4 Fan Module

#### **NOTICE**

- A switch must use fan modules with the same airflow direction.
- A switch must use fan modules of the same series.
- A switch can work properly only when two fan modules are running. If one of fan modules is removed, reinstall it within 3 minutes.
- 4.1 FAN-031A Series Fan Modules
- 4.2 FAN-40EA Series Fan Modules
- 4.3 FAN-40SB Series Fan Modules
- 4.4 FAN-40HA Series Fan Modules
- 4.5 FAN-040A Series Fan Modules
- 4.6 FAN-060A Series Fan Modules
- 4.7 FAN-180A Series Fan Modules

## 4.1 FAN-031A Series Fan Modules

## **Version Mapping**

The FAN-031A series fan modules are classified into two types depending on the airflow designs: FAN-031A-B (B: back-to-front airflow, air exhaust on fan module panel) and FAN-031A-F (F: front-to-back airflow, air intake on fan module panel).

**Table 4-1** describes the mapping between switch models and FAN-031A series fan modules.

Table 4-1 Version mapping

Switch Model	FAN-031A-B	FAN-031A-F
CE6857-48S6 CQ-EI	Supported in V200R005C10 and later versions	Supported in V200R005C10 and later versions
CE6881-48S6 CQ CE6863-48S6 CQ CE6820-48S6 CQ	Supported in V200R005C20 and later versions	Supported in V200R005C20 and later versions
CE6881-48S6 CQ-K CE6863-48S6 CQ-K CE6881E-48S 6CQ	Supported in V200R019C10 and later versions	Supported in V200R019C10 and later versions
Other models	Not supported	Not supported

## **Appearance**

**Figure 4-1** shows the appearance of the FAN-031A-B fan module, and **Figure 4-2** shows the appearance of the FAN-031A-F fan module.

#### □ NOTE

Each FAN-031A fan module contains only one fan.

Figure 4-1 FAN-031A-B fan module





Figure 4-2 FAN-031A-F fan module

A FAN-031A fan module consists of a fan tray, and a fan. FAN-031A-B and FAN-031A-F fan modules use different airflow designs but have the same functions. **Table 4-2** describes the functions of them.

Table 4-2 Functions of a FAN-031A fan module

Function	Description
Automatic fan speed adjustment	After the fan module communicates normally with the switch, the switch controls the speed of the fan based on temperature of the chassis.
Hot swap	Supported
Heat dissipation	<ul> <li>FAN-031A-B: back-to-front airflow</li> <li>FAN-031A-F: front-to-back airflow</li> </ul>

Figure 4-3 and Figure 4-4 show the panels of FAN-031A series fan modules.

Figure 4-3 FAN-031A-B panel

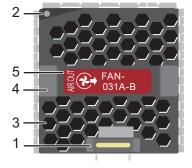
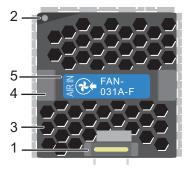


Figure 4-4 FAN-031A-F panel



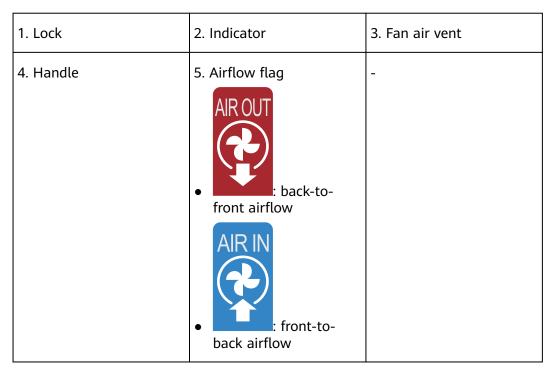


Table 4-3 describes the indicator on a FAN-031A fan module.

