



Certificate



- (1) **Attestation of Conformity**
in accordance with Directive 2014/34/EU
(Translation)
- (2) Equipment or Protective System Intended for use in Potentially Explosive Atmospheres - **Directive 2014/34/EU**
- (3) EU - Type Examination Certificate Number: TÜV-A 22_ATEX000061X
- (4) Product: Motor protection switch MVS6
- (5) Manufacturer: Maico Elektroapparate-Fabrik GmbH
- (6) Address: Steinbeisstraße 20
78056 Villingen-Schwenningen
Deutschland
- (7) This product and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.
- (8) TÜV AUSTRIA DEUTSCHLAND GMBH, Notified Body number 0408, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.
The examination and test results are recorded in confidential Report No. TUV-A 2022-TAD-000061
- (9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
EN 60079-14:2014
except in respect of those requirements listed at item 18 of the Schedule.
- (10) If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.
- (11) This EU – Attestation of Conformity relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.
- (12) The marking of the product shall include the following:



II (2) G [Ex "e"]

II (2) D [Ex "t"]

Filderstadt
Place

10.28.2022
Date

Michael Reuschel
Notified Body 0408
TÜV AUSTRIA SERVICES GMBH



Schedule

(14) Attestation of conformity TÜV-A 22_ATEX000061

(15) **Description of Product**

This MVS6 PTC thermistor triggering device is intended to protect certain three-phase motors with types of protection increased safety "e" and protection by housing for dusty areas. The heating of these motors is recorded via PTC thermistors, which are inserted in the stator winding.

In this way, the temperature in the windings is recorded directly. This device can also be used to protect other three-phase equipment.

This extension serves the purpose of extending the temperature range from -20°C to -40°C. Since the motors have different temperature ranges, these are divided into two tables.

The MVS6 is installed outside of the potentially explosive areas.

The MVS6 consists of a motor protection switch PKZM0-6.3, a PTC tripping device EMT6-K or CM-MSS, which are integrated in a common housing.

After the rated response temperature of the PTC thermistor is exceeded, the tripping device opens the PKZM0-6,3 motor protection switch via the U-PKZ0 undervoltage release. Although the motor protection switch is also type tested (PTB 10 ATEX 3013), it does not represent an independent, in this case current-dependent, time-delayed protective device because its rated current is not tailored to the respective application.

The PTC thermistor triggering device fulfils the following protective functions:

- Tripping when the temperatures on the PTC thermistors are too high, i.e. in the stator winding of the connected motor,
- Tripping after a short circuit in the PTC circuit,
- Tripping after a wire brake in the PTC circuit,
- Tripping after failure of the supply voltage in all three phases.

After all the causes of the fault have been eliminated, the connected motor does not restart automatically because the motor protection switch is opened mechanically via the undervoltage release. Restarting is only possible manually (restart lock)

The device does not serve as:

- Current-dependent, time-delayed overload protection and not
- To detect a failure of a single mains phase. An exception is the interruption of phase L1 because the thermistor tripping device is connected to L1 and N.

Type variants:

MVS6 PTC thermistor triggering device with the PTC tripping devices EATON EMT6-K and ABB CM-MSS.31



Technical Data:

MVS 6

MVS 6	
Rated voltage:	400 V 3 N~
Mains frequency:	50 HZ
Rated operational current:	6,3 A
Degree of protection:	IP 65
Installation type:	Surface mounted
Ambient temperature:	-20°C to 40°C

Motor protection switch

Rated ultimate short-circuit breaking capacity	150 kA at 400V~
Overload releas	4 – 6,3A
Short-circuit releas	97,7 A
Ambient temperature	
storage	-40 to 80°C
open	-25 to 55°C
encapsulated	-25°to 40°C

PTC thermistor triggering device

	EATON EMT6-K	ABB CM-MSS.31S
Rated voltage	24 to 240 V~	24 to 240V~
Rated frequency	50 and 60 Hz	15 to 400 Hz
Voltage Safety	-15%...+10%	-15%...+10%
Degree of pollution	3	3
Security Integrity Level	SIL 1	SIL 1
HFT security device	0	0
architecture	1oo1	1oo1
Sensor circuit		
Response value	3600 Ω	2830 Ω +/-1%
Restart	1600 Ω	1100 Ω
Reaction time	< 100 ms	< 100 ms
Cumulative cold resistance	≤ 1500 Ω	
Trip in the event of a short circuit	< 20,25 Ω	
Restart after short circuit	>40 Ω	
Ambient temperature		
storage	-40 to 85°C	-40 to 85°C
operation	-25 to 60°C	-25 to 60°C

(16) **Report Number**

TUV-A 2022-000061



Specific Conditions of Use

- (17.1) The MVS6 PTC thermistor triggering device must be installed outside the hazardous area.
- (17.2) The operating instructions for the components such as motor protection switches, PTC tripping devices and the conditions for the individual components of the MVS6 PTC tripping device must be taken into account.

(18) Essential Health and Safety Requirements

Met by the standards mentioned above.

(19) Drawings and Documents

Document / Drawing no / File name / Reference	Rev	Pages	Date	Description
TÜV-A 22 ATEX 000061X	--		2022-10-28	Certificate of Conformity
PB_TUV-A 2022-TAD-000061	--	09	2022-10-28	Associated test report
2022_02_11_Stückliste MVS 6	--	01		Parts list