ELR 9000 3U / EL 9000 B register list for devices with KE firmware from V2.24 (standard) or V2.08 (with GPIB)

(check the installed version in your device's MENU in item ABOUT HW, SW)

Modbus address	Read coils (0x01)	Read holding registers (0x03)	Write single coil (0x05)	Write single register (0x06)	Write multiple registers (0x10)	Description	Access	Data type	Data length in bytes	Number of registers	Data	Example	Profibus slot / Profinet subslot	Profibus/Profinet index in slot	EtherCAT SDO/PDO?
0		x				Device class	R	uint(16)	2	1		20, 32, 34, 36 = ELR 9000 39 = EL 9000 B	1	0	x
1		x				Device type	R	string	40	20	ASCII	ELR 9080-170	1	1	x
21		x				Manufacturer	R	string	40	20	ASCII		1	2	x
41		x				Manufacturer address	R	string	40	20	ASCII		1	3	x
61		x				Manufacturer ZIP code	R	string	40	20	ASCII		1	4	x
81		x				Manufacterer phone number	R	string	40	20	ASCII		1	5	x
101		x				Manufacturer website	R	string	40	20	ASCII		1	6	x
121		x				Nominal voltage	R	float	4	2	Floating point number IEEE754	80	1	7	x
123		x				Nominal current	R	float	4	2	Floating point number IEEE754	170	1	8	x
125		x				Nominal power	R	float	4	2	Floating point number IEEE754	3500	1	9	x
127		x				Max. Internal resistance	R	float	4	2	Floating point number IEEE754	12	1	10	x
129		x				Min. Internal resistance	R	float	4	2	Floating point number IEEE754	0.005	1	11	x
131		x				Article no.	R	string	40	20	ASCII	33230401	1	12	x
151		x				Serial no.	R	string	40	20	ASCII	100010002	1	13	x
171		x			x	User text	RW	string	40	20	ASCII		1	14	x
191		x				Firmware version (KE)	R	string	40	20	ASCII	V2.01 05.09.2012	1	15	x
211		x				Firmware version (HMI)	R	string	40	20	ASCII	V2.02 13.08.2012	1	16	x
231		x				Firmware version (DR)	R	string	40	20	ASCII	V1.5.6	1	17	x
402	x		x			Remote mode	RW	uint(16)	2	1	Coils : Remote	0x0000 = off; 0xFF00 = on	2	1	x
405	x		x			DC input	RW	uint(16)	2	1	Coils : Input	0x0000 = off; 0xFF00 = on	2	4	x
407	x		x			Condition of DC input after power fail alarm	RW	uint(16)	2	1	Coils : Auto-On	0x0000 = off; 0xFF00 = auto-on	3	30	x
408		x		x		Condition of DC input after powering the device	RW	uint(16)	2	1	Reg : Power-On	0xFFFF = off; 0xFFFE = restore	2	6	x
409	x		x			Operation mode (UIP/UIR)	RW	uint(16)	2	1	Coils : Operation mode	0x0000 = UIP; 0xFF00 = UIR	2	7	x
410			x			Restart of the device (warm start)	W	uint(16)	2	1	Coils : Restart	0xFF00 = execute	2	8	x
411			x			Acknowledge alarms	W	uint(16)	2	1	Coils : Alarms	0xFF00 = acknowledge	2	9	x
416	x		x			Analog interface: Reference voltage (pin VREF)	RW	uint(16)	2	1	Coils : VREF	0x0000 = 10V; 0xFF00 = 5V	2	14	x
417	x		x			Analog interface: REM-SB level	RW	uint(16)	2	1	Coils : REM-SB Level	0x0000 = normal; 0xFF00 = inverted	2	12	x
418	x		x			Analog interface: REM-SB action	RW	uint(16)	2	1	Coils : REM-SB Action	0x0000 = DC off; 0xFF00 = DC auto	2	13	x
422	x		x			Speed of internal voltage controller	RW	uint(16)	2	1	Coils : Controller speed	0x0000 = slow; 0xFF00 = fast	2	38	x
425	x		x			DC input after leaving remote	RW	uint(16)	2	1	Coils : Condition	0x0000 = off; 0xFF00 = unchanged	2	42	
440		x		x		Analog interface: Pin 14 configuration	RW	uint(16)	2	1	Alarms 1	0x0000 = OVP (default); 0x0001 = OCP; 0x0002 = OPP; 0x0003 = OVP + OCP; 0x0004 = OVP + OPP; 0x0005 = OCP + OPP; 0x0006 = OVP + OCP + OPP;	2	44	
441		x		x		Analog interface: Pin 6 configuration	RW	uint(16)	2	1	Alarms 2	0x0000 = OT + PF (default); 0x0001 = OT; 0x0002 = PF;	2	45	
442		x		x		Analog interface: Pin 15 configuration	RW	uint(16)	2	1	Status DC	0x0000 = CV; 0x0001 = DC output status	2	46	
