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PQR-SiC

Terminal Power Quality Regulator

35 / 50 kVA | AC 380 V | Silicon carbide | IP66

PQR-SiC monitors three-phase feeder-end voltage and coordinates per-phase reactive-power regulation with three-phase active-power balancing. It serves low-voltage feeders affected by distributed generation, long lines, heavy loads and phase unbalance.

Model selection

Series	Rated output	Grid configuration
PQR-SiC	35 kVA	3P3W / 3P4W
PQR-SiC	50 kVA	3P3W / 3P4W



PQR-SiC enclosure



Ventilation side

Regulation and operating modes

Output THDi <=3%; response <100 ms; voltage unbalance after compensation <=5%. Line-voltage adjustment is >=15% when sufficient regulation capacity is available.

PVDG: distributed photovoltaic regulation. VR: voltage regulation. PVDG+VR: combined regulation. Select the mode from feeder measurements and project requirements.

Installation

Clamp-type pole mounting, bottom cable entry and natural air cooling. The enclosure rating is IP66. Applications include renewable-generation feeders, long industrial feeders and traffic-tunnel power systems.

PQR-SiC - Technical specifications

Product Series	PQR-SiC, 380 V series
Rated Output Power	35 kVA / 50 kVA
Operating Voltage	AC 380 V, -20% to +20%
Operating Frequency	50/60 Hz +/-1.5 Hz
Grid Configuration	Three-phase three-wire / three-phase four-wire
Control and Topology	DSP+CPLD digital control; T-type three-level topology
Selectable Functions	PVDG / VR / PVDG+VR
Output THDi	<=3%
Voltage Unbalance Compensation	Post-compensation voltage unbalance <=5%
Line-Voltage Adjustment Range	>=15% when sufficient capacity is available
Total Response Time	<100 ms
Overload Capability	1.2 x rated output for 60 s
Protection Functions	Overload, software/hardware overcurrent, grid overvoltage/undervoltage, grid voltage unbalance, power-supply fault, overtemperature, abnormal frequency, and short circuit
Cooling Method	Natural air cooling
Noise	<=40 dB
Communication	2 x RS485; Wi-Fi by configuration
Installation Method	Clamp-type pole mounting
Cable Entry	Bottom entry
Overall dimensions	525 x 885 x 220 mm
Weight	42 kg / 47 kg, depending on configuration
Ambient Temperature	-10 degC to +50 degC; derating above 40 degC
Pollution Level	Grade III or lower
Installation Altitude	Below 2,000 m; derating applies at higher altitudes
Enclosure Rating	IP66
Parallel operation	Multiple modules supported

Configuration

Available rated outputs are 35 kVA and 50 kVA. Communication includes two RS485 interfaces; Wi-Fi is supplied according to configuration. Weight is 42 kg or 47 kg according to configuration.