

MODBUS- Adress-table BR7000-I Version 4.1 (issue 10/16)

Functioncode 3: max. number of read-register 125 (250 Byte) / per request

Adress HIGH- BYTE	Adress LOW- BYTE	Data HIGH- BYTE	Data LOW- BYTE	FUNCTION
0	0	*	*	Reactive power - HIGH-WORD
0	1	*	*	Reactive power - LOW-WORD
0	2	*	*	Active power - HIGH-WORD
0	3	*	*	Active power – LOW-WORD
0	4	*	*	Apparent power – HIGH-WORD
0	5	*	*	Apparent power – LOW-WORD
0	6	*	*	Differential reactive power - H
0	7	*	*	Differential reactive power - L
0	8	0	0	Temperature – HIGH-WORD (0)
0	9	*	*	Temperature – LOW-WORD
0	10	*	*	Active energy consumption - HIGH-WORD
0	11	*	*	Active energy consumption - LOW-WORD
0	12	*	*	Active energy delivery - HIGH-WORD
0	13	*	*	Active energy delivery - LOW-WORD
0	14	*	*	Reactive energy IND – HIGH-WORD
0	15	*	*	Reactive energy IND – LOW-WORD
0	16	*	*	Reactive energy CAP – HIGH-WORD
0	17	*	*	Reactive energy CAP – LOW-WORD
0	18	-	-	-
0	19	*	*	Cos-Phi (INTEGER)
0	20	*	*	Voltage (max 65535V)
0	21	*	*	Current
0	22	0	*	Frequency
0	23	*	*	Cabinet temperature
0	24	*	*	Temperature inside the device
0	25	*	*	OUTPUTS - STEPS
0	26	0	*	ERROR-REGISTER BIT 0 = Meas. voltage BIT 1 = Overvoltage BIT 2 = Overcompensated BIT 3 = Undercompensated BIT 4 = Harmonics BIT 5 = Overtemperature BIT 6 = Overcurrent BIT 7 = Undervoltage
0	27	0	*	WARNING-REGISTER BIT 0 = Number of switchings BIT 1 = Meas. current too low BIT 2 = MODBUS-ERROR COM1 BIT 3 = MODBUS-ERROR COM2 BIT 4 = MMI-ERROR BIT 5 = MODBUS-Remote BIT 6 = System current too low BIT 7 = BUS-ERROR-EXTERN

Adress HIGH-BYTE	Adress LOW-BYTE	Data HIGH-BYTE	Data LOW-BYTE	DESCRIPTION
0	28	0	*	MESSAGE -REGISTER BIT 0 = C-DEFEKT BIT 1 = System current > NULL BIT 2 = Overload cabinet BIT 3 = External Error BIT 4 = C-DEFEKT-OFF BIT 5 = AUTO-INIT-Error
0	29	*	*	C-FAILURE - BIT-MASK BIT 1 = C1 = 1 = ERROR ... BIT 13 = C13 = 1 = ERROR
0	30	*	*	I-FAILURE - BIT-MASK BIT 1 = I1 = 1 = ERROR ... BIT 13 = I13 = 1 = ERROR
0	96	Frequency	Identifier = 1	Frequency / ID-register
				PROGRAMM MEMORY
0	101	0	*	LANGUAGE 0 = DEUTSCH 1 = ENGLISH 2 = ESPANOL 3 = NEDERLANDS 4 = RUSSISCH 5 = CZECH 6 = POLSKI 7 = FRENCH 8 = PORTUGUES 9 = TÜRKCE
0	102	0	*	Current transformer - primary 1...50 = 5...250A (5A steps) 51...175 = 260...1500A (10A steps) 176...185 = 1550...2000A (50A steps) 186...245 = 2100...8000A (100A steps) 246...255 = 8500...13000A (500A steps)
0	103	0	*	Current transformer - secondary 0 = 1A 1 = 5A
0	104	0	*	END-STOPP

