

### Features :

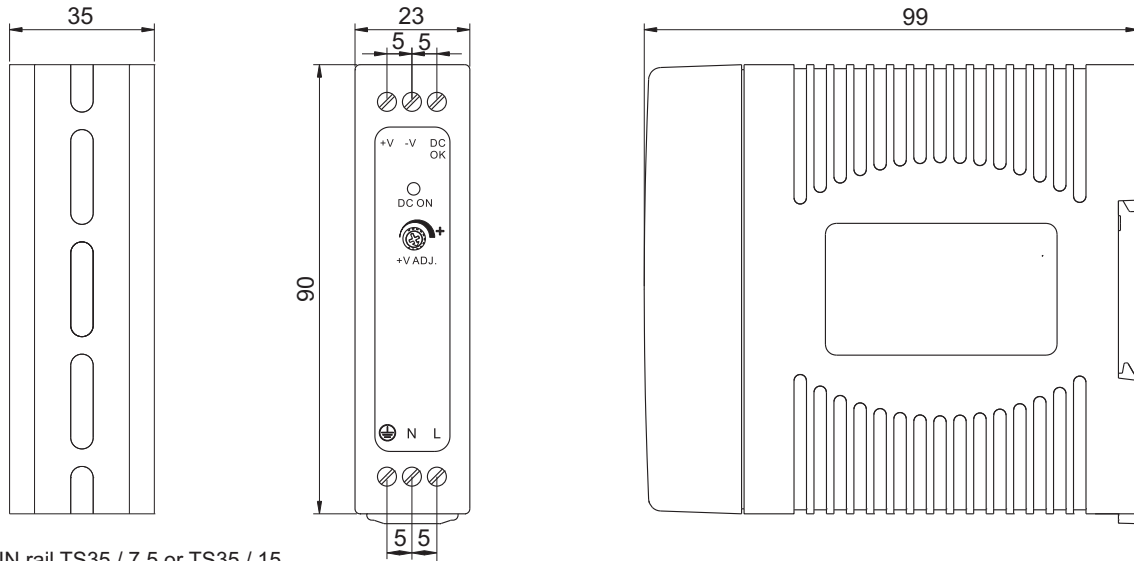
- Universal AC input 88 - 264Vac
- Installed on DIN rail TS35 / 7.5 or 15
- Brown-out protection
- Protections: Short circuit / Over load / Over voltage
- All using 105°C long life electrolytic capacitors
- High operation temperature up to 70°C
- True DC OK signal output
- Withstand 2G vibration test
- 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.) <small>Note.2</small>	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 <small>Note.3</small>	±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 <small>Note.4</small>	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  <small>Note.5</small>	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	
	Colling	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

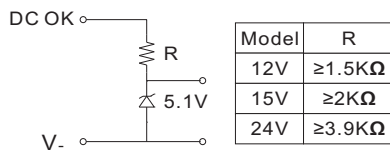
Unit : mm



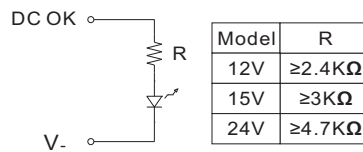
install DIN rail TS35 / 7.5 or TS35 / 15

### Application of DC OK Active Signal

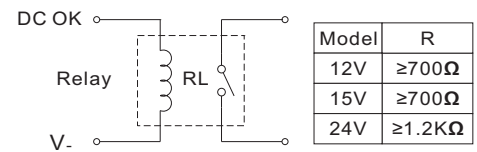
#### (a) 5V signal



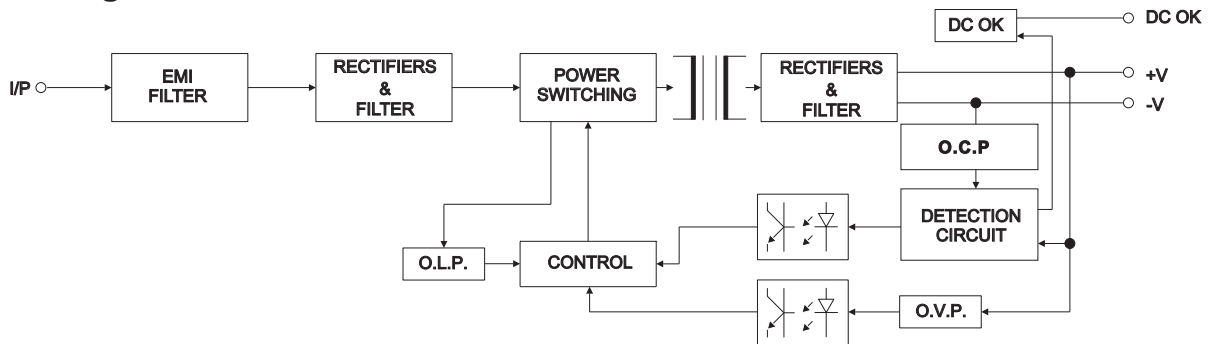
#### (b) LED



#### (c) Relay

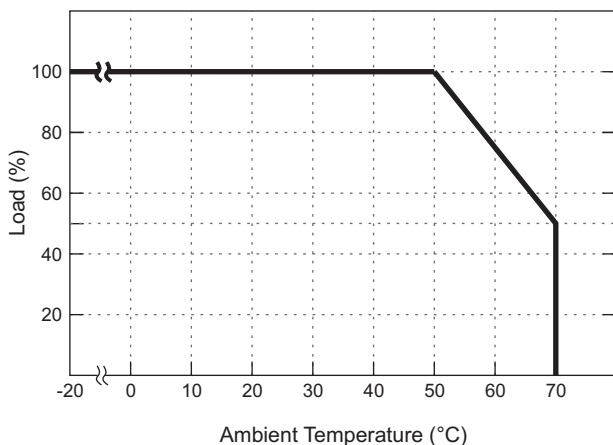


### Block Diagram



### De-rating Curve

Load V.S Temp.



Load V.S I/P Voltage

