



Waterproof constant voltage
LED DRIVER

CYV-100 Series

Datasheet

CYV-100-X-AA

- ◇ Product Category: Waterproof LED DRIVER
- ◇ Version Number: R1.0
- ◇ Release Date: June 1, 2023

CHUANGLIAN

★ Product Features

- Input Voltage : 90-132VAC
- IP67 protection rating
- Lightning protection: line-to-line 2KV, line-to-ground 4KV
- Multiple Protection: SCP, OCP
- Operating Temperature: -40°C to +70°C
- Two-year warranty



※ This image is for illustrative purposes only.

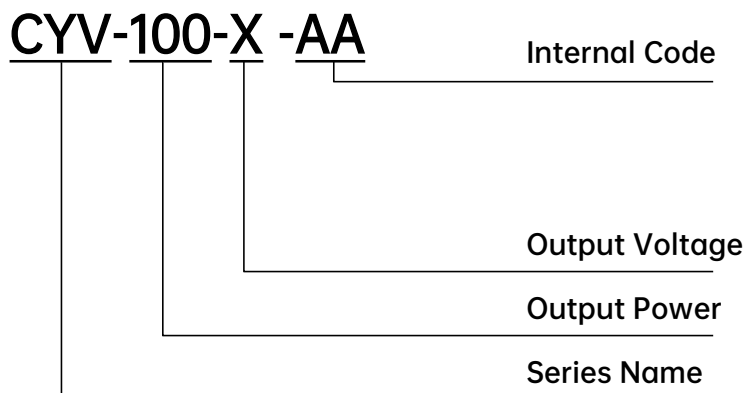
💬 General Description

CYV-100-X-AA Series is a 60W waterproof power supply with constant voltage output and IP67 high protection rating, featuring an input voltage range of 90-132VAC. Designed for high-temperature resistance, this series can operate at full load with an ambient temperature of up to 50°C. It is specifically designed for applications such as outdoor lighting, indoor and outdoor fixtures, decorative lighting, and signage. With high efficiency, a compact enclosure design, excellent heat dissipation, and comprehensive protection, this series ensures long-term and stable operation.

🚩 Applications

Wall washers, landscape lights, railing lights, indoor and outdoor luminaires, decorative & advertising lights, etc.

Model Encoding



◎ Model List

Model	Output power (W)	Output voltage (Vdc)	Output current (A)	Ripple & Noise (mV) ^[2]	Efficiency @230VAC typical values ^[1]
CYV-100-12-AA	60	12	0-5	600	85.5%
CYV-100-24-AA	60	24	0-2.5	800	87%

Note:

[1] All performance parameters in this document are typical values measured at an ambient temperature of 25°C, rated input voltage, and full load unless otherwise specified.

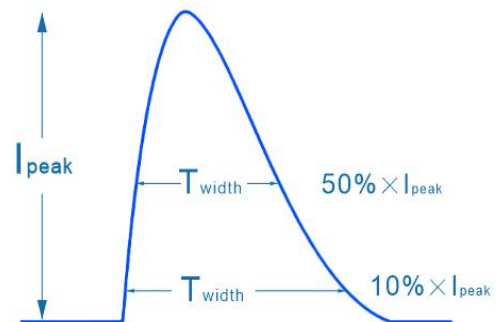
[2] Ripple & noise test method for switching power supplies: Measure at the power supply output terminals. During testing, connect a 47μF electrolytic capacitor and a 0.1μF high-frequency capacitor in parallel across the test leads. Use twisted-pair wires of 20±2 cm for the test leads. Set the oscilloscope bandwidth to 20 MHz. The oscilloscope probe must be used with the probe tip cap and ground lead removed.

