

3PH - DIGITAL POWER FACTOR

FW 3.8

REGISTERS MODBUS - RTU:

READ REGISTERS (INPUT REGISTERS)

ADDRESS	FORMAT	MULTIPLIER	UNIT	PARAMETERS
0000	USHORT	0.001	-	Actual Cosφ Phase L1 (x1000)
0001	USHORT	0.001	-	Actual Cosφ Phase L2 (x1000)
0002	USHORT	0.001	-	Actual Cosφ Phase L3 (x1000)
0003	USHORT	1	V	RMS Voltage Phase L1
0004	USHORT	1	V	RMS Voltage Phase L2
0005	USHORT	1	V	RMS Voltage Phase L3
0006	ULONG	0.01	A	RMS Current Phase L1
0008	ULONG	0.01	A	RMS Current Phase L2
000A	ULONG	0.01	A	RMS Current Phase L3
000C	LONG	1	VAR	Actual Reactive Power Phase L1 (Negative = Capacitive)
000E	LONG	1	VAR	Actual Reactive Power Phase L2 (Negative = Capacitive)
0010	LONG	1	VAR	Actual Reactive Power Phase L3 (Negative = Capacitive)
0012	LONG	1	VAR	Reactive Power Demand Phase L1
0014	LONG	1	VAR	Reactive Power Demand Phase L2
0016	LONG	1	VAR	Reactive Power Demand Phase L3
0018	LONG	1	W	Actual Active Power Phase L1
001A	LONG	1	W	Actual Active Power Phase L2
001C	LONG	1	W	Actual Active Power Phase L3
001E	ULONG	1	VA	Actual Apparent Power Phase L1
0020	ULONG	1	VA	Actual Apparent Power Phase L2
0022	ULONG	1	VA	Actual Apparent Power Phase L3
0024	USHORT	1	%	Voltage THD Phase L1
0025	USHORT	1	%	Voltage THD Phase L2
0026	USHORT	1	%	Voltage THD Phase L3
0027	USHORT	1	%	Current THD Phase L1
0028	USHORT	1	%	Current THD Phase L2
0029	USHORT	1	%	Current THD Phase L3
002A	USHORT	-	bits	General Alarms: (0 = Disabled, 1 = Enabled)
				bit0 = R.-HU Voltage Too High
				bit1 = R.-LU Voltage Too Low
				bit2 = R.-HI Current Too High
				bit3 = R.-LI Current Too Low
				bit4 = R.-HC Over Compensation
				bit5 = R.-LC Under Compensation
				bit6 = R.-OT Over Temperature
				bit7 = R.-TH High THD
				bit8 = R.-FR Wrong Frequency
				Bit9 = R.-CS Cosφ Min.
002B	USHORT	-	bits	Eeprom Alarms: (0 = Disabled, 1 = Enabled)
				bit0 = R.-PS Error Parameters Setup
				bit1 = R.-PC Calibration Error Parameters
				bit2 = R.-PU Various Parameters Error
				bit3 = R.-EE Eeprom Error Cancellation
				bit4 = R.-S5 Error Parameter Set
				bit5 = R.-S5C Not Used
				bit6 = R.-S5U Calibration Error
002C	USHORT	-	bits	Steps Actual Output Status
002D	ULONG	1	VAR	Real Reactive Power – Step 1
002F	ULONG	1	VAR	Real Reactive Power – Step 2
0031	ULONG	1	VAR	Real Reactive Power – Step 3
0033	ULONG	1	VAR	Real Reactive Power – Step 4
0035	ULONG	1	VAR	Real Reactive Power – Step 5
0037	ULONG	1	VAR	Real Reactive Power – Step 6
0039	ULONG	1	VAR	Real Reactive Power – Step 7
003B	ULONG	1	VAR	Real Reactive Power – Step 8
003D	ULONG	1	VAR	Real Reactive Power – Step 9
003F	ULONG	1	VAR	Real Reactive Power – Step 10
0041	ULONG	1	VAR	Real Reactive Power – Step 11
0043	ULONG	1	VAR	Real Reactive Power – Step 12
0045	USHORT	0.1	°C	Temperature
0046	USHORT	1	-	Max Step Number (06-12)
0047	USHORT	-	-	Firmware Checksum
0048	USHORT	-	-	Actual Quadrant Phase L1 (1=IND-LOAD, 2=IND-GEN, 3=CAP-GEN, 4=CAP-LOAD)