Table 4-3 Indicator description

Indicator	Color	Description	
STAT: running	-	Off: The fan module is not running.	
status indicator	Green	Slow blinking: The fan module is working properly and communicating normally with the system.	
		Fast blinking: The fan module is working properly but has not established communication with the system.	
	Red	Steady on: The fan module has a hardware fault and must be replaced.	
		Blinking: An alarm has been generated, and you need to handle it accordingly. Common causes of this alarm include short circuits, fan blades blocked, and fault of the fan module.	

**Table 4-4** lists technical specifications of FAN-031A series fan modules.

**Table 4-4** Technical specifications

Item	FAN-031A-B	FAN-031A-F	
Dimensions (H x W x D)	40.0 mm x 40.0 mm x 100.3 mm (1.57 in. x 1.57 in. x 3.95 in.)		
Number of fans	1		
Weight	0.1 kg (0.22 lb)		
Maximum power consumption	21.6 W		
Maximum fan speed	26950±10% revolutions per minute (RPM)		
Maximum wind rate	31 cubic feet per minute (CFM)		
Part number	02352CAB 02352CAA		

# 4.2 FAN-40EA Series Fan Modules

### **Version Mapping**

The FAN-40EA series fan modules are classified into two types depending on the airflow designs: FAN-40EA-B (B: back-to-front airflow, air exhaust on fan module panel) and FAN-40EA-F (F: front-to-back airflow, air intake on fan module panel).

**Table 4-5** describes the mapping between switch models and FAN-40EA fan modules.

Table 4-5 Version mapping

Switch Model	FAN-40EA-B	FAN-40EA-F
CE5850-48T4S2Q-EI CE6850-48S4Q-EI CE6850-48T4Q-EI	Supported in V100R001C00 version and later versions	Supported in V100R001C00 version and later versions
CE5850-48T4S2Q-HI CE6810-48S4Q-EI	Supported in V100R003C00 version and later versions	Supported in V100R003C00 version and later versions
CE6810-48S4Q-LI CE6810-48S-LI	Supported in V100R003C10 version and later versions	Supported in V100R003C10 version and later versions
CE6810-32T16S4Q-LI CE6810-24S2Q-LI CE6851-48S6Q-HI	Supported in V100R005C10 version and later versions	Supported in V100R005C10 version and later versions
CE6855-48S6Q-HI	Supported in V200R001C00 version and later versions	Supported in V200R001C00 version and later versions
CE6856-48S6Q-HI	Supported in V200R002C50 version and later versions	Supported in V200R002C50 version and later versions
Other models	Not supported	Not supported

## **Appearance**

**Figure 4-5** shows the appearance of a FAN-40EA-B fan module, and **Figure 4-6** shows the appearance of a FAN-40EA-F fan module.

□ NOTE

A FAN-40EA fan module consists of two fans.

Figure 4-5 FAN-40EA-B



Figure 4-6 FAN-40EA-F



A FAN-40EA fan module consists of a fan tray, two fans, and a fan control unit. FAN-40EA-B and FAN-40EA-F fan modules use different airflow designs but have the same functions. **Table 4-6** describes the functions of them.

Table 4-6 Functions of a FAN-40EA fan module

Function	Description
Automatic fan speed adjustment	After the fan module communicates normally with the switch, the switch controls the speed of fans based on temperature of the chassis.
Hot swap	Supported
Heat dissipation	<ul> <li>FAN-40EA-B: back-to-front airflow</li> <li>FAN-40EA-F: front-to-back airflow</li> </ul>

Figure 4-7 and Figure 4-8 show the panels of the FAN-40EA series fan modules.

