

BBV51917

## ATV12 - Communication Parameters - 1.4IE05

### DANGER

#### UNINTENDED EQUIPMENT OPERATION

- Read and understand this document, the User Manual and Modbus Manual before installing or operating the Altivar 12 drive.
- Any changes made to the parameter settings must be performed by qualified personnel.

**Failure to follow these instructions will result in death or serious injury.**

### WARNING

#### LOSS OF CONTROL

- The designer of any control scheme must
  - consider the potential failure modes of control paths and, for certain critical control functions,
  - provide a means to achieve a safe state during and after a path failure.

Examples of critical control functions are emergency stop and overtravel stop.

•Separate or redundant control paths must be provided for critical control functions.

•System control paths may include communication links. Consideration must be given to the implications of unanticipated transmission delays or failures of the link. (see note a.)

**Failure to follow these instructions can result in death, serious injury, or equipment damage.**

Note a.: For additional information, refer to NEMA ICS 1.1 (latest edition), "Safety Guidelines for the Application, Installation, and Maintenance of Solid State Control" and to NEMA ICS 7.1 (latest edition), "Safety Standards for Construction and Guide for Selection, Installation and Operation of Adjustable-Speed Drive Systems."

Electrical equipment should be installed, operated, serviced, and maintained only by qualified personnel. No responsibility is assumed by Schneider Electric for any consequences arising out of the use of this material.

#### EXPLANATORY NOTE

This Excel file is for reference only. Refer to both the Altivar 12 User Manual and the Altivar 12 Modbus Communication Manual for full information.

This Excel file can be used to carry out searches (e.g. parameter address and format) and sort operations.

**The columns include the following criteria:**

**Code:** Language-independent, this allows a rapid search in the Altivar 12 User Manual, which includes an index of parameter codes. Additional information can be found in the Altivar 12 Modbus Communication Manual.

**Name:** Parameter designation

**Logic address:** Address for the Modbus messaging are in decimal and hexadecimal (preceded by 16#) format. To optimize Modbus messaging performance, two addresses are given for the control word (CMD) and the status word (ETA). The addresses annotated "speed" are for use in rpm; the addresses annotated "frequency" are for use in Hz.

**Link:** For WORD type parameters, a dynamic link opens the description of a bit register or a listing. Listings are common to several parameters; only one part is valid for a given parameter. Refer to both the Altivar 12 User Manual and the Altivar 12 Modbus Communication Manual to determine the valid values. If an invalid value is written to a configuration parameter, the drive will indicate a fault [Invalid config.] (CFI).

**Category:** Defines the role of the parameter, for example: Command parameter, Status parameter, etc.

**Access:** Read and write options:

R: Read only

R/W: Read and write

R/WS: Read and write (write only possible when the drive is not in RUN mode).

It is not possible to write these parameters in "5-Operation enabled" or "6-Quick stop active" states.

If the parameter is written in the "4-Switched on" state, transition 10 to "2-Switch on disabled" is activated.

**Type:**

WORD (bit register): Word where each bit represents a command or a state

WORD (listing): Word where each value represents a possible choice for a configuration or state

INT: Signed integer

UINT: Unsigned integer

DINT: Signed double integer

UDINT: Unsigned double integer

**Units:** Physical unit and multiplier

**Factory setting:** Value of the parameter set at the factory.

**Range:** Possible values

**Display:** Parameter name displayed on the graphic display terminal, in square brackets [---], and parameter code displayed by the 7-segment digits on the integrated display terminal, in round brackets (---).

**Menu:** Indicates the menus or menus where the parameter is located. Menu name displayed on the graphic display terminal, in square brackets [---], and menu code displayed by the 7-segment digits on the integrated display terminal, in round brackets (---).

**Order:** Gives the initial storage order of the parameter in the file, from 1 to n. This makes it possible, after sorting operations, to put this file back in its initial order by sorting the column in ascending order.

