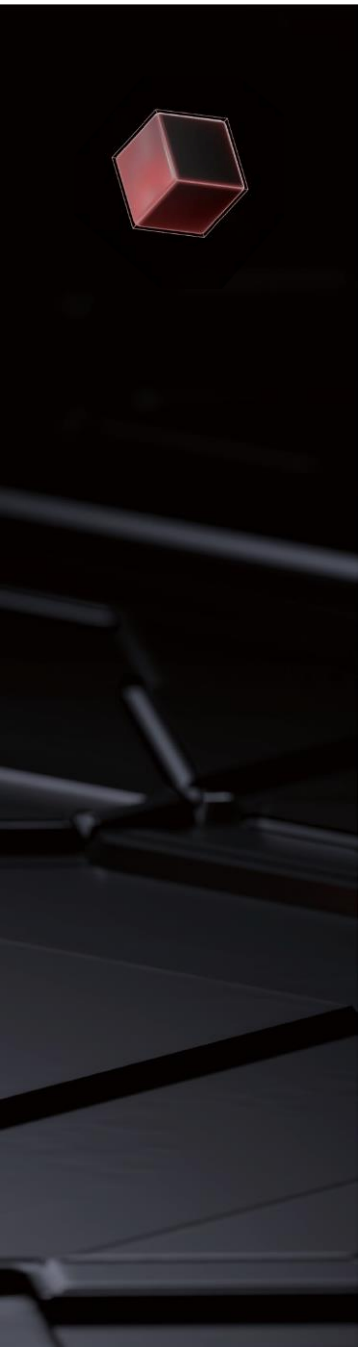
xFusion Power Supply

Product Manual

XFUSION INTERNATIONAL PTE. LTD.

Contents



01 | 68 mm (2.68 in.) PSU
Platinum 900 W Server PSU

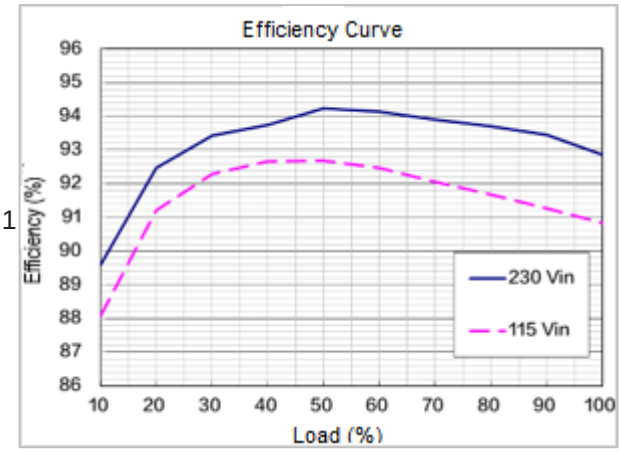
Introduction

PAC900S12-B2

The PAC900S12-B2 supports 90-264 V AC and 180-300 V AC input voltage ranges. Leveraging industry-leading all-digital control technology, this PSU features high efficiency, high density, digitization, and high reliability. The hot-swappable PSU achieves certifications such as CE, TÜV, CCC, NRTL, and CB. It is ideal for various scenarios such as servers, storage, multi-access edge computing (MEC), and video matrix.

Feature

- Platinum efficiency: 94% at 50% load
- 1+1/2+2 parallel redundancy operation
- PMBus 1.2 with the black box
- High-precision input efficiency reporting: 3% @ 50% load
- Hot standby/cold standby/deep sleep (input power less than 1 and hot swapping
- Two input systems: AC and HVDC
- Three output modes: MV12, SV12, and MV6
- Overvoltage, undervoltage, overcurrent, short circuit, overtemperature, and ORing isolation protection
- IEC 62368-1 & EN 62368-1 and GB 4943.1-2022 compliant
- RoHS compliant



Technical Specifications

Dimensions (D x W x H)	183.0 mm x 68.0 mm x 40.3mm (7.20 in. x 2.68 in. x 1.58 in.)
Weight	<2 kg (4.41 lb)
Efficiency	94% @ 50% load
Static Power	5 W
IP Rating	IP20
MTBF	500,000 h
Input Voltage	90 to 264 V AC/180 to 300 V DC
Voltage System	220 V AC single-phase and 110 V AC dual-live wire
Frequency	50 to 60 Hz
Max. Input Current (A)	100 V AC: 11
Power Factor	≥ 0.98 @ 50% load
THDi	≤5% (230 V AC/50 Hz, 30% to 100% load)
Output Voltage	11.7 to 12.6 V DC
Output Power	900 W
Hold Up Time	130% load: 10 ms
Ripple & Noise	≤120 mVp-p
Voltage Regulation	≤ ±5% (50% to 100%)
Capacitive Load	12 V DC: 540 to 22,000 uF
Communication	PMBus1.2
Digital Feature	Black box, online update, and alarm reporting
Protection	Undervoltage, overvoltage, overcurrent, short circuit, and overtemperature protection
Operating Temperature	5°C to 55°C (41°F to 131°F)
Storage Temperature	–40°C to +85°C (–40°F to +185°F)
Relative Humidity	5% to 95%
Safety Standard	IEC 62368-1, EN 62368-1, and GB 4943.1-2022
Certification	CE, TÜV, CCC, NRTL, and CB