0049	USHORT	-	-	Actual Quadrant Phase L1 (1=IND-LOAD, 2=IND-GEN, 3=CAP-GEN, 4=CAP-LOAD)
004A	USHORT	-	-	Actual Quadrant Phase L1 (1=IND-LOAD, 2=IND-GEN, 3=CAP-GEN, 4=CAP-LOAD)
004B	USHORT	1	secs	Seconds of Discharge – Step 1
004C	USHORT	1	secs	Seconds of Discharge – Step 2
004D	USHORT	1	secs	Seconds of Discharge – Step 3
004E	USHORT	1	secs	Seconds of Discharge – Step 4
004F	USHORT	1	secs	Seconds of Discharge – Step 5
0050	USHORT	1	secs	Seconds of Discharge – Step 6
0051	USHORT	1	secs	Seconds of Discharge – Step 7
0052	USHORT	1	secs	Seconds of Discharge – Step 8
0053	USHORT	1	secs	Seconds of Discharge – Step 9
0054	USHORT	1	secs	Seconds of Discharge – Step 10
0055	USHORT	1	secs	Seconds of Discharge – Step 11
0056	USHORT	1	secs	Seconds of Discharge – Step 12
0057	ULONG	1	hrs	Total Hours of Operation

READ / WRITE REGISTERS (HOLDING REGISTERS)

