



**SERIES: VDRS-100**

**DESCRIPTION: 100 W MINI POWER SUPPLY**

**FEATURES**

- universal AC input
- installs on DIN rail
- brown out protection
- short circuit, over load, over voltage protection
- long life 105°C electrolytic capacitors
- operating temperature up to 70°C
- can withstand 5G's of vibration
- true DC OK signal output
- meets EISA / efficiency level IV regulations



| MODEL       | output voltage |  | output current |         | output wattage | ripple       | efficiency level |
|-------------|----------------|--|----------------|---------|----------------|--------------|------------------|
|             | nominal (V dc) |  | min (A)        | max (A) | max (W)        | max. (mVp-p) |                  |
| VDRS-100-12 | 12             |  | 0              | 7.5     | 90             | 180          | IV               |
| VDRS-100-15 | 15             |  | 0              | 6.4     | 96             | 180          | IV               |
| VDRS-100-24 | 24             |  | 0              | 4       | 96             | 180          | IV               |
| VDRS-100-48 | 48             |  | 0              | 2       | 96             | 250          | IV               |

\*full load, 230 Vac input, measured at 20MHz bandwidth with a 47 and 0.1 uF parallel cap on the output



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**INPUT**

| parameter           | conditions/description   | min | nom | max  | units |
|---------------------|--|-----|-----|------|-------|
| input voltage range | derating may be needed under low input voltages;<br>consult the derating curve for more details (page 3) | 88  |     | 264  | V ac  |
|                     |  | 124 |     | 370  | V dc  |
| frequency range     |  | 47  |     | 63   | Hz    |
| rated input current | 115 V ac   |     |     | 1.1  | A     |
|                     | 230 V ac   |     |     | 0.55 | A     |
| inrush current      | 115 V ac   |     |     | 30   | A     |
|                     | 230 V ac   |     |     | 60   | A     |
| leakage current     | 230 V ac   |     |     | 1    | mA    |

**OUTPUT**

| parameter               | conditions/description                             | min | nom | max | units |
|-------------------------|--|-----|-----|-----|-------|
| line regulation         |  |     | ±1  |     | %     |
| load regulation         |  |     | ±2  |     | %     |
| voltage tolerance       | includes setup tolerance, line and load regulation |     | ±1  |     | %     |
| over voltage protection | latch-off mode                                     | 115 |     | 150 | %     |
| over load protection    | constant current limit, auto recovery              | 102 |     |     | %     |

**SAFETY & EMI**

| parameter             | conditions/description   | min | nom | max  | units |
|-----------------------|--|-----|-----|------|-------|
| HI-POT                | input to output for 1 minute   |     |     | 4242 | V dc  |
|                       | input to case for 1 minute   |     |     | 2121 | V dc  |
| insulation resistance | input to output at 500 V dc  | 100 |     |      | MΩ    |
| safety approvals      | UL 508, TUV EN60950-1,<br>UL1310 NEC class 2 compliant (24 and 48 V) |     |     |      |       |
| EMI standard          | EN55022: 2006 class B, EN61204-3: 2000, EN61000-6-3:2007             |     |     |      |       |
| RoHS compliant        | yes  |     |     |      |       |
| LPS power supply      | yes  |     |     |      |       |
| power good            | relay contact (30 V dc/ 1 A, 120 V ac/ 1 A)                          |     |     |      |       |

