
flex
Power Cloud
Server Solutions
AC/DC Power Supplies
for Data Centers

Powering your innovation

Meet your cloud server power demands more efficiently

Our power supply products deliver high quality at a competitive cost for cloud, storage and server applications.

Expand your data center capacity with scalable power supply solutions. Our systems have high efficiency, digital control, black box recorder capabilities and proprietary firmware. Our experience designing for the data center means we have the latest processes and technologies when you need them.

Tap into our IP in power supply technology for cloud server power supply units that boost efficiency. We offer two classes of power supplies:

- Common Redundant Power Supplies (CPRS) Standard Power Supplies
- Power Shelf Front End Power Supplies

Our CPRS Standard Power Supplies are designed for standard data center applications for server, storage and network equipment. They communicate with the server processor to unlock performance features.

Our Power Shelf Front End Power Supplies are designed for hyperscale data centers. They can be fully customized to deliver the highest level of power efficiency.

About Flex

Flex is the Sketch-to-Scale® solutions provider that designs and builds Intelligent Products for a Connected World™. With more than 200,000 professionals across 30 countries, in over 100 locations around the globe, Flex provides innovative design, engineering, manufacturing, real-time supply chain insight and logistics services.

Flex Power

Flex designs and manufactures AC/DC conversion products. Many of our products are designed for use in Cloud and Enterprise applications.

We are headquartered in San Jose, California and have design centers in Shenzhen, China and Austin, Texas. Manufacturing is also carried out in factories in Dongguan, China, Penang, Malaysia and Guadalajara, Mexico. The emphasis is on quality and highly automated production.

In order to support our customers globally we have a network of Technical Sales covering the Americas, Asia Pacific and Europe.

About our products

We have achieved many industry innovations in the area of Front End Distributed Power Architectures. We offer:

- Isolated AC/DC converters from 1100W to 4000W
- CRPS Products that fully comply with intel X86 requirements

Every product design is the result of extensive research and development in power technology, with a broad application and system knowledge and a focus on design for environment and design for manufacturing.

The result is:

- High efficiency over a wide load range
- High power density
- Efficient thermal management
- Low total cost of ownership over product lifetime
- Excellent dynamic load performance
- High MTBF and long lifetime

Let us help you to be successful in your business by choosing an innovative power solution.

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CRPS Standard Power Supplies 12V output

Our CPRS Standard Power Supplies are designed for standard data center applications for server, storage and network equipment. They communicate with the server processor to unlock performance features.

FLEX STANDARD PRODUCTS

CRPS Standard Models

Model	Input Voltage	Main V_{out}/ P_{out} High Line	Main V_{out}/ I_{out} Low Line	Standby V_{out}/ I_{out}	Chassis Dimensions (L x W x H) (mm)	Temp Range (°C)	Single/ Dual Fan	Airflow	Efficiency	Input Connector	Output Mating Connector
FPS-1600W	90-264 VAC	12V/1600W	12V/1000W	12V/3A	185 x 73.5 x 40	0 – +50	Single	N	Platinum	IEC 320 C14	FCI 10035388-102
FPS-2100W	90-264 VAC	12V/2100W	12V/1000W	12V/3A	185 x 73.5 x 40	+5 – +50	Single	N	Platinum	IEC 320 C14	FCI 10035388-102
FPS-2200W	90-264 VAC	12V/2200W	12V/1200W	12V/3.5A	265 x 73.5 x 40	0 – +55	Single	N	Platinum	IEC 320 C20	FCI 10035388-102

CRPS 1600W Server Power Supply

Main features

- AC – DC Power Supply
- Input range: 180 – 264Vac
- 1600W rating load
- 80 Plus Platinum Efficiency
- OVP/UVP/OCP/SCP/OTP Protection
- PMBus
- SMBAlert
- In-system FW Update
- Active Current Sharing on Main Output
- Hot Plug Operation
- Up to 4 power supplies parallel in either N + 1 or N + N configuration
- EEPROM for FRU data
- Indicator: 3 x LED for AC, DC & Fault
- EMI EN55022, Class A
- Dimensions: (H) 39mm x (W) 73.5mm x (L) 185mm

