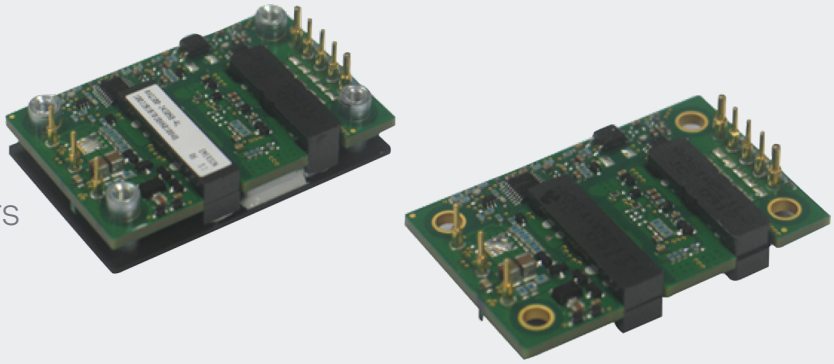
ARTESYN AVQ100-24 SERIES

100 W Single Output DC-DC Converters



Advanced Energy's Artesyn AVQ100-24S05 is a single output DC-DC converter with standard quarter-brick outline and pin configuration. It delivers up to 20A output current with 5V output voltage. Above 93% ultra-high efficiency and excellent thermal performance makes it an ideal choice in telecom and datacom application.

AT A GIANCE

Total Power

100 W

Input Voltage

18 to 36 VDC

# of Outputs

Single

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
- Openframe structure with baseplate option

SAFETY

- TUV/CE 62368-1
- UL/cUL 60950-1

RoHS 6/6 COMPLIANT

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ELECTRICAL SPECIFICATIONS

Input	
Input Range	18 to 36 VDC
Efficiency	93% @ 5 Vo
Output	
Voltage Tolerance	±1%
Line Regulation	0.2%
Load Regulation	0.2%
Noise/Ripple	140 mV Max
Over Voltage Protection	Hiccup
Over Temperature Protection	Auto-restart
Switching Frequency	310 kHz
Temperature Coefficient	±0.02/°C
Isolation	
I/O Isolation	1500 VDC min.

ENVIRONMENTAL SPECIFICATIONS

Operating Ambient Temperature Range	-40 to +85°C
Storage Temperature	-55 to +125°C
Humidity	5% to 95% (non-condensing)
MTBF	2.5 Million hours
RoHS Compliant	

ORDERING INFORMATION

Model number	Input voltage	Output voltage	Power
AVQ100-24S05-4L	18 to 36 Vin	5 V @ 20 A	100 W
AVQ100-24S05P-4L	18 to 36 Vin	5 V @ 20 A	100 W
AVQ100-24S05B-4L	18 to 36 Vin	5 V @ 20 A	100 W
AVQ100-24S05PB-4L	18 to 36 Vin	5 V @ 20 A	100 W
AVQ100-24S05PB-6L	18 to 36 Vin	5 V @ 20 A	100 W
AVQ100-24S05PB-6L/T	18 to 36 Vin	5 V @ 20 A	100 W

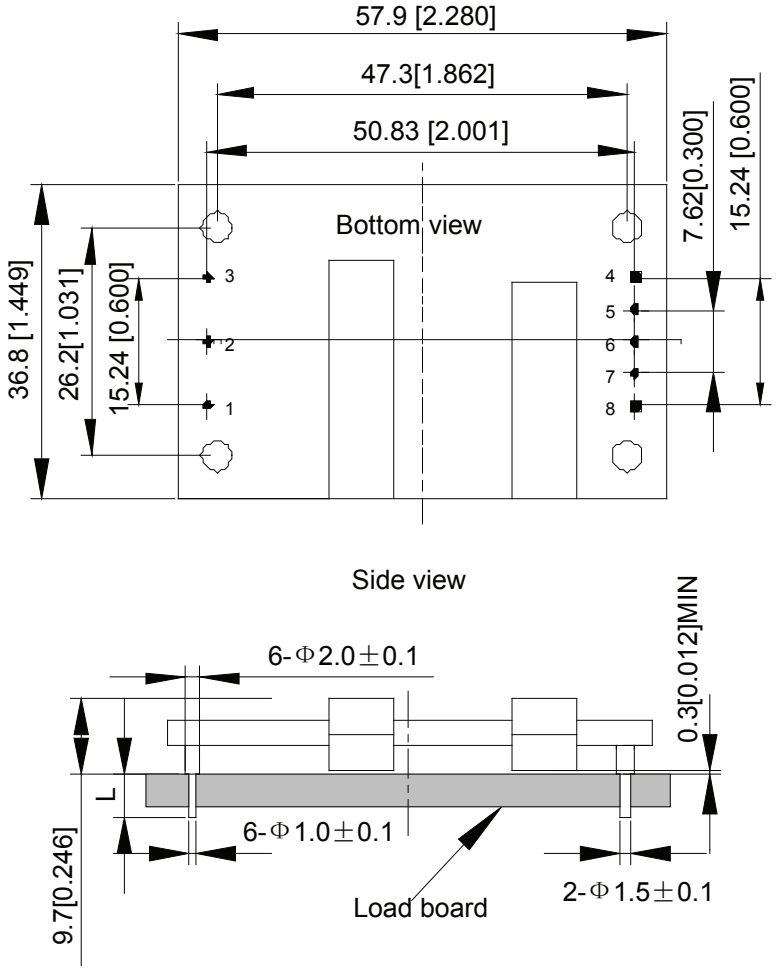
- Standard version is negative enable
- "-6" = 3.8 mm pin length
- "-4" = 4.8 mm pin length
- "-L" = RoHS 6 compliance
- "-P" = Positive enable
- "-B" = Baseplate
- "-T" = Non-thread hole

