

Table 9–1: PQM SETPOINTS (Sheet 1 of 11)

S1 PQM SETUP	
PREFERENCES	
DEFAULT MESSAGE TIME	min.
DEFAULT MESSAGE BRIGHTNESS (applicable to older units with VFD only)	%
DISPLAY FILTER CONSTANT	
SETPOINT ACCESS	
SETPOINT ACCESS	
ENTER SETPOINT ACCESS CODE	
SETPOINT ACCESS ON FOR	min.
CHANGE ACCESS CODE	
ENTER NEW ACCESS CODE	
RE-ENTER NEW ACCESS CODE	
ENCRYPTED ACCESS CODE	
COM 1 RS485 PORT	
MODBUS COMM ADDRESS	
COM 1 BAUD RATE	baud
COM 1 PARITY	
COM 2 RS485 PORT	
COM 2 BAUD RATE	baud
COM 2 PARITY	
FRONT PANEL RS232 PORT	
RS232 BAUD RATE	baud
RS232 PARITY	
DNP 3.0 CONFIGURATION	
DNP PORT	
DNP SLAVE ADDRESS	
DNP TURNAROUND TIME	ms
CLOCK	
SET TIME hh:mm:ss	
SET TIME mm:dd:yyyy	
CALCULATION PARAMETERS	
EXTRACT FUNDAMENTAL	
CURRENT DEMAND TYPE	
CURRENT DEMAND TIME INTERVAL	min.
POWER DEMAND TYPE	

Table 9–1: PQM SETPOINTS (Sheet 2 of 11)

S1 PQM SETUP continued	
POWER DEMAND TIME INTERVAL	min.
ENERGY COST PER kWh	cents
TARIFF PERIOD 1 START TIME	min.
TARIFF PERIOD 1 COST PER kWh	cents
TARIFF PERIOD 2 START TIME	min.
TARIFF PERIOD 2 COST PER kWh	cents
TARIFF PERIOD 3 START TIME	min.
TARIFF PERIOD 3 COST PER kWh	cents
EVENT RECORDER	
EVENT RECORDER OPERATION	
TRACE MEMORY	
TRACE MEMORY USAGE	cycles
TRACE MEMORY TRIGGER MODE	
Ia OVERCURRENT TRIG LEVEL	% CT
Ib OVERCURRENT TRIG LEVEL	% CT
Ic OVERCURRENT TRIG LEVEL	% CT
In OVERCURRENT TRIG LEVEL	% CT
Va OVERVOLTAGE TRIG LEVEL	% nominal
Vb OVERVOLTAGE TRIG LEVEL	% nominal
Vc OVERVOLTAGE TRIG LEVEL	% nominal
Va UNDERVOLTAGE TRIG LEVEL	% nominal
Vb UNDERVOLTAGE TRIG LEVEL	% nominal
Vc UNDERVOLTAGE TRIG LEVEL	% nominal
SWITCH INPUT A TRIG	
SWITCH INPUT B TRIG	
SWITCH INPUT C TRIG	
SWITCH INPUT D TRIG	
TRACE MEMORY TRIGGER DELAY	cycles
TRACE MEMORY TRIGGER RELAY	
PROGRAMMABLE MESSAGE	
PROGRAMMABLE MESSAGE NAME	

Table 9–1: PQM SETPOINTS (Sheet 3 of 11)