500		x		x		Set voltage value	RW	uint(16)	2	1	0x0000 - 0xD0E5 (0 - 102%)	Voltage value (for translation see programming guide)	2	23	x
501		x		x		Set current value	RW	uint(16)	2	1	0x0000 - 0xD0E5 (0 - 102%)	Current value (for translation see programming guide)	2	24	x
502		x		x		Set power value	RW	uint(16)	2	1	0x0000 - 0xD0E5 (0 - 102%)	Power value (for translation see programming guide)	2	25	x
503		x		x		Set resistance value	RW	uint(16)	2	1	variable - 0xCCCC (x - 100%) Minimum value needs to be cal-culated, refer to programming guide	Resistance value (for translation see programming guide)	2	26	x
505		x				Device state	R	uint(32)	4	2	Bit 0- 4: Control location	0x00 = free; 0x01 = local; 0x03 = USB; 0x04 = analog; 0x05 = Profibus; 0x06 = Ethernet; 0x08 = Master/Slave; 0x09 = RS232; 0x10 = CANopen; 0x12 = Modbus TCP 1P; 0x13 = Profinet 1P; 0x14 = Ethernet 1P; 0x15 = Ethernet 2P; 0x16 = Modbus TCP 2P; 0x17 = Profinet 2P; 0x18 = GPIB; 0x19 = CAN; 0x1A = EtherCAT	2	27	x
											Bit 5 : -				
											Bit 6 : Master-slave type	0 = Slave; 1 = Master			
											Bit 7 : Input state	0 = off; 1 = on			
											Bit 8 : -				
											Bit 10-9: Regulation mode	00 = CV; 01 = CR; 10 = CC; 11 = CP			
											Bit 11 : Remote	0 = off; 1 = on			
											Bit 12 : -				
											Bit 13 : Function generator	0 = stopped; 1 = running			
											Bit 14 : External sense	0 = off; 1 = on			
											Bit 15 : Alarms	0 = none; 1 = active			
											Bit 16 : OVP	0 = none; 1 = active			
											Bit 17 : OCP	0 = none; 1 = active			
											Bit 18 : OPP	0 = none; 1 = active			
											Bit 19 : OT	0 = none; 1 = active			
											Bit 20 : OTpre	0 = none; 1 = active			
											Bit 21 : Power fail 1	0 = none; 1 = active			
											Bit 22 : Power fail 2	0 = none; 1 = active			
											Bit 23 : Power fail 3	0 = none; 1 = active			
											Bit 24 : UVD	0 = none; 1 = active			
											Bit 25 : OVD	0 = none; 1 = active			
											Bit 26 : UCD	0 = none; 1 = active			
											Bit 27 : OCD	0 = none; 1 = active			
											Bit 28 : OPD	0 = none; 1 = active			
											Bit 29 : MSS	0 = OK; 1 = Master-slave in secure mode			
											Bit 30 : REM-SB	0 = DC enabled; 1 = REM-SB disables power output			
507		x				Actual voltage	R	uint(16)	2	1	0x0000 - 0xFFFF (0 - 125%)	Actual voltage (for translation see programming guide)	2	28	x
508		x				Actual current	R	uint(16)	2	1	0x0000 - 0xFFFF (0 - 125%)	Actual current (for translation see programming guide)	2	29	x
509		x				Actual power	R	uint(16)	2	1	0x0000 - 0xFFFF (0 - 125%)	Actual power (for translation see programming guide)	2	30	x
520		x				Count of OV alarms since power up	R	uint(16)	2	1	0x0000 - 0xFFFF	Count	3	20	x
521		x				Count of OC alarms since power up	R	uint(16)	2	1	0x0000 - 0xFFFF	Count	3	21	x
522		x				Count of OP alarms since power up	R	uint(16)	2	1	0x0000 - 0xFFFF	Count	3	22	x
523		x				Count of OT alarms since power up	R	uint(16)	2	1	0x0000 - 0xFFFF	Count	3	23	x
524		x				Count of PF alarms since power up	R	uint(16)	2	1	0x0000 - 0xFFFF	Count	3	24	x
550		x		x		Overvoltage protection threshold (OVP)	RW	uint(16)	2	1	ELR: 0x0000 - 0xE147 (0 - 110%) EL9B: 0x0000 - 0xD2F1 (0 - 103%)	OVP threshold (for translation see programming guide)	3	0	x
553		x		x		Overcurrent protection threshold (OCP)	RW	uint(16)	2	1	0x0000 - 0xE147 (0 - 110%)	OCP threshold (for translation see programming guide)	3	3	x
556		x		x		Overpower protection threshold (OPP)	RW	uint(16)	2	1	0x0000 - 0xE147 (0 - 110%)	OPP threshold (for translation see programming guide)	3	6	x
