

FEATURES

- Single Output
- RoHS Compliant
- Brown Out Protection
- True DC OK Signal Output
- Withstand 5G Vibration Test
- Universal AC Input 88~264VAC
- Installed on DIN Rail TS35 / 7.5 or 15
- UL1310 Class 2 Power Unit / LPS Pass
- High Operating Temperature up to 70°C
- UL508 (Industrial Control Equipment) Listed
- High Efficiency, Long Life, and High Reliability
- All Using 105°C Long Life Electrolytic Capacitors
- Short Circuit, Over Load, and Over Voltage Protection



DESCRIPTION

The PSDN-40 series of AC/DC DIN Rail power supplies provides 40 Watts of continuous output power. All models have a single output and a universal input range. All models are over load, over voltage, and short circuit protected.

SPECIFICATIONS: PSDN-40 Series	
All specifications are based on 25°C, Nominal Input Voltage, and Maximum Output Current unless otherwise noted. We reserve the right to change specifications based on technological advances.	
INPUT SPECIFICATIONS	
Input Voltage Range <i>(See Note 3)</i>	88 ~ 264VAC or 124 ~ 370VDC
Input Frequency	47 to 63Hz
AC Current (typical)	0.8A at 115VAC 0.4A at 230VAC
Inrush Current (typical)	Cold Start 30A at 115VAC 60A at 230VAC
Leakage Current	< 1mA at 230VAC
OUTPUT SPECIFICATIONS	
Output Voltage	See Table
Output Power	See Table
Output Voltage Adjustability	±10%
Voltage Tolerance <i>(See Note 2)</i>	±1%
Line Regulation	±1%
Load Regulation	±1%
Output Current	See Table
Ripple & Noise <i>(See Note 1)</i>	See Table
Setup, Rise Time	< 800ms, <50ms @ 230VAC and full load
Hold Up Time (typical)	> 16ms at 115VAC and full load, > 32ms at 230VAC and full load
PROTECTION	
Over Voltage Protection	115% ~ 150% rated output voltage Protection Type: Latch-off mode
Over Load Protection	> 105°C rated output power Protection type: constant current limiting, automatically after fault condition is removed.
GENERAL SPECIFICATIONS	
Efficiency	See Table
Withstand Voltage	I/P - O/P: 4242VDC, I/P - FG: 2121VDC for 1 minute
Isolation Resistance	I/P - O/P, I/P - FG, O/P - FG: 100MΩ / 500VDC
DC OK Signal	Relay contact (30VDC / 1A, 120VAC / 1A)
ENVIRONMENTAL SPECIFICATIONS	
Working Temperature	-20°C ~ +70°C (refer to output load derating curve)
Storage Temperature	-40°C ~ +85°C
Working Humidity	20% ~ 90% RH, non-condensing
Storage Humidity	10% ~ 95% RH
Vibration	10 ~ 500Hz, 5G 0.5Oct/min, period for 60 min., Each along X,Y,Z axes.
Cooling	Free Air Convection
Temperature Coefficient	±0.03% / °C (0 ~ 50°C)
PHYSICAL SPECIFICATIONS	
Packing	0.28Kg
Dimensions (W x H x D)	1.57 x 3.54 x 3.90 inches (40 x 90 x 99 mm)
Connection	I/P: 3 poles, O/P: 6 poles screw DIN terminal
SAFETY & EMC <i>(See Note 4)</i>	
Safety Standards	UL 508, TUV EN60950-1, UL1310 NEC class 2 compliant
EMI Conduction & Radiation	EN55022: 2006 (Class B), EN61204-3: 2000, EN61000-6-3: 2007
Harmonic Current	EN61000-3-2,3: 2006
EMS Immunity	EN55024, EN61204-3: 2000, EN61000-6-1: 2007 (EN61000-4-2,3,4,5,6,8,11)

