

# 5 Power Supply Facilities

[5.1 Power Module](#)

[5.2 Power Distribution Box](#)

## 5.1 Power Module

### 5.1.1 W2PSD2200 (2200 W DC Power Module (Black))

#### Overview

**Table 5-1** Basic information about the W2PSD2200

Item	Details
Description	2200 W DC Power Module (Black)
Part Number	02270117
Model	W2PSD2200

 **NOTE**

W2PSD2200 has replaced PDC-2200WF since Jun, 2019.

## Appearance

Figure 5-1 Appearance of the W2PSD2200



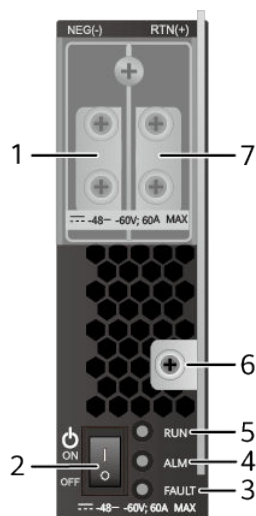
## Version Mapping

Table 5-2 Mappings between W2PSD2200 and product models

Product	Product Model	First Supported Version	Limitations
S12700E	S12700E-12	V200R019C00	-
S12700E	S12700E-4	V200R019C00	-
S12700E	S12700E-8	V200R019C00	-

## Panel

Figure 5-2 Panel of the W2PSD2200



1. NEG terminal	2. Power switch <b>NOTE</b> <ul style="list-style-type: none"> <li>• ON: The power module is supplying power.</li> <li>• OFF: The power module is not supplying power.</li> </ul>	3. FAULT indicator
4. ALM indicator	5. RUN indicator	6. Ejector lever <b>NOTE</b> Raise the ejector lever to release the power module from the slot, and lower the ejector lever to lock the power module in the slot.
7. RTN terminal	-	-

Table 5-3 describes the relationship between cables and the terminals on a 2200 W DC power module.

Table 5-3 Relationship between cables and the terminals on a 2200 W DC power module

Input Terminal Identifier	Cable Type	Cable Color	Connected Terminal
RTN <b>NOTE</b> RTN indicates return.	Power ground cable	Black	OT bare crimp terminal

Input Terminal Identifier	Cable Type	Cable Color	Connected Terminal
NEG	Power cable	Blue	

**Table 5-4** Indicators on the W2PSD2200

Silkscreen	Name	Color	Status	Description
FAULT	FAULT indicator	Red	Steady on	The power module has a fault that cannot be rectified.
ALM	ALM indicator	Yellow	Steady on	A power output shutdown alarm, overtemperature alarm, output overcurrent alarm, input overvoltage alarm, or input undervoltage alarm has been generated.
		Yellow	Blinking	Communication with the monitoring device (MCU or CMU) has been interrupted.
RUN	RUN indicator	Green	Steady on	The power input is normal.

## Functions and Features

A 2200 W DC power module provides a maximum power of 2200 W for the chassis. [Table 5-5](#) describes the functions of a 2200 W DC power module.

**Table 5-5** Functions of a 2200 W DC power module

Function		Description
Input protection	Input undervoltage protection	In this protection state, the power module is turned off and stops supplying power. When the system recovers from input undervoltage, the power module can automatically start supplying power again.
	Input overcurrent protection	In this protection state, the power module is turned off and stops supplying power. The power module cannot automatically start supplying power again and needs to be replaced.
Output protection	Output overvoltage protection	In this protection state: <ul style="list-style-type: none"> <li>• If output overvoltage is caused by the power module itself, the power module stops supplying power. When the system recovers from output overvoltage, the power module cannot automatically start supplying power again.</li> <li>• If output overvoltage is caused by increase of the input voltage received from the external power source, the power module stops supplying power. When the system recovers from output overvoltage, the power module can automatically start supplying power again.</li> </ul>
	Output overcurrent protection	In this protection state, the output current is limited to a certain value. When the system recovers from output overcurrent, the power module can automatically start supplying power again.
	Output short-circuit protection	In this protection state, the power module supplies power intermittently, and the output current is limited to a range. When the system recovers from output short-circuit, the power module can automatically start supplying power again.
Overtemperature protection		When the temperature of the power module exceeds a specified threshold, the power module stops supplying power. When the temperature falls into the normal range, the power module automatically resumes power supply.
Hot swapping		The power module is hot swappable.