Adress HIGH-BYTE	Adress LOW-BYTE	Data HIGH-BYTE	Data LOW-BYTE	DESCRIPTION
0	105	0	*	CONTROL SERIES <hr/> 1 = ControlSeries 1: 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1 2 = ControlSeries 2: 1, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2 3 = ControlSeries 3: 1, 2, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3 4 = ControlSeries 4: 1, 2, 3, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4 5 = ControlSeries 5: 1, 2, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4 6 = ControlSeries 6: 1, 2, 3, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6 7 = ControlSeries 7: 1, 2, 4, 8, 8, 8, 8, 8, 8, 8, 8, 8, 8 8 = ControlSeries 8: 1, 1, 1, 1, 2, 2, 2, 2, 2, 2, 2, 2, 2 9 = ControlSeries 9: 1, 1, 1, 1, 1, 6, 6, 6, 6, 6, 6, 6, 6 10 = ControlSeries 10: 1, 1, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2 11 = ControlSeries 11: 1, 1, 2, 2, 2, 4, 4, 4, 4, 4, 4, 4, 4 12 = ControlSeries 12: 1, 1, 2, 2, 4, 4, 4, 4, 4, 4, 4, 4, 4 13 = ControlSeries 13: 1, 1, 1, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2 14 = ControlSeries 14: 1, 1, 2, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3 15 = ControlSeries 15: 1, 1, 2, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4 16 = ControlSeries 16: 1, 1, 2, 4, 8, 8, 8, 8, 8, 8, 8, 8, 8 17 = ControlSeries 17: 1, 2, 2, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3 18 = ControlSeries 18: 1, 2, 3, 4, 4, 8, 8, 8, 8, 8, 8, 8, 8 19 = ControlSeries 19: 1, 2, 2, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4 20 = ControlSeries 20: 1, 2, 2, 2, 4, 4, 4, 4, 4, 4, 4, 4, 4 21 = ControlSeries 21: CONTROL-SERIES EDITOR
0	106	0	*	CONTROL PRINCIPLE <hr/> 0 = Sequential connection 1 = Loop connection 2 = Intelligent loop connection 3 = Combined choke
0	107	0	*	POWER 1st STEP (pre-decimal point) <hr/> 0...255 = 0...255 kvar / 0...2550 kvar / 0...25500 kvar
0	108	0	*	POWER 1st STEP (decimal place) <hr/> 0...99 = 0...0.99 kvar 128 = Bereich 0...2550kvar 129 = Bereich 0...25500kvar
0	109	0	*	TARGET cos-phi <hr/> 10 = 0.10 CAP 100 = 1.00 190 = 0.10 IND
0	110	0	*	MEASURING VOLTAGE <hr/> 0 = 30V (in steps of 5V) 99 = 525V

Adress HIGH- BYTE	Adress LOW- BYTE	Data HIGH- BYTE	Data LOW- BYTE	DESCRIPTION
0	111	0	*	VOLTAGE CONVERTER <hr/> 0 = without V-converter 1...77 = 230... 990V (10V steps) 78...187 = 1000...11000V (100V steps) 188...252 = 12kV...76kV (1000V steps) 253 = 110kV 254 = 220kV 255 = 380kV
0	112	0	*	CONNECTING TIME <hr/> 1...120 = 1...120 s 121...255 = 3...137 min
0	113	0	*	DISCONNECTING TIME <hr/> 1...120 = 1...120 s 121...138 = 3...137 min
0	114	0	*	DISCHARGE TIME <hr/> 1...120 = 1...120 s 121...138 = 3...137 min
0	115	0	*	ALARM TEMPERATURE <hr/> 40...85 = 40...85°C
0	116	0	*	ALARM RELAY <hr/> 0 = 13. STEP 1 = OFF 2 = ERROR 3 = ERROR inverse 4 = FAN 5 = DELIVERY 6 = UNDERCURRENT 7 = HARMONICS 8 = OVERCOMPENSATED 9 = UNDERCOMPENSATED 10 = NUMBER OF SWITCHING
0	117	0	*	FAN TEMPERATURE <hr/> 15...70 = 15...70°C
0	118	0	*	THD-V-THRESHOLD <hr/> 1...255 = 0.1...25.5% / 0 = OFF
0	119	0	*	THD-I-THRESHOLD <hr/> 1...255 = 0.1...25.5% / 0 = OFF

