SIEMENS

Data sheet 3RU2116-1JB0



Overload relay 7.0...10 A Thermal For motor protection Size S00, Class 10 Contactor mounting Main circuit: Screw Auxiliary circuit: Screw Manual-Automatic-Reset

product designation product type designation General technical data size of overload relay size of contactor can be combined company-specific power loss [W] for rated value of the current at AC in hot operating state • per pole insulation voltage with degree of pollution 3 at AC rated value surge voltage resistance rated value maximum permissible voltage for safe isolation in networks with grounded star point • between auxiliary and auxiliary circuit • between auxiliary and auxiliary circuit • between main and auxiliary circuit • between factorial production of the control	product brand name	SIRIUS
Separate control of relay Superating state Su	product designation	thermal overload relay
size of overload relay size of contactor can be combined company-specific power loss [W] for rated value of the current at AC in hot operating state • per pole insulation voltage with degree of pollution 3 at AC rated value surge voltage resistance rated value maximum permissible voltage for safe isolation in networks with grounded star point • between auxiliary and auxiliary circuit • between auxiliary and auxiliary circuit • between main and auxiliary circuit • Death of the current of too of the current of the current of poles for main current circuit adjustable current response value current of the current of poles for main current circuit adjustable current response value current of the current of poles for main current circuit adjustable current response value current of the current of poles for main current circuit adjustable current overload release operating voltage	product type designation	3RU2
size of contactor can be combined company-specific power loss [W] for rated value of the current at AC in hot operating state • per pole insulation voltage with degree of pollution 3 at AC rated value surge voltage resistance rated value surge voltage resistance rated value maximum permissible voltage for safe isolation in networks with grounded star point • between auxiliary and auxiliary circuit • between main and auxiliary circuit • between main and auxiliary circuit • between main and auxiliary circuit * between main and auxiliary circuit * shock resistance acc. to IEC 60068-2-27 type of protection according to ATEX directive 2014/34/EU certificate of suitability according to ATEX directive 2014/34/EU reference code acc. to IEC 81346-2 F Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum • during operation • during storage • during transport temperature compensation -40 +70 °C • during transport temperature compensation -40 +60 °C relative humidity during operation 10 95 % Main circuit number of poles for main current circuit 3 adjustable current response value current of the current-dependent overload release operating voltage	General technical data	
power loss [W] for rated value of the current at AC in hot operating state • per pole insulation voltage with degree of pollution 3 at AC rated value surge voltage resistance rated value maximum permissible voltage for safe isolation in networks with grounded star point • between auxiliary and auxiliary circuit • between auxiliary and auxiliary circuit • between main and auxiliary circuit • Au v • Detween main and auxiliary circuit • Au v • Detween main and auxiliary circuit • Au v • Detween main and auxiliary circuit • Detween main and auxiliary circuit • Au v • Detween main and auxiliary circuit • Detween main and	size of overload relay	S00
operating state	size of contactor can be combined company-specific	S00
insulation voltage with degree of pollution 3 at AC rated value surge voltage resistance rated value maximum permissible voltage for safe isolation in networks with grounded star point • between auxiliary and auxiliary circuit • between main and auxiliary circuit shock resistance acc. to IEC 60068-2-27 8g / 11 ms type of protection according to ATEX directive 2014/34/EU certificate of suitability according to ATEX directive 2014/34/EU reference code acc. to IEC 81346-2 Fubstance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage • during transport temperature compensation relative humidity during operation Main circuit number of poles for main current circuit adjustable current response value current of the current-dependent overload release operating voltage		6.6 W
value surge voltage resistance rated value maximum permissible voltage for safe isolation in networks with grounded star point • between auxiliary and auxiliary circuit • between main and auxiliary circuit shock resistance acc. to IEC 60068-2-27 8g / 11 ms type of protection according to ATEX directive 2014/34/EU certificate of suitability according to ATEX directive 2014/34/EU reference code acc. to IEC 81346-2 Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage • during transport temperature compensation relative humidity during operation Main circuit number of poles for main current circuit 3 adjustable current response value current of the current-dependent overload release operating voltage	• per pole	2.2 W
maximum permissible voltage for safe isolation in networks with grounded star point • between auxiliary and auxiliary circuit • between main and auxiliary circuit shock resistance acc. to IEC 60068-2-27 type of protection according to ATEX directive 2014/34/EU certificate of suitability according to ATEX directive 2014/34/EU reference code acc. to IEC 81346-2 Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage • during storage • during transport • during transport temperature compensation relative humidity during operation Main circuit number of poles for main current circuit 3 adjustable current response value current of the current-dependent overload release operating voltage	0 0 1	690 V
networks with grounded star point • between auxillary and auxilliary circuit • between main and auxilliary circuit shock resistance acc. to IEC 60068-2-27 8g / 11 ms Ex II (2) GD DMT 98 ATEX G 001 2014/34/EU reference code acc. to IEC 81346-2 F Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage • during storage • during storage • during transport -55 +80 °C • during transport -55 +80 °C temperature compensation -40 +60 °C relative humidity during operation 10 95 % Main circuit number of poles for main current circuit adjustable current response value current of the current-dependent overload release operating voltage	surge voltage resistance rated value	6 kV
between auxiliary and auxiliary circuit between main and auxiliary circuit between main and auxiliary circuit between main and auxiliary circuit shock resistance acc. to IEC 60068-2-27 sg / 11 ms type of protection according to ATEX directive 2014/34/EU certificate of suitability according to ATEX directive 2014/34/EU reference code acc. to IEC 81346-2 Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature during operation during storage during storage during transport temperature compensation relative humidity during operation Advincircuit number of poles for main current circuit adjustable current response value current of the current-dependent overload release operating voltage 440 V 450 F C 10 470 °C -55 +80 °C -57 +80 °C -58 +80 °C -58 +80 °C -59 +80 °C -50 +70 °C -50 +70 °C -70		
