

YSM20 SERIES 15W



YSM20 series is a 15W Smaller(52.5*27.2*24mm) AC-DC module power supply adopting the full range:90-264VAC input. The series has extremely low no-load power consumption below 0.1W.High efficiency up to 83% to reduce power loss.

The series cost-effective,, high reliability,operates from-30 ~ 85°C.A variety of appearance sizes are available for easy installation and use.

These converters offer excellent EMC performance and meet international standards , ready to be soldered onto the PCB boards of Industrial design,household appliances, communication equipment, testing instruments and other electronic instruments.

Features



Universal Input: 90~264VAC



Compact Size Design



Low no-load power consumption



Low Ripple & Noise, high efficiency



Protection:Short Circuit/Over Current/
Over Voltage

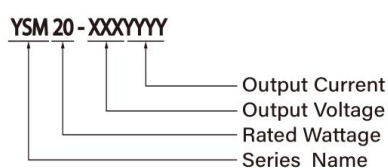


Three Years Warranty

Model Information

Yingjiao Part Number	DC Voltage	Rated Current	Rated Power	Max.Capaciti ve Load
YISM20-0333500	3.3V	3.5A	11.55W	6600uF
YISM20-0503000	5V	3A	15W	5000uF
YISM20-1201250	12V	1.25A	15W	2000uF
YISM20-1501000	15V	1A	15W	1500uF
YISM20-2400630	24V	0.63A	15.12W	580uF

Model Encoding



Input

VOLTAGE RANGE	90~264VAC
FREQUENCY RANGE	47-63Hz
NO LOAD POWER CONSUMPTION	0.1W MAX
AVERAGE EFFICIENCY(Typ.)	74.0% YISM20-0333500
	78.0% YISM20-0503000
	82.0% YISM20-1201250
	82.0% YISM20-1501000
	83.0% YISM20-2400630
AC CURRENT(Typ.)	0.7A/115VAC
	0.3A/230VAC
INRUSH CURRENT(Typ.)	Cold Start 20A/115VAC
	Cold Start 45A/230VAC
LEAKAGE CURRENT	<0.707mA/264VAC,50Hz

Output

RIPPLE & NOISE(max.)	200mVp-p
VOLTAGE TOLERANCE	±2.5%
LINE REGULATION	±0.5% YISM20-0333500
	±0.5% YISM20-0503000
	±0.3% YISM20-1201250
	±0.3% YISM20-1501000
	±0.3% YISM20-2400630
LOAD REGULATION	±1.0% YISM20-0333500
	±1.0% YISM20-0503000
	±0.5% YISM20-1201250
	±0.5% YISM20-1501000
	±0.5% YISM20-2400630
SETUP,RISE TIME	1000ms, 30ms/230VAC at full load
	1800ms, 30ms/115VAC at full load
HOLD UP TIME (Typ.)	40ms/230VAC at full load
	10ms/115VAC at full load

Protection

OVER CURRENT	115%-190% Rated Output current
	Protection type: Hiccup mode,
	recovers automatically after current goes down
SHORT CIRCUIT	Protection type: Hiccup mode,
	recovers automatically after fault condition is removed
OVER VOLTAGE	YISM20-0333500: 3.8 ~ 6V
	YISM20-0503000: 5.25 ~ 7.5V
	YISM20-1201250: 12.6 ~ 16.5V
	YISM20-1501000: 15.75 ~ 24V
	YISM20-2400630: 25.2 ~ 34V
	Protection Type: Hiccup mode,
	recovers automatically after fault condition is removed

Environment

WORKING TEMP.	-30°C to +85°C (Full load can be operated at -30°C to 50°C, while load should be reduced at 50°C to 85°C. Refer to "Derating Curve".)
WORKING HUMIDITY	20 ~ 90% RH Non-Condensing
STORAGE TEMP, HUMIDITY	- 40°C ~ +85°C, 10 ~ 95% RH non-condensing
TEMP. COEFFICIENT	± 0.03%/°C (0~50°C)
VIBRATION	10~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes
SOLDERING TEMPERATURE	Wave soldering: 265°C, 5s(max.); Manual soldering: 390°C, 3s(max.)
OVER VOLTAGE CATEGORY	II; According to EN62368-1; altitude up to 2000 meters
SAFETY PROTECTION	CLASS II
ALTITUDE APPLICATION	2000m
MTBF	> 900K hrs min. MIL-HDBK-217F (25°C)

SAFETY

SAFETY STANDARDS	IEC/UL62368-1, EN62368-1 safety approval
WITHSTAND VOLTAGE	I/P-O/P: 3.00KVAC/1min
ISOLATION RESISTANCE	I/P-O/P: 100M Ohms/ 500VDC/25 °C/70% RH