Adress HIGH-BYTE	Adress LOW-BYTE	Data HIGH-BYTE	Data LOW-BYTE	DESCRIPTION
	120	0	*	HARMONICS 0 = 3. 5. 7. ...19. Harmonic 1 = 3. 5. 7.33. Harmonic 2 = 2. 3. 4. ... 17. Harmonic
0	121	0	*	CONTRAST
				2. PARAMETER SET
0	122	0	*	CURRENT TRANSFORMER primary Compare table adress 102
0	123	0	*	CURRENT TRANSFORMER secondary Compare table adress 103
0	124	0	*	END-STOPP
0	125	0	*	CONTROL SERIES Compare table adress 105
0	126	0	*	CONTROL PRINCIPLE Compare table adress 106
0	127	0	*	POWER 1st STEP (pre decimal point) 0...255 = 0...255 kvar / 0...2550 kvar
0	128	0	*	POWER 1st STEP (decimal place) 0...99 = 0...0.99 kvar
0	129	0	*	TARGET cos-phi 10 = 0.10 CAP 100 = 1.00 190 = 0.10 IND
0	130	0	*	CONNECTING TIME 1...120 = 1...120 s 121...138 = 3...137 min
0	131	0	*	DISCONNECTING TIME 1...120 = 1...120 s 121...138 = 3...137 min
0	132	0	*	DISCHARGE TIME 1...120 = 1...120 s 121...138 = 3...137 min

Adress HIGH- BYTE	Adress LOW- BYTE	Data HIGH- BYTE	Data LOW- BYTE	DESCRIPTION
0	133	0	*	PICTURE (for manufacturer only) 0 = EPC 4 = ESK 1 = EBE 5 = CHI 2 = NEU 6 = CAP 3 = MOL 7 = JTZ 8 = MR
				EXPERT-MODE 1
0	138	0	*	INTEGRATION TIME in sec.
0	139	0	*	max. SWITCH. POWER
0	140	0	*	SWITCH. TRIGGER IND in %
0	141	0	*	SWITCH. TRIGGER CAP in %
0	142	0	*	KEYLOCK 0 = NON 1 = Key-Lock 2 = Key-Lock after 24 h automatically
0	143	0	*	SWITCHING OPERATION WARNING
0	144	0	*	FAST DISCHARGE (of stages) 0 = NO 1...12 = 1...12. STEP
0	145	0	*	FAST DISCHARGE TIME in seconds
0	146	0	*	PHASE SHIFTING Current Transformer 1...3 = L1...L3
0	147	0	*	PHASE SHIFTING - VOLTAGE 0 = 0° 1 = 330° 2 = 300° 3 = 270° 4 = 240° 5 = 210° 6 = 180° 7 = 150° 8 = 120° 9 = 90° 10 = 60° 11 = 30°
0	148	0	*	CAPACITOR TEST 0 = NO 1 = YES
0	149	0	*	ERROR TOLERANCE positive Variance 10...100 = +10%....+100%

Adress HIGH-BYTE	Adress LOW-BYTE	Data HIGH-BYTE	Data LOW-BYTE	DESCRIPTION
0	150	0	*	ERROR TOLERANCE negat. Variance 10...100 = -10%....-100%
0	151	0	*	TEST ATTEMPTS
0	152	0	*	POWER 1st STEP 0 = 0.....255kvar 1 = 0....2550kvar 2 = 0...25500kavr
0	153	0	*	CONTROL (3-phase / 1-phase) 0 = 1-phase CAP 1 = 3-phase CAP 2 = 1-phase IND 3 = 3-phase IND 4 = 1-phase IND / CAP 5 = 3-phase IND / CAP
0	154	0	*	DELIVERY 0 = No influence on stages 1 = switching off of stages 2 = all stages OFF
0	155	0	*	DISPLAY 0 = cos-phi 1 = tan-phi
0	156	0	*	CHANGING PASSWORD 0 = NO 1 = YES
0	157	0	*	CODE NUMBER 1 0...35 = 0...9 / A...Z
0	158	0	*	CODE NUMBER 2 0...35 = 0...9 / A...Z
0	159	0	*	CODE NUMBER 3 0...35 = 0...9 / A...Z
0	160	0	*	CODE NUMBER 4 0...35 = 0...9 / A...Z
0	161	0	*	LCD-BACKLIGHT at ERROR 0 = OFF 1 = RED 2 = WHITE 3 = PINK