559		x		x		Undervoltage detection (UVD)	RW	uint(16)	2	1	0x0000 - 0xD0E5 (0 - 102%)	UVD threshold (for translation see programming guide)	3	9	x
560		x		x		Adjustable UVD notification	RW	uint(16)	2	1	Adjustable UVD notification	0x0000 = nothing; 0x0001 = signal; 0x0002 = warning; 0x0003 = alarm	3	10	x
561		x		x		Overvoltage detection (OVD)	RW	uint(16)	2	1	0x0000 - 0xD0E5 (0 - 102%)	OVD threshold (for translation see programming guide)	3	11	x
562		x		x		Adjustable OVD notification	RW	uint(16)	2	1	Adjustable OVD notification	0x0000 = nothing; 0x0001 = signal; 0x0002 = warning; 0x0003 = alarm	3	12	x
563		x		x		Undercurrent detection (UCD)	RW	uint(16)	2	1	0x0000 - 0xD0E5 (0 - 102%)	UCD threshold (for translation see programming guide)	3	13	x
564		x		x		Adjustable UCD notification	RW	uint(16)	2	1	Adjustable UCD notification	0x0000 = nothing; 0x0001 = signal; 0x0002 = warning; 0x0003 = alarm	3	14	x
565		x		x		Overcurrent detection (OCD)	RW	uint(16)	2	1	0x0000 - 0xD0E5 (0 - 102%)	OCD threshold (for translation see programming guide)	3	15	x
566		x		x		Adjustable OCD notification	RW	uint(16)	2	1	Adjustable OCD notification	0x0000 = nothing; 0x0001 = signal; 0x0002 = warning; 0x0003 = alarm	3	16	x
567		x		x		Overpower detection (OPD)	RW	uint(16)	2	1	0x0000 - 0xD0E5 (0 - 102%)	OPD threshold (for translation see programming guide)	3	17	x
568		x		x		Adjustable OPD notification	RW	uint(16)	2	1	Adjustable OPD notification	0x0000 = nothing; 0x0001 = signal; 0x0002 = warning; 0x0003 = alarm	3	18	x
650	x		x			Master-slave: Link mode	RW	uint(16)	2	1	Coils : Mode	0x0000 = Slave; 0xFF00 = Master	4	0	x
652	x		x			Master-slave: Link mode of Share-Bus	RW	uint(16)	2	1	Coils : Mode	0x0000 = Slave; 0xFF00 = Master	4	2	x
653	x		x			Master-slave: Enable MS	RW	uint(16)	2	1	Coils : MS on/off	0x0000 = off; 0xFF00 = on	4	3	x
654			x			Master-slave: Init MS	W	uint(16)	2	1	Coils : MS start init	0xFF00 = Start init	4	4	x
655		x		x		Master-slave: Condition	R	uint(16)	2	1	Reg : MS status	0x0000 = not initialised; 0x0001 = init running; 0x0003 = set defaults; 0x0004 = setup interface; 0x0005 = assignment; 0xFFFC = disrupted; 0xFFFD = different models detected, init not OK; 0xFFFE = error; 0xFFFF = init OK	4	5	x
656		x				Master-slave: Total voltage	R	float	4	2	Floating point number IEEE754	500	4	6	x
658		x				Master-slave: Total current	R	float	4	2	Floating point number IEEE754	850	4	7	x
660		x				Master-slave: Total power	R	float	4	2	Floating point number IEEE754	16.50	4	8	x
662		x				Master-slave: Number of initialised slaves	R	uint(16)	2	1		1...9	4	9	x
850	x		x			Function generator Arbitary: Start/stop	RW	uint(16)	2	1	Coils : Start/Stop	0x0000 = Stop; 0xFF00 = Start	5	0	x
851	x		x			Function generator Arbitary: Select U	RW	uint(16)	2	1	Coils : U	0x0000 = not assigned; 0xFF00 = Assign function to voltage	5	1	x
852	x		x			Function generator Arbitary: Select I	RW	uint(16)	2	1	Coils : I	0x0000 = not assigned; 0xFF00 = Assign function to current	5	2	x
854	x		x			Function generator XY: Select U-I mode	RW	uint(16)	2	1	Coils : U-I	0x0000 = not assigned; 0xFF00 = Assign function to U-I curve	5	4	x
855	x		x			Function generator XY: Select I-U mode	RW	uint(16)	2	1	Coils : I-U	0x0000 = not assigned; 0xFF00 = Assign function to I-U curve	5	5	x
859		x		x		Function generator Arbitrary: Start sequence	RW	uint(16)	2	1	0x0001…0x0063		5	9	x
860		x		x		Function generator Arbitrary: End sequence	RW	uint(16)	2	1	0x0001…0x0063		5	10	x
861		x		x		Function generator Arbitrary: Sequence cycles	RW	uint(16)	2	1	0x0000...0x03E7	0x0000 = infinite	5	11	x
