

POWER

ADO300 Series

300 Watt 1/8 Brick DC-DC Converter

Data Sheet

Total Power: 300 Watt
(11.77 V @ 26 A)
Input Voltage: 36 - 75 V
Single Output: 11.82 V @ 50%
load

SPECIAL FEATURES

- 300 W continuous power
- Ultra high efficiency
- 36 - 75 Vdc Telecom input range
- Baseplate version for contact cooling or heatsink mounting
- Parallel and Droop current sharing
- Remote output sense
- Fully regulated output voltage
- No minimum load requirement
- Remote control function
- Low ripple and noise
- Fixed switching frequency
- High capacitive load capability
- Pre-bias start-up capability
- Excellent thermal performance
- High reliability
- RoHS 6 compliant
- UL94 V-0 materials
- Two-year warranty (consult factory for extended terms)

SAFETY

- EN60950
- CSA
- CE
- UL



DIGITAL
DC DC

Electrical Specifications

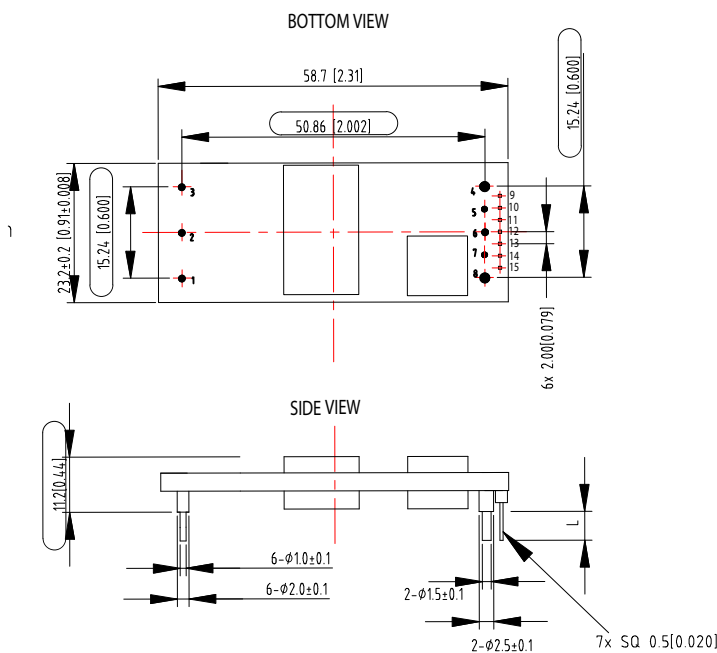
Input	
Input voltage	36 - 75 Vdc
Input surge	95 V / 100 mSec
Input UVLO	Turn-on: 34 Vdc typical Turn-off: 32 Vdc typical Hysteresis: 2 Vdc typical
Efficiency (48 Vin, 25 °C ambient)	95.2% @ 100 load; 95.5% @ 60% load
I/O insulation	Basic insulation
I/O isolation	1500 Vdc
Output	
Output voltage (Vin = 48 V)	11.82 V half load set point
Output current maximum	26 A
Noise/ripple	70 mV pk-pk typical
Overtemperature protection	125 °C typical
Overvoltage protection method / OVP operation	14 - 17 V window / Hiccup and auto restart
Overcurrent protection voltage method / OCP operation	28 - 48 A window / Hiccup and auto restart
Control	
Enable	TTL compatible (negative logic)
Switching frequency	150 KHz fixed frequency
Pre-bias start-up	0% Vout - 95% Vout full load
Parallel connection & droop share	Droop share

Ordering Information

Model number	Input voltage	Output voltage set point	Output current	Efficiency
ADO300-48S12-6L	36 - 75 Vdc	11.77 Vdc	26 A	95.2% (full load)
ADO300-48S12B-6L	36 - 75 Vdc	11.77 Vdc	26 A	95.2% (full load)
ADO300-48S12-6LI	36 - 75 Vdc	11.77 Vdc	26 A	95.2% (full load)
ADO300-48S12B-6LI	36 - 75 Vdc	11.77 Vdc	26 A	95.2% (full load)

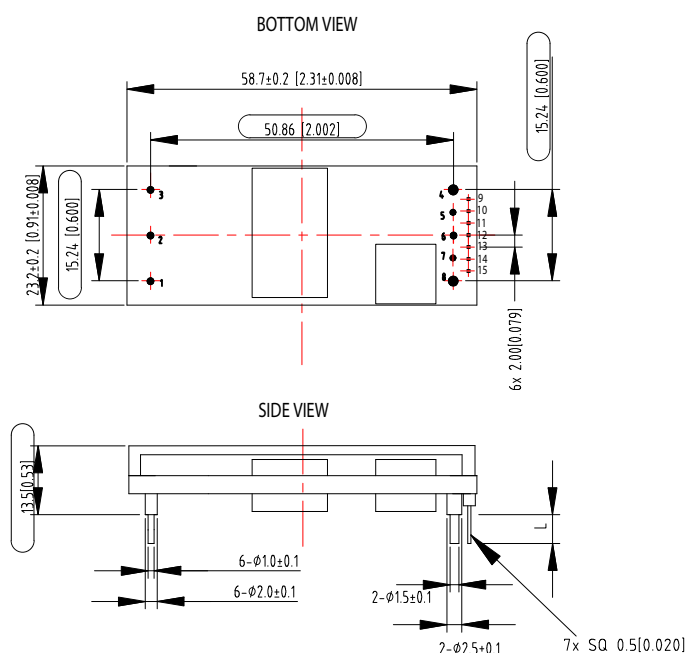
B = Baseplate
 -6 = 3.8 mm pin length
 I = PMBus interface version
 Default negative logic

Mechanical Drawing - Open Frame Module



UNIT: mm[inch] L=3.8±0.25mm
 TOLERANCE: X.Xmm±0.5mm[X.XX in.±0.02in.]
 X.XXmm±0.25mm[X.XXX in.±0.01in.]

Mechanical Drawing - with Baseplate



UNIT: mm[inch] L=3.8±0.5mm
 TOLERANCE: X.Xmm±0.5mm[X.XX in.±0.02in.]
 X.XXmm±0.25mm[X.XXX in.±0.01in.]

Notes:

- Dimensions within the box are critical dimensions.
- No pin 9-15 for ADO300-48S12B-6L; ADO300-48S12B-6LI with pin 9-15

Pin Assignments

Pin #	Name	Function	Optional
1	+Vin	Positive input voltage	
2	Remote On/Off	Remote control	
3	-Vin	Negative input voltage	
4	-Vo	Negative output voltage	
5	-Sense	Remote sense negative	Yes
6	Trim/C1	Voltage adjustment	Yes
7	+Sense	Remote sense positive	Yes
8	+Vo	Positive output voltages	
9	C2	Digital	Yes
10	Sig_Gnd	Digital	Yes
11	Data	Digital	Yes
12	SMBAlert	Digital	Yes
13	Clock	Digital	Yes
14	Addr1	Digital	Yes
15	Addr0	Digital	Yes

Pin Length Options

Device code suffix	Pin Length
-4	4.6 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 temperature	-40 to +85 °C
Storage temperature	-55 to +125 °C
MTBF	2 million hours

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