Code	Name	Logic address	CANopen index	INTERBUS index	DeviceNet path	Link	Category	Access	Type	Units	Factory setting	Range	Display	Menu	Order
CMD	Control word	16#2199 = 8601 (speed) 16#2135 = 8501 (frequency)	-	-	-	CMD	Control parameters	R/W	WORD (BitString16)	-	-	-	-	-	1
CMI	Extended control word	16#2138 = 08504	-	-	-	CMI	Control parameters	R/W	WORD (BitString16)	-	-	-	-	-	2
RPR	Reset counters command	16#0C30 = 03120	-	-	-	RPR	Control parameters	R/W	WORD (Enumeration)	-	"NO"	-	(rPr)	(FL-)	3
LFRD	Speed setpoint	16#219A = 08602	-	-	-	-	Setpoint parameters	R/W	INT (Signed16)	1 rpm	0	-32767 rpm ... 32767 rpm	-	-	4
LFR	Frequency setpoint	16#2136 = 08502	-	-	-	-	Setpoint parameters	R/W	INT (Signed16)	0.1 Hz	0	-3276.7 Hz ... 3276.7 Hz	(LFr)	(rEF-) (MON-) (ClL)	5
PISP	PID regulator setpoint	16#2137 = 08503	-	-	-	-	Setpoint parameters	R/W	UINT (Unsigned16)	0.1 %	0	0 % ... 100 %	-	-	6
AIV1	Analog input virtual	16#14A1 = 05281	-	-	-	-	Setpoint parameters	R/W	INT (Signed16)	0.1 %	0	0 % ... 100 %	(AIU1)	(rEF-) (MON-) (ClL)	7
ETA	Status word	16#219B = 8603 (speed) 16#0C81 = 3201 (frequency)	-	-	-	ETA	Status parameters	R	WORD (BitString16)	-	-	-	-	-	8
HMIS	Product status	16#0CA8 = 03240	-	-	-	HMIS	Status parameters	R	WORD (Enumeration)	-	"TUN"	-	-	-	9
ETI	Extended status word	16#0C86 = 03206	-	-	-	ETI	Status parameters	R	WORD (BitString16)	-	-	-	-	-	10
CRC	Active reference channel	16#20F9 = 08441	-	-	-	CCC	Status parameters	R	WORD (BitString16)	-	-	-	-	-	11
CCC	Active command channel	16#20FA = 08442	-	-	-	CCC	Status parameters	R	WORD (BitString16)	-	-	-	-	-	12
RFRD	Output velocity	16#219C = 08604	-	-	-	-	Actual values parameters	R	INT (Signed16)	1 rpm	0	-32767 rpm ... 32767 rpm	-	-	13
RFR	Estimated motor frequency (signed value)	16#0C82 = 03202	-	-	-	-	Actual values parameters	R	INT (Signed16)	0.1 Hz	0	-500 Hz ... 500 Hz	(rFr)	(MON-)	14
LCR	Estimated motor current	16#0C84 = 03204	-	-	-	-	Actual values parameters	R	UINT (Unsigned16)	0.1 A	0	0 A ... 6553.5 A	(LCr)	(MON-)	15
OPR	Output power monitoring (100% = nominal motor power)	16#0C8B = 03211	-	-	-	-	Actual values parameters	R	INT (Signed16)	1 %	0	-32767 % ... 32767 %	(OPr)	(MON-)	16
FRH	Frequency reference before ramp	16#0C83 = 03203	-	-	-	-	Reference parameters	R	INT (Signed16)	0.1 Hz	0	-3276.7 Hz ... 3276.7 Hz	(FrH)	(rEF-) (MON-)	17
RPC	PID reference after ramp	16#2ECE = 11982	-	-	-	-	Reference parameters	R	UINT (Unsigned16)	0.1 %	0	0 % ... 6553.5 %	(rPC)	(rEF-) (MON-)	18
RPF	PID regulator feedback reference	16#2ECD = 11981	-	-	-	-	Reference parameters	R	UINT (Unsigned16)	0.1 %	0	0 % ... 6553.5 %	(rPF)	(MON-)	19
RPE	PID regulator discrepancy	16#2ECC = 11980	-	-	-	-	Reference parameters	R	INT (Signed16)	0.1 %	0	-3276.7 % ... 3276.7 %	(rPE)	(MON-)	20
ULN	Main voltage (from DC bus)	16#0C87 = 03207	-	-	-	-	Measurement parameters	R	UINT (Unsigned16)	1 V	0	0 V ... 65535 V	(ULn)	(MON-)	21
THD	Drive thermal state	16#0C89 = 03209	-	-	-	-	Measurement parameters	R	UINT (Unsigned16)	1 %	0	0 % ... 200 %	(tHd)	(MON-)	22
THR	Motor thermal state	16#259E = 09630	-	-	-	-	Measurement parameters	R	UINT (Unsigned16)	1 %	0	0 % ... 200 %	(tHr)	(MON-)	23
PTH	Total drive operating time	16#0CA1 = 03233	-	-	-	-	Measurement parameters	R	UINT (Unsigned16)	0.01 h	0	0 h ... 655.35 h	(PtH)	(MAI-)	24
TAC	IGBT alarm time	16#0CA3 = 03235	-	-	-	-	Measurement parameters	R/WS	UINT (Unsigned16)	1 s	0	0 s ... 65535 s	-	-	25
TAC2	Time at the minimum frequency	16#0CAA = 03242	-	-	-	-	Measurement parameters	R/WS	UINT (Unsigned16)	1 s	0	0 s ... 65535 s	-	-	26
FTO	Overload fault duration	16#3857 = 14423	-	-	-	-	Measurement parameters	R/W	UINT (Unsigned16)	1 min	0	0 min ... 6 min	(FtO)	(I_O-) (PMP-)	27
NPL	Logic input type	16#1003 = 04099	-	-	-	NPL	I/O parameters	R/WS	WORD (Enumeration)	-	"POS"	-	(nPL)	(I_O-)	28
IL1I	Logic inputs state	16#1451 = 05201	-	-	-	IL1I	I/O parameters	R	WORD (BitString16)	-	-	-	-	-	29
OL1R	Logic outputs state	16#145C = 05212	-	-	-	OL1R	I/O parameters	R/W	WORD (BitString16)	-	-	-	-	-	30
AI1I	Analogic input state	16#1466 = 05222	-	-	-	-	I/O parameters	R	INT (Signed16)	1	0	-32767 ... 32767	-	-	31
AI1C	Analog input 1 physical value	16#147A = 05242	-	-	-	-	I/O parameters	R	INT (Signed16)	Refer to programming manual	0	Refer to programming manual	-	-	32
AI1R	Analog input 1 standardized value	16#1470 = 05232	-	-	-	-	I/O parameters	R	INT (Signed16)	1	0	-32767 ... 32767	-	-	33
AO1C	Analog output 1 physical value	16#1497 = 05271	-	-	-	-	I/O parameters	R/W	INT (Signed16)	Refer to programming manual	0	Refer to programming manual	-	-	34
AO1R	Analog output 1 standardized value	16#148D = 05261	-	-	-	-	I/O parameters	R/W	INT (Signed16)	1	0	-32767 ... 32767	-	-	35
LFT	Altivar fault code	16#1BD1 = 07121	-	-	-	LFT	Fault parameters	R	WORD (Enumeration)	-	"NOF"	-	-	-	36
CIC	Incorrect configuration	16#1BDA = 07130	-	-	-	-	Fault parameters	R/WS	WORD (BitString16)	-	-	-	-	-	37
DP0	Fault code on last fault	16#1C20 = 07200	-	-	-	LFT	History parameters	R	WORD (Enumeration)	-	"NOF"	-	-	-	38
EP0	Status word on last fault	16#1C2A = 07210	-	-	-	EPO	History parameters	R	WORD (BitString16)	-	-	-	-	-	39
DP1	Fault code on fault n-1	16#1C21 = 07201	-	-	-	LFT	History parameters	R	WORD (Enumeration)	-	"NOF"	-	(dP1)	(MAI-)	40
ULP1	Supply voltage on fault n-1	16#1C67 = 07271	-	-	-	-	History parameters	R	UINT (Unsigned16)	1 V	0	0 V ... 65535 V	-	-	41
LCP1	Motor current on fault n-1	16#1C49 = 07241	-	-	-	-	History parameters	R	INT (Signed16)	0.1 A	0	-3276.7 A ... 3276.7 A	-	-	42
RFP1	Output frequency on fault n-1	16#1C53 = 07251	-	-	-	-	History parameters	R	INT (Signed16)	0.1 Hz	0	-3276.7 Hz ... 3276.7 Hz	-	-	43
EP1	Status word on fault n-1	16#1C2B = 07211	-	-	-	EPO	History parameters	R	WORD (BitString16)	-	-	-	(EP1)	(MAI-)	44
RTP1	Motor operating time on fault n-1	16#1C5D = 07261	-	-	-	-	History parameters	R	UINT (Unsigned16)	1 h	0	0 h ... 65535 h	-	-	45
OTP1	Estimated Motor torque value at fault 1	16#1CA3 = 07331	-	-	-	-	History parameters	R	INT (Signed16)	1 %	0	-32767 % ... 32767 %	-	-	46
TDP1	Measured drive thermal state at fault 1	16#1CAD = 07341	-	-	-	-	History parameters	R	UINT (Unsigned16)	1 %	0	0 % ... 255 %	-	-	47
TJP1	Estimated power component temperature (Tj) at fault 1	16#1CB7 = 07351	-	-	-	-	History parameters	R	UINT (Unsigned16)	1 °C	0	0 °C ... 255 °C	-	-	48
SFP1	Actual motor switching frequency at fault 1	16#1CC1 = 07361	-	-	-	-	History parameters	R	UINT (Unsigned16)	1 Hz	0	0 Hz ... 65535 Hz	-	-	49
DP2	Fault code on fault n-2	16#1C22 = 07202	-	-	-	LFT	History parameters	R	WORD (Enumeration)	-	"NOF"	-	(dP2)	(MAI-)	50
ULP2	Supply voltage on fault n-2	16#1C68 = 07272	-	-	-	-	History parameters	R	UINT (Unsigned16)	1 V	0	0 V ... 65535 V	-	-	51
LCP2	Motor current on fault n-2	16#1C4A = 07242	-	-	-	-	History parameters	R	INT (Signed16)	0.1 A	0	-3276.7 A ... 3276.7 A	-	-	52
RFP2	Output frequency on fault n-2	16#1C54 = 07252	-	-	-	-	History parameters	R	INT (Signed16)	0.1 Hz	0	-3276.7 Hz ... 3276.7 Hz	-	-	53
EP2	Status word on fault n-2	16#1C2C = 07212	-	-	-	EPO	History parameters	R	WORD (BitString16)	-	-	-	(EP2)	(MAI-)	54
RTP2	Motor operating time on fault n-2	16#1C5E = 07262	-	-	-	-	History parameters	R	UINT (Unsigned16)	1 h	0	0 h ... 65535 h	-	-	55
OTP2	Estimated Motor torque value at fault 2	16#1CA4 = 07332	-	-	-	-	History parameters	R	INT (Signed16)	1 %	0	-32767 % ... 32767 %	-	-	56
TDP2	Measured drive thermal state at fault 2	16#1CAE = 07342	-	-	-	-	History parameters	R	UINT (Unsigned16)	1 %	0	0 % ... 255 %	-	-	57
TJP2	Estimated power component temperature (Tj) at fault 2	16#1CB8 = 07352	-	-	-	-	History parameters	R	UINT (Unsigned16)	1 °C	0	0 °C ... 255 °C	-	-	58
SFP2	Actual motor switching frequency at fault 2	16#1CC2 = 07362	-	-	-	-	History parameters	R	UINT (Unsigned16)	1 Hz	0	0 Hz ... 65535 Hz	-	-	59