ADDRESS	FORMAT	MULTIPLIER	UNIT	RANGE	PARAMETERS
0000	USHORT	-	-	0 ... 1	Mode (0 = Manual, 1 = Auto)
0001	USHORT	-	-	0 ... 4095	Manual Step Combination Set (bit0 = Step 1, ... , bit11 = Step 12)
0002	SHORT	0.01	-	-100 ... 100	Cosφ desired (negative = capacitive)
0003	USHORT	1	secs/steps	5 ... 600	Sensitivity
0004	USHORT	1	A	5 ... 10000	P.01 CT Current
0005	USHORT	10	VAR	1 ... 30000	P.02 Minimum Step
0006	USHORT	1	V	80 ... 750	P.03 Nominal Capacitor Voltage
0007	USHORT	1	secs	1 ... 600	P.04 Reconnection Time Step
0008	LONG	1	VAR	0 ... 300000	P.05 Step 1 Value
000A	LONG	1	VAR	0 ... 300000	P.05 Step 2 Value
000C	LONG	1	VAR	0 ... 300000	P.05 Step 3 Value
000E	LONG	1	VAR	0 ... 300000	P.05 Step 4 Value
0010	LONG	1	VAR	0 ... 300000	P.05 Step 5 Value
0012	LONG	1	VAR	-1 ... 300000	P.05 Step 6 Value (if 06 steps: -1 = FAN)
0014	LONG	1	VAR	0 ... 300000	P.05 Step 7 Value
0016	LONG	1	VAR	0 ... 300000	P.05 Step 8 Value
0018	LONG	1	VAR	0 ... 300000	P.05 Step 9 Value
001A	LONG	1	VAR	0 ... 300000	P.05 Step 10 Value
001C	LONG	1	VAR	0 ... 300000	P.05 Step 11 Value
001E	LONG	1	VAR	-1 ... 300000	P.05 Step 12 Value (if 12 steps: -1 = FAN)
0020	USHORT	-	-	0 ... 3	P.05 Step 1 Type (0=3PH, 1=1PH-L1, 2=1PH-L2, 3=1PH-L3)
0021	USHORT	-	-	0 ... 3	P.05 Step 2 Type (0=3PH, 1=1PH-L1, 2=1PH-L2, 3=1PH-L3)
0022	USHORT	-	-	0 ... 3	P.05 Step 3 Type (0=3PH, 1=1PH-L1, 2=1PH-L2, 3=1PH-L3)
0023	USHORT	-	-	0 ... 3	P.05 Step 4 Type (0=3PH, 1=1PH-L1, 2=1PH-L2, 3=1PH-L3)
0024	USHORT	-	-	0 ... 3	P.05 Step 5 Type (0=3PH, 1=1PH-L1, 2=1PH-L2, 3=1PH-L3)
0025	USHORT	-	-	0 ... 3	P.05 Step 6 Type (0=3PH, 1=1PH-L1, 2=1PH-L2, 3=1PH-L3)
0026	USHORT	-	-	0 ... 3	P.05 Step 7 Type (0=3PH, 1=1PH-L1, 2=1PH-L2, 3=1PH-L3)
0027	USHORT	-	-	0 ... 3	P.05 Step 8 Type (0=3PH, 1=1PH-L1, 2=1PH-L2, 3=1PH-L3)
0028	USHORT	-	-	0 ... 3	P.05 Step 9 Type (0=3PH, 1=1PH-L1, 2=1PH-L2, 3=1PH-L3)
0029	USHORT	-	-	0 ... 3	P.05 Step 10 Type (0=3PH, 1=1PH-L1, 2=1PH-L2, 3=1PH-L3)
002A	USHORT	-	-	0 ... 3	P.05 Step 11 Type (0=3PH, 1=1PH-L1, 2=1PH-L2, 3=1PH-L3)
002B	USHORT	-	-	0 ... 3	P.05 Step 12 Type (0=3PH, 1=1PH-L1, 2=1PH-L2, 3=1PH-L3)
002C	USHORT	-	-	0	R.01 Mains Connection Three-Phase
002D	USHORT	-	-	1 ... 2	R.02 Sense of CT current (1 = Direct, 2 = Inverse)
002E	USHORT	-	-	1 ... 2	R.03 Frequency (1 = 50Hz, 2 = 60Hz)
002F	USHORT	-	-	0 ... 247	R.04 Serial Address (0 = Off, 1...247 = On "address")
0030	USHORT	-	-	0 ... 1	R.05 Enable Temp. Alarm Relay (0 = Disable, 1 = Enabled)
0031	USHORT	-	-	0 ... 1	R.06 Temperature Scale (0 = °C, 1 = °F)
0032	USHORT	1	%	110 ... 130	R.07 THD Alarm Threshold
0033	USHORT	-	bits	0 ... 1023	R.09 Relay Alarm (0 = Disable, 1 = Enabled) (bit0 = R.-HU , bit1 = R.-LU , bit2 = R.-HI , bit3 = R.-LI , bit4 = R.-HC) (bit5 = R.-LC , bit6 = R.-DL , bit7 = R.-EL , bit8 = not used, bit9 = R.-CS)

