

SERIES: VGS-350C | **DESCRIPTION:** INTERNAL AC-DC POWER SUPPLY

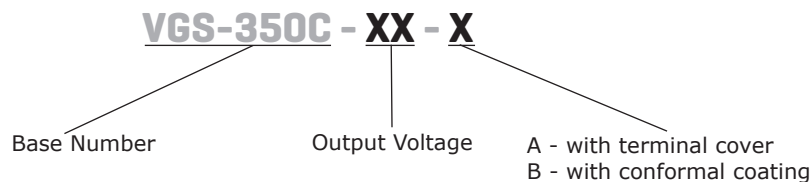
FEATURES

- selectable input range (90 ~ 132 Vac / 180 ~ 264 Vac)
- UL/EN/IEC 62368 certified
- designed to meet IEC/EN 60335, and GB4943 system requirements
- short-circuit, over-current, over-voltage, over-temperature protections
- integrated cooling fan
- output adjustable via trimpot +/- 10%



| MODEL | output voltage | output current max | output power max | ripple and noise ¹ | efficiency ² |
|-------------|----------------|--------------------|------------------|-------------------------------|-------------------------|
| | (Vdc) | (A) | (W) | typ (mVp-p) | typ (%) |
| VGS-350C-5 | 5 | 60.0 | 300.0 | 150 | 84 |
| VGS-350C-12 | 12 | 29.0 | 348.0 | 150 | 85 |
| VGS-350C-15 | 15 | 23.2 | 348.0 | 150 | 87 |
| VGS-350C-24 | 24 | 14.6 | 350.4 | 150 | 88 |
| VGS-350C-36 | 36 | 9.7 | 349.2 | 200 | 88 |
| VGS-350C-48 | 48 | 7.3 | 350.4 | 200 | 89 |

Notes: 1. Ripple & noise are measured at 20 MHz BW with 47 μ F aluminum electrolytic capacitor and 0.1 μ F ceramic capacitor on the output.
 2. Measured at 230 Vac

PART NUMBER KEY


INPUT

| parameter | conditions/description | min | typ | max | units |
|---------------------------|-----------------------------------------|-----|-----|------|-------|
| voltage | ac input (low voltage, switch at 115V) | 90 | | 132 | Vac |
| | ac input (high voltage, switch at 230V) | 180 | | 264 | Vac |
| | dc input (switch at 230V) | 240 | | 373 | Vdc |
| frequency | | 47 | | 63 | Hz |
| current | at 115 Vac | | | 8 | A |
| | at 230 Vac | | | 4 | A |
| inrush current | at 115 Vac, cold start | | 60 | | A |
| | at 230 Vac, cold start | | 60 | | A |
| leakage current | at 240 Vac | | | 0.75 | mA |
| no load power consumption | at 230 Vac, 25°C | | | 0.75 | W |

OUTPUT

| parameter | conditions/description | min | typ | max | units |
|----------------------------|-----------------------------|-----|-------|--------|-------|
| capacitive load | 5 Vdc output | | | 10,000 | µF |
| | 12 Vdc output | | | 4,000 | µF |
| | 15 Vdc output | | | 3,300 | µF |
| | 24 Vdc output | | | 1,500 | µF |
| | 36 Vdc output | | | 1,500 | µF |
| | 48 Vdc output | | | 470 | µF |
| initial set point accuracy | 5 Vdc output, full load | | ±3 | | % |
| | 12 Vdc output, full load | | ±1.5 | | % |
| | other outputs, full load | | ±1 | | % |
| line regulation | | | ±0.5 | | % |
| load regulation | 5 Vdc output, 0%~100% load | | ±2 | | % |
| | 12 Vdc output, 0%~100% load | | ±1 | | % |
| | other outputs, 0%~100% load | | ±0.5 | | % |
| adjustability | built in trim pot | ±10 | | | % |
| hold-up time | at 115 Vac | | 12 | | ms |
| | at 230 Vac | | 16 | | ms |
| switching frequency | | | 65 | | kHz |
| temperature coefficient | | | ±0.02 | | %/°C |

