 pre ampl. disp.	0223h	ro	np	---	-400.0	400.0	0	0.1	%
ru.36	ANOUT2 post ampl. disp.	0224h	ro	np	---	-115.0	115.0	0	0.1	%
ru.37	motorpoti actual value	0225h	ro	np	---	-100.00	100.00	0	0.01	%
ru.38	power module temperature	0226h	ro	np	---	0	150	0	1	°C
ru.39	OL counter display	0227h	ro	np	---	0	100	0	1	%
ru.40	power on counter	0228h	sup	np	---	0	65535	0	1	h
ru.41	modulation on counter	0229h	sup	np	---	0	ru.40	0	1	h
ru.42	modulation grade	022Ah	ro	np	---	0	110	0	1	%
ru.43	timer 1 display	022Bh	appl	np	---	0	655.35	0	0.01	---
ru.44	timer 2 display	022Ch	appl	np	---	0	655.35	0	0.01	---
ru.45	act. switching frequency	022Dh	ro	np	---	0	4	0	1	---
ru.46	motor temperature	022Eh	ro	np	---	0	255	0	1	°C
ru.47	act.torque limit mot.	022Fh	ro	np	---	-32000.00	32000.00	0	0.01	Nm
ru.48	act.torque limit gen.	0230h	ro	np	---	-32000.00	32000.00	0	0.01	Nm
ru.49	ref. torque	0231h	ro	np	---	-32000.00	32000.00	0	0.01	Nm
ru.50	ref. torque	0232h	ro	np	---	-10000	10000	-	0.01	Nm
ru.51	signed power mod. temp.	0233h	ro	np	---	-40	120	0	1	°C
ru.52	ext. PID out disp.	0234h	ro	np	---	-400.0	400.0	0	0.1	%
ru.53	AUX display	0235h	ro	np	---	-400.0	400.0	0	0.1	%
ru.54	actual position	0236h	ro	np	---	-2^31	2^31-1	0	1	inc
ru.56	set position	0238h	ro	np	---	-2^31	2^31-1	0	1	inc
ru.58	angle difference	023Ah	ro	np	---	-2^31	2^31-1	0	1	inc
ru.59	rotor adaption factor	023Bh	ro	np	---	0	200	0	1	%
ru.60	act. position index	023Ch	ro	np	---	0	255	0	1	---
ru.61	target position	023Dh	ro	np	---	-2^31	2^31-1	0	1	inc
ru.63	profile speed	023Fh	ro	np	---	n * -4000	n * 4000	0	n * 0.125	rpm
ru.65										
ru.67										
ru.68	rated DC voltage	0244h	ro	np	---	0	1500	0	1	V
ru.69	distance ref.-zeropoint	0245h	ro	np	---	-2^31	2^31-1	0	1	inc
ru.71	teach/scan position	0247h	ro	np	---	-2^31	2^31-1	0	1	inc
ru.73	set torque in percent	0249h	ro	np	---	-400.0	400.0	0	0.1	%
ru.74	act.torque in percent	024Ah	ro	np	---	-400.0	400.0	0	0.1	%
ru.78	act.val.display in perc.	024Eh	ro	np	---	-400.0	400.0	0	0.1	%
ru.79	abs.speed value (EMF)	024Fh	ro	np	---	n * -4000	n * 4000	0	n * 0.125	rpm
ru.80	digital output state	0250h	ro	np	---	0	255	0	1	---

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Parameter Overview

Parameter	Addr.	R	P	E	Lower limit	Upper limit	Default	Step	Unit
ru.81 active power	0251h	RO	np	---	-1000.00	1000.00	0.00	0.01	kW
ru.82 ramp val.disp. high-res	0252h	ro	np	---	-2^31	2^31-1	0	1	---
ru.83 act.val.display high-res	0253h	ro	np	---	-2^31	2^31-1	0	1	---
ru.84 accessible rel. posi.	0254h	ro	np	---	-2^31	2^31-1	0	1	inc
ru.85 peak encoder 1 speed	0255h	appl	np	---	0	n * 4095.875	0	n * 0.125	rpm
ru.86 peak encoder 2 speed	0256h	appl	np	---	0	n * 4095.875	0	n * 0.125	rpm
ru.87 magnetising current	0257h	ro	np	---	-3276.7	3276.7	0	0.1	A
ru.89 act. source speed	0259h	ro	np	---	n * -4000	n * 4000	0	n * 0.125	rpm