Figure 4-7 FAN-40EA-B panel

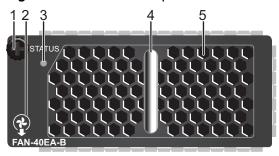
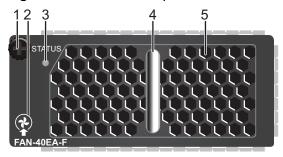
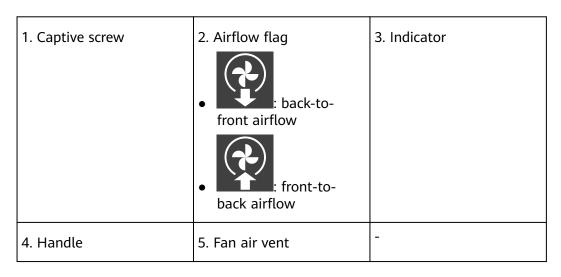


Figure 4-8 FAN-40EA-F panel





**Table 4-7** describes the indicator on the panels of the FAN-40EA fan modules.

**Table 4-7** Indicator description

Indicator	Color	Description	
STATUS: fan	-	Off: The fan module is not running.	
indicator	Green	Slow blinking: The fan module is working properly and communicating normally with the system.	
		Fast blinking: The fan module is working properly but has not established communication with the system.	
	Red	Steady on: The fan module has a hardware fault and must be replaced.	
		Blinking: An alarm has been generated, and you need to handle it accordingly. Common causes of this alarm include errors of dual in-line package (DIP) switches, short circuits, fan blades blocked, and fault of the fan module.	

**Table 4-8** lists technical specifications of the FAN-40EA series fan modules.

**Table 4-8** Technical specifications

Item	FAN-40EA-B	FAN-40EA-F
Dimensions (W x D x H)	94.5 mm x 183.1 mm x 39.8 mm (3.72 in. x 7.21 in. x 1.57 in.)	
Number of fans	2	
Weight	0.325 kg (0.72 lb)	
Maximum power consumption	12.71 W	
Maximum fan speed	18500±10% revolutions per minute (RPM)	
Maximum wind rate	46 cubic feet per minute (CFM)	
Part Number	02355338	02355421

# 4.3 FAN-40SB Series Fan Modules

### **Version Mapping**

The FAN-40SB series fan modules are classified into two types depending on the airflow designs: FAN-40SB-B (B: back-to-front airflow, air exhaust on fan module panel) and FAN-40SB-F (F: front-to-back airflow, air intake on fan module panel).

Table 4-9 lists the mapping between switch models and FAN-40SB fan modules.

**Table 4-9** Mapping between switch models and FAN-40SB fan modules

Switch Model	FAN-40SB-B	FAN-40SB-F
CE5810-24T4S-EI CE5810-48T4S-EI	Supported in V100R002C00 version and later versions	Supported in V100R002C00 version and later versions
Other models	Not supported	Not supported

## **Appearance**

**Figure 4-9** shows the appearance of a FAN-40SB-B fan module, and **Figure 4-10** shows the appearance of a FAN-40SB-F fan module.

#### □ NOTE

A FAN-40SB fan module has only one fan.

Figure 4-9 FAN-40SB-B fan module



Figure 4-10 FAN-40SB-F fan module



A FAN-40SB fan module consists of a fan tray, a fan, and a fan control unit. FAN-40SB-B and FAN-40SB-F fan modules use different airflow designs but have the same functions. **Table 4-10** describes the functions of them.

Table 4-10 Functions of a FAN-40SB fan module

Function	Description	
Automatic fan speed adjustment	After the fan module communicates normally with the switch, the switch controls the speed of fans based on temperature of the chassis.	
Hot swap	Supported	
Heat dissipation	<ul><li>FAN-40SB-B: back-to-front airflow</li><li>FAN-40SB-F: front-to-back airflow</li></ul>	

Figure 4-11 and Figure 4-12 show the panels of the FAN-40SB fan modules.