## Technical Specifications

**Table 5-6** Technical specifications of the W2PSD2200

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	130 mm x 41 mm x 393 mm (5.1 in. x 1.6 in. x 15.5 in.)
Weight without packaging [kg(lb)]	< 2.5 kg
Number of inputs	1
Rated input voltage [V]	-48 V DC to -60 V DC
Input voltage range [V]	-40 V DC to -72 V DC
Maximum input current [A]	60 A
Rated output voltage [V]	53.5 V DC
Rated output current [A]	42 A
Rated output power [W]	2200 W
Power dissipation Mode	Heat dissipation with fan
Hot swapping	Supported

### 5.1.2 PDC-2200WF (2200 W DC Power Module)

#### Overview

**Table 5-7** Basic information about the PDC-2200WF

Item	Details
Description	2200 W DC Power Module
Part Number	02270147
Model	PDC-2200WF

## Appearance

Figure 5-3 Appearance of the PDC-2200WF



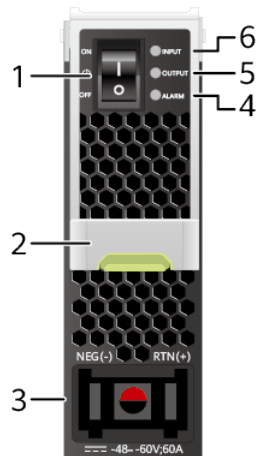
## Version Mapping

Table 5-8 Mappings between PDC-2200WF and product models

Product	Product Model	First Supported Version	Limitations
S12700E	S12700E-12	V200R019C00	-
S12700E	S12700E-4	V200R019C00	-
S12700E	S12700E-8	V200R019C00	-

## Panel

**Figure 5-4** Panel of the PDC-2200WF



<p>1. Power switch</p> <p><b>NOTE</b></p> <ul style="list-style-type: none"> <li>When the power switch is turned ON, the power module supplies power to the chassis.</li> <li>When the power switch is turned OFF, the power module does not supply power to the chassis.</li> </ul>	<p>2. Ejector lever</p> <p><b>NOTE</b></p> <p>Raise the ejector lever to release the power module from the slot, and lower the ejector lever to lock the power module in the slot.</p>	<p>3. Power socket</p>
<p>4. ALARM indicator</p>	<p>5. OUTPUT indicator</p>	<p>6. INPUT indicator</p>

**Table 5-9** Indicators on the PDC-2200WF

Silkscreen	Name	Color	Status	Description
INPUT	INPUT indicator	-	Steady off	The power module receives no input power.
		Green	Steady on	The input power of the power module is in the normal range.



Silkscreen	Name	Color	Status	Description
		Green	Blinking	The power module is in an input undervoltage or input overvoltage condition.
OUTPUT	OUTPUT indicator	-	Steady off	The power module provides no output power.
		Green	Steady on	The output power of the power module is in the normal range.
ALARM	ALARM indicator	-	Steady off	The power module is working normally.
		Red	Steady on	The power module is experiencing overheating, external short circuit, output overvoltage, output overcurrent, or a fan failure.
		Red	Blinking	Communication between the power module and CMU has been interrupted.

## Functions and Features

A 2200 W DC power module provides a maximum power of 2200 W for the chassis. [Table 5-10](#) describes the functions of a 2200 W DC power module.

**Table 5-10** Functions of a 2200 W DC power module

Function		Description
Input protection	Input undervoltage protection	In this protection state, the power module is turned off and stops supplying power. When the system recovers from input undervoltage, the power module can automatically start supplying power again.
	Input overcurrent protection	In this protection state, the power module is turned off and stops supplying power. The power module cannot automatically start supplying power again and needs to be replaced.
Output protection	Output overvoltage protection	In this protection state: <ul style="list-style-type: none"> <li>• If output overvoltage is caused by the power module itself, the power module stops supplying power. When the system recovers from output overvoltage, the power module cannot automatically start supplying power again.</li> <li>• If output overvoltage is caused by increase of the input voltage received from the external power source, the power module stops supplying power. When the system recovers from output overvoltage, the power module can automatically start supplying power again.</li> </ul>
	Output overcurrent protection	In this protection state, the output current is limited to a certain value. When the system recovers from output overcurrent, the power module can automatically start supplying power again.
	Output short-circuit protection	In this protection state, the power module supplies power intermittently, and the output current is limited to a range. When the system recovers from output short-circuit, the power module can automatically start supplying power again.
Overtemperature protection		When the temperature of the power module exceeds a specified threshold, the power module stops supplying power. When the temperature falls into the normal range, the power module automatically resumes power supply.
Hot swapping		The power module is hot swappable.

## Technical Specifications

**Table 5-11** Technical specifications of the PDC-2200WF

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	130 mm x 41 mm x 393 mm (5.1 in. x 1.6 in. x 15.5 in.)
Weight without packaging [kg(lb)]	< 2.5 kg
Number of inputs	1
Rated input voltage [V]	-48 V DC to -60 V DC
Input voltage range [V]	-40 V DC to -72 V DC
Maximum input current [A]	60 A
Rated output voltage [V]	53.5 V DC
Rated output current [A]	42 A
Rated output power [W]	2200 W
Power dissipation Mode	Heat dissipation with fan
Hot swapping	Supported

### 5.1.3 PAC3KS54-CB (3000 W AC Power Module (Black))

#### Overview

**Table 5-12** Basic information about the PAC3KS54-CB

Item	Details
Description	3000 W AC Power Module (Black)
Part Number	02311XYE
Model	PAC3KS54-CB

 **NOTE**

PAC3KS54-CB has been replaced by PAC3KS54-CE and PAC3KS54-NE.

