

Product Specification

Server & PDU Power Cords

Data Center Power Cords
10A–20A | 250V AC | 12–18 AWG | SJT PVC

Features

- IEC 60320 and NEMA power connector configurations for server and PDU applications
- Rated current options from 10A to 20A at up to 250V AC
- 12 AWG, 14 AWG, and 18 AWG stranded copper conductors
- 3-conductor grounded power cable construction
- Heavy-duty SJT PVC cable jacket
- VW-1 flame-retardant cable construction
- Fully molded connectors with integrated strain relief
- 100% continuity, polarity, insulation resistance, and Hi-Pot tested
- C15 hot-condition connector option for high-temperature equipment connections
- NEMA L6-30P twist-lock plug for secure high-current power connections

Compliance

- IEC 60320-1
- UL 62
- UL 817
- ANSI/NEMA WD 6 / UL 498 (NEMA L6-30P model)
- RoHS / REACH

Applications

- Data Center Server and PDU Connections
- AI and HPC Computing Infrastructure
- UPS, Server, Switch, and Storage Equipment
- High-Current Rack Power Distribution

Description

AICPLIGHT Server & PDU Power Cords are designed for reliable AC power distribution in data centers, AI and HPC computing environments, enterprise server rooms, and high-density network racks.

The product family includes IEC C14, IEC C20, and NEMA L6-30P source-side plug options with IEC C13, C15, and C19 equipment connectors. Current ratings range from 10A to 20A at up to 250V AC, with conductor sizes from 18 AWG to 12 AWG selected according to the power requirements of each cord configuration.

All models use three-conductor grounded copper cable with an SJT PVC jacket and fully molded connectors for reliable mechanical strain relief. Standard IEC configurations support PDU-to-server and UPS-to-equipment connections, while the C20-to-C19 and NEMA L6-30P-to-C19 models are designed for higher-current servers, blade systems, storage equipment, and other high-power rack devices.

The C14-to-C15 model provides a hot-condition C15 equipment connector for applications requiring increased connector temperature capability, while the NEMA L6-30P model incorporates a twist-lock source plug for secure power connection in high-load data center environments.

Product Performance Specifications

1、Model Configuration

Parameter	PC-C14-C13-10A	PC-C20-C19-16A	PC-C20-C13-10A	PC-C14-C15-15A	PC-NEMAL630P-C19-20A
End A Plug	IEC 60320 C14 Male	IEC 60320 C20 Male	IEC 60320 C20 Male	IEC 60320 C14 Male	NEMA L6-30P Male
End B Connector	IEC 60320 C13 Female	IEC 60320 C19 Female	IEC 60320 C13 Female	IEC 60320 C15 Female	IEC 60320 C19 Female
Cord Set Rated Current	10A	16A	10A	15A	20A
Rated Voltage	250V AC	250V AC	250V AC	250V AC	250V AC
Wire Gauge	18 AWG	14 AWG	14 AWG	14 AWG	12 AWG
Number of Conductors	3	3	3	3	3
Grounding	Grounded	Grounded	Grounded	Grounded	2-Pole, 3-Wire Grounding
Cable Type	SJT	SJT	SJT	SJT	SJT
Jacket Material	PVC	PVC	PVC	PVC	PVC
Flame Rating	VW-1	VW-1	VW-1	VW-1	VW-1
Cable O.D.	7.8 ± 0.2 mm	9.3 ± 0.2 mm	9.3 ± 0.2 mm	9.3 ± 0.15 mm	11.0 mm
Connector Style	Straight	Straight	Straight	Straight	Straight

Locking Type	Non-Locking	Non-Locking	Non-Locking	Non-Locking	Twist-Lock
Cable Color	Black	Black	Black	Black	Black