Figure 4-11 FAN-40SB-B panel

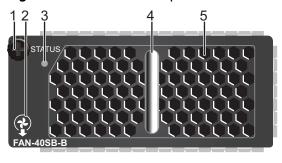
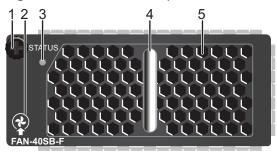


Figure 4-12 FAN-40SB-F panel



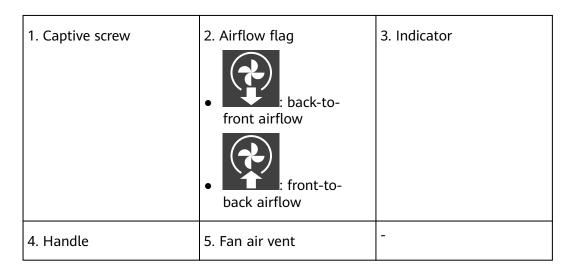


Table 4-11 describes the indicator on the FAN-40SB fan modules.

Table 4-11 Indicator description

Indicator	Color	Description	
STATUS: fan	-	Off: The fan module is not running.	
indicator	Green	Slow blinking: The fan module is working properly and communicating normally with the system.	
		Fast blinking: The fan module is working properly but has not established communication with the system.	
	Red	Steady on: The fan module has a hardware fault and must be replaced.	
		Blinking: An alarm has been generated, and you need to handle it accordingly. Common causes of this alarm include errors of dual in-line package (DIP) switches, short circuits, fan blades blocked, and fault of the fan module.	

**Table 4-12** lists technical specifications of the FAN-40SB fan modules.

**Table 4-12** Technical specifications

Item	FAN-40SB-B	FAN-40SB-F
Dimensions (W x D x H)	94.5 mm x 183.1 mm x 39.8 mm (3.72 in 7.21 in. x 1.57 in.)	

Item	FAN-40SB-B	FAN-40SB-F
Number of fans	1	
Weight	0.3 kg (0.66 lb)	
Maximum power consumption	4.3 W	
Maximum fan speed	16000±10% revolutions per minute (RPM)  NOTE  RPM: revolutions per minute.	
Maximum wind rate	20 cubic feet per minute (CFM)	
Part Number	02356152	02356153

## 4.4 FAN-40HA Series Fan Modules

## **Version Mapping**

The FAN-40HA series fan modules are classified into two types depending on the airflow designs: FAN-40HA-B (B: back-to-front airflow, air exhaust on fan module panel) and FAN-40HA-F (F: front-to-back airflow, air intake on fan module panel).

**Table 4-13** lists the mapping between switch models and FAN-40HA series fan modules.

Table 4-13 Version mapping

Switch Model	FAN-40HA-B	FAN-40HA-F
CE7850-3 2Q-EI	Supported in V100R003C00 version and later versions	Supported in V100R003C00 version and later versions
CE6870-2 4S6CQ-EI	Supported in V200R001C00 version and later versions	Supported in V200R001C00 version and later versions
CE6870-4 8S6CQ-EI		
CE7855-3 2Q-EI		

Switch Model	FAN-40HA-B	FAN-40HA-F
CE6860-4 8S8CQ-EI CE6880-2 4S4Q2C Q-EI CE6880-4 8S4Q2C Q-EI CE6880-4 8T4Q2C	Supported in V200R002C50 version and later versions	Supported in V200R002C50 version and later versions
Q-EI CE6870-4 8T6CQ-EI CE8850-3 2CQ-EI		
CE6865-4 8S8CQ-EI	Supported in V200R005C00 version and later versions	Supported in V200R005C00 version and later versions
CE5880-4 8T6Q-EI	Supported in V200R005C10 version and later versions	Supported in V200R005C10 version and later versions
Other models	Not supported	Not supported

## **Appearance**

**Figure 4-13** shows the appearance of a FAN-40HA-B fan module, and **Figure 4-14** shows the appearance of a FAN-40HA-F fan module.

#### ₩ NOTE

A FAN-40HA fan module consists of two counter-rotating fans, and each fan has a pair of blades.

Figure 4-13 FAN-40HA-B



Figure 4-14 FAN-40HA-F



A FAN-40HA fan module consists of a fan frame, two counter-rotating fans, and a fan control unit. FAN-40HA-B and FAN-40HA-F fan modules use different airflow designs but have the same functions. **Table 4-14** describes the functions of them.