900		x			x	Function generator Arbitrary: Setup for sequence 1	RW	float	32	16	Bytes 0-3: Us/Is(AC) in V Bytes 4-7: Ue/Ie(AC) in V	Floating point number in IEEE754 format, see device manual for value range, chapter about function generator	6	0	x
											Bytes 8-11: fs(1/T) in Hz	Integer in IEEE754 format: 0...10000 Hz			
											Bytes 12-15: fe(1/T) in Hz	Integer in IEEE754 format: 0...10000 Hz			
											Bytes 16-19: Angle in degrees	Integer in IEEE754 format: 0°...359°			
											Bytes 20-23: Us/Is(DC) in V Bytes 24-27: Ue/Ie(DC) in V	Floating point number in IEEE754 format, see device manual for value range, chapter about function generator			
											Bytes 28-31: Sequence time in µs	Floating point number in IEEE754 format ELR 9000: 100 µs...36,000,000,000 µs While current mode: EL 9000 B: 10 µs...36.000.000.000 µs			
↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
2468		x			x	Function generatorArbitrary: Setup for sequence 99	RW	float	32	16	Bytes 0-3: Us/Is(AC) in V Bytes 4-7: Ue/Ie(AC) in V	Floating point number in IEEE754 format, see device manual for value range, chapter about function generator	6	98	x
											Bytes 8-11: fs(1/T) in Hz	Integer in IEEE754 format: 0...10000 Hz			
											Bytes 12-15: fe(1/T) in Hz	Integer in IEEE754 format: 0...10000 Hz			
											Bytes 16-19: Angle in degrees	Integer in IEEE754 format: 0°...359°			
											Bytes 20-23: Us/Is(DC) in V Bytes 24-27: Ue/Ie(DC) in V	Floating point number in IEEE754 format, see device manual for value range, chapter about function generator			
											Bytes 28-31: Sequence time in µs	Floating point number in IEEE754 format ELR 9000: 100 µs...36,000,000,000 µs EL 9000 B: 10 µs...36.000.000.000 µs			
2600		x			x	Function generator: X/Y table, block 0	RW	uint(16)	32	16	UI mode: set voltage value IU mode: set current value (16 values block)	value = real set value of voltage * 0.8 / Unom * 32768 or value = real set value of current * 0.8 / Inom * 32768	7	0	x
↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
6680		x			x	Function generator: X/Y table, block 255	RW	uint(16)	32	16	UI mode: set voltage value IU mode: set current value (16 values block)	value = real set value of voltage * 0.8 / Unom * 32768 or value = real set value of current * 0.8 / Inom * 32768	7	255	x
9000		x		x		Upper limit of voltage set value (U-max)	RW	uint(16)	2	1	0x0000 - 0xD0E5 (0 - 102%)	Voltage value (for translation see programming guide)	2	31	x
9001		x		x		Lower limit of voltage set value (U-min)	RW	uint(16)	2	1	0x0000 - 0xD0E5 (0 - 102%)	Voltage value (for translation see programming guide)	2	32	x
9002		x		x		Upper limit of current set value (I-max)	RW	uint(16)	2	1	0x0000 - 0xD0E5 (0 - 102%)	Current value (for translation see programming guide)	2	33	x
9003		x		x		Lower limit of current set value (I-min)	RW	uint(16)	2	1	0x0000 - 0xD0E5 (0 - 102%)	Current value (for translation see programming guide)	2	34	x
9004		x		x		Upper limit of power set value (P-max)	RW	uint(16)	2	1	0x0000 - 0xD0E5 (0 - 102%)	Power value (for translation see programming guide)	2	35	x
9006		x		x		Upper limit of resistance set value (R-max)	RW	uint(16)	2	1	0x0000 - 0xD0E5 (0 - 102%)	Resistance value (for translation see programming guide)	2	37	x
10007	x		x			Ethernet: TCP keep-alive	RW	uint(16)	2	1	Coils: Keep-alive on/off	0x0000 = off; 0xFF00 = on			
10008	x		x			Profinet/Modbus TCP: DHCP	RW	uint(16)	2	1	Coils: DHCP on/off	0x0000 = off; 0xFF00 = on			
10010	x		x			Protocol: Modbus	RW	uint(16)	2	1	Coils: MODBUS on/off	0x0000 = off; 0xFF00 = on			
