

**PART NUMBER:** VGS-25-XX

**DESCRIPTION:** switching power supply

**features**

- green design, no-load power consumption <0.5 W
- universal ac input / full range
- short circuit, overload, over-voltage, brown-out (low ac input voltage) protected
- cooling by free air convection
- LED indicator for power on
- 105°C long life electrolytic capacitors
- high operating temperature up to 70°C
- able to withstand 5G vibration
- high efficiency, long life, high reliability
- 3 year warranty



| MODEL      | input voltage |              | output voltage (V dc) | output current range (A) | dc output power (W) | ripple & noise max. <sup>2</sup> (mV) | efficiency typ. (%) |
|------------|---------------|--------------|-----------------------|--------------------------|---------------------|---------------------------------------|---------------------|
|            | range (V dc)  | range (V ac) |                       |                          |                     |                                       |                     |
| VGS-25-3.3 | 125~373       | 88~264       | 3.3                   | 0~6                      | 19.8                | 100                                   | 74                  |
| VGS-25-5   | 125~373       | 88~264       | 5                     | 0~5                      | 25                  | 100                                   | 83                  |
| VGS-25-12  | 125~373       | 88~264       | 12                    | 0~2.1                    | 25.2                | 120                                   | 85                  |
| VGS-25-15  | 125~373       | 88~264       | 15                    | 0~1.7                    | 25.5                | 120                                   | 86                  |
| VGS-25-24  | 125~373       | 88~264       | 24                    | 0~1.1                    | 26.4                | 120                                   | 87                  |
| VGS-25-48  | 125~373       | 88~264       | 48                    | 0~0.57                   | 27.36               | 200                                   | 88                  |

**INPUT**

| parameter           | conditions/description  | min | nom  | max | units |
|---------------------|-------------------------|-----|------|-----|-------|
| input voltage range |                         | 125 |      | 373 | V dc  |
|                     |                         | 88  |      | 264 | V ac  |
| input current       | at 115 V ac             |     | 0.7  |     | A     |
|                     | at 230 V ac             |     | 0.35 |     | A     |
| inrush current      | at 230 V ac, cold start |     | 30   |     | A     |

- notes:
1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.
  2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.

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**PART NUMBER:** VGS-25-XX**DESCRIPTION:** switching power supply**OUTPUT**

| parameter                    | conditions/description  | min  | nom                                    | max  | units  |
|------------------------------|---|------|--|------|--------|
| voltage tolerance            | 3.3 V   | -3   |  | +3   | %      |
|                              | 5 V   | -2   |  | +2   | %      |
|                              | 12 V, 15 V, 24 V, 48 V  | -1   |  | +1   | %      |
| voltage adjust range         |   | -10  |  | +10  | %      |
| ripple & noise (20MHz BW)    | 3.3 V, 5 V  |      |  | 100  | mV RMS |
|                              | 12 V, 15 V, 24 V  |      |  | 120  | mV RMS |
|                              | 48 V  |      |  | 200  | mV RMS |
| setup rise hold time         | setup: 800 ms, rise: 50 ms / 230 V ac<br>hold: >32 ms / 230 V ac, >10 ms / 115 V ac |      | setup: 1000 ms, rise: 65 ms / 115 V ac |      |        |
| temperature coefficient      | at 0~50°C   |      | ±0.03                                  |      | %/°C   |
| short circuit protection     | continuous  |      |  |      |        |
| line regulation <sup>3</sup> |   | -0.5 |  | +0.5 | %      |
| load regulation <sup>4</sup> |   |      |  | ±2   | %      |
| over voltage protection      | latch-off mode  | 115  |  | 150  | %      |
| over current protection      | hiccup mode, auto recovery  | 110  |  |      | %      |

**ISOLATION SPECIFICATIONS**

| parameter            | conditions/description     | min         | nom | max | units       |
|----------------------|----------------------------|-------------|-----|-----|-------------|
| isolation voltage    | input/output, for 1 minute | 3000 (4242) |     |     | V ac (V dc) |
|                      | input/case, for 1 minute   | 1500 (2121) |     |     | V ac (V dc) |
|                      | output/case, for 1 minute  | 500 (707)   |     |     | V ac (V dc) |
| isolation resistance |                            | 100         |     |     | MΩ          |

**ENVIRONMENTAL**

| parameter             | conditions/description                                 | min | nom | max | units |
|-----------------------|--|-----|-----|-----|-------|
| storage temperature   |  | -40 |     | 85  | ° C   |
| operating temperature |  | -25 |     | 70  | ° C   |
| operating humidity    |  | 20  |     | 90  | %     |
| vibration             | 10~500 Hz, 5 G, 10 minutes, 1 cycle (1 hour each axis) |     |     |     |       |