Key specifications

Input	Rated Voltage	200~240 AC Volts (HL) 100~127 AC Volts (LL)
	Operating Range	180~264 AC Volts 90~140 AC Volts
	Rated Frequency	50/60Hz
Output	Rated Voltage	12V normal (11.76~12.34V)
	Ripple Voltage	120mV (peak to peak)
	Power Rated	1600W HL, 1000W LL
	Standby Power	25W max.
Operational Temperature	Operation with Specifications	0 ~ 50°C
Conducted Emissions	Per CFR47 Part 15 / EN 55022 / CISPR22 Class A Margin to the limit > 6 dB	
Radiated Emissions	Per CFR47 Part 15 / EN 55022 / CISPR22 Class A Margin to the limit > 6 dB	

CRPS 2100W Server Power Supply

Main features

- AC – DC Power Supply
- Input range: 180 – 264Vac
- 2100W rating load
- 80 Plus Platinum Efficiency
- OVP/UVP/OCP/SCP/OTP Protection
- PMBus
- SMBAlert
- In-system FW Update
- Active Current Sharing on Main Output
- Hot Plug Operation
- Up to 4 power supplies parallel in either N + 1 or N + N configuration
- EEPROM for FRU data
- Indicator: 3 x LED for AC, DC & Fault
- EMI EN55022, Class A
- Dimensions: (H) 39mm x (W) 73.5mm x (L) 185mm

Key specifications

Input	Rated Voltage	200~240 AC Volts (HL) 100~127 AC Volts (LL)
	Operating Range	180~264 AC Volts 90~140 AC Volts
	Rated Frequency	50/60Hz
Output	Rated Voltage	12V normal (11.76~12.34V)
	Ripple Voltage	120mV (peak to peak)
	Power Rated	2100W HL, 1000W LL
	Standby Power	25W max.
Operational Temperature	Operation with Specifications	+5 ~ 50°C
Conducted Emissions	Per CFR47 Part 15 / EN 55022 / CISPR22 Class A Margin to the limit > 6 dB	
Radiated Emissions	Per CFR47 Part 15 / EN 55022 / CISPR22 Class A Margin to the limit > 6 dB	

CRPS 2200W Server Power Supply

Main features

- AC – DC Power Supply
- 2200W rating load
- 80 Plus Platinum Efficiency
- OVP/UVP/OCP/SCP/OTP Protection
- CRPS features: PMBus, Closed Loop System Throttling (CLST), Smart Ride-Through (SmaRT), Cold Redundancy, In-system FW Update, Black BoxCompatibility Check
- Active Current Sharing on Main Output
- 6 + 1 Redundant PS
- PSU includes dual rotor fan for cooling use
- Dimensions: (H) 40mm x (W) 73.5mm x (L) 265mm

Key specifications

Input	Operating Voltage	180~264 AC Volts (HL) 100~127 AC Volts (LL)
	Rated Range	200~240 AC Volts 90~140 AC Volts
	Rated Frequency	50/60Hz
Output	Rated Voltage	12V normal (11.4~12.6V)
	Ripple Voltage	120mV (peak to peak)
	Power Rated	2200W HL, 1200W LL
	Standby Power	25W max.
Operational Temperature	Operation with Specifications	0 ~ 50°C
Conducted Emissions	Per CFR47 Part 15 / EN 55022 / CISPR22 Class A	
Radiated Emissions	Per CFR47 Part 15 / EN 55022 / CISPR22 Class A	

Model	Input Voltage	Main V_{out}/ P_{out} High Line	Main V_{out}/ I_{out} Low Line	Standby V_{out}/ I_{out}	Chassis Dimensions (L x W x H) (mm)	Temp Range (°C)	Single/ Dual Fan	Airflow	Efficiency	Input Connector	Output Mating Connector
FPS-1200W	90-264 VAC	12V/1200W	12V/1000W	12V/3.5A	265 x 73.5 x 40	-5 – +55	Single	N/R	Platinum	IEC 320 C14	FCI 10130248-005LF
FPS-1200W	-40 – -72 VDC	12V/1200W	N/A	12V/3.5A	265 x 73.5 x 40	-5 – +55	Single	N/R	Platinum	Amphenol C10-730138-000	FCI 10130248-005LF
FPS-2000W	90-264 VAC	12V/2000W	12V/1200W	12V/3.5A	265 x 73.5 x 40	-5 – +55	Single	N/R	Platinum	IEC 320 C20	FCI 10130248-005LF
FPS-2000W	-40 – -72 VDC	12V/2000W	N/A	12V/3.5A	265 x 73.5 x 40	-5 – +55	Single	N/R	Platinum	Amphenol C10-730138-000	FCI 10130248-005LF

