# 8EXF500.0000-00

## 1 General information

The fan module is used to cool ACOPOS P3 drive systems and can be installed on 8EMFxxx000.0000-1 mounting plates.

### Information:

**ACOPOS P3 mounting plate 8EMF00x0000.0000-1 can only be used together with fan modules 8EXF400.0000-00 and 8EXF500.0000-00!**

**For optimal availability of the ACOPOS P3 drive system, fan modules 8EXF400.0000-00 and 8EXF500.0000-00 must be switched on at all times.**

## 2 Order data

| Order number | Short description | Figure |
|---|---|---|
| | **Fan modules** |  |
| 8EXF500.0000-00 | ACOPOS P3 fan module for mounting plate 8EMFxxx0000.0000-1 single-width | |
| | **Optional accessories** | |
| | **I/O supply cable** | |
| X67CA0P00.0002 | Power connection cable, 4-pin, straight, 0.25 m | |
| X67CA0P10.0002 | Power connection cable, 4-pin, angled, 0.25 m | |
| X67CA0P20.0010 | Power attachment cable, 4-pin, straight, 1.0 m | |
| X67CA0P20.0020 | Power attachment cable, 2.0 m | |
| X67CA0P20.0050 | Power attachment cable, 4-pin, straight, 5 m | |
| X67CA0P20.0100 | Power attachment cable, 4-pin, straight, 10 m | |

Table 1: 8EXF500.0000-00 - Order data

| Mounting plate | Fan modules |
|---|---|
| 8EMF0010000.0000-1 | 1x 8EXF500.0000-00 |
| 8EMF0020000.0000-1 | 1x 8EXF400.0000-00 |
| 8EMF0040000.0000-1 | 2x 8EXF400.0000-00 |
| 8EMF0060000.0000-1 | 3x 8EXF400.0000-00 |

Table 2: Recommended number of fan modules depending on the 8EMF mounting plate

### Information:

**X67CA0P10 and X67CA0P20/X67CA0P30 I/O power supply cables can be used for wiring 8EXF500.0000-00 fan modules. For details, see section "Wiring".**

# 3 Technical data

| Order number | 8EXF500.0000-00 |
|---|---|
| **General information** | |
| Short description | ACOPOS P3 fan module for mounting plate 8EMFxxx0000.0000-1 |
| Certifications | |
| CE | Yes |
| UKCA | Yes |
| UL | cULus E225616<br>Power conversion equipment |
| **24 VDC power supply** | |
| Input voltage | 24 VDC +10% / -25% |
| Connection | 1x 4-pin female M8 connector<br>1x 4-pin male M8 connector |
| Power consumption | 9 W |
| **Operating conditions** | |
| Degree of protection per EN 60529 | IP54 when connected |
| **Ambient conditions** | |
| Temperature | |
| Operation | |
| Nominal | 5 to 40°C |
| Maximum | 55°C |
| Storage | -25 to 55°C |
| Transport | -25 to 70°C |
| Relative humidity | |
| Operation | 5 to 85% |
| Storage | 5 to 95% |
| Transport | Max. 95% at 40°C |
| **Mechanical properties** | |
| Volumetric flow rate | 85 $m^3/h$ @ 0 Pa<br>242 Pa @ 0 $m^3/h$ |
| Operating noise | 54.5 dB(A) |
| Service life | |
| At 40°C | 70,000 h |
| Dimensions | |
| Width | 71 mm |
| Height | 200 mm |
| Depth | 92 mm |
| Weight | 0.3 kg |

