

AGH100 Series

Half Brick Fully Regulated DCDC Converter

Data Sheet

Output Power: 82.5 Watts
Input Voltage: 36 - 75 V
Single Output: 3.3 V

SPECIAL FEATURES

- 2:1 wide input range
- Optimised for high density, small space applications
- Low ripple and noise
- Fixed switching frequency
- High efficiency
- High capacitive load capability
- Basic insulation system
- Pre-bias start-up capability
- Openframe structure with Baseplate option

SAFETY

- UL, cUL: UL60950
- TUV/CE: IEC/EN60950



Electrical Specifications

Input	
Input range	36 - 75 VDC
Input surge	100 V for 100 ms
Efficiency	92.4% (3.3 V)
Output	
Output voltage	3.3 Vdc
Trim range	+10% to =20% Vout
Output current	25 A
Noise/ripple	45 mV pk-pk
Regulation	Load regulation 16.5 mV, Line regulation = 6.6 mV
Switching frequency	Fixed switching frequency 270 KHz
Isolation voltage	2000 Vdc
Transient response	80 mV deviation 80 μ s recovery (25% deviation from 50% Iout, 0.1 A/ μ s) typical
Control	
Enable	TTL compatible Positive or Negative enable

Environmental Specifications

Operating ambient temperature range	-40 °C to +85 °C
Storage temperature	-55 °C to +125 °C
OTP	118 °C
MTBF @ 25 °C	2 Million hours (Vin 48 V, Io = 20 A)

Ordering Information

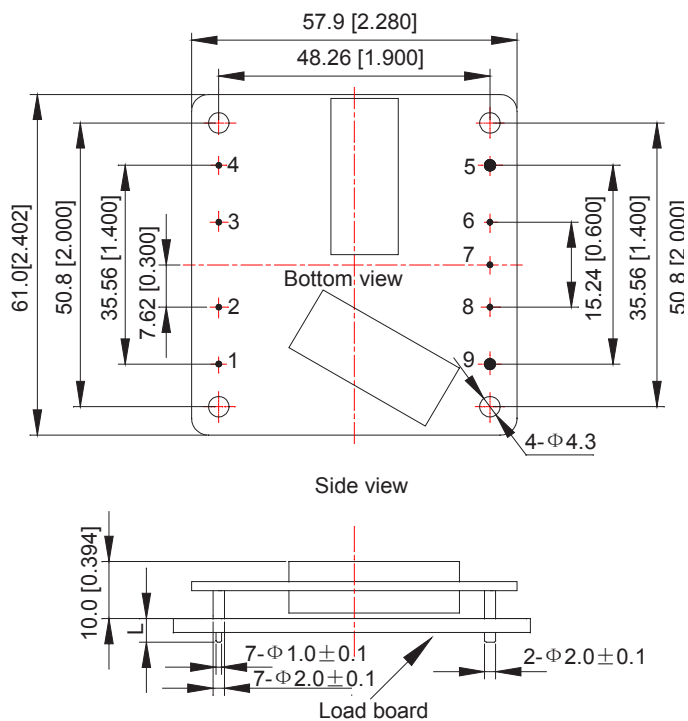
Model number	Input voltage	Output voltage	Power	Efficiency
AGH100-48S3V3P-4L	48 V	3.3 V	25 A	92.4%
AGH100-48S3V3-4L	48 V	3.3 V	25 A	92.4%
AGH100-48S3V3PB-4L	48 V	3.3 V	25 A	92.4%
AGH100-48S3V3B-4L	48 V	3.3 V	25 A	92.4%

- Standard converter is Negative enable
- "B" = Baseplate option
- "-4" = 4.8 mm pin length
- "-P" = Positive remote control
- "-L" = RoHS 6 compliant

Pin Assignments

Pin #	Function
1	+V in
2	Enable
3	Case
4	-V in
5	-V out
6	-Sense
7	Trim
8	+Sense
9	+V out

Mechanical Drawing - Open Frame



Unit: mm[inch] Bottom view: pin on upside
 Tolerance: X.Xmm ± 0.5mm[X.X in. ± 0.02in.]
 X.XXmm ± 0.25mm[X.XX in. ± 0.01in.]

Notes:

- 20 MHz bandwidth. External 10 uF tantalum capacitor placed across +Vout and -Vout; 33 uF e-cap or equivalent placed across +Vin and -Vin.
- Efficiency measurements taken at full load and nominal line and Tamb = 25 °C
- All specifications taken at nominal line, full load and Tamb = 25 °C unless otherwise noted.
- Mechanical dimensions are for reference only. Dimensions are in MM. Mechanical tolerance = +/- 0.5 mm
- Technical reference notes should be consulted for detailed information when available.
- All specifications subject to change without notice.
- Warranty 2 years.
- The through-hole terminated modules are intended for wave-soldering process; special request for other manufacturing processes to be made to Artesyn.

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