

ERM50 Series

50 Watts

Data Sheet

Total Power: 50 W
Input Voltage: 72 or 110 V
of Outputs: Single

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
- 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

- cUL/UL 60950-1
- IEC/EN 60950-1
- IEC/EN 50155
- CE Mark



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

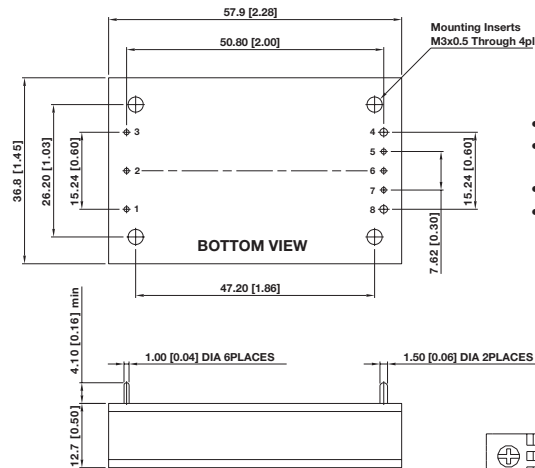
Environmental Specifications

Operating ambient temperature range	-40 °C to +85 °C
Storage temperature	-55 °C to +125 °C
Humidity	5% to 95% non-condensing
MTBF	472 Khrs calculated

Ordering Information

Input Voltage	Output	Efficiency @ Max Load	Max Power	Model Number
43 - 101 V	5 V @ 10 A	90%	50 W	ERM10A72
43 - 101 V	12 V @ 4.17 A	92%	50 W	ERM04B72
43 - 101 V	15 V @ 3.33 A	92%	50 W	ERM03C72
43 - 101 V	24 V @ 2.08A	91%	50 W	ERM02H72
66 - 160 V	5 V @ 10 A	90%	50 W	ERM10A110
66 - 160 V	12 V @ 4.17 A	91%	50 W	ERM04B110
66 - 160 V	15 V @ 3.33 A	92%	50 W	ERM03C110
66 - 160 V	24 V @ 2.08 A	91%	50 W	ERM02H110

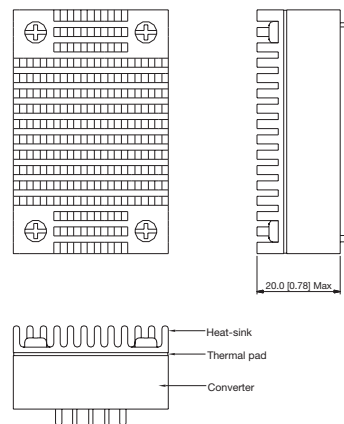
Mechanical Dimensions



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

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

Heatsink Option



WORLDWIDE OFFICES

Americas

2900 S.Diablo Way
Tempe, AZ 85282
USA
+1 888 412 7832

Europe (UK)

Waterfront Business Park
Merry Hill, Dudley
West Midlands, DY5 1LX
United Kingdom
+44 (0) 1384 842 211

Asia (HK)

14/F, Lu Plaza
2 Wing Yip Street
Kwun Tong, Kowloon
Hong Kong
+852 2176 3333

ARTESYN[™]
EMBEDDED TECHNOLOGIES

www.artesyn.com

While every precaution has been taken to ensure accuracy and completeness in this literature, Artesyn Embedded Technologies assumes no responsibility, and disclaims all liability for damages resulting from use of this information or for any errors or omissions. Artesyn Embedded Technologies, Artesyn and the Artesyn Embedded Technologies logo are trademarks and service marks of Artesyn Technologies, Inc. All other names and logos referred to are trade names, trademarks, or registered trademarks of their respective owners.
© 2014 All rights reserved.

For more information: www.artesyn.com/power
For support: productsupport.ep@artesyn.com