

SINAMICS S120 drive system

Supplementary system components

Safe Brake Relay

Overview



In the case of the Safe Brake Relay, the brake is controlled in accordance with ISO 13849-1 or EN 954-1 safety class 3 and IEC 61508 SIL2.

Design

The Safe Brake Relay can be installed below the Power Module on the shield connection plate.

The Safe Brake Relay has the following connections and interfaces:

- 1 two-channel transistor output stage to control the motor brake solenoid
- 1 connection for the cable harness (CTRL) to the Power Module in blocksize format
- 1 connection for the 24 V DC power supply

The connection between the 24 V DC supply and the Safe Brake Relay must be kept as short as possible.

The scope of supply of a Safe Brake Relay includes the following:

- 2 cable harnesses for connecting to the CTRL socket of the PM340 Power Module
 - 0.32 m (1.05 ft) length for frame sizes FSA and FSC
 - 0.55 m (1.8 ft) length for frame sizes FSE and FSF

Technical specifications

Safe Brake Relay
6SL3252-0BB01-0AA0

Switching capacity
of the NO contact

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Power supply

20.4 ... 28.8 V DC
Recommended rated supply voltage 26 V DC
(to compensate for voltage drop in feeder cable to 24 V DC motor brake solenoid)

Current requirement, max.

- Motor brake 2 A
- 24 V DC 0.05 A + the current requirement of the motor brake
- Conductor cross-section, max. 2.5 mm²

Dimensions

- Width 69 mm (2.72 in)
- Height 63 mm (2.48 in)
- Depth 33 mm (1.30 in)

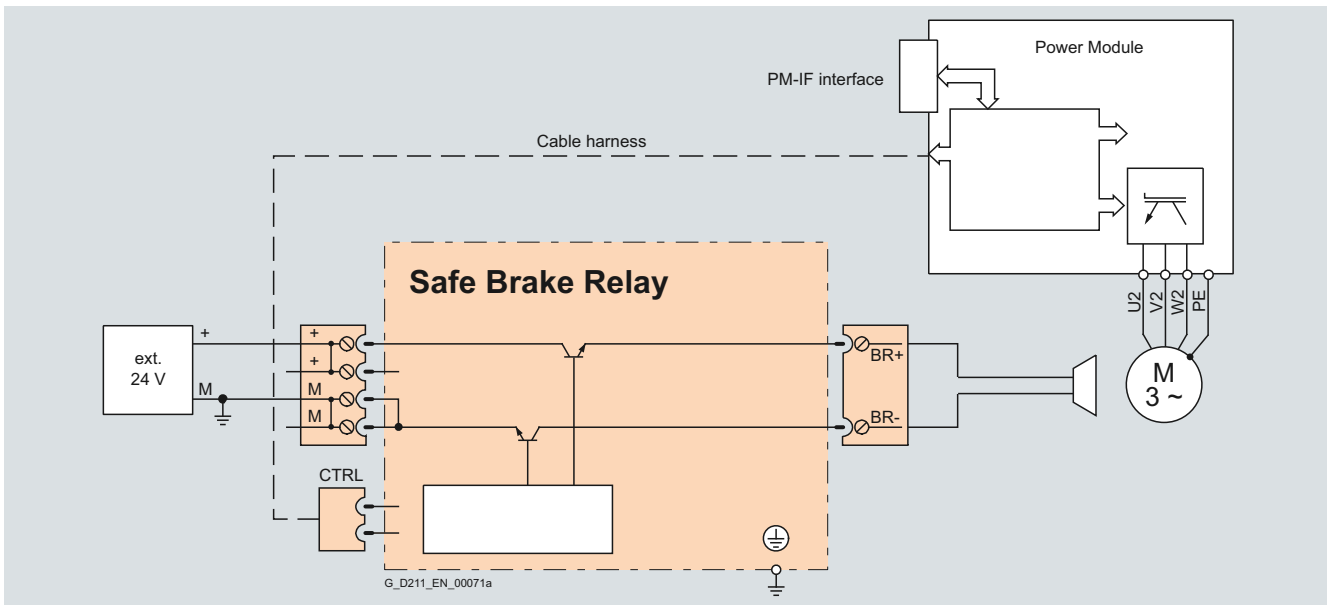
Weight, approx.

0.17 kg (0.4 lb)

Selection and ordering data

| Description | Order No. |
|--------------------------------------------------------------------------------------|---------------------------|
| Safe Brake Relay Including cable harness for connection to Power Module | 6SL3252-0BB01-0AA0 |

Integration



Connection example of a Safe Brake Relay

The 24 V DC solenoid of the motor brake is directly connected to the Safe Brake Relay. External overvoltage limiters are not required.