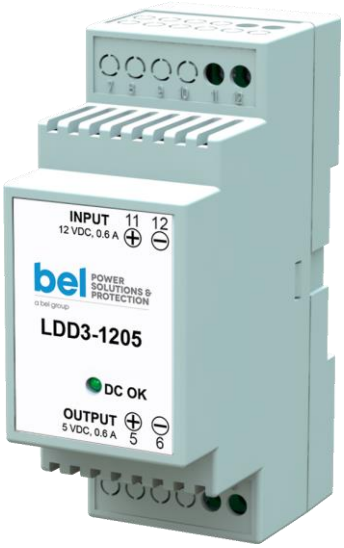
LDD3-1205

3W DIN Rail DC-DC Converter

The LDD family of DC/DC converters is an optimal response to the applications where compactness and high reliability are requested. All are isolated and offer a wide range of input voltages.

Simple but elegant look and ease of installation make them ideal for various industrial applications.



RoHS Compliant

Key Features & Benefits

- Compact Design
- High Efficiency
- Plastic Enclosure, circuit breaker shape
- Overload 150%
- Up to 70°C Operating Temperature

Applications

- Industrial machine control
- Process control
- Energy management
- Remote control systems

1. MODEL SELECTION

MODEL	INPUT VOLTAGE	INPUT CURRENT	OUTPUT VOLTAGE	OUTPUT CURRENT
LDD3-1205	12 VDC (9 - 18 VDC)	0.6 A	5 VDC	0.6 A

2. INPUT SPECIFICATIONS

Technical parameters are typical, measured in laboratory environment at 25°C and 12 VDC, at nominal values, after minimum 5 minutes of operation.

PARAMETER	DESCRIPTION / CONDITION	SPECIFICATION
Input DC Voltage	Rated Operating	12 VDC 9 - 18 VDC
Input DC Current		0.6 A
Internal Protection Fuse	Not user replaceable	Fuse 1.25 AT / 250 VAC

3. OUTPUT SPECIFICATIONS

PARAMETER	DESCRIPTION / CONDITION	SPECIFICATION
Output Power		3 W
Rated Voltage		5 VDC (± 3% max.)
Continuous Current		0.6 A
Overload Limit		0.85 A
Short Circuit Peak Current		1.1 A
Load Regulation		≤ 1%
Ripple & Noise[1]		≤ 30 mVpp
Hold up Time		≥ 10 ms
Protections	Overload, short circuit with hiccup mode	
Status Signals	Green LED = DC OK	
Parallel Connection	Possible for redundancy (with external ORing module)	
Efficiency		> 68%
Dissipated Power		< 1.4 W

[1] Ripple and Noise are measured with 20 MHz bandwidth, probe terminated with a 0.1µF MKP parallel capacitor.

NOTE: Power rating, losses, efficiency, ripple, thermal behaviour and start-up may change outside of the nominal rated input range. Contact factory for details.

4. ENVIRONMENTAL, EMC & SAFETY SPECIFICATIONS

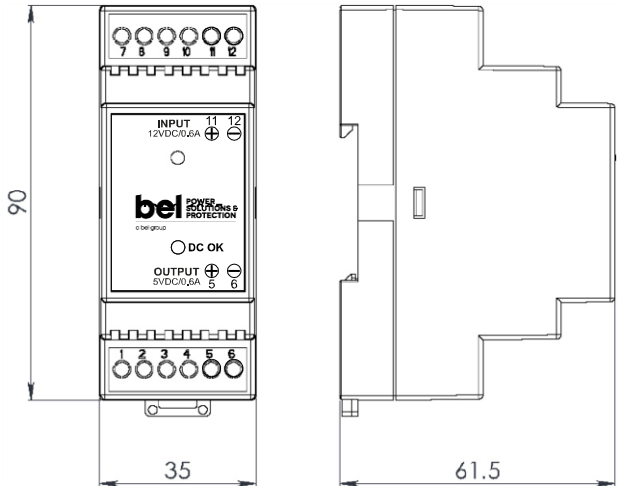
PARAMETER	DESCRIPTION / CONDITION	SPECIFICATION
Temperature	Operating (Start-up type tested: - 40°C)* Storage	- 40°C to + 70°C - 40°C to + 80°C
Derating		0.08 W/°C over 60°C
Humidity	Non-condensing	5 - 95% RH
Life Time Expectancy	At 25°C ambient full load	211118 h (24.1 years)
Overvoltage Category Pollution Degree		I (EN50178) 2 (IEC60664-1)
Protection Class		Class II
Isolation Voltage	Input to Output	1.5 kVDC

Safety Standards & Approvals		UL508 (reference) EN60950 (reference) EN50178 (reference)	
EMC Standards	Emission	EN55011 (CISPR11) EN55022 (CISPR22)	Class B Class B
	Immunity	EN61000-4-2 EN61000-4-3 EN61000-4-4 EN61000-4-5 EN61000-4-11	Level 3 Level 3 Level 4 Level 2 Level 2
Protection Degree		EN60529	IP20
Vibration sinusoidal		IEC 60068-2-6	5-17.8 Hz: ±1.6 mm; 17.8-500 Hz: 2g 2Hours / axis (X,Y,Z)
Shock		IEC 60068-2-27	30 g 6 ms, 20 g 11 ms; 3 bumps / direction, 18 bumps total

* Possible with load derating.

5. MECHANICAL SPECIFICATIONS

PARAMETER	DESCRIPTION / CONDITION	SPECIFICATION
Weight		100 g
Dimensions		35 x 90 x 61.5 mm
Mounting Rail		IEC 60715/H15/TH35-7.5(-15)
Connection Terminals	Screw type Header (24 - 12 AWG)	2.5 mm²
Case Material	ABS, Flame retardant UL94 V-0	



INPUT CONNECTION	OUTPUT CONNECTION
+ = Positive DC (11)	+ = Positive DC (5)
- = Negative DC (12)	- = Negative DC (6)

Figure 1. Mechanical Drawing

For more information on these products consult: tech.support@psbel.com

NUCLEAR AND MEDICAL APPLICATIONS - Products are not designed or intended for use as critical components in life support systems, equipment used in hazardous environments, or nuclear control systems.
TECHNICAL REVISIONS - The appearance of products, including safety agency certifications pictured on labels, may change depending on the date manufactured. Specifications are subject to change without notice.

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