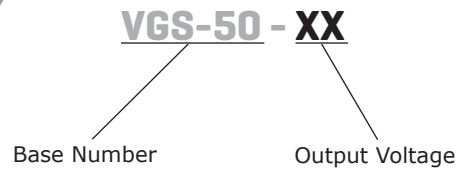


SERIES: VGS-50 | DESCRIPTION: AC-DC POWER SUPPLY
FEATURES

- up to 53 W continuous power
- compact footprint
- universal input (88~264 Vac / 125~373 Vdc)
- single output from 3.3 to 48 V
- over voltage, over load, and short circuit protections
- UL/cUL and TUV safety approvals
- long life electrolytic capacitors
- no load power consumption < 0.5 W
- efficiency 90%



| MODEL | output voltage (Vdc) | output current max (A) | output power max (W) | ripple and noise max (mVp-p) | efficiency (%) |
|------------|-------------------------|------------------------------|----------------------------|------------------------------------|-------------------|
| VGS-50-3.3 | 3.3 | 10 | 33 | 100 | 78 |
| VGS-50-5 | 5 | 10 | 50 | 100 | 83 |
| VGS-50-12 | 12 | 4.2 | 50.4 | 120 | 88 |
| VGS-50-15 | 15 | 3.4 | 51 | 120 | 89 |
| VGS-50-24 | 24 | 2.2 | 52.8 | 120 | 90 |
| VGS-50-48 | 48 | 1.1 | 52.8 | 120 | 90 |

PART NUMBER KEY


INPUT

| parameter | conditions/description | min | nom | max | units |
|-----------------|-----------------------------------|-----|-----|------|-------|
| voltage range | | 88 | | 264 | Vac |
| | | 125 | | 373 | Vdc |
| frequency range | | 50 | | 60 | Hz |
| current | at 115 Vac, cold start | | | 1.3 | A |
| | at 230 Vac, cold start | | | 0.65 | A |
| inrush current | at 230 Vac, full load, cold start | | | 40 | A |

OUTPUT

| parameter | conditions/description | min | nom | max | units |
|-------------------|------------------------|-----|------|-----|-------|
| voltage adjust | | | ±10 | | |
| voltage tolerance | 3.3 V models | | ±3 | | % |
| | 5 V models | | ±2 | | % |
| | all other models | | ±1 | | % |
| line regulation | low line to high line | | ±0.5 | | % |
| load regulation | 3.3 V models | | ±2.0 | | % |
| | 5 V models | | ±1.0 | | % |
| | all other models | | ±0.5 | | % |
| start-up time | at 115 Vac, cold start | | 1.0 | | s |
| | at 230 Vac, cold start | | 0.8 | | s |
| rise time | at 115 Vac, cold start | | 65 | | ms |
| | at 230 Vac, cold start | | 50 | | ms |
| hold-up time | at 115 Vac, cold start | 10 | | | ms |
| | at 230 Vac, cold start | 32 | | | ms |

SAFETY & COMPLIANCE

| parameter | conditions/description | min | nom | max | units |
|-------------------|--|---------|-----|-----|-------|
| isolation voltage | input to output: | 4,242 | | | Vdc |
| | input to case: | 2,121 | | | Vdc |
| | output to case: | 707 | | | Vdc |
| safety approvals | UL 60950-1 / TUV EN 60950-1 | | | | |
| EMI/EMC | EN55022 : 1998+A1 : 2000+A2 : 2003 Class B, EN61000-3-2 : 2000+A2 : 2005 Class A, EN61000-3-3 : 1995+A1 : 2001, EN61204-3 : 2000 EN50204 1998+A1 : 2001+A2 : 2003 light industry level, criteria A | | | | |
| leakage current | measured per IEC 60950-1, paragraph 5.1, test voltage of 240 Vac/60 Hz | | | 2 | mA |
| RoHS compliant | yes | | | | |
| MTBF | at 230 Vac, MIL-HDBK-217F 25 °C ambient | 620,300 | | | hrs |