## Appearance

Figure 5-5 Appearance of the PAC3KS54-CB



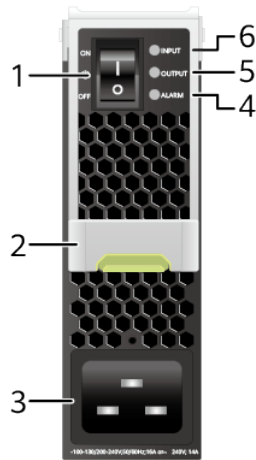
## Version Mapping

Table 5-13 Mappings between PAC3KS54-CB and product models

Product	Product Model	First Supported Version	Limitations
S12700E	S12700E-12	V200R019C00	-
S12700E	S12700E-4	V200R019C00	-
S12700E	S12700E-8	V200R019C00	-

## Panel

Figure 5-6 Panel of the PAC3KS54-CB



<p>1. Power switch</p> <p><b>NOTE</b></p> <ul style="list-style-type: none"> <li>When the power switch is turned ON, the power module supplies power to the chassis.</li> <li>When the power switch is turned OFF, the power module does not supply power to the chassis.</li> </ul>	<p>2. Ejector lever</p> <p><b>NOTE</b></p> <p>Raise the ejector lever to release the power module from the slot, and lower the ejector lever to lock the power module in the slot.</p>	<p>3. Power socket</p>
<p>4. ALARM indicator</p>	<p>5. OUTPUT indicator</p>	<p>6. INPUT indicator</p>

Table 5-14 Indicators on the PAC3KS54-CB

Silkscreen	Name	Color	Status	Description
INPUT	INPUT indicator	-	Steady off	The power module receives no input power.
		Green	Steady on	The input power of the power module is in the normal range.

Silkscreen	Name	Color	Status	Description
		Green	Blinking	The power module is in an input undervoltage or input overvoltage condition.
OUTPUT	OUTPUT indicator	-	Steady off	The power module provides no output power.
		Green	Steady on	The output power of the power module is in the normal range.
ALARM	ALARM indicator	-	Steady off	The power module is working normally.
		Red	Steady on	The power module is experiencing overheating, external short circuit, output overvoltage, output overcurrent, or a fan failure.
		Red	Blinking	Communication between the power module and CMU has been interrupted.

## Functions and Features

A 3000 W AC power module provides a maximum power of 3000 W for the chassis. [Table 5-15](#) describes the functions of a 3000 W AC power module.

**Table 5-15** Functions of a 3000 W AC power module

Function		Description
Input protection	Input overvoltage protection	In this protection state, the power module is turned off and stops supplying power. When the system recovers from input overvoltage, the power module can automatically start supplying power again.
	Input undervoltage protection	In this protection state, the power module is turned off and stops supplying power. When the system recovers from input undervoltage, the power module can automatically start supplying power again.
	Input overcurrent protection	In this protection state, the power module is turned off and stops supplying power. The power module cannot automatically start supplying power again and needs to be replaced.
Output protection	Output overvoltage protection	In this protection state: <ul style="list-style-type: none"> <li>• If output overvoltage is caused by the power module itself, the power module stops supplying power. When the system recovers from output overvoltage, the power module cannot automatically start supplying power again.</li> <li>• If output overvoltage is caused by increase of the input voltage received from the external power source, the power module stops supplying power. When the system recovers from output overvoltage, the power module can automatically start supplying power again.</li> </ul>
	Output overcurrent protection	In this protection state, the output current is limited to a certain value. When the system recovers from output overcurrent, the power module can automatically start supplying power again.
	Output short-circuit protection	In this protection state, the power module supplies power intermittently, and the output current is limited to a range. When the system recovers from output short-circuit, the power module can automatically start supplying power again.

Function	Description
Overtemperature protection	When the temperature of the power module exceeds a specified threshold, the power module stops supplying power. When the temperature falls into the normal range, the power module automatically resumes power supply.
Hot swapping	The power module is hot swappable.

 NOTE

Do not insert the power cable locking strap into an air vent on the power module panel, as this will affect operations of the power module.

