



Specifications

DC PowerCube

48 VDC – 80 A

14-06-2024

ARTICLE NUMBER

60202003

DC PowerCube 48 V - 80 A

DIMENSIONS & WEIGHT

Weight kg (lb.)

26 (57.3)

Length x width x height, mm (in.)

268 x 316 x 575 (10.6 x 12.4 x 22.6)

GENERAL SYSTEM SPECIFICATIONS

Nominal battery voltage

48 VDC

Output current

0 - 100 A (short circuit protected)

Output voltage

43.0 / 57.0 VDC

Recommended battery capacity:
charge characteristic

200 to 1000 Ah

3+ step charge characteristic

Slave charger

12 V - 20 A (3+ step charge characteristic) short
circuit protected

INPUT SPECIFICATIONS

Grid input voltage range

90 - 264 VAC (45 - 65 Hz), (3 wire connection)

Grid input current

Adjustable, from 2 A to 16 A

PM generator input range

80 - 300 VAC (30 - 500 Hz), (3 wire connection)

PM input current

Adjustable, from 2 A to 14.5 A

Power factor (cos phi)

> 0.85

Power Factor Correction (PFC)

EN 61000-3-2

Temperature compensation

-60 mV / °C

TECHNICAL SPECIFICATIONS

Supported battery types

Open and sealed lead acid: Gel / Traction / AGM /
Spiral and Lithium-ion

Battery leakage current

<5 mA per battery

Charge voltages

Bulk, Absorption, Float

Charge voltage AGM / GEL at 25°C

57.60 VDC, 57.00 VDC, 54.40 VDC

Charge voltage Traction at 25°C

58.40 VDC, 57.80 VDC, 53.00 VDC

Charge voltage Open lead acid at 25°C

57.00 VDC, 57.00 VDC, 53.00 VDC

Charge voltage Lithium ION at 25°C

57.60 VDC, 54.40 VDC, 53.00 VDC

Return current from absorption to float

6% of I_{max}

PowerCube status on/off

Digital output (relay, two-way contact)

Failure

Digital output (relay, two-way contact)

AC grid disabled

Digital input (potential free input, closed is disabled)

PM input disabled	Digital input (potential free input, closed is disabled)
Conformity	Directive EMC 2004/108/EC : EN 61000-6-1, EN 61000-6-3, EN 55014, EN 55022, EN 61000-3-2, 62040-2 Low voltage directive 2006/95/EC: EN 62040-1-1, EN 50091-2, EN 60950-1
PROTECTIONS	
PM input isolation protection	Yes (open collector output 30 VDC, 100 mA)
Over temperature protection	Yes, derating above 40°C, shutdown at high temperatures. (with automatic restart after cooling down)
Overvoltage protection (manual restart needed)	68 VDC +/- 0.5 VDC
Ingress Protection index	IP21
MECHANICAL SPECIFICATIONS	
Main battery connection	2 x M10 studs
Slave battery connection	1 x M5 stud
Earth grounding lug	1 x M6 stud
AC grid input	3 x M3 screw terminal block
PM grid input	3 x M3 screw terminal block
Remote control panel	RJ12
Battery temperature sensor	RJ12
Whisper Connect CANbus	RJ45
Voltage sense	Phoenix MSTB 2.5 / 2-ST-5.08
Digital outputs	6 x fastons (6.3 x 0.8)
Digital inputs	4 x fastons (6.3 x 0.8)
Operating temperature range	-20 - 55°C (derating above 40°C)
Relative humidity in operation	up to 95% without condensation
Ventilation	Combined cooling (convection and forced (variable speed))
Acoustic level	<52 dB
Warranty	2 years
Accessories	Battery temperature sensor and remote control panel