

LDD240 Series

240W 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.



Key Features & Benefits

- High efficiency and compact size
- Wide Input voltage range
- Isolated topology
- Overload 150%
- Excellent reliability

Applications

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



1. MODEL SELECTION

MODEL	INPUT VOLTAGE	INPUT CURRENT	OUTPUT VOLTAGE	OUTPUT CURRENT
LDD240-11024	110 VDC (90 - 148 VDC)	2.6 A – 3.6 A	24 VDC	10 A

2. INPUT SPECIFICATIONS

Technical parameters are typical, measured in laboratory environment at 25°C at 110 VDC and nominal values, after minimum 5 minutes of operation.

PARAMETER	DESCRIPTION / CONDITION	SPECIFICATION
Input DC Voltage Range	Rated Operating	110 VDC 90 - 148 VDC
Input DC Current		V _{in} = Min 3.6 A V _{in} = Max 2.6 A
Input Overvoltage Protection	Active shutdown	> 150 VDC
Inrush Peak Current		< 150 A
Internal Protection Fuse	Not user replaceable	Fuse AT 5 A
Recommended External Protection	Use DC rated devices	MCB 6 A C curve

3. OUTPUT SPECIFICATIONS

PARAMETER	DESCRIPTION / CONDITION	SPECIFICATION
Output Power		240 W
Rated Voltage (Adjustable Voltage Range)		24 VDC (23 – 27.5 VDC)
Continuous Current		10 A
Overload Limit		15 A
Short Circuit Peak Current		21 A
Load Regulation		≤ 1.5%
Ripple & Noise ¹		≤ 50 mVpp
Hold up Time		≥ 10 ms
Protections	Overload/short circuit: Hiccup mode Thermal protection Output overvoltage	
Output Over Voltage Protection		≥ 33 VDC
Status Signals	DC OK - green LED OVERLOAD - red LED DC OK - dry contact (NO, 24 VDC / 1 A)	
Parallel Connection	Possible for power or redundancy (includes internal ORing circuit)	
Efficiency		> 88 %
Dissipated Power		< 31 W

¹ Ripple and Noise are measured with 20 MHz bandwidth, probe terminated with a 0.1 µF 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	
Operating Temperature	Overtemperature protection (Start-up type tested: - 40°C) ²	- 40 to + 70°C	
Storage Temperature		- 40 to + 80°C	
Derating		- 3 W/°C over 50°C	
Humidity	Non-condensing	5 - 95% RH	
Life time expectation	At 25°C ambient	64000 h (7.3 years)	
Overtoltage Category		I (EN50178)	
Pollution Degree		2 (IEC60664-1)	
Protection Class		Class I	
Isolation Voltage	Input to Output	2.1 kVDC	
	Input to Ground	1.41 kVDC	
	Output to Ground	0.75 kVDC	
Safety Standards & Approvals	UL508 (reference)		
	EN60950 (reference)		
	EN50178 (reference)		
EMC Standards	Emission	Class A	
	Immunity	EN55022 (CISPR11)	Class A
		EN55011 (CISPR22)	Level 3
		EN61000-4-2	Level 3
		EN61000-4-3	Level 2
		EN61000-4-4	Level 2
EN61000-4-5	Level 2		
EN61000-4-11	Level 2		
Protection Degree	EN60529	IP20	
Vibration sinusoidal	IEC 60068-2-6	5-17.8 Hz: ±1.6 mm; 17.8-500 Hz: 2 g 2Hours / axis (X,Y,Z)	
Shock	IEC 60068-2-27	30 g 6 ms, 20 g 11 ms; 3 bumps / direction, 18 bumps total	

² Possible at nominal voltage with load deration.

5. MECHANICAL SPECIFICATIONS

PARAMETER	DESCRIPTION / CONDITION	SPECIFICATION
Weight		800 g
Dimensions		69 x 115 x 110 mm
Mounting Rail		IEC 60715/H15/TH35-7.5(-15)
Connection Terminals	Screw type pluggable (24 - 12 AWG)	2.5 mm ²
Case Material	Aluminum	

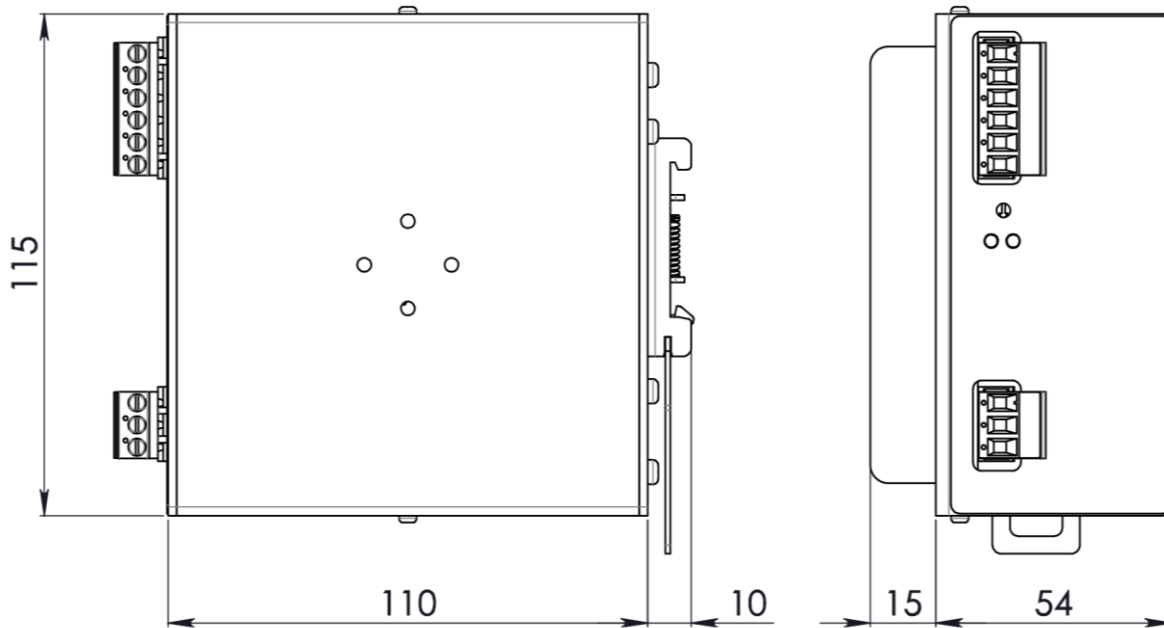
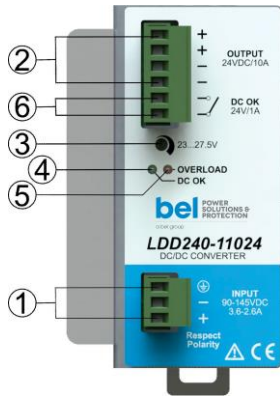


Figure 1. Mechanical Drawing

6. PIN LAYOUT & DESCRIPTION



PIN	DESCRIPTION
1	DC input
2	DC output (Load)
3	Output voltage adjustment
4	Green LED: Output OK
5	Red LED: Overload
6	Diagnostic Output (dry contacts, NC out OK)

INPUT CONNECTION	OUTPUT CONNECTION
+ = Positive DC	+ = Positive DC
- = Negative DC	- = Negative DC
⊕ = Earth ground	
	Signaling: DC OK (dry contact) NO COM

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.



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

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