PROTECTIONS

| parameter | conditions/description | min | typ | max | units |
|--------------------------|--------------------------------------|------|-----|------|-------|
| over voltage protection | 5 Vdc output, hiccup, auto-recovery | 5.75 | | 6.75 | Vdc |
| | 12 Vdc output, hiccup, auto-recovery | 13.8 | | 16.2 | Vdc |
| | 15 Vdc output, hiccup, auto-recovery | 18.0 | | 21.0 | Vdc |
| | 24 Vdc output, hiccup, auto-recovery | 28.8 | | 33.6 | Vdc |
| | 36 Vdc output, hiccup, auto-recovery | 41.4 | | 46.8 | Vdc |
| | 48 Vdc output, hiccup, auto-recovery | 55.2 | | 59.5 | Vdc |
| over current protection | auto-recovery | 110 | | 180 | % |
| short circuit protection | hiccup, continuous, auto-recovery | | | | |

SAFETY & COMPLIANCE

| parameter | conditions/description | min | typ | max | units |
|-------------------|------------------------|--------|-----------|-----|-------|
| isolation voltage | input to ground | 2,000 | | | Vac |
| | input to output | 3,000 | | | Vac |
| | output to ground | 500 | | | Vac |
| safety approvals | certified to: | 62368: | IEC/EN/UL | | |
| | designed to meet: | 60335: | IEC/EN | | |
| | designed to meet: | 61558: | IEC/EN | | |
| | designed to meet: | 4943: | GB | | |
| safety class | Class I | | | | |

SAFETY & COMPLIANCE

| | | | | |
|--------------------------------|--------------------------------------------------------------------------|---------|--|-------|
| EMI/EMC | CISPR32/EN55032 Class A | | | |
| ESD | IEC/EN 61000-4-2 Contact ±6KV /Air ±8KV, perf. Criteria A | | | |
| radiated immunity | IEC/EN 61000-4-3 10V/m, perf. Criteria A | | | |
| EFT/burst | IEC/EN 61000-4-4 ±2KV, perf. Criteria A | | | |
| surge | IEC/EN 61000-4-5 line to line ±2KV/line to ground ±4KV, perf. Criteria A | | | |
| conducted immunity | IEC/EN61000-4-6 10 Vr.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 | | -30 | | 70 | °C |
| storage temperature | | -40 | | 85 | °C |
| operating humidity | non-condensing | 20 | | 90 | % |
| storage humidity | non-condensing | 0 | | 95 | % |