PIN ASSIGNMENTS

Pin #	Pin Name	Function
1	Vin+	+Vin
2	Remote ON/OFF	Remote control
3	Vin-	-Vin
4	Vo-	-Vout
5	S-	-Sense
6	Trim	Trim
7	S+	+Sense
8	Vo+	+Vout

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.

MECHANICAL DRAWINGS - NO BASEPLATE MODULE



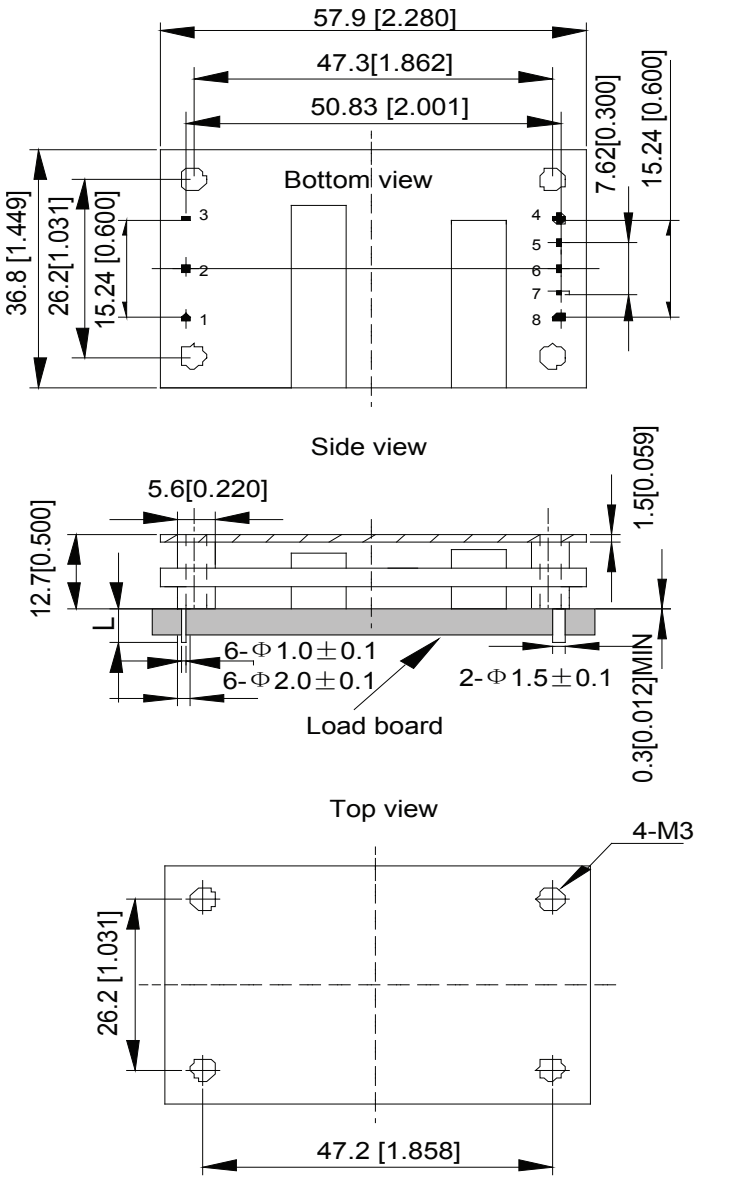
Unit: mm[inch]

Bottom view: pin on upside

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

X.XXmm ±0.25mm[X.XX in. ±0.01in.]

MECHANICAL DRAWINGS - BASEPLATE MODULE



Unit: mm[inch]

Bottom view: pin on upside

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X.XXmm ±0.25mm[X.XX in. ±0.01in.]

ABOUT ADVANCED ENERGY

Advanced Energy (AE) has devoted more than three decades to perfecting power for its global customers. AE designs and manufactures highly engineered, precision power conversion, measurement and control solutions for mission-critical applications and processes.

Our products enable customer innovation in complex applications for a wide range of industries including semiconductor equipment, industrial, manufacturing, telecommunications, data center computing, and medical. With deep applications know-how and responsive service and support across the globe, we build collaborative partnerships to meet rapid technological developments, propel growth for our customers, and innovate the future of power.

PRECISION | POWER | PERFORMANCE

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