

## 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 Temp. Range -40 °C to +85 °C
- Reinforced Insulation 3000 VACrms
- Under-Voltage Shutdown
- Remote On/Off
- Metal Case with Isolated Baseplate
- Vibration and Thermal Shock to EN61373
- Safety meets EN60950-1 and Railway Standard EN50155 and EN50121-3-2

#### SAFETY

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



Preliminary



#### 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

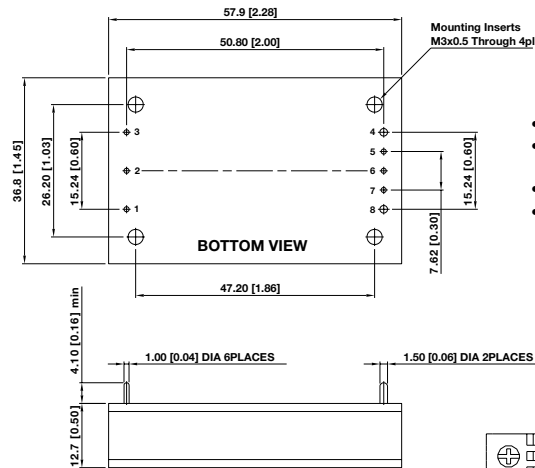
#### Environmental Specifications

<b>Operating ambient temperature range:</b>	-40 °C to +85 °C
<b>Storage temperature:</b>	-55 °C to +125 °C
<b>Humidity:</b>	5% to 95% non-condensing
<b>MTBF:</b>	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

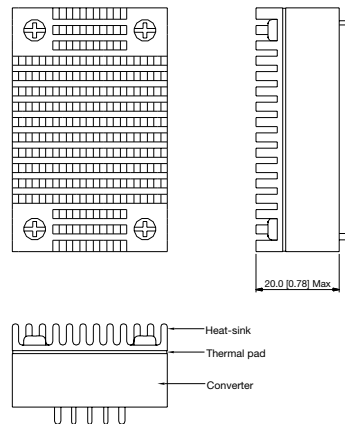
## Mechanical Dimensions



- 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 <sub>(S)</sub>
6	Trim
7	+Sense <sub>(S)</sub>
8	+Vout

### Heatsink Option



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