

YS90-Class II SERIES

90W



Features

- Energy efficiency level VI
- Class II Power Supply
- 3 Years Warranty
- Universal AC input/Full range
- No load power consumption < 0.21W
- Protections: Short Circuit /Over Load / Over Voltage
- -30~+70℃ wide range working temperature

Applications

- Blood pressure monitor
- Portable medical device
- Mobile clinical workstation
- Medical computer monitor



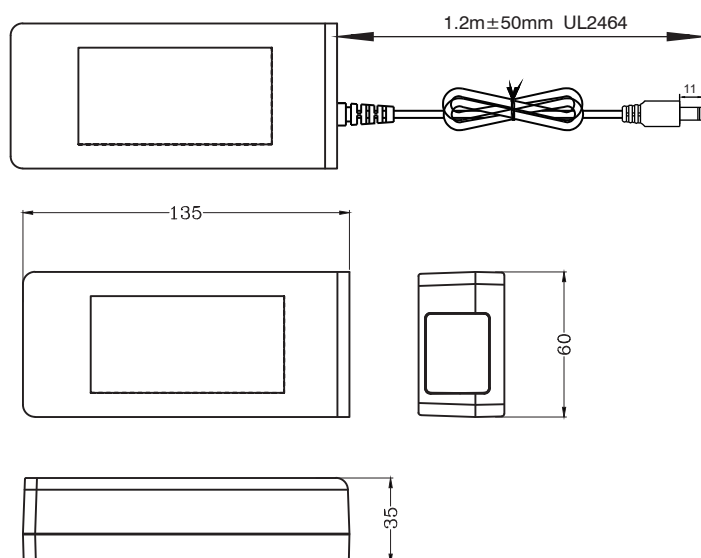
Model Description

YS90 - XXXYYYM- - D1J

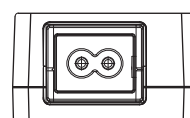
- DC Plug Type { D1J: standard model, $\phi 2.1 \times \phi 5.5 \times 11\text{mm}$, C+, tuning fork type
Other options available by customer requested (see Page3-5)
- AC Plug Type: C8
- Medical Type
- Output Current
- Output Voltage
- Series Name

Dimensions and installation

(Unit: mm , tolerance: $\pm 1\text{mm}$)



Standard Cable	1.2m UL2464 (Option: UL2468, UL1185)
12 ~ 24V	18AWG
36V	20AWG
48V	22AWG