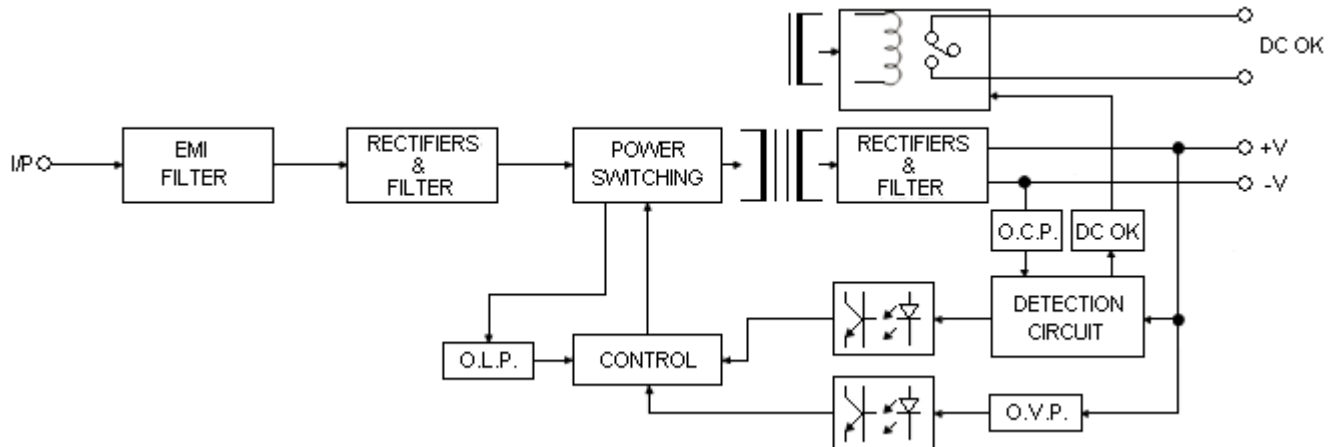
MODEL SELECTION GUIDE

Model Number	Input Voltage	Output Voltage	Output Current	Rated Output Power	Ripple & Noise ⁽¹⁾	Efficiency
PSDN-40-12	88 ~ 264VAC (124 ~ 370VDC)	12 VDC	3.4A	40.8W	100mVp-p	85%
PSDN-40-15	88 ~ 264VAC (124 ~ 370VDC)	15 VDC	2.7A	40.5W	100mVp-p	85%
PSDN-40-24	88 ~ 264VAC (124 ~ 370VDC)	24 VDC	1.7A	40.8W	120mVp-p	86%
PSDN-40-48	88 ~ 264VAC (124 ~ 370VDC)	48 VDC	0.85A	40.8W	180mVp-p	87%

NOTES

1. Ripple & noise is measured at 20MHz bandwidth by using a 12" twisted pair-wire terminated with a 0.1µF & 47µF capacitors in parallel.
2. Tolerance includes set up tolerance, line regulation, and load regulation.
3. Derating may be needed under low input voltages. Please check the derating curve for more details.
4. The power supply is considered a component, which will be installed into final equipment. The final equipment must be re-confirmed that it still meets EMC directives.
5. In parallel connection only one unit may operate if the total output load is less than 5% of the rated load.