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Adress HIGH-BYTE	Adress LOW-BYTE	Data HIGH-BYTE	Data LOW-BYTE	DESCRIPTION
				INTERFACE
0	171	0	*	MESSAGE RELAY <hr/> 1 = OFF 2 = ERROR 3 = ERROR inverse 4 = FAN 5 = DELIVERY 6 = UNDERCURRENT 7 = HARMONICS 8 = OVERCOMPENSATED 9 = UNDERCOMPENSATED 10 = NUMBER OF SWITCHINGS 11 = MODBUS-ERROR 12 = MMI-ERROR 13 = C-DEFECT (capacitor error) 14 = FIX-STAGE OUTPUT
0	172	0	*	FAN TEMPERATURE <hr/> 15...70 = 15°C...70°C
0	173	0	*	EXTERNAL INPUT <hr/> 0 = NO 1 = 2. PARAMETER SET 2 = EXTERNAL ERROR 3 = Q-OFFSET 4 = COUPLING OPERATION IN PARALLEL 5 = COUPLING OPERATION SERIAL 6 = INPUT FIX-STAGE (display only)
0	174	0	*	POWER FIX STAGE <hr/> 1...255 = 1...255 x C1 (smallest step)
0	175	0	*	CLOCK-HOUR
0	176	0	*	CLOCK-MINUTE
0	177	0	*	CLOCK-DAY
0	178	0	*	CLOCK-MONTH
0	179	0	*	CLOCK-YEAR
0	180	0	*	PROTOCOL <hr/> 0 = OFF 1 = MODBUS RTU with control KTR 2 = MODBUS RTU 3 = ASCII 4 = MASTER MMI (capacitor current monitoring) 5 = EXTERN (external measuring device) 6 = SLAVE HYBRID 7 = SLAVE MODE 8 = MASTER MODE 9 = COUPLING-MODE (display only)

Adress HIGH- BYTE	Adress HIGH- BYTE	Data HIGH- BYTE	Data LOW- BYTE	DESCRIPTION
0	181	0	*	BAUD RATE <hr/> 0 = 9600 / NONE 1 = 19200 / NONE 2 = 38400 / NONE 3 = 57600 / NONE 4 = 115200 / NONE 5 = 250000 / NONE 6 = 256000 / NONE '----- 7 = 9600 / ODD 8 = 19200 / ODD 9 = 38400 / ODD 10 = 57600 / ODD 11 = 115200 / ODD 12 = 250000 / ODD 13 = 256000 / ODD '----- 14 = 9600 / EVEN 15 = 19200 / EVEN 16 = 38400 / EVEN 17 = 57600 / EVEN 18 = 115200 / EVEN 19 = 250000 / EVEN 20 = 256000 / EVEN
0	182	0	*	ADRESS (MODBUS)
0	183	0	*	NUMBER OF MMI
0	184	0	*	MEASURING DEVICE TYPE <hr/> 0 = MMI6000 1 = MMI7000 2 = MMI8003 3 = UCM 5
0	185	0	*	NUMBER OF BR7000-I (SLAVE)
	186	0	*	ACSII-TRANSMITTING INTERVAL <hr/> 1...255 = 1...255 s
0	187	0	*	ASCII-SEPARATOR <hr/> 0 = HT 1 = LF/CR 2 = SP 3 = CR/LF 4 = MINUS 5 = CSV

Adress HIGH-BYTE	Adress LOW-BYTE	Data HIGH-BYTE	Data LOW-BYTE	DESCRIPTION
0	188	0	*	PROTOCOL 0 = OFF 1 = MODBUS RTU with control KTR 2 = MODBUS RTU 3 = ASCII 4 = MASTER MMI (capacitor current monitoring) 5 = EXTERN (external measuring device)
0	189	0	*	BAUDRATE COM 2 (see 181)
0	190	0	*	ADDRESS COM 2 (see 182)
0	191	0	*	MEASURING DEVICE TYPE (see 184)

Adress HIGH-BYTE	Adress LOW-BYTE	Data HIGH-BYTE	Data LOW-BYTE	DESCRIPTION
0	201	0	*	value step 1
0	202	0	*	value step 2
0	203	0	*	value step 3
0	204	0	*	value step 4
0	205	0	*	value step 5
0	206	0	*	value step 6
0	207	0	*	value step 7
0	208	0	*	value step 8
0	209	0	*	value step 9
0	210	0	*	value step 10
0	211	0	*	value step 11
0	212	0	*	value step 12
0	213	0	*	value step 13

