

LDE160-26

160W Wide Range DIN Rail Power Supply

LDE160-26 is a wide range DIN rail switching power supply with output power up to 160 W offering unmatched flexibility for many applications.

Its compact size, high efficiency, excellent reliability together with easy installation due to pluggable connectors makes it market leader for various industrial applications.

LDE160-26 is Class I isolation device suitable for SELV and PELV circuitry and is designed to be mounted on DIN rail and installed inside a protective enclosure.



Key Features & Benefits

- Single or two-phase AC input 187 - 528 VAC
- Latched overload and short-circuit protection
- Designed according to EN12015 and EN12016 for elevators use
- High efficiency

Applications

- Industrial Control
- Instrumentation Equipment



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1. MODEL SELECTION

MODEL	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT
LDE160-26	380 VAC (range 187 - 528 VAC)	26 VDC (Fixed)	6.0 A

2. INPUT SPECIFICATIONS

Specifications are measured at 25°C and 230 VAC, typical unless otherwise stated.

PARAMETER	DESCRIPTION / CONDITION	SPECIFICATION
Input AC Voltage	Nominal – single or two phases Range	380 VAC 187 - 528 VAC
Input Frequency		47 - 63 Hz
Input AC Rated Current	V _{in} = 187 VAC V _{in} = 380 VAC V _{in} = 528 VAC	1.8 A 1.0 A 0.8 A
Inrush Peak Current		≤ 30 A
Touch (Leakage) Current		≤ 0.8 mA
Internal Protection Fuse		None, external fuse must be provided
External Protection on AC Line	It is strongly recommended to provide external surge arresters (SPD) according to local regulations.	Fuse 4AT or MCB 6A C curve

3. OUTPUT SPECIFICATIONS

PARAMETER	DESCRIPTION / CONDITION	SPECIFICATION
Output Power		160 W
Output Voltage		26 VDC (Fixed)
Continuous Current		6 A
Overload Limit	Latched protection	Up to 10 A / 5 s
Short Circuit Peak Current		25 A
Load Regulation		≤ 1%
Ripple & Noise ¹		≤ 150 mVpp
Hold up Time	V _{in} = 230 VAC V _{in} = 480 VAC	≥ 20 ms ≥ 110 ms
Output Overvoltage Protection		≥ 33 VDC
Protections	Overload and overvoltage latched off Thermal protection Output overvoltage	
Status Signals	Green LED - DC OK Red LED - ALARM	
Parallel Connection	Possible for redundancy (with external ORing module)	
Efficiency		> 88%
Dissipated Power		< 25 W

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

4. ENVIRONMENTAL, EMC & SAFETY SPECIFICATIONS

PARAMETER	DESCRIPTION / CONDITION	SPECIFICATION	
Operating Temperature ²		- 40°C to + 50°C	
Storage Temperature		- 40°C to + 80°C	
Derating		- 15 W/°C over 45°C	
Humidity	Non-condensing	5 – 95% RH	
Life Time Expectancy	At 25°C ambient, full load	77 726 h (8.8 years)	
Overvoltage Category	EN50178	III	
Pollution Degree	IEC60664-1	2	
Safety Standards & Approvals	UL508 (reference) EN60950 (reference) EN50178 (reference)		
EMC Standards	Emission:	EN55011 (CISPR11)	Class A
		EN55022 (CISPR22)	Class A
		EN12015	Class A
		EN61000-4-2	Level 3
	Immunity:	EN61000-4-3	Level 3
		EN61000-4-4	Level 3
		EN61000-4-5	Level 3
		EN61000-4-11	Level 3
	EN12016	Level 2	
Isolation Voltage	Input to output	4.2 kVDC	
	Input to ground	2.2 kVDC	
	Output to ground	0.75 kVDC	
Protection Degree	EN60529	IP20	
Vibration Sinusoidal	IEC 60068-2-6	(5-17.8Hz: ±1.6mm; 17.8-500Hz: 2g 2Hours / axis (X,Y,Z))	
Shock	IEC 60068-2-27	(30g 6ms, 20g 11ms; 3 bumps / direction, 18 bumps total)	

5. MECHANICAL SPECIFICATIONS

PARAMETER	DESCRIPTION / CONDITION	SPECIFICATION
Weight		0.5 kg
Dimensions (W x H x D)		108.5 x 110.0 x 74.5 mm
Connection Terminals	Screw type (24 - 12 AWG)	2.5 mm ²
Case Material	Aluminum	IEC 60715/H15/TH35-7.5(-15)
Mounting Rail		
Rail Mounting Information		Vertical, allow 10mm spacing between adjacent items

NOTES:

Technical parameters are typical, measured in laboratory environment at 25°C and 400 VAC / 50 Hz.
Power rating, losses, efficiency, ripple, thermal behaviour and start-up may change outside of the nominal rated input range.
Contact factory for details.

² Start-up type tested: - 40°C, possible at nominal voltage with load derating.

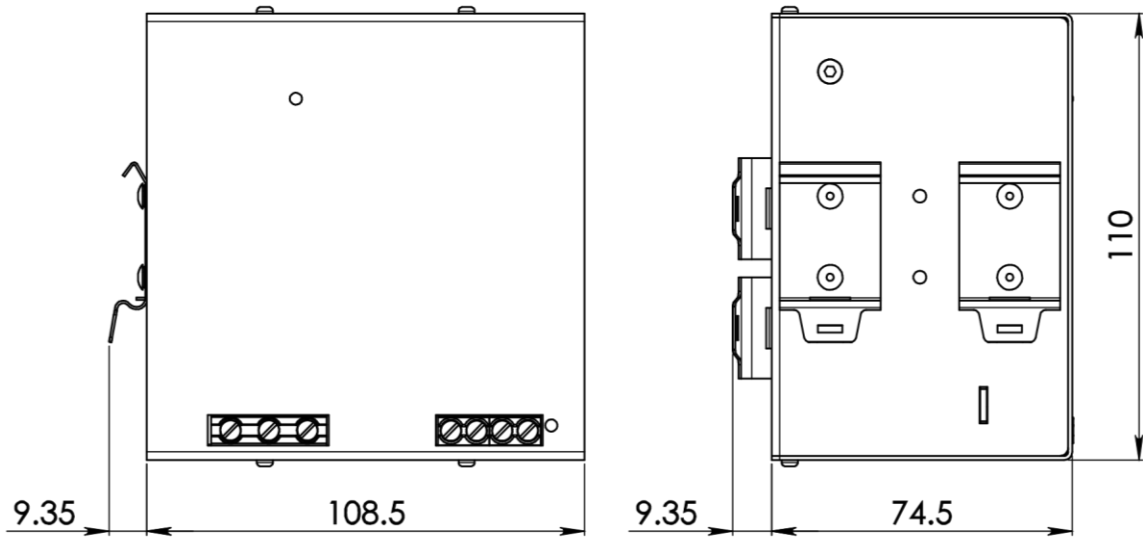


Figure 1. Mechanical Drawing

6. PIN LAYOUT & DESCRIPTION



INPUT CONNECTION	OUTPUT CONNECTION
Single phase: L1 = Line N = Neutral I = Earth ground	+ = Positive DC - = Negative DC
Two phases: L1 = Phase 1 L2 = Phase 2 I = Earth ground	

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.