

AVQ100 Wide Input

100 Watt Quarter Brick DC-DC Converter

Data Sheet

Total Power: 100 Watts
(3V3 @ 25 A)
Input Voltage: 18 - 60 V
of Outputs: Single
(3V3 nom)



SPECIAL FEATURES

- 100 W continuous power
- High efficiency: 90 %
- 18-60 Vdc wide range Telecom input range
- Baseplate optimised for contact cooling or heatsink mounting
- Open frame version optimised for aircooling
- Low ripple and noise
- Fixed switching frequency
- High capacitive load capability
- Pre-bias start-up capability
- High reliability
- RoHS 6/6 compliant
- UL94 V-0 materials
- DOSA footprint compliant
- Two year warranty (consult factory for extended terms)

SAFETY

- EN60950
- CSA
- CE
- UL

Electrical Specifications

Input	
Input range	18 - 60 VDC
Input surge	80 V / 100 mSec
Input UVLO	Turn-on: 17.7 Vdc nom Turn-off: 15.1 Vdc nom Hysteresis: 1.6 Vdc
Input current maximum	6 Amps
Efficiency (48 Vin, 25 °C ambient)	90% at 3V3 peak efficiency
I/O insulation	Basic insulation
I/O isolation	1500 Vdc
Output	
Output voltage	3V3 nominal set point
Output voltage regulation	3V3 ± 1%
Output current maximum	25 A @ 3V3 output voltage
Noise & ripple	40 mV pk-pk max (@ 3V3)
Overtemperature protection	Baseplate: 110 °C baseplate Open frame: 130 °C hotspot
Overvoltage protection Method / OVP operation	4.2 V nominal Auto recovery
Overcurrent protection Method / OCP operation	35 A nominal Auto recovery hiccup mode
Control	
Enable	Positive or Negative option
Output voltage trim range	-20% to +10% Vout
Switching frequency	300 KHz



Environmental Specifications

Storage temperature	-40 °C to +105 °C
Ambient temperature	-40 °C to +85 °C
Baseplate operating temperature	-40 °C to +100 °C (no power derating)
MTBF	1 million hours target

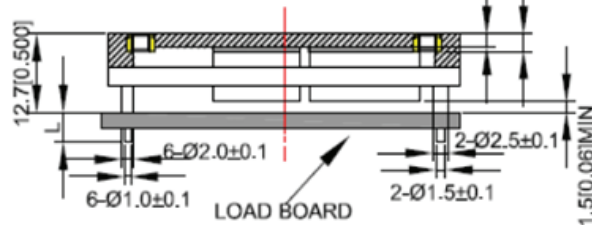
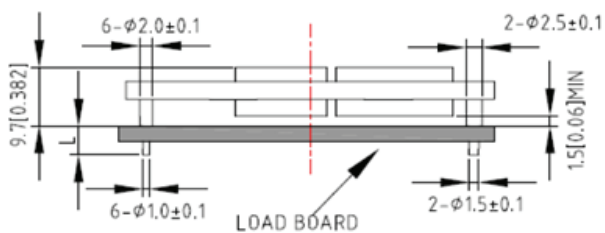
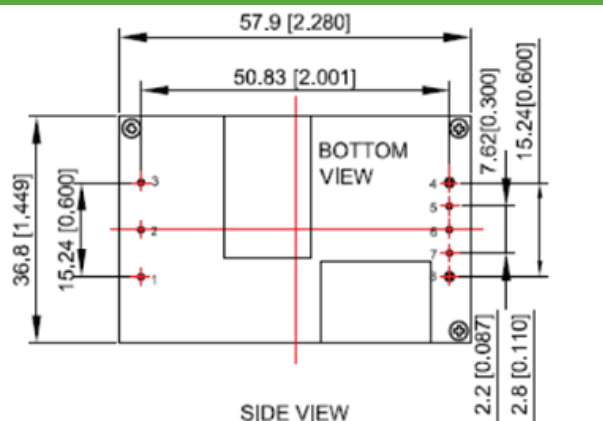
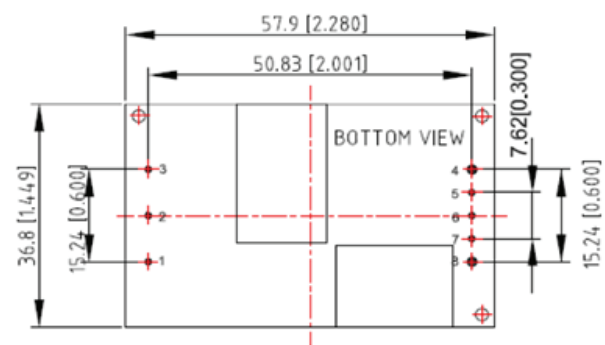
Ordering Information

Model number	Input voltage	Output voltage set-point	Output Current	Efficiency
AVQ100-36S3V3-6L	18 - 60 Vdc	3V3 dc	25 A max	90% full load
AVQ100-36S3V3B-6L	18 - 60 Vdc	3V3 dc	25 A max	90% full load

"-6" = 3.8 mm pin length

"-L" = RoHS 6/6 compliant

Mechanical Drawings



UNIT: mm[inch]

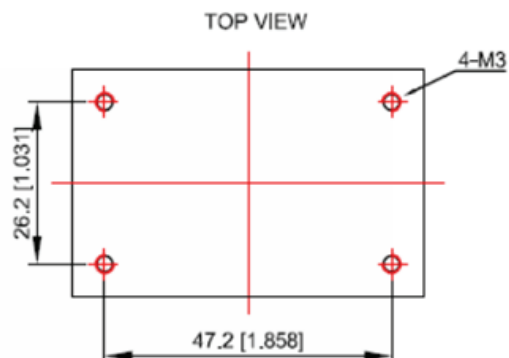
BOTTOM VIEW: pin on upside

TOLERANCE: X.Xmm±0.5mm[X.X in.±0.02in.]

X.XXmm±0.25mm[X.XX in.±0.01in.]

Pin Length Option

Device Code Suffix	L
-4	4.8 mm+/-0.5 mm
-6	3.8 mm+/-0.5 mm
-8	2.8 mm+/-0.25 mm
NONE	5.8 mm+/-0.5 mm



Pin Assignments

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

Notes:

1. All specifications are subject to change without notice. Mechanical drawings are for reference only.
2. Warranty: 2 years
3. Label and logo appearance may vary from what is shown on mechanical drawings.

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