C8

File last modification time: 2025-3-24

Specification

Model	Order P/N	YS90-1207000M -C8-D1J	YS90-1506000M -C8-D1J	YS90-2403750M -C8-D1J	YS90-3602500M -C8-D1J	YS90-4801875M -C8-D1J
	Safety Model No.	YS90-1207000M	YS90-1506000M	YS90-2403750M	YS90-3602500M	YS90-4801875M
Output	DC Voltage	12V	15V	24V	36V	48V
	Rated Current	7A	6A	3.75A	2.5A	1.875A
	Rated Power	84W	90W	90W	90W	90W
	Ripple & Noise(max.)	100mVp-p	150mVp-p	200mVp-p	300mVp-p	360mVp-p
	Voltage Tolerance	±5%	±5%	±5%	±5%	±5%
	Line Regulation	±3%	±3%	±3%	±3%	±3%
	Load Regulation	±5%	±5%	±5%	±5%	±5%
	Setup,Rise,Hold up Time	1.0s,50ms,30ms/230VAC(at full load)			1.5s,50ms,20ms/115VAC(at full load)	
Input	Rated Voltage Range	100-240VAC				
	Voltage Range	90-264VAC				
	Frequency Range	50/60Hz				
	AC Current	2.2A/115VAC		1.4A/230VAC		
	Inrush Current	Cold Start 130A/200us at 230VAC 50Hz			Cold Start 60A/200us at 115VAC 50Hz	
	Leakage Current	<0.1mA/230VAC				
	Efficiency	88.5%	89.5%	89%	91.5%	90.5%
	No Load Power Consumption	<0.21W				
Protection	Over Load	105~150% Hiccup mode, recovers automatically after fault condition is removed.				
	Short Circuit	Shut down o/p voltage, re-power on to recover.				
	Over Voltage	120~180% Shut down o/p voltage, re-power on to recover.				
Ambient	Working TEMP.	-30 ~ +70 ℃ (Please refer to “Derating Curve”section)				
	Working Humidity	20 ~ 95%RH Non-condensing				
	Storage TEMP. Humidity	-40 ~ +85 ℃, 10 ~ 95%RH Non-condensing				
	TEMP. Coefficient	±0.03%/(0 ~ 40 ℃)				
	Vibration	10 ~ 500Hz, 5G 12min./1cycle, period for 72min. each along X, Y, Z axes				
Safety	Safety Standards	IEC60601-1, EN60601-1				
	Withstand Voltage	I/P-O/P: 4KVAC/1min				
	Isolation Resistance	I/P-O/P:100M Ohms / 500VDC / 25 ℃ / 70% RH				
EMC	EMC Emission	Parameter	Standard		Test Level	
		Conducted	EN55032(CISPR32)		CLASS B	
		Radiated	EN55032(CISPR32)		CLASS B	
		Harmonic Current	EN61000-3-2		CLASS B	
		Voltage flicker	EN61000-3-3		CLASS B	
	EMC Immunity	Parameter	Standard		Test Level	
		ESD	EN61000-4-2		Level 3, 8KV air, criteria A	
		Radiated Susceptibility	EN61000-4-3		Level 3, criteria A	
		EFT/Burest	EN61000-4-4		Level 3, criteria A	
		Surge	EN61000-4-5		Level 4, 2KV/L-N, criteria A	
		Conducted	EN61000-4-6		Level 3, criteria A	
		Magnetic Field	EN61000-4-8		Level 4, criteria A	
		Voltage Dips and interruptions	EN61000-4-11		> 95% dip 0.5 periods, 30% dip 25 periods, >95% interruptions 250 periods	
Others	Packing	420g/pcs; 40 x 21 x 30 cm; 20pcs/carton				
	Dimension (LxWxH)	135 x 60 x 35 mm				
	Plug and Cable	See page 3~5; Other type available by customer requested				
	MTBF	397.1Khrs min. MIL-HDBK-217F(25 ℃)				
Note	1. Tolerance: includes set up tolerance, line regulation and load regulation. 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. 3.Line regulation is measured from low line to high line at rated load. 4.Load regulation is measured from 0% to 100% rated load. 5. All parameters NOT specially mentioned are measured at nominal voltage input, rated load and 25 ℃ of ambient temperature. 6. De-rating may be needed under low input voltages. Please refer to “Static Characteristic” sections for details. 7. The power supply is considered as a component that will be operated in combination with final equipment.Since EMC performance will be affected by the complete installation, the final equipment manufacturers must re-qualify EMC Directive on the complete installation again.					

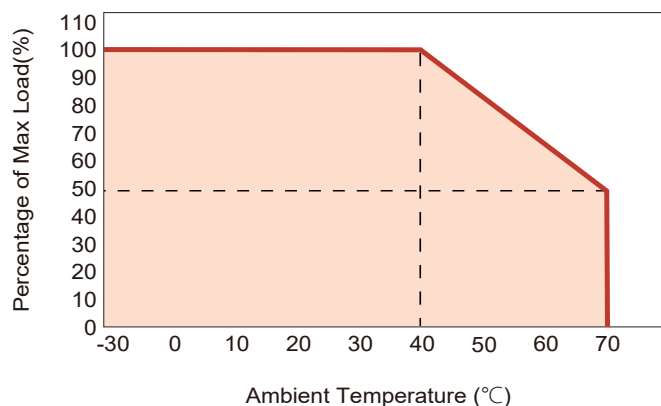
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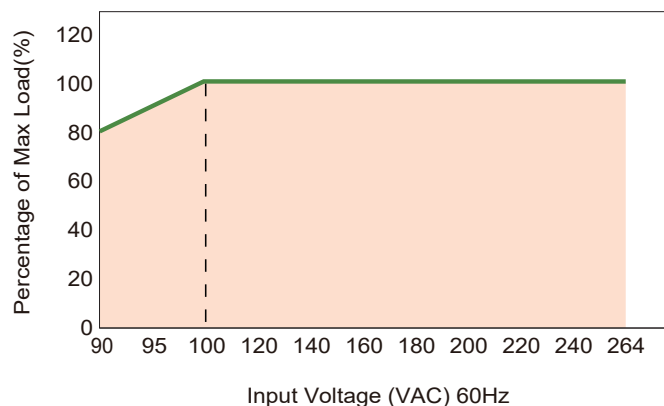
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Feature Curves

