Open End Heavy Duty Network-Grade PDU

Paperless Datasheet

In support of environmental sustainability, WatchfulEye provides digital datasheets accessible via a QR code laser-marked on the product housing. Scan the QR code or visit the link below to download the latest datasheet:
http://datasheet.watchfuleyesolutions.com/US121052F.html

Open-End IEC 320 C20 Inlet

The PDU Series features an open-end IEC 320 C20 inlet, providing maximum flexibility for custom power input configurations. Since input power cord length and plug type often vary between different projects, the open-end design allows users to select and install the appropriate power cord according to specific project requirements, significantly simplifying system integration and field installation.

Outlets Connection IEC 320 C13

Equipped with premium IEC 320 C13 outlets, each socket is internally wired with 2mm solid copper conductors using lead-free soldering. This ensures low resistance, high current capacity, and exceptional reliability for demanding applications.

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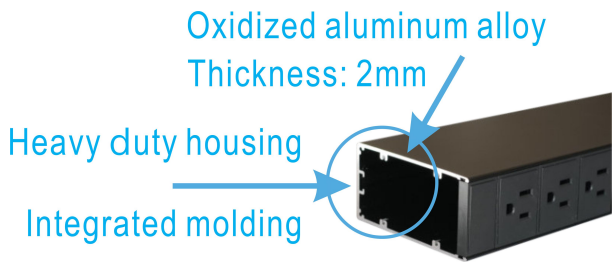
Heavy Duty Housing

Crafted from high-strength aluminum alloy profiles through one-piece extrusion, the Heavy Duty Housing features a robust and durable enclosure. The surface undergoes anodizing + electrophoretic coating, forming a dense and uniform protective layer with excellent corrosion resistance and surface hardness.

This aluminum profile enclosure is specifically designed to meet the demanding requirements of industrial environments:

I. High Strength: Thickened wall design significantly enhances impact and deformation resistance, providing reliable protection for internal electrical components.
II. Excellent Heat Dissipation: Leveraging the superior thermal conductivity of aluminum alloy and optimized heat sink structure, it ensures stable performance even under high-load conditions.
III. Industrial Durability: Excellent dustproof and corrosion-resistant properties, making it ideal for long-term use in data centers, factories, and other harsh industrial applications.

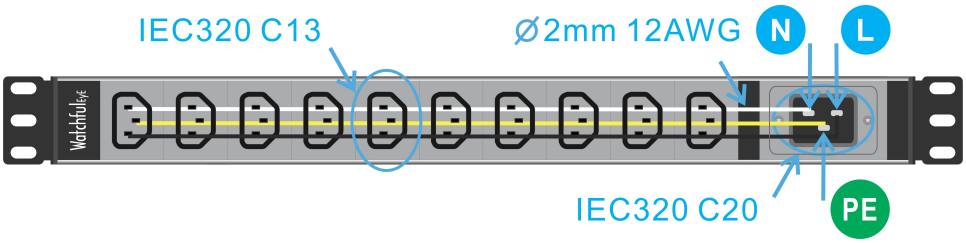


Reliable Lead-Free Soldered Connections

The internal connections utilize high-purity solid copper wire with a diameter of 2mm (equivalent to 12AWG), offering excellent current-carrying capacity and low resistance. Unlike conventional stranded wires, this solid core design provides superior mechanical strength and stability.

All connections between the copper wires and socket terminals are achieved through lead-free soldering technology instead of crimping or snap-fit methods. This creates a strong metallurgical bond, resulting in extremely secure and reliable connections that significantly enhance conductivity while minimizing contact resistance and heat generation.

This robust wiring solution greatly improves the PDU's ability to handle high-load conditions with outstanding long-term reliability and safety.



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AC Power Filter Module Description

1	General requirements	Single			
2	Allowable input voltage range:	85–275			VAC
3	Operating frequency:				50/60Hz
4	Current rating:	20A			@50˚C
5	AC leakage current:	0.25mA	@115VAC/60Hz	0.45mA	@250VAC/50Hz
6	Inrush Current:	Products used in 50/60Hz power system, the maximum current of 50 times the rated current is allowed in the 1/4 cycle.			
7	Function Requirements				
	Common mode inductor Σ:	0.6	mH	–30%~+50%	@100KHz 0.25V
	Common mode capacitors Σ:	4400	pF	–-20%~+20%	@1KHz1V
	Differential mode capacitors Σ:	0.22	μF	–-20%~+20%	@1KHz1V
	Resistor Σ:	1	MΩ	–-20%~+20%	@1KHz1V
8	MTBF@50˚C/250V(Mil–HB–217F)	1,753,000	Hours		
9	Safety Requirements:				
	Hi–pot L–N:	1450	VDC	2	Second
	Hi–pot L–G:	2250	VDC	2	Second
	Hi–pot N–G:	2250	VDC	2	Second
	IR	100MΩ Min @500VDC any input or output to ground			
		If the discharge resistor cannot be disconnected without the filter being destroyed. the test shall be omitted for lot–by–lot tests			
	DCR:	2Ω Max @input to output			
	GB:	100mΩ Max @25A			
	Ambient Temperature:	@50˚C			
	Operating Temperature:	–25˚C~110˚C			
	Climatic Category:	25/110/21			
10	Design corresponding to:	UL 1283, IEC/EN60939			
11	Safety Approvals				
	UL/CUL File No:	E179761			
	VDE File No:	40008353(SS1)			
12	Declare:	Comply with RoHS 2011/65/EU.2015/863/EU and REACH 2006/1907/EC Comply with IEC60320			

