POWER

ERM Series

10 Watts

Data Sheet

Total Power: 10 Watts
Input Voltage: 12 V, 24 V, 48 V, 72 V or 110 V
# of Outputs: Single, Dual



SPECIAL FEATURES

- Encapsulated
- Wide 4:1 input range
- 1" x 2" DIP package
- 3000 Vac rms I/O isolation
- Single and dual output
- OCP, OVP, OTP protection
- Remote On/Off
- High efficiency: 88%
- Fire potection meets EN45545-2
- Railway EMC standard EN50121-3-2

SAFETY

- UL/cUL 62368-1 (60950-1)
- IEC/EN 62368-1 (60950-1)
- IEC/EN 50155 (IEC60571)

Electrical Specifications

Input	
Input range	9 to 36 Vdc; 18 to 75 Vdc; 40 to 160 Vdc
Efficiency[2]	88% @ 24 Vo
Output	
Voltage tolerance	±1.0%
Line regulation	±0.2%
Load regulation	Single output: ±0.5%; Dual output ±1.0%
Noise/ripple	150 mV
OCP and S/C protection	Hiccup
Overvoltage protection	Latched
Switching frequency	320 KHz
Temperature co-efficient	±0.02 /°C
Isolation	
I/O isolation	3000 Vac rms min.
Insulation resistance	1000 Mohm
Insulation capacitance	1500 pF

Environmental Specifications

Operating ambient temperature range	-40 °C to +85 °C (with derating)
Storage temperature	-50 °C to +125 °C
Humidity	5% to 95% (non-condensing)

