

## 20W Single Output Industrial DIN Rail Power Supply



## ■ Features :

- NEC Class 2 /LPS Compliant (except SV)
- Universal AC input/Full range
- Protections:Short circuit/Over load/Over voltage
- · Cooling by free air convection
- Can be installed on DIN rail TS-35/7.5 or 15
- Built in DC OK active signal
- · LED indicator for power on
- 100% full load burn-in test
- No load power consumption<0.75W</li>
- 3 years warranty





SPECIFIC/	ATION		,		
MODEL		PS-S2005	PS-S2012	PS-S2015	PS-S2024
ОИТРИТ	DC VOLTAGE	5V	12V	15V	24V
	RATED CURRENT	3A	1.67A	1.34A	1A
	CURRENT RANGE	0 ~ 3A	0 ~ 1.67A	0 ~ 1.34A	0 ~ 1A
	RATED POWER	15W	20W	20W	24W
	RIPPLE & NOISE (max.) Note.2	80mVp-p	120mVp-p	120mVp-p	150mVp-p
	VOLTAGE ADJ. RANGE	4.75 ~ 5.5V	10.8 ~ 13.2V	13.5 ~ 16.5V	21.6 ~ 26.4V
	VOLTAGE TOLERANCE Note.3	±2.0%	±1.0%	±1.0%	±1.0%
	LINE REGULATION	±1.0%	±1.0%	±1.0%	±1.0%
	LOAD REGULATION	±1.0%	±1.0%	±1.0%	±1.0%
	SETUP, RISE TIME Note.5	500ms, 30ms/230VAC 100	00ms, 30ms/115VAC at full load		
	HOLD TIME (Typ.)	50ms/230VAC 20ms/115VAC at full load			
INPUT	VOLTAGE RANGE	85 ~ 264VAC 120 ~ 370VDC			
	FREQUENCY RANGE	47 ~ 63Hz			
	EFFICIENCY (Typ.)	76%	80%	81%	84%
	AC CURRENT (Typ.)	0.55A/115VAC			
	INRUSH CURRENT (Typ.)	COLD START 20A/115VAC 40A/230VAC			
	LEAKAGE CURRENT	<1mA / 240VAC			
PROTECTION		105 ~ 160% rated output power			
	OVER LOAD	Protection type: Constant current limiting, recovers automatically after fault condition is removed			
		5.75 ~ 6.75V	13.8 ~ 16.2V	17.25 ~ 20.25V	27.6 ~ 32.4V
	OVER VOLTAGE	Protection type : Shut down o/p	voltage, re-power on to recover		
FUNCTION	DC OK ACTIVE SIGNAL (max.)	3.75 ~ 6V / 50mA	9 ~ 13.5V / 40mA	11.5 ~ 16.5V / 40mA	18 ~ 27V / 20mA
ENVIRONMENT	WORKING TEMP.	-20 ~ +70°C (Refer to output load derating curve)			
	WORKING HUMIDITY	20 ~ 90% RH non-condensing			
	STORAGE TEMP., HUMIDITY	-40 ~ +85°C, 10 ~ 95% RH			
	TEMP. COEFFICIENT	±0.03%/°C (0 ~ 50°C)			
	VIBRATION	Component:10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes; Mounting: Compliance to IEC60068-2-6			
	SAFETY STANDARDS	UL508, NEC class 2 /LPS			
	WITHSTAND VOLTAGE	I/P-O/P:3KVAC I/P-FG:1.5KVAC O/P-FG:0.5KVAC			
SAFETY &	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms/500VDC			
EMC (Note 4)	EMI CONDUCTION & RADIATION	Compliance to EN55011, EN55022 (CISPR22), EN61204-3 Class B			
	HARMONIC CURRENT	Compliance to EN61000-3-2,-3			
	EMS IMMUNITY	Compliance to EN61000-4-2, 3, 4, 5, 6, 8, 11, ENV50204, EN55024, EN61000-6-1, EN61204-3 Light industry level, criteria A			
OTHERS	MTBF	236.9K hrs min. MIL-HDBK-217F (25°C)			
	DIMENSION	22.5*90*100mm (W*H*D)			
	PACKAGING	0.19Kg; 0.48lbs.			
NOTE	Ripple & noise are measure     Tolerance : includes set up     The power supply is consided EMC directives.	Ally mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.  ed at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.  tolerance, line regulation and load regulation.  lered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets  easured at cold first start. Turning ON/OFF the power supply may lead to increase of the set up time.			



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AMBIENT TEMPERATURE (°C)

## 20W Single Output Industrial DIN Rail Power Supply

## **Mechanical Specification** Case No. 956 Unit:mm 22.5 100 35 $\oplus \oplus \oplus$ +V -V DC O DC OK **(**) + +V ADJ 8 ⊕ N L $\oplus \oplus \oplus$ Install DIN rail TS35/7.5 or TS35/15 **Block Diagram** fosc: 60KHz DC OK O DC OK RECTIFIERS RECTIFIERS **POWER** -○ +V EMI I/P O SWITCH-**FILTER** FILTER **FILTER** ING DETECTION CIRCUIT CONTROL O.L.P. O.V.P. **Application of DC OK Active Signal** (a) 5V signal (b) LED (c) Relay DC OK 。 DC OK o DC OK Model R Model R Model RL R 5V ≥200Ω 5٧ $\geq 1 K\Omega$ 5V ≥120Ω ≥1.5KΩ ≥**2.4K**Ω 12V ≥700Ω 12V 12V 15V $\geq$ 2K $\Omega$ 15V $\ge\! 3 \text{K} \Omega$ 15V $\geq$ 700 $\Omega$ 24V **≥4.7K**Ω 24V ≥3.9KΩ 24V $\geq$ 1.2K $\Omega$ **Derating Curve Output Derating VS Input Voltage** Ta=25℃ 100 100 90 80 80 60 70 LOAD (%) LOAD (%) 60 40 50 20

100 115

120 140

INPUT VOLTAGE (VAC) 60Hz

200 220 240 264

70 (VERTICAL)

50

60