

RELi³ON[®]

insight[™] SERIES



LiFePO4

IEEE/UL Battery
Sizing by
MooreU
610-952-6067
www.mooreu.com



RELi³ON[®] | DATA SHEET

MODEL

Part Number	48V030-GC2
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FUNCTIONAL SPECIFICATIONS

Nominal Voltage	51.2V
Cell Chemistry	LiFePO4
Cell Type	Prismatic
Ampere-hour Capacity	30Ah
Watt-hour Capacity	1.536kWh
Specific Energy	128Wh/kg
Charge Efficiency	99%
Impedance (50% SOC, 1kHz)	<150mΩ
Cycles @ 80% DOD	>3500
Parallel Capable	Yes (unlimited)
Series Capable	No (max 48V system)

MECHANICAL SPECIFICATIONS

BCI Size	GC2 / GC8
Dimensions (LxWxH)	10.2 x 7.1 x 10.9 in (260 x 180 x 276 mm)
Weight	34.4 lbs (15.6 kg)
Case Material	ABS
Stud Terminal	M8 X 1.25 - 20
Insert Terminal	M8 X 1.25 - 20
Torque	79.7-88.5 in-lbs. 6.6 - 7.4 ft-lbs. 9-10 N-m
Handles	Molded
Ingress Protection Marking	IP67
Case Flame Rating	UL94 V-0

DISCHARGE SPECIFICATIONS

Continuous Discharge Current	100A
Peak Discharge Current	200A - 15 sec
Peak Discharge Current	400A - 30 msec
Short Circuit Protection	560A - 366 μsec
Protection Recover	Automatic
Low Voltage Disconnect	40V - 5 sec (2.5vpc)
Low Voltage Reconnect	Automatic
Self-Discharge per Month @ 25°C in OFF mode	2.80%

CHARGE SPECIFICATIONS

Continuous Charge Current	≤ 60A
Disconnect Charge Current	65A - 5 sec
Recommended Charge Voltage	55.2V max
Float Voltage	54.4V
High Voltage Disconnect	59.2V (3.7vpc) (4 sec)
High Voltage Reconnect	Automatic
Temperature Compensation	None

INTELLIGENT FEATURES

Unlimited Parallel Connections

- Intelligent battery-to-battery balancing
- Additive continuous and peak currents
- Scale as needed

Heatsink Design

- Strategically located
- Unique passive cooling
- Prevents over-heating of critical components

Dual M8 Terminals (Insert and Stud)

- Ample space for connections

LED Indicator

- Provides State of Charge (SOC)

Unique BMS Design

- Microcontroller-based design
- Intuitive software
- Solid State Switch for ultra-fast response times
- High-resolution internal measurements
- Non-volatile historical data
- CANbus communication
- Sleep mode capability



1. Dual M8 Terminals (insert & stud)
2. CANbus Input
3. CANbus Output
4. Power Button
5. SOC/Status LEDs
6. Heatsink
7. Vent
8. Lifting Brackets

ENVIRONMENTAL SPECIFICATIONS

Charge Temperature	32°F to 131°F (0°C to 55°C)
Discharge Temperature	-22°F to 149°F (-30°C to 65°C)
Operating Humidity	<90% RH
Storage Temperature	-4°F to 95°F (-20°C to 35°C)
Storage Humidity	25 to 85% RH

CERTIFICATIONS

UL2580 (Cell) File Number: MH63797
UL2271 (Battery Pack) File Number: MH64262
CE (Battery Pack)
IEC 62133 (Battery Pack)
UN38.3 (Battery Pack)

SHIPPING CLASSIFICATION

UN3480, Class 9

APPLICATIONS

Golf Cars
Personal Transportation Vehicles (PTVs)
Utility Vehicles
Low Speed Vehicles (LSVs)
Automated Guided Vehicles (AGVs)
Solar

COMPATIBLE ACCESSORIES

InSight Remote Button
InSight Fuel Gauge (CANbus)