When the power module is used in the following chassis, its maximum output power is 2200 W:

## Technical Specifications

**Table 5-16** Technical specifications of the PAC3KS54-CB

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	130 mm x 41 mm x 417.4 mm (5.1 in. x 1.6 in. x 16.4 in.)
Weight without packaging [kg(lb)]	< 3 kg
Number of inputs	1
Rated input voltage [V]	220 V AC/110 V AC; 50/60 Hz 240 V DC
Input voltage range [V]	90 V AC to 290 V AC; 47 Hz to 63 Hz 190 V DC to 290 V DC The maximum current of the power cable used by the 3000 W AC power module is 16 A. When the 220 V input is used, the minimum voltage cannot be lower than 200 V. When the 110 V input is used, the minimum voltage cannot be lower than 100 V.
Maximum input current [A]	AC input: 16 A High-voltage DC input: 14 A
Rated output voltage [V]	53.5 V DC
Rated output current [A]	56.1 A (220 V AC input or 240 V DC)/ 28.1 A (110 V AC Input)



Item	Specification
Rated output power [W]	3000 W (220 V AC input or 240 V DC)/ 1500 W (110 V AC input)
Power dissipation Mode	Heat dissipation with fan
Hot swapping	Supported

## 5.1.4 PAC3KS54-CE (02312FFP: 3000 W AC Power Module (Black))

### Overview

**Table 5-17** Basic information about the PAC3KS54-CE

Item	Details
Description	3000 W AC Power Module (Black)
Part Number	02312FFP
Model	PAC3KS54-CE

## Appearance

Figure 5-7 Appearance of the PAC3KS54-CE



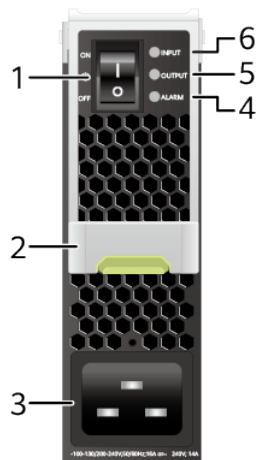
## Version Mapping

Table 5-18 Mappings between PAC3KS54-CE and product models

Product	Product Model	First Supported Version	Limitations
S12700E	S12700E-12	V200R019C00	-
S12700E	S12700E-4	V200R019C00	-
S12700E	S12700E-8	V200R019C00	-

## Panel

**Figure 5-8** Panel of the PAC3KS54-CE



<p>1. Power switch</p> <p><b>NOTE</b></p> <ul style="list-style-type: none"> <li>When the power switch is turned ON, the power module supplies power to the chassis.</li> <li>When the power switch is turned OFF, the power module does not supply power to the chassis.</li> </ul>	<p>2. Ejector lever</p> <p><b>NOTE</b></p> <p>Raise the ejector lever to release the power module from the slot, and lower the ejector lever to lock the power module in the slot.</p>	<p>3. Power socket</p>
<p>4. ALARM indicator</p>	<p>5. OUTPUT indicator</p>	<p>6. INPUT indicator</p>

**Table 5-19** Indicators on the PAC3KS54-CE

Silkscreen	Name	Color	Status	Description
INPUT	INPUT indicator	-	Steady off	The power module receives no input power.
		Green	Steady on	The input power of the power module is in the normal range.

Silkscreen	Name	Color	Status	Description
		Green	Blinking	The power module is in an input undervoltage or input overvoltage condition.
OUTPUT	OUTPUT indicator	-	Steady off	The power module provides no output power.
		Green	Steady on	The output power of the power module is in the normal range.
ALARM	ALARM indicator	-	Steady off	The power module is working normally.
		Red	Steady on	The power module is experiencing overheating, external short circuit, output overvoltage, output overcurrent, or a fan failure.
		Red	Blinking	Communication between the power module and CMU has been interrupted.

## Functions and Features

A 3000 W AC power module provides a maximum power of 3000 W for the chassis. [Table 5-20](#) describes the functions of a 3000 W AC power module.

**Table 5-20** Functions of a 3000 W AC power module

Function		Description
Input protection	Input overvoltage protection	In this protection state, the power module is turned off and stops supplying power. When the system recovers from input overvoltage, the power module can automatically start supplying power again.
	Input undervoltage protection	In this protection state, the power module is turned off and stops supplying power. When the system recovers from input undervoltage, the power module can automatically start supplying power again.
	Input overcurrent protection	In this protection state, the power module is turned off and stops supplying power. The power module cannot automatically start supplying power again and needs to be replaced.
Output protection	Output overvoltage protection	In this protection state: <ul style="list-style-type: none"> <li>• If output overvoltage is caused by the power module itself, the power module stops supplying power. When the system recovers from output overvoltage, the power module cannot automatically start supplying power again.</li> <li>• If output overvoltage is caused by increase of the input voltage received from the external power source, the power module stops supplying power. When the system recovers from output overvoltage, the power module can automatically start supplying power again.</li> </ul>
	Output overcurrent protection	In this protection state, the output current is limited to a certain value. When the system recovers from output overcurrent, the power module can automatically start supplying power again.
	Output short-circuit protection	In this protection state, the power module supplies power intermittently, and the output current is limited to a range. When the system recovers from output short-circuit, the power module can automatically start supplying power again.

