



**INPUT**

| parameter       | conditions/description | min  | typ | max | units |
|-----------------|------------------------|------|-----|-----|-------|
| voltage         | ac input               | 85   |     | 264 | Vac   |
|                 | dc input               | 120  |     | 370 | Vdc   |
| frequency       |                        | 47   |     | 63  | Hz    |
| current         | at 115 Vac             |      |     | 1.0 | A     |
|                 | at 230 Vac             |      |     | 0.6 | A     |
| inrush current  | at 115 Vac, cold start |      | 20  |     | A     |
|                 | at 230 Vac, cold start |      | 35  |     | A     |
| leakage current | at 240 Vac             |      |     | 2   | mA    |
| power factor    | at 115 Vac             | 0.98 |     |     |       |
|                 | at 230 Vac             | 0.93 |     |     |       |

**OUTPUT**

| parameter                  | conditions/description                             | min | typ   | max    | units |
|----------------------------|--|-----|-------|--------|-------|
| capacitive load            | 5 Vdc output                                       |     |       | 10,000 | μF    |
|                            | 12 Vdc output                                      |     |       | 6,000  | μF    |
|                            | 15 Vdc output                                      |     |       | 5,000  | μF    |
|                            | 24 Vdc output                                      |     |       | 1,500  | μF    |
|                            | 48 Vdc output                                      |     |       | 680    | μF    |
| initial set point accuracy | at full load                                       |     | ±2    |        | %     |
| line regulation            |  |     | ±0.5  |        | %     |
| load regulation            | 5 Vdc output 0%~100% load                          |     | ±1    |        | %     |
|                            | other outputs 0%~100% load                         |     | ±0.5  |        | %     |
| hold-up time               | at 230 Vac   | 16  |       |        | ms    |
| temperature coefficient    |  |     | ±0.03 |        | %/°C  |
| remote on/off (CTRL)       | module on (0 ~ 0.8 Vdc)<br>module off (4 ~ 10 Vdc) |     |       |        |       |

**PROTECTIONS**

| parameter                                | conditions/description                         | min | typ | max  | units |
|--|--|-----|-----|------|-------|
| over voltage protection                  | 5 Vdc output model, output shut down, latched  |     |     | 7.0  | Vdc   |
|  | 12 Vdc output model, output shut down, latched |     |     | 20.0 | Vdc   |
|  | 15 Vdc output model, output shut down, latched |     |     | 25.0 | Vdc   |
|  | 24 Vdc output model, output shut down, latched |     |     | 32.4 | Vdc   |
|  | 48 Vdc output model, output shut down, latched |     |     | 60.0 | Vdc   |
| over current protection                  | auto-recovery                                  | 105 |     |      | %     |
| over temperature protection <sup>1</sup> | over temperature protection activation         |     |     | 85   | °C    |
|  | over temperature protection deactivation       | 50  |     |      | °C    |
| short circuit protection                 | constant current, continuous, auto-recovery    |     |     |      |       |

Note: 1. Over temperature protection thresholds under full load conditions.

**SAFETY & COMPLIANCE**

| parameter                      | conditions/description   | min                    | typ | max | units |
|--------------------------------|--|------------------------|-----|-----|-------|
| isolation voltage              | input to ground, 1 min, <10mA  | 2,000                  |     |     | Vac   |
|                                | input to output, 1 min, <10mA  | 4,000                  |     |     | Vac   |
|                                | output to ground, 1 min, <5mA  | 500                    |     |     | Vac   |
| safety approvals               | certified to   | 62368: IEC, EN, UL/cUL |     |     |       |
|                                | designed to meet   | 60335: EN              |     |     |       |
|                                | designed to meet   | 61558: EN              |     |     |       |
|                                | designed to meet   | GB4943                 |     |     |       |
| safety class                   | Class I  |                        |     |     |       |
| conducted emissions            | CISPR32/EN55032 CLASS B  |                        |     |     |       |
| radiated emissions             | CISPR32/EN55032 CLASS B  |                        |     |     |       |
| harmonic current               | IEC/EN61000-3-2 CLASS A  |                        |     |     |       |
| ESD                            | IEC/EN61000-4-2 Contact ±6KV/Air ±8KV perf. Criteria B                 |                        |     |     |       |
| radiated immunity              | IEC/EN61000-4-3 10V/m perf. Criteria A                                 |                        |     |     |       |
| EFT/burst                      | IEC/EN61000-4-4 ±2KV perf. Criteria B                                  |                        |     |     |       |
| surge                          | IEC/EN61000-4-5 line to line ±1KV/line to ground ±2KV perf. Criteria B |                        |     |     |       |
| conducted immunity             | IEC/EN61000-4-6 10Vr.m.s perf. Criteria A                              |                        |     |     |       |
| voltage dips and interruptions | IEC/EN61000-4-11 0%, 70% perf. Criteria B                              |                        |     |     |       |
| MTBF                           | as per MIL-HDBK-217F at 25°C   | 300,000                |     |     | hours |
| RoHS                           | yes  |                        |     |     |       |