S2 SYSTEM SETUP	
CURRENT/VOLTS CONFIGURATION	
PHASE CT WIRING	
PHASE CT PRIMARY	A
NEUTRAL CURRENT SENSING	
NEUTRAL CT PRIMARY	A
VT WIRING	
VT RATIO	
VT NOMINAL SEC VOLTAGE	V
NOMINAL DIRECT INPUT VOLTAGE	V
NOMINAL SYSTEM FREQUENCY	Hz
ANALOG OUTPUT 1	
ANALOG OUTPUT RANGE	mA
ANALOG OUT 1 MAIN	
MAIN 4 mA VALUE	
MAIN 20 mA VALUE	
ANALOG OUTPUT 1 ALT	
ALT 4 mA VALUE:	
ALT 20 mA VALUE	
ANALOG OUTPUT 2	
ANALOG OUT 2 MAIN	
MAIN 4 mA VALUE	
MAIN 20 mA VALUE	
ANALOG OUTPUT 2 ALT	
ALT 4 mA VALUE	
ALT 20 mA VALUE	
ANALOG OUTPUT 3	
ANALOG OUT 3 MAIN	
MAIN 4 mA VALUE	
MAIN 20 mA VALUE	
ANALOG OUTPUT 3 ALT	
ALT 4 mA VALUE	
ALT 20 mA VALUE	

Table 9–1: PQM SETPOINTS (Sheet 4 of 11)

S2 SYSTEM SETUP continued	
ANALOG OUTPUT 4	
ANALOG OUT 4 MAIN	
MAIN 4 mA VALUE	
MAIN 20 mA VALUE	
ANALOG OUTPUT 4 ALT	
ALT 4 mA VALUE	
ALT 20 mA VALUE	
ANALOG INPUT	
ANALOG IN MAIN/ALT SELECT RELAY	
ANALOG IN MAIN NAME	
ANALOG IN MAIN UNITS	
MAIN 4 mA VALUE	
MAIN 20 mA VALUE	
ANALOG IN MAIN RELAY	
ANALOG IN MAIN LEVEL	
ANALOG IN MAIN DELAY	sec.
ANALOG IN ALT NAME	
ANALOG IN ALT UNITS	
ALT 4 mA VALUE	
ALT 20 mA VALUE	
ANALOG IN ALT RELAY	
ANALOG IN ALT LEVEL	
ANALOG IN ALT DELAY	sec.
SWITCH INPUT A	
SWITCH A NAME	
SWITCH A FUNCTION	
SWITCH A ACTIVATION	
SWITCH A TIME DELAY	sec.
SWITCH INPUT B	
SWITCH B NAME	
SWITCH B FUNCTION	
SWITCH B ACTIVATION	
SWITCH B TIME DELAY	sec.

Table 9–1: PQM SETPOINTS (Sheet 5 of 11)

S2 SYSTEM SETUP continued	
SWITCH INPUT C	
SWITCH C NAME	
SWITCH C FUNCTION	
SWITCH C ACTIVATION	
SWITCH C TIME DELAY	sec.
SWITCH INPUT D	
SWITCH D NAME	
SWITCH D FUNCTION	
SWITCH D ACTIVATION	
SWITCH D TIME DELAY	sec.
PULSE OUTPUT	
POS kWh PULSE OUTPUT RELAY	
POS kWh PULSE OUTPUT INTERVAL	kWh
NEG kWh PULSE OUTPUT RELAY	
NEG kWh PULSE OUTPUT INTERVAL	kWh
POS kvarh PULSE OUTPUT RELAY	
POS kvarh PULSE OUTPUT INTERVAL	kvarh
NEG kvarh PULSE OUTPUT RELAY	
NEG kvarh PULSE OUTPUT INTERVAL	kvarh
kVAh PULSE OUTPUT RELAY	
kVAh PULSE OUTPUT INTERVAL	kVAh
PULSE WIDTH	
PULSE INPUT	
PULSE INPUT UNITS	
PULSE INPUT 1 VALUE	
PULSE INPUT 2 VALUE	
PULSE INPUT 3 VALUE	
PULSE INPUT 4 VALUE	
PULSE INPUT ADDITION	

Table 9–1: PQM SETPOINTS (Sheet 6 of 11)

S3 OUTPUT RELAYS	
ALARM RELAY	
ALARM OPERATION	
ALARM ACTIVATION	
AUXILIARY RELAY 1	
AUX1 OPERATION	
AUX1 ACTIVATION	
AUXILIARY RELAY 2	
AUX2 OPERATION	
AUX2 ACTIVATION	
AUXILIARY RELAY 3	
AUX3 OPERATION	
AUX3 ACTIVATION	