ru.90 max.torque in percent	025Ah	ro	np	---	0.00	400.00	0	0.01	%
ru.91 energy over gtr 7	025Bh	appl	np	---	0	99999	0	1	KWh
ru.92 input power	025Ch	ro	np	---	-1000.00	1000.00	0.00	0.01	kW
ru.93 power loss	025Dh	ro	np	---	-1000.00	1000.00	0.00	0.01	kW
ru.94 ext.PID ctrl.diff.disp.	025Eh	ro	np	---	-400.0	400.0	0.0	0.1	%
ru.95 ext. PID I disp.	025Fh	ro	np	---	-400.0	400.0	0.0	0.1	%
Sy.01 watchdog cycles	0001h	ro	np	---	0	255	0	1	hex
Sy.02 inverter identifier	0002h	cp-ro	np	---	identifier	identifier	identifier	1	hex
Sy.03 power unit code	0003h	cp-ro	np	E	1	255	LTK	1	---
Sy.04 cfg. data sel.	0004h	cp-ro	np	---	0	24	0	1	---
Sy.05 cfg. data	0005h	ro	np	---	-32727	32767	0	1	---
Sy.06 inverter address	0006h	appl	np	E	0	239	1	1	---
Sy.07 baud rate ext. bus	0007h	appl	np	E	0	6	3	1	---
Sy.08 bus synchron time	0008h	cp-ro	np	---	0: off	65000	0: off	1	μs
Sy.09 HSP5 watchdog time	0009h	cp-ro	np	E	0.00: off	10.00	0.00: off	0.01	s
Sy.10 F5-B; F5-G; F5-M	000Ah	ro	np	---	0	0	0	1	---
Sy.11 baud rate int. bus	000Bh	cp-ro	np	E	3	11	5	1	---
Sy.12 message para. 1 defin.	000Ch	cp-ro	np	---	-1: off	7FFFH	-1: off	1	hex
Sy.13 message parameter 1 set	000Dh	cp-ro	np	---	1	128	1	1	---
Sy.14 message para.2 defin.	000Eh	cp-ro	np	E	-1: off	7FFFH	-1: off	1	hex
Sy.15 message parameter 2 set	000Fh	cp-ro	np	E	1	128	1	1	---
Sy.16 proc. read data 1 defin.	0010h	appl	np	E	-1: off	7FFFH	-1: off	1	hex
Sy.17 proc. read data 1 set	0011h	appl	np	E	1	128	1	1	---
Sy.18 proc. read data 2 defin.	0012h	appl	np	E	-1: off	7FFFH	-1: off	1	hex
Sy.19 proc. read data 2 set	0013h	appl	np	E	1	128	1	1	---
Sy.20 proc. read data 3 defin.	0014h	appl	np	E	-1: off	7FFFH	-1: off	1	hex
Sy.21 proc. read data 3 set	0015h	appl	np	E	1	128	1	1	---
Sy.22 proc. read data 4 defin.	0016h	appl	np	E	-1: off	7FFFH	-1: off	1	hex
Sy.23 proc. read data 4 set	0017h	appl	np	E	1	128	1	1	---
Sy.24 proc. write data 1 def.	0018h	appl	np	E	-1: off	7FFFH	-1: off	1	hex
Sy.25 proc. write data 1 set	0019h	appl	np	E	1	255	255	1	---
Sy.26 proc. write data 2 def.	001Ah	appl	np	E	-1: off	7FFFH	-1: off	1	hex
Sy.27 proc. write data 2 set	001Bh	appl	np	E	1	255	255	1	---
Sy.28 proc. write data 3 def.	001Ch	appl	np	E	-1: off	7FFFH	-1: off	1	hex
Sy.29 proc. write data 3 set	001Dh	appl	np	E	1	255	255	1	---
Sy.30 proc. write data 4 def.	001Eh	appl	np	E	-1: off	7FFFH	-1: off	1	hex
Sy.31 proc. write data 4 set	001Fh	appl	np	E	1	255	255	1	---
Sy.32 scope timer	0020h	ro	np	---	0	65535	Sy.32	1	---
Sy.33 scope data 1 defin.	0021h	cp-ro	np	---	-1: off	7FFFH	-1: off	1	hex
Sy.34 scope data 1 set	0022h	cp-ro	np	---	1	128	1	1	---
Sy.35 scope data 2 defin.	0023h	cp-ro	np	---	-1: off	7FFFH	-1: off	1	hex
Sy.36 scope data 2 set	0024h	cp-ro	np	---	1	128	1	1	---
Sy.37 scope data 3 defin.	0025h	cp-ro	np	---	-1: off	7FFFH	-1: off	1	hex