**ENVIRONMENTAL**


| parameter             | conditions/description                  | min | typ | max | units |
|-----------------------|---|-----|-----|-----|-------|
| operating temperature | 5 Vdc output model, see derating curve  | -25 |     | 60  | °C    |
|                       | other output models, see derating curve | -25 |     | 70  | °C    |
| storage temperature   |   | -40 |     | 85  | °C    |
| operating humidity    | non-condensing                          | 20  |     | 90  | %     |
| storage humidity      | non-condensing                          | 0   |     | 95  | %     |

## MECHANICAL

| parameter     | conditions/description | min | typ | max | units |
|---------------|------------------------|-----|-----|-----|-------|
| dimensions    | 159 x 97 x 30          |     |     |     | mm    |
| weight        |                        |     | 380 |     | g     |
| cooling       | natural convection     |     |     |     |       |
| case material | metal (AL1100, SGCC)   |     |     |     |       |

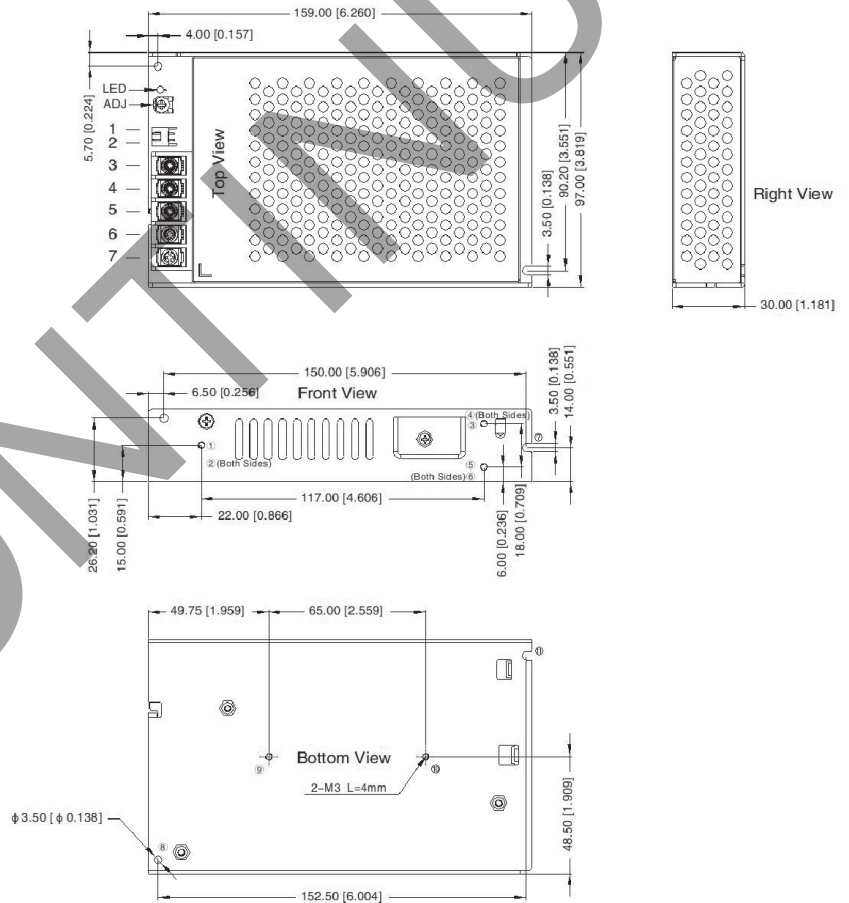
## MECHANICAL DRAWING

units: mm [inch]  
 tolerance:  $\pm 1.0$  [ $\pm 0.039$ ]  
 wire range: 22-12 AWG  
 connector tightening torque: M3.5, 0.8 N·m

| PIN CONNECTIONS |   |
|-----------------|---|
| PIN             | Function  |
| 1               | RC+   |
| 2               | RC-   |
| 3               | +Vo   |
| 4               | -Vo   |
| 5               |  |
| 6               | AC(N)   |
| 7               | AC(L)   |