01 | 68 mm (2.68 in.) PSU
Platinum 1500 W Server PSU

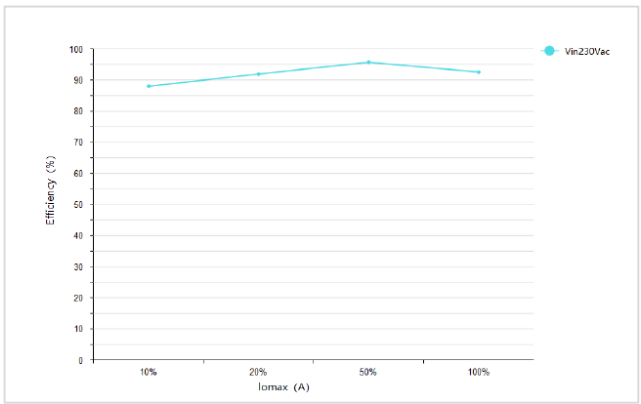
Introduction

PAC1500S12-B1

The PAC1500S12-B1 supports 90-264 V AC input and 180-300 V DC input voltage ranges. Leveraging industry-leading all-digital control technology combined with patented topology, this PSU features high efficiency, high density, digitization, and high reliability. The hot-swappable PSU achieves certifications such as CE, TÜV, CCC, NRTL, and CB. It is ideal for various scenarios such as servers, storage, multi-access edge computing (MEC), and video matrix.

Feature

- 80 PLUS Platinum certification
- Platinum efficiency: 94% at 50% load
- 1+1/2+2/3+3 parallel redundancy operation
- PMBus 1.2 with black box
- High-precision input efficiency reporting: 3% @ 50% load
- Hot standby/cold standby/deep sleep (input power less than 1 W) and hot swapping
- Two input systems: AC and HVDC
- Three output modes: MV12, SV12, and MV6
- Overvoltage, undervoltage, overcurrent, short circuit, overtemperature, and ORing isolation protection
- CE, TÜV, CCC, NRTL, and CB certifications
- IEC 62368-1 & EN 62368-1 and GB 4943.1-2022 compliant
- RoHS compliant



Technical Specifications

Dimensions (D x W x H)	183.0 mm x 68.0 mm x 40.3 mm (7.20 in. x 2.68 in. x 1.58 in.)
Weight	<2 kg (4.41 lb)
Efficiency	94% @ 50% load
Static Power	8 W
IP Rating	IP20
MTBF	500,000 h
Input Voltage	90 to 264 V AC & 180 to 300 V DC
Voltage System	220 V AC single-phase and 110 V AC dual-live wire
Frequency	50 to 60 Hz
Max. Input Current (A)	220 V AC: 10
Power Factor	≥ 0.98 @ 50% load
THDi	≤5% (230 V AC/50 Hz, 30% to 100% load)
Output Voltage	11.7 to 12.6 V DC
Output Power	1,500 W
Hold Up Time	100% load: 10 ms
Ripple & Noise	≤120 mVp-p
Voltage Regulation	≤ ±5% (50% to 100%)
Capacitive Load	12 V DC: 540 to 22,000 uF
Communication	PMBus1.2
Digital Feature	Black box, online update, and alarm reporting
Protection	Undervoltage, overvoltage, overcurrent, short circuit, and overtemperature protection
Operating Temperature	5°C to 50°C (41°F to 122°F)
Storage Temperature	–40°C to +85°C (–40°F to +185°F)
Relative Humidity	5% to 95%
Safety Standard	IEC 62368-1, EN 62368-1, and GB 4943.1-2022
Certification	CE, TÜV, CCC, NRTL, and CB

01 | 68 mm (2.68 in.) PSU
Platinum 2000 W Server PSU

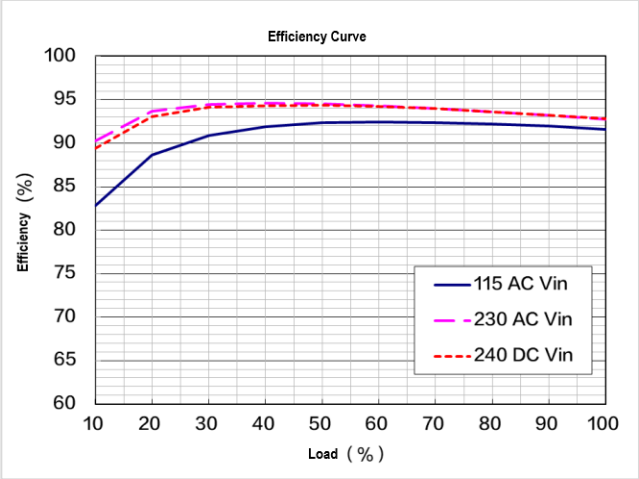
Introduction

PAC2000S12-B1

The PAC2000S12-B1 supports 90-264 V AC input and 180-300 V DC input voltage ranges. Leveraging industry-leading all-digital control technology combined with patent topology, this PSU features high efficiency, high density, digitization, and high reliability. The hot-swappable PSU achieves certifications such as CE, TÜV, CCC, NRTL, and CB. It is ideal for various scenarios such as servers, storage, multi-access edge computing (MEC), and video matrix.