Table 9–1: PQM SETPOINTS (Sheet 7 of 11)

S4 ALARMS/CONTROL	
CURRENT/VOLTAGE	
DETECT I/V ALARMS USING PERCENT	
PHASE UNDERCURRENT RELAY	
PHASE UNDERCURRENT LEVEL	A
PHASE UNDERCURRENT DELAY	sec.
DETECT UNDERCURRENT WHEN 0 A	
PHASE OVERCURRENT RELAY	
PHASE OVERCURRENT LEVEL	A
PHASE OVERCURRENT DELAY	sec.
PHASE OVERCURRENT ACTIVATION	
NEUTRAL OVERCURRENT RELAY	
NEUTRAL OVERCURRENT LEVEL	A
NEUTRAL OVERCURRENT DELAY	sec.
UNDERVOLTAGE RELAY	
UNDERVOLTAGE LEVEL	V
UNDERVOLTAGE DELAY	sec.
PHASES REQ'D FOR U/V OPERATION	
DETECT UNDERVOLTAGE BELOW 20 V	
OVERVOLTAGE RELAY	
OVERVOLTAGE LEVEL	V
OVERVOLTAGE DELAY	sec.
PHASES REQ'D FOR O/V OPERATION	
CURRENT UNBALANCE RELAY	
CURRENT UNBALANCE LEVEL	%
CURRENT UNBALANCE DELAY	sec.
VOLTAGE UNBALANCE RELAY	
VOLTAGE UNBALANCE LEVEL	%
VOLTAGE UNBALANCE DELAY	sec.
VOLTS PHASE REVERSAL RELAY	
VOLTS PHASE REVERSAL DELAY	sec.

Table 9–1: PQM SETPOINTS (Sheet 8 of 11)

S4 ALARMS/CONTROL continued	
TOTAL HARMONIC DISTORTION	
AVERAGE CURRENT THD RELAY	
AVERAGE CURRENT THD LEVEL	%
AVERAGE CURRENT THD DELAY	sec.
AVERAGE VOLTAGE THD RELAY	
AVERAGE VOLTAGE THD LEVEL	%
AVERAGE VOLTAGE THD DELAY	sec.
FREQUENCY	
UNDERFREQUENCY RELAY	
UNDERFREQUENCY LEVEL	Hz
UNDERFREQUENCY DELAY	sec.
OVERFREQUENCY RELAY	
OVERFREQUENCY LEVEL	Hz
OVERFREQUENCY DELAY	sec.
POWER	
POWER ALARMS LEVEL BASE UNITS	
POSITIVE REAL POWER RELAY	
POSITIVE REAL POWER LEVEL	kW
POSITIVE REAL POWER DELAY	sec.
NEGATIVE REAL POWER RELAY	
NEGATIVE REAL POWER LEVEL	kW
NEGATIVE REAL POWER DELAY	sec.
POSITIVE REACT POWER RELAY	
POSITIVE REACT POWER LEVEL	kvar
POSITIVE REACT POWER DELAY	sec.
NEGATIVE REACT POWER RELAY	
NEGATIVE REACT POWER LEVEL	kvar
NEGATIVE REACT POWER DELAY	sec.

Table 9–1: PQM SETPOINTS (Sheet 9 of 11)