CRPS 1200W Server Power Supply

Main features

- AC – DC Power Supply
- 1200W rating load
- 80 Plus Platinum Efficiency
- OVP/UVP/OCP/SCP/OTP Protection
- CRPS features: PMBus, Closed Loop System Throttling (CLST), Smart Ride-Through (SmaRT), Cold Redundancy, In-system FW Update, Black BoxCompatibility Check
- Active Current Sharing on Main Output
- 6 + 1 Redundant PS
- PSU includes dual rotor fan for cooling use
- Dimensions: (H) 40mm x (W) 73.5mm x (L) 265mm

Key specifications

Input	Operating Voltage	180~264 AC Volts (HL) 100~127 AC Volts (LL)
	Rated Range	200~240 AC Volts 90~140 AC Volts
	Rated Frequency	50/60Hz
Output	Rated Voltage	12V normal (11.4~12.6V)
	Ripple Voltage	120mV (peak to peak)
	Power Rated	1200W HL, 1000W LL
	Standby Power	25W max.
Operational Temperature	Operation with Specifications	-5 ~ 50°C
Conducted Emissions	Per CFR47 Part 15 / EN 55022 / CISPR22 Class A	
Radiated Emissions	Per CFR47 Part 15 / EN 55022 / CISPR22 Class A	

CRPS 1200W Server Power Supply

Main features

- DC – DC Power Supply
- 1200W rating load
- 80 Plus Platinum Efficiency
- OVP/UVP/OCP/SCP/OTP Protection
- CRPS features: PMBus, Closed Loop System Throttling (CLST), Smart Ride-Through (SmaRT), Cold Redundancy, In-system FW Update, Black BoxCompatibility Check
- Active Current Sharing on Main Output
- 6 + 1 Redundant PS
- PSU includes dual rotor fan for cooling use
- Dimensions: (H) 40mm x (W) 73.5mm x (L) 265mm

Key specifications

Input	Rated Range	40~72 DC Volts
Output	Rated Voltage	12V normal (11.4~12.6V)
	Ripple Voltage	120mV (peak to peak)
	Power Rated	1200W
	Standby Power	25W max.
Operational Temperature	Operation with Specifications	-5 ~ 55°C
Conducted Emissions	Per CFR47 Part 15 / EN 55022 / CISPR22 Class A	
Radiated Emissions	Per CFR47 Part 15 / EN 55022 / CISPR22 Class A	

CRPS 2000W Server Power Supply

Main features

- AC – DC Power Supply
- 2000W rating load
- 80 Plus Platinum Efficiency
- OVP/UVP/OCP/SCP/OTP Protection
- CRPS features: PMBus, Closed Loop System Throttling (CLST), Smart Ride-Through (SmaRT), Cold Redundancy, In-system FW Update, Black BoxCompatibility Check
- Active Current Sharing on Main Output
- 6 + 1 Redundant PS
- PSU includes dual rotor fan for cooling use
- Dimensions: (H) 40mm x (W) 73.5mm x (L) 265mm

Key specifications

Input	Operating Voltage	180~264 AC Volts (HL) 100~127 AC Volts (LL)
	Rated Range	200~240 AC Volts 90~140 AC Volts
	Rated Frequency	50/60Hz
Output	Rated Voltage	12V normal (11.4~12.6V)
	Ripple Voltage	120mV (peak to peak)
	Power Rated	2200W HL, 1000W LL
	Standby Power	25W max.
Operational Temperature	Operation with Specifications	-5 ~ 55°C
Conducted Emissions	Per CFR47 Part 15 / EN 55022 / CISPR22 Class A	
Radiated Emissions	Per CFR47 Part 15 / EN 55022 / CISPR22 Class A	

CRPS 2000W Server Power Supply

OPENEDGE

Main features

- DC – DC Power Supply
- 2000W rating load
- 80 Plus Platinum Efficiency
- OVP/UVP/OCP/SCP/OTP Protection
- CRPS features: PMBus, Closed Loop System Throttling (CLST), Smart Ride-Through (SmaRT), Cold Redundancy, In-system FW Update, Black BoxCompatibility Check
- Active Current Sharing on Main Output
- 6 + 1 Redundant PS
- PSU includes dual rotor fan for cooling use
- Dimensions: (H) 40mm x (W) 73.5mm x (L) 265mm

