

5 to 6 Watt

24 Pin DIL Package V 4:1 Input Range Suffix „H6“



- o Wide Input Range
- o Pi Input Filter
- o Regulated Output
- o Single & Dual Output
- o Continuous Short Circuit Protection
- o 6000 VDC I/O-Isolation
- o Reinforced Insulation Rated For Working Voltage 300 VAC
- o CE Mark Meets 2004/108/EC



| MODEL NUMBER | INPUT VOLTAGE | OUTPUT VOLTAGE | OUTPUT CURRENT | | INPUT CURRENT | | %EFF ²⁾ | CAPACITOR LOAD MAX. |
|----------------|---------------|----------------|--------------------|---------|---------------|-----------|--------------------|---------------------|
| | | | MIN. ¹⁾ | MAX. | NO LOAD | FULL LOAD | | |
| 5VRS24X5LC-H6 | 9-36 VDC | 5 VDC | 100 mA | 1000 mA | 10 mA | 260 mA | 80 | 1000 µF |
| 6VRS24X12LC-H6 | | 12 VDC | 50 mA | 500 mA | | 295 mA | 85 | 500 µF |
| 6VRD24X12LC-H6 | | ±12 VDC | 25 mA | ±250 mA | 15 mA | 298 mA | 84 | 250 µF |
| 6VRD24X15LC-H6 | | ±15 VDC | 20 mA | ±200 mA | | | | 200 µF |
| 5VRS48X5LC-H6 | 18-72 VDC | 5 VDC | 100 mA | 1000 mA | 5 mA | 130 mA | 80 | 1000 µF |
| 6VRS48X12LC-H6 | | 12 VDC | 50 mA | 500 mA | | 149 mA | 84 | 500 µF |
| 6VRD48X12LC-H6 | | ±12 VDC | 25 mA | ±250 mA | 8 mA | 150 mA | 83 | 250 µF |
| 6VRD48X15LC-H6 | | ±15 VDC | 20 mA | ±200 mA | | | | 149 mA |

1. Operation under minimum load will not damage the converter, but it may not meet all specifications.

2. Measured at nominal input voltage.

SPECIFICATIONS

All Specifications Typical At Nominal Line, Full Load, and 25°C Unless Otherwise Noted

INPUT SPECIFICATIONS

| | | |
|---------------------------|-------------------|------------|
| Input Voltage Range | | 4:1 |
| Under Voltage Protection | 24 Vin power up | 8.8 V |
| | 24 Vin power down | 8 V |
| | 48 Vin power up | 17 V |
| | 48 Vin power down | 16 V |
| Leakage Current | | 5 µA max. |
| Input Filter | | Pi Type |
| Input Surge (100 ms max.) | 24 Vin | 50 V max. |
| | 48 Vin | 100 V max. |

OUTPUT SPECIFICATIONS

| | | |
|---|-------------------------------|------------------|
| Voltage Accuracy | | ±1.5% max. |
| Voltage Balance (Dual Output) | | ±2.0% max. |
| Transient Response: 75% to 100% Step Load Change | Error Band | ±6% Vout nominal |
| | Recovery Time | <500 µs |
| Temperature Coefficient | | ±0.05%/°C |
| Ripple and Noise, 20MHz BW (with 0.1 µF MLCC) | 5V | 100 mV p-p max. |
| | 12V, 15V | 1% p-p max. |
| Short Circuit Protection | | Continuous |
| Line Regulation ¹⁾ | | ±0.5% max. |
| Load Regulation | Single ²⁾ | ±0.5% max. |
| | Dual ³⁾ | ±1.0% max. |
| Cross Regulation (Dual Output) | Load cross variation 25%/100% | ±5% max. |
| Start up Time | | 1.5 ms |

