



New Isolated DC-DC Converter
**Efficient Power-over-Ethernet for
 24/48/60V Battery Systems**



Product Features

- PoE compliant
- Meets multiport IEE 802.3at (PoE+)
- 18V - 72V_{in} Range
- 54V_{out} @ 3A (162W)
- 2250V_{dc} input to output isolation
- Optional baseplate
- 91% efficiency
- Industry-standard Half Brick footprint

EMH Series

The EMH module provides a complete solution for multi-port Power-over-Ethernet (PoE) applications, including safety certifications. Wide input range accommodates worldwide PoE applications. The EMH series delivers high efficiency over the input voltage range of 18-72V. The power capability of the module will support four IEEE 802.3 at POE+ ports.

Models	Output Voltage	Output Current	Power	Input Voltage	Efficiency
EMH-54/3-Q48	54V	3A	162W	18-72V (48V Nom.)	91.5% Typ.

EMH-54/3-Q48N :

162 W 54 VOUT HALF-BRICK POWER MODULE SUITS POE APPLICATIONS

Murata announced the EMH-54/3-Q48N-C power module designed specifically for Power-over-Ethernet (PoE) applications. The Murata Power Solutions EMH Series DC-DC power module provides a 54 V SELV output, 2250 VDC isolation and a Basic insulation system meeting the requirements for multiport IEEE 802.3at (PoE+) applications. The EMH-54/3-Q48N-C can deliver 30+ watts of power at 54 V to each of four PoE+ Ethernet ports or can deliver up to 162 watts to loads requiring 54 V.

The EMH was specifically designed for use in applications requiring a wide operating voltage range such as battery-powered systems (24 V, 48 V or 60 V) and wireless base-station applications. The modules accommodate a Vin range of 18 to 72 VDC suitable for applications across all regions of the world.

The EMH-54/3-Q48N Series can be mechanically configured to operate in applications that require forced air cooling or “sealed box” applications, by offering an open frame module for forced air cooling or adding an optional baseplate for mounting a heat sink or for conduction cooling in a “sealed box” application.

This highly functional, multipurpose DC to DC converter delivers 54 V @ 3 A over a wide operating input voltage range of 18 – 72 V with efficiencies up to 91.5 %. The modules are UL approved for PoE applications requiring a DC-DC module that will deliver a 54 V SELV output with a basic insulation system that has an isolation voltage rating of 2250 VDC. The module conforms to the Industry Standard, DOSA half-brick package measuring 58.4 x 61 x 12.7 mm (2.3 x 2.4 x 0.5 inches). An optional baseplate can be supplied if the application requires a heat sink, or for use in conduction cooling (sealed box) applications. Added protection features include input under voltage lockout, output current limiting, short-circuit protection, and thermal shutdown.

Further editorial information from:

John Sutherby
Marketing Communications Director
Murata Power Solutions
Tel: 1+ 508.339.3000 x117 Fax: 1+ 508.339.6356
E-mail: jsutherby@murata-ps.com

Contact details for publication:

Murata Power Solutions, Inc.,
11 Cabot Boulevard
Mansfield, MA 02048-1151, USA
Tel: 1+ 508.339.3000 Fax: 1+ 508.339.6356
e-mail: muratapr@murata-ps.com

About Murata Power Solutions

Murata Power Solutions (www.murata-ps.com) is headquartered in Mansfield, Massachusetts, with over 1,300 employees, and locations in the USA, Canada, England, France, Germany, Singapore, Japan and China. Murata Power Solutions designs, manufactures and distributes DC-DC Converter, AC-DC Power Supply, Magnetic and Digital Panel Meter product lines, and offers these products in custom, standard and modified-standard variations. Murata Power Solutions products are typically used within electronic applications serving major global market sectors including telecommunications, computing and industrial controls.

Murata Power Solutions is a division of Murata Manufacturing Co., Ltd. (www.murata.com), a worldwide leader in the design, manufacture and sale of electronic components and power supply modules. Murata's devices are found in a wide range of applications including consumer and automotive electronics, and wireless devices. The company has employees and manufacturing facilities throughout the world.

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CODICO GmbH
Zwingenstrasse 6-8, A-2380 Perchtoldsdorf
Tel. Vienna +43/(0)1/86 305 - 5000
Fax Vienna +43/(0)1/86 305 - 98
e-mail: office@codico.com
www.codico.com