**ENVIRONMENTAL**

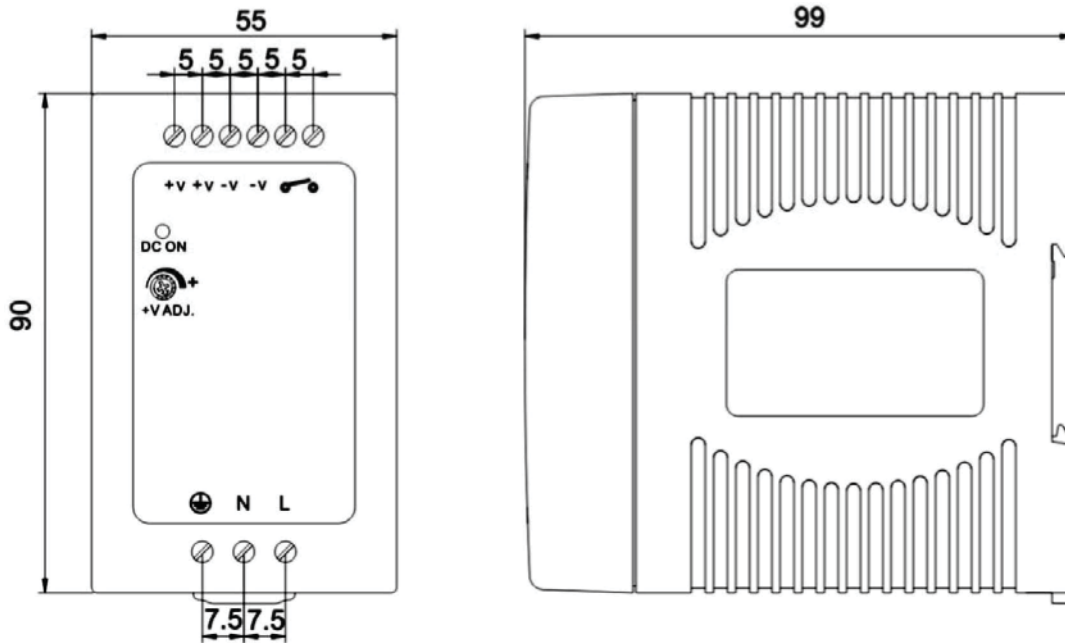
| parameter               | conditions/description | min | nom  | max | units |
|-------------------------|------------------------|-----|------|-----|-------|
| operating temperature   |                        | -20 |      | 70  | °C    |
| operating humidity      |                        | 20  |      | 90  | %     |
| storage temperature     |                        | -40 |      | 85  | °C    |
| storage humidity        |                        | 10  |      | 95  | %     |
| cooling                 | natural convection     |     |      |     |       |
| temperature coefficient | 0 ~ 50°C               |     | 0.03 |     | %/°C  |



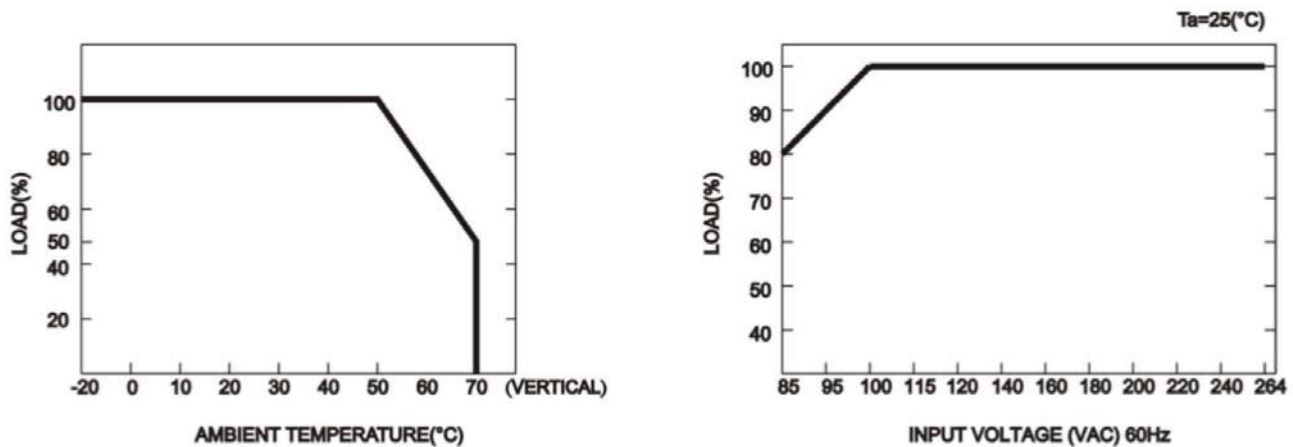
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MECHANICAL DRAWING



DERATING CURVE





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**ACTIVE OK RELAY CONTACT**

|                        |   |
|------------------------|---|
| Contact Close          | When the output voltage reaches the adjusted output voltage |
| Contact Open           | When the output voltage drop below 90% output voltage       |
| Contact Ratings (max.) | 30V / 1A resistive load                                     |

**BLOCK DIAGRAM**