Adress HIGH-BYTE	Adress LOW-BYTE	Data HIGH-BYTE	Data LOW-BYTE	DESCRIPTION
				EXPERT-MODE 2
				ERROR-STATUS
				0 = OFF 1 = ON 2...255 = delay time in seconds
0	220	0	*	0/1/2...255 - MEASURING VOLTAGE
0	221	0	*	0/1/2...255 - OVER VOLTAGE
0	222	0	*	0/1/2...255 - OVERCOMPENSATED
0	223	0	*	0/1/2...255 - UNDERCOMPENSATED
0	224	0	*	0/1/2...255 - HARMONICS
0	225	0	*	0/1/2...255 - OVERTEMPERATURE
0	226	0	*	0/1/2...255 - OVERCURRENT
0	227	0	*	0/1/2...255 - UNDERVOLTAGE
0	228	0	*	0/1/2...255 - NUMBER OF SWITCHINGS
0	229	0	*	0/1/2...255 - UNDERCURRENT
0	230	0	*	0/1/2...255 - MODBUS-ERROR COM1
0	231	0	*	0/1/2...255 - MODBUS-ERROR COM2
0	232	0	*	0/1/2...255 - MMI-ERROR
0	233	0	*	0/1/2...255 - MODBUS-REMOTE
0	234	0	*	0/1/2...255 - CURRENT < ? (cap. current monitoring)
0	235	0	*	0/1/2...255 - BUS-ERROR-EXTERN
0	236	0	*	0/1/2...255 - C-DEFECT
0	237	0	*	0/1/2...255 - Current > NULL (cap. current monitoring)
0	238	0	*	0/1/2...255 - OVERLOAD-SYSTEM (cap.current monit.)
0	239	0	*	0/1/2...255 - EXTERN-FEHLER
0	240	0	*	0/1/2...255 - C-DEFECT-OFF (cap. current monitoring)
0	241	0	*	0/1/2...255 - AUTO-INIT-ERROR
0	242			ALARMRELAY – DELAY TIME
				1...255 = 1...255 minutes
	243	0	*	UNDERVOLTAGE (trigger)
				20...95 = 20...95 %
0	244	0	*	OVERVOLTAGE (trigger)
				105...140 = 105...140 %
0	245	0	*	MESSFREQUENCY
				0 = 42...80 Hz 1 = 50 Hz 2 = 60 Hz 3 = 42...160Hz 4 = 16,7 Hz

Adress HIGH- BYTE	Adress LOW- BYTE	Data HIGH- BYTE	Data LOW- BYTE	DESCRIPTION
0	246	0	*	OVERCOMPENSATED 100 = AUS 10 = 0.10 CAP 99 = 0.99 CAP
0	247	0	*	UNDERCOMPENSATED 100 = AUS 10 = 0.10 IND 99 = 0.99 IND
0	253	0	*	HARDWARE 0 = BR7000-I 1 = BR7000-I-S
0	254	0	*	TESTFLAG (internal register)
0	255	71	20	IDENTIFIER / VERSION HIGH = 71 (BR7000-I) LOW = 24 (Version 2.4)

REMOTE MEASURING:

Adress HIGH- BYTE	Adress LOW- BYTE	Data HIGH- BYTE	Data LOW- BYTE	DESCRIPTION
				REMOTE MEASURING - LONG-FORMAT (4 Byte)
14	246	*	*	Reactive power HIGH-WORD
14	247	*	*	Reactive power LOW-WORD
14	248	*	*	Active power HIGH-WORD
14	249	*	*	Active power LOW-WORD
14	250	*	*	Apparent power HIGH-WORD
14	251	*	*	Apparent power LOW-WORD

Special-register range:

Adress HIGH- BYTE	Adress LOW- BYTE	Data HIGH- BYTE	Data LOW- BYTE	DESCRIPTION
				SWITCHING OPERATION - LONG-FORMAT (4Byte)
23	7	*	*	Stage 1 HIGH-WORD
23	8	*	*	Stage 1 LOW-WORD
23	9	*	*	Stage 2 HIGH-WORD
23	10	*	*	Stage 2 LOW-WORD
23	11	*	*	Stage 3 HIGH-WORD
23	12	*	*	Stage 3 LOW-WORD
23	13	*	*	Stage 4 HIGH-WORD
23	14	*	*	Stage 4 LOW-WORD
23	15	*	*	Stage 5 HIGH-WORD
23	16	*	*	Stage 5 LOW-WORD
23	17	*	*	Stage 6 HIGH-WORD
23	18	*	*	Stage 6 LOW-WORD
23	19	*	*	Stage 7 HIGH-WORD
23	20	*	*	Stage 7 LOW-WORD
23	21	*	*	Stage 8 HIGH-WORD
23	22	*	*	Stage 8 LOW-WORD
23	23	*	*	Stage 9 HIGH-WORD
23	24	*	*	Stage 9 LOW-WORD
23	25	*	*	Stage 10 HIGH-WORD
23	26	*	*	Stage 10 LOW-WORD
23	27	*	*	Stage 11 HIGH-WORD
23	28	*	*	Stage 11 LOW-WORD
23	29	*	*	Stage 12 HIGH-WORD
23	30	*	*	Stage 12 LOW-WORD
23	31	*	*	Stage 13 HIGH-WORD
23	32	*	*	Stage 13 LOW-WORD