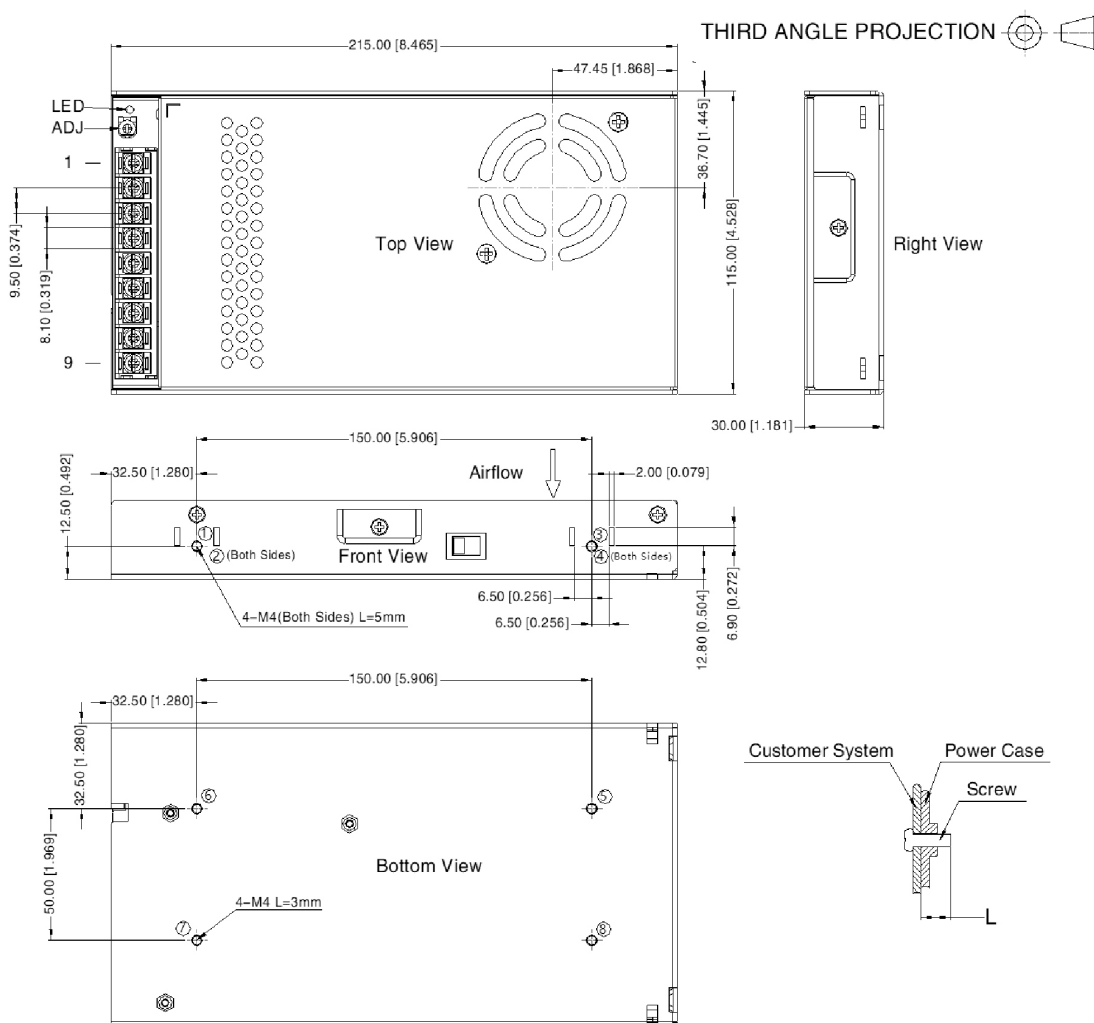
MECHANICAL

| parameter | conditions/description | min | typ | max | units |
|---------------|-------------------------|-----|-----|-----|-------|
| dimensions | 215.00 x 115.00 x 30.00 | | | | mm |
| weight | | | 700 | | g |
| cooling | forced air cooling | | | | |
| case material | metal (AL1100, SGCC) | | | | |

MECHANICAL DRAWING

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

| PIN CONNECTIONS | |
|-----------------|----------|
| PIN | Function |
| 1 | +Vo |
| 2 | +Vo |
| 3 | +Vo |
| 4 | -Vo |
| 5 | -Vo |
| 6 | -Vo |
| 7 | ⏏ |
| 8 | AC(N) |
| 9 | AC(L) |



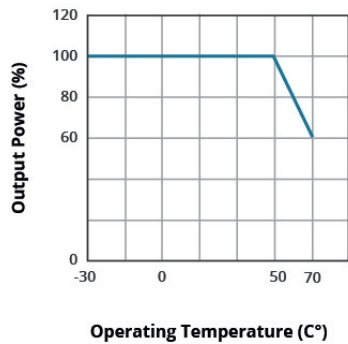
| Switch | ac input (Vac) | dc input (Vdc) |
|--------|----------------|----------------|
| | 90~132 | - |
| | 180~264 | 240~373 |

| Position | Screw spec. | L (max) | Torque (max) |
|----------|-------------|---------|--------------|
| ① - ④ | M4 | 5 mm | 0.9 N·m |
| ⑤ - ⑧ | M4 | 3 mm | 0.9 N·m |

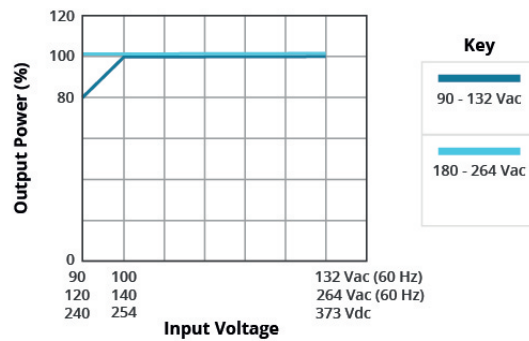
Note: At least one hole position, ①~⑧, must be securely connected to Protective Earth (PE) Ⓧ