BLOCK DIAGRAM

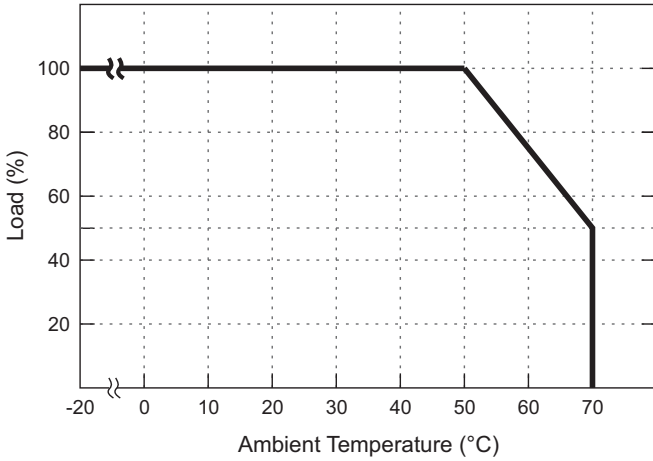


DC OK RELAY CONTACT

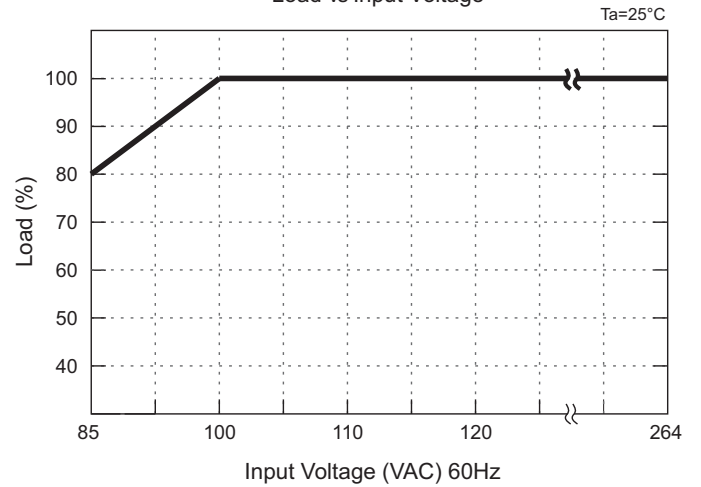
Contact Close	When the output voltage reaches the adjusted output voltage
Contact Open	When the output voltage drops below 90% output voltage
Contact Ratings (max.)	30V / 1A resistive load

DERATING CURVES

Load vs Temperature

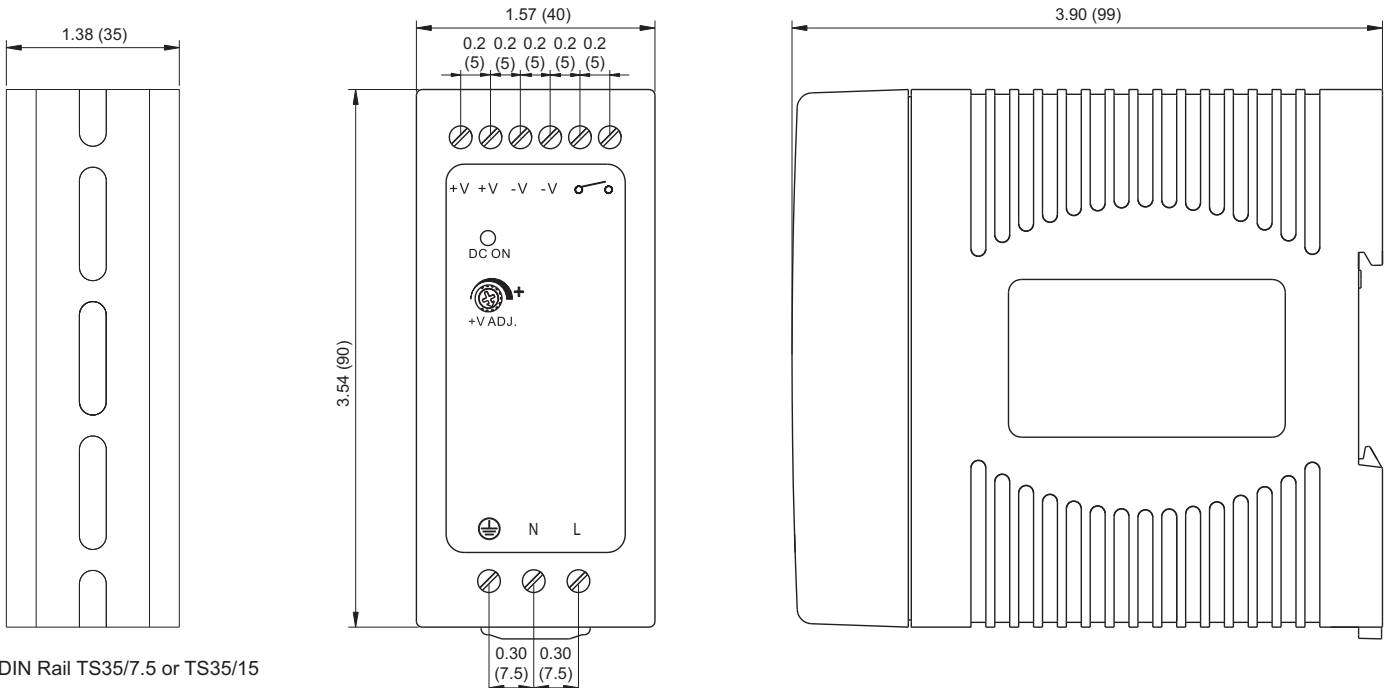


Load vs Input Voltage



MECHANICAL DRAWING

Unit: inches (mm)



Install DIN Rail TS35/7.5 or TS35/15