0034	USHORT	-	units	1 ... 240	A.10 Delay Step Disconnection Warning (A.L1) (the unit of measure depends on parameter 0038)
0035	USHORT	1	°C	1 ... 240	A.11 Minimum Temperature Threshold for Disabling Fan Relay
0036	USHORT	1	°C	1 ... 240	A.12 Maximum Temperature Threshold for Activating Fan Relay
0037	USHORT	1	V	220 ... 440	A.13 Rated Voltage
0038	USHORT	-	-	0 ... 1	A.14 Alarm Relay Contact Type (0 = NC, 1 = NO)
0039	USHORT	-	-	0 ... 12	A.15 Fixed Step Number
003A	USHORT	-	-	0 ... 1	A.16 Fixed Step Type (0 = Normal, 1 = Without Calculations)
003B	USHORT	-	-	0 ... 15	A.17 Serial Protocol Type
003C	USHORT	0.01	-	0.90 ... 100	A.18 Antihunting Threshold
003D	USHORT	-	bits	0 ... 1023	Alarm Enable (0 = Disabled, 1 = Enabled) (bit0 = A.-HU , bit1 = A.-LU , bit2 = A.-HI , bit3 = A.-LI , bit4 = A.-HC) (bit5 = A.-LC , bit6 = A.-Dt , bit7 = A.-th , bit8 = not used, bit9 = A.-CS)
003E	USHORT	-	units	1 ... 240	A.-HU Time Delay Alarm
003F	USHORT	-	units	1 ... 240	A.-LU Time Delay Alarm
0040	USHORT	-	units	1 ... 240	A.-HI Time Delay Alarm
0041	USHORT	-	units	1 ... 240	A.-LI Time Delay Alarm
0042	USHORT	-	units	1 ... 240	A.-HC Time Delay Alarm
0043	USHORT	-	units	1 ... 240	A.-LC Time Delay Alarm
0044	USHORT	-	units	1 ... 240	A.-Dt Time Delay Alarm
0045	USHORT	-	units	1 ... 240	A.-th Time Delay Alarm (A.DB)
0046	USHORT	-	bits	0 ... 1023	Alarm Scale (0 = Seconds, 1 = Minutes) (bit0 = A.-HU , bit1 = A.-LU , bit2 = A.-HI , bit3 = A.-LI , bit4 = A.-HC) (bit5 = A.-LC , bit6 = A.-Dt , bit7 = A.-th , bit8 = not used, bit9 = A.-CS)
0047	USHORT	-	bits	0 ... 1023	Disconnection Steps on Alarm (0 = Disabled, 1 = Enabled) (bit0 = A.-HU , bit1 = A.-LU , bit2 = A.-HI , bit3 = A.-LI , bit4 = A.-HC) (bit5 = A.-LC , bit6 = A.-Dt , bit7 = A.-th , bit8 = not used, bit9 = A.-CS)
0048	ULONG	1	-	0 ... 4294967295	Number Insertions Step 1
004A	ULONG	1	-	0 ... 4294967295	Number Insertions Step 2
004C	ULONG	1	-	0 ... 4294967295	Number Insertions Step 3
004E	ULONG	1	-	0 ... 4294967295	Number Insertions Step 4
0050	ULONG	1	-	0 ... 4294967295	Number Insertions Step 5
0052	ULONG	1	-	0 ... 4294967295	Number Insertions Step 6
0054	ULONG	1	-	0 ... 4294967295	Number Insertions Step 7
0056	ULONG	1	-	0 ... 4294967295	Number Insertions Step 8
0058	ULONG	1	-	0 ... 4294967295	Number Insertions Step 9
005A	ULONG	1	-	0 ... 4294967295	Number Insertions Step 10
005C	ULONG	1	-	0 ... 4294967295	Number Insertions Step 11
005E	ULONG	1	-	0 ... 4294967295	Number Insertions Step 12
0060	ULONG	1	secs	0 ... 4294967295	Time Insertion Step 1
0062	ULONG	1	secs	0 ... 4294967295	Time Insertion Step 2
0064	ULONG	1	secs	0 ... 4294967295	Time Insertion Step 3
0066	ULONG	1	secs	0 ... 4294967295	Time Insertion Step 4
0068	ULONG	1	secs	0 ... 4294967295	Time Insertion Step 5
006A	ULONG	1	secs	0 ... 4294967295	Time Insertion Step 6
006C	ULONG	1	secs	0 ... 4294967295	Time Insertion Step 7
006E	ULONG	1	secs	0 ... 4294967295	Time Insertion Step 8
0070	ULONG	1	secs	0 ... 4294967295	Time Insertion Step 9
0072	ULONG	1	secs	0 ... 4294967295	Time Insertion Step 10
0074	ULONG	1	secs	0 ... 4294967295	Time Insertion Step 11
0076	ULONG	1	secs	0 ... 4294967295	Time Insertion Step 12
0078	USHORT	0.01	-	0 / 50 ... 95	A.19 Threshold Minimum Cosφ Alarm (0 = Disable)
0079	USHORT	1	units	1 ... 240	A.-CS Time Delay Alarm

Available optional communication module PC-USB / RS485 / TTL

Order Code: SCUSB485