Feature

- 80 PLUS Platinum certification
- Platinum efficiency: 94% at 50% load
- 1+1/2+2/3+3 parallel redundancy operation
- PMBus 1.2 with the black box
- High-precision input efficiency reporting: 3% @ 50% load
- Hot standby/cold standby/deep sleep (input power less than 1 W) and hot swapping
- Two input systems: AC and HVDC
- Three output modes: MV12, SV12, and MV6.
- Overvoltage, undervoltage, overcurrent, short circuit, overtemperature, and ORing isolation protection
- CE, TÜV, CCC, NRTL, and CB certifications
- IEC 62368-1, EN 62368-1, and GB 4943.1-2022 compliant
- RoHS compliant



Technical Specifications

Dimensions (D x W x H)	183.0 mm x 68.0 mm x 40.3 mm (7.20 in. x 2.68 in. x 1.58 in.)
Weight	<2 kg (4.41 lb)
Efficiency	94% @ 50% load
Static Power	±8 W
IP Rating	IP20
MTBF	500,000 h
Input Voltage	90 to 264 V AC & 180 to 300 V DC
Voltage System	220 V AC single-phase and 110 V AC dual-live wire
Frequency	50 to 60 Hz
Max. Input Current (A)	220 V AC: 11
Power Factor	≥ 0.98 @ 50% load
THDi	≤5% (230 V AC/50 Hz, 30% to 100% load)
Output Voltage	11.7 to 12.6 V DC
Output Power	2000 W
Hold Up Time	130% load: 10 ms
Ripple & Noise	≤120 mVp-p
Voltage Regulation	≤ ±5% (50% to 100%)
Capacitive Load	12 V DC: 540 to 22,000 uF
Communication	PMBus1.2
Digital feature	Black box, online update, and alarm reporting
Protection	Undervoltage, overvoltage, overcurrent, short circuit, and overtemperature protection
Operating Temperature	5°C to 50°C (41°F to 122°F)
Storage Temperature	–40°C to +85°C (–40°F to +185°F)
Relative Humidity	5% to 95%
Safety Standard	IEC 62368-1, EN 62368-1, and GB 4943.1-2022
Certification	CE, TÜV, CCC, NRTL, and CB

01| 68 mm (2.68 in.) PSU
Titanium 900 W Server PSUs

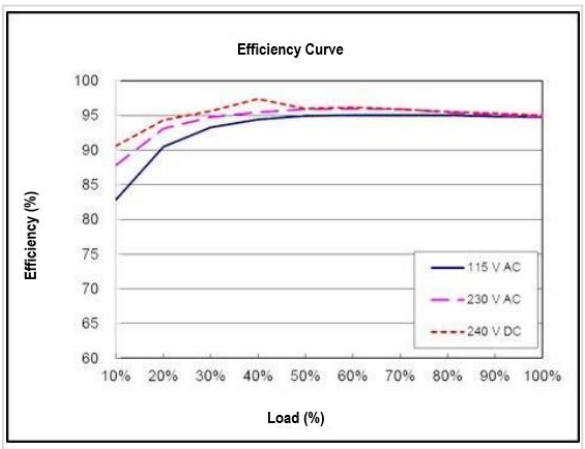
Introduction

PAC900S12-TE

The PAC900S12-TE supports 90-264 V AC and 180-300 V DC input voltage ranges. The PSU provides single output with two modes: MV12 and MV6, delivering a rated output power of 900 W. It supports hot-swapping and current-sharing, enabling 1+1/2+2 parallel redundancy operations. The PSU provides an I2C communication, enabling the reporting of the vendor, model, and version information. With the functions of the black box and online upgrade, the PSU complies with safety requirements and IT equipment safety standards.

Feature

- 80 PLUS Titanium certification
- Platinum efficiency: 96% @ 50% load
- 1+1/2+2/3+3 parallel redundancy operation
- PMBus 1.2 with the black box
- High-precision input efficiency reporting: 3% @ 50% load
- Hot standby/cold standby/deep sleep (input power less than 1 W) and hot swapping.
- Two input systems: AC and HVDC
- Two output modes: MV12 and MV6
- Overvoltage, undervoltage, overcurrent, short circuit, overtemperature, and ORing isolation protection
- CE, TÜV, CCC, NRTL, and CB certifications
- IEC 62368-1, EN 62368-1, and GB 4943.1-2022 compliant
- RoHS compliant



Technical Specifications

Dimensions (D x W x H)	183.0 mm x 68.0 mm x 40.3 mm (7.20 in. x 2.68 in. x 1.58 in.)
Weight	<2 kg (4.41 lb)
Efficiency	94% @ 50% load
Static Power	3 W
IP Rating	IP20
MTBF	500,000 h
Input Voltage	90 to 264 V AC & 180 to 300 V DC
Voltage System	220 V AC single-phase and 110 V AC dual-live wire
Frequency	50 to 60 Hz
Max. Input Current (A)	220 V AC: 10
Power factor	≥ 0.98 @ 50% load
THDi	≤5% (230 V AC/50 Hz, 30% to 100% load)
Output Voltage	11.7 to 12.6 V DC
Output Power	900 W
Hold Up Time	100% load: 10 ms
Ripple & Noise	≤120 mVp-p
Voltage Regulation	≤ ±5% (50% to 100%)
Capacitive Load	12 V DC: 540 to 22,000 uF
Communication	PMBus1.2
Digital Feature	Black box, online update, and alarm reporting
Protection	Undervoltage, overvoltage, overcurrent, short circuit, and overtemperature protection
Operating Temperature	5°C to 50°C (41°F to 122°F)
Storage Temperature	–40°C to +85°C (–40°F to +185°F)
Relative Humidity	5% to 95%
Safety Standard	IEC 62368-1, EN 62368-1, and GB 4943.1-2022
Certification	CE, TÜV, CCC, NRTL, and CB