Table 3: 8EXF500.0000-00 - Technical data

# 4 Wiring

## 4.1 8EXF500.0000-00 - Pinout overview

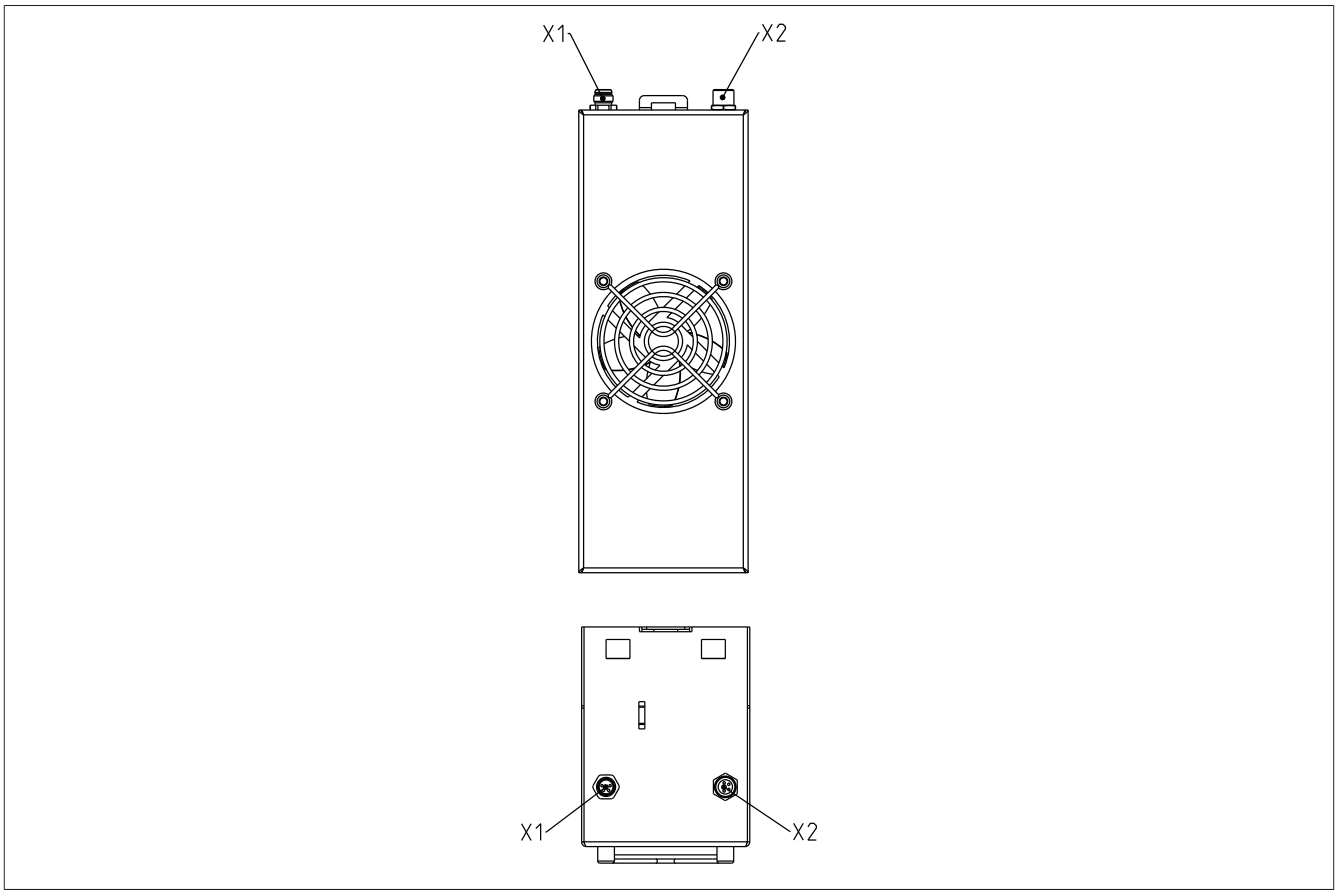



Figure 1: 8EXF500.0000-00 - Pinout overview

## 4.2 Connector X1 - Pinout

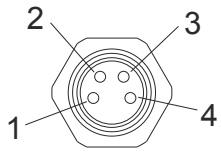
| X1 | Pin | Description | Function |
|---|---|---|---|
|   | 1 | 24 V | Fan power supply +24 VDC |
| | 2 | 24 V | Fan power supply +24 VDC |
| | 3 | GND | Fan power supply GND |
| | 4 | GND | Fan power supply GND |

Table 4: Connector X1 - Pinout

## 4.3 Connector X2 - Pinout

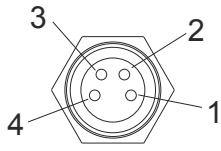
| X2 | Pin | Description | Function |
|---|---|---|---|
|   | 1 | 24 V | Fan power supply +24 VDC |
| | 2 | 24 V | Fan power supply +24 VDC |
| | 3 | GND | Fan power supply GND |
| | 4 | GND | Fan power supply GND |