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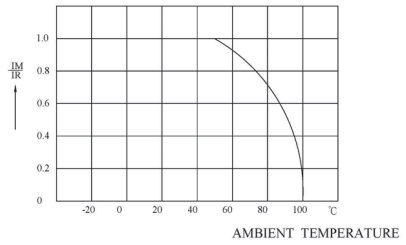
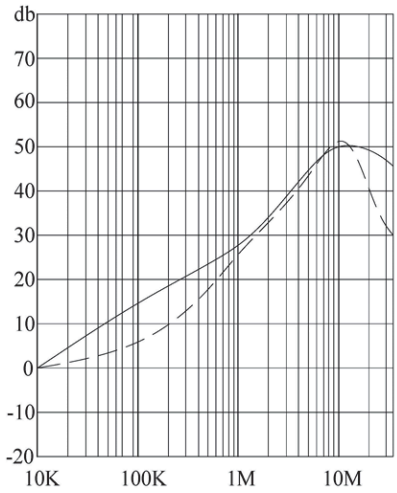
Derating curve of current

When ambient temperature is over 122˚F(50°C), maximum applied current depends upon the following curve
IM/IR: Maximum current / Rated current 20A@122˚F(50°C)

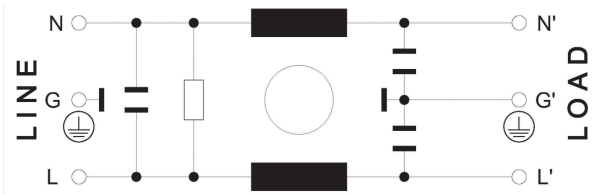


Typical filter attenuation

Insertion loss (dB) in 50Ohm system cisper 17
Common mode/Asymmetrical(L-G), Differential mode/Symmetrical(L-L)



Electrical schematic



Open End Heavy Duty Network-Grade PDU

19" Rackmount 1U PDU Order Information

Model	Ordering Code	Picture
WTH-CS/PDU-C13-D	US121052D	
WTH-CS/PDU-C13-E	US121052E	
WTH-CS/PDU-C13-F	US121052F	

Configuration Comparison

Model	AC Power Filter	Circuit Breaker	Outlet C13	Outlet C13 Locking
WTH-CS/PDU-C13-D	–	20A On/Off Switch	8 ports	1 port
WTH-CS/PDU-C13-E	–	–	10 ports	–
WTH-CS/PDU-C13-F	Yes	–	10 ports	–

Dedicated IEC320 C13 Locking Outlet for Critical Loads

In the WTH-CS/PDU-C13-D model, besides the 8 standard IEC320 C13 outlets, there is also 1 IEC320 C13 Locking outlet. The purpose of this locking-type outlet is to provide a more secure and reliable power connection for critical equipment by preventing accidental power cord disconnection.

Compared with standard C13 outlets, the IEC320 C13 Locking outlet features a locking mechanism that securely holds the compatible locking power cord in place. This helps avoid unexpected power interruptions caused by vibration, cable tension, maintenance handling, or accidental pulling.

This design improves overall power reliability and is widely used in network cabinets, data centers, industrial control systems, and other mission-critical environments.

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Shipping Packaging Information

