

YS50-Class II SERIES

50W



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



RoHS



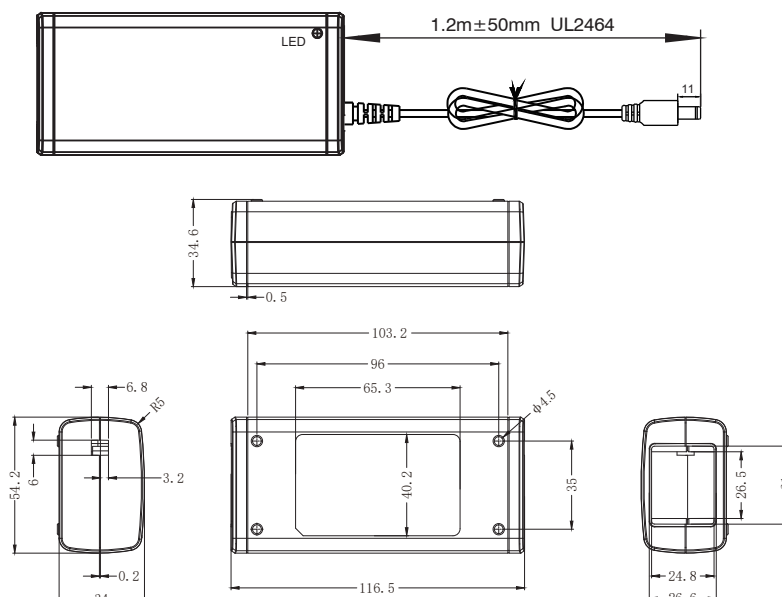
Model Description

YS50 - XXXYYYM-□ - D1J

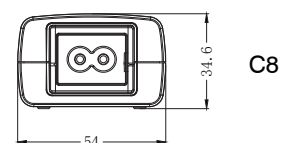
- DC Plug Type { D1J: standard model, $\phi 2.1 \times \phi 5.5 \times 11$ mm, C+, tuning fork type
Other options available by customer requested (see Page3-5)
- AC Plug Type: C8
- Medical Type
- Output Current
- Output Voltage
- Series Name

Dimensions and installation

(Unit: mm , tolerance: ± 1 mm)



Standard Cable	1.2m UL2464 (Option: UL2468, UL1185)
9 ~ 15V	18AWG
24V	20AWG
36 ~ 48V	22AWG



File last modification time: 2025-3-24

Specification



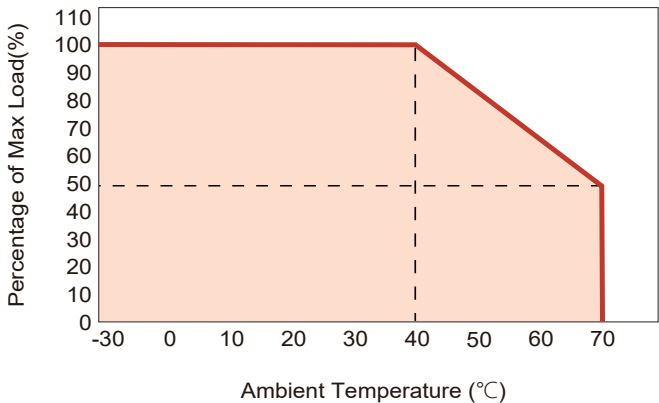
Model	Order P/N	YS50-0905000 M-C8-D1J	YS50-1204160 M-C8-D1J	YS50-1503330 M-C8-D1J	YS50-2402080 M-C8-D1J	YS50-3601380 M-C8-D1J	YS50-4801040 M-C8-D1J
	Safety Model No.	YS50-0905000M	YS50-1204160M	YS50-1503330M	YS50-2402080M	YS50-3601380M	YS50-4801040M
Output	DC Voltage	9V	12V	15V	24V	36V	48V
	Rated Current	5A	4.16A	3.33A	2.08A	1.38A	1.04A
	Rated Power	45W	50W	50W	50W	50W	50W
	Ripple & Noise(max.)	100mVp-p	150mVp-p	150mVp-p	200mVp-p	300mVp-p	400mVp-p
	Voltage Tolerance	±5%	±5%	±5%	±5%	±5%	±5%
	Line Regulation	±3%	±3%	±3%	±3%	±3%	±3%
	Load Regulation	±5%	±5%	±5%	±5%	±5%	±5%
	Setup,Rise,Hold up Time	0.8s,30ms,80ms/230VAC(at full load)				2.0s,30ms,15ms/115VAC(at full load)	
Input	Rated Voltage Range	100-240VAC					
	Voltage Range	90-264VAC					
	Frequency Range	50/60Hz					
	AC Current	1.3A/115VAC		0.6A/230VAC			
	Inrush Current	Cold Start 60A/200us at 230VAC 50Hz			Cold Start 40A/200us at 115VAC 50Hz		
	Leakage Current	<0.1mA/230VAC					
	Efficiency	88%	88%	88.5%	88.5%	90%	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	ANSI/AAMI ES60601-1, 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	310g/pcs; 34 x 31 x 37 cm; 50pcs/carton					
	Dimension (LxWxH)	116.5 x 54.2 x 34.6 mm					
	Plug and Cable	See page 3~5; Other type available by customer requested					
	MTBF	354.9Khrs 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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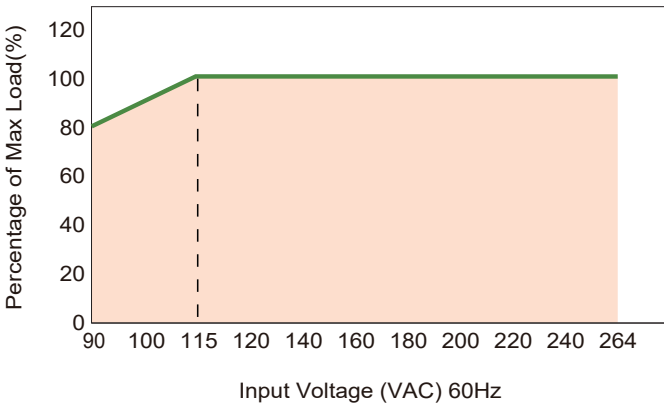
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Feature Curves

