



**FAQ Quickstop Function ET 200S Motor Starter High Feature**

**service**

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**Quickstop Function for ET 200S Motor Starter High Feature**

**SIEMENS**

### Table of Contents

Table of Contents .....	2
Question .....	3
Answer .....	3
1 Description .....	4
2 Layout and Connections .....	5
2.1 Version 1 .....	5
2.2 Version 2 .....	6
2.3 Version 3 .....	7
3 Required Devices.....	8
3.1 ET 200S Motor Starter .....	8
3.2 Additional Modules .....	8
3.2.1 For versions 1+2.....	8
3.2.2 For version 3.....	8
3.3 HWConfig .....	9
3.4 Step 7 Program .....	9
4 Applications.....	10
4.1 Version 1 .....	10
4.2 Version 2 .....	10
4.3 Version 3 .....	11

### Question

Can I use a Quickstop function with an ET 200S Motor Starter?

### Answer

For ET 200S Motor Starters, unlike e.g. for ET200 pro Motor Starters, the Quickstop function cannot be parameterized.

For the ET 200S Motor Starter High Feature, a Quickstop function can be realised by hardware and software changes. This will be described in the following example.

### 1 Description

A High Feature ET 200S Motor Starter with 2DI control module, as well as a DO relay module, is required for implementing the Quickstop function.

The sensing unit (e.g. Bero, light barrier) is connected to port 3 of the control module via the relay assembly (see layout). At the same time the motor starter port must be parameterized to "switch off with restart".

The relay is closed during operation, so that the signal is supplied directly at port 3 and brings the motor to a halt (e.g. for stopping a conveyor belt when the material to be conveyed is brought on).

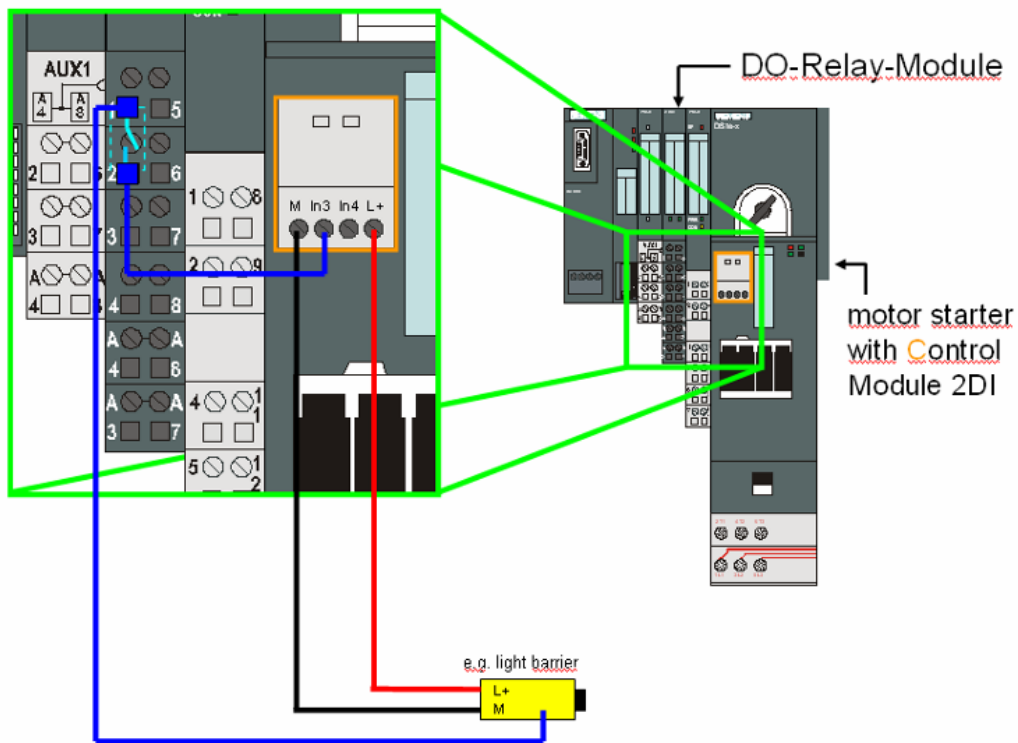
The time for the DO module relay to open so that the motor can restart must be controlled via the PLC (e.g. when the way is clear and the conveyor belt can continue to run).

Alternatively, the signal of the sensing unit can also be supplied to port 4 of the control module (version 2) This input can be used to determine whether the cause has been eliminated (e.g. the material to be conveyed has moved on). The PLC can then close the relay again and the unit is immediately available for the next stop.

