



■ **Features :**

- Universal AC input 88 - 264Vac
- Installed on DIN rail TS35 / 7.5 or 15
- Brown-out protection
- Protections: Short circuit / Over load / Over voltage
- All using 105°C long life electrolytic capacitors
- High operation temperature up to 70°C
- True DC OK signal output
- Withstand 2G vibration test
- High efficiency , long life and high reliability
- 3 years warranty
- UL508 (Industrial control equipment) listed
- UL1310 Class 2 Power unit / LPS pass



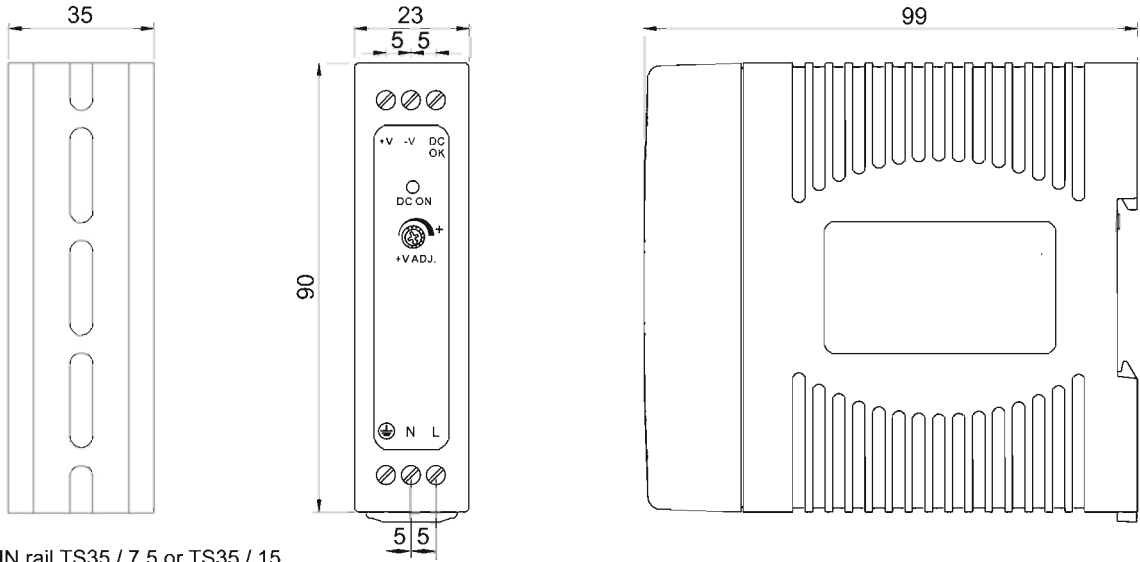
MODEL		DN-20-12	DN-20-15	DN-20-24
Output	DC Voltage Range	12V	15V	24V
	Rated Current	1.7A	1.4A	1A
	Current Range	0 ~ 1.7A	0 ~ 1.4A	0 ~ 1A
	Rated Power	20.4W	21W	24W
	Ripple & Noise (max.)	Note.2 100 mVp-p	100 mVp-p	120 mVp-p
	Voltage Adj. Range	10.8 ~ 13.2V	13.5 ~ 16.5V	21.6 ~ 26.4V
	Voltage Tolerance	Note.3 ±1%	±1%	±1%
	Line Regulation	±1%	±1%	±1%
	Load Regulation	±1%	±1%	±1%
	Setup, Rise Time	<800ms, <100ms/230VAC at full load		
Hold Up Time (Typ.)	> 32ms / 230VAC >16ms / 115VAC at full load			
Input	Voltage Range	Note.4 88V ~ 264VAC	124 ~ 370VDC	
	Frequency Range	47Hz ~ 63Hz		
	Efficiency (Typ.)	83%	85%	86%
	AC Current (Typ.)	0.45 A / 115VAC	0.32A / 230VAC	
	Inrush Current (Typ.)	20A / 115VAC	40A / 230VAC	
Leakage Current	< 1mA / 230VAC			
Protection	Over Load	> 105 % rated output power Protection type : constant current limiting, automatically after fault condition is removed		
	Over Voltage	115% ~ 150% rated output voltage Protection type : latch-off mode		
Environment	Working Temp.	-20°C ~ +70°C (Refer to output load de-rating curve)		
	Working Humidity	20 ~ 90% RH non-condensing		
	Storage Temp., Humidity	-40 ~ +85°C, 10 ~95% R.H		
	Temp.Coefficient	±0.03%/°C (0 ~ 50°C)		
Vibration	10 ~ 500Hz, 2G 10min./1 cycle, period for 60 min. Each along X,Y,Z axes			
Safety & EMC	Safety Standards	UL508, TUV EN60950-1 : 2006+A11, UL1310 NEC class 2 compliant		
	Withstand Voltage	I/P - O/P : 4242 DC I/P - FG : 2121 DC 1 minute		
	Isolation Resistance	I/P - O/P, I/P - FG, O/P - FG: 100M Ω / 500VDC		
	EMI Conduction & Radiation	EN55022 : 2006+A1 : 2007 Class B		
	Harmonic Current	EN61000-3-2: 2006 Class A, EN61000-3-3:2008		
EMS Immunity	EN61204-3: 2000, EN55024: 1998+A1 : 2001+A2: 2003 light industry level, criteria A			
Others	DC OK signal	Open collector. Max : 40mA		
	Connection	I/P 3 poles, O/P : 3 poles screw DIN terminal		
	MTBF(MIL-HDBK-217F)	120.4K HRS	131.3K HRS	125.9K HRS
	Cooling	Free Air convection		
	Dimension (W*H*D)(mm)	23x90x99		
Packing	0.14kg ; 48Pcs / 7.92kg			