Code	Name	Logic address	CANopen index	INTERBUS index	DeviceNet path	Link	Category	Access	Type	Units	Factory setting	Range	Display	Menu	Order
DP3	Fault code on fault n-3	16#1C23 = 07203	-	-	-	LFT	History parameters	R	WORD (Enumeration)	-	"NOF"	-	(dP3)	(MAI-)	60
ULP3	Supply voltage on fault n-3	16#1C69 = 07273	-	-	-	-	History parameters	R	UINT (Unsigned16)	1 V	0	0 V ... 65535 V	-	-	61
LCP3	Motor current on fault n-3	16#1C4B = 07243	-	-	-	-	History parameters	R	INT (Signed16)	0.1 A	0	-3276.7 A ... 3276.7 A	-	-	62
RFP3	Output frequency on fault n-3	16#1C55 = 07253	-	-	-	-	History parameters	R	INT (Signed16)	0.1 Hz	0	-3276.7 Hz ... 3276.7 Hz	-	-	63
EP3	Status word on fault n-3	16#1C2D = 07213	-	-	-	EP0	History parameters	R	WORD (BitString16)	-	-	-	(EP3)	(MAI-)	64
RTP3	Motor operating time on fault n-3	16#1C5F = 07263	-	-	-	-	History parameters	R	UINT (Unsigned16)	1 h	0	0 h ... 65535 h	-	-	65
OTP3	Estimated Motor torque value at fault 3	16#1CA5 = 07333	-	-	-	-	History parameters	R	INT (Signed16)	1 %	0	-32767 % ... 32767 %	-	-	66
TDP3	Measured drive thermal state at fault 3	16#1CAF = 07343	-	-	-	-	History parameters	R	UINT (Unsigned16)	1 %	0	0 % ... 255 %	-	-	67
TJP3	Estimated power component temperature (Tj) at fault 3	16#1CB9 = 07353	-	-	-	-	History parameters	R	UINT (Unsigned16)	1 °C	0	0 °C ... 255 °C	-	-	68
SFP3	Actual motor switching frequency at fault 3	16#1CC3 = 07363	-	-	-	-	History parameters	R	UINT (Unsigned16)	1 Hz	0	0 Hz ... 65535 Hz	-	-	69
DP4	Fault code on fault n-4	16#1C24 = 07204	-	-	-	LFT	History parameters	R	WORD (Enumeration)	-	"NOF"	-	(dP4)	(MAI-)	70
ULP4	Supply voltage on fault n-4	16#1C6A = 07274	-	-	-	-	History parameters	R	UINT (Unsigned16)	1 V	0	0 V ... 65535 V	-	-	71
LCP4	Motor current on fault n-4	16#1C4C = 07244	-	-	-	-	History parameters	R	INT (Signed16)	0.1 A	0	-3276.7 A ... 3276.7 A	-	-	72
RFP4	Output frequency on fault n-4	16#1C56 = 07254	-	-	-	-	History parameters	R	INT (Signed16)	0.1 Hz	0	-3276.7 Hz ... 3276.7 Hz	-	-	73
EP4	Status word on fault n-4	16#1C2E = 07214	-	-	-	EP0	History parameters	R	WORD (BitString16)	-	-	-	(EP4)	(MAI-)	74
RTP4	Motor operating time on fault n-4	16#1C60 = 07264	-	-	-	-	History parameters	R	UINT (Unsigned16)	1 h	0	0 h ... 65535 h	-	-	75
OTP4	Estimated Motor torque value at fault 4	16#1CA6 = 07334	-	-	-	-	History parameters	R	INT (Signed16)	1 %	0	-32767 % ... 32767 %	-	-	76
TDP4	Measured drive thermal state at fault 4	16#1CB0 = 07344	-	-	-	-	History parameters	R	UINT (Unsigned16)	1 %	0	0 % ... 255 %	-	-	77
TJP4	Estimated power component temperature (Tj) at fault 4	16#1CBA = 07354	-	-	-	-	History parameters	R	UINT (Unsigned16)	1 °C	0	0 °C ... 255 °C	-	-	78
SFP4	Actual motor switching frequency at fault 4	16#1CC4 = 07364	-	-	-	-	History parameters	R	UINT (Unsigned16)	1 Hz	0	0 Hz ... 65535 Hz	-	-	79
NCV	Drive nominal rating	16#0BC3 = 03011	-	-	-	NCV	Identification parameters	R/W	WORD (Enumeration)	-	"NO"	-	(nCU)	(MAI-)	80
VCAL	Drive line voltage	16#0BC4 = 03012	-	-	-	VCAL	Identification parameters	R/W	WORD (Enumeration)	-	"NO"	-	(UCAL)	(MAI-)	81
INV	Nominal drive current	16#0BC9 = 03017	-	-	-	-	Identification parameters	R	UINT (Unsigned16)	0.1 A	Depends of rating	0 A ... 6553.5 A	-	-	82
VDP	Drive software version	16#0CE6 = 03302	-	-	-	-	Identification parameters	R	UINT (Unsigned16)	1	0	0 ... 65535	-	-	83
SPN	Specific product number	16#0CE5 = 03301	-	-	-	-	Identification parameters	R/W	UINT (Unsigned16)	1	0	0 ... 65535	(SPn)	(MAI-)	84
NC1	Communication scanner, value of write word 1	16#31D9 = 12761	-	-	-	-	Communication parameters	R/W	UINT (Unsigned16)	1	0	0 ... 65535	(nC1)	(OSA-)	85
NC2	Communication scanner, value of write word 2	16#31DA = 12762	-	-	-	-	Communication parameters	R/W	UINT (Unsigned16)	1	0	0 ... 65535	(nC2)	(OSA-)	86
NC3	Communication scanner, value of write word 3	16#31DB = 12763	-	-	-	-	Communication parameters	R/W	UINT (Unsigned16)	1	0	0 ... 65535	(nC3)	(OSA-)	87
NC4	Communication scanner, value of write word 4	16#31DC = 12764	-	-	-	-	Communication parameters	R/W	UINT (Unsigned16)	1	0	0 ... 65535	(nC4)	(OSA-)	88
NM1	Communication scanner, value of read word 1	16#31C5 = 12741	-	-	-	-	Communication parameters	R	UINT (Unsigned16)	1	0	0 ... 65535	(nM1)	(ISA-)	89
NM2	Communication scanner, value of read word 2	16#31C6 = 12742	-	-	-	-	Communication parameters	R	UINT (Unsigned16)	1	0	0 ... 65535	(nM2)	(ISA-)	90
NM3	Communication scanner, value of read word 3	16#31C7 = 12743	-	-	-	-	Communication parameters	R	UINT (Unsigned16)	1	0	0 ... 65535	(nM3)	(ISA-)	91
NM4	Communication scanner, value of read word 4	16#31C8 = 12744	-	-	-	-	Communication parameters	R	UINT (Unsigned16)	1	0	0 ... 65535	(nM4)	(ISA-)	92
SCS	Save configuration	16#1F41 = 08001	-	-	-	SCS	Configuration management	R/W	WORD (Enumeration)	-	"NO"	-	(SCS)	(CONF-)	93
FCS	Restore configuration	16#1F42 = 08002	-	-	-	FCS	Configuration management	R/W	WORD (Enumeration)	-	"NO"	-	(FCS)	(CONF-)	94
CFG	Macro configuration	16#0BEC = 03052	-	-	-	CFG	Simply start	R/W	WORD (Enumeration)	-	"STS"	-	(CFG)	(FULL-)	95
LSP	Low speed	16#0C21 = 03105	-	-	-	-	Settings	R/W	UINT (Unsigned16)	0.1 Hz	0	0 Hz ... 400 Hz	(LSP)	(SPL-)	96
HSP	High speed	16#0C20 = 03104	-	-	-	-	Settings	R/W	UINT (Unsigned16)	0.1 Hz	0	0 Hz ... 400 Hz	(HSP)	(SPL-)	97
ITH	Motor thermal current	16#2596 = 09622	-	-	-	-	Settings	R/W	UINT (Unsigned16)	0.1 A	NCR	0 A ... 6553.5 A	(tH)	(tH-)	98
SFC	Speed filter coefficient ( 0(IP) to 1(PI) )	16#2391 = 09105	-	-	-	-	Settings	R/W	UINT (Unsigned16)	1	Refer to programming manual	0 ... 100	(SFC)	(drC-)	99
CTD	Motor current threshold	16#2AF9 = 11001	-	-	-	-	Settings	R/W	UINT (Unsigned16)	0.1 A	INV	0 A ... 6553.5 A	(Ctd)	(I_O-)	100
FTD	Motor frequency threshold	16#2AFB = 11003	-	-	-	-	Settings	R/W	UINT (Unsigned16)	0.1 Hz	Refer to programming manual	0 Hz ... 400 Hz	(Ftd)	(I_O-)	101
BFR	Basic frequency	16#0BC7 = 03015	-	-	-	BFR	Motor control	R/W	WORD (Enumeration)	-	"50"	-	(bFr)	(drC-)	102
NPR	Nominal Motor Power	16#258D = 09613	-	-	-	-	Motor control	R/W	UINT (Unsigned16)	Refer to programming manual	Depends of rating	Refer to programming manual	(nPr)	(drC-)	103
UNS	Nominal motor voltage	16#2581 = 09601	-	-	-	-	Motor control	R/W	UINT (Unsigned16)	1 V	230	100 V ... 480 V	(UnS)	(drC-)	104
NCR	Nominal motor current	16#2583 = 09603	-	-	-	-	Motor control	R/W	UINT (Unsigned16)	0.1 A	Depends of rating	0 A ... 6553.5 A	(nCr)	(drC-)	105
FRS	Nominal motor frequency	16#2582 = 09602	-	-	-	-	Motor control	R/W	UINT (Unsigned16)	0.1 Hz	Refer to programming manual	10 Hz ... 400 Hz	(FrS)	(drC-)	106
NSP	Nominal motor speed	16#2584 = 09604	-	-	-	-	Motor control	R/W	UINT (Unsigned16)	1 rpm	Depends of rating	0 rpm ... 24000 rpm	(nSP)	(drC-)	107
COS	Rated motor cos Phi	16#2586 = 09606	-	-	-	-	Motor control	R/W	UINT (Unsigned16)	0.01	Depends of rating	0.5 ... 1	(COS)	(drC-)	108
MTM	Motor thermal state memo	16#2590 = 09616	-	-	-	N Y	Motor control	R/W	WORD (Enumeration)	-	"NO"	-	(MtM)	(tH-)	109
STUN	Autotune selection store	16#2591 = 09617	-	-	-	ACT	Motor control	R	WORD (Enumeration)	-	"Ab"	-	-	-	110
FLG	Frequency loop gain	16#2594 = 09620	-	-	-	-	Motor control	R/W	UINT (Unsigned16)	1 %	20	0 % ... 100 %	(FLG)	(drC-)	111
STA	Frequency loop stability	16#2595 = 09621	-	-	-	-	Motor control	R/W	UINT (Unsigned16)	1 %	20	0 % ... 100 %	(StA)	(drC-)	112
TFR	Top frequency	16#0C1F = 03103	-	-	-	-	Motor control	R/W	UINT (Unsigned16)	0.1 Hz	Refer to programming manual	10 Hz ... 400 Hz	(tFr)	(drC-)	113
TUN	Auto-tuning	16#2588 = 09608	-	-	-	TUN	Motor control	R/W	WORD (Enumeration)	-	"NO"	-	(tUn)	(drC-)	114
CTT	Motor control type assignment	16#2587 = 09607	-	-	-	CTT	Motor control	R/W	WORD (Enumeration)	-	Refer to programming manual	-	(Ctt)	(drC-)	115
UFR	IR compensation	16#2597 = 09623	-	-	-	-	Motor control	R/W	UINT (Unsigned16)	1 %	100	25 % ... 200 %	(UFR)	(drC-)	116
PFL	Flux profile	16#2598 = 09624	-	-	-	-	Motor control	R/W	UINT (Unsigned16)	1 %	20	0 % ... 100 %	(PFL)	(drC-)	117
SLP	Slip compensation	16#2599 = 09625	-	-	-	-	Motor control	R/W	UINT (Unsigned16)	1 %	Refer to programming manual	0 % ... 150 %	(SLP)	(drC-)	118
SPGU	Inertia gain for the derivative term of the UF laws	16#259D = 09629	-	-	-	-	Motor control	R/W	UINT (Unsigned16)	1 %	40	0 % ... 1000 %	-	-	119
RSM	Calculated (cold state) or measured stator resistance	16#25A8 = 09640	-	-	-	-	Motor control	R	UINT (Unsigned16)	1 mOhm	0	0 mOhm ... 65535 mOhm	-	-	120
RSMI	Measured stator resistance	16#25A9 = 09641	-	-	-	-	Motor control	R	UINT (Unsigned16)	1	0	0 ... 65535	-	-	121
SFT	Switching frequency type	16#0C1D = 03101	-	-	-	SFT	Motor control	R/W	WORD (Enumeration)	-	"HF1"	-	(SFT)	(drC-)	122
SFR	Switching frequency range	16#0C1E = 03102	-	-	-	-	Motor control	R/W	UINT (Unsigned16)	0.1 kHz	40	2 kHz ... 16 kHz	(SFr)	(drC-)	123
CLI	Current limitation	16#23F1 = 09201	-	-	-	-	Motor control	R/W	UINT (Unsigned16)	0.1 A	Depends of rating	0 A ... 6553.5 A	(CLi)	(CLi-)	124
NRD	Motor noise reduction	16#0C23 = 03107	-	-	-	N Y	Motor control	R/W	WORD (Enumeration)	-	"NO"	-	(nrD)	(drC-)	125
TCC	Type of control	16#2B5D = 11101	-	-	-	TCC	Inputs / outputs cfg	R/W	WORD (Enumeration)	-	"2C"	-	(tCC)	(I_O-)	126
TCT	2 wire type control	16#2B5E = 11102	-	-	-	TCT	Inputs / outputs cfg	R/W	WORD (Enumeration)	-	"TRN"	-	(tCt)	(I_O-)	127
RRS	Reverse direction	16#2B61 = 11105	-	-	-	PSL	Inputs / outputs cfg	R/W	WORD (Enumeration)	-	Refer to programming manual	-	(rS)	(FU-)	128
AI1T	AI1 type	16#1132 = 04402	-	-	-	AIOT	AI1 configuration	R/W	WORD (Enumeration)	-	Refer to programming manual	-	(AI1t)	(AI1-)	129
CRL1	AI1 current scaling parameter of 0%	16#1150 = 04432	-	-	-	-	AI1 configuration	R/W	UINT (Unsigned16)	0.1 mA	40	0 mA ... 20 mA	(CrL1)	(AI1-)	130