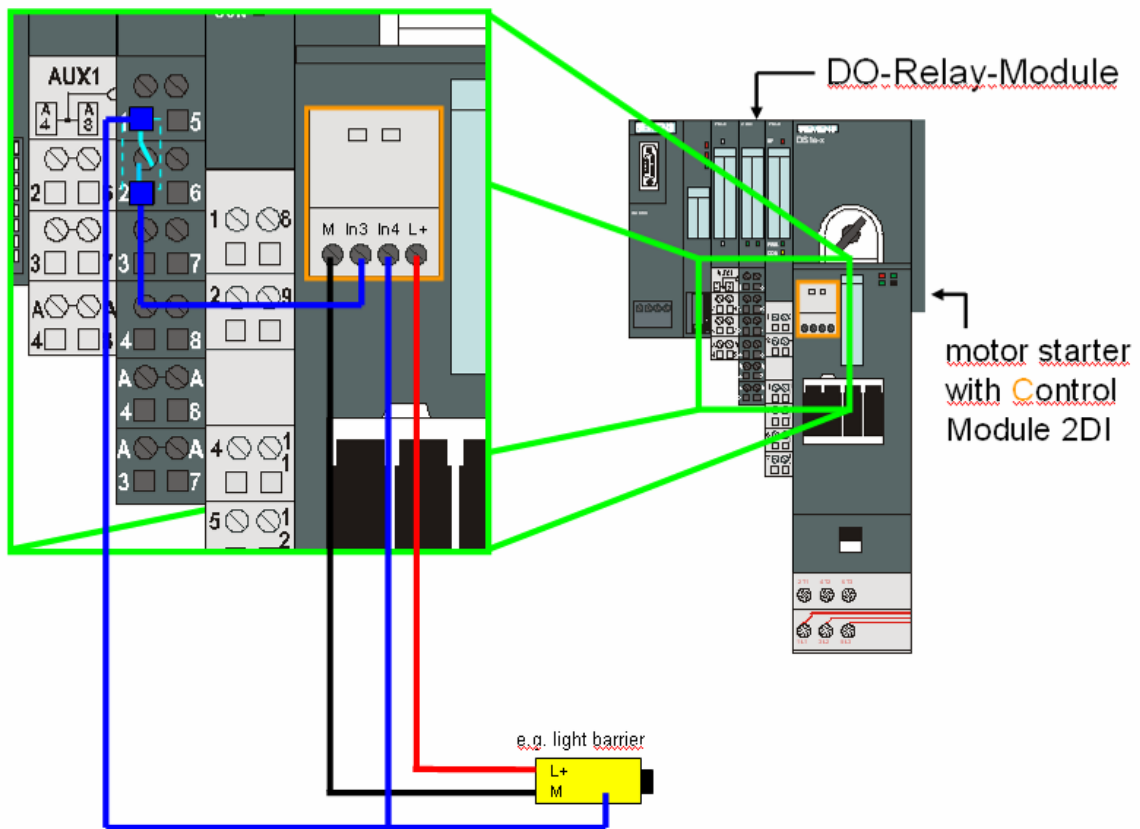
The Quickstop function can also be used without additional DO assembly, if the encoder is free again prior to switching on again (version 3).