Sy.38 scope data 3 set	0026h	cp-ro	np	---	1	128	1	1	---
Sy.39 scope data 4 defin.	0027h	cp-ro	np	---	-1: off	7FFFH	-1: off	1	hex
Sy.40 scope data 4 set	0028h	cp-ro	np	---	1	128	1	1	---
Sy.41 control word (high)	0029h	appl	np	E	0	65535	0	1	hex
Sy.42 status word (high)	002Ah	ro	np	---	0	65535	0	1	hex
Sy.43 control word (long)	002Bh	appl	np	E	-2^31	2^31-1	0	1	hex
Sy.44 status word (long)	002Ch	ro	np	---	-2^31	2^31-1	0	1	hex
Sy.45 drive mode ref. value	002Dh	appl	np	---	0	n * 4095	n * 1500	n * 0.125	rpm
Sy.46 drive mode rotation	002Eh	appl	np	---	0	15	0	1	hex
Sy.50 control word (low)	0032h	appl	np	E	0	65535	0	1	hex
Sy.51 status word (low)	0033h	ro	np	---	0	65535	0	1	hex

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Parameter		Addr.	R	P	E	Lower limit	Upper limit	Default	Step	Unit
Sy.52	set speed value	0034h	appl	np	---	-32000; -64000; -128000	32000; 64000; 128000	0	1; 2; 4	rpm
Sy.53	actual speed value	0035h	ro	np	---	-32000; -64000; -128000	32000; 64000; 128000	0	1; 2; 4	rpm
Sy.54	message time stamps	0036h	cp-ro	np	---	0	255	0	1	hex
Sy.56	start display address	0038h	cp-ro	np	E	0	7FFFH	0209h	1	hex
Sy.57	watchdog time address	0039h	cp-ro	np	---	-2	-1	-2	1	hex
Sy.58	proc. read data 5 defin.	003Ah	appl	np	E	-1	7FFFH	-1	1	hex
Sy.59	proc. read data 5 set	003Bh	appl	np	E	1	128	1	1	---
Sy.60	proc. read data 6 defin.	003Ch	appl	np	E	-1	7FFFH	-1	1	hex
Sy.61	proc. read data 6 set	003Dh	appl	np	E	1	128	1	1	---
Sy.62	proc. read data 7 defin.	003Eh	appl	np	E	-1	7FFFH	-1	1	hex
Sy.63	proc. read data 7 set	003Fh	appl	np	E	1	128	1	1	---
Sy.64	proc. read data 8 defin.	0040h	appl	np	E	-1	7FFFH	-1	1	hex
Sy.65	proc. read data 8 set	0041h	appl	np	E	1	128	1	1	---
Sy.66	proc. write data 5 def.	0042h	appl	np	E	-1	7FFFH	-1	1	hex
Sy.67	proc. write data 5 set	0043h	appl	np	E	1	255	255	1	---
Sy.68	proc. write data 6 def.	0044h	appl	np	E	-1	7FFFH	-1	1	hex
Sy.69	proc. write data 6 set	0045h	appl	np	E	1	255	255	1	---
Sy.70	proc. write data 7 def.	0046h	appl	np	E	-1	7FFFH	-1	1	hex
Sy.71	proc. write data 7 set	0047h	appl	np	E	1	255	255	1	---
Sy.72	proc. write data 8 def.	0048h	appl	np	E	-1	7FFFH	-1	1	hex
Sy.73	proc. write data 8 set	0049h	appl	np	E	1	255	255	1	---
Sy.74	proc. data 1-4 size	004Ah	appl	np	E	0	65535	0	1	hex
Sy.75	proc. data 5-8 size	004Bh	appl	np	E	0	65535	0	1	hex
Sy.77	control word S4	004Dh	appl	np	E	0	65535	0	1	hex
Sy.78	status word S4	004Eh	appl	np	---	0	65535	0	1	hex
Sy.79	status word 1 profidrive	004Fh	appl	np	---	0	65535	0	1	hex
Sy.80	status word 2 profidrive	0050h	appl	np	---	0	65535	0	1	hex
Ud.01	pssword input	0801h	cp-ro	np	o.P.	0	9999	Application	1	---
Ud.02	Control type	0802h	appl	np	E	0	15	0	1	---
Ud.02	control type	0802h	appl	np	E	0	15	8	1	---
Ud.04	auto store state	0804h	appl	np	---	0	1	1	1	---
Ud.05	auto store	0805h	appl	np	---	0	2	1	1	---
Ud.07	memory store input sel.	0806h	appl	np	---	0	4095	0	1	---