between main and auxiliary circuit between main and auxiliary circuit between main and auxiliary circuit shock resistance acc. to IEC 60068-2-27 bype of protection according to ATEX directive 2014/34/EU certificate of suitability according to ATEX directive 2014/34/EU reference code acc. to IEC 81346-2 Substance Prohibitance (Date) O1.10.2009 00:00:00 Ambient conditions installation altitude at height above sea level maximum ambient temperature during operation during storage during transport temperature compensation relative humidity during operation Main circuit number of poles for main current circuit adjustable current response value current of the current-dependent overload release operating voltage	 between auxiliary and auxiliary circuit 	440 V
between main and auxiliary circuit shock resistance acc. to IEC 60068-2-27 type of protection according to ATEX directive 2014/34/EU certificate of suitability according to ATEX directive 2014/34/EU reference code acc. to IEC 81346-2 F Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage • during transport temperature compensation relative humidity during operation Main circuit number of poles for main current circuit adjustable current response value current of the current-dependent overload release operating voltage By / 11 ms Ex II (2) GD DMT 98 ATEX G 001 DMT 98 ATEX G 001 DMT 98 ATEX G 001 20 00 01.10.2009 00:00:00 Anticy C F C -40 +70 °C -40 +70 °C -40 +70 °C -40 +60 °C Telative humidity during operation 3 adjustable current response value current of the current-dependent overload release operating voltage	 between auxiliary and auxiliary circuit 	440 V
shock resistance acc. to IEC 60068-2-27 type of protection according to ATEX directive 2014/34/EU certificate of suitability according to ATEX directive 2014/34/EU reference code acc. to IEC 81346-2 Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum 2 000 m ambient temperature • during operation 40 uring storage 55 +80 °C • during transport 55 +80 °C temperature compensation 40 +70 °C temperature compensation 40 +60 °C relative humidity during operation 10 95 % Main circuit number of poles for main current circuit 3 adjustable current response value current of the current-dependent overload release operating voltage	 between main and auxiliary circuit 	440 V
type of protection according to ATEX directive 2014/34/EU certificate of suitability according to ATEX directive 2014/34/EU reference code acc. to IEC 81346-2 Fubstance Prohibitance (Date) 01.10.2009 00:00:00 Ambient conditions installation altitude at height above sea level maximum 2 000 m ambient temperature • during operation -40 +70 °C • during storage -55 +80 °C • during transport -55 +80 °C temperature compensation -40 +60 °C relative humidity during operation -40 +60 °C relative humidity during operation -40 95 % Main circuit 10 adjustable current response value current of the current-dependent overload release operating voltage	between main and auxiliary circuit	440 V
2014/34/EU certificate of suitability according to ATEX directive 2014/34/EU reference code acc. to IEC 81346-2 Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage • during transport -55 +80 °C • during transport temperature compensation -40 +60 °C relative humidity during operation Main circuit number of poles for main current circuit adjustable current response value current of the current-dependent overload release operating voltage	shock resistance acc. to IEC 60068-2-27	8g / 11 ms
reference code acc. to IEC 81346-2 Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage • during transport • during transport -55 +80 °C temperature compensation relative humidity during operation number of poles for main current circuit adjustable current response value current of the current-dependent overload release operating voltage		Ex II (2) GD
Substance Prohibitance (Date) Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage • during transport -40 +70 °C • during transport -55 +80 °C temperature compensation -40 +60 °C relative humidity during operation 10 95 % Main circuit number of poles for main current circuit adjustable current response value current of the current-dependent overload release operating voltage		DMT 98 ATEX G 001
installation altitude at height above sea level maximum ambient temperature during operation during storage during transport during transpor	reference code acc. to IEC 81346-2	F
installation altitude at height above sea level maximum ambient temperature • during operation • during storage • during transport • during transport -55 +80 °C temperature compensation relative humidity during operation Main circuit number of poles for main current circuit adjustable current response value current of the current-dependent overload release operating voltage	Substance Prohibitance (Date)	01.10.2009 00:00:00
ambient temperature • during operation • during storage • during transport • during transport -55 +80 °C • during transport -55 +80 °C temperature compensation relative humidity during operation 10 95 % Main circuit number of poles for main current circuit adjustable current response value current of the current-dependent overload release operating voltage	Ambient conditions	
 during operation during storage during transport 55 +80 °C during transport 55 +80 °C temperature compensation 40 +60 °C relative humidity during operation 10 95 % Main circuit number of poles for main current circuit adjustable current response value current of the current-dependent overload release operating voltage 	installation altitude at height above sea level maximum	2 000 m
 during storage during transport -55 +80 °C temperature compensation	ambient temperature	
◆ during transport	during operation	-40 +70 °C
temperature compensation -40 +60 °C relative humidity during operation 10 95 % Main circuit number of poles for main current circuit adjustable current response value current of the current-dependent overload release operating voltage	during storage	-55 +80 °C
relative humidity during operation 10 95 % Main circuit number of poles for main current circuit adjustable current response value current of the current-dependent overload release operating voltage	during transport	-55 +80 °C
Main circuit number of poles for main current circuit adjustable current response value current of the current-dependent overload release operating voltage	temperature compensation	-40 +60 °C
number of poles for main current circuit adjustable current response value current of the current-dependent overload release operating voltage 3 7 10 A	relative humidity during operation	10 95 %
adjustable current response value current of the current-dependent overload release operating voltage	Main circuit	
current-dependent overload release operating voltage	number of poles for main current circuit	3
	•	7 10 A
		690 V

