

SDN-P Specifications (Single Phase), 12 Vdc and 48 Vdc Output

Description	Catalog Number		
	SDN 9–12–100P	SDN 5–48–100P	SDN 16–12–100P
Input			
Nominal Voltage	115/230 Vac auto select		
–AC Range	85-132/176-264 Vac; 210 - 375 Vdc		
–DC Range ¹	210 - 375 Vdc		
–Frequency	47 - 63 Hz		
Nominal Current ²	2.0 A / 1.5 A	4 A / 2.3 A	3.3 A / 1.7 A
–Inrush current max.	Typ. < 20 A	typ. < 40 A	
Efficiency (Losses ³)	> 84% typ. (17.28 W)	> 88% typ. (28.8 W)	> 84% typ. (30.72 W)
Power Factor Correction	Units fulfill EN61000-3-2		
Output			
Nominal Voltage	12 V (11.6-15.2 Vdc Adj.)	48 V (35.8 - 52 Vdc Adj.)	12 V (11.6-14.2 Vdc Adj.)
Tolerance	< ±2 % overall (combination Line, load, time and temperature related changes)		
–Line Regulation	< 0.5%		
–Load Regulation	< 0.5%		
–Time & Temp. Drift	< 1%		
Ripple ⁴	< 50 mVpp		
Overvoltage Protection	< 16 Vdc with auto-recovery	< 60 Vdc with auto-recovery	< 16 Vdc with auto-recovery
Nominal Current	9 A (108 W)	5 A (240 W)	16 A (192 W)
–Current Limit	110% of nominal - Fold Forward (Current rises, voltage drops to maintain constant power during overload up to max peak current)		
Holdup Time ⁵	>20 ms @ full load		
Parallel Operation	Supplies will not be damaged with parallel operation		
Power Back Immunity	16 Vdc	60 Vdc	16 Vdc
General			
EMC: –Emissions	EN61000-6-3, EN61204-3, EN55022 Class B, EN61000-3-2, EN61000-3-3		
–Immunity	EN61000-6-2, EN61204-3, EN55024, IEC61000-4-2, IEC61000-4-3, IEC61000-4-4, IEC61000-4-5, IEC61000-4-6, IEC61000-4-8, IEC61000-4-11		
Temperature	Storage: -25 to +85°C, Operation -10 to +60°C full power; with linear derating to half power from 60 to 70°C (Convection cooling, no forced air required). Operation up to 50% load permissible with sideways or front side up mounting orientation.		
Humidity	< 90% RH, non-condensing; IEC 68-2-2, 68-2-3		
MTBF:	>500,000 hrs		
– Standard	Telcordia/Bellcore, Issue Case 3 @ 25°C		
Warranty	5 year limited warranty		
General Protection/Safety	Protected against continuous short -circuit, continuous overload, continuous open circuit. Protection Class 1 (IEC536), Degree of Protection IP20 (IEC 529) Safe low voltage: SELV (acc. EN60950)		
Status Indicators (Visual)	Green LED on when $V_{out} > 75%$ (with ± 5% tolerance) of nominal output voltage		
Status Indicators (Relay)	Normally Open solid state relay - signal active when $V_{out} > 70%$ of nominal output voltage (rated up to 200 mA, 60 Vdc)		
Installation			
Fusing	Internally fused		
–Input			
–Output	Outputs are capable of providing high currents for short periods of time for inductive load startup or switching. Fusing may be required if Nominal O/P current rating cannot be tolerated. Continuous current overload allows for reliable fuse tripping.		
Mounting	Simple snap-on to DIN TS35/7.5 or TS35/15 rail system. Unit should handle normal shock and vibration of industrial use and transportation without falling off the rail.		
Connections	Input: Screw terminals, connector size range: 16-10 AWG (1.5-6mm ²) for solid conductors. Output: Two terminals per output, connector size range: 16-10 AWG (1.5-6mm ²) for solid conductors.		
Case	Fully enclosed metal housing with fine ventilation grid to keep out small parts.		
–Free Space	70 mm above and below, 25 mm left and right, 15mm in front		
H x W x D inches (mm)	4.88 × 2.56 × 4.55 (124.0 × 65.0 × 116.0)	4.88 × 3.23 × 4.55 (124.0 × 83.0 × 116.0)	
Weight lbs (kg)	2.4 (1.10)	3.3 (1.50)	

1. Not UL listed for DC input.

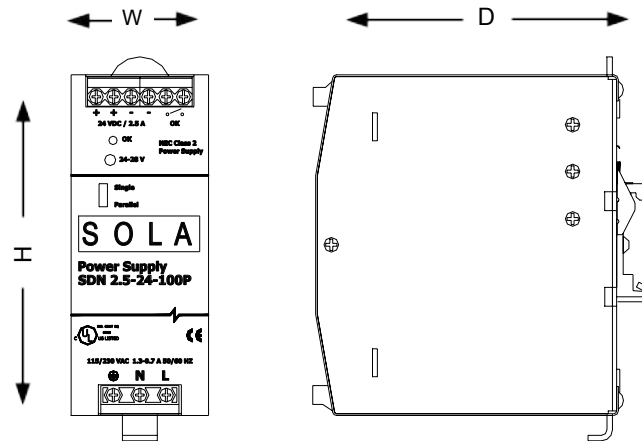
2. Input current ratings are conservatively specified with low input, worst case efficiency and power factor.

3. Losses are heat dissipation in watts at full load, nominal input line.

4. Ripple/noise is stated as typical values when measured with a 20 MHz, bandwidth scope and 50 Ohm resistor.

5. Full load, 100 Vac Input @ $T_{amb} = +25^{\circ}\text{C}$

SDN-P Series Dimensions



Catalog Number	Dimensions – inches (mm)		
	H	W	D
12 Vdc			
SDN 9-12-100P	4.88 (124.0)	2.56 (65.0)	4.55 (116.0)
SDN 16-12-100P	4.88 (124.0)	3.23 (83.0)	4.55 (116.0)
24 Vdc			
SDN 2.5-24-100P	4.88 (124.0)	1.97 (50.0)	4.55 (116.0)
SDN 4-24-100LP	4.88 (124.0)	2.56 (65.0)	4.55 (116.0)
SDN 5-24-100P	4.88 (124.0)	2.56 (65.0)	4.55 (116.0)
SDN 10-24-100P	4.88 (124.0)	3.26 (83.0)	4.55 (116.0)
48 Vdc			
SDN 5-48-100P	4.88 (124.0)	3.23 (83.0)	4.55 (116.0)