1. Derating Curve

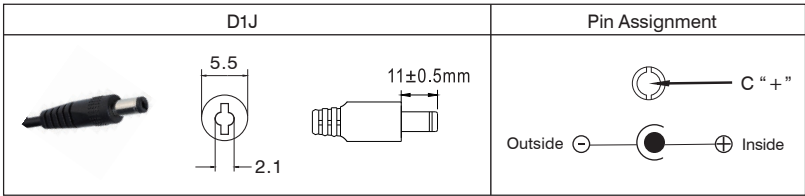


2. Static Characteristics

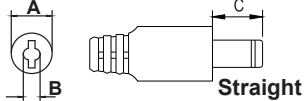


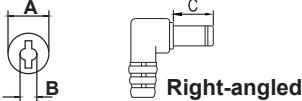
DC Output Plug (Option)

Standard Model : D1J



Optional DC plug:
(Unit: mm , tolerance: ±0.5mm)

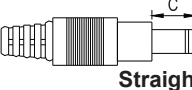
Tuning Fork Style			Straight
Type No.	A	B	C
	OD	ID	L
D1I	5.5	2.1	9.5
D1L	5.5	2.5	9.5
D1M	5.5	2.5	11.0

Tuning Fork Style			Right-angled
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

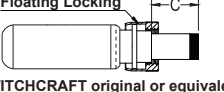
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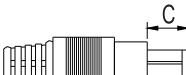
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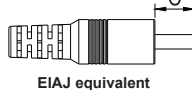
DC Output Plug (Option)

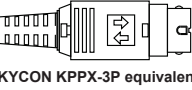
Barrel Style			
			Straight
Type No.	A	B	C
	OD	ID	L
D2I	5.5	2.1	9.5
D2J	5.5	2.1	11.0
D2L	5.5	2.5	9.5
D2M	5.5	2.5	11.0

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

Lock Style			
			SWITCHCRAFT original or equivalent
Type No.	A	B	C
	OD	ID	L
D2S(S761K)	5.53	2.03	12.06
D2K(761K)	5.53	2.54	12.06
D2C(S760K)	5.53	2.03	9.52
D2D(760K)	5.53	2.54	9.52

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

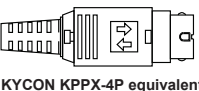
Tuning Fork Style			
			EIAJ equivalent
Type No.	A	B	C
	OD	ID	L
D3A	2.35	0.7	11.0
D3B	4.0	1.7	11.0
D3C	4.75	1.7	11.0

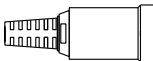
MIN.Din 3Pin with Lock(male)			
			KYCON KPPX-3P equivalent
Type No.	Pin Assignment		
	PIN No.	Output	
M6B	1	+Vo	
	2	-Vo	
	3	+Vo	

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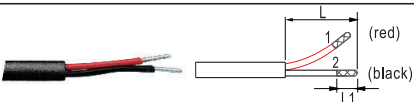
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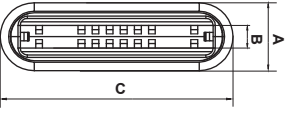
DC Output Plug (Option)

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	

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

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	1	+Vo							
	2	-Vo							

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