

## 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

<b>WARNING:</b>		Personal injury or loss of life may occur if you do not follow the procedures as specified.
<b>CAUTION:</b>		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.

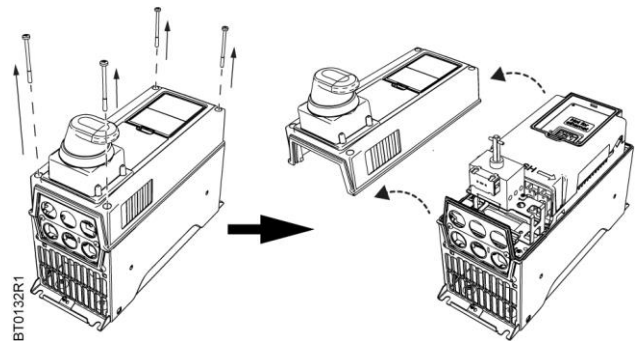


Figure 1.

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

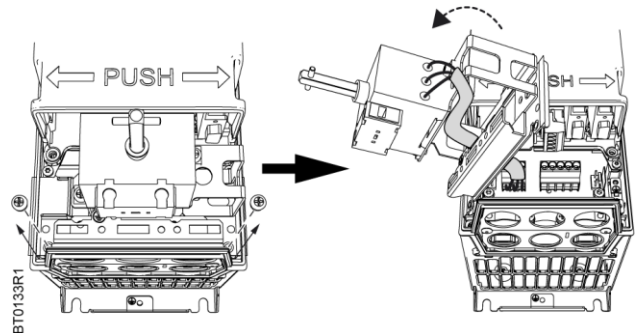


Figure 2.

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.

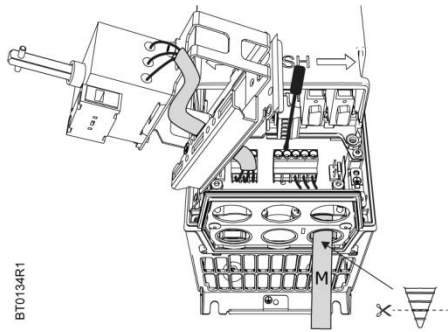


Figure 3.

- 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.

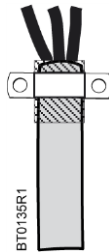


Figure 4.

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

**NOTES:**

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

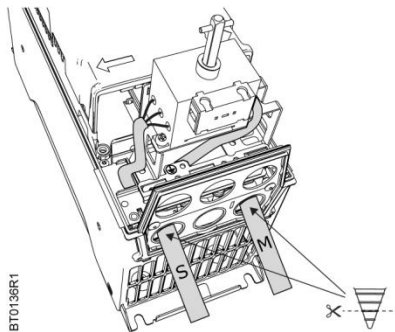


Figure 5.

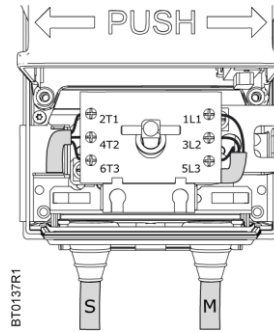


Figure 6. Motor and Supply Cable Installation as Seen from Above.

- Attach the main switch screws.

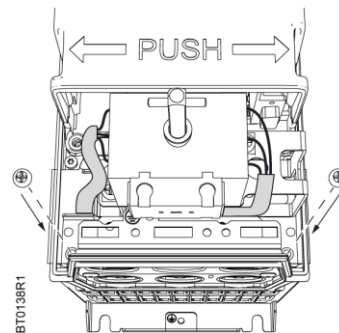


Figure 7.

- 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.

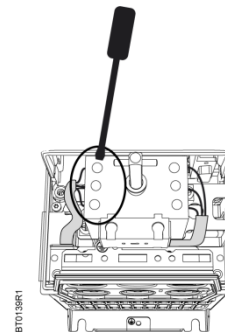


Figure 8.

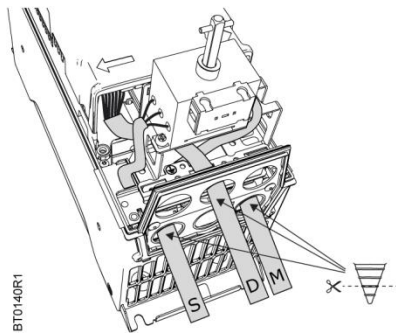
**Connecting the data cable**

Do one of the following:

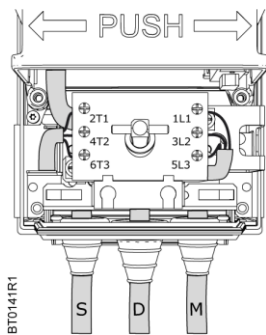
- **For FS4:** Connect Data Cable **D** under the main switch, and attach it.
- **For FS5 through FS7:** Connect the data cable to the terminal around the main switch.

**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.

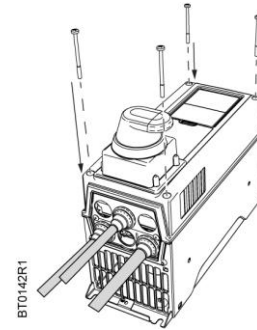


**Figure 9.**



**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...			
	BT300-015X6...	AWG8		
	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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