Table 5: Connector X2 - Pinout

## 4.4 8EXF500 - Wiring example

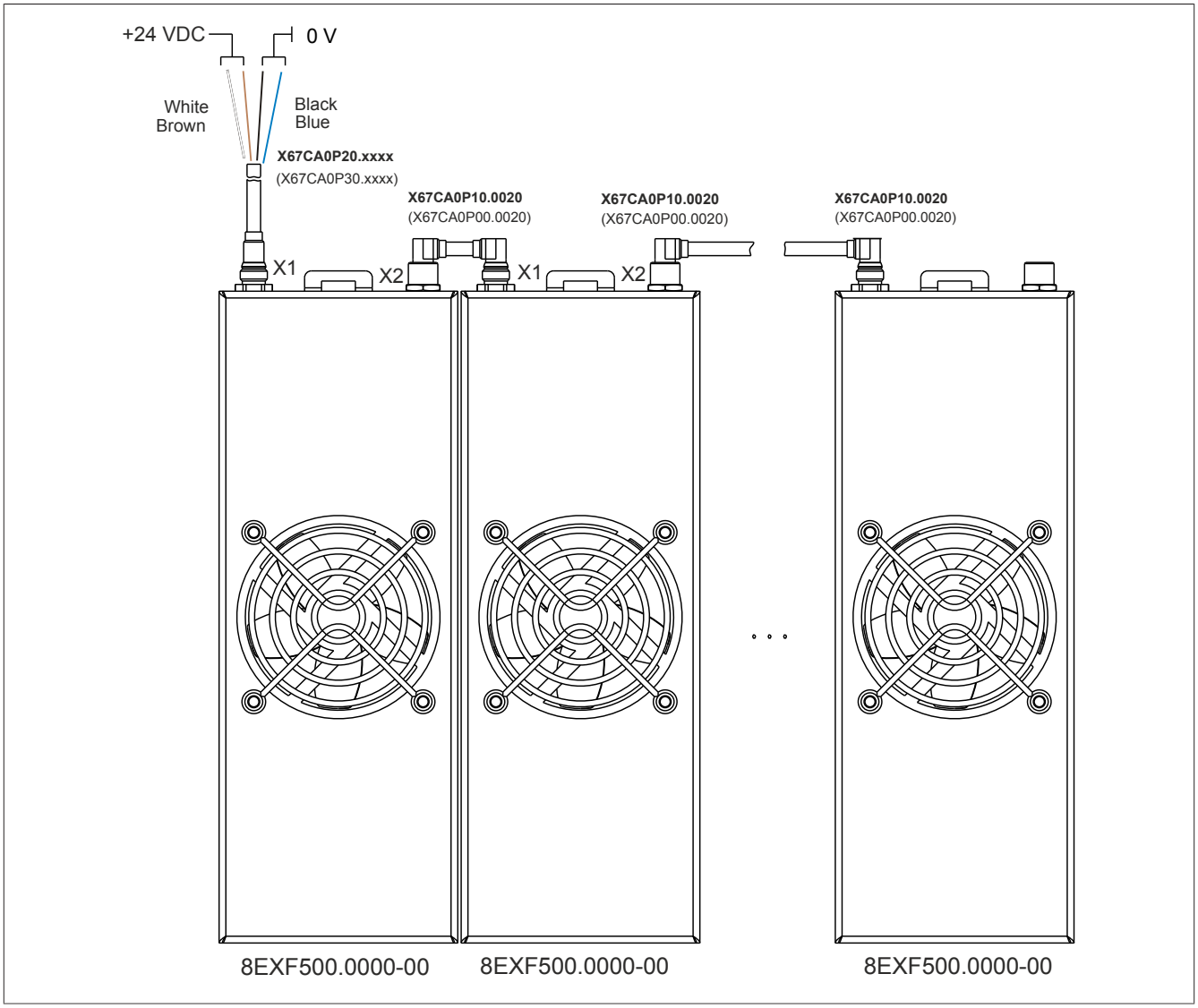



Figure 2: 8EXF500.0000-00 - Wiring example

**Note:**

**Fan module 8EXF is only permitted to be supplied with 24 V when installed!**

**Information:**

**Up to 15 8EXF500.0000-00 fan modules are permitted to be connected in parallel.**

**Information:**

**The 24 VDC power supply for 8EXF500.0000-00 fan modules can be supplied via connector X3 on an 8B0C ACOPOSmulti auxiliary supply module.**