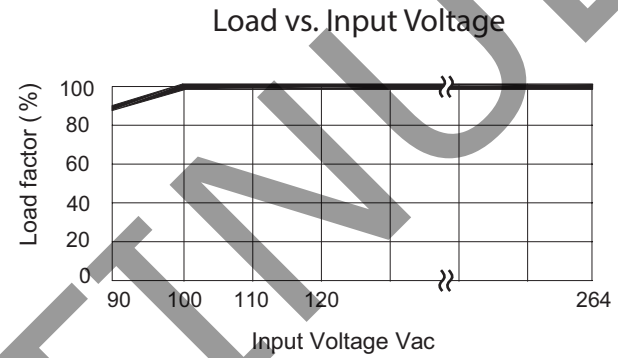
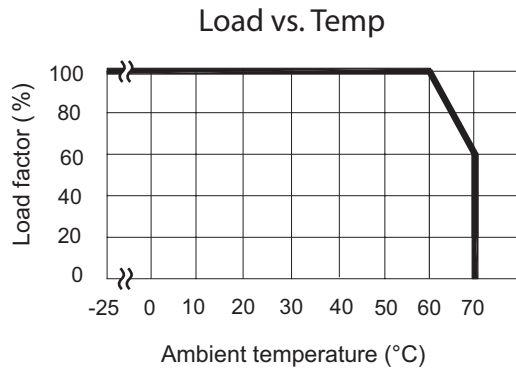
ENVIRONMENTAL

| parameter | conditions/description | min | nom | max | units |
|-------------------------|---|-----|-----|-----|-------|
| operating temperature | see derating curve | -25 | | 70 | °C |
| storage temperature | | -40 | | 85 | °C |
| operating humidity | non-condensing | 20 | | 90 | % |
| storage humidity | non-condensing | 10 | | 95 | % |
| temperature coefficient | (0 ~ 50°C) | | 0.3 | | %/°C |
| vibration | (10 ~ 500 Hz, 1 hour per axis, 3 hours total) | | 5 | | Grms |

PROTECTIONS

| parameter | conditions/description | min | nom | max | units |
|---------------|----------------------------|-----|-----|-----|-------|
| over load | hiccup mode, auto recovery | | | 110 | % |
| over voltage | latch off mode | 115 | | 150 | % |
| short circuit | continuous | | | | |