Code	Name	Logic address	CANopen index	INTERBUS index	DeviceNet path	Link	Category	Access	Type	Units	Factory setting	Range	Display	Menu	Order
CRH1	AI1 current scaling parameter of 100%	16#115A = 0442	-	-	-	-	AI1 configuration	R/W/S	UINT (Unsigned16)	0.1 mA	200	0 mA ... 20 mA	(CrH1)	(AI1-)	131
R1	R1 assignment	16#1389 = 05001	-	-	-	PSL	R1 configuration	R/W/S	WORD (Enumeration)	-	"FLT"	-	(r1)	(I-O)	132
R1S	R1 status (output active level)	16#1069 = 04201	-	-	-	NPL	R1 configuration	R/W/S	WORD (Enumeration)	-	"POS"	-	-	-	133
LO1	LO1 assignment	16#1391 = 05009	-	-	-	PSL	LO1 configuration	R/W/S	WORD (Enumeration)	-	"NO"	-	(LO1)	(LO1-)	134
LO1S	LO1 status (output active level)	16#1071 = 04209	-	-	-	NPL	LO1 configuration	R/W/S	WORD (Enumeration)	-	"POS"	-	(LO1S)	(LO1-)	135
AO1	AO1 assignment	16#139D = 05021	-	-	-	PSA	AO1 configuration	R/W/S	WORD (Enumeration)	-	"NO"	-	(AO1)	(AO1-)	136
AO1T	AO1 type	16#11F9 = 04601	-	-	-	AIO1	AO1 configuration	R/W/S	WORD (Enumeration)	-	"0A"	-	(AO1t)	(AO1-)	137
FR1	Reference source 1	16#20DD = 08413	-	-	-	PSA	Command	R/W/S	WORD (Enumeration)	-	Refer to programming manual	-	(Fr1)	(CL-)	138
RIN	Reverse inhibition	16#0C24 = 03108	-	-	-	N Y	Command	R/W/S	WORD (Enumeration)	-	Refer to programming manual	-	(rin)	(CL-)	139
PST	Stop key priority	16#FA02 = 64002	-	-	-	N Y	Command	R/W/S	WORD (Enumeration)	-	"YES"	-	(PSt)	(CL-)	140
CHCF	Channel configuration	16#20D1 = 08401	-	-	-	CHCF	Command	R/W/S	WORD (Enumeration)	-	"SIM"	-	(CHCF)	(CL-)	141
CD1	Channel 1 command source	16#20E7 = 08423	-	-	-	CDX	Command	R/W/S	WORD (Enumeration)	-	"TER"	-	(Cd1)	(CL-)	142
RPT	Shape ramp assignment	16#232C = 09004	-	-	-	RPT	Ramp	R/W	WORD (Enumeration)	-	"LIN"	-	(rPt)	(rPt-)	143
ACC	Acceleration time (between 0 and FRS)	16#2329 = 09001	-	-	-	-	Ramp	R/W	UINT (Unsigned16)	0.1 s	30	0 s ... 999.9 s	(ACC)	(rPt-)	144
DEC	Deceleration time (between FRS and 0)	16#232A = 09002	-	-	-	-	Ramp	R/W	UINT (Unsigned16)	0.1 s	30	0 s ... 999.9 s	(dEC)	(rPt-)	145
RPS	Ramp switch assignment	16#2332 = 09010	-	-	-	PSL	Ramp	R/W/S	WORD (Enumeration)	-	"NO"	-	(rPS)	(rPt-)	146
AC2	Acceleration time 2 (between 0 and FRS)	16#2334 = 09012	-	-	-	-	Ramp	R/W	UINT (Unsigned16)	0.1 s	50	0 s ... 999.9 s	(AC2)	(rPt-)	147
DE2	Deceleration time 2 (between FRS and 0)	16#2335 = 09013	-	-	-	-	Ramp	R/W	UINT (Unsigned16)	0.1 s	50	0 s ... 999.9 s	(dE2)	(rPt-)	148
BRA	Braking function assignment	16#232B = 09003	-	-	-	BRA	Ramp	R/W/S	WORD (Enumeration)	-	"YES"	-	(brA)	(rPt-)	149
STT	Stop mode	16#2BC1 = 11201	-	-	-	STT	Stop configuration	R/W/S	WORD (Enumeration)	-	"RMP"	-	(Stt)	(Stt-)	150
NST	Free wheel stop assignment	16#2BC2 = 11202	-	-	-	PSL	Stop configuration	R/W/S	WORD (Enumeration)	-	"NO"	-	(nSt)	(Stt-)	151
FST	Fast stop assignment	16#2BC4 = 11204	-	-	-	PSL	Stop configuration	R/W/S	WORD (Enumeration)	-	"NO"	-	(FSt)	(Stt-)	152
DCF	Deceleration ramp time reduction	16#2BDE = 11230	-	-	-	-	Stop configuration	R/W	UINT (Unsigned16)	1	4	1 ... 10	(dCF)	(Stt-)	153
ADC	Automatic DC injection	16#28A1 = 10401	-	-	-	ADC	Auto DC injection	R/W	WORD (Enumeration)	-	"YES"	-	(AdC)	(AdC-)	154
SDC1	Current level of automatic DC injection	16#28A3 = 10403	-	-	-	-	Auto DC injection	R/W	UINT (Unsigned16)	0.1 A	(0,7 * NCR)	0 A ... 6553.5 A	(SdC1)	(AdC-)	155
TDC1	IDC injection time	16#28A2 = 10402	-	-	-	-	Auto DC injection	R/W	UINT (Unsigned16)	0.1 s	5	0.1 s ... 30 s	(tdC1)	(AdC-)	156
JOG	Jog assignment	16#2B66 = 11110	-	-	-	PSL	JOG	R/W/S	WORD (Enumeration)	-	"NO"	-	(JOG)	(FUn-)	157
JGF	Jog frequency	16#2B67 = 11111	-	-	-	-	JOG	R/W	UINT (Unsigned16)	0.1 Hz	50	0 Hz ... 10 Hz	-	-	158
PS2	2 preset speeds	16#2C89 = 11401	-	-	-	PSL	Preset speeds	R/W/S	WORD (Enumeration)	-	Refer to programming manual	-	(PS2)	(PSS-)	159
PS4	4 preset speeds	16#2C8A = 11402	-	-	-	PSL	Preset speeds	R/W/S	WORD (Enumeration)	-	Refer to programming manual	-	(PS4)	(PSS-)	160
PS8	8 preset speeds	16#2C8B = 11403	-	-	-	PSL	Preset speeds	R/W/S	WORD (Enumeration)	-	"NO"	-	(PS8)	(PSS-)	161
SP2	Preset speed 2	16#2C92 = 11410	-	-	-	-	Preset speeds	R/W	UINT (Unsigned16)	0.1 Hz	100	0 Hz ... 400 Hz	(SP2)	(PSS-)	162
SP3	Preset speed 3	16#2C93 = 11411	-	-	-	-	Preset speeds	R/W	UINT (Unsigned16)	0.1 Hz	Refer to programming manual	0 Hz ... 400 Hz	(SP3)	(PSS-)	163
SP4	Preset speed 4	16#2C94 = 11412	-	-	-	-	Preset speeds	R/W	UINT (Unsigned16)	0.1 Hz	Refer to programming manual	0 Hz ... 400 Hz	(SP4)	(PSS-)	164
SP5	Preset speed 5	16#2C95 = 11413	-	-	-	-	Preset speeds	R/W	UINT (Unsigned16)	0.1 Hz	250	0 Hz ... 400 Hz	(SP5)	(PSS-)	165
SP6	Preset speed 6	16#2C96 = 11414	-	-	-	-	Preset speeds	R/W	UINT (Unsigned16)	0.1 Hz	300	0 Hz ... 400 Hz	(SP6)	(PSS-)	166
SP7	Preset speed 7	16#2C97 = 11415	-	-	-	-	Preset speeds	R/W	UINT (Unsigned16)	0.1 Hz	350	0 Hz ... 400 Hz	(SP7)	(PSS-)	167
SP8	Preset speed 8	16#2C98 = 11416	-	-	-	-	Preset speeds	R/W	UINT (Unsigned16)	0.1 Hz	400	0 Hz ... 400 Hz	(SP8)	(PSS-)	168
JPF	Skip frequency	16#2C25 = 11301	-	-	-	-	Jump frequency	R/W	UINT (Unsigned16)	0.1 Hz	0	0 Hz ... 400 Hz	(JPF)	(FUn-)	169
PIF	PID : PI function feedback assignment	16#2E7D = 11901	-	-	-	PSA	PID regulator	R/W/S	WORD (Enumeration)	-	Refer to programming manual	-	(PIF)	(PId-)	170
TLS	Time limited speed (LSP)	16#2DB5 = 11701	-	-	-	-	PID regulator	R/W	UINT (Unsigned16)	0.1 s	0	[---](NO) ... 999.9 s	(tLS)	(PId-)	171
FBS	PID Feedback scale factor	16#2E7F = 11903	-	-	-	-	PID regulator	R/W	UINT (Unsigned16)	0.1	10	0.1 ... 100	(FbS)	(PId-)	172
PII	PID : PI internal reference selection	16#2E84 = 11908	-	-	-	N Y	PID regulator	R/W/S	WORD (Enumeration)	-	"NO"	-	(PII)	(PId-)	173
RPI	PID : Internal reference PI	16#2E90 = 11920	-	-	-	-	PID regulator	R/W	UINT (Unsigned16)	0.1 %	0	0 % ... 100 %	(rPI)	(rEF-)	174
RPL	PID minimum value reference	16#2E87 = 11911	-	-	-	-	PID regulator	R/W	UINT (Unsigned16)	0.1 %	0	0 % ... 100 %	(rPL)	(PId-)	175
RPH	PID max value reference	16#2E88 = 11912	-	-	-	-	PID regulator	R/W	UINT (Unsigned16)	0.1 %	1000	0 % ... 100 %	(rPH)	(PId-)	176
RPG	PID : PI regulator proportional gain	16#2EA5 = 11941	-	-	-	-	PID regulator	R/W	UINT (Unsigned16)	0.01	100	0.01 ... 100	(rPG)	(PId-)	177
RIG	PID : PI regulator integral gain	16#2EA6 = 11942	-	-	-	-	PID regulator	R/W	UINT (Unsigned16)	0.01	100	0.01 ... 100	(rIG)	(PId-)	178
RDG	PID : PI regulator derivative gain	16#2EA7 = 11943	-	-	-	-	PID regulator	R/W	UINT (Unsigned16)	0.01	0	0 ... 100	(rDG)	(PId-)	179
PRP	PID : ACC/DEC setpoint ramp parameter	16#2ED0 = 11984	-	-	-	-	PID regulator	R/W	UINT (Unsigned16)	0.1 s	0	0 s ... 99.9 s	(PrP)	(PId-)	180
PIC	PID : PI regulator Reversal direction correction	16#2EA4 = 11940	-	-	-	N Y	PID regulator	R/W/S	WORD (Enumeration)	-	"NO"	-	(PIC)	(PId-)	181
PAU	PID : Auto-manu	16#2EC2 = 11970	-	-	-	PSL	PID regulator	R/W/S	WORD (Enumeration)	-	Refer to programming manual	-	(PAU)	(PId-)	182
PIM	PID : Reference input in manual mode	16#2EB2 = 11954	-	-	-	PSA	PID regulator	R/W/S	WORD (Enumeration)	-	"NO"	-	(PIM)	(PId-)	183
SFS	PID predictive speed	16#2EB3 = 11955	-	-	-	-	PID regulator	R/W/S	UINT (Unsigned16)	0.1 Hz	0	[---](NO) ... 400 Hz	(SFS)	(PId-)	184
RSL	PID : Wake up threshold on PI error	16#2EB8 = 11960	-	-	-	-	PID regulator	R/W/S	UINT (Unsigned16)	0.1 %	0	0 % ... 100 %	(rSL)	(PId-)	185
UPP	Wake up threshold	16#2EBC = 11964	-	-	-	-	PID regulator	R/W	UINT (Unsigned16)	0.1 %	0	0 % ... 100 %	(UPP)	(PId-)	186
LFF	Withdrawal frequency	16#1BA8 = 07080	-	-	-	-	PID regulator	R/W/S	UINT (Unsigned16)	0.1 Hz	0	0 Hz ... 400 Hz	(LFF)	(EtF-)	187
LPI	Reaction threshold for PI monitoring function	16#2EBD = 11965	-	-	-	-	PID regulator	R/W	INT (Signed16)	0.1 %	-1	[---](NO) ... 100 %	(LPI)	(PId-)	188
MPI	Behaviour of PI monitoring function	16#2EBF = 11967	-	-	-	ECFG	PID regulator	R/W/S	WORD (Enumeration)	-	"YES"	-	(MPI)	(PId-)	189
NFD	Period for PI state point checking	16#2ED6 = 11990	-	-	-	-	PID regulator	R/W/S	WORD (Enumeration)	1 min	0	[---](NO) ... 20 min	(nFD)	(PMP-)	190
PR2	PID : Assignment for 2 presets PI	16#2E85 = 11909	-	-	-	PSL	PID preset references	R/W/S	WORD (Enumeration)	-	"NO"	-	(Pr2)	(PId-)	191
PR4	PID : Assignment for 4 presets PI	16#2E86 = 11910	-	-	-	PSL	PID preset references	R/W/S	WORD (Enumeration)	-	"NO"	-	(Pr4)	(PId-)	192
RP2	PID : Preset PI number 2	16#2E91 = 11921	-	-	-	-	PID preset references	R/W	UINT (Unsigned16)	0.1 %	250	0 % ... 100 %	(rP2)	(PId-)	193
RP3	PID : Preset PI number 3	16#2E92 = 11922	-	-	-	-	PID preset references	R/W	UINT (Unsigned16)	0.1 %	500	0 % ... 100 %	(rP3)	(PId-)	194
RP4	PID : Preset PI number 4	16#2E93 = 11923	-	-	-	-	PID preset references	R/W	UINT (Unsigned16)	0.1 %	750	0 % ... 100 %	(rP4)	(PId-)	195
AP0	???	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Code	Name	Logic address	CANopen index	INTERBUS index	DeviceNet path	Link	Category	Access	Type	Units	Factory setting	Range	Display	Menu	Order
FFD	Max speed for PI state point checking	16#2ED7 = 11991	-	-	-	-	Pump application	R/W	UINT (Unsigned16)	0.1 Hz	0	0 Hz ... 400 Hz	(FFd)	(PMP-)	197
FOF	Stopping frequency of the auxiliary pump	16#3B63 = 15203	-	-	-	-	Pump application	R/W	UINT (Unsigned16)	0.1 Hz	0	0 Hz ... 400 Hz	(FOF)	(PMP-)	198
FON	Starting frequency of the auxiliary pump	16#3B62 = 15202	-	-	-	-	Pump application	R/W	UINT (Unsigned16)	0.1 Hz	Refer to programming manual	0 Hz ... 400 Hz	(FON)	(PMP-)	199
FTU	Underload fault duration	16#384D = 14413	-	-	-	-	Pump application	R/W	UINT (Unsigned16)	1 min	0	0 min ... 6 min	(FtU)	(I_O-) (PMP-)	200
LFD	Speed reference for PI state point checking	16#2ED8 = 11992	-	-	-	-	Pump application	R/W	UINT (Unsigned16)	0.1 Hz	0	0 Hz ... 400 Hz	(LFD)	(PMP-)	201
MDE	Selecting the operating mode	16#3B61 = 15201	-	-	-	N Y	Pump application	R/WS	WORD (Enumeration)	-	"NO"	-	(MdE)	(PMP-)	202
ROF	Ramp for stopping the auxiliary pump	16#3B67 = 15207	-	-	-	-	Pump application	R/W	UINT (Unsigned16)	0.1 s	20	0 s ... 999.9 s	(rOF)	(PMP-)	203
RON	Ramp for reaching the nominal speed of the auxiliary pump	16#3B66 = 15206	-	-	-	-	Pump application	R/W	UINT (Unsigned16)	0.1 s	20	0 s ... 999.9 s	(rON)	(PMP-)	204
SLE	Stop on LSP hysteresis	16#2DB6 = 11702	-	-	-	-	Pump application	R/W	UINT (Unsigned16)	0.1 Hz	10	0 Hz ... 400 Hz	(SLE)	(Pid-)	205
TOF	Time delay before the auxiliary pump stop command	16#3B65 = 15205	-	-	-	-	Pump application	R/W	UINT (Unsigned16)	0.1 s	20	0 s ... 999.9 s	(tOF)	(PMP-)	206
TON	Time delay before starting the auxiliary pump	16#3B64 = 15204	-	-	-	-	Pump application	R/W	UINT (Unsigned16)	0.1 s	20	0 s ... 999.9 s	(tON)	(PMP-)	207
TPI	Reaction time for PI monitoring function	16#2EBE = 11966	-	-	-	-	Pump application	R/W	UINT (Unsigned16)	1 s	0	0 s ... 600 s	(tPI)	(Pid-)	208
INH	Fault inhibition assignment	16#1BD5 = 07125	-	-	-	PSL	Fault inhibition	R/WS	WORD (Enumeration)	-	"NO"	-	(InH)	(FLt-)	209
SLL	Drive behaviour when ETIx.SLFFEvent is detected on Modbus channel	16#1B62 = 07010	-	-	-	ECFG	Com. fault management	R/WS	WORD (Enumeration)	-	"YES"	-	(SLL)	(FLt-)	210
LFL1	4-20 mA loos behaviour	16#1B69 = 07017	-	-	-	ECFG	Com. fault management	R/WS	WORD (Enumeration)	-	Refer to programming manual	-	(LFL1)	(FLt-)	211
NCA1	Communication scanner, address of write word 1	16#31B1 = 12721	-	-	-	-	Communication	R/WS	UINT (Unsigned16)	1	8501	0 ... 65535	(nCA1)	(OCS-)	212
NCA2	Communication scanner, address of write word 2	16#31B2 = 12722	-	-	-	-	Communication	R/WS	UINT (Unsigned16)	1	8602	0 ... 65535	(nCA2)	(OCS-)	213
NCA3	Communication scanner, address of write word 3	16#31B3 = 12723	-	-	-	-	Communication	R/WS	UINT (Unsigned16)	1	0	0 ... 65535	(nCA3)	(OCS-)	214
NCA4	Communication scanner, address of write word 4	16#31B4 = 12724	-	-	-	-	Communication	R/WS	UINT (Unsigned16)	1	0	0 ... 65535	(nCA4)	(OCS-)	215
NMA1	Communication scanner, address of read word 1	16#319D = 12701	-	-	-	-	Communication	R/WS	UINT (Unsigned16)	1	3201	0 ... 65535	(nMA1)	(ICS-)	216
NMA2	Communication scanner, address of read word 2	16#319E = 12702	-	-	-	-	Communication	R/WS	UINT (Unsigned16)	1	8604	0 ... 65535	(nMA2)	(ICS-)	217
NMA3	Communication scanner, address of read word 3	16#319F = 12703	-	-	-	-	Communication	R/WS	UINT (Unsigned16)	1	0	0 ... 65535	(nMA3)	(ICS-)	218
NMA4	Communication scanner, address of read word 4	16#31A0 = 12704	-	-	-	-	Communication	R/WS	UINT (Unsigned16)	1	0	0 ... 65535	(nMA4)	(ICS-)	219
ADD	Terminal modbus : Drive address	16#1771 = 06001	-	-	-	-	Communication	R/WS	UINT (Unsigned16)	1	0	[---](OFF) ... 247	(Add)	(COM-)	220
TBR	Terminal modbus : Baud-rate	16#1773 = 06003	-	-	-	TBR	Communication	R/WS	WORD (Enumeration)	-	"19K2"	-	(tbr)	(COM-)	221
TFO	Terminal modbus : Frame format	16#1774 = 06004	-	-	-	FOR	Communication	R/WS	WORD (Enumeration)	-	"8E1"	-	(tFO)	(COM-)	222
TTO	Terminal modbus : Time-out	16#1775 = 06005	-	-	-	-	Communication	R/WS	UINT (Unsigned16)	0.1 s	100	0.1 s ... 30 s	(tTO)	(COM-)	223
FLO	Forced local assignment	16#20EF = 08431	-	-	-	PSL	Communication	R/WS	WORD (Enumeration)	-	"NO"	-	(FLO)	(CLt-)	224
FLOC	Forced local reference source assignment	16#20F0 = 08432	-	-	-	PSA	Communication	R/WS	WORD (Enumeration)	-	"NO"	-	(FLOC)	(CLt-)	225
RTHI	Run elapsed time display	16#0CA0 = 03232	-	-	-	-	Measurement parameters	R	UINT (Unsigned16)	0.01 h	0	0 h ... 655.35 h	(rTHI)	(MAL-)	226
PET	Process elapsed time	16#0CA4 = 03236	-	-	-	-	Measurement parameters	R/W	UINT (Unsigned16)	0.01 h	0	0 h ... 655.35 h	(PET)	(MAL-)	227
FTH	Fan time display	16#0CA7 = 03239	-	-	-	-	Measurement parameters	R	UINT (Unsigned16)	0.01 h	0	0 h ... 655.35 h	(FtH)	(MAL-)	228
ULT	Application underload time delay	16#384B = 14411	-	-	-	-	Motor load management	R/WS	UINT (Unsigned16)	1 s	0	0 s ... 100 s	(ULt)	(I_O-) (PMP-)	229
LUL	Application underload threshold	16#384F = 14415	-	-	-	-	Motor load management	R/W	UINT (Unsigned16)	1 %	60	20 % ... 100 %	(LUL)	(I_O-) (PMP-)	230
TOL	Application Overload time delay	16#3855 = 14421	-	-	-	-	Motor load management	R/WS	UINT (Unsigned16)	1 s	0	0 s ... 100 s	(tOL)	(I_O-) (PMP-)	231
LOC	Application overload threshold	16#3859 = 14425	-	-	-	-	Motor load management	R/W	UINT (Unsigned16)	1 %	90	70 % ... 150 %	(LOC)	(I_O-) (PMP-)	232
SH2	2 HSP assignment	16#3AFD = 15101	-	-	-	PSL	Preset HSP	R/WS	WORD (Enumeration)	-	"NO"	-	(SH2)	(SPL-)	233
SH4	4 HSP assignment	16#3AFE = 15102	-	-	-	PSL	Preset HSP	R/WS	WORD (Enumeration)	-	"NO"	-	(SH4)	(SPL-)	234
HSU	Display of High speed value	16#3B05 = 15109	-	-	-	-	Preset HSP	R	UINT (Unsigned16)	0.1 Hz	0	0 Hz ... 400 Hz	(HSU)	(MAL-)	235
HSP2	High speed 2	16#3B06 = 15110	-	-	-	-	Preset HSP	R/W	UINT (Unsigned16)	0.1 Hz	Refer to programming manual	0 Hz ... 400 Hz	(HSP2)	(SPL-)	236
HSP3	High speed 3	16#3B07 = 15111	-	-	-	-	Preset HSP	R/W	UINT (Unsigned16)	0.1 Hz	Refer to programming manual	0 Hz ... 400 Hz	(HSP3)	(SPL-)	237
HSP4	High speed 4	16#3B08 = 15112	-	-	-	-	Preset HSP	R/W	UINT (Unsigned16)	0.1 Hz	Refer to programming manual	0 Hz ... 400 Hz	(HSP4)	(SPL-)	238
ETF	External fault assignment	16#1BDB = 7131	-	-	-	PSL	Inputs / outputs cfg	R/WS	WORD (Enumeration)	-	"NO"	-	(EtF)	(FLt-)	239
EPL	Drive behaviour on external fault detection	16#1B5E = 7006	-	-	-	ECFG	Stop configuration	R/WS	WORD (Enumeration)	-	"YES"	-	(EPL)	(FLt-)	240

