PQM Guideform Specifications

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Three phase metering and power quality analysis shall be provided by a power quality meter. Metering shall include A, V, W, Wh, Wcost, var, varh, VA, VAh, Hz, and PF in True RMS or displacement (fundamental) quantities. Power analysis features shall include an event recorder, waveform capture, trace memory, harmonic spectrum display (through the 62nd harmonic with total harmonic distortion) and a data logger function. All analysis data shall be non-volatile.

Four switch inputs shall be provided which can be programmed for relay activation, counters, logic, demand sync, reset and alarms. Four output relays shall be provided which can be programmed to activate on alarms, setpoints, switch inputs, kWh pulse, trace memory triggers or communications control. These output relays shall also be able to use demand metering values of A, VAR, W and VA to control load shedding. PLC interface shall be provided via four isolated 4-20mA outputs programmable from measured and calculated parameters. Transducer monitoring shall be provided via a 4-20mA input. Preprogrammed logic shall allow capacitor bank control for power factor correction. Current inputs shall be via 1 amp or 5 amp CTs and no VTs shall be required for voltages up to 600V. Control power can be AC or DC. Local user interface shall include a keypad and display for entering all setpoints and reading all measured values, and LED indicators for output relays, communication status and alarm status. An RS232 computer interface port shall be located on the front panel. Two RS485 and one RS232 communication ports shall be provided for simultaneous access using ModBus® RTU protocol. Any communication port shall be programmable for access using DNP 3.0 Level 2 protocol. Windows® based software shall be provided to enable setpoint programming.