Function	Description
Overtemperature protection	When the temperature of the power module exceeds a specified threshold, the power module stops supplying power. When the temperature falls into the normal range, the power module automatically resumes power supply.
Hot swapping	The power module is hot swappable.

 **NOTE**

Do not insert the power cable locking strap into an air vent on the power module panel, as this will affect operations of the power module.

When the power module is used in the following chassis, its maximum output power is 2200 W:

## Technical Specifications

**Table 5-21** Technical specifications of the PAC3KS54-CE

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	130 mm x 41 mm x 417.4 mm (5.1 in. x 1.6 in. x 16.4 in.)
Weight without packaging [kg(lb)]	< 3 kg
Number of inputs	1
Rated input voltage [V]	220 V AC/110 V AC; 50/60 Hz 240 V DC
Input voltage range [V]	90 V AC to 290 V AC; 47 Hz to 63 Hz 190 V DC to 290 V DC  The maximum current of the power cable used by the 3000 W AC power module is 16 A. When the 220 V input is used, the minimum voltage cannot be lower than 200 V. When the 110 V input is used, the minimum voltage cannot be lower than 100 V.
Maximum input current [A]	AC input: 16 A High-voltage DC input: 14 A
Rated output voltage [V]	53.5 V DC
Rated output current [A]	56.1 A (220 V AC input or 240 V DC)/ 28.1 A (110 V AC Input)

Item	Specification
Rated output power [W]	3000 W (220 V AC input or 240 V DC)/ 1500 W (110 V AC input)
Power dissipation Mode	Heat dissipation with fan
Hot swapping	Supported

## 5.1.5 PAC3KS54-CE (02312FFP-001: 3000 W AC Power Module (Black))

### Overview

**Table 5-22** Basic information about the PAC3KS54-CE

Item	Details
Description	3000 W AC Power Module (Black)
Part Number	02312FFP-001
Model	PAC3KS54-CE

## Appearance

Figure 5-9 Appearance of the PAC3KS54-CE



## Version Mapping

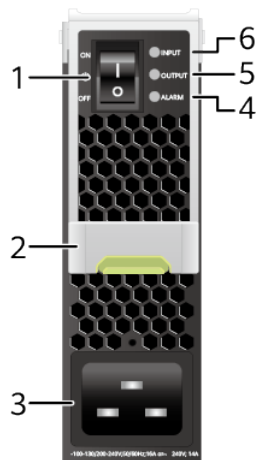
Table 5-23 Mappings between PAC3KS54-CE and product models

Product	Product Model	First Supported Version	Limitations
S12700E	S12700E-12	V200R019C00	-
S12700E	S12700E-4	V200R019C00	-
S12700E	S12700E-8	V200R019C00	-



## Panel

Figure 5-10 Panel of the PAC3KS54-CE



<p>1. Power switch</p> <p><b>NOTE</b></p> <ul style="list-style-type: none"> <li>When the power switch is turned ON, the power module supplies power to the chassis.</li> <li>When the power switch is turned OFF, the power module does not supply power to the chassis.</li> </ul>	<p>2. Ejector lever</p> <p><b>NOTE</b></p> <p>Raise the ejector lever to release the power module from the slot, and lower the ejector lever to lock the power module in the slot.</p>	<p>3. Power socket</p>
<p>4. ALARM indicator</p>	<p>5. OUTPUT indicator</p>	<p>6. INPUT indicator</p>

Table 5-24 Indicators on the PAC3KS54-CE

Silkscreen	Name	Color	Status	Description
INPUT	INPUT indicator	-	Steady off	The power module receives no input power.
		Green	Steady on	The input power of the power module is in the normal range.

Silkscreen	Name	Color	Status	Description
		Green	Blinking	The power module is in an input undervoltage or input overvoltage condition.
OUTPUT	OUTPUT indicator	-	Steady off	The power module provides no output power.
		Green	Steady on	The output power of the power module is in the normal range.
ALARM	ALARM indicator	-	Steady off	The power module is working normally.
		Red	Steady on	The power module is experiencing overheating, external short circuit, output overvoltage, output overcurrent, or a fan failure.
		Red	Blinking	Communication between the power module and CMU has been interrupted.

## Functions and Features

A 3000 W AC power module provides a maximum power of 3000 W for the chassis. [Table 5-25](#) describes the functions of a 3000 W AC power module.

