



Product description:

The TVM8 Safety is a high-performance load voltage supply module with 2 integrated contactors for safe disconnection of the load voltage.

The two contactors Q1 and Q2 are activated or deactivated via inputs 4 and 2 of the connector "XE2, Safety".

The switching contacts of the contactors switch the 48 VDC output voltage of the internal SELV/PELV power supply unit 2-channel.

The switched 48 VDC output voltage is led to the separate connectors "XS1 and XS2"

The diagnosis of the safety function must be carried out with a suitable external device (e.g. safety PLC).

It is done via the positive-guided feedback contacts of the contactors Q1 and Q2 on separate connector "XE3, feedback loop".

Technical data:

Input data:

Input:

min. 400 VAC/max.: 500 VAC~,
connection description: XS3
min.:350 mA/max.:2.4 A
3x 10A (internal)

Current consumption:

Fuse protection:

Output data:

Supply voltage load:

48 VDC $\pm$ 2%, connection description:
XS1 and XS2

Pulse current load:

max. 20 A pulse = Ton/Toff = 1.75 s/13.25 s

Standing current::

max. 10 A

Current limitation:

approx. 30 A

Fuse protection:

current and temperature limiting, timeout

Characteristics

MTBFd 1.564 a
PFHD 1.5E-11 1/h

classification: MTTFd = high
< 1 % of SIL 2 (1E-06 1/h)

Diagnosis cover ratio

(DCavg) 99%

Standards and directive conformity

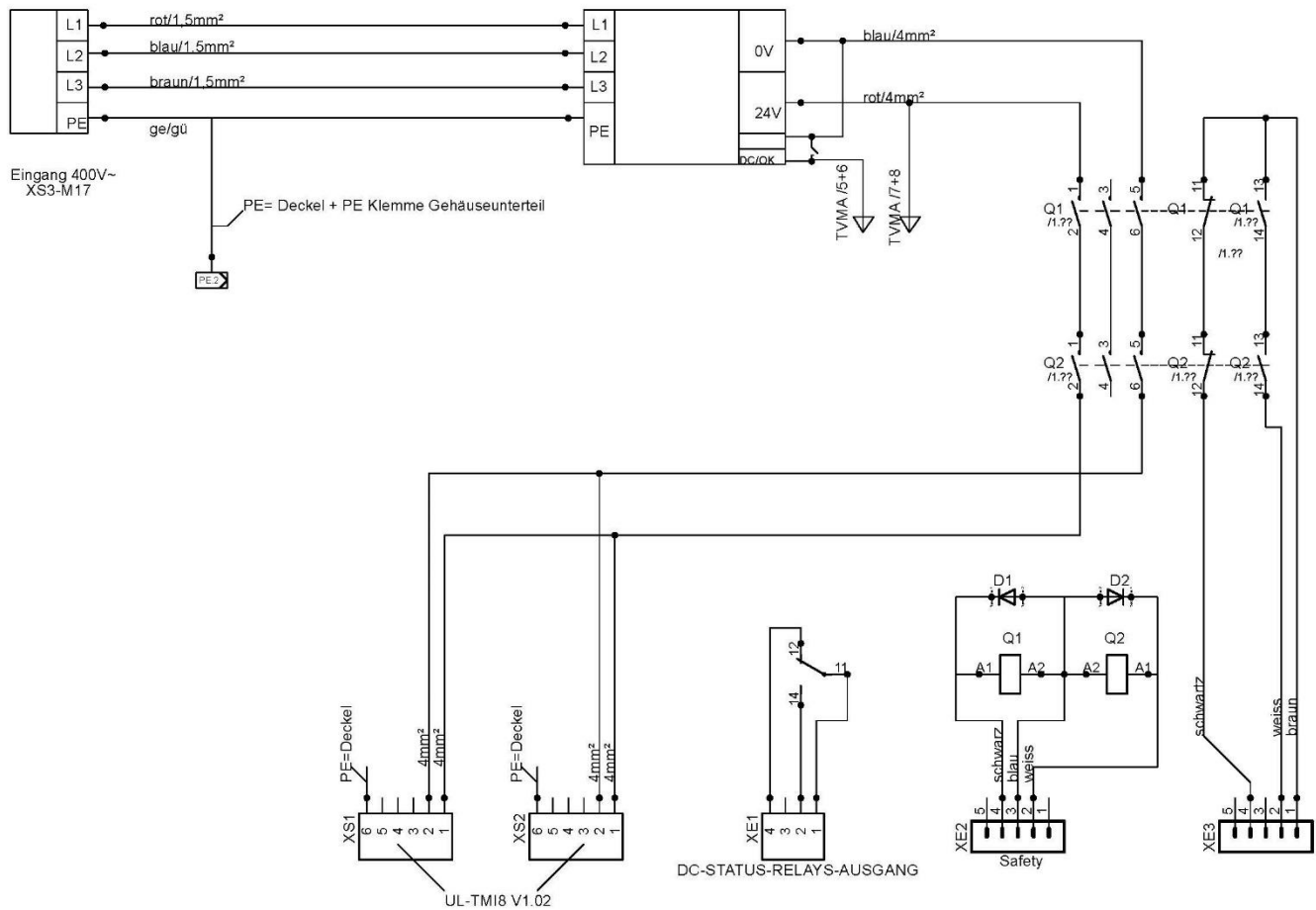
IEC 62061:2015

EN ISO 13849-1

EN 50178:1997

The TVM8 Safety is available in 4 different versions (see chart below).

Type/version	Article no.	Dimensions (mm)	Operating temperature standing current 20A	Operating temperature pulse load 40A	Protection class	Fastening fixing brackets
TVM8 Safety 230Vac/24Vdc	1202291	404x313x180	0° - +40°	-0° - +50°	IP54	4x M6
TVM8 Safety 400Vac/24Vdc	1202305	404x313x180	0° - +40°	-0° - +50°	IP54	4x M6
TVM8 Safety 230Vac/48Vdc	1222859	404x313x180	0° - +40°	-0° - +50°	IP54	4x M6
TVM8 Safety 400Vac/48Vdc	1222872	404x313x180	0° - +40°	-0° - +50°	IP54	4x M6



<u>Analysis AC/DCstatus</u>	<u>Function/ logic</u>	<u>Plug</u>	<u>Pin no.</u>
Input +24 VDC	normal closed	XE1	1
DC status OK	normal opened	XE1	2
	normal closed	XE1	4

<u>Safety relay control</u>	<u>Contact description</u>	<u>Plug</u>	<u>Pin no.</u>
Q1 = +24 VDC	A1	XE2	4
Q1 = -0 VDC	A2	XE2	3
Q2 = +24 VDC	A1	XE2	2
Q2 = -0 VDC	A2	XE2	3

<u>Analysis feedback loop</u>	<u>Function/ logic</u>	<u>Plug</u>	<u>Pin no.</u>
Q1 = RFK/+24 VDC	normal closed	XE3	1
Q1 = RFK/+24 VDC	normal opened	XE3	1
Q2 = RFK	normal closed	XE3	4
Q2 = RFK	normal opened	XE3	2