Note

1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.
2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47 uf parallel capacitor.
3. Tolerance: includes set up tolerance, line regulation and load regulation.
4. De-rating may be needed under low input voltages. Please check the de-rating curve for more details.
5. The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives.

■ **Mechanical Specification**

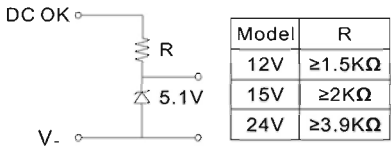
Unit : mm



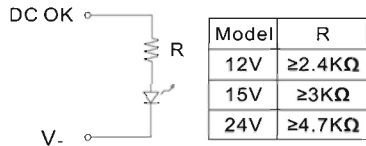
install DIN rail TS35 / 7.5 or TS35 / 15

■ **Application of DC OK Active Signal**

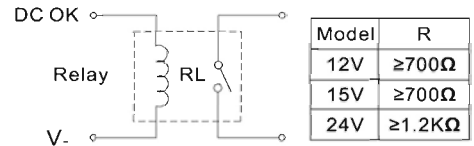
(a) 5V signal



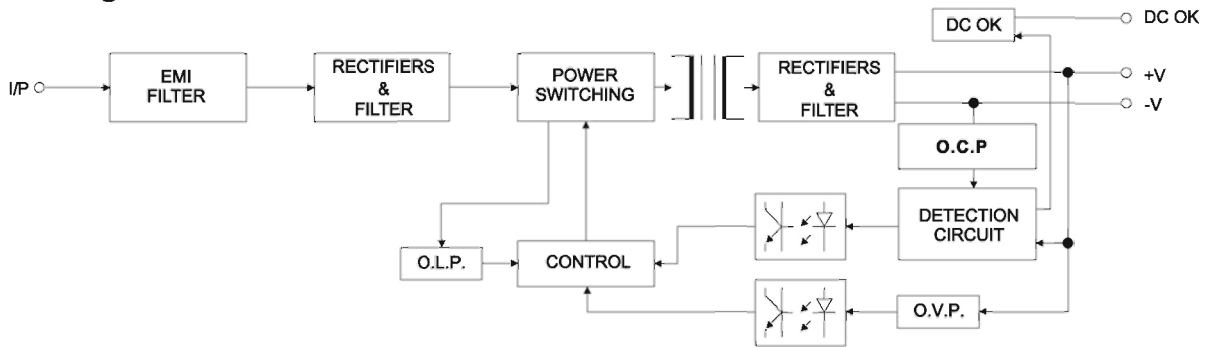
(b) LED



(c) Relay



■ **Block Diagram**



■ **De-rating Curve**