**SAFETY & EMI**

| parameter        | conditions/description  | min | nom | max | units |
|------------------|---|-----|-----|-----|-------|
| safety approvals | UL60950-1, TUV EN60950-1 approved   |     |     |     |       |
| EMI standard     | EN55022: 1998+A1: 2000+A2: 2003 class B   |     |     |     |       |
| EMC              | 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 |     |     |     |       |
| RoHS compliant   | yes   |     |     |     |       |
| leakage current  | at 240 V ac   |     |     | 2   | mA    |

**RELIABILITY**

|                                 |   |
|---------------------------------|---|
| mean time before failure (MTBF) | 620,300 hours compliance<br>standard: MIL-HDBK-217F |
|---------------------------------|---|

**GENERAL SPECIFICATIONS**

|            |                         |
|------------|-------------------------|
| dimensions | 79 x 51 x 28 mm         |
| packaging  | 0.18 kg; 60 pcs / 13 kg |

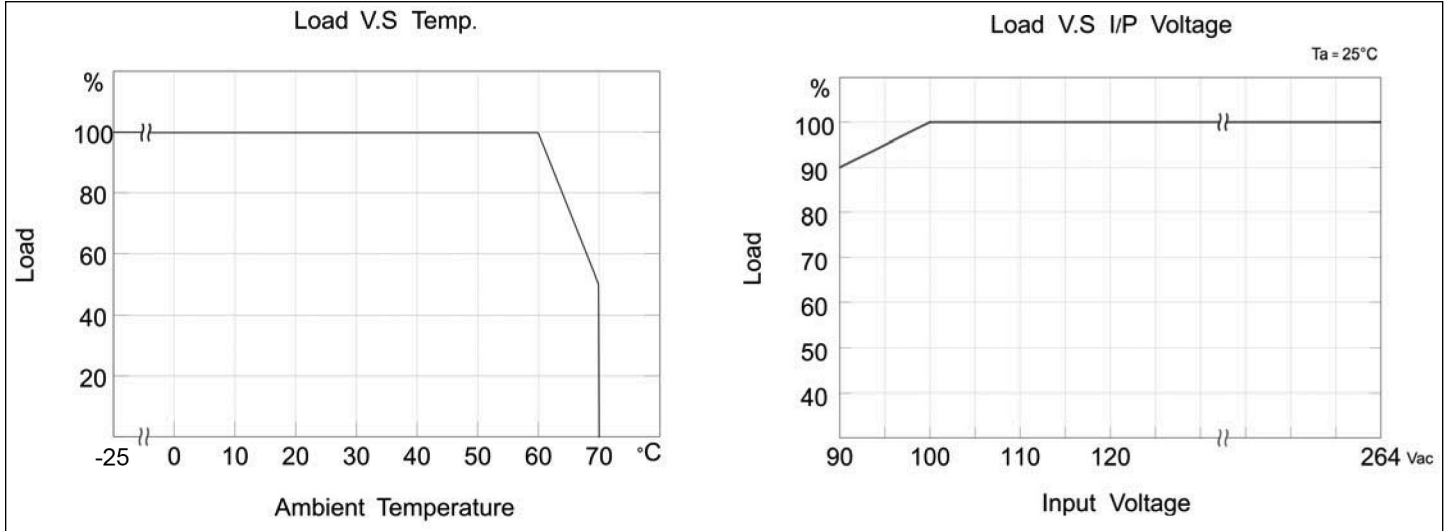
notes:  
 3. measured from high line to low line at full load  
 4. measured from full load to zero to 100% load at nominal input