### 2 Layout and Connections

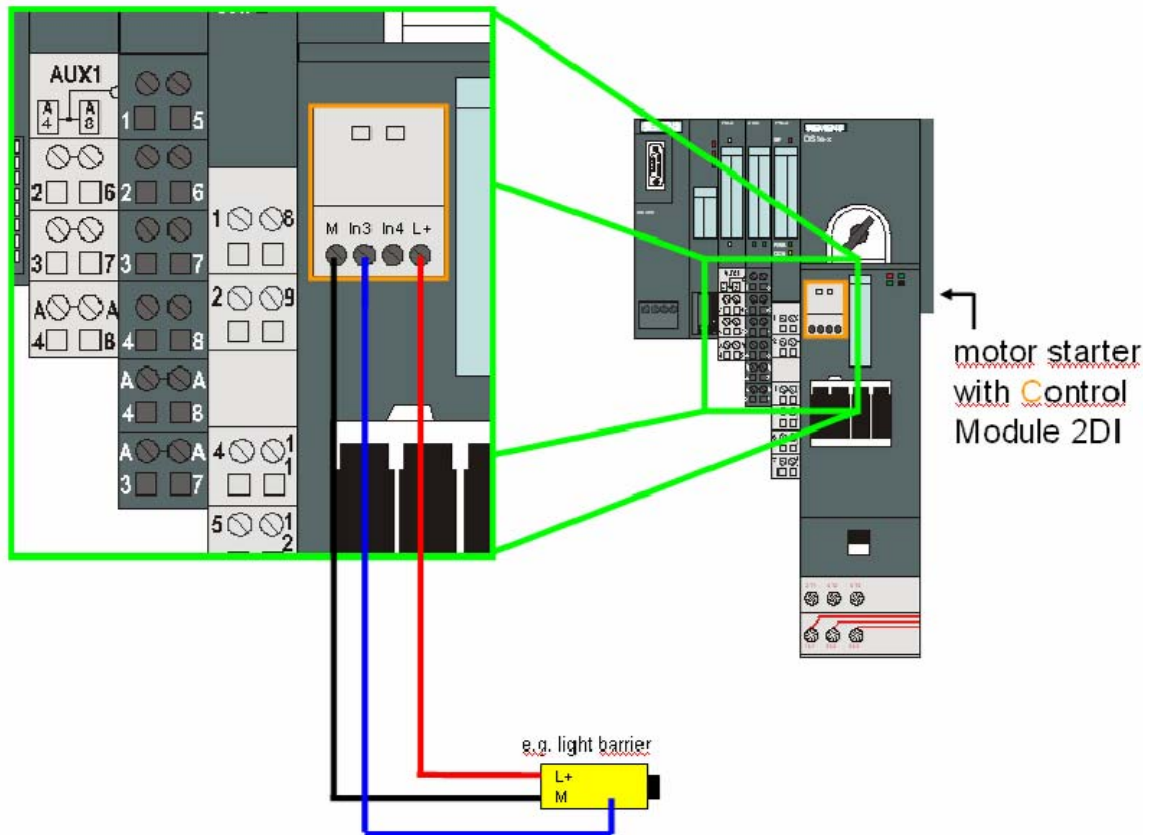
#### 2.1 Version 1



### 2.2 Version 2



### 2.3 Version 3



### 3 Required Devices

#### 3.1 ET 200S Motor Starter

This functionality is only possible with the ET 200S HF motor starter.

MLFB	Description
3RK1301-0AB10-0AA4	High Feature Directstarter ; 0.3 to 3 A
3RK1301-0BB10-0AA4	High Feature Directstarter ; 2.4 to 8 A
3RK1301-0CB10-0AA4	High Feature Directstarter ; 2.4 to 16 A
3RK1301-0AB20-0AA4	High Feature Direct Soft Starter ; 0.3 to 3 A
3RK1301-0BB20-0AA4	High Feature Direct Soft Starter ; 2.4 to 8 A
3RK1301-0CB20-0AA4	High Feature Direct Soft Starter ; 2.4 to 16 A
3RK1903-0AK00	Terminal module f. Direct/ Soft Starter with supply connector
3RK1903-0AK10	Terminal module f. Direct/ Soft Starter without supply connector
3RK1301-0AB10-1AA4	High Feature Reversing Starter ; 0.3 to 3 A
3RK1301-0BB10-1AA4	High Feature Reversing Starter ; 2.4 to 8 A
3RK1301-0CB10-1AA4	High Feature Reversing Starter ; 2.4 to 16 A
3RK1903-0AL00	Terminal module f. Reversing Starter with supply connector
3RK1903-0AL10	Terminal module f. Reversing Starter without supply connector

#### 3.2 Additional Modules

##### 3.2.1 For versions 1+2

MLFB	Description
3RK1903-0CH20	Control module 2DI DC 24V COM (for Motor Starter)
6ES7132-4HB01-0AB0	Electronic module, 2DO, DC24V-AC230V/5A relay
6ES7193-4CB00-0AA0	Terminal module; screw-type terminals
6ES7138-4CA01-0AA0	Power module PM-E DC 24V for electronic modules
6ES7193-4CD20-0AA0	Terminal module for AUX1-supply PM-E; screw-type terminals

##### 3.2.2 For version 3

For this version only the control module is required.

