

BT300 HVAC Drives Main Switch

Product Description

The main switch is used for switching off the input power of the drive. This option is available for frames FS4-FS7 with Type 12/IP54 protection class and maximum output current 88A. See Table 1 for more information. The main switch is both CE and UL listed.

Product Numbers

See Table 1.

Warning/Caution Notations

WARNING:		Personal injury or loss of life may occur if you do not follow the procedures as specified.
CAUTION:		Equipment damage or loss of data may occur if you do not follow the procedures as specified.



CAUTION:

The main switch is a safety device. Do not use the main switch when the drive is in operation.

NOTE:

An additional auxiliary contact switch is provided with the main switch option. This contact switch helps to receive status information of the main switch for PLC, and so on.

Required Tools

- Phillips head screwdriver
- Flat-blade screwdriver

Expected Installation Time

15 minutes

Item Number DPD01160D

Installation

1. Remove the drive cover.

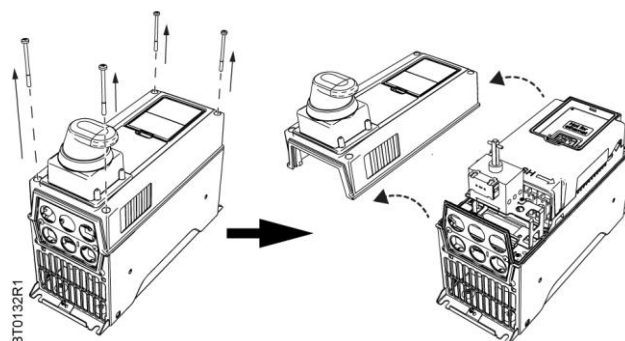


Figure 1.

2. Remove the two screws from the main switch and tilt the switch to the left.

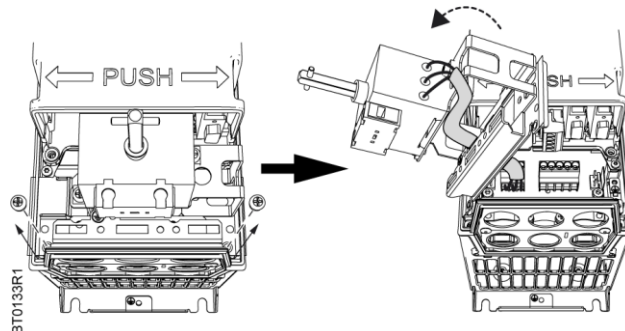


Figure 2.

3. Connect motor cable **M** (see Figure 4). Tighten the screws according to the tightening torques in Table 1. Check the tightening of the factory-installed main switch cable.

NOTE:

Remember to use the cable grommets provided with the drive. See *Siemens BT300 HVAC Drive Installation Instructions* (DPD01148) for detailed cable installation instructions.

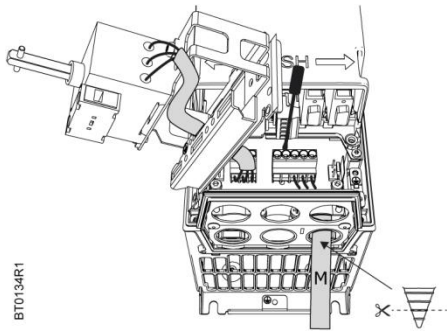


Figure 3.

4. To attach the cables, fold the cable shield backwards onto the cable and attach the cable with a cable clamp on the shield.

NOTE:

See *Siemens BT300 HVAC Drive Installation Instructions* (DPD01148) for detailed cable installation instructions.

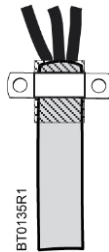


Figure 4.

5. Install supply cable **S** and connect it to the main switch (see Figure 5).

NOTES:

1. If possible, protect the cables closest to the main switch with an insulation tube.
2. See *Siemens BT300 HVAC Drive Installation Instructions* (DPD01148) for detailed cable installation instructions.

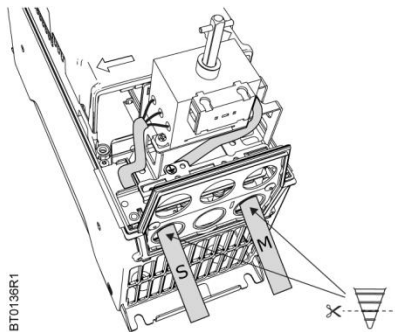


Figure 5.