**Table 5-25** Functions of a 3000 W AC power module

Function		Description
Input protection	Input overvoltage protection	In this protection state, the power module is turned off and stops supplying power. When the system recovers from input overvoltage, the power module can automatically start supplying power again.
	Input undervoltage protection	In this protection state, the power module is turned off and stops supplying power. When the system recovers from input undervoltage, the power module can automatically start supplying power again.
	Input overcurrent protection	In this protection state, the power module is turned off and stops supplying power. The power module cannot automatically start supplying power again and needs to be replaced.
Output protection	Output overvoltage protection	In this protection state: <ul style="list-style-type: none"> <li>• If output overvoltage is caused by the power module itself, the power module stops supplying power. When the system recovers from output overvoltage, the power module cannot automatically start supplying power again.</li> <li>• If output overvoltage is caused by increase of the input voltage received from the external power source, the power module stops supplying power. When the system recovers from output overvoltage, the power module can automatically start supplying power again.</li> </ul>
	Output overcurrent protection	In this protection state, the output current is limited to a certain value. When the system recovers from output overcurrent, the power module can automatically start supplying power again.
	Output short-circuit protection	In this protection state, the power module supplies power intermittently, and the output current is limited to a range. When the system recovers from output short-circuit, the power module can automatically start supplying power again.

Function	Description
Overtemperature protection	When the temperature of the power module exceeds a specified threshold, the power module stops supplying power. When the temperature falls into the normal range, the power module automatically resumes power supply.
Hot swapping	The power module is hot swappable.

 **NOTE**

Do not insert the power cable locking strap into an air vent on the power module panel, as this will affect operations of the power module.

When the power module is used in the following chassis, its maximum output power is 2200 W:

## Technical Specifications

**Table 5-26** Technical specifications of the PAC3KS54-CE

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	130 mm x 41 mm x 417.4 mm (5.1 in. x 1.6 in. x 16.4 in.)
Weight without packaging [kg(lb)]	< 3 kg
Number of inputs	1
Rated input voltage [V]	220 V AC/110 V AC; 50/60 Hz 240 V DC
Input voltage range [V]	90 V AC to 290 V AC; 47 Hz to 63 Hz 190 V DC to 290 V DC  The maximum current of the power cable used by the 3000 W AC power module is 16 A. When the 220 V input is used, the minimum voltage cannot be lower than 200 V. When the 110 V input is used, the minimum voltage cannot be lower than 100 V.
Maximum input current [A]	AC input: 16 A High-voltage DC input: 14 A
Rated output voltage [V]	53.5 V DC
Rated output current [A]	56.1 A (220 V AC input or 240 V DC)/ 28.1 A (110 V AC Input)

Item	Specification
Rated output power [W]	3000 W (220 V AC input or 240 V DC)/ 1500 W (110 V AC input)
Power dissipation Mode	Heat dissipation with fan
Hot swapping	Supported

## 5.1.6 PAC3KS54-NE (3000 W AC Power Module (Black))

### Overview

**Table 5-27** Basic information about the PAC3KS54-NE

Item	Details
Description	3000 W AC Power Module (Black)
Part Number	02131712
Model	PAC3KS54-NE

### Appearance

**Figure 5-11** Appearance of the PAC3KS54-NE



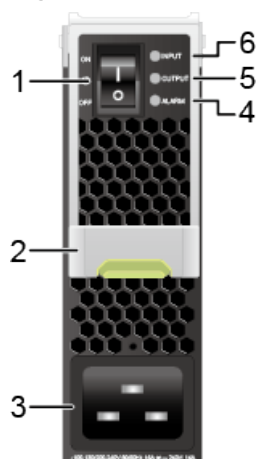
## Version Mapping

**Table 5-28** Mappings between PAC3KS54-NE and product models

Product	Product Model	First Supported Version	Limitations
S12700E	S12700E-12	V200R019C00	-
S12700E	S12700E-4	V200R019C00	-
S12700E	S12700E-8	V200R019C00	-

## Panel

**Figure 5-12** Panel of the PAC3KS54-NE



<p>1. Power switch</p> <p><b>NOTE</b></p> <ul style="list-style-type: none"> <li>When the power switch is turned ON, the power module supplies power to the chassis.</li> <li>When the power switch is turned OFF, the power module does not supply power to the chassis.</li> </ul>	<p>2. Ejector lever</p> <p><b>NOTE</b></p> <p>Raise the ejector lever to release the power module from the slot, and lower the ejector lever to lock the power module in the slot.</p>	<p>3. Power socket</p>
4. ALARM indicator	5. OUTPUT indicator	6. INPUT indicator

**Table 5-29** Indicators on the PAC3KS54-NE

Silkscreen	Name	Color	Status	Description
INPUT	INPUT indicator	-	Steady off	The power module receives no input power.
		Green	Steady on	The input power of the power module is in the normal range.
		Green	Blinking	The power module is in an input undervoltage or input overvoltage condition.
OUTPUT	OUTPUT indicator	-	Steady off	The power module provides no output power.
		Green	Steady on	The output power of the power module is in the normal range.
ALARM	ALARM indicator	-	Steady off	The power module is working normally.
		Red	Steady on	The power module is experiencing overheating, external short circuit, output overvoltage, output overcurrent, or a fan failure.