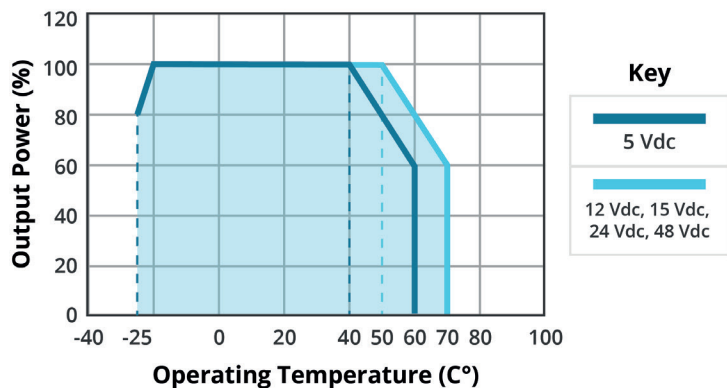
Note: At least one hole position, ①~③, must be securely connected to Protective Earth (PE). ④

| CN1: KANGDAO TJC3-NAWD-2P |          |                     |                   |
|---------------------------|----------|---------------------|-------------------|
| PIN                       | FUNCTION | CONNECTOR           | TERMINAL          |
| 1                         | RC+      | KANGDAO XI-25001-2Y | KANGDAO XH2.54-TE |
| 2                         | RC-      |                     |                   |

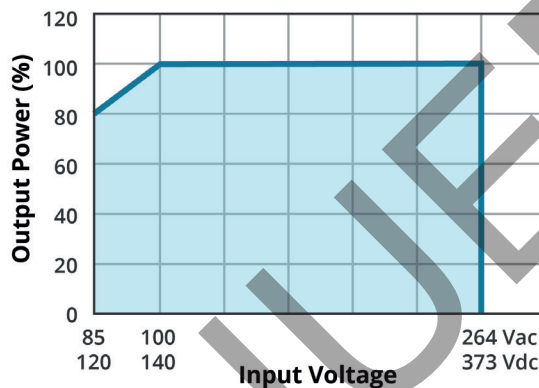


## DERATING CURVE

**TEMPERATURE DERATING CURVE**

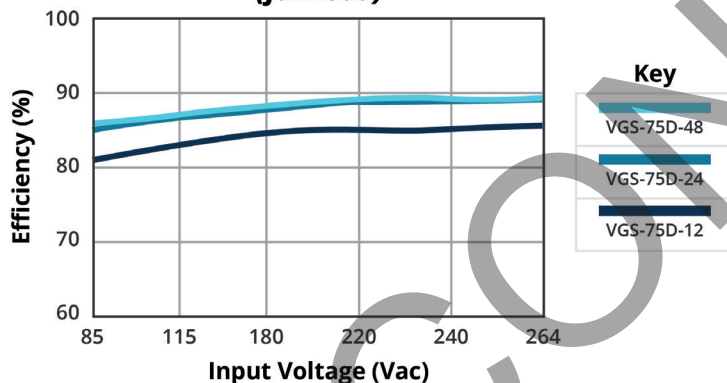


**INPUT VOLTAGE DERATING CURVE (25°C)**

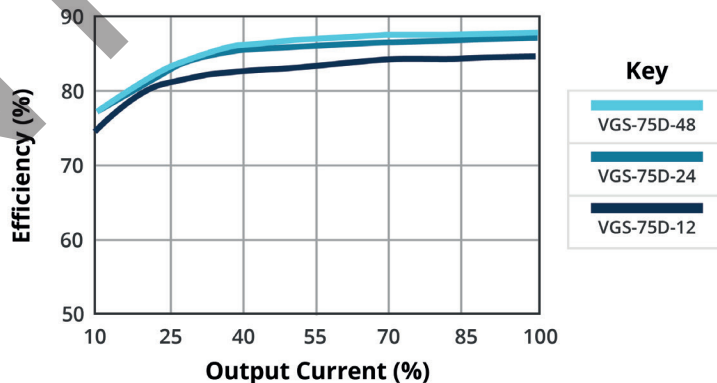


## EFFICIENCY CURVES

**EFFICIENCY VS INPUT VOLTAGE (full load)**



**EFFICIENCY VS OUTPUT LOAD**



## REVISION HISTORY

| rev. | description                            | date       |
|------|--|------------|
| 1.0  | initial release                        | 12/09/2020 |
| 1.01 | derating and efficiency curves updated | 02/09/2022 |
| 1.02 | UKCA mark added                        | 06/10/2022 |
| 1.03 | discontinued model VGS-75D-5-A         | 02/06/2023 |

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



**Headquarters**  
20050 SW 112th Ave.  
Tualatin, OR 97062  
**800.275.4899**

Fax 503.612.2383  
**cui.com**  
techsupport@cui.com

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

CUI reserves the right to make changes to the product at any time without notice. Information provided by CUI is believed to be accurate and reliable. However, no responsibility is assumed by CUI for its use, nor for any infringements of patents or other rights of third parties which may result from its use.

CUI products are not authorized or warranted for use as critical components in equipment that requires an extremely high level of reliability. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.