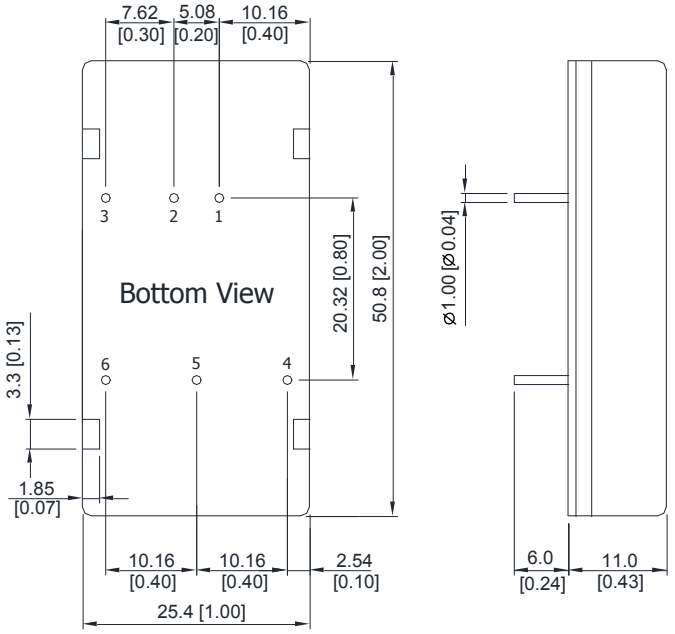
ARTESYN™
An Advanced Energy Company

Ordering Information

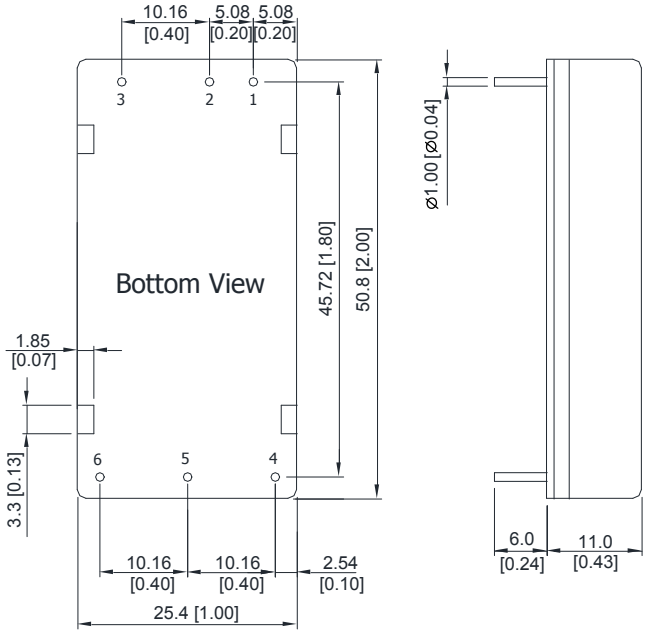
Model Number	Input Voltage	Output	Efficiency @ Max Load	Max Power
ERM02A18	9 - 36 Vin	5 V @ 2 A	84%	10 W
ERM00B18	9 - 36 Vin	12 V @ 0.835 A	86%	10 W
ERM00C18	9 - 36 Vin	15 V @ 0.67 A	87%	10 W
ERM00H18	9 - 36 Vin	24 V @ 0.417 A	88%	10 W
ERM00BB18	9 - 36 Vin	± 12 V @ 0.417 A	86%	10 W
ERM00CC18	9 - 36 Vin	± 15 V @ 0.335 A	87%	10 W
ERM02A36	18 - 75 Vin	5 V @ 2 A	85%	10 W
ERM00B36	18 - 75 Vin	12 V @ 0.83 A	87%	10 W
ERM00C36	18 - 75 Vin	15 V @ 0.67 A	87%	10 W
ERM00H36	18 - 75 Vin	24 V @ 0.41 A	86%	10 W
ERM00BB36	18 - 75 Vin	± 12 V @ 0.417 A	89%	10 W
ERM00CC36	18 - 75 Vin	± 15 V @ 0.335 A	88%	10 W
ERM02A110	40 - 160 Vin	5 V @ 2 A	82%	10 W
ERM00B110	40 - 160 Vin	12 V @ 0.83 A	85%	10 W
ERM00C110	40 - 160 Vin	15 V @ 0.67 A	85%	10 W
ERM00H110	40 - 160 Vin	24 V @ 0.41 A	85%	10 W
ERM00BB110	40 - 160 Vin	± 12 V @ 0.417 A	86%	10 W
ERM00CC110	40 - 160 Vin	± 15 V @ 0.335 A	86%	10 W
ERM02A18B	9 - 36 Vin	5 V @ 2 A	84%	10 W
ERM00B18B	9 - 36 Vin	12 V @ 0.83 A	86%	10 W
ERM00C18B	9 - 36 Vin	15 V @ 0.67 A	87%	10 W
ERM00H18B	9 - 36 Vin	24 V @ 0.41 A	88%	10 W
ERM00BB18B	9 - 36 Vin	± 12 V @ 0.417 A	86%	10 W
ERM00CC18B	9 - 36 Vin	± 15 V @ 0.335 A	87%	10 W
ERM02A36B	18 - 75 Vin	5 V @ 2 A	85%	10 W
ERM00B36B	18 - 75 Vin	12 V @ 0.83 A	87%	10 W
ERM00C36B	18 - 75 Vin	15 V @ 0.67 A	87%	10 W
ERM00H36B	18 - 75 Vin	24 V @ 0.41 A	86%	10 W
ERM00BB36B	18 - 75 Vin	± 12 V @ 0.417 A	89%	10 W
ERM00CC36B	18 - 75 Vin	± 15 V @ 0.335 A	88%	10 W
ERM02A110B	40 - 160 Vin	5 V @ 2 A	82%	10 W
ERM00B110B	40 - 160 Vin	12 V @ 0.83 A	85%	10 W
ERM00C110B	40 - 160 Vin	15 V @ 0.67 A	85%	10 W
ERM00H110B	40 - 160 Vin	24 V @ 0.41 A	85%	10 W
ERM00BB110B	40 - 160 Vin	± 12 V @ 0.417 A	86%	10 W
ERM00CC110B	40 - 160 Vin	± 15 V @ 0.335 A	86%	10 W

Mechanical Drawings

ERMxxxxx Models



ERMxxxxxB Models



Pin Connectors - ERMxxxxx Models

Pin No.	Single Output	Dual Output
1	+Vin	+Vin
2	-Vin	-Vin
3	Remote On/Off	Remote On/Off
4	+Vout	+Vout
5	Trim	Common
6	-Vout	-Vout

Pin Connectors - ERMxxxxxB Models

Pin No.	Single Output	Dual Output
1	+Vin	+Vin
2	-Vin	-Vin
3	Remote On/Off	Remote On/Off
4	+Vout	+Vout
5	-Vout	Common
6	Trim	-Vout

T: 11.0 mm (0.43 inch) for 24 V Output Models
T: 10.2 mm (0.40 inch) for Other Output Models