Silkscreen	Name	Color	Status	Description
		Red	Blinking	Communication between the power module and CMU has been interrupted.

## Functions and Features

A 3000 W AC power module provides a maximum power of 3000 W for the chassis. [Table 5-30](#) describes the functions of a 3000 W AC power module.

**Table 5-30** Functions of a 3000 W AC power module

Function		Description
Input protection	Input overvoltage protection	In this protection state, the power module is turned off and stops supplying power. When the system recovers from input overvoltage, the power module can automatically start supplying power again.
	Input undervoltage protection	In this protection state, the power module is turned off and stops supplying power. When the system recovers from input undervoltage, the power module can automatically start supplying power again.
	Input overcurrent protection	In this protection state, the power module is turned off and stops supplying power. The power module cannot automatically start supplying power again and needs to be replaced.
Output protection	Output overvoltage protection	In this protection state: <ul style="list-style-type: none"> <li>If output overvoltage is caused by the power module itself, the power module stops supplying power. When the system recovers from output overvoltage, the power module cannot automatically start supplying power again.</li> <li>If output overvoltage is caused by increase of the input voltage received from the external power source, the power module stops supplying power. When the system recovers from output overvoltage, the power module can automatically start supplying power again.</li> </ul>



Function		Description
	Output overcurrent protection	In this protection state, the output current is limited to a certain value. When the system recovers from output overcurrent, the power module can automatically start supplying power again.
	Output short-circuit protection	In this protection state, the power module supplies power intermittently, and the output current is limited to a range. When the system recovers from output short-circuit, the power module can automatically start supplying power again.
Overtemperature protection		When the temperature of the power module exceeds a specified threshold, the power module stops supplying power. When the temperature falls into the normal range, the power module automatically resumes power supply.
Hot swapping		The power module is hot swappable.

 **NOTE**

Do not insert the power cable locking strap into an air vent on the power module panel, as this will affect operations of the power module.

When the power module is used in the following chassis, its maximum output power is 2200 W:

## Technical Specifications

**Table 5-31** Technical specifications of the PAC3KS54-NE

Item	Specification
Dimensions without packaging (H x W x D) [mm(in.)]	130 mm x 41 mm x 417.4 mm (5.1 in. x 1.6 in. x 16.4 in.)
Weight without packaging [kg(lb)]	< 3 kg
Number of inputs	1
Rated input voltage [V]	220 V AC/110 V AC; 50/60 Hz 240 V DC

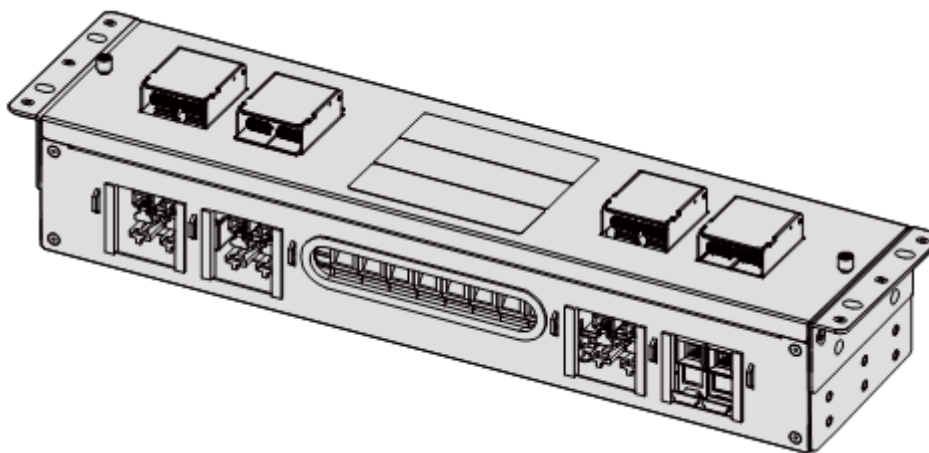
Item	Specification
Input voltage range [V]	90 V AC to 290 V AC; 47 Hz to 63 Hz 190 V DC to 290 V DC  The maximum current of the power cable used by the 3000 W AC power module is 16 A. When the 220 V input is used, the minimum voltage cannot be lower than 200 V. When the 110 V input is used, the minimum voltage cannot be lower than 100 V.
Maximum input current [A]	AC input: 16 A High-voltage DC input: 14 A
Rated output voltage [V]	53.5 V DC
Rated output current [A]	56.1 A (220 V AC input or 240 V DC)/ 28.1 A (110 V AC Input)
Rated output power [W]	3000 W (220 V AC input or 240 V DC)/ 1500 W (110 V AC input)
Power dissipation Mode	Heat dissipation with fan
Hot swapping	Supported