**Information:**

**Within the scope of UL, the 24 VDC power supply of the fan modules must be protected. The nominal current of the fuse used is not permitted to exceed 4 A.**

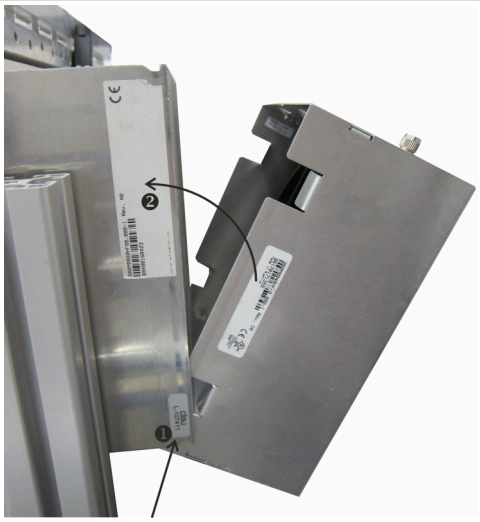
# 5 Installing fan module 8EXF500.0000-00

**Procedure:**

1. Disconnect the ACOPOS P3 drive system from the power system and secure it against being switched on again.

> **Danger!**
>
> **Before starting work, disconnect the power supply and wait 5 minutes to ensure that the DC bus of the ACOPOS P3 drive system has discharged. Observe regulations!**

2. Slide the bottom of the fan module at position (❶) between the first two plates on the heat sink of mounting plate 8EMFxxx000.0000-1 and then insert the top as shown in (❷) until the snap-fit connectors click into place.




3. Repeat step 2 until all fan modules have been installed. The following fan modules must be placed between the next available plates on mounting plate 8EMFxxx000.0000-1.
4. Cable all fan modules (see section 8EXF500 - Wiring example).

# 6 Replacing fan module 8EXF500.0000-00

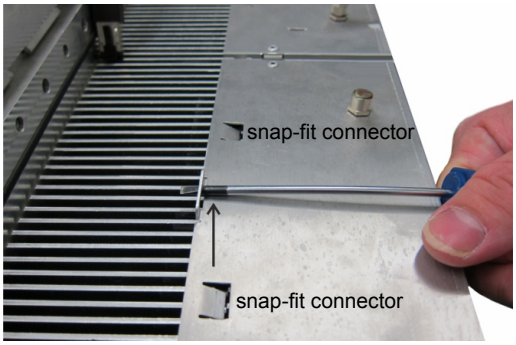
**Procedure:**

Required tools: Flat-blade screwdriver

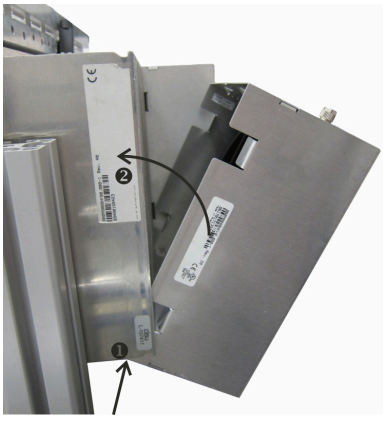
1. Disconnect the ACOPOS P3 drive system from the power system and secure it against being switched on again.

> **Danger!**
>
> **Before starting work, disconnect the power supply and wait 5 minutes to ensure that the DC bus of the ACOPOS P3 drive system has discharged. Observe regulations!**

2. Disconnect the connectors from the X1 and X2 connectors on the fan module.
3. The fan module is snapped into mounting plate 8EMFxxx000.0000-1 using two snap-fit connectors. Use a flat-blade screwdriver to push up the clip marked with the error to loosen the snap-fit connectors. While doing so, carefully tip the fan module backwards and remove from the mounting plate's heat sink.




4. Slide the bottom of the new fan module at position (❶) between the plates on the heat sink of mounting plate 8EMFxxx000.0000-1 and then insert the top on the mounting plate's heat sink as shown in (❷) until the snap-fit connectors click into place.



5. Repeat steps 2 to 4 for all other fan modules that need to be replaced.
6. Cable all replaced fan modules (see section 8EXF500 - Wiring example).

## Information:

**8EXF500.0000-00 fan modules have an average service life of approx. 70,000 h. B&R recommends replacing all fan modules on mounting plate 8EMFxxx000.0000-1 at the same time.**