ARTESYN ERM75 SERIES

75 Watts



Advanced Energy's Artesyn ERM75W series high performance 75 watt isolated DC-DC converter modules are designed specifically for railway applications. The high input versions feature a 66 to 160 Vdc input that complies with the European EN50155 standard for electronic equipment used on railway rolling stock. There is a choice of four single output models, offering voltages of 5 V, 12 V, 15 V or 24 V.

DATA SHEET

Total Power:

75 W

Input Voltage:

72 or 110 V

# of Outputs:

Single

RoHS 6/6 COMPLIANT

SPECIAL FEATURES

- Small 57.9 x 36.8 x12.7 mm package
- Input ranges 43 - 101 Vdc or 66 - 160 Vdc
- High efficiency up to 92%
- No minimum load requirement
- Operating temperature range -40 °C to +85 °C (subject to derating)
- Reinforced insulation 3000 VAC rms
- Undervoltage shutdown
- Remote On/Off
- Metal case with isolated baseplate
- Vibration and thermal shock to EN61373
- Safety meets EN60950-1 and Railway Standard EN50155 (IEC60571) and EN50121-3-2
- EN45545-2 flammability

SAFETY

- UL/cUL/IEC/EN 62368-1 (60950-1) Safety Approval & CE Marking

©2020 Advanced Energy Industries, Inc.

ELECTRICAL SPECIFICATIONS

Input	
Input range	43 - 101 Vdc; 66 - 160 Vdc
Efficiency	92% @ 12 Vo
Output	
Voltage tolerance	±1.0%
Line regulation	±0.2%
Load regulation	±0.3%
Noise/ripple	24 V model: 150 mV, other models: 100 mV
Overload protection	150% typ of Io max, hiccup
Short circuit protection	Hiccup mode
Switching frequency	320 KHz
Isolation	
I/O isolation	Reinforced insulation, 3000 Vac rms; I/Case. O/Case: 1500 Vdc
Insulation resistance	1000 Mohm
Insulation capacitance	3000 pF

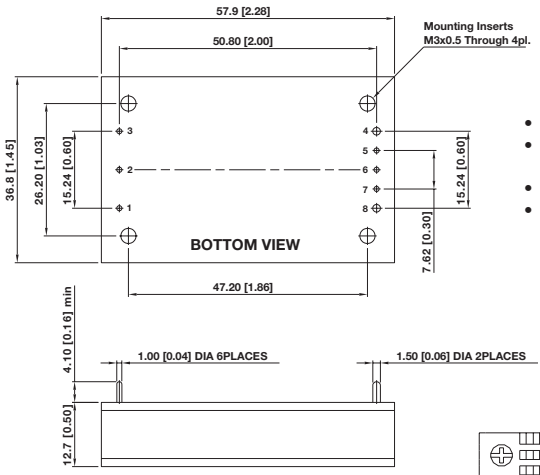
ENVIRONMENTAL SPECIFICATIONS

Operating ambient temperature range	-40 °C to +85 °C (subject to derating)
Storage temperature	-55 °C to +125 °C
Humidity	5% to 95% non-condensing
MTBF	209 Khrs calculated

ORDERING INFORMATION

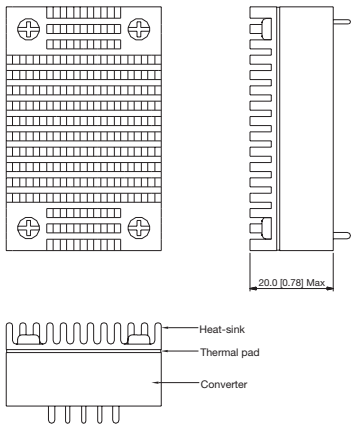
Input Voltage	Output	Efficiency @ Max Load	Max Power	Model Number
43 - 101 V	5 V @ 15 A	89%	75 W	**ERM15A72**
43 - 101 V	12 V @ 6.25 A	92%	75 W	**ERM06B72**
43 - 101 V	15 V @ 5 A	92%	75 W	**ERM05C72**
43 - 101 V	24 V @ 3.125 A	91%	75 W	**ERM03H72**
66 - 160 V	5 V @ 15 A	89%	75 W	**ERM15A110**
66 - 160 V	12 V @ 6.25 A	91%	75 W	**ERM06B110**
66 - 160 V	15 V @ 5 A	91%	75 W	**ERM05C110**
66 - 160 V	24 V @ 3.125 A	90%	75 W	**ERM03H110**

MECHANICAL DIMENSIONS



- All dimensions in mm (inches)
- Tolerance: X.X±0.5 (X.XX±0.02) X.XX±0.25 (X.XXX±0.01)
- Pin diameter Ø 1.0 ±0.05 (0.04±0.002)
- Pin diameter Ø 1.5 ±0.05 (0.06±0.002)

Heatsink (Option –HS)



Pin Connections	
Pin	**Function**
1	+Vin
2	Remote On/Off
3	-Vin
4	-Vout
5	-Sense
6	Trim
7	+Sense
8	+Vout

ABOUT ADVANCED ENERGY

Advanced Energy (AE) has devoted more than three decades to perfecting power for its global customers. AE designs and manufactures highly engineered, precision power conversion, measurement and control solutions for mission-critical applications and processes.

Our products enable customer innovation in complex applications for a wide range of industries including semiconductor equipment, industrial, manufacturing, telecommunications, data center computing, and medical. With deep applications know-how and responsive service and support across the globe, we build collaborative partnerships to meet rapid technological developments, propel growth for our customers, and innovate the future of power.

PRECISION | POWER | PERFORMANCE

For international contact information,
visit advancedenergy.com.

powersales@aei.com (Sales Support)
productsupport.ep@aei.com (Technical Support)
+1 888 412 7832

Specifications are subject to change without notice. Not responsible for errors or omissions. ©2020 Advanced Energy Industries, Inc. All rights reserved. Advanced Energy®, AE® and Artesyn™ are U.S. trademarks of Advanced Energy Industries, Inc.

ENG-ERM75-235-01 12.21

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Advanced Energy:

ERM05C110 ERM05C72 ERM03H110 ERM06B72 ERM15A72 ERM03H72 ERM15A110 ERM06B110 ERM05C72-HS ERM10A110-HS ERM15A110-HS ERM15A72-HS ERM05C110-HS ERM06B72-HS ERM06B110-HS