## 5.2 Power Distribution Box

### 5.2.1 2200 W DC Power Distribution Box

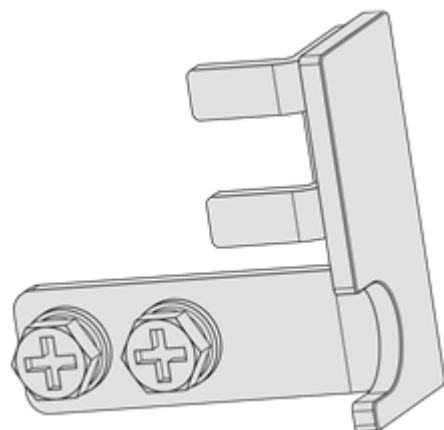
**Figure 5-13** shows a 2200 W DC power distribution box.

**Figure 5-13** 2200 W DC power distribution box



A 2200 W DC power distribution box can use -48 V two-way short-circuiting bars, each of which provides JG input terminals. A -48 V two-way short-circuiting bar allows a maximum of 120 A input current and converts one input into two outputs to circuit breakers. **Figure 5-14** shows a -48 V two-way short-circuiting bar.

**Figure 5-14** -48 V two-way short-circuiting bar



A 2200 W DC power distribution box provides short-circuit protection and overload protection.

**Table 5-32** lists specifications of a 2200 W DC power distribution box.

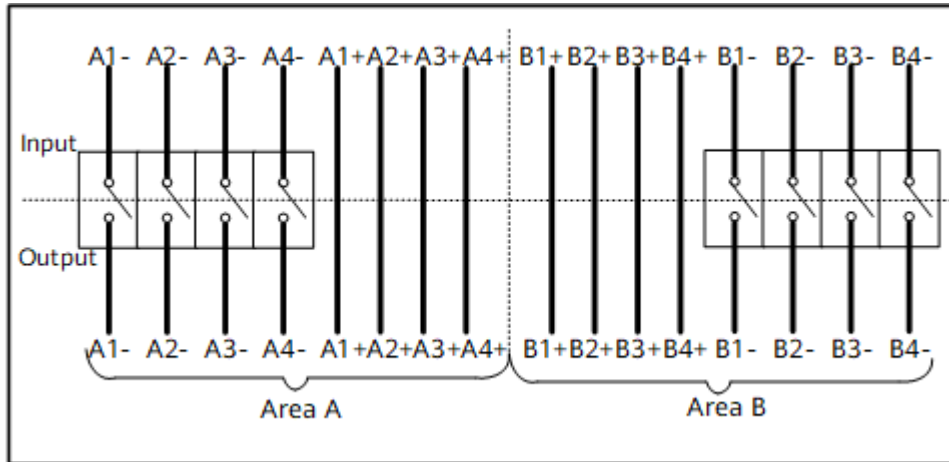
**Table 5-32** Specifications of a 2200 W DC power distribution box

Item		Description
Input	Rated input voltage	-48 V DC/-60 V DC
	Input voltage	-38.4 V DC to -72 V DC
	Input mode	Eight DC inputs by default (Short-circuiting bars can convert the eight inputs into four.)
	Maximum input current	60 A per input (120 A per input when short-circuiting bars are used)
	Input terminal	Cord end terminal, allowing power cables with a maximum of 35 mm <sup>2</sup> diameter (When short-circuiting bars are used, M6 OT terminals are used for -48 V input and cord end terminals are used for RTN input.)
Output	Rated output voltage	-48 V DC to -60 V DC

Item		Description
	Output voltage	-38.4 V DC to -72 V DC
	Number of outputs	Eight
	Current of each circuit breaker	63 A
	Output protection	Overcurrent protection (Power supply needs to be restored manually once the power distribution box enters the overcurrent protection state.)
	Output terminal	Cord end terminal, allowing power cables with a maximum of 35 mm <sup>2</sup> diameter
Environment specifications	Operating temperature	-25°C to +55°C (-13°F to +131°F)
	Storage temperature	-40°C to +70°C (-40°F to +158°F)
	Relative humidity	≤ 95%
	Standard atmospheric pressure	70 kPa to 106 kPa
Dimensions (H x W x D)		110 mm x 442 mm x 89.2 mm (4.33 in. x 17.40 in. x 3.51 in.)
Model		EH1M00PDBS01
Part number		02355419

**Figure 5-15** and **Figure 5-16** show power distribution in a 2200 W DC power distribution box.

**Figure 5-15** Power distribution in a 2200 W DC power distribution box (eight inputs and eight outputs)



**Figure 5-16** Power distribution in a 2200 W DC power distribution box (four inputs and eight outputs)