◎ Input Characteristics:

Parameters	Min.	Typ.	Max.	Notes
Input AC Voltage	90 V _{ac}		132 V _{ac}	
Rated Input AC voltage	100 V _{ac}		120 V _{ac}	
Input Frequency	47 Hz		63 Hz	
Maximum Input Current			1.2 A	115Vac
Leakage Current			0.75 mA	115Vac
Standby Power Consumption			1.7 W	115Vac/50Hz

◎ Inrush Current:

Input Voltage	115 V	
I _{peak}	42A	
T _{width} @50%× I _{peak}	400μS	
T _{width} @10%× I _{peak}	/	
Circuit Breaker Model	B16	C16
Configurable Quantity (Power supply of the same model)		



◎ Output Characteristics:

Parameters	Min.	Typ.	Max.	Notes
Output Voltage Accuracy	-4%		+4%	All models
Linear Adjustment Rate	-2%		+2%	All models
Load Adjustment Rate	-2%		+2%	All models
Startup Time			2500ms	115Vac, full load
Rise Time			25ms	115Vac, full load
Hold-up Time	8ms			115Vac, full load

◎ Efficiency:

Parameters	Min.	Typ.	Max.	Notes
Efficiency @115 Vac				
CYV-100-12-AA	84.5	85.5%		Ambient temperature: 25 ± 5 °C, fully loaded
CYV-100-24-AA	86%	87%		

◎ Protections:

Parameters	Min.	Typ.	Max.	Notes
OCP, Output Overload Protection	120%		220%	Hiccup mode, output automatically returns to normal when the fault is cleared
SCP, Short-Circuit Protection	Power output protection when there is a short circuit fault at the output. When the short circuit fault is removed, the power automatically returns to normal output			

◎ General Overview:

Parameters		Min.	Typ.	Max.	Notes
Isolation withstand Voltage	Input-Output	3000 V _{ac}			The test duration is 1 minute, and the leakage current is less than 10mA
	Input-PE	1800 V _{ac}			
	Output-PE	500 V _{ac}			
Insulation Resistance	Input-PE	100MΩ			Test voltage: 500V dc
	Output-PE	100MΩ			
	Input-Output	100MΩ			
Operating Temperature		-40°C		+70°C	Refer to the derating curve
Working Humidity		20%RH		95%RH	No condensation
Storage Temperature		-40°C		+85°C	
Storage Humidity		10%RH		95%RH	No condensation
Temperature Coefficient		-0.03%/°C		0.03%/°C	0 ~ 50 °C
MTBF		100000 h			Ambient temperature 25 °C, 80% load, MIL-HDBK-217F
Safety Shell Temperature				90°C	
Size		152×37.5×31mm			
Net Weight			300g		
Packaging		60PCS/19Kg/Carton, Carton Dimension: 395(L) *235(W) * 285(H) mm			

◎ Safety & EMS

Safety	Country/ Region	Project	Standards
UL/CUL	USA/ Canada	Safety standards	UL 8750
			CAN/CSA C22.2 No. 205.13
CE	Europe		EN 61347-1,EN 61347-2-13
CB	CB Country		IEC 61347-1,IEC 61347-2-13
CCC	China		GB 19510.1,GB 19510.14

EMI	Country/ Region	Project	Standards/Criteria	
FCC	美国/加拿大	传导骚扰	FCC part 15(ANSI C63.4)	Class B
		辐射骚扰	FCC part 15(ANSI C63.4)	Class B
CE	欧洲	传导骚扰	EN 55015	Class B
		辐射骚扰	EN 55015	Class B
		电压闪烁	EN 61000-3-3	