S4 ALARMS/CONTROL continued	
POWER FACTOR	
POWER FACTOR LEAD 1 RELAY	
POWER FACTOR LEAD 1 PICKUP	
POWER FACTOR LEAD 1 DROPOUT	
POWER FACTOR LEAD 1 DELAY	sec.
POWER FACTOR LAG 1 RELAY	
POWER FACTOR LAG 1 PICKUP	
POWER FACTOR LAG 1 DROPOUT	
POWER FACTOR LAG 1 DELAY	sec.
POWER FACTOR LEAD 2 RELAY	
POWER FACTOR LEAD 2 PICKUP	
POWER FACTOR LEAD 2 DROPOUT	
POWER FACTOR LEAD 2 DELAY	sec.
POWER FACTOR LAG 2 RELAY	
POWER FACTOR LAG 2 PICKUP	
POWER FACTOR LAG 2 DROPOUT	
POWER FACTOR LAG 2 DELAY	sec.
DEMAND	
PHASE A CURRENT DMD RELAY	
PHASE A CURRENT DMD LEVEL	A
PHASE B CURRENT DMD RELAY	
PHASE B CURRENT DMD LEVEL	A
PHASE C CURRENT DMD RELAY	
PHASE C CURRENT DMD LEVEL	A
NEUTRAL CURRENT DMD RELAY	
NEUTRAL CURRENT DMD LEVEL	A
3Φ POS REAL POWER DMD RELAY	
3Φ POS REAL POWER DMD LEVEL	kW
3Φ POS REACT POWER DMD RELAY	
3Φ POS REACT POWER DMD LEVEL	kvar
3Φ NEG REAL POWER DMD RELAY	
3Φ NEG REAL POWER DMD LEVEL	kW
3Φ NEG REACT POWER DMD RELAY	
3Φ NEG REACT POWER DMD LEVEL	kvar
3Φ APPARENT POWER DMD RELAY	
3Φ APPARENT POWER DMD LEVEL	kVA

Table 9–1: PQM SETPOINTS (Sheet 10 of 11)

S4 ALARMS/CONTROL continued	
PULSE INPUT	
PULSE INPUT 1 RELAY	
PULSE INPUT 1 LEVEL	units
PULSE INPUT 1 DELAY	sec.
PULSE INPUT 2 RELAY	
PULSE INPUT 2 LEVEL	units
PULSE INPUT 2 DELAY	sec.
PULSE INPUT 3 RELAY	
PULSE INPUT 3 LEVEL	units
PULSE INPUT 3 DELAY	sec.
PULSE INPUT 4 RELAY	
PULSE INPUT 4 LEVEL	units
PULSE INPUT 4 DELAY	sec.
TOTALIZED PULSES RELAY	
TOTALIZED PULSES LEVEL	units
TOTALIZED PULSES DELAY	sec.
TIME	
TIME RELAY	
PICKUP TIME	
DROPOUT TIME	
MISCELLANEOUS	
SERIAL COM1 FAILURE ALARM DELAY	sec.
SERIAL COM2 FAILURE ALARM DELAY	sec.
CLOCK NOT SET ALARM	
DATA LOG 1 MEMORY FULL LEVEL	sec.
DATA LOG 2 MEMORY FULL LEVEL	sec.

Table 9–1: PQM SETPOINTS (Sheet 11 of 11)

S5 TESTING	
TEST RELAYS AND LEDS	
OPERATION TEST	
CURRENT/VOLTAGE SIMULATION	
SIMULATION	
SIMULATION ENABLED FOR	min.
PHASE A CURRENT	A
PHASE B CURRENT	A
PHASE C CURRENT	A
NEUTRAL CURRENT	A
Vax VOLTAGE	V
Vbx VOLTAGE	V
Vcx VOLTAGE	V
PHASE ANGLE	°
ANALOG OUTPUTS SIMULATION	
SIMULATION	
SIMULATION ENABLED FOR	min.
ANALOG OUTPUT 1	%
ANALOG OUTPUT 2	%
ANALOG OUTPUT 3	%
ANALOG OUTPUT 4	%
ANALOG INPUT SIMULATION	
SIMULATION	
SIMULATION ENABLED FOR	min.
ANALOG INPUT	mA
SWITCH INPUTS SIMULATION	
SIMULATION	
SIMULATION ENABLED FOR	min.
SWITCH INPUT A	
SWITCH INPUT B	
SWITCH INPUT C	
SWITCH INPUT D	