Table 4-14 Functions of a FAN-40HA fan module

Function	Description
Automatic fan speed adjustment	After the fan module communicates normally with the switch, the switch controls the speed of fans based on temperature of the chassis.
Hot swap	Supported
Heat dissipation	<ul> <li>FAN-40HA-B: back-to-front airflow</li> <li>FAN-40HA-F: front-to-back airflow</li> </ul>

Figure 4-15 and Figure 4-16 show the panels of the FAN-40HA fan modules.

Figure 4-15 FAN-40HA-B panel

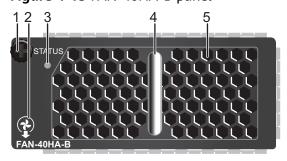
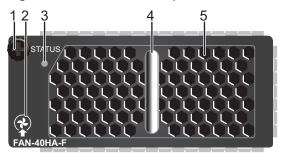
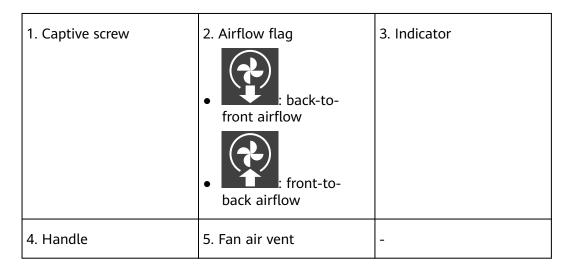


Figure 4-16 FAN-40HA-F panel





**Table 4-15** describes the indicator on the panels of the FAN-40HA fan modules.

**Table 4-15** Indicator description

Indicator	Color	Description
STATUS: fan	-	Off: The fan module is not running.
indicator	Green	Slow blinking: The fan module is working properly and communicating normally with the system.
		Fast blinking: The fan module is working properly but has not established communication with the system.
	Red	Steady on: The fan module has a hardware fault and must be replaced.
		Blinking: An alarm has been generated, and you need to handle it accordingly. Common causes of this alarm include errors of dual in-line package (DIP) switches, short circuits, fan blades blocked, and fault of the fan module.

Table 4-16 lists technical specifications of the FAN-40HA fan modules.

**Table 4-16** Technical specifications

Item	FAN-40HA-B	FAN-40HA-F
Dimensions (W x D x H)	94.5 mm x 183.1 mm x 39.8 mm (3.72 in. x 7.21 in. x 1.57 in.)	
Number of fans	Two counter-rotating has a pair of blades	fans, each of which
Weight	0.415 kg (0.91 lb)	
Maximum power consumption	40 W	
Maximum fan speed	19000±10% revolutions per minute (RPM)	
Maximum wind rate	64 cubic feet per minute (CFM)	
Part Number	02359097	02359096

## 4.5 FAN-040A Series Fan Modules

## **Version Mapping**

The FAN-040A series fan modules are classified into two types depending on the airflow designs: FAN-040A-B (B: back-to-front airflow, air exhaust on fan module panel) and FAN-040A-F (F: front-to-back airflow, air intake on fan module panel).

**Table 4-17** describes the mapping between switch models and FAN-040A fan modules.

Table 4-17 Version mapping

Switch Model	FAN-040A-B	FAN-040A-F
CE5855-48T4S2Q-EI CE5855-24T4S2Q-EI	Supported in V100R005C10 version and later versions	Supported in V100R005C10 version and later versions
Other models	Not supported	Not supported

## **Appearance**

**Figure 4-17** shows the appearance of a FAN-040A-B fan module, and **Figure 4-18** shows the appearance of a FAN-040A-F fan module.

#### ■ NOTE

A FAN-040A fan module consists of two fans.

Figure 4-17 FAN-040A-B fan module



Figure 4-18 FAN-040A-F fan module



#### **Function**

A FAN-040A fan module consists of a fan tray, two fans, and a fan control unit. FAN-040A-B and FAN-040A-F fan modules use different airflow designs but have the same functions. **Table 4-18** describes the functions of them.