01| 68 mm (2.68 in.) PSU
Titanium 2000 W Server PSUs

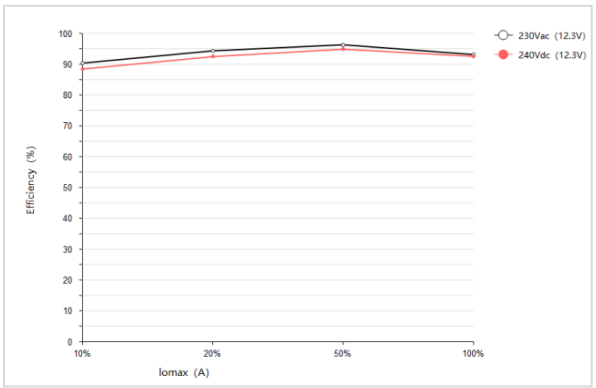
Introduction

PAC2000S12-T1

The PAC2000S12-T1 supports 90-264 V AC and 180-300 V DC input voltage ranges. It performs AC-to-DC conversion via industry-leading efficiency. The PSU provides single output and three output modes: MV12, SV12 and MV6, delivering a rated output power of 2000 W. It supports hot-swapping and current-sharing, enabling 1+1/2+2 parallel redundancy operations. The PSU provides an I2C communication, enabling the reporting of the vendor, model, and version information. It also features black box and online upgrade.

Feature

- 80 PLUS Titanium
- Platinum efficiency: 96% @ 50% load
- 1+1/2+2 parallel redundancy operation
- PMBus 1.2 with the black box
- High-precision input efficiency reporting (3% @ 50% load)
- Hot standby/cold standby/deep sleep (input power less than 1 W) and hot swapping
- Two input systems: AC and HVDC
- Three output modes: MV12, SV12, and MV6
- Overvoltage, undervoltage, overcurrent, short circuit, overtemperature, and ORing isolation protection
- Compliant with CE, TÜV, CCC, NRTL, and CB certifications
- IEC 62368-1, EN 62368-1, and GB 4943.1-2022 compliant
- RoHS Compliant



Dimensions (D x W x H)	183.0 mm x 68.0 mm x 40.3 mm (7.20 in. x 2.68 in. x 1.58 in.)
Weight	<2 kg (4.41 lb)
Efficiency	96% @ 50% load
Static Power	5 W
IP Rating	IP20
MTBF	500,000 h
Input Voltage	90 to 264 V AC & 180 to 300 V DC
Voltage System	220 V AC single-phase and 110 V AC dual-live wire
Frequency	50 to 60 Hz
Max. Input Current (A)	220 V AC: 11
Power Factor	≥ 0.98 @ 50% load
THDi	≤5% (230 V AC/50 Hz, 30% to 100% load)
Output Voltage	11.7 to 12.6 V DC
Output Power	2000 W
Hold Up Time	100% load: 7 ms
Ripple & Noise	≤120 mVp-p
Voltage Regulation	≤ ±5% (50% to 100%)
Capacitive Load	12 V DC: 540 to 22,000 uF
Communication	PMBus1.2
Digital feature	Black box, online update, and alarm reporting
Protection	Undervoltage, overvoltage, overcurrent, short circuit, and overtemperature protection
Operating Temperature	5°C to 50°C (41°F to 122°F)
Storage Temperature	–40°C to +85°C (–40°F to +185°F)
Relative Humidity	5% to 95%
Safety Standard	IEC 62368-1, EN 62368-1, and GB 4943.1-2022
Certification	CE, TÜV, CCC, NRTL, and CB

01 | 68 mm (2.68 in.) PSU
3000 W Titanium Server PSUs

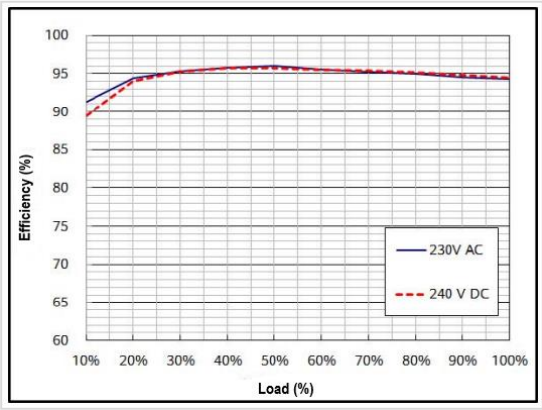
Introduction

PAC3000S12-T1

The PAC3000S12-T1 supports 90-264 V AC and 180-300 V DC input voltage ranges. This PSU provides a single output with three modes: MV12, SV12, and MV6, delivering a rated output power of 3000 W. It supports hot-swapping and current-sharing, enabling 1+1/2+2 parallel redundancy operations. Leveraging industry-leading all-digital control technology combined with patent topology, this PSU features high efficiency, high density, digitization, high reliability, and usability. It meets certification such as CE, TÜV, CCC, NRTL, and CB. It is ideal for various scenarios such as servers, storage, multi-access edge computing (MEC), and video matrix.