Code	Values	Display	Description
<b>ACT</b>	0	(tAb)	
	1	(PEnd)	
	2	(PrOG)	
	3	(FAIL)	
	4	(dOnE)	
<b>ADC</b>	0	(nO)	
	1	(YES)	
	2	(Ct)	
<b>AIOT</b>	0	(5U)	
	1	(10U)	
	2	(0A)	
	3	(4A)	
	5	(n10U)	
	6	(GALU)	
<b>BFR</b>	0	(50Hz)	
	1	(60Hz)	
<b>BRA</b>	0	(nO)	
	1	(YES)	
	2	(dYnA)	
<b>CDX</b>	1	(tEr)	
	2	(LOC)	
	3	(LCC)	
	10	(Mdb)	
<b>CFG</b>	0	(StS)	
	4	(PId)	
	9	(SPd)	
<b>CHCF</b>	1	(SIM)	
	2	(SEP)	
<b>CTT</b>	0	(PErF)	
	3	(Std)	
	6	(PUMP)	
<b>ECFG</b>	0	(nO)	
	1	(YES)	
	4	(LFF)	
<b>ERRD</b>	16#0000	(LFF1)	
	16#0000	(XXXX)	
	16#0000	(nOF)	
	16#0000	(InF)	
	16#1000	(OLF)	
	16#1000	(CrF1)	
	16#1000	(SOF)	
	16#1000	(InFE)	
	16#2230	(SCF4)	
	16#2310	(OCF)	
	16#2311	(OLC)	
	16#2320	(SCF1)	
	16#2320	(SCF5)	
	16#2330	(SCF3)	
	16#3110	(OSF)	
	16#3120	(USF)	
	16#3130	(PHF)	
	16#3310	(OPF2)	
	16#3310	(OPF1)	
	16#3310	(ObF)	
	16#4210	(tJF)	
	16#4210	(OHF)	
	16#5210	(InF9)	
	16#5210	(InFb)	
	16#6100	(InF1)	
	16#6100	(InF4)	
	16#6100	(InF3)	