Table 4-18 Functions of a FAN-040A fan module

Function	Description
Automatic fan speed adjustment	After the fan module communicates normally with the switch, the switch controls the speed of fans based on temperature of the chassis.
Hot swap	Supported
Heat dissipation	<ul><li>FAN-040A-B: back-to-front airflow</li><li>FAN-040A-F: front-to-back airflow</li></ul>

#### **Panel**

**Figure 4-19** and **Figure 4-20** show the panels of the FAN-040A series fan modules.

Figure 4-19 FAN-040A-B panel

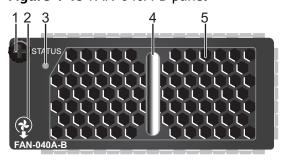
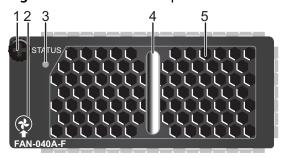


Figure 4-20 FAN-040A-F panel



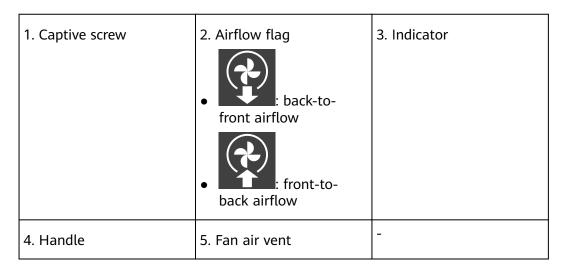


Table 4-19 describes the indicator on the FAN-040A fan modules.

Table 4-19 Indicator description

Indicator	Color	Description
STATUS: fan	-	Off: The fan module is not running.
indicator	Green	Slow blinking: The fan module is working properly and communicating normally with the system.
		Fast blinking: The fan module is working properly but has not established communication with the system.
	Red	Steady on: The fan module has a hardware fault and must be replaced.
		Blinking: An alarm has been generated, and you need to handle it accordingly. Common causes of this alarm include errors of dual in-line package (DIP) switches, short circuits, fan blades blocked, and fault of the fan module.

Table 4-20 lists technical specifications of the FAN-040A series fan modules.

**Table 4-20** Technical specifications

Item	FAN-040A-B	FAN-040A-F
Dimensions (W x D x H)	94.5 mm x 183.1 mm x 39.8 mm (3.72 in. x 7.21 in. x 1.57 in.)	
Number of fans	2	
Weight	0.259 kg (0.57 lb)	
Maximum power consumption	12 W	
Maximum fan speed	16000±10% revolution	ns per minute (RPM)
Maximum wind rate	40 cubic feet per minute (CFM)	
Part Number	02350JFA	02350JEY

# 4.6 FAN-060A Series Fan Modules

### **Version Mapping**

The FAN-060A series fan modules are classified into two types depending on the airflow designs: FAN-060A-B (B: back-to-front airflow, air exhaust on fan module panel) and FAN-060A-F (F: front-to-back airflow, air intake on fan module panel).

**Table 4-21** describes the mapping between device models and FAN-060A series fan modules.

Table 4-21 Version mapping

Switch Model	FAN-060A-B	FAN-060A-F
CE6850-48S6Q-HI	Supported in V100R005C00 and later versions.	Supported in V100R005C00 and later versions
CE6850U-48S6Q-HI CE6850-48T6Q-HI CE6850U-24S2Q-HI	Supported in V100R005C10 and later versions	Supported in V100R005C10 and later versions
CE6855-48T6Q-HI	Supported in V200R001C00 and later versions.	Supported in V200R001C00 and later versions
CE6856-48T6Q-HI	Supported in V200R002C50 and later versions.	Supported in V200R002C50 and later versions.
CE6875-48S4CQ-EI	Supported in V200R003C00 and later versions.	Supported in V200R003C00 and later versions.