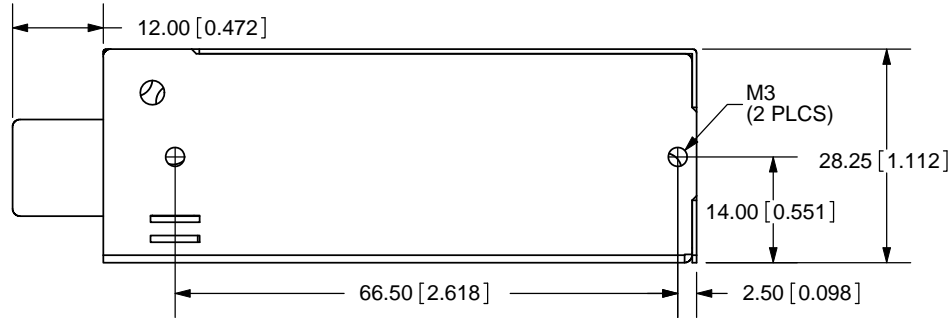
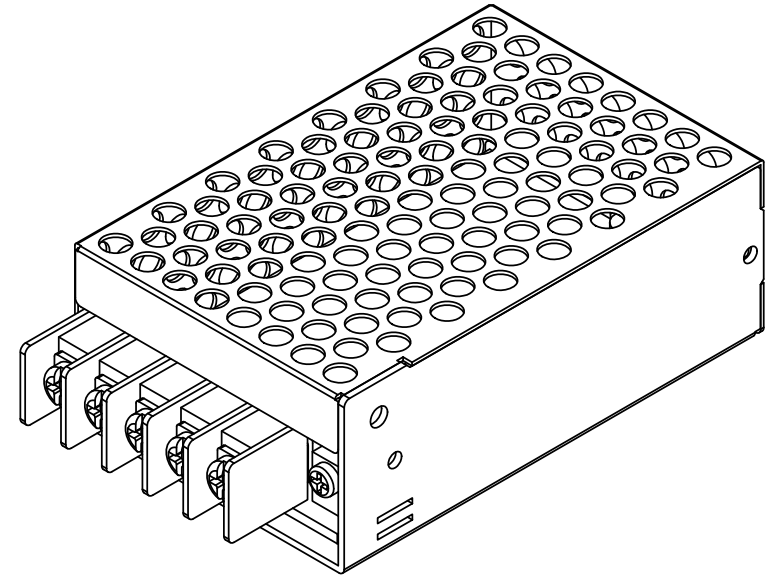
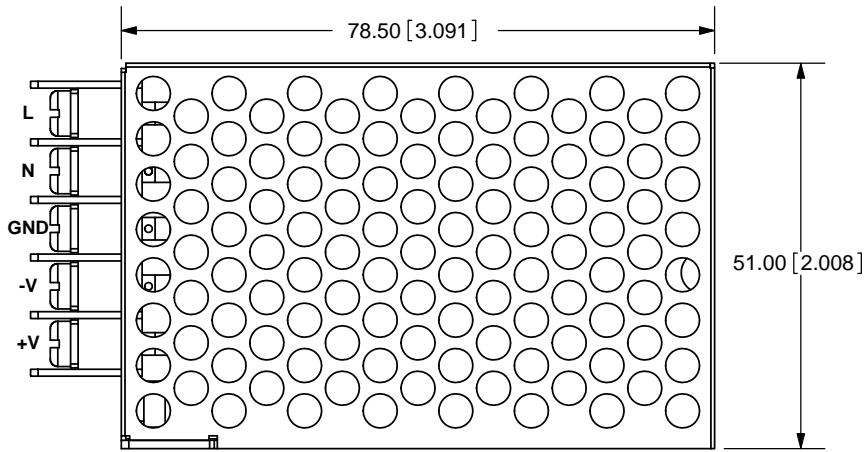
**PART NUMBER:** VGS-25-XX

**DESCRIPTION:** switching power supply

**DE-RATING CURVES**

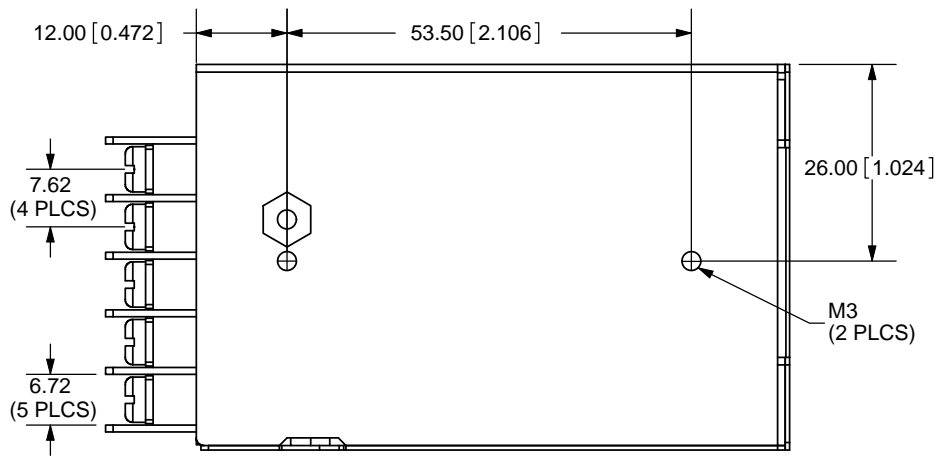


| REV. | DESCRIPTION | DATE      |
|------|-------------|-----------|
| A    | NEW DRAWING | 1/22/2009 |



NOTE: TERMINAL BLOCK SCREWS  
#6-32 (5 PLCS)