Code	Values	Display	Description
	16#6100	(InF2)	
	16#6300	(CFI)	
	16#6300	(CFI2)	
	16#6300	(CFF)	
	16#7510	(SLF1)	
	16#7510	(SLF3)	
	16#7530	(SLF2)	
	16#9000	(EPF1)	
	16#FF00	(tnF)	
	16#FF03	(ULF)	
	16#FF04	(SPIF)	
<b>FCS</b>	0	(nO)	
	2	(rEC1)	
	64	(InI)	
	71	(InI1)	
<b>FOR</b>	2	(8O1)	
	3	(8E1)	
	4	(8n1)	
	5	(8n2)	
<b>HMIS</b>	0	(tUn)	
	1	(dCb)	
	2	(rdY)	
	3	(nSt)	
	4	(rUn)	
	5	(ACC)	
	6	(dEC)	
	7	(CLl)	
	8	(FSt)	
	11	(nLP)	
	13	(CtL)	
	14	(Obr)	
	23	(FLt)	
	24	(FrF)	
	31	(rEM)	
32	(LOC)		
<b>LFT</b>	0	(nOF)	
	1	(InF)	
	3	(CFF)	
	4	(CFI)	
	5	(SLF1)	
	8	(EPF1)	
	9	(OCF)	
	10	(CrF1)	
	16	(OHF)	
	17	(OLF)	
	18	(ObF)	
	19	(OSF)	
	20	(OPF1)	
	21	(PHF)	
	22	(USF)	
	23	(SCF1)	
	24	(SOF)	
	25	(tnF)	
	26	(InF1)	
	27	(InF2)	
	28	(InF3)	
	29	(InF4)	
	32	(SCF3)	
33	(OPF2)		
42	(SLF2)		
45	(SLF3)		