1. Derating Curve



2. Static Characteristics



DC Output Plug (Option)

Standard Model : D1J

D1J	Pin Assignment

Optional DC plug:

(Unit: mm , tolerance: $\pm 0.5\text{mm}$)

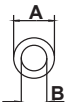
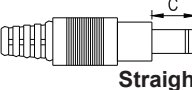
Tuning Fork Style			
Type No.	A	B	C
	OD	ID	L
D1I	5.5	2.1	9.5
D1L	5.5	2.5	9.5
D1M	5.5	2.5	11.0

Tuning Fork Style			
Type No.	A	B	C
	OD	ID	L
D1IR	5.5	2.1	9.5
D1JR	5.5	2.1	11.0
D1LR	5.5	2.5	9.5
D1MR	5.5	2.5	11.0

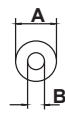
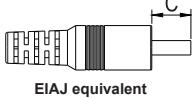
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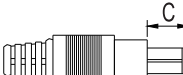
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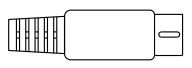
DC Output Plug (Option)

Barrel Style			
			Straight
Type No.	A	B	C
	OD	ID	L
D2I	5.5	2.1	9.5
D2J	5.5	2.1	11.0
D2L	5.5	2.5	9.5
D2M	5.5	2.5	11.0

Barrel Style			
			Right-angled
Type No.	A	B	C
	OD	ID	L
D2IR	5.5	2.1	9.5
D2JR	5.5	2.1	11.0
D2LR	5.5	2.5	9.5
D2MR	5.5	2.5	11.0

Tuning Fork Style			
			EIAJ equivalent
Type No.	A	B	C
	OD	ID	L
D3A	2.35	0.7	11.0
D3B	4.0	1.7	11.0
D3C	4.75	1.7	11.0

Center Pin Style				
			EIAJ equivalent	
Type No.	A	B	C	D
	OD	ID	L	Center Pin
D4A	5.5	3.4	11.0	1.0
D4B	6.5	4.4	11.0	1.4
D4C	7.4	5.1	11.0	0.6

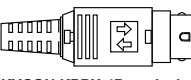
Barrel Style			
Type No.	Pin Assignment		
	PIN No.	Output	
M1B	1	-Vo	
	2	-Vo	
	3	+Vo	
	4	-Vo	
	5	+Vo	

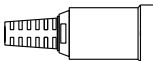
MIN.Din 3Pin with Lock(male)			
			KYCON KPPX-3P equivalent
Type No.	Pin Assignment		
	PIN No.	Output	
M6B	1	+Vo	
	2	-Vo	
	3	+Vo	

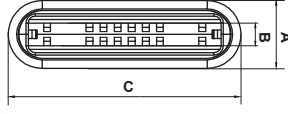
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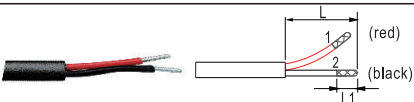
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DC Output Plug (Option)

MIN.Din 4Pin with Lock(male)	   KYCON KPPX-4P equivalent	
Type No.	Pin Assignment	
	PIN No.	Output
M7B	1	+Vo
	2	-Vo
	3	-Vo
	4	+Vo

MIN.Din 4Pin with Lock(female)			 KYCON KPJX-CM-4S equivalent
Type No.	Pin Assignment		
	PIN No.	Output	
M7BF	1	+Vo	
	2	-Vo	
	3	-Vo	
	4	+Vo	

Type-C	  		
Type No.	A	B	C
	OD	ID	L
C1	2.4	1.3	8.25

Stripped and tinned leads	 Length of Land L1 by request YJ's standard length, L: 30 mm, L1: 5 mm NOTE: The wire color is for reference only, please refer to the actual product								
	<table><tr><th colspan="2">Pin Assignment</th></tr><tr><th>PIN No.</th><th>Output</th></tr><tr><td>1</td><td>+Vo</td></tr><tr><td>2</td><td>-Vo</td></tr></table>		Pin Assignment		PIN No.	Output	1	+Vo	2
Pin Assignment									
PIN No.	Output								
1	+Vo								
2	-Vo								
by customer									