## **Appearance**

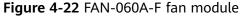
**Figure 4-21** shows the appearance of a FAN-060A-B fan module, and **Figure 4-22** shows the appearance of a FAN-060A-F fan module.

#### □ NOTE

Each FAN-060A fan module has two counter-rotating fans, and each fan has a pair of blades.

Figure 4-21 FAN-060A-B fan module







A FAN-060A fan module consists of a fan tray, two counter-rotating fans, and a fan monitoring unit. FAN-060A-B and FAN-060A-F fan modules use different airflow designs but have the same functions. **Table 4-22** describes the functions of them.

Table 4-22 Functions of a FAN-060A fan module

Function	Description
Automatic fan speed adjustment	After the fan module communicates normally with the switch, the switch controls the speed of fans based on temperature of the chassis.
Hot swap	Supported
Heat dissipation	<ul> <li>FAN-060A-B: back-to-front airflow</li> <li>FAN-060A-F: front-to-back airflow</li> </ul>

Figure 4-23 and Figure 4-24 show the panels of FAN-060A series fan modules.

Figure 4-23 FAN-060A-B panel

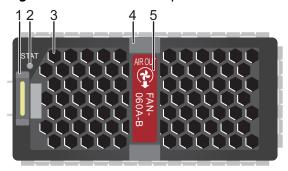
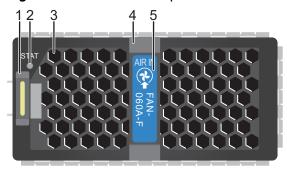


Figure 4-24 FAN-060A-F panel



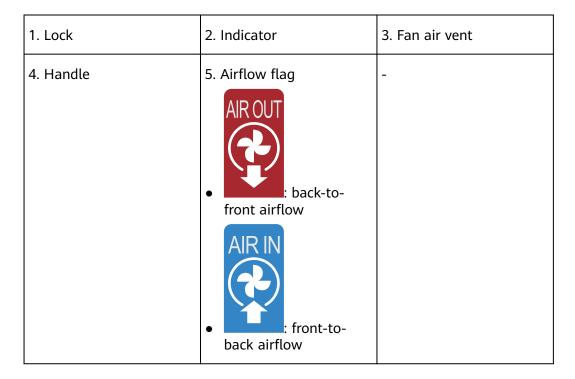


Table 4-23 describes the indicator on a FAN-060A fan module.

Table 4-23 Indicator description

Indicator	Color	Description	
STAT: running	-	Off: The fan module is not running.	
status indicator	Green	Slow blinking: The fan module is working properly and communicating normally with the system.	
		Fast blinking: The fan module is working properly but has not established communication with the system.	
	Red	Steady on: The fan module has a hardware fault and must be replaced.	
		<ul> <li>Blinking: An alarm has been generated, and you need to handle it accordingly. Common causes of this alarm include short circuits, fan blades blocked, and fault of the fan module.</li> </ul>	

Table 4-24 lists technical specifications of the FAN-060A series fan modules.

**Table 4-24** Technical specifications

Item	FAN-060A-B	FAN-060A-F
Dimensions (W x D x H)	86.0 mm x 198.3 mm x 40.0 mm (3.4 in. x 7.8 in. x 1.6 in.)	
Number of fans	Two counter-rotating fans, each of which has a pair of blades	
Weight	0.478 kg (1.05 lb)	
Maximum power consumption	40 W	
Maximum fan speed	19000±10% revolutions per minute (RPM)	
Maximum wind rate	64 cubic feet per minute (CFM)	
Part Number	02359310	02359308

# 4.7 FAN-180A Series Fan Modules

### **Version Mapping**

The FAN-180A series fan modules are classified into two types depending on the airflow designs: FAN-180A-B (B: back-to-front airflow, air exhaust on fan module panel) and FAN-180A-F (F: front-to-back airflow, air intake on fan module panel).