Code	Values	Display	Description
	51	(InF9)	
	53	(InFb)	
	54	(tJF)	
	55	(SCF4)	
	56	(SCF5)	
	69	(InFE)	
	77	(CFI2)	
	100	(ULF)	
	101	(OLC)	
	102	(SPIF)	
	106	(LFF1)	
	253	(XXXX)	
<b>N_Y</b>	0	(nO)	
	1	(YES)	
<b>NCV</b>	0	(nO)	
	1	(U010)	
	2	(U018)	
	3	(U025)	
	4	(U037)	
	5	(U055)	
	6	(U075)	
	7	(U090)	
	8	(U110)	
	9	(U150)	
	10	(U185)	
	11	(U220)	
	12	(U300)	
	13	(U370)	
	14	(U400)	
	15	(U550)	
	16	(U750)	
<b>NPL</b>	0	(POS)	
	1	(nEG)	
	2	(EnEG)	
<b>PSA</b>	0	(nO)	
	1	(AI1)	
	129	(OCr)	
	130	(OFr)	
	131	(OrP)	
	135	(OPS)	
	136	(OPF)	
	137	(OPE)	
	139	(OPr)	
	140	(tHr)	
	141	(tHd)	
	163	(LCC)	
	164	(Mdb)	
	183	(AIU1)	
<b>PSL</b>	0	(nO)	
	1	(FLt)	
	2	(rUn)	
	4	(FtA)	
	5	(FLA)	
	6	(CtA)	
	7	(SrA)	
	8	(tSA)	
	10	(PEE)	
	11	(PFA)	
	21	(ULA)	
	22	(OLA)	
	123	(AP1)	



Code	Values	Display	Description
	126	(PMP)	
	129	(LI1)	
	130	(LI2)	
	131	(LI3)	
	132	(LI4)	
	145	(L1L)	
	146	(L2L)	
	147	(L3L)	
	148	(L4L)	
<b>RPR</b>	0	(nO)	
	3	(rtHl)	
	4	(PtH)	
	7	(FtH)	
<b>RPT</b>	0	(LIIn)	
	1	(S)	
	2	(U)	
<b>SCS</b>	0	(nO)	
	2	(Str1)	
<b>SFT</b>	1	(HF1)	
	2	(HF2)	
<b>STT</b>	0	(rMP)	
	8	(FSt)	
	13	(nSt)	
<b>TBR</b>	24	(4800)	
	28	(9600)	
	32	(19200)	
	36	(38400)	
<b>TCC</b>	0	(2C)	
	1	(3C)	
<b>TCT</b>	0	(LEL)	
	1	(trn)	
	2	(PFO)	
<b>TUN</b>	0	(nO)	
	1	(YES)	
	2	(dOnE)	
<b>VCAL</b>	0	(nO)	
	1	(110M)	
	2	(110t)	
	3	(220M)	
	4	(220t)	