10011	x		x			Protocol: SCPI	RW	uint(16)	2	1	Coils: SCPI on/off	0x0000 = off; 0xFF00 = on			
10020		x				AnyBus module: Type	R	uint(16)	2	1	Reg: Type	0x0005 = Profibus 0x0009 = RS232 0x0010 = CANopen 0x0012 = Modbus-TCP 1P 0x0013 = Profinet 1P 0x0014 = Ethernet 1P 0x0015 = Ethernet 2P 0x0016 = Modbus-TCP 2P 0x0017 = Profinet 2P 0x0019 = CAN 0x001A = EtherCAT 0x00FF = no modul connected;			x
10021		x				AnyBus module: Interface type	R	string	40	20	ASCII	"Profibus DPV1"			x
10041		x				AnyBus module: Version number	R	uint(8)	4	2					x
10043		x				AnyBus module: Serial number	R(W)	uint(32)	4	2					x
10251		x		x		Profibus: Ident number	RW	uint(16)	2	1		0xA001	8	0	
10252		x		x		Profibus/CANopen: Slave address	RW	uint(16)	2	1		Profibus: 0-125; CANopen: 0-127	8	1	
10253		x			x	Profibus/Profinet: User-defineable "Function tag"	RW	string	32	16	ASCII	"Test"	8	2	
10269		x			x	Profibus/Profinet: User-defineable "Location tag"	RW	string	22	11	ASCII	"Test"	8	3	
10280		x			x	Profibus/Profinet: User-defineable installation date	RW	string	40	20	ASCII	"13.01.2012 09:59:00"	8	4	
10300		x			x	Profibus/Profinet: User-defineable description	RW	string	54	27	ASCII	"www.webpage.de"	8	5	
10354		x			x	Profinet: User-defineable "Station name"	RW	string	200	100	ASCII	"Test"	8	6	
10502		x			x	Ethernet/Profinet/Modbus TCP: IP address	RW	uint(8)	4	2	Bytes 0-3: 0..255	192.168.0.2 (default)			
10504		x			x	Ethernet/Profinet/Modbus TCP: Subnet mask	RW	uint(8)	4	2	Bytes 0-3: 0..255	255.255.255.0 (default)			
10506		x			x	Ethernet/Profinet/Modbus TCP: Gateway	RW	uint(8)	4	2	Bytes 0-3: 0..255	192.168.0.1 (default)			
10508		x			x	Ethernet/Profinet/Modbus TCP: Host name	RW	string	54	27	ASCII	"Client" (default)			
10535		x			x	Ethernet/Profinet/Modbus TCP: Domain name	RW	string	54	27	ASCII	"Workgroup" (default)			
10562		x			x	Ethernet/Profinet/Modbus TCP: DNS 1	RW	uint(8)	4	2	Bytes 0-3: 0..255	0.0.0.0 (default)			
10564		x			x	Ethernet/Profinet/Modbus TCP: DNS 2	RW	uint(8)	4	2	Bytes 0-3: 0..255	0.0.0.0 (default)			
10566		x		x		RS232/USB: Connection timeout in milliseconds	RW	uint(16)	2	1	5..65535	Default: 5ms			
10567		x				Ethernet/Profinet/Modbus TCP: MAC	R	uint(8)	6	3	Bytes 0-6: 0..255	00:50:C2:C3:12:34 or 00-50-C2-C3-12-34			
10570		x		x		Ethernet/Profinet/Modbus TCP: Connection speed Ethernet port 1	RW	uint(16)	2	1	SMTP Error	0x0000 = Auto; 0x0001 = 10Mbit half duplex; 0x0002 = 10Mbit full duplex; 0x0003 = 100Mbit half duplex;			
10571		x		x		Ethernet/Profinet/Modbus TCP: Connection speed Ethernet port 2	RW	uint(16)	2	1	SMTP test	0x0000 = Auto; 0x0001 = 10Mbit half duplex; 0x0002 = 10Mbit full duplex; 0x0003 = 100Mbit half duplex;			
10572		x		x		Ethernet/Profinet/Modbus TCP: Port	RW	uint(16)	2	1	0..65535	5025 (default), except port 80			
10573		x		x		Ethernet: TCP Socket timeout (in seconds)	RW	uint(16)	2	1	0, 5..65535	0 = timeout inactive; 5 = 5 s (default)			
10700		x		x		RS232/CANopen/CAN: Baud rate	RW	uint(16)	2	1	Baud rate	CAN / CANopen / RS232 0x00: 10kbps / 10kbps / 2400 Bd 0x01: 20kbps / 20kbps / 4800 Bd 0x02: 50kbps / 50kbps / 9600 Bd 0x03: 100kbps / 100kbps / 19200 Bd 0x04: 125kbps / 125kbps / 38400 Bd 0x05: 250kbps / 250kbps / 57600 Bd 0x06: 500kbps / 500kbps / 115200 Bd 0x07: 1Mbps / 800kbps / - 0x08: - / 1Mbps / - 0x09: - / Autobaud / -			
10701	x		x			CAN: ID format	RW	uint(16)	2	1	Coils: Base/Extended	0x0000 = Base (11 Bit); 0xFF00 = Extended (29 Bit)			
10702	x		x			CAN: Termination	RW	uint(16)	2	1	Coils: Bus termination	0x0000 = off; 0xFF00 = on			
10704		x			x	CAN: Base ID	RW	uint(32)	4	2	0x0000…0x07FF or 0x0000…0x1FFFFFFF				