Ud.09	drive mode control	0809h	appl	np	---	0	11	0	1	---
Ud.15	cp selector	080Fh	appl	np	E	1	36	1	1	---
Ud.16	cp address	0810h	appl	np	E	-1: off	7FFFH	CP def.	1	hex
Ud.17	cp set norm	0811h	appl	np	E	1	8191	1	1	---
Ud.18	divisor display norm	0812h	appl	p	E	-32767	32767	1	1	---
Ud.19	multiplier display norm	0813h	appl	p	E	-32767	32767	1	1	---
Ud.20	offset display norm	0814h	appl	p	E	-32767	32767	0	1	---
Ud.21	ctrl. display norm	0815h	appl	p	E	0	1791	0	1	---
Ud.22	pp selector	0816h	appl	np	E	0	47	0	1	---
Ud.23	pp address	0817h	appl	np	E	-1	7FFFH	-1	1	hex
Ud.24	pp properties	0818h	appl	np	E	1	2^20-1	1	1	---
Ud.25	pp write multiplier	0819h	appl	np	---	-32767	32767	1	1	---
Ud.26	pp write shifter	081Ah	appl	np	---	0	48	0	1	---
Ud.27	pp read multiplier	081Bh	appl	np	---	-32767	32767	1	1	---
Ud.28	pp read shifter	081Ch	appl	np	---	0	48	0	1	---
Ud.29	pp offset	081Dh	appl	np	---	-2^31+1	2^31-1	0	1	---
Ud.30	pp upper limit	081Eh	appl	np	---	-2^31+1	2^31-1	1	1	---
Ud.31	pp lower limit	081Fh	appl	np	---	-2^31+1	2^31-1	0	1	---
uf.00	rated frequency	0500h	appl	p	---	0	n * 400	n * 50 ; 60	n * 0.0125	Hz
uf.01	boost	0501h	appl	p	---	0.0	25.5	LTK	0.1	%
uf.02	add. frequency	0502h	appl	p	---	n * -0.0125: parab.	n * 400	0: linear	n * 0.0125	Hz
uf.03	add. voltage	0503h	appl	p	---	0.0	100.0	0.0	0.1	%
uf.04	delta boost	0504h	appl	p	---	0.0	25.5	0.0	0.1	%
uf.05	delta boost time	0505h	appl	p	---	0.00	10.00	0.00	0.01	s
uf.06	energy saving mode	0506h	appl	p	---	0	79	0	1	---
uf.06	energy saving mode	0506h	appl	p	---	0	127	0	1	---
uf.07	energy saving factor	0507h	appl	p	---	0.0	130.0	70.0	0.1	%
uf.08	energy saving input sel.	0508h	appl	np	E	0	4095	0	1	---
uf.09	voltage stabilisation	0509h	appl	np	E	1	1120	1120	1	V

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Parameter Overview

Parameter	Addr.	R	P	E	Lower limit	Upper limit	Default	Step	Unit
uF.10 max. voltage mode	050Ah	appl	p	---	0	3	0	1	---
uF.11 switching frequency	050Bh	appl	p	E	1	LTK	LTK	1	---
uF.11 switching frequency	050Bh	appl	p	E	0	LTK	LTK	1	---
uF.12 base block time	050Ch	ro	np	---	0.05	10.00	LTK	0.01	s
uF.13 base block voltage level	050Dh	ro	np	---	1	50	LTK	1	%
uF.14 transistor on delay time	050Eh	ro	np	---	0	LTK	LTK	0.05	μs
uF.15 hardw. curr. lim. mode	050Fh	appl	np	E	0	2	1	1	---
uF.16 autoboot configuration	0510h	appl	p	---	0	3	0	1	---
uF.17 autoboot gain	0511h	appl	p	---	0.00	2.50	1.20	0.01	---
uF.18 deadtime comp. mode	0512h	appl	np	E	0	3	0	1	---
uF.21 dt.comp. off input sel.	0515h	appl	np	E	0	4095	0	1	---
uF.22 dead-time e-comp limit	0516h	sup	np	---	0.00	10.00	0.00	0.01	μs
uF.23 dead-time e-comp fact	0517h	sup	np	---	0	32000	0	1	---
uF.24 dead time comp. PT1 time	0518h	appl	np	---	0.000	4095.938	0.000	0.063	ms
uF.25 dead time soft on/off	0519h	appl	np	---	0	1024	0	1.000	ms