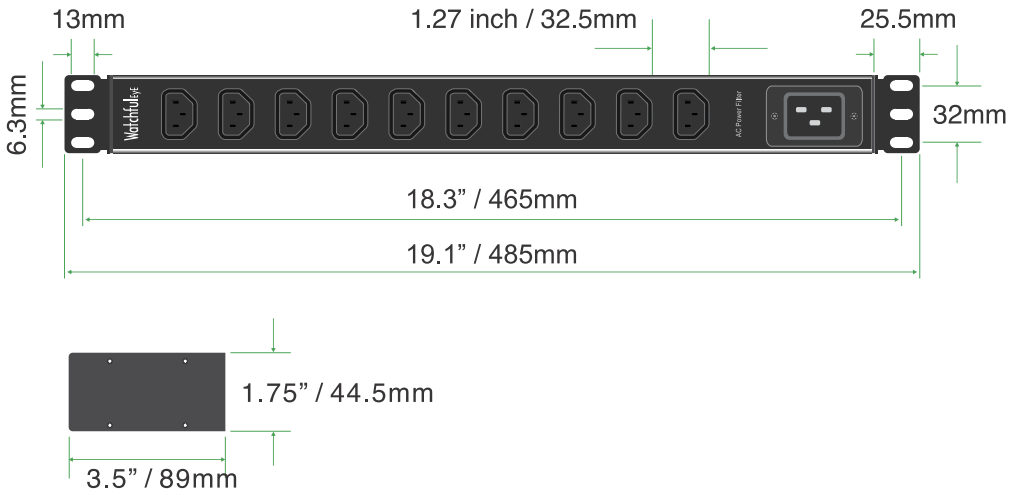
Carton packaging
8 sets per box
Gross Weight:25.8Lb (11.7kg)
Packing size: 21.3x13.6x13 inch (54x34.5x33cm)

Downloadable CAD-Compatible SVG Drawing

A scalable SVG drawing file is available for this product. The vector-based format preserves dimensional accuracy and can be imported into many CAD and engineering design applications. Customers can use the file for rack layout planning, cabinet integration, installation design, and project documentation.

WTH-CS/PDU-C13-F Dimension

19 inch Rack mount, height: 1U (1.75 inch / 44.5mm), depth: 3.5 inch / 89mm



Open End Heavy Duty Network-Grade PDU

Description

This specification sheet is based on the WTH-CS/PDU-C13-F as reference.

WTH-CS/PDU-C13-F	
Inlet Type	IEC 320 C20 with AC power filter
Voltage Rating	100/240VAC 50/60Hz
Max Input Amps	20A
Input Cord	without power cord
Circuit Breaker	–
Interior Connection	12 AWG
Outlet	IEC320 C13 x10 ports
Housing Design	19–inch Rack
Dimension	19.1x3.5x1.75 inch (485x90x44.5mm)
Net Weight Per Unit	2.3Lb (1.05kg)
Gross Weight Per Unit	2.95Lb (1.34kg)
Temperature Range	– 40˚ to 176˚F (–40˚ to 80˚C)
Relative Humidity	0% to 95% noncondensing
Maximum Operating Altitude	10,000 feet (3000m)
Material of Construction	Black oxidized aluminum alloy

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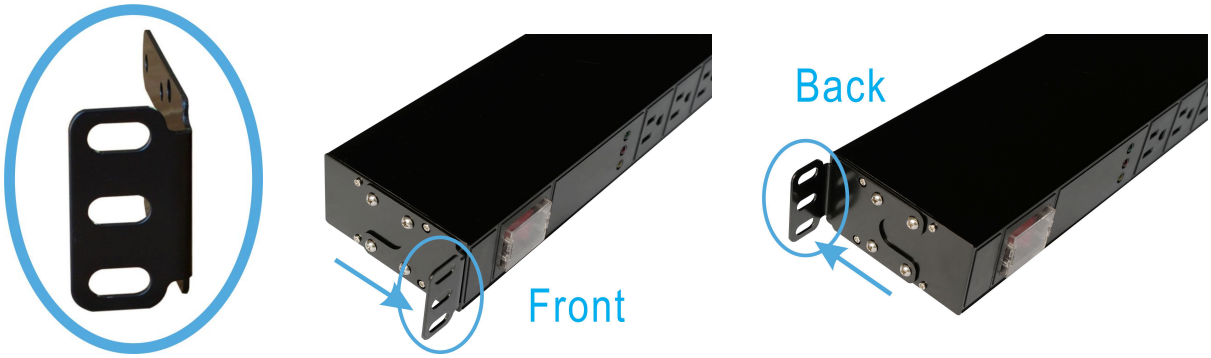
Mounting Ears