**Table 4-25** describes the mapping between switch models and FAN-180A series fan modules.

Table 4-25 Version mapping

Switch Model	FAN-180A-B	FAN-180A-F
CE8850-6 4CQ-EI	Supported in V200R005C00 and later versions	Supported in V200R005C00 and later versions
CE8860-4 C-EI	Supported in V100R006C00 and later versions	Supported in V100R006C00 and later versions
CE8861-4 C-EI CE8868-4	Supported in V200R005C10 and later versions	Supported in V200R005C10 and later versions
C-El Other	Not supported	Not supported
models		

## **Appearance**

**Figure 4-25** shows the appearance of a FAN-180A-B fan module, and **Figure 4-26** shows the appearance of a FAN-180A-F fan module.

#### ■ NOTE

Each FAN-180A fan module has one counter-rotating fan, which has a pair of blades.

Figure 4-25 FAN-180A-B fan module





Figure 4-26 FAN-180A-F fan module

A FAN-180A fan module consists of a fan tray, a fan, and a fan monitoring unit. FAN-180A-B and FAN-180A-F fan modules use different airflow designs but have the same functions. **Table 4-26** describes the functions of them.

Table 4-26 Functions of a FAN-180A fan module

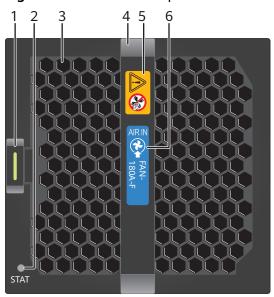
Function	Description	
Automatic fan speed adjustment	After the fan module communicates normally with the switch, the switch controls the speed of the fan based on temperature of the chassis.	
Hot swap	Supported	
Heat dissipation	<ul> <li>FAN-180A-B: back-to-front airflow</li> <li>FAN-180A-F: front-to-back airflow</li> </ul>	

Figure 4-27 and Figure 4-28 show the panels of FAN-180A series fan modules.

**Figure 4-27** FAN-180A-B panel 1 2 3 4 5 6



Figure 4-28 FAN-180A-F panel



1. Lock	2. Indicator	3. Fan air vent

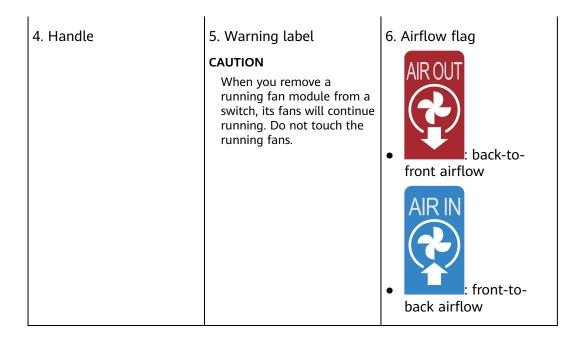


Table 4-27 describes the indicator on a FAN-180A fan module.

Table 4-27 Indicator description

Indicator	Color	Description	
STAT: running	-	Off: The fan module is not running.	
status indicator	Green	Blinking: The fan module is working properly.	
	Red	Steady on: The fan module has a hardware fault and must be replaced.	
		<ul> <li>Blinking: An alarm has been generated, and you need to handle it accordingly. Common causes of this alarm include short circuits, fan blades blocked, and fault of the fan module.</li> </ul>	

Table 4-28 lists technical specifications of FAN-180A series fan modules.

**Table 4-28** Technical specifications

Item	FAN-180A-B	FAN-180A-F
Dimensions (W x D x H)	85.4 mm x 178.8 mm x 82.5 mm (3.36 in. x 7.04 in. x 3.25 in.)	
Fans	One counter-rotating fan, which has a pair of blades	
Weight	0.887 kg (1.96 lb)	

4 Fan Module

Item	FAN-180A-B	FAN-180A-F
Maximum power consumption	86 W	
Maximum fan speed	12000 revolutions per minute (RPM)	
Maximum wind rate	180 cubic feet per minute (CFM)	
Part number	02350KJA	02350KHY