1. Measured From High Line to Low Line
2. Measured From Full Load to 10% Load
3. Measured From Full Load to 25% Load

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GENERAL SPECIFICATION

| | |
|---|---|
| Efficiency | see table |
| Isolation Voltage | 6000 VDC min. |
| Isolation Resistance | 1000 Mohms min. |
| Isolation Capacitance | 40 pF |
| Reinforced Insulation | Creepage Distances Air Clearances |
| | 8 mm min. 8 mm min. |
| Switching Frequency | 100 kHz min. |
| Derating, above +71°C | Linearly to Zero power at +100°C |
| Operating Ambient Temperature | -40°C to +71°C |
| Case Temperature ⁴⁾ | +100°C max. |
| Storage Temperature | -40°C to +100°C |
| EMI | Conductive EMI Meet EN55022 Class A |
| Humidity | 95% RH max. Non condensing |
| MTBF (MIL-STD-217-F, GB, 25°C, Full Load) | T.B.D. hrs |
| Dimensions | 1.25x0.8x0.4 Inches (31.8x20.3x10.2 mm) |
| Case Material | Non-Conductive Black Plastic |

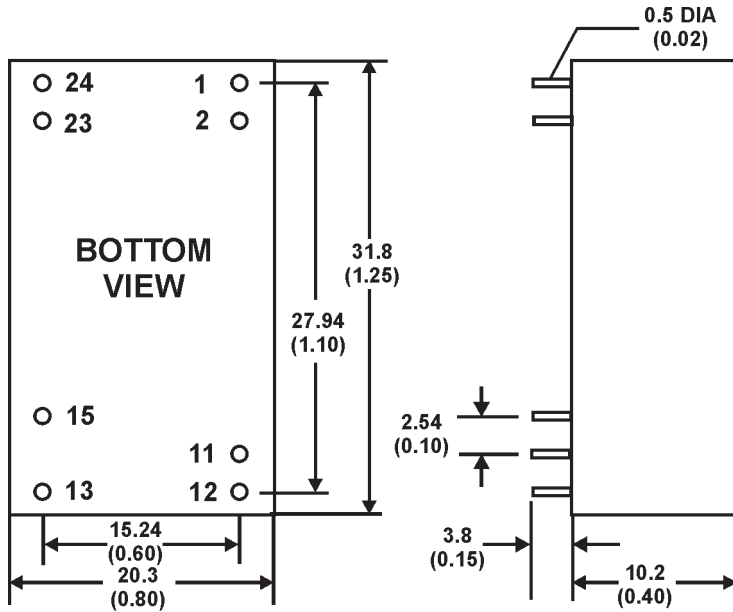
4. Maximum case temperature under any operating condition should not be exceeded +100°C.

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MECHANICAL SPECIFICATIONS

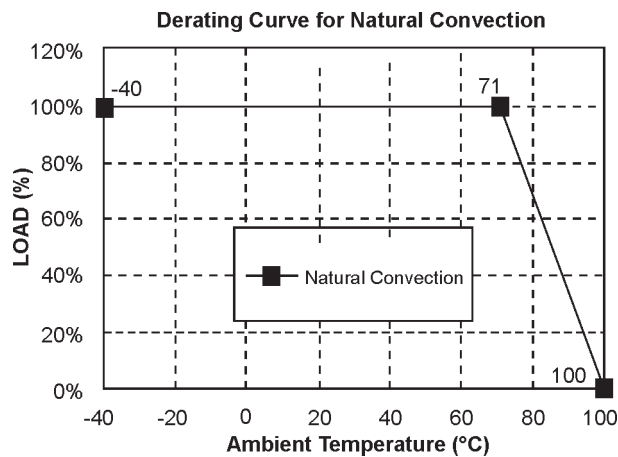
CASE "V"



| PIN CONNECTIONS | | |
|-----------------|---------|---------|
| PIN | SINGLE | DUAL |
| 1 | +INPUT | +INPUT |
| 2 | +INPUT | +INPUT |
| 11 | NO PIN | COMMON |
| 12 | -OUTPUT | NO PIN |
| 13 | +OUTPUT | -OUTPUT |
| 15 | NO PIN | +OUTPUT |
| 23 | -INPUT | -INPUT |
| 24 | -INPUT | -INPUT |

All Dimensions in mm (Inches)
 Tolerances: Millimeters: x.x=0.5, X.XX=0.25
 Inches: x.xx=0.02, x.xxx=0.010

DIAGRAMS



NOTICE:
 The information in this document has been carefully checked. However, no responsibility is assumed for inaccuracies!
 Specifications can be changed without notice. The latest and most complete information can be found on our website.