

# 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



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## 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 ( $\pm$ 3% max.)
Continuous Current		0.6 A
Overload Limit		0.85 A
Short Circuit Peak Current		1.1 A
Load Regulation		$\leq$ 1%
Ripple & Noise <sup>1</sup>		$\leq$ 30 mVpp
Hold up Time		$\geq$ 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

<sup>1</sup> Ripple and Noise are measured with 20 MHz bandwidth, probe terminated with a 0.1 $\mu$ F 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		I (EN50178)
Pollution Degree		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)	
	Immunity	EN61000-4-2	Class B
		EN61000-4-3	Class B
		EN61000-4-4	Level 3
		EN61000-4-5	Level 3
EN61000-4-11	Level 4		
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 mm <sup>2</sup>
Case Material	ABS, Flame retardant UL94 V-0	

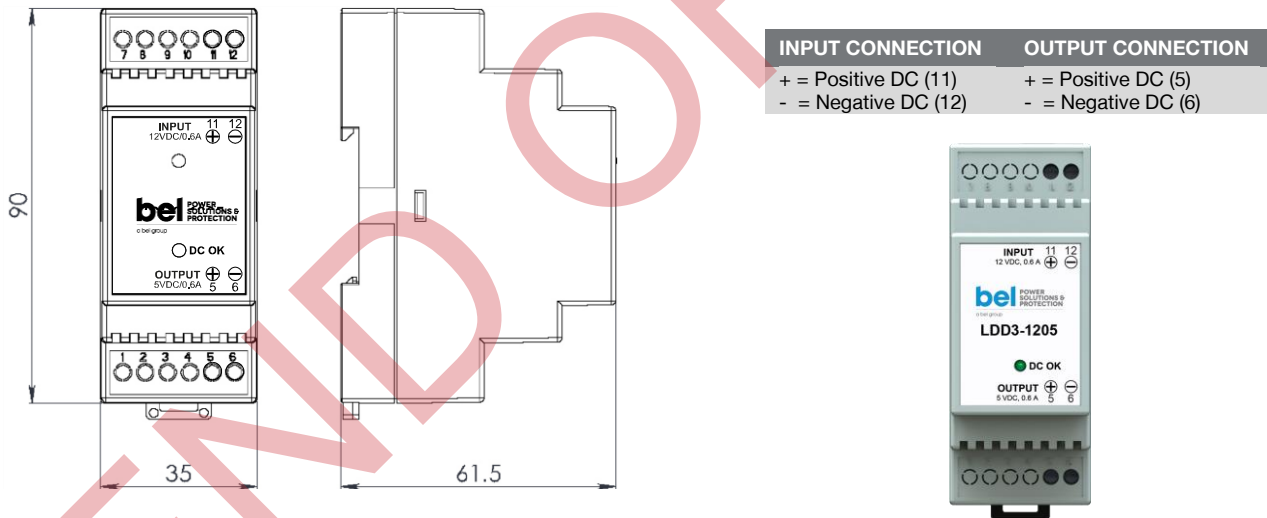


Figure 1. Mechanical Drawing

For more information on these products consult: [tech.support@psbel.com](mailto: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.