10706		x			x	CAN: Broadcast ID	RW	uint(32)	4	2	0x0000…0x07FF or 0x0000…0x1FFFFFFF				
10709	x		x			CAN: Data length	RW	uint(16)	2	1	Coils: Data length	0x0000 = Auto; 0xFF00 = Always 8 bytes			
10710		x			x	CAN: Cyclic read: Base ID	RW	uint(32)	4	2	0x0000…0x07FF or 0x0000…0x1FFFFFFF				
10712		x			x	CAN: Cyclic send: Base ID	RW	uint(32)	4	2	0x0000…0x07FF or 0x0000…0x1FFFFFFF				
10714		x		x		CAN: Cyclic read time (in ms): Status	RW	uint(16)	2	1	20…5000; 0 == OFF	Default: OFF			
10715		x		x		CAN: Cyclic read time (in ms): Set value (U, I, P, R)	RW	uint(16)	2	1	20…5000; 0 == OFF	Default: OFF			
10716		x		x		CAN: Cyclic read time (in ms): Limits 2 (P, R)	RW	uint(16)	2	1	20…5000; 0 == OFF	Default: OFF			
10717		x		x		CAN: Cyclic read time (in ms): Limits 1 (U, I)	RW	uint(16)	2	1	20…5000; 0 == OFF	Default: OFF			
10718		x		x		CAN: Cyclic read time (in ms): Actual values U, I, P	RW	uint(16)	2	1	20…5000; 0 == OFF	Default: OFF			
10900		x		x		GPIB address (option 3W)	RW	uint(16)	2	1	1…30				
11000		x		x		MPP tracking: MPP-Mode	RW	uint(16)	2	1	0..4	0 = MPPT off; 1 = MPP1; 2 = MPP2; 3 = MPP3; 4 = MPP4			
11001		x		x		MPP tracking: Uoc (setup)	RW	uint(16)	2	1	0x0000 - 0xCCCC (0 - 100%)	Voltage value in % of Unom (for translation see programming guide)			
11002		x		x		MPP tracking: Isc (setup)	RW	uint(16)	2	1	0x0000 - 0xCCCC (0 - 100%)	Current value in % of Inom (for translation see programming guide)			
11003		x		x		MPP tracking: Umpp (setup)	RW	uint(16)	2	1	0x0000 - 0xCCCC (0 - 100%)	Voltage value in % of Unom (for translation see programming guide)			
11004		x		x		MPP tracking: Impp (setup)	RW	uint(16)	2	1	0x0000 - 0xCCCC (0 - 100%)	Current value in % of Inom (for translation see programming guide)			
11005		x		x		MPP tracking: Pmpp (setup)	RW	uint(16)	2	1	0x0000 - 0xCCCC (0 - 100%)	Power value in % of Pnom (for translation see programming guide)			
11006		x		x		MPP tracking: DeltaP (setup)	RW	uint(16)	2	1	0x0000 - 0xCCCC (0 - 100%)	Power value in % of Pnom (for translation see programming guide)			
11007		x				MPP tracking: Umpp (result of MPP1/2/4)	R	uint(16)	2	1	0x0000 - 0xCCCC (0 - 100%)	Voltage value in % of Unom (for translation see programming guide)			
11008		x				MPP tracking: Impp (result of MPP1/2/4)	R	uint(16)	2	1	0x0000 - 0xCCCC (0 - 100%)	Current value in % of Inom (for translation see programming guide)			
11009		x				MPP tracking: Pmpp (result of MPP1/2/4)	R	uint(16)	2	1	0x0000 - 0xCCCC (0 - 100%)	Power value in % of Pnom (for translation see programming guide)			
11010	x		x			MPP tracking: Start/Stop	RW	uint(16)	2	1	Coils: Start/Stop	0x0000 = stop; 0xFF00 = start			
11011	x					MPP tracking: Status (of MPP1/2/4)	R	uint(16)	2	1	Coils: Status	0x0000 = running; 0xFF00 = finished			
11012	x					MPP tracking: Error	R	uint(16)	2	1	Coils: Error	0x0000 = no error; 0xFF00 = error			
11013		x		x		MPP tracking: Interval (setup)	RW	uint(16)	2	1	0x0005 – 0xEA60	Regulation & measuring interval in milliseconds, either for tracking in modes 1 and 2 or for user curve progression in mode 4			
11014		x		x		MPP4 : Start	RW	uint(16)	2	1	0x0001 - 0x0064	Start voltage value out of 100 (related to registers 11100-11199) for use in MPP4 mode			
11015		x		x		MPP4 : End	RW	uint(16)	2	1	0x0001 - 0x0064	End voltage value out of 100 (related to registers 11100-11199) for use in MPP4 mode			
11016		x		x		MPP4 : Repetitions	RW	uint(16)	2	1	0x0000 - 0xFFFF	0x0000 = no repetitions			
11100		x			x	MPP Tracking: User curve (MPP4 mode) voltage values 1-20	RW	uint(16)	40	20	0x0000 - 0xCCCC (0 - 100%)	Voltage value in % of Unom (for translation see programming guide)			