Adress HIGH-BYTE	Adress LOW-BYTE	Data HIGH-BYTE	Data LOW-BYTE	DESCRIPTION
				OPERATION TIME CAPACITORS LONG-FORMAT (4Byte)
23	33	*	*	Stage 1 HIGH-WORD
23	34	*	*	Stage 1 LOW-WORD
23	35	*	*	Stage 2 HIGH-WORD
23	36	*	*	Stage 2 LOW-WORD
23	37	*	*	Stage 3 HIGH-WORD
23	38	*	*	Stage 3 LOW-WORD
23	39	*	*	Stage 4 HIGH-WORD
23	40	*	*	Stage 4 LOW-WORD
23	41	*	*	Stage 5 HIGH-WORD
23	42	*	*	Stage 5 LOW-WORD
23	43	*	*	Stage 6 HIGH-WORD
23	44	*	*	Stage 6 LOW-WORD
23	45	*	*	Stage 7 HIGH-WORD
23	46	*	*	Stage 7 LOW-WORD
23	47	*	*	Stage 8 HIGH-WORD
23	48	*	*	Stage 8 LOW-WORD
23	49	*	*	Stage 9 HIGH-WORD
23	50	*	*	Stage 9 LOW-WORD
23	51	*	*	Stage 10 HIGH-WORD
23	52	*	*	Stage 10 LOW-WORD
23	53	*	*	Stage 11 HIGH-WORD
23	54	*	*	Stage 11 LOW-WORD
23	55	*	*	Stage 12 HIGH-WORD
23	56	*	*	Stage 12 LOW-WORD
23	57	*	*	Stage 13 HIGH-WORD
23	58	*	*	Stage 13 LOW-WORD
23	59	*	*	STAGE STATUS Stage 1...8 BIT 0 = Stage 1.0 BIT 1 = Stage 1.1 . . BIT 14 = Stage 8.0 BIT 15 = Stage 8.1 1 = Fixed stage OFF 2 = Automatic stage 3 = Fixed stage ON
23	60	*	*	STAGE STATUS Stage 9...13 BIT 0 = Stage 9.0 BIT 1 = Stage 9.1 . . BIT 8 = Stage 13.0 BIT 9 = Stage 13.1 1 = Fixed stage OFF 2 = Automatic stage 3 = Fixed stage ON

Adress HIGH- BYTE	Adress LOW- BYTE	Data HIGH- BYTE	Data LOW- BYTE	DESCRIPTION
23	61	0	*	ERROR MEMORY 1 (10. Error)
23		0	*	
23	70	0	*	ERROR MEMORY 10 (last Error)
23	71	*	*	ERROR MEMORY Time stamp HIGH-WORD (1)
23	72	*	*	ERROR MEMORY Time stamp LOW-WORD (1)
23		*	*	
23	89	*	*	ERROR MEMORY Time stamp HIGH-WORD (10)
23	90	*	*	ERROR MEMORY Time stamp LOW-WORD (10)
23	111	71	1	Identifier Register HIGH = 71 = BR7000-I LOW = 1 = Power Factor Controller
				Grid-measuring values - floating point format (4 Byte)
23	112	*	*	Voltage
23	113	*	*	Voltage
23	114	*	*	Current
23	115	*	*	Current
23	116	*	*	Reactive power
23	117	*	*	Reactive power
23	118	*	*	Active power
23	119	*	*	Active power
23	120	*	*	Apparent power
23	121	*	*	Apparent power
23	122	*	*	Differential reactive power (to reach target cos-phi)
23	123	*	*	Differential reactive power (to reach target cos-phi)
23	124	*	*	Temperature
23	125	*	*	Temperature
23	126	*	*	THD-V
23	127	*	*	THD-V
23	128	*	*	THD-I
23	129	*	*	THD-I
23	130	*	*	cos-phi
23	131	*	*	cos-phi
23	132	*	*	RELAY STATUS BIT 0 = Message relay BIT 1...13 = Output relay BIT 14 = Alarm relay BIT 15 = External input
23	133	0	*	CONTROL DIRECTION 1 = Switch OFF 2 = Stopp 3 = Switch ON
23	134	0	*	ERROR-register

