

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 |

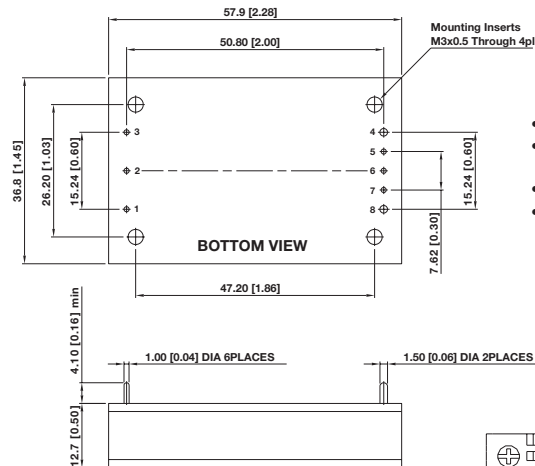
Environmental Specifications

| | |
|--|--------------------------|
| 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 |

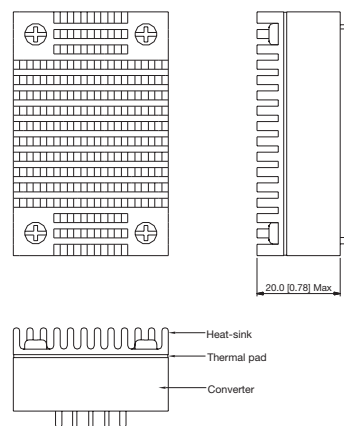
Mechanical Dimensions



- 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



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