- All dimensions in mm (inches)
- Tolerance: X.X±0.75 (X.XX±0.03)
  X.XX±0.25 (X.XXX±0.01)
- Pin diameter Ø 1.0 ±0.05 (0.04±0.002)

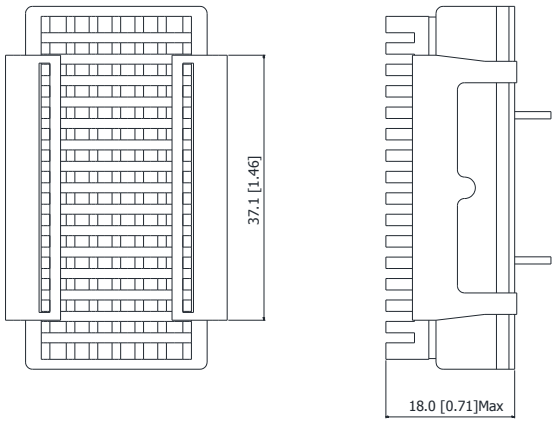
Physical Characteristics

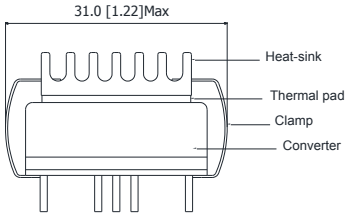
Case Size	50.8 x 25.4 x 11 mm (2.0 x 1.0 x 0.43 inches)
Case Material	Red copper, powder coating
Base Material	FR4 PCB (flammability to UL 94V-0 rated)
Insulated Frame Material	Non-conductive black plastic (flammability to UL 94V-0 rated)
Pin Material	Tinned copper
Potting Material	Epoxy (flammability to UL 94V-0 rated)
Weight	40.5 g

To order the converter with heatsink, please add a suffix –HS (ERM00B110-HS) to order code.

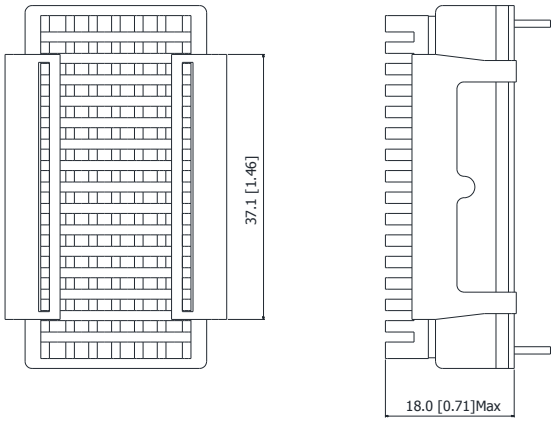
Mechanical Drawings

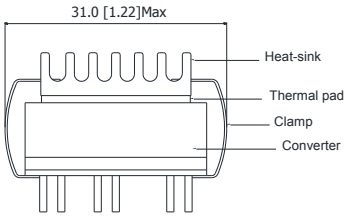
Heatsink for ERMxxxxx Models (Option - HS)





Heatsink for ERMxxxxxB Models (Option - HS)





The advantages of adding a heatsink are:

1. To help heat dissipation and increase the stability and reliability of DC/DC converters at high operating temperature atmosphere.
2. To upgrade the operating temperature of DC/DC converters, please refer to Derating Curve.

Physical Characteristics

Heatsink Material	Aluminum
Finish	Black Anodized Coating
Weight	9 g

Notes:

1. All specifications are subject to change without notice. Mechanical drawings are for reference only.
2. Warranty: 3 years
3. Label and logo appearance may vary from what is shown on mechanical drawings.

WORLDWIDE OFFICES

Americas
2900 South Diablo Way
Suite B100
Tempe, AZ 85282, USA
+1 888 412 7832

Europe (UK)
Ground Floor Offices, Barberry House
4 Harbour Buildings, Waterfront West
Brierley Hill, West Midlands
DY5 1LN, UK
+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, Artesyn Embedded Power, Artesyn, and all Artesyn related logos are trademarks and service marks of Artesyn Embedded Technologies, Inc. All other names and logos referred to are trade names, trademarks, or registered trademarks of their respective owners. Specifications are subject to change without notice. © 2019 Artesyn Embedded Technologies, Inc. All rights reserved. For full legal terms and conditions, please visit www.artesyn.com/legal.

ARTESYN™
An Advanced Energy Company

www.artesyn.com

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