PECO II®

Quantum™ Power System

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Integrated

200 Amps @ -54VDC

OVERVIEW

Power systems are critical to the reliability of any broadband, voice, video or data networks. As equipment to support these high grade services continues to migrate closer to the end user, DC power systems must be highly reliable and flexible to meet this changing environment. Whether the application is in an outside cabinet, customer premise or a controlled environment the Quantum Power Systems (QPS) provides a compact single shelf solution designed to meet those needs and grow with the application.

FEATURES

- Up to 200 Amps output per system
- Input voltage from 90-275 VAC
- Vertical cooling with variable speed fans
- 2RU system height
- 19” & 23” shelves available
- Optional LVD
- Temperature hardened to +75℃
- Mid-mount, front access with full front/side access to AC and DC terminations
- Individual or dual AC feed option
- Optional battery disconnect

APPLICATIONS

- Fiber-to-the-Node
- Outside Plant electronics
- Remote switch
- Customer premises applications
- Central office
- Cellular
- Personal communications service (PCS)
- NGDLC, DSLAM, FITL electronics, Broadband Communications and Multiplexers

RECTIFIER

Meeting current and future DC power needs, the Quantum switch mode rectifier easily operates in a Central Office or Outside Plant environment with its temperature range of -40℃ to +75℃. With >92% efficiency, the QSM rectifiers perform in a wide range of input voltages from 90–275VAC. The 2RU package makes these plug 'n play modules an optimal size enabling the user to dedicate space to other critical components in their network. The rectifier features the I-View™ current gauge on the faceplate, providing an indication of percentage of rectifier capacity. Designed with whisper quiet multi-speed fans, the Quantum rectifier provides all the necessary DC power to run your equipment.

CONTROLLER

QPS is focused on optimizing the user experience with a unique system controller that offers a rapid input/output and innovative QuickLoad™ system configuration capability. With as little as three user prompts, the large, 8-line LCD can be easily viewed in diverse light conditions.

- Battery float control with temperature compensation
- Monitors temperature for up to 6 battery strings
- Six programmable form-C relays
- Four external, programmable alarm inputs (door alarms, etc)
- User activated alarm test mode
- LVD with manual override
- Multiple logs – Alarms, BOD, rectifier, user and trending
- SNMP, Telnet (future)

DISTRIBUTION

The QPS offering may be equipped with one of two available distribution modules. The distribution can support 10 GMT fuses with a choice of 4 plug-in load breakers or 2 plug-in load breakers / 2 plug-in battery disconnect breakers. Either module can support an optional LVD.

SPECIFICATIONS

INPUT

Voltage Range	90 – 275 VAC
Frequency	45 to 66 Hz
Current	8.5A @ 208/240VAC 11.5A @ 120VAC

CUSTOMER PROVIDED PROTECTION

Dual AC Feed	25A Circuit breakers
Individual AC Feed	15A Circuit breakers

OUTPUT

Voltage Range	-42VDC to -58VDC
Current @ 208/240VAC	1620W (30 Amps) Shelf - rectifier rating x quantity equipped
Available Recharge Current @ 208/240VAC	33.8 Amps @ -48VDC
Current @ 90VAC	810W (15 Amps)
Current @ 208/240VAC @ +75℃	810W (15 Amps)
Efficiency	> 92%

NOISE (PER RECTIFIER)

Voice Band	≤ 24 dBrnc CCITT, w/ batteries ≤ 40 dBrns CCITT, w/o batteries
Wide Band	≤ 100 mVrms @ 10k to 20M Hz
Acoustic	≤ 55 dB(A)

DISTRIBUTION

Option #1	Four (4) Plug-in Circuit Breaker Positions, Ten (10) GMT
Option #2	Two (2) Plug-in Circuit Breaker Positions for Distribution loads, Two (2) Plug-in Circuit Breaker Positions for Battery Strings, Ten (10) GMT
CB/FuseOptions	Circuit Breakers 1-100A Telpower TLS Fuse 1-125A GMT Fuses up to 20A

MECHANICAL

Weight	14.5 lbs. basic shelf 7.9 lbs 19" basic shelf 5.5 lbs rectifier
Dimensions	3.5"H x 12.3"D x 19" or 23" mounting widths
Cooling	Vertical fan cooled with speed control

QSC1100 CONTROLLER

Display	128 X 128 LCD
Local	Rotary Encoder Knob or PC via RJ45
Programmable Relays	6
External Alarm Inputs	4
Controller Security	Administrator optioned front panel security Physical toggle allows for security lockdown

ENVIRONMENTAL

Storage Ambient	-40℉ to +185℉ (-40℃ to +85℃)
Operating Ambient	-40℉ to +167℉ (-40℃ to +75℃) Full Power rating to +65℃, linear derating to half power at +75℃
Humidity	< 95%, non-condensing
Heat Dissipation	< 470 BTU/hr per rectifier
MTBF	> 435K hours

SAFETY AND COMPLIANCE

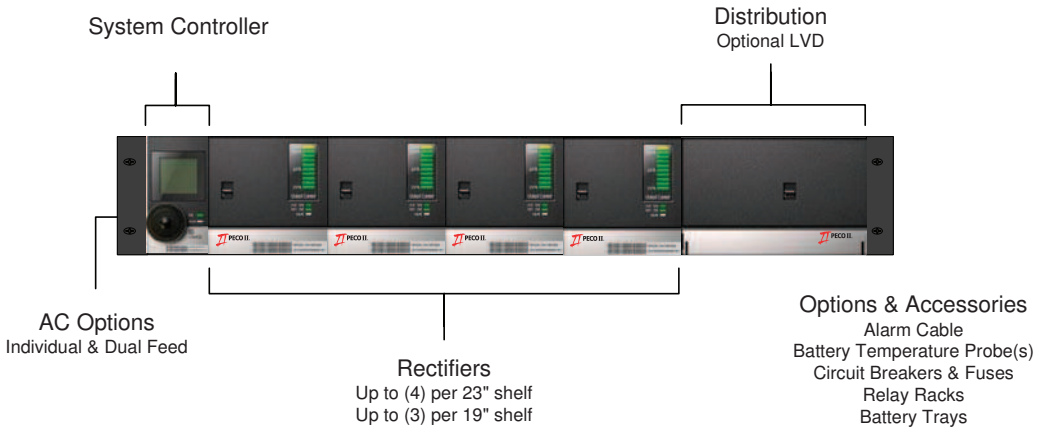
NEBS GR1089 and GR63
UL60950

DOCUMENTATION

Product Manual	4380434PD
J-Specification	J438171

ORDERING INFORMATION

Consult J-specification when ordering.



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