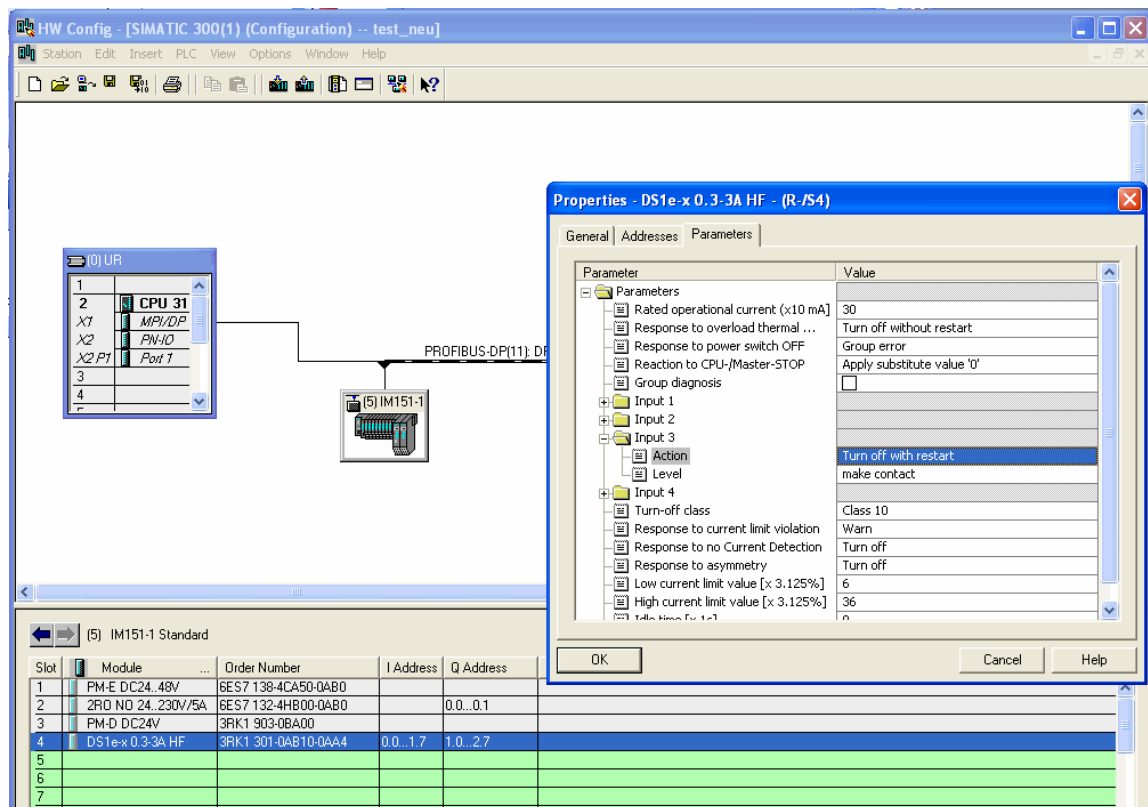
MLFB	Description
3RK1903-0CH20	Control module 2DI DC 24V COM (for motor starters)



### STEP 7 Integration

### 3.3 HWConfig

Port 3 of the 2DI module must be parameterized in the HWConfig.



### 3.4 Step 7 Program

In versions 1 and 2 the DO module output must be driven via a program. The output deactivates the Quickstop function.

Version 3 manages without an additional program.

An easy program example:

```
// signal to motor starter – deactivate Quickstop
UN      M_enable;
=       A    0.0;
```

The M\_enable flag must be created in addition. It can be created e.g. with the signals of emergency stop, enable discharge, etc.

### Please note

If in version 1 the Quickstop function is deactivated (A 0.0 = 0), no signal will be supplied to port IN3.

If the signal of the encoder is relevant for the control, version 2 must be selected.

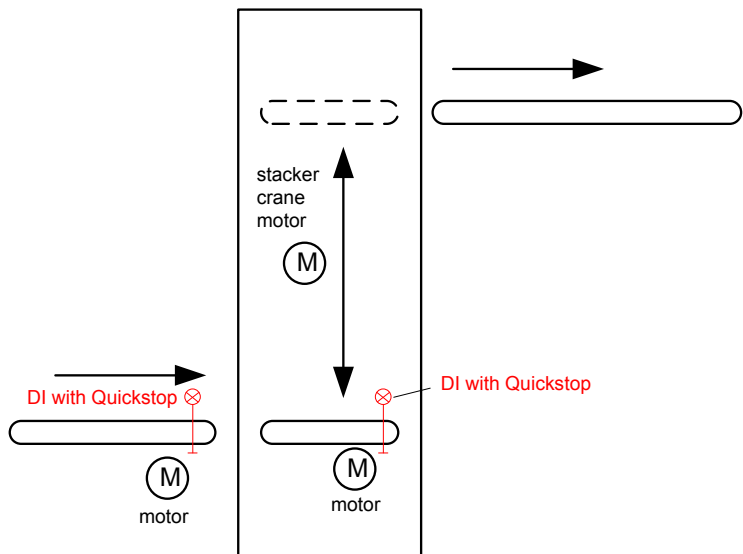
## 4 Applications

The following applications are examples showing cases in which the individual versions can be used.

### 4.1 Version 1

Transfer from one conveyor element to a succeeding one, the cycle time of the succeeding element being shorter than that of the supplying conveyor.

Example: Supplying conveyor to vertical conveyor



The encoders of the supplying conveyor and the conveyor drive of the vertical conveyor can be connected to an ET 200S Motor Starter port.

### 4.2 Version 2

With this version, the Quickstop function can be used in any application.

### 4.3 Version 3

Place of transfer from which the material is collected, e.g. by a handling robot or a rack feeder.