EMC

EMC EMISSION	Parameter	Standard	Test Level/Note
	Conducted	BS EN/EN55032(CISPR32)	CLASS B
	Radiated	BS EN/EN55032(CISPR32)	CLASS B
	Harmonic Current/Note5	BS EN/EN61000-3-2	CLASS A
	Voltage Flicker	BS EN/EN61000-3-3
EMC IMMUNITY	BS EN/EN55035, BS EN/EN61000-6-2		
	Parameter	Standard	Test Level/Note
	ESD	BS EN/EN61000-4-2	Level 3, 8KV air; Level 2, 4KV contact, criteria A
	Radiated Susceptibility	BS EN/EN61000-4-3	Level 3, criteria A
	EFT/Burest	BS EN/EN61000-4-4	Level 3, criteria A
	Surge	BS EN/EN61000-4-5	Level 4, 2KV/L-N, criteria A
	Conducted	BS EN/EN61000-4-6	Level 3, criteria A
	Magnetic Field	BS EN/EN61000-4-8	Level 4, criteria A
	Voltage Dips and interruptions	BS EN/EN61000-4-11	> 95% dip 0.5 periods, 30% dip 25 periods, > 95% interruptions 250 periods

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 0.1μF & 47μF parallel capacitor.
 3. Tolerance : includes set up tolerance, line regulation and load regulation.
 4. The ambient temperature derating of 3.5°C /1000m with fanless models and of 5 °C/1000m with fan models for operating altitude higher than 2000m(6500ft).
 5. The power supply is considered as an independent unit ,but the final equipment still need to re-confirm that the whole system complies with the EMC directives.
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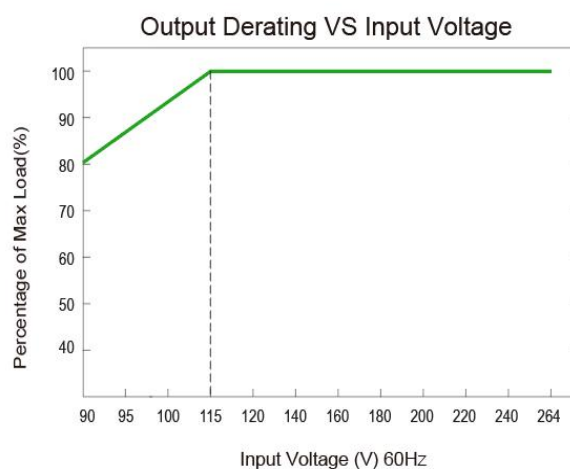
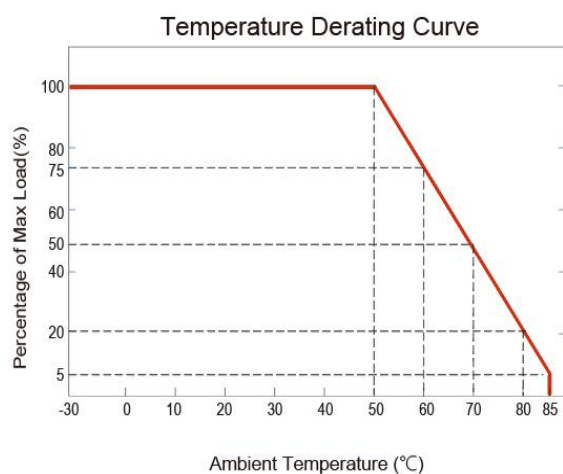
PHYSICAL PROPERTY

LENGTH*WIDTH*HEIGHT:	52.5mm*27.2mm*24mm/2.07in*1.07in*0.94in;
WEIGHT:	58g
COOLING METHOD:	Natural Air Cooling
TEXTURE:	Black flame retardant and heat resistant plastic

Packing

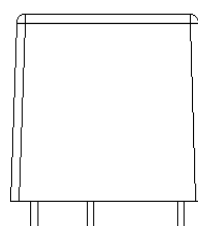
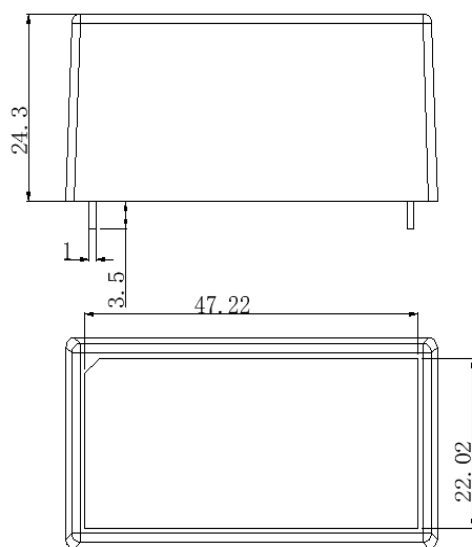
Carton Size:	43 × 40 x 18.5 cm/16.93 x 15.75 x 7.28 in;
Master Carton Quantities:	200pcs/Carton

Curve

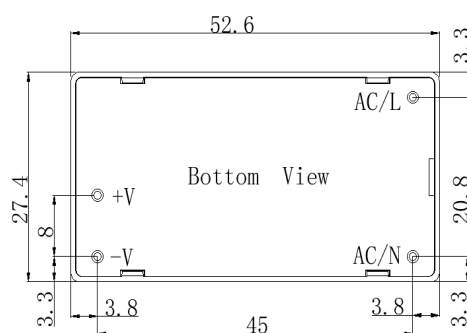


Dimensions and Installation

third-angle projectio 



annotation:
unit of size:mm
Pin diameter tolerances:±0.10
General tolerances:±0.50



Functional Diagram

