POWER

AVD85B Series

85 Watt 1/16” brick DC/DC Converter

Data Sheet

Total Power: 85 Watts
(12 V @ 7.1 A)
(5 V @ 17 A)
Input Voltage: 36 - 75 Vdc
Single Output: 12 V, 5 V

SPECIAL FEATURES

- 85 W continuous power
- Ultra high efficiency up to 93%
- Low ripple and noise
- Telecom DC input range
- Baseplate optimised for contact cooling
- Open frame optimized for air cooling
- Through hole and surface mount termination option
- Fixed switching frequency
- High capacitive load capability
- Pre-bias startup capability
- High reliability
- RoHS 6 compliant
- UL94 V-0 materials
- 2-year warranty (consult factory for extended terms)

SAFETY

- EN60950
- UL/CSA60950
- CE

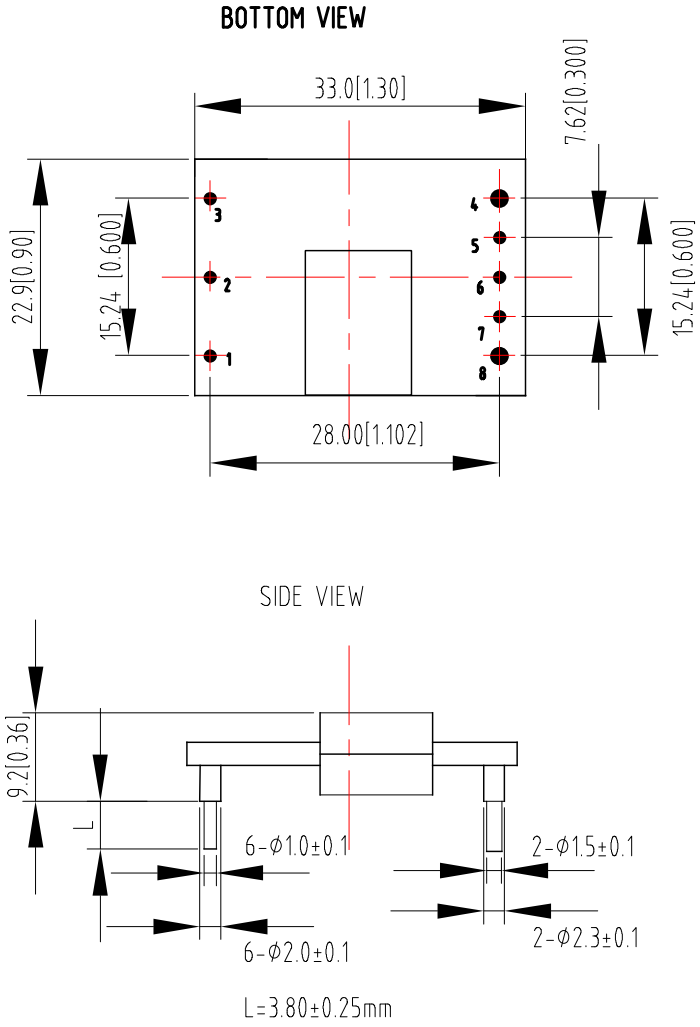
Electrical Specifications

Input	12 V	5 V
Input range	36 - 75 Vdc	
Input surge	100 V / 100 mSec	
Efficiency	93.3% (100% load)	91.5% (100% load)
I/O insulation	Basic insulation	
I/O isolation	2250 Vdc	1500 Vdc
Output	**12 V**	**5 V**
Output voltage	12 V nominal	5 V nominal
Output current maximum	7.1 A	17 A
Noise & ripple	64 mV pk-pk typ.	50mV pk-pk typ.
Overtemperature protection	Baseplate: 110 °C Open frame: 120 °C hot spot	
Overvoltage protection method / OCP operation	Auto restart / 130% Vout	
Overcurrent protection method / OCP operation	Hiccup 150% Iout	
Control	**12 V**	**5 V**
Enable	TTL compatible (negative logic)	
Trim function	80% to 110% Vout	
Remote sense	Sense connections provided	
Switching frequency	350 KHz	

