

DC/DC Product Specification

Embedded Power for
Business-Critical Continuity

- Half brick fully regulated DCDC converter.

AGH100-48S3V3 Half brick

Input voltage: 36-75V
Single Output: 3.3V
Rated power: 82.5W

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



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AGH100 series
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Product Description

The AGH100-48S3V3 is the latest high efficiency half brick. It operates from a wide input range of 36Vdc to 75Vdc and provides a regulated output voltage of 3.3Vdc. The output is rated to a power level up to 82.5Watts. Its protection features include Non latching OCP, OTP and OVP. It also has an enable pin on the primary side of the converter. The unit is a baseplate design that is optimised for either contact-cooled applications or forced airflow applications.

Specifications

Feature	
Output power:	82.5W
Super high efficiency:	92.4%(3.3V)
Functions:	Remote control, trim function, Sense; Input LVP, output OVP and OCP, OTP, Pre-bias Open frame structure with base plate option.
Isolation:	Basic Insulation
Safety	
UL:	UL60950
TUV/CE:	IEC/EN60950
Input specification	
Input range	36Vdc to 75Vdc
Input Surge	100V for 100mSec
Control specification	
Enable	TTL compatible Positive or Negative enable
Output specification	
Output Voltage	3.3Vdc.
Trim range	+10% to -20% Vout
Output Current	25A
Ripple and noise	45mV pk-pk
Regulation	Load regulation = 16.5mV, Line regulation = 6.6mV
Switching Frequency	Fixed switching frequency 270Khz
Isolation Voltage	2000Vdc
Transient response.	80mV deviation 80µS recovery (25% deviation from 50% Iout, 0.1A/uS) Typ.

Environmental Specification

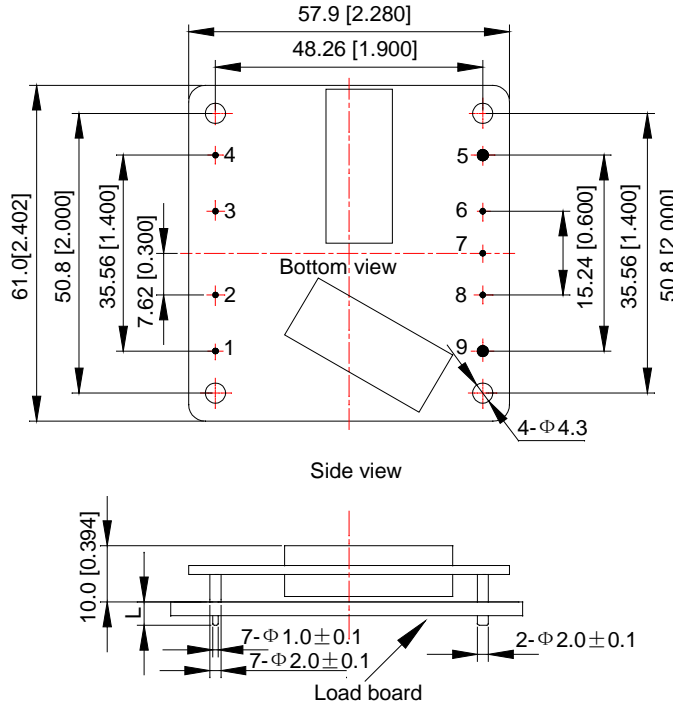
Storage Temperature	-55 to +125 deg C
Ambient operating temp	-40 to +85 deg C
MTBF at 25degC	2 Million hours (Vin 48V, Io=20A)
OTP	118 deg C

DC/DC Product Specification

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- Half brick fully regulated DCDC converter.

Mechanical (open frame)



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

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.]

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Ordering information

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

Notes

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

Notes,

- 1\ 20Mhz bandwidth. External 10uF tantalum capacitor placed across +Vout and -Vout; 33 uF e-cap or equivalent placed across +Vin and -Vin.
- 2\ Efficiency measurements taken at full load and nominal line and Tamb = 25degC
- 3\ All specifications taken at nominal line, full load and Tamb = 25degC unless otherwise noted
- 4\ Mechanical dimensions are for reference only. Dimensions are in MM. Mechanical tolerance = +/- 0.5mm
- 5\ Technical reference notes should be consulted for detailed information when available.
- 6\ All specifications subject to change without notice
- 7\ Warranty 2 years
- 8\ The through-hole terminated modules are intended for wave-soldering process – special request for other manufacturing processes to be made to Emerson