Key specifications

Input	Rated Range	40~72 DC Volts
Output	Rated Voltage	12V normal (11.4~12.6V)
	Ripple Voltage	120mV (peak to peak)
	Power Rated	2000W
	Standby Power	25W max.
Operational Temperature	Operation with Specifications	-5 ~ 55°C
Conducted Emissions	Per CFR47 Part 15 / EN 55022 / CISPR22 Class A	
Radiated Emissions	Per CFR47 Part 15 / EN 55022 / CISPR22 Class A	

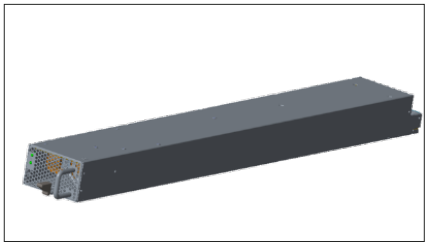
Power Shelf Front End Power Supplies

Our Power Shelf Front End Power Supplies are designed for hyperscale data centers. They can be fully customized to deliver the highest level of power efficiency.

POWER SHELF FRONT-END

Model	Input Voltage	Main V_{out}/ P_{out} High Line	Main V_{out}/ I_{out} Low Line	Standby V_{out}/ I_{out}	Chassis Dimensions (L x W x H) (mm)	Temp Range (°C)	Single/ Dual Fan	Airflow	Efficiency	Input Connector
FPS-4000W	90-300 VAC	54.5V/4000W	12V/2600W	12V/5A	530 x 69 x 40.5	0 – +45	Dual	N	Titanium+	Amphenol 10127397-07H1420LF

4000W Power Shelf Front End



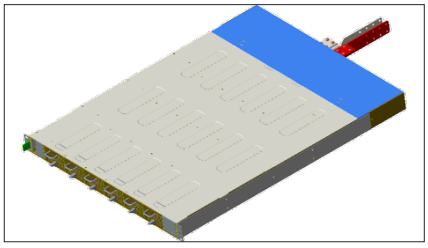
Main features

- AC – DC Power Supply
- 400W rating load
- 80 Plus Titanium+ Efficiency
- OVP/UVP/OCP/SCP/OTP Protection
- CRPS features: PMBus, In-system FW Update, Black BoxCompatibility Check
- Active Current Sharing on Main Output
- 6 + 1 Redundant PS
- PSU includes dual rotor fan for cooling use
- Dimensions: (H) 40.5mm x (W) 69mm x (L) 530mm

Key specifications

Input	Operating Voltage	90~300 AC Volts (HL)
	Rated Range	100~277 AC Volts
	Rated Frequency	50/60Hz
Output	Rated Voltage	54.5V normal (48~58V)
	Ripple Voltage	500mV (peak to peak)
	Power Rated	4000W HL, 2600W LL
	Standby Power	60W max.
Operational Temperature	Operation with Specifications	0 ~ 45°C
Conducted Emissions	Per CFR47 Part 15 / EN 55022 / CISPR22 Class A	
Radiated Emissions	Per CFR47 Part 15 / EN 55022 / CISPR22 Class A	