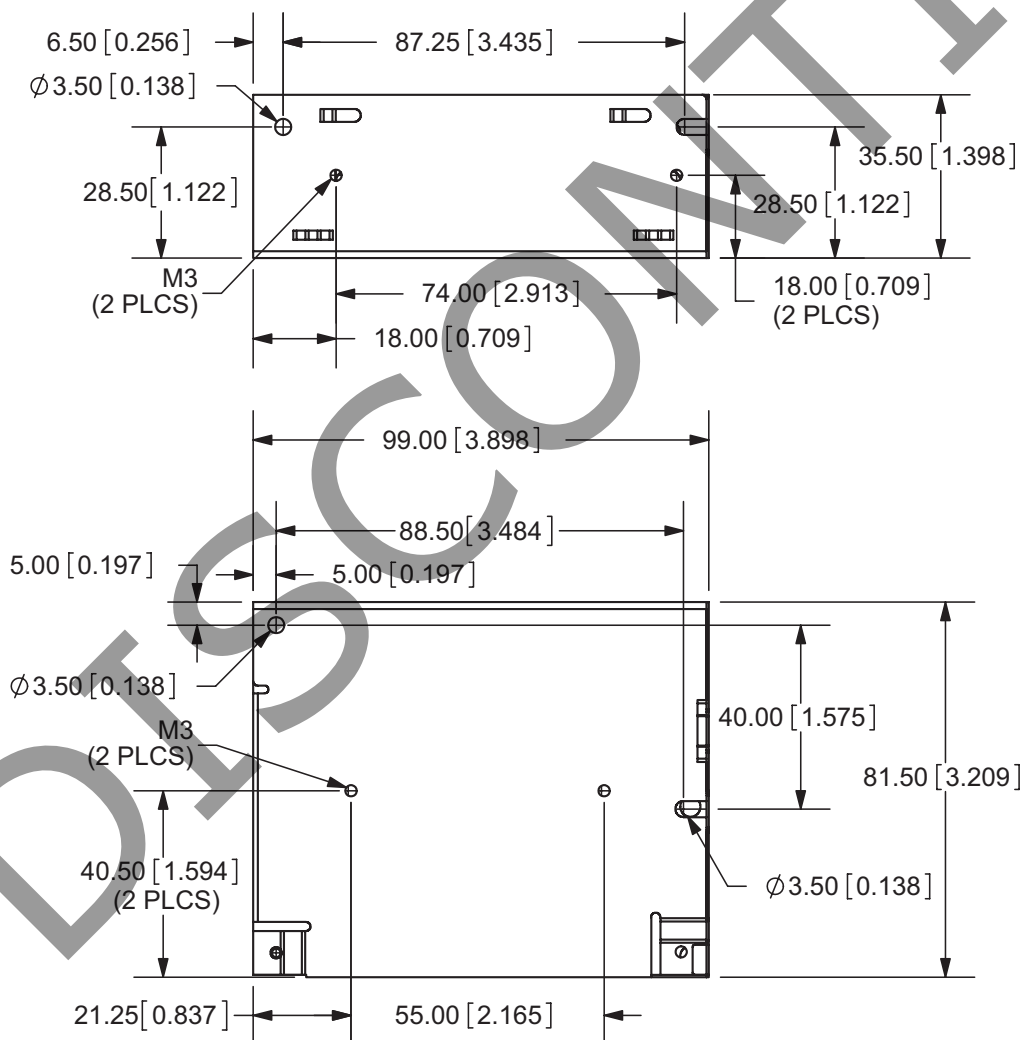
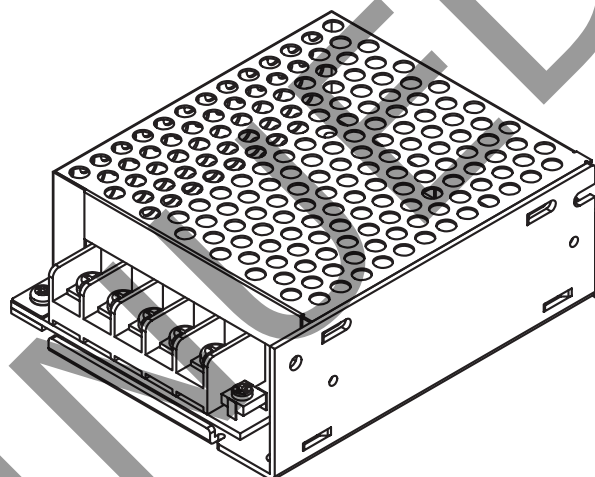
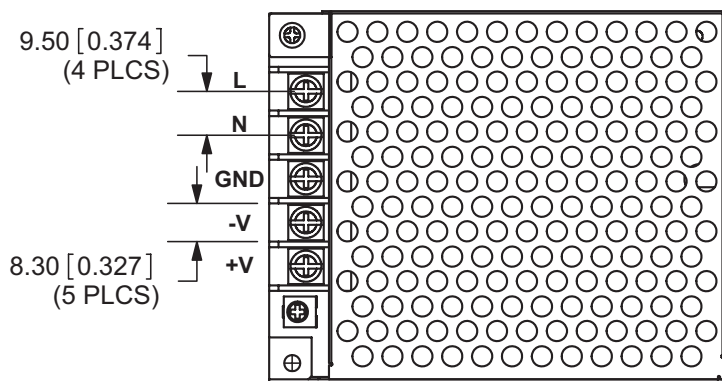
DERATING CURVES



MECHANICAL DRAWING

Note:
terminal block screws #6-32 (5 PLCS)

Tolerance: ±0.3mm unless otherwise specified



REVISION HISTORY

| rev. | description | date |
|------|-----------------------------|------------|
| 1.0 | initial release | 08/12/2011 |
| 1.01 | V-Infinity branding removed | 08/21/2012 |
| 1.02 | updated datasheet | 11/08/2017 |

The revision history provided is for informational purposes only and is believed to be accurate.



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CUI offers a two (2) year limited warranty. Complete warranty information is listed on our website.

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