11120		x			x	MPP Tracking: User curve (MPP4 mode) voltage values 21-40	RW	uint(16)	40	20	0x0000 - 0xCCCC (0 - 100%)	Voltage value in % of Unom (for translation see programming guide)			
11140		x			x	MPP Tracking: User curve (MPP4 mode) voltage values 41-60	RW	uint(16)	40	20	0x0000 - 0xCCCC (0 - 100%)	Voltage value in % of Unom (for translation see programming guide)			
11160		x			x	MPP Tracking: User curve (MPP4 mode) voltage values 61-80	RW	uint(16)	40	20	0x0000 - 0xCCCC (0 - 100%)	Voltage value in % of Unom (for translation see programming guide)			
11180		x			x	MPP Tracking: User curve (MPP4 mode) voltage values 81-100	RW	uint(16)	40	20	0x0000 - 0xCCCC (0 - 100%)	Voltage value in % of Unom (for translation see programming guide)			
11200		x				MPP Tracking: User curve (MPP4 mode) results 1-10 (10x Umon, Imon, Pmon)	R	uint(16)	60	30	0x0000 - 0xCCCC (0 - 100%)	Voltage value in % of Unom Current value in % of Inom Power value in % of Pnom (for translation see programming guide)			
11230		x				MPP Tracking: User curve (MPP4 mode) results 11-20 (10x Umon, Imon, Pmon)	R	uint(16)	60	30	0x0000 - 0xCCCC (0 - 100%)	Voltage value in % of Unom Current value in % of Inom Power value in % of Pnom (for translation see programming guide)			
11260		x				MPP Tracking: User curve (MPP4 mode) results 21-30 (10x Umon, Imon, Pmon)	R	uint(16)	60	30	0x0000 - 0xCCCC (0 - 100%)	Voltage value in % of Unom Current value in % of Inom Power value in % of Pnom (for translation see programming guide)			
11290		x				MPP Tracking: User curve (MPP4 mode) results 31-40 (10x Umon, Imon, Pmon)	R	uint(16)	60	30	0x0000 - 0xCCCC (0 - 100%)	Voltage value in % of Unom Current value in % of Inom Power value in % of Pnom (for translation see programming guide)			
11320		x				MPP Tracking: User curve (MPP4 mode) results 41-50 (10x Umon, Imon, Pmon)	R	uint(16)	60	30	0x0000 - 0xCCCC (0 - 100%)	Voltage value in % of Unom Current value in % of Inom Power value in % of Pnom (for translation see programming guide)			
11350		x				MPP Tracking: User curve (MPP4 mode) results 51-60 (10x Umon, Imon, Pmon)	R	uint(16)	60	30	0x0000 - 0xCCCC (0 - 100%)	Voltage value in % of Unom Current value in % of Inom Power value in % of Pnom (for translation see programming guide)			
11380		x				MPP Tracking: User curve (MPP4 mode) results 61-70 (10x Umon, Imon, Pmon)	R	uint(16)	60	30	0x0000 - 0xCCCC (0 - 100%)	Voltage value in % of Unom Current value in % of Inom Power value in % of Pnom (for translation see programming guide)			
11410		x				MPP Tracking: User curve (MPP4 mode) results 71-80 (10x Umon, Imon, Pmon)	R	uint(16)	60	30	0x0000 - 0xCCCC (0 - 100%)	Voltage value in % of Unom Current value in % of Inom Power value in % of Pnom (for translation see programming guide)			
11440		x				MPP Tracking: User curve (MPP4 mode) results 81-90 (10x Umon, Imon, Pmon)	R	uint(16)	60	30	0x0000 - 0xCCCC (0 - 100%)	Voltage value in % of Unom Current value in % of Inom Power value in % of Pnom (for translation see programming guide)			
11470		x				MPP Tracking: User curve (MPP4 mode) results 91-100 (10x Umon, Imon, Pmon)	R	uint(16)	60	30	0x0000 - 0xCCCC (0 - 100%)	Voltage value in % of Unom Current value in % of Inom Power value in % of Pnom (for translation see programming guide)			
11500		x			x	Battery test (static): Max. current	RW	float	4	2	Floating point number IEEE754	0 - rated current			
11502		x			x	Battery test (static): Max. power	RW	float	4	2	Floating point number IEEE754	0 - rated power			