Adress HIGH-BYTE	Adress LOW-BYTE	Data HIGH-BYTE	Data LOW-BYTE	DESCRIPTION
23	135	0	*	WARNING-register
23	136	0	*	MESSAGE-register
23	137	0	*	FREQUENCY
23	138	0	0	-
23	139	*	*	HARMONICS voltage 3. (2.) (139....158) x10 e.g.: 56 = 5.6%
23		*	*	
23	158	*	*	HARMONICS voltage
23	159	*	*	HARMONICS current 3. (2.) (159...178) x10 e.g.: 147 = 14.7%
23		*	*	
23	178	*	*	HARMONICS current
				MAX. VALUES in floating point format (4 Byte)
23	179	*	*	max. voltage
23	180	*	*	max. voltage
23	181	*	*	max. current
23	182	*	*	max. current
23	183	*	*	max. reactive power
23	184	*	*	max. reactive power
23	185	*	*	max. active power
23	186	*	*	max. active power
23	187	*	*	max. apparent power
23	188	*	*	max. apparent power
23	189	*	*	max. differential reactive power (to reach target cos-phi)
23	190	*	*	max. differential reactive power (to reach target cos-phi)
23	191	*	*	max. temperature
23	192	*	*	max. temperature
23	193	*	*	max. THD-V
23	194	*	*	max. THD-V
23	195	*	*	max. THD-I
23	196	*	*	max. THD-I
23	197	*	*	min. voltage
23	198	*	*	min. voltage

Adress HIGH-BYTE	Adress LOW-BYTE	Data HIGH-BYTE	Data LOW-BYTE	DESCRIPTION
				MAX. VALUES Time stamp
23	199	*	*	max. voltage
23	200	*	*	max. voltage
23	201	*	*	max. current
23	202	*	*	max. current
23	203	*	*	max. reactive power
23	204	*	*	max. reactive power
23	205	*	*	max. active power
23	206	*	*	max. active power
23	207	*	*	max. apparent power
23	208	*	*	max. apparent power
23	209	*	*	max. differential reactive power (to reach target cos-phi)
23	210	*	*	max. differential reactive power (to reach target cos-phi)
23	211	*	*	max. THD-V
23	212	*	*	max. THD-V
23	213	*	*	max. THD-I
23	214	*	*	max. THD-I
23	215	*	*	max. temperature
23	216	*	*	max. temperature
23	217	*	*	min. voltage
23	218	*	*	min. voltage
23	219	*	*	SYSTEM TIME
23	220	*	*	SYSTEM TIME
				ENERGIE- LONG-Format (4 Byte) in kWh
23	221	*	*	ACTIVE ENERGY (Receiving) - HIGH-WORD
23	222	*	*	ACTIVE ENERGY (Receiving) - LOW-WORD
23	223	*	*	ACTIVE ENERGY (Delivery) - HIGH-WORD
23	224	*	*	ACTIVE ENERGY (Delivery) - LOW-WORD
23	225	*	*	REACTIVE ENERGY IND - HIGH-WORD
23	226	*	*	REACTIVE ENERGY IND - LOW-WORD
23	227	*	*	REACTIVE ENERGY CAP - HIGH-WORD
23	228	*	*	REACTIVE ENERGY CAP - LOW-WORD
				Rest - ENERGIE LONG-Format (4Byte) in Ws
23	229	*	*	ACTIVE ENERGY (Receiving) - HIGH-WORD
23	230	*	*	ACTIVE ENERGY (Receiving) - LOW-WORD
23	231	*	*	ACTIVE ENERGY (Delivery) - HIGH-WORD
23	232	*	*	ACTIVE ENERGY (Delivery) - LOW-WORD
23	233	*	*	REACTIVE ENERGY IND - HIGH-WORD
23	234	*	*	REACTIVE ENERGY IND - LOW-WORD
23	235	*	*	REACTIVE ENERGY CAP - HIGH-WORD
23	236	*	*	REACTIVE ENERGY CAP - LOW-WORD