Power Shelf Capabilities

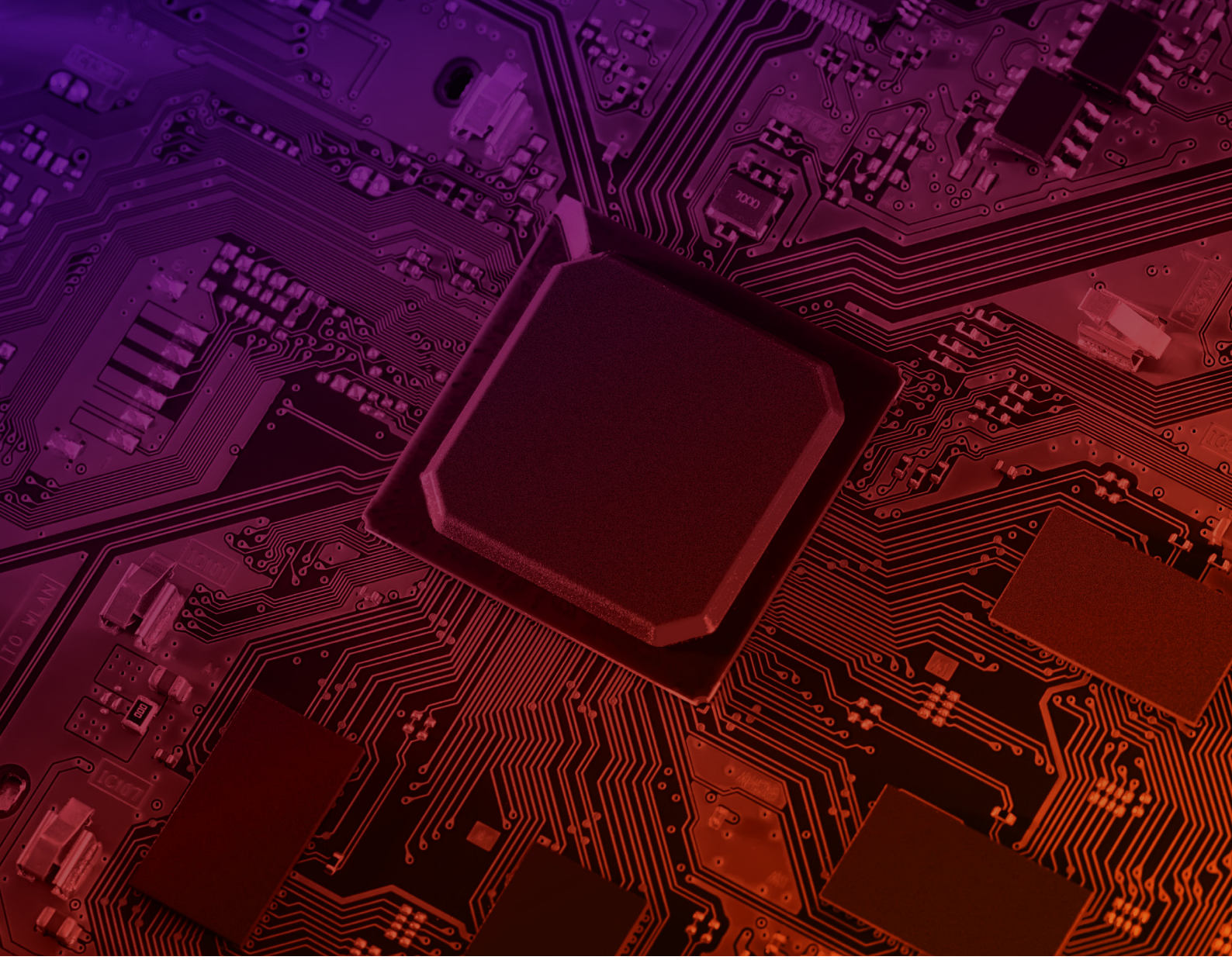


Main features

- AC – DC Power Supply
- 400W rating load
- 80 Plus Titanium+ Efficiency
- OVP/UVP/OCP/SCP/OTP Protection
- CRPS features: PMBus, In-system FW Update, Black BoxCompatibility Check
- Active Current Sharing on Main Output
- 6 + 1 Redundant PS
- PSU includes dual rotor fan for cooling use
- Dimensions: (H) 40.5mm x (W) 69mm x (L) 530mm

Key specifications

Input	Dual inputs (Input 1 and 2) AC single phase 180Vac to 300Vac or 3 phase input (Capable of both Delta and Wye connection)
Redundant	5 + 1 or 3 + 3
Output Power	24KW max, 6 4000W PSUs, 48 V_{out}
Mechanical	21" rach, 1U - 46.5mm x 534mm x 690mm 6 PSU module slots Air flow direction — front to back
RMU Module	
2x C13 outlets located on the back (connected to Input 1 and 2 respectively)	



For more information, please visit www.flex.com/cross-industry-technologies/power.

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Flex is the Sketch-to-Scale® solutions provider that designs and builds Intelligent Products for a Connected World®. With approximately 200,000 professionals across 30 countries, Flex provides innovative design, engineering, manufacturing, real-time supply chain insight and logistics services to companies of all sizes in various industries and end-markets. Flex – Live Smarter™.

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