Feature

- 80 PLUS Titanium
- Titanium efficiency: 96% @ 50% load
- 1+1/2+2 parallel redundancy operation
- PMBus 1.2 with the black box
- High-precision input efficiency reporting: 3% @ 50% load
- Hot standby/cold standby/deep sleep (input power less than 1 W) and hot swapping
- Two input systems: AC and HVDC
- Three output modes: MV12, SV12, and MV6.
- Overvoltage, undervoltage, overcurrent, short circuit, overtemperature, and ORing isolation protection
- CE, TÜV, CCC, NRTL, and CB certifications
- IEC 62368-1, EN 62368-1, and GB 4943.1-2022 compliant
- RoHS compliant



Technical Specifications

Dimensions (D x W x H)	183.0 mm x 68.0 mm x 40.3 mm (7.20 in. x 2.68 in. x 1.58 in.)
Weight	<2 kg (4.41 lb)
Efficiency	96% @ 50% load
Static Power	≤1 W (deep sleep), ≤5 W (cold standby)
IP Rating	IP20
MTBF	500,000 h
Input Voltage	90 to 264 V AC & 180 to 300 V DC
Voltage System	220 V AC single-phase and 110 V AC dual-live wire
Frequency	50 to 60 Hz
Max. Input Current (A)	220 V AC: 16
Power Factor	≥ 0.98 @ 50% load
THDi	≤5% (230 V AC/50 Hz, 30% to 100% load)
Output Voltage	12.3 V DC
Output Power	3000 W
Hold Up Time	130% load: 10 ms
Ripple & Noise	≤120 mVp-p
Voltage Regulation	≤ ±5% (50% to 100%)
Capacitive Load	12 V DC: 540 to 22,000 uF
Communication	PMBus1.2
Digital feature	Black box, online update, and alarm reporting
Protection	Undervoltage, overvoltage, overcurrent, short circuit, and overtemperature protection
Operating Temperature	5°C to 50°C (41°F to 122°F)
Storage Temperature	–40°C to +85°C (–40°F to +185°F)
Relative Humidity	5% to 95%
Safety Standard	IEC 62368-1, EN 62368-1, and GB 4943.1-2022
Certification	CE, TÜV, CCC, NRTL, and CB

01| 68 mm (2.68 in.) PSU
1,200 W DC Server PSU

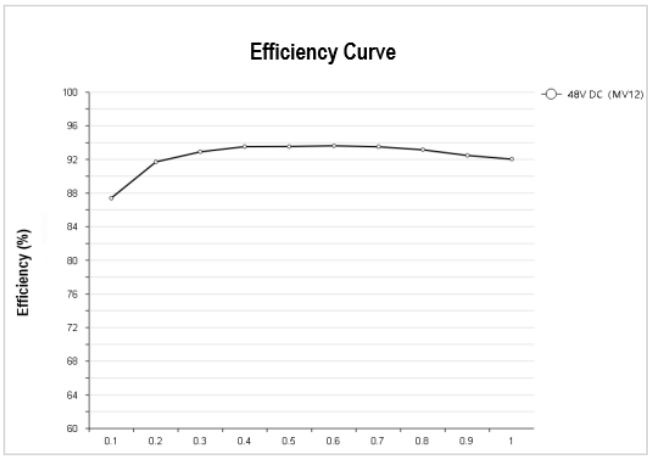
Introduction

PDC1200S12-CF

The PDC1200S12-CF supports a -38.4 to -72 V DC input voltage range. The PSU provides single output with three output modes: MV12, SV12, and MV6, delivering a rated output power of 1,200 W. It supports hot-swapping and current-sharing, enabling 1+1/2+2/3+3 parallel redundancy operations. It meets certification such as CE, TÜV, CCC, NRTL, and CB. It is ideal for various scenarios such as servers, storage, multi-access edge computing (MEC), and video matrix.

Feature

- Efficiency: 92.5% @ 50% load
- 1+1/2+2/3+3 parallel redundancy operation
- PMBus 1.2 with the black box
- High-precision input efficiency reporting: 3% @ 50% load
- Hot standby/cold standby/deep sleep (input power less than 1 W) and hot swapping
- Input system: -48 V DC
- Three output modes: MV12, SV12, and MV6
- Overvoltage, undervoltage, overcurrent, short circuit, overtemperature, and ORing isolation protection
- CE, TÜV, CCC, NRTL, and CB certifications
- IEC 62368-1, EN 62368-1, and GB 4943.1-2022 compliant
- RoHS compliant



Dimensions (D x W x H)	183.0 mm x 68.0 mm x 40.3 mm (7.20 in. x 2.68 in. x 1.58 in.)
Weight	<2 kg (4.41 lb)
Efficiency	92.5% @ 50% load
Static Power	25 W
IP Rating	IP20
MTBF	500,000 h
Input Voltage	–38.4 to +72 V DC
Max. Input Current (A)	38.4 V DC: 40
Output Voltage	11.97 to 12.6 V DC
Output Power	1,200 W
Ripple & Noise	≤120 mVp-p
Voltage Regulation	≤ ±5% (50% to 100%)
Capacitive Load	12 V DC: 540 to 22,000 uF
Communication	PMBus1.2
Hold Up Time	Black box, online update, and alarm reporting
Protection	Undervoltage, overvoltage, overcurrent, short circuit, and overtemperature protection
Operating Temperature	5°C to 50°C (41°F to 122°F)
Storage Temperature	–40°C to +85°C (–40°F to +185°F)
Relative Humidity	5% to 95%
Safety Standard	IEC 62368-1, EN 62368-1, and GB 4943.1-2022
Certification	CE, TÜV, CCC, NRTL, and CB