<b>CMD</b>	<p>bit 0: = 1 : Switch on  bit 1: = 0 : Disable voltage  bit 2: = 0 : Quick stop/Emergency stop  bit 3: = 1 : Enable operation/Run command</p> <p>bit 4: Reserved (set to 0).  bit 5: Reserved (set to 0).  bit 6: Reserved (set to 0).  bit 7: Fault reset/Fault acknowledgment active on 0 V 1 rising edge</p> <p>bit 8: = 0 : RUN asked, 1 : STOP asked  bit 9: Reserved (set to 0).  bit 10: Reserved (set to 0).  bit 11: Direction of rotation command  = 0: Forward rotation  = 1: Reverse rotation. Default value, this bit can be assigned to another command.</p> <p>bit 12: Reserved (set to 0).  bit 13: Reserved (set to 0).  bit 14: Reserved (set to 0).  bit 15: Reserved (set to 0).</p>
<b>CMI</b>	<p>bit 0: Factory setting command (active at 1).  bit 1: Save configuration to EEPROM non-volatile memory command (active at 1).  This bit automatically changes to 0 after the request is taken into account. The command is only active if the drive is stopped, and not in "5-Operation enabled" state.  Note: If CMI is a periodic network variable, the PLC program must write it to 0 after the first request is taken into account. The life of the EEPROM memory is limited to 100,000 write operations.  Note: If the motor or configuration switching function is active, the configuration in the RAM is saved to the EEPROM in the configuration designated by [Config. Active] (CnFS).</p> <p>bit 2: Reserved (= 0).  bit 3: Reserved (= 0).</p> <p>bit 4: Reserved (= 0).  bit 5: Reserved (= 0).  bit 6: Reserved (= 0).  bit 7: Reserved (= 0).</p> <p>bit 8: Reserved (= 0).  bit 9: Definition of the frequency reference (LFr) and output frequency (rFr) unit:  = 0 : 0.1 Hz  = 1 : Standardized value 16 signed bits based on the maximum frequency. The value 32767 corresponds to [Max frequency] (tFr). The default value of [Max frequency] (tFr) is 60 Hz, and the resolution is then approximately 0.0018 Hz.</p> <p>This function has no effect on the speed reference (LFr) or the output speed (rFr).</p> <p>bit 10: Reserved (= 0).  bit 11: Reserved (= 0).</p> <p>bit 12: Reserved (= 0).  bit 13: Reserved (= 0).  bit 14: Reserved (= 0).  bit 15: Parameter consistency check  = 0: The check is activated. Each time a parameter is written, the drive checks the relationship between the written parameter and the configuration in the drive. For example, the [High speed] (HSP) parameter must be less than [Max frequency] (tFr).  = 1: The check is deactivated. The drive is locked in stop mode. In this drive state, the configuration can be written parameter by parameter and the drive does not modify the values that are written.  The switch from 1 to 0 triggers a calculation of the consistency of the configuration. Some parameters can be modified automatically by the drive.</p>
<b>ETA</b>	<p>bit 0: = 1 : Ready to switch on  bit 1: = 1 : Switched on, ready  bit 2: = 1 : Operation enabled, running  bit 3: = 1 : Fault detection</p> <p>bit 4: Voltage enabled (always = 1).  bit 5: = 0 : Quick stop/Emergency stop  bit 6: = 1 : Switched on disabled  bit 7: Reserved (= 0)</p> <p>bit 8: Reserved (= 0)  bit 9: Remote, command or reference via the network  = 0 : Command or reference via the terminals  = 1 : Command or reference via the network</p> <p>bit 10: Target reached, reference reached  = 0 : The reference is not reached  = 1 : The reference has been reached  When the drive stops, the reference has been reached.</p> <p>bit 11: Internal limit active, reference outside limits  = 0 : The reference is within the limits  = 1 : The reference is not within the limits</p>

	<p>The limits are defined by the "Low speed (LSP)" and "High speed (HSP)" parameters.</p> <p>bit 12: Reserved (= 0)  bit 13: Reserved (= 0)  bit 14: Stop key, STOP via stop key  = 0 : STOP key not pressed  = 1 : Stop triggered by the STOP key on the display terminal  bit 15: Direction, direction of rotation  = 0 : Forward rotation at output  = 1 : Reverse rotation at output</p>
<b>ETI</b>	<p>bit 0: = 1 : Access to the EEPROM non-volatile memory in progress  bit 1: = 0 : No parameter consistency check  = 1 : Parameter consistency check  bit 2: = 0 : The drive is not in fault state or a fault is detected  = 1 : The drive is in fault state but the fault is no longer present (not reset)  bit 3: Reserved (= 0).  bit 4: = 1 : The drive is in speed mode  bit 5: = 1 : DC injection  bit 6: = 0 : Drive in steady state  = 1 : Drive in transient state  bit 7: = 1 : Motor thermal state threshold reached for the active motor  bit 8: Reserved (= 0).  bit 9: = 1 : Acceleration in progress  bit 10: = 1 : Deceleration in progress  bit 11: = 1 : Current limit in progress  bit 12: = 1 : Fast stop in progress  bit 13: bit 13 = 0 and bit 14 = 0 : Drive controlled by terminal or local keypad  bit 14: bit 13 = 1 and bit 14 = 0 : Drive controlled by remote keypad  bit 13 = 0 and bit 14 = 1 : Drive controlled by Modbus  bit 13 = 1 and bit 14 = 1 : Reserved  bit 15: = 0 : Forward operation applied before the ramp  = 1 : Reverse operation applied before the ramp</p>
<b>EP0 EP1 EP2 EP3 EP4</b>	<p>bit 0 : = 1 : Switched on (Same as ETA.1)  bit 1 : = 0 : Quick stop (Same as ETA.5)  bit 2 : = 1 : Switch on disabled (Same as ETA.6)  bit 3 : = 0 : Forced local mode in progress  bit 4 : = 0 : Motor rotation in forward direction (or stopped) (Same as ETA.15)  bit 5 : = 1 : Run order present (Same as ETI.4)  bit 6 : = 1 : DC injection running (Same as ETI.5)  bit 7 : = 1 : Motor thermal threshold reached (Same as ETI.7)  bit 8 : Reserved (Same as ETI.8)  bit 9 : = 1 : Product in acceleration (Same as ETI.9)  bit 10 : = 1 : Product in deceleration (Same as ETI.10)  bit 11 : = 1 : Current limit is running (Same as ETI.11)  bit 12 : = 1 : Fast stop in progress (Same as ETI.12)  bit 13: bit 13 = 0 and bit 14 = 0 : Drive controlled by terminal or local keypad (Same as ETI.13 and ETI.14)  bit 14: bit 13 = 1 and bit 14 = 0 : Drive controlled by remote keypad (Same as ETI.13 and ETI.14)  bit 13 = 0 and bit 14 = 1 : Drive controlled by Modbus (Same as ETI.13 and ETI.14)  bit 13 = 1 and bit 14 = 1 : Reserved (Same as ETI.13 and ETI.14)  bit 15: = 1 : Reverse operation applied before the ramp (Same as ETI.15)</p>
<b>CCC CRC</b>	<p>bit 0: = 1: The terminal board is the active channel.  bit 1: = 1: The local keypad is the active channel.  bit 2: = 1: The remote keypad is the active channel.  bit 3: = 1: Modbus is the active channel.  bit 4: Reserved (= 0).  bit 5: Reserved (= 0).  bit 6: Reserved (= 0).  bit 7: Reserved (= 0).  bit 8: Reserved (= 0).  bit 9: Reserved (= 0).  bit 10: Reserved (= 0).  bit 11: Reserved (= 0).  bit 12: Reserved (= 0).  bit 13: Reserved (= 0).  bit 14: Reserved (= 0).  bit 15: = 1: SoMove software is the active channel.</p>
<b>IL11</b>	<p>bit 0: Value of LI1.  bit 1: Value of LI2.</p>

	<p>bit 2: Value of LI3. bit 3: Value of LI4.</p> <p>bit 4: Reserved (= 0). bit 5: Reserved (= 0). bit 6: Reserved (= 0). bit 7: Reserved (= 0).</p> <p>bit 8: Reserved (= 0). bit 9: Reserved (= 0). bit 10: Reserved (= 0). bit 11: Reserved (= 0).</p> <p>bit 12: Reserved (= 0). bit 13: Reserved (= 0). bit 14: Reserved (= 0). bit 15: Reserved (= 0).</p>
<b>OL1R</b>	<p>bit 0: Value of R1. bit 1: Reserved (= 0). bit 2: Reserved (= 0). bit 3: Reserved (= 0).</p> <p>bit 4: Reserved (= 0). bit 5: Reserved (= 0). bit 6: Reserved (= 0). bit 7: Reserved (= 0).</p> <p>bit 8: Value of LO1. bit 9: Reserved (= 0). bit 10: Reserved (= 0). bit 11: Reserved (= 0).</p> <p>bit 12: Reserved (= 0). bit 13: Reserved (= 0). bit 14: Reserved (= 0). bit 15: Reserved (= 0).</p> <p>The outputs (relays or logic outputs) can be controlled by the network. The outputs to control should not be assigned to a function of the drive, otherwise the writing is without effect.</p>
<b>CIC</b>	<p>bit 0: = 1: Change of rating. bit 1: Reserved (= 0). bit 2: Reserved (= 0). bit 3: = 1: Saving to the EEPROM non-volatile memory is inconsistent with power on.</p> <p>bit 4: Reserved (= 0). bit 5: Reserved (= 0). bit 6: Reserved (= 0). bit 7: Reserved (= 0).</p> <p>bit 8: Reserved (= 0). bit 9: Reserved (= 0). bit 10: Reserved (= 0). bit 11: Reserved (= 0).</p> <p>bit 12: Reserved (= 0). bit 13: Reserved (= 0). bit 14: Reserved (= 0). bit 15: Reserved (= 0).</p> <p>If one of these events occurs, the drive will indicate a fault [Invalid config.] (CFI) and then automatically applies a factory setting.</p>