DERATING CURVE

TEMPERATURE DERATING CURVE

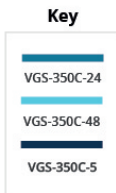
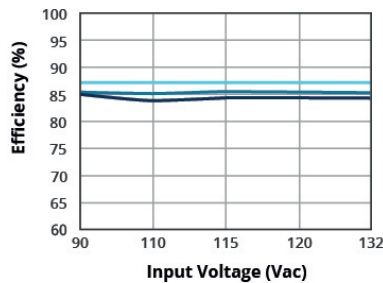


INPUT VOLTAGE DERATING CURVE (25°C)

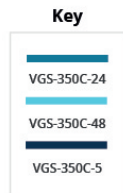
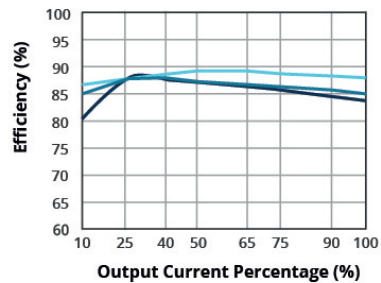


EFFICIENCY CURVES

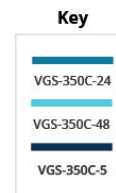
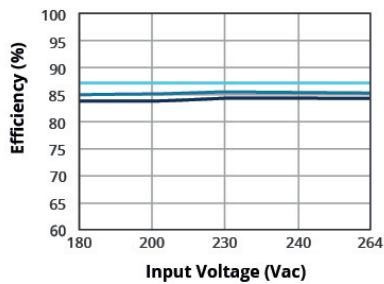
EFFICIENCY VS INPUT VOLTAGE (FULL LOAD)



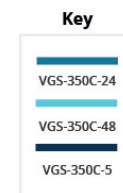
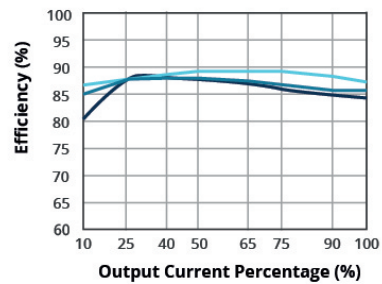
EFFICIENCY VS OUTPUT LOAD (VIN = 115 VAC)



EFFICIENCY VS INPUT VOLTAGE (FULL LOAD)



EFFICIENCY VS OUTPUT LOAD (VIN = 230 VAC)



REVISION HISTORY

| rev. | description | date |
|------|-----------------|------------|
| 1.0 | initial release | 12/10/2020 |

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.

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Switching Power Supplies](#) category:

Click to view products by [CUI Inc](#) manufacturer:

Other Similar products are found below :

[70841011](#) [73-551-0005](#) [73-551-0048](#) [PS3E-B12F](#) [PS3E-E12F](#) [AAD600S-4-OP](#) [R22095](#) [KD0204](#) [9021](#) [LDIN100150](#) [LPM000-BBAR-01](#)
[LPX17S-C](#) [EVS57-10R6/R](#) [FP80](#) [FRV7000G](#) [22929](#) [PS3E-F12F](#) [CQM1IA121](#) [40370121900](#) [VI-PU22-EXX](#) [40370121910](#) [LDIN5075](#)
[LPM615-CHAS](#) [LPX140-C](#) [09-160CFG](#) [70841025](#) [VPX3000-CBL-DC](#) [VI-LUL-IU](#) [LPM000-BBAR-05](#) [LPM000-BBAR-08](#) [LPM124-](#)
[OUTA1-48](#) [LPM000-BBAR-07](#) [LPM109-OUTA1-10](#) [LPM616-CHAS](#) [08-30466-1055G](#) [08-30466-2175G](#) [08-30466-2125G](#) [DMB-EWG](#)
[TVQF-1219-18S](#) [6504-226-2101](#) [CQM1IPS01](#) [SP-300-5](#) [CQM1-IPS02](#) [VI-MUL-ES](#) [22829](#) [08-30466-0065G](#) [VI-RU031-EWWX](#) [08-30466-](#)
[0028G](#) [EP3000AC48INZ](#) [VP-C2104853](#)