Detachable mounting ears, reversible ears faces front or back in PDU



Independent Grounding Lug

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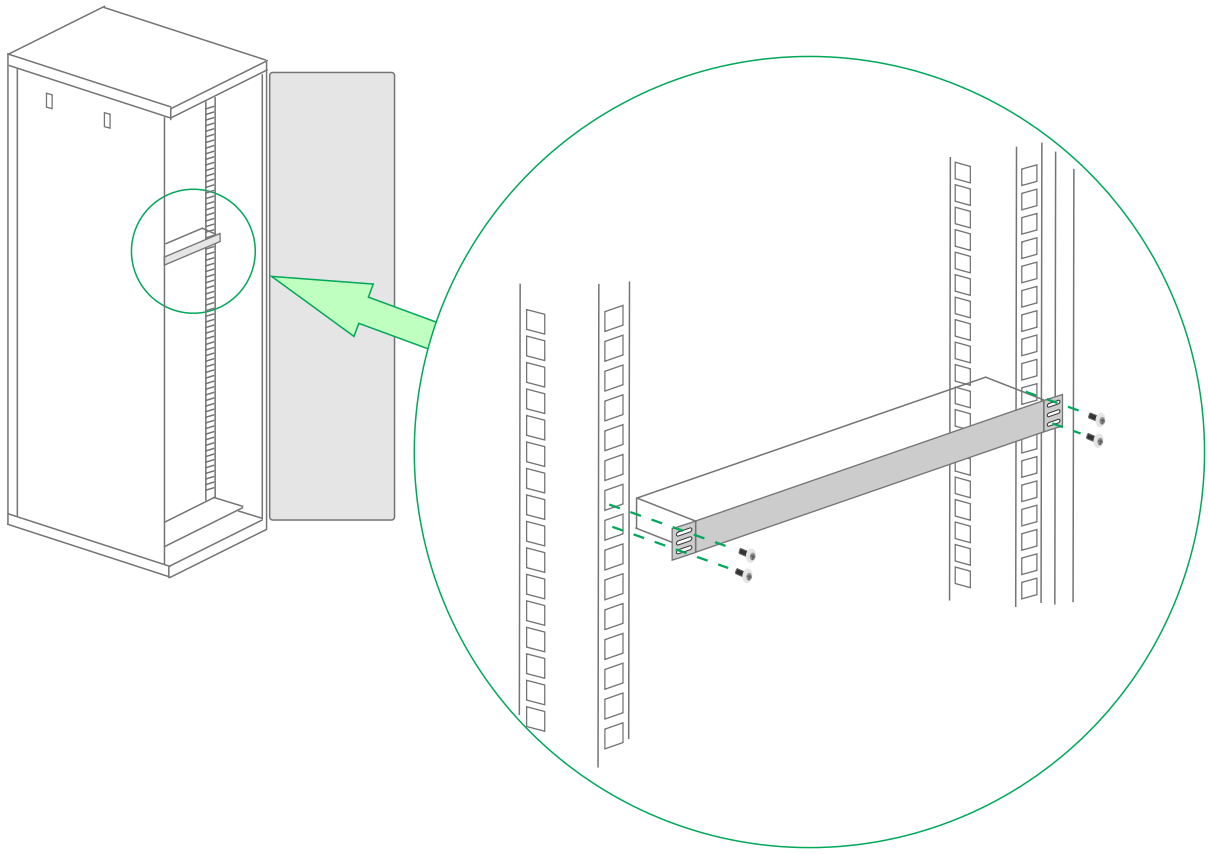
19-inch Rack Mounted



Installation Instruction

The PDU surge protectors shall be employed in a Listed enclosure or closet that is only accessible to technicians or service personnels.

Rack Mount Screw Kit

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Certificates of Products

c UL us CE RoHS

Note: input connection IEC320 C20 module UL listed, list No. E179761

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FAQ & Help

1. What should I do if I can't find the paper manual in the product packaging?
Watchful Eye products is committed to going green with paperless data sheets. On the rear side of each product enclosure is an engraved link with URL for downloading paperless data sheet and QR code of the website. If you need the paper data sheet, you can open the link and print the data sheet by yourself.

2. Why is the PDU not equipped with a power cord?
For different projects, usually the input power cord length and input plug type are different. The power input interface of Open End C20 provides maximum convenience for your project design.

3. Can I customize a PDU that includes circuit breakers?
Of course, you can customize it, please click the blue button "Start Customize PDU" below

Customize your PDU

Step 1 Select quantity of each PDU module to customize your desired PDU style.
Step 2 After your PDU is created, click and drag the module up or down to adjust its location on the PDU.
Step 3 Request for a quote: fill in quantity of PDU, contact information, E-mail address and message. Click “SUBMIT” and wait for a quote to be sent to your mailbox.

Start Customize PDU

http://pdu.watchfuleyesolutions.com

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Version Update

V22.1: Updated document layout and visual design. Standardized CSS formatting and revised color scheme.
V22.0: Added product description details and enhanced document formatting.
V1.1: Add "AC Power Filter" laser mark
V1.0: IEC320 C13 x10 ports outlet

Download WatchfulEyE Official App

Scan the QR code to access the WatchfulEye official website for product information and updates.

After-sale Services

WatchfulEye offers a global 5-year quality warranty.

Activate Your 10-Year Warranty

Register this product within 90 days of purchase to receive:
• 5-year standard warranty
• Additional 5-year free extended warranty

Customers are responsible for shipping, labor, and any incidental costs.
This warranty does not cover damage caused by misuse, improper installation, or unauthorized modifications.

Contact us | Register Extended Warranty