01 | 68 mm (2.68 in.) PSU
1,500 W HVDC Server PSU

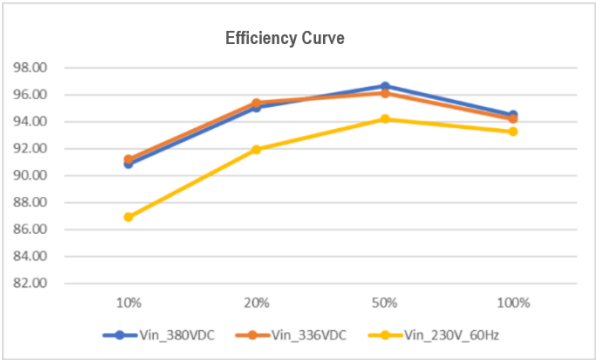
Introduction

PHD1500S12-B2

The PHD1500S12-B2 supports 180-264 V AC and 260-400 V DC input voltage ranges. It performs AC-to-DC conversion via industry-leading efficiency. The PSU provides single output and three output modes: MV12, SV12 and MV6, delivering a rated output power of 1,500 W. It supports hot-swapping and current-sharing, enabling 1+1/2+2 parallel redundancy operations. The PSU provides an I2C communication, enabling the reporting of the vendor, model, and version information. It also features black box and online upgrade.

Feature

- 80 PLUS Platinum
- Platinum efficiency: 94% @ 50% load
- 1+1/2+2 parallel redundancy operation
- PMBus 1.2 with the black box
- High-precision input efficiency reporting: 3% @ 50% load
- Hot standby/cold standby/deep sleep (input power less than 1 W) and hot swapping
- Two input systems: AC and HVDC
- Three output modes: MV12, SV12, and MV6
- Overvoltage, undervoltage, overcurrent, short circuit, overtemperature, and ORing isolation protection
- CE, TÜV, CCC, NRTL, and CB certifications
- IEC 62368-1, EN 62368-1, and GB 4943.1-2022 compliant
- RoHS compliant



Technical Specifications

Dimensions (D x W x H)	183.0 mm x 68.0 mm x 40.3 mm (7.20 in. x 2.68 in. x 1.58 in.)
Weight	<2 kg (4.41 lb)
Efficiency	94% @ 50% load
Static Power	3 W
IP Rating	IP20
MTBF	500,000 h
Input Voltage	180-264 V AC & 260-400 V DC
Voltage System	220 V AC single phase and HVDC
Frequency	50 to 60 Hz
Max. Input Current (A)	220 V AC: 10
Power Factor	≥ 0.98 @ 50% load
THDi	≤5% (230 V AC/50 Hz, 30% to 100% load)
Output Voltage	11.7 to 12.6 V DC
Output Power	1,500 W
Hold Up Time	80% load: 10 ms
Ripple & Noise	≤120 mVp-p
Voltage Regulation	≤ ±5% (50% to 100%)
Capacitive Load	12 V DC: 540 to 22,000 uF
Communication	PMBus1.2
Digital feature	Black box, online update, and alarm reporting
Protection	Undervoltage, overvoltage, overcurrent, short circuit, and overtemperature protection
Operating Temperature	5°C to 50°C (41°F to 122°F)
Storage Temperature	–40°C to +85°C (–40°F to +185°F)
Relative Humidity	5% to 95%
Safety Standard	IEC 62368-1, EN 62368-1, and GB 4943.1-2022
Certification	CE, TÜV, CCC, NRTL, and CB

02| CRPS PSU
Platinum 1300 W AC PSUs

Introduction

CRPS1K3S12-P

CRPS Platinum 1300 W PSU features high efficiency and reliability with redundancy operation and intelligent O&M. The PSU provides reliable and efficient power supply for data centers, enterprise servers, and similar applications.

Feature

High Reliability

- Component with high-level specification: Component must be rated for 10-year service life.
- Circuit design with precision: Components are derated for electrical and thermal stresses, with 100% circuit tolerance simulation.
- Systematic testing and verification: 1000+ professional tests, long-term reliability in 1000 hours of high-temperature aging, 1000 hours of dual-85 (85°C and 85% RH) test, and 1000 hours of powered temperature cycling.
- Comprehensive production testing: 100% specification coverage, 100% high-temperature aging, and ORT random inspection

Ultimate Security

- Reliable fault isolation
- No injury, no smoke, no fire, no diffusion, and no breakdown

Domestic Key Components

- Domestic MCUs
- Domestic key PSU components, such as power MOSFETs, power diodes, driver IC, and filter capacitors
- Domestic signal chains (operational amplifiers, comparators, isolators, and signal diodes/triodes)

Product Model	CRPS1K3S12-P
Input Voltage Range	90 to 264 V AC with dual-live-wire input
Input Frequency Range	47 to 63 Hz
Operating Voltage Range	180 to 320 V DC and L/N reverse connection
Max. Input Current	10 A
Input Protection	Overvoltage, undervoltage, overcurrent, and overtemperature protection
Output Voltage Range	Steady-state accuracy: 11.8 to 12.6 V; dynamic accuracy 11.6 to 12.8 V
Output Power	1300 W (Vin: 180-264 V AC or 180-320 V DC)
	1000 W (Vin: 90-132 V AC)
Output Ripple	105 mVp-p
Max. Output Capacitive Load	22,000 uF
Hold Up Time	100% load: 16 ms
	50% load: 30 ms
	50% load: 60 ms
Efficiency	80 Plus Platinum: > 93.5% at 20% load
Output Protection	Overvoltage, undervoltage, overcurrent, and short circuit protection
Parallel Operation	1+1/2+2/2+1 parallel redundancy operation, mixed models without failure, hot swappable, and fault isolation enabled
Current Sharing	< 10% (10% to 20% load); 5% (≥ 20% load)
Certification	NRTL, TÜV, CB, CE, and CCC
Service Life	5 years (20% time at 20% load, 80% time at 80% load)
Annualized Failure Rate (AFR)	<400 ppm
Heat Dissipation	Automatic fan speed control and fan fault isolation
Operating Temperature and Humidity	Operating temperature: 0°C to 55°C (32°F to 131°F) Operating humidity: 5% to 90% (RH)
Storage Temperature and Humidity	Storage temperature: –40°C to +85°C (–40°F to +185°F) Storage humidity: 5% to 95% (RH)