11504		x			x	Battery test (static): Max. resistance	RW	float	4	2	Floating point number IEEE754	Min. - max. resistance, 0 = OFF			
11506		x			x	Battery test (static): Discharge voltage	RW	float	4	2	Floating point number IEEE754	0 - rated voltage			
11508		x			x	Battery test (static): Max. capacity to discharge	RW	float	4	2	Floating point number IEEE754	0 - 99999.99			
11510		x			x	Battery test (static): Max. discharge time	RW	uint(32)	4	2	0x00000000 - 0x000A0000 (0 - 10 h)	0x00010203 = 01:02:03 as HH:MM:SS, equivalent to [00][SEK][MIN][STD]			
11512		x		x		Battery test (static): Action upon reaching the max. discharge capacity	RW	uint(16)	2	1	Action when reaching max. discharge capacity	0x0000 = Do nothing 0x0001 = Signal (see register 11544) 0x0002 = Stop test			
11513		x		x		Battery test (static): Action upon reaching the max. discharge time	RW	uint(16)	2	1	0x0000 - 0x0002	0x0000 = Do nothing 0x0001 = Signal (see register 11544) 0x0002 = Stop test			
11514		x			x	Battery test (dynamic): Current level 1	RW	float	4	2	Floating point number IEEE754	0 - rated current			
11516		x			x	Battery test (dynamic): Current level 2	RW	float	4	2	Floating point number IEEE754	0 - rated current			
11518		x			x	Battery test (dynamic): Time of current level 1	RW	float	4	2	Floating point number IEEE754	1 - 36000 s			
11520		x			x	Battery test (dynamic): Time of current level 2	RW	float	4	2	Floating point number IEEE754	1 - 36000 s			
11522		x			x	Battery test (dynamic): Max. power	RW	float	4	2	Floating point number IEEE754	0 - rated power			
11524		x			x	Battery test (dynamic): Discharge voltage	RW	float	4	2	Floating point number IEEE754	0 - rated voltage			
11526		x			x	Battery test (dynamic): Max. capacity to discharge	RW	float	4	2	Floating point number IEEE754	0 - 99999.99			
11528		x			x	Battery test (dynamic): Max. discharge time	RW	uint(32)	4	2	0x00000000 - 0x000A0000 (0 - 10 h)	0x00010203 = 01:02:03 as HH:MM:SS, equivalent to [00][SEK][MIN][STD]			
11530		x		x		Battery test (dynamic): Action upon reaching the max. discharge capacity	RW	uint(16)	2	1	0x0000 - 0x0002	0x0000 = Do nothing 0x0001 = Signal (see register 11544) 0x0002 = Stop test			
11531		x		x		Battery test (dynamic): Action upon reaching the max. discharge time	RW	uint(16)	2	1	0x0000 - 0x0002	0x0000 = Do nothing 0x0001 = Signal (see register 11544) 0x0002 = Stop test			
11532	x		x			Battery test: Start/stop	RW	uint(16)	2	1	Coils: Start/Stop	0x0000 = Stop; 0xFF00 = Run			
11533	x					Battery test: Status 1	R	uint(16)	2	1	Coils: Test status	0x0000 = Running or not started; 0x00FF = Finished			
11534	x					Battery test: Error status	R	uint(16)	2	1	Coils: Error status	0x0000 = No error; 0x00FF = Error			
11535		x		x		Battery test: Mode selection	RW	uint(16)	2	1	0x0000 - 0x0002	0x0000 = Battery test mode off (default); 0x0001 = Static mode; 0x0002 = Dynamic mode			
11536		x				Battery test: Discharged capacity in Ah	R	float	4	2	x Ah	10.5 Ah			
11538		x				Battery test: Discharged energy in Wh	R	float	4	2	x Wh	23453.5 Wh			
11540		x				Battery test: Time at end of test	R	uint(16)	8	4	HH:MM:SS:MS	Word 0 = Hours (0-10) Word 1 = Minutes (0-59) Word 2 = Seconds (0-59) Word 3 = Milliseconds (0-999)			
11544		x				Battery test: Status 2	R	uint(16)	2	1	Status	0x0000 = Battery test mode off (default); 0x0001 = running; 0x0002 = stopped; 0x0004 = error occured; 0x0008 = initalized; 0x0010 = maximum Ah reached (signal only); 0x0020 = maximum time reached (signal only); 0x0040 = maximum Ah reached (end of test); 0x0080 = maximum time reached (end of test)			