2、Connector Electrical Characteristics

Connector	Standard Rating	Pin / Temperature Condition	Application
IEC C13	10A / 250V AC	70°C	Standard server and network equipment
IEC C14	10A / 250V AC (IEC)	70°C	PDU and UPS power source
IEC C15	10A / 250V AC (IEC); 15A / 250V AC (UL/CSA)	120°C	Hot-condition equipment connection
IEC C19	16A / 250V AC (IEC)	70°C	High-current server equipment
IEC C20	16A / 250V AC (IEC)	70°C	High-current PDU / UPS source
NEMA L6-30P	30A / 250V AC	Locking configuration	High-current 250V AC power source

3、Cable Construction

Parameter	18 AWG	14 AWG	12 AWG
Conductor Material	Stranded Copper	Stranded Copper	Stranded Copper
Number of Conductors	3	3	3
Cable Type	SJT	SJT	SJT
Jacket Material	PVC	PVC	PVC
Flame Rating	VW-1	VW-1	VW-1
Cable O.D.	7.8 ± 0.2 mm	9.3 ± 0.2 mm	11.0 ± 0.3 mm
Cable Jacket Temperature Rating	105°C	105°C	105°C

4、Electrical and Safety Characteristics

Parameter	Specification
Rated Frequency	50 / 60 Hz
Protection	Class I / Protective Earth
Continuity Test	100% Tested
Polarity Test	100% Tested
Hi-Pot / Dielectric Withstand Test	100% Tested

Insulation Resistance Test	100% Tested
Connector Construction	Fully Molded
Strain Relief	Integrated Molded Strain Relief

5、Environmental Characteristics

Parameter	Specification
Standard Operating Temperature	-5°C to +40°C
Storage Temperature	-15°C to +60°C
SJT Cable Temperature Rating	Up to 105°C
C15 Connector Pin Temperature	Up to 120°C
Installation Environment	Indoor

Handling and Safety Precautions：

- **Power Isolation:** Disconnect power before connecting, disconnecting, installing, or servicing the power cord. Never plug or unplug the cord under load unless the connected equipment is specifically designed for hot-plug operation.
- **Voltage and Current Rating:** Use the power cord only within its specified voltage and current ratings. Do not exceed the rated capacity of the complete cord assembly, connected equipment, PDU, UPS, or power source.
- **Grounding:** Use only with properly grounded equipment and receptacles. Do not remove, bypass, or modify the protective earth connection.
- **Connection and Removal:** Insert connectors fully and securely. When disconnecting, hold the plug or connector body and pull straight out; do not pull directly on the cable. For NEMA locking plugs, fully rotate the plug to lock or unlock it before applying or removing power.
- **Cable Handling:** Avoid excessive bending, twisting, pulling, crushing, pinching, or stretching. Do not route the cable where it may be stepped on, trapped under equipment, or exposed to sharp edges.
- **Temperature and Ventilation:** Keep the cord away from excessive heat and ensure adequate airflow around high-current connections. Use C15 hot-condition cords only with equipment and environments within the specified temperature ratings.
- **Environmental Conditions:** These power cords are intended for indoor use unless otherwise specified. Keep them away from water, excessive moisture, corrosive chemicals, oil, and other contaminants.
- **Inspection:** Inspect the cable, insulation, strain relief, plug, and connector before use. Do not use cords with cuts, exposed conductors, loose contacts, deformation, overheating, discoloration, or other visible damage.
- **Modification:** Do not splice, extend, repair, or modify the power cord, plugs, or connectors. Replace damaged cords with correctly rated assemblies.

Ordering Information

PN	Description
PC-C14-C13-10A	IEC C14 to IEC C13 PDU-to-Server Power Cord, 10A, 250V, 18 AWG, Black
PC-C20-C19-16A	IEC C20 to IEC C19 Heavy-Duty Server Power Cord, 16A, 250V, 14 AWG, Black
PC-C20-C13-10A	IEC C20 to IEC C13 PDU-to-Server Power Cord, 10A, 250V, Black
PC-C14-C15-15A	IEC C14 to IEC C15 High-Temperature Server Power Cord, 15A, 250V, Black
PC-NEMAL630P-C19-20A	NEMA L6-30P to IEC C19 Heavy-Duty PDU Power Cord, 20A, 250V, Black