02| CRPS PSU
Platinum 1300 W/1600 W AC PSUs

Introduction

CRPS1K6S12-P

CRPS Platinum 1600 W PSU features high efficiency and reliability with redundancy operation and intelligent O&M. The PSU provides reliable and efficient power supply for data centers, enterprise servers, and similar applications.

Feature

High Reliability

- Component with high-level specification: Component must be rated for 10-year service life.
- Circuit design with precision: Components are derated for electrical and thermal stresses, with 100% circuit tolerance simulation.
- Systematic testing and verification: 1000+ professional tests, long-term reliability in 1000 hours of high-temperature aging, 1000 hours of dual-85 (85°C and 85% RH) test, and 1000 hours of powered temperature cycling.
- Comprehensive production testing: 100% specification coverage, 100% high-temperature aging, and ORT random inspection

Ultimate Security

- Reliable fault isolation
- No injury, no smoke, no fire, no diffusion, and no breakdown

Domestic Key Components

- Domestic MCUs
- Domestic key PSU components, such as power MOSFETs, power diodes, driver IC, and filter capacitors
- Domestic signal chains (operational amplifiers, comparators, isolators, and signal diodes/triodes)

Product Model	CRPS1K6S12-P
Input Voltage Range	90 to 264 V AC with dual-live-wire input
Input Frequency Range	47 to 63 Hz
Operating Voltage Range	180 to 320 V DC and L/N reverse connection
Max. Input Current	10 A
Input Protection	Overvoltage, undervoltage, overcurrent, and overtemperature protection
Output Voltage Range	Steady-state accuracy: 11.8 to 12.6 V; dynamic accuracy 11.6 to 12.8 V
Output Power	1600 W (Vin: 180-264 V AC or 180-320 V DC)
	1000 W (Vin: 90-132 V AC)
Output Ripple	105 mVp-p
Max. Output Capacitive Load	30,000 uF
Hold Up Time	100% load: 12 ms
	50% load: 30 ms
	50% load: 40 ms
Efficiency	80 Plus Platinum: > 94% at 20% load
Output Protection	Overvoltage, undervoltage, overcurrent, and short circuit protection
Parallel Operation	1+1/2+2/2+1 parallel redundancy operation, mixed models without failure, hot swappable, and fault isolation enabled
Current Sharing	< 10% (10% to 20% load); 5% (≥ 20% load)
Certification	NRTL, TÜV, CB, CE, and CCC
Service Life	5 years (20% time at 20% load, 80% time at 80% load)
Annualized Failure Rate (AFR)	<400 ppm
Heat Dissipation	Automatic fan speed control and fan fault isolation
Operating Temperature and Humidity	Operating temperature: 0°C to 55°C (32°F to 131°F) Operating humidity: 5% to 90% (RH)
Storage Temperature and Humidity	Storage temperature: –40°C to +85°C (–40°F to +185°F) Storage humidity: 5% to 95% (RH)

03| Power Shelf
Dual Input Titanium 3000 W Server PSUs

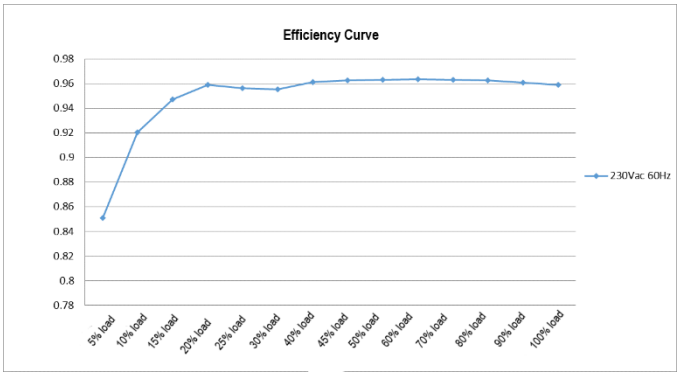
Introduction

PDP3000S54-TE

The PDP3000S54-TE supports 90 to 264 V AC and 180 to 300 V DC input voltage ranges. This PSU provides a single output of 54 V with a rated output power of 3000 W. The PSU supports hot-swappable applications and current sharing, enabling parallel redundancy operation in 1+1, 2+2, 3+3, and *N*+1 (with N up to 5). Leveraging industry-leading all-digital control technology combined with patent topology, the PSU delivers superior overload capabilities to support the GPU peak load feature. It integrates energy-saving modes, such as cold standby, hot standby, and deep sleep, achieving 80 PLUS Titanium certification with 96% at 50% load. The PSU meets CE, TÜV, CCC, NRTL, and CB certifications, designed for diverse ICT applications including servers, data centers, and edge computing.