TOLERANCE:  
±0.3mm UNLESS OTHERWISE  
SPECIFIED




**CUI INC**

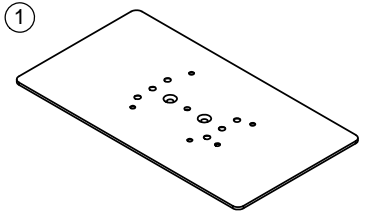
20050 SW 112th Ave.  
 Tualatin, OR 97062  
 Phone: 503-612-2300  
 800-275-4899  
 Fax: 503-612-2383  
 Website: www.cui.com

|                               |              |                    |
|-------------------------------|--------------|--------------------|
| TITLE: SWITCHING POWER SUPPLY |              | REV: A             |
| PART NO. VGS-25-XX            |              | UNITS: MM [INCHES] |
| DRAWN BY: ZRJ                 | APPROVED BY: | SCALE: 1:1         |

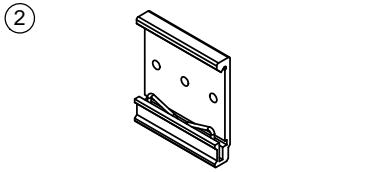
PC FILE NAME:  
VGS-25-XX

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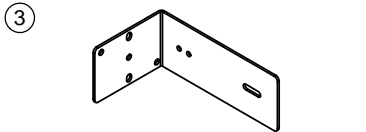
DIN RAIL MOUNTING OPTIONS



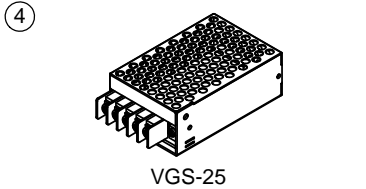
VGS-DR1



VGS-DR2



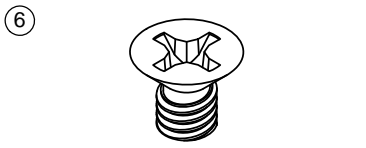
VGS-DR3



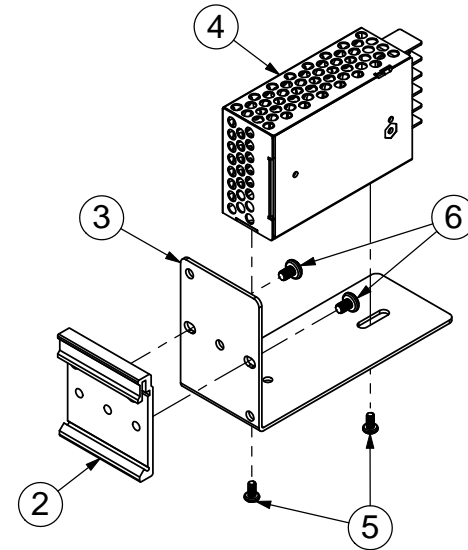
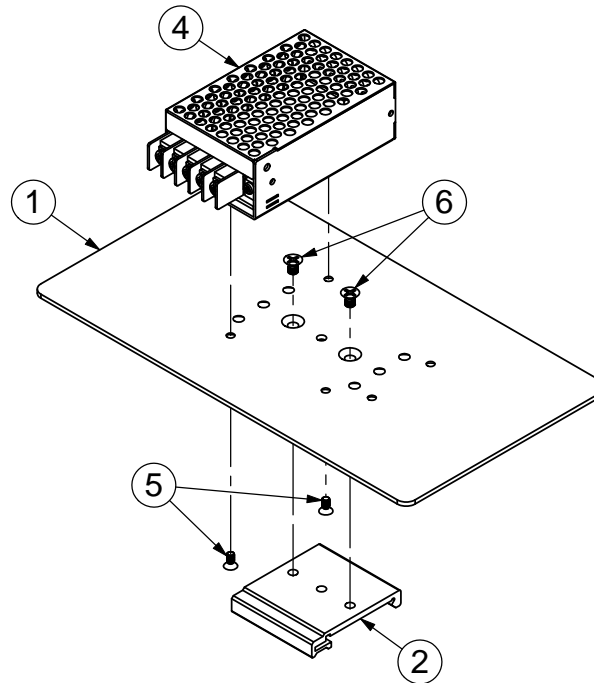
VGS-25



M3X6 SCREW (2 PCS)



M4X6 SCREW (2 PCS)



TOLERANCE:  
±0.3mm UNLESS OTHERWISE  
SPECIFIED



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|                                    |                    |            |
|------------------------------------|--------------------|------------|
| TITLE: VGS-25 DIN RAIL ACCESSORIES |                    | REV: A     |
| PART NO. VGS-25-DIN-RAIL           | UNITS: MM [INCHES] |            |
| DRAWN BY: ZRJ                      | APPROVED BY:       | SCALE: 1:5 |

PC FILE NAME:  
VGS-25-DIN-RAIL

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