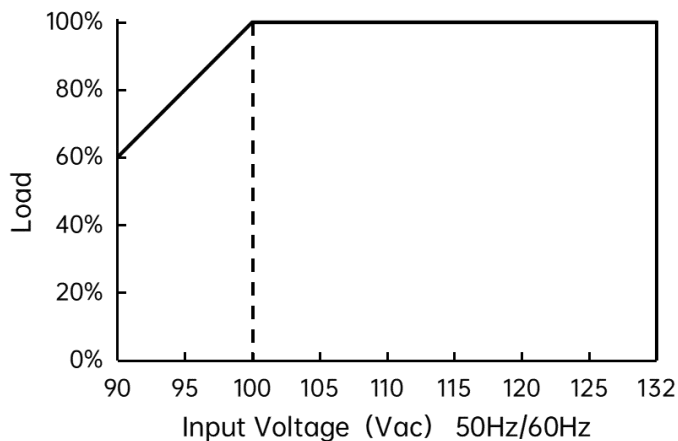
EMS	Country /Region	Project	Standards/Criteria		
CE	Europe	Electrostatic discharge	EN 61000-4-2	Air 8 kV / Contact 6 kV	Criteria B
		Radiation immunity	EN 61000-4-3	80MHz- 1GHz 10V/m	Criteria B
		Electrical fast transient burst	EN 61000-4-4	±2KV	Criteria B
		Surge immunity	EN 61000-4-5	CM±4KV / DM ±2KV	Criteria B
		Conducted harassment immunity	EN 61000-4-6	10Vr.m.s	Criteria B
		Power frequency magnetic field immunity	EN 61000-4-8	30A/m, continuous	Criteria B
		Immunity to voltage sags, drops and short interrupts	EN 61000-4-11	Drop 100%,0.5 periods	Criteria B
				Drop 20%,250 periods	Criteria B
				Drop 30%,25 periods	Criteria B
				Interrupt 100%,250 periods	Criteria C

Note:

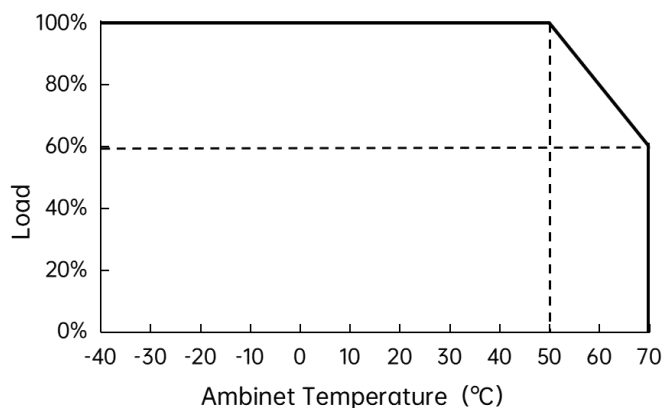
1. The power supply is a component of the equipment system. All EMC tests must be conducted with the power supply sample mounted on a metal plate measuring 400mm (L) × 400mm (W) × 3mm (Th). During application, electromagnetic compatibility verification shall be performed in conjunction with the end equipment.
2. This product does not comply with the harmonic current requirements specified in EN61000-3-2 Class C. This product is not suitable for LED applications in the European Union and China.
3. This series of power supplies are standard power products and are not listed under the CCC certification catalog, thus no CCC certification is required. Do not use this product as if it were listed under the CCC certification catalog; otherwise, the user shall bear all resulting liabilities.

◎ Characteristic Curve:

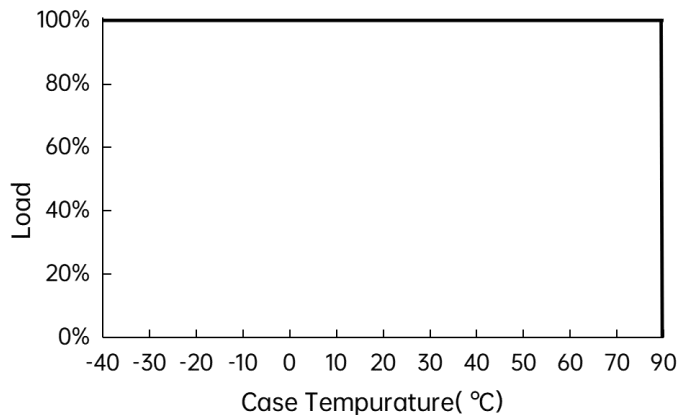
Input Voltage VS Output Load



Ambient Temperature VS Output Load



Case Temperature VS Output Load



◎ Mechanism Size:

Model	Specifications	
CYV-100-X-AA	Input Cable	H05RNF (rubber sheathed cable) / 3×0.75mm ² / Outer diameter: 6.7mm / Length: 200±10mm / Stripping: 35mm / Tinning: 8mm
	Output Cable	UL2464 (PVC sheathed cable) / 2×16AWG / Outer diameter: 6.5mm / Length: 200±10mm / Stripping: 35mm / Tinning: 8mm