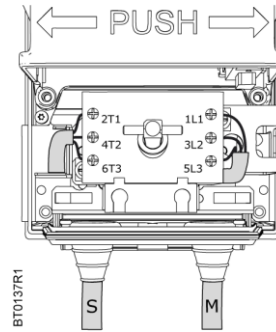


Figure 6. Motor and Supply Cable Installation as Seen from Above.

6. Attach the main switch screws.

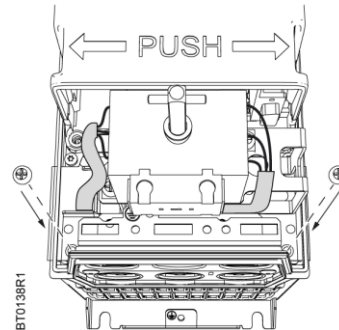


Figure 7.

7. Tighten the supply cable screws according to the tightening torques in Table 2. Check the tightening of the factory-installed cable connection screws on the right side of the main switch.

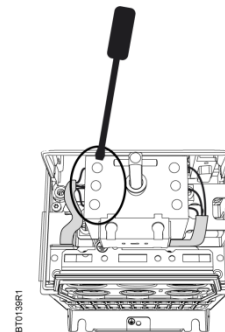


Figure 8.

Connecting the data cable

Do one of the following:

- **For FS4:** Connect Data Cable **D** under the main switch, and attach it.
- **For FS5 through FS7:** Connect the data cable to the terminal around the main switch.

NOTES:

1. If possible, protect the cables closest to the main switch with an insulation tube.
2. See *Siemens BT300 HVAC Drive Installation Instructions* (DPD01148) for detailed cable installation instructions.

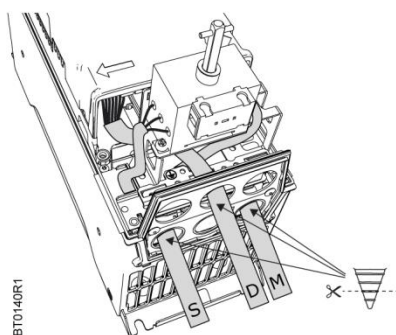


Figure 9.

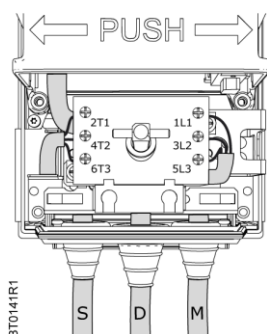


Figure 10. Data Cable Installation in FS4 as Seen from Above.

8. Close the drive cover.

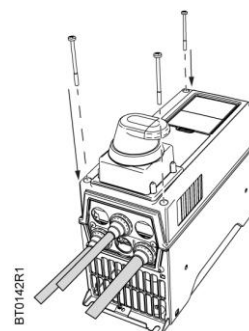


Figure 11.

Cable requirements

The following table shows the maximum sizes for the cables to be used with the main switch.

NOTE:

Only use copper cables with the main switch option, do not use aluminum cables.

The installation is now complete.

Table 1. Cable Data for Main Switch Option.

Frame Size	Type	Maximum Main and Motor Cable Size (Cu)	Main Switch Screws Tightening Torque lbf-in (Nm)	Supply Cable Insulation Tube Size Diameter/Length, In (mm)
FS4	BT300-001X2...	AWG14	7.08 (0.8)	10/70 (2.75/0.39)
	BT300-00152...			
	BT300-002X2...			
	BT300-003X2...			
	BT300-00154...			
	BT300-002X4...			
	BT300-003X4...			
	BT300-005X4...			
	BT300-00754...			
FS5	BT300-005X2...	AWG10	7.08 (0.8)	16/80 (3.14/0.62)
	BT300-00752...			
	BT300-010X2...	AWG8		
	BT300-010X4...	AWG10		
	BT300-015X4...			
	BT300-020X4...	AWG8		
	BT300-003X6...	AWG14		
	BT300-005X6...			
	BT300-00756...			
	BT300-010X6...			
FS6	BT300-015X2...	AWG4	17.70 (2)	20/80 (3.14/0.78)
	BT300-020X2...			
	BT300-025X4...			
	BT300-030X4...			
	BT300-040X4...	AWG8		
	BT300-015X6...			
	BT300-020X6...			
	BT300-025X6...			
	BT300-030X6...	AWG4		
FS7	BT300-025X2...	AWG2	53.10 (6)	25/0 (3.14/0.98)
	BT300-030X2...			
	BT300-050X4...			
	BT300-060X4...			
	BT300-040X6...	AWG4		
	BT300-050X6...			
	BT300-060X6...			

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