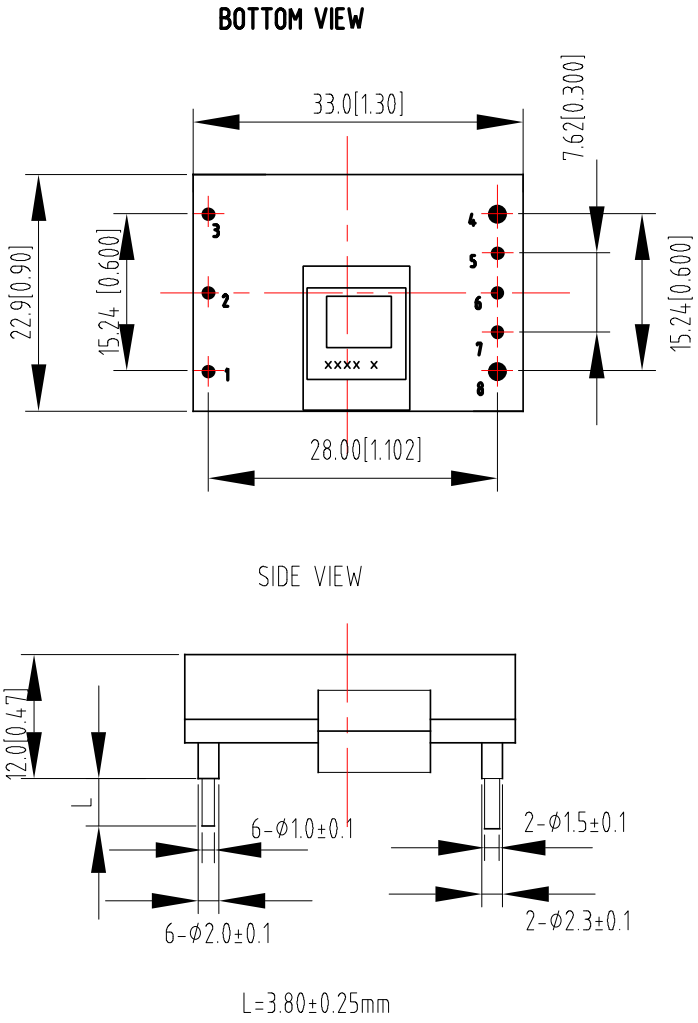
ARTESYN™
EMBEDDED TECHNOLOGIES

Mechanical Drawings

Model: AVD85B-48S05-6L



Model: AVD85B-48S05B-6L



UNIT: mm[inch]

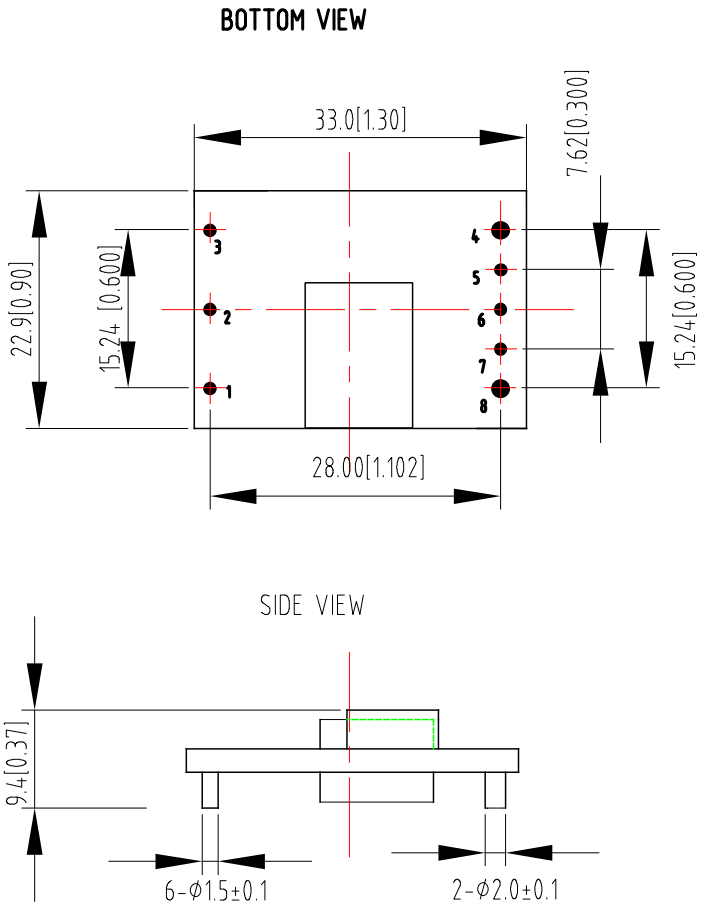
TOLERANCE: XXmm ±0.5mm[X.XX in ±0.02in]
X.XXmm ±0.25mm[X.XXX in ±0.01]