Feature

- 80 PLUS Titanium
- Titanium efficiency: 96% @ 50% load
- 1+1, 2+2, 3+3, and *N*+1 parallel redundancy operation
- PMBus 1.2 with the black box
- High-precision input efficiency reporting: 3% @ 50% load
- Hot standby, cold standby, deep sleep (input power less than 8 W), and hot swapping
- Dual input pattern and auto-input switching when single circuit power fails
- 54 V output voltage
- Overvoltage, undervoltage, overcurrent, short circuit, overtemperature, and ORing isolation protection
- NRTL, TÜV, CB, CE, and CCC certifications
- IEC 62368-1, EN 62368-1, and GB 4943.1-2022 compliant
- RoHS compliant



Technical Specifications

Dimensions (D x W x H)	538.5 mm x 68.0 mm x 40.7 mm (21.20 in. x 2.68 in. x 1.60 in.)
Weight	<3.5 kg (7.72 lb)
Efficiency	96% @ 50% load
Static Power	≤8 W (deep sleep), ≤10 W (cold standby)
IP Rating	IP20
MTBF	500,000 hours
Input Voltage	90 to 264 V AC & 180 to 320 V DC
Voltage System	220 V AC single-phase and 110 V AC dual-live wire
Frequency	50 to 60 Hz
Max. Input Current (A)	220 V AC: 16; 240 V DC: 15
Power Factor	≥ 0.99 @ 50% load
THDi	≤5% (230 V AC/50 Hz, 30% to 100% load)
Output Voltage	54 V DC
Output Power	3000 W
Hold Up Time	110%-130% load: 10s; 140%-150% load: 40 ms
Ripple & Noise	≤120 mVp-p
Voltage Regulation	≤ ±5% (20% to 100%)
Capacitive Load	54V DC: ~12000uF
Communication	PMBus1.2
Digital feature	Black box, online update, and alarm reporting
Protection	Undervoltage, overvoltage, overcurrent, short circuit, and overtemperature protection
Operating Temperature	0°C to 50°C (32°F to 122°F)
Storage Temperature	–40°C to +85°C (–40°F to +185°F)
Relative Humidity	5% to 95%
Safety Standard	IEC 62368-1, EN 62368-1, and GB 4943.1-2022
Certification	NRTL, TÜV, CB, CE, and CCC

03 Power Shelf
33 kW Centralized Power Shelves

Introduction

33 kW centralized power shelf

The power shelf consists of the power chassis, PSUs, and management module. The power shelf converts the AC power into stable DC power for the cabinet through the AC/DC module. The chassis supports flexible 19/21 inch rack and dual input of HVDC/AC. The PSU integrates a built-in static transfer switch (STS) unit for dual input and *N*+1 redundancy. Compared to traditional 2N architectures, it reduces procurement costs by 45%, increases power density by 45%, and improves efficiency by 1%. With a 3U form factor and 33 kW per cabinet, the system achieves annual energy savings of approximately 1,500 kWh.

Technical Specifications

Product Model	33 kW centralized power shelf
Dimensions (H x W x D)	133 mm x 536 mm x 750 mm (5.24 in. x 21.10 in. x 29.53 in.)
Number of PSUs	12 in full configuration
Input Voltage System	3L+N+PE
Input Port	Total: 6 Active power: INPUT A1/INPUT A2/INPUT A3 Standby power: INPUT B1/INPUT B2/INPUT B3
Input Voltage	346 to 415 V AC (three-phase):
Input Current	32 A per phase
Output Voltage	48 V DC
Output Current	Power shelf: up to 660 A; 55 A per module
Output Power	Total power of a power shelf: 36 kW MAX (non-redundant) 33 kW MAX (*N*+1 redundancy)

03| Power Shelf
51 kW Centralized Power Shelves

Introduction

51 kW centralized power shelf

The power shelf consists of the power chassis, PSUs, and management module. The power shelf converts the AC power into stable DC power for the cabinet through the AC/DC module. The chassis supports flexible 19/21 inch rack and dual input of HVDC/AC. The PSU integrates a built-in static transfer switch (STS) unit for dual input and *N*+1 redundancy. Compared to traditional 2N architectures, it reduces procurement costs by 45%, increases power density by 45%, and improves efficiency by 1%. With a 3U form factor and 33 kW per cabinet, the system achieves annual energy savings of approximately 1,500 kWh.

Technical Specifications

Product Model	51 kW centralized power shelf
Dimensions (H x W x D)	133 mm x 536 mm x 750 mm (5.24 in. x 21.10 in. x 29.53 in.)
Number of PSUs	18 in full configuration
Input Voltage System	3L+N+PE
Input Port	Total: 6 Active power: INPUT A1/INPUT A2/INPUT A3 Standby power: INPUT B1/INPUT B2/INPUT B3
Input Voltage	346 to 415 V AC (three-phase):
Input Current	32 A per phase
Output Voltage	48 V DC
Output Current	Power shelf: up to 990 A; 55 A per module
Output Power	Total power of a power shelf: Up to 54 kW (non-redundant) Up to 51 kW (*N*+1 redundancy)

More Information

For more information about xFusion, please contact your local representative office or visit our official website at https://www.xfusion.com/en.

xFusion official website

XFUSION INTERNATIONAL PTE. LTD.
Website: www.xfusion.com/en

Notice

The purchased products, services, and features are stipulated by the contract made between xFusion and the customer. All or part of the products, services, and features described in this document may not be within the purchase scope or the usage scope. Unless otherwise specified in the contract, all statements, information, and recommendations in this document are provided "AS IS" without warranties, guarantees or representations of any kind, either express or implied.

The information in this document is subject to change without notice. Every effort has been made in the preparation of this document to ensure accuracy of the contents, but all statements, information, and recommendations in this document do not constitute a warranty of any kind, express or implied.