Notes:

1. Different output voltage AVD85B products have slight differences in the mechnical drawing. Please check the specified product's Technical Reference Note for more details
2. All specifications are subject to change without notice. Mechanical drawings are for reference only.

Mechanical Drawings

Model: AVD85B-48S05TL



UNIT: mm[inch]

TOLERANCE: XXmm ±0.5mm[X.XX in ±0.02in]
X.XXmm ±0.25mm[X.XXX in ±0.01]

Notes:

1. Different output voltage AVD85B products have slight differences in the mechnical drawing. Please check the specified product's Technical Reference Note for more details
2. All specifications are subject to change without notice. Mechanical drawings are for reference only.

Pin Designations

Pin Number	Name	Name
1	Vin+	Positive input terminal
2	Remote ON/OFF	ON/OFF control terminal
3	Vin-	Negative input terminal
4	Vo-	Negative output terminal
5	S-	Negative remote sense
6	Trim	Output voltage trim
7	S+	Positive remote sense
8	Vo+	Positive output terminal

Pin Length Options

Device Code Suffix	L
-4	4.8 mm ±0.25 mm
-6	3.8 mm ±0.25 mm
-8	2.8 mm ±0.25 mm
None	5.8 mm ±0.25 mm

Environmental Specifications

Operating ambient temperature	-40 °C to +85 °C
Storage temperature	-55 °C to +125 °C
MTBF	2 Million hours

Ordering Information

Model Number	Input Voltage	Output Voltage	Output Current	Structure
AVD85B-48S12-6L	36 - 75 Vin	12 Vdc	7.1 A	Open frame
AVD85B-48S12B-6L	36 - 75 Vin	12 Vdc	7.1 A	Baseplate
AVD85B-48S12TL	36 - 75 Vin	12 Vdc	7.1 A	SMT pin with reel tape package
AVD85B-48S05-6L	36 - 75 Vin	5 Vdc	17 A	Open frame
AVD85B-48S05B-6L	36 - 75 Vin	5 Vdc	17 A	Baseplate
AVD85B-48S05TL	36 - 75 Vin	5 Vdc	17 A	SMT pin with reel tape package

Notes:
Standard version is negative enable
-6 = 3.8 mm pin length
-T = Surface mount, reel tape package
-L = RoHS 6 compliance
-P = Positive enable

WORLDWIDE OFFICES

Americas
2900 S.Diablo Way
Tempe, AZ 85282
USA
+1 888 412 7832

Europe (UK)
Waterfront Business Park
Merry Hill, Dudley
West Midlands, DY5 1LX
United Kingdom
+44 (0) 1384 842 211

Asia (HK)
14/F, Lu Plaza
2 Wing Yip Street
Kwun Tong, Kowloon
Hong Kong
+852 2176 3333

ARTESYN™
EMBEDDED TECHNOLOGIES

www.artesyn.com

Artesyn Embedded Technologies, Artesyn and the Artesyn Embedded Technologies logo are trademarks and service marks of Artesyn Embedded Technologies, Inc. All other names and logos referred to are trade names, trademarks, or registered trademarks of their respective owners. Specifications are subject to change. © 2017 Artesyn Embedded Technologies, Inc. All rights reserved. For full legal terms and conditions, please visit www.artesyn.com/legal.

For more information: **www.artesyn.com/power**
For support: **productsupport.ep@artesyn.com**