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at AC-3 rated value maximum	690 V
operating frequency rated value	50 60 Hz
operational current rated value	10 A
operating power at AC-3	
at 400 V rated value	4 kW
at 500 V rated value	5.5 kW
at 690 V rated value	7.5 kW
Auxiliary circuit	
design of the auxiliary switch	integrated
number of NC contacts for auxiliary contacts	1
• note	for contactor disconnection
number of NO contacts for auxiliary contacts	1
• note	for message "Tripped"
number of CO contacts for auxiliary contacts	0
operational current of auxiliary contacts at AC-15	
• at 24 V	3 A
• at 110 V	3 A
• at 120 V	3 A
• at 125 V	3 A
• at 230 V	2 A
• at 400 V	1A
operational current of auxiliary contacts at DC-13	
• at 24 V	2 A
• at 60 V	0.3 A
• at 110 V	0.22 A
• at 125 V	0.22 A
• at 220 V	0.11 A
contact rating of auxiliary contacts according to UL	B600 / R300
Protective and monitoring functions	
Protective and monitoring functions	CLASS 10
trip class	CLASS 10
trip class design of the overload release	CLASS 10 thermal
trip class design of the overload release UL/CSA ratings	
trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor	thermal
trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor • at 480 V rated value	thermal 10 A
trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor • at 480 V rated value • at 600 V rated value	thermal
trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor • at 480 V rated value • at 600 V rated value Short-circuit protection	thermal 10 A
trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor • at 480 V rated value • at 600 V rated value Short-circuit protection design of the fuse link	thermal 10 A 10 A
trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor • at 480 V rated value • at 600 V rated value Short-circuit protection	thermal 10 A
trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor • at 480 V rated value • at 600 V rated value Short-circuit protection design of the fuse link • for short-circuit protection of the auxiliary switch required	thermal 10 A 10 A
trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor • at 480 V rated value • at 600 V rated value Short-circuit protection design of the fuse link • for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions	thermal 10 A 10 A 10 A fuse gG: 6 A, quick: 10 A
trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor • at 480 V rated value • at 600 V rated value Short-circuit protection design of the fuse link • for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position	thermal 10 A 10 A 10 A fuse gG: 6 A, quick: 10 A any
trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor • at 480 V rated value • at 600 V rated value Short-circuit protection design of the fuse link • for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position fastening method	thermal 10 A 10 A 10 A fuse gG: 6 A, quick: 10 A any Contactor mounting
trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor • at 480 V rated value • at 600 V rated value Short-circuit protection design of the fuse link • for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position	thermal 10 A 10 A 10 A fuse gG: 6 A, quick: 10 A any
trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor • at 480 V rated value • at 600 V rated value Short-circuit protection design of the fuse link • for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position fastening method height width	thermal 10 A 10 A fuse gG: 6 A, quick: 10 A any Contactor mounting 76 mm
trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor	thermal 10 A 10 A fuse gG: 6 A, quick: 10 A any Contactor mounting 76 mm 45 mm
trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor • at 480 V rated value • at 600 V rated value Short-circuit protection design of the fuse link • for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position fastening method height width depth Connections/ Terminals	thermal 10 A 10 A 10 A fuse gG: 6 A, quick: 10 A any Contactor mounting 76 mm 45 mm 70 mm
trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor	thermal 10 A 10 A fuse gG: 6 A, quick: 10 A any Contactor mounting 76 mm 45 mm
trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor • at 480 V rated value • at 600 V rated value Short-circuit protection design of the fuse link • for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position fastening method height width depth Connections/ Terminals product function removable terminal for auxiliary and	thermal 10 A 10 A 10 A fuse gG: 6 A, quick: 10 A any Contactor mounting 76 mm 45 mm 70 mm
trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor • at 480 V rated value • at 600 V rated value Short-circuit protection design of the fuse link • for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position fastening method height width depth Connections/ Terminals product function removable terminal for auxiliary and control circuit	thermal 10 A 10 A 10 A fuse gG: 6 A, quick: 10 A any Contactor mounting 76 mm 45 mm 70 mm
trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor	thermal 10 A 10 A fuse gG: 6 A, quick: 10 A any Contactor mounting 76 mm 45 mm 70 mm No
trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor	thermal 10 A 10 A 10 A fuse gG: 6 A, quick: 10 A any Contactor mounting 76 mm 45 mm 70 mm No
trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor	thermal 10 A 10 A 10 A fuse gG: 6 A, quick: 10 A any Contactor mounting 76 mm 45 mm 70 mm No screw-type terminals screw-type terminals
trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor	thermal 10 A 10 A 10 A fuse gG: 6 A, quick: 10 A any Contactor mounting 76 mm 45 mm 70 mm No screw-type terminals screw-type terminals
trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor • at 480 V rated value • at 600 V rated value Short-circuit protection design of the fuse link • for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position fastening method height width depth Connections/ Terminals product function removable terminal for auxiliary and control circuit type of electrical connection • for main current circuit • for auxiliary and control circuit arrangement of electrical connectors for main current circuit type of connectable conductor cross-sections • for main contacts	thermal 10 A 10 A 10 A fuse gG: 6 A, quick: 10 A any Contactor mounting 76 mm 45 mm 70 mm No screw-type terminals screw-type terminals Top and bottom
trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor	thermal 10 A 10 A 10 A fuse gG: 6 A, quick: 10 A any Contactor mounting 76 mm 45 mm 70 mm No screw-type terminals screw-type terminals Top and bottom 2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²), 2x 4 mm²
trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor • at 480 V rated value • at 600 V rated value Short-circuit protection design of the fuse link • for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position fastening method height width depth Connections/ Terminals product function removable terminal for auxiliary and control circuit type of electrical connection • for main current circuit • for auxiliary and control circuit arrangement of electrical connectors for main current circuit type of connectable conductor cross-sections • for main contacts	thermal 10 A 10 A 10 A fuse gG: 6 A, quick: 10 A any Contactor mounting 76 mm 45 mm 70 mm No screw-type terminals screw-type terminals Top and bottom

type of connectable conductor cross-sections	
 for auxiliary contacts 	
— solid or stranded	2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²)
 finely stranded with core end processing 	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
at AWG cables for auxiliary contacts	2x (20 16), 2x (18 14)
tightening torque	
 for main contacts with screw-type terminals 	0.8 1.2 N·m
for auxiliary contacts with screw-type terminals	0.8 1.2 N·m
design of screwdriver shaft	Diameter 5 6 mm
size of the screwdriver tip	Pozidriv PZ 2
design of the thread of the connection screw	
 for main contacts 	M3
 of the auxiliary and control contacts 	M3
Safety related data	
failure rate [FIT] with low demand rate acc. to SN 31920	50 FIT
MTTF with high demand rate	2 280 y
T1 value for proof test interval or service life acc. to IEC 61508	20 y
protection class IP on the front acc. to IEC 60529	IP20
touch protection on the front acc. to IEC 60529	finger-safe, for vertical contact from the front
Display	
display version for switching status	Slide switch
Certificates/ approvals	
General Product Approval	For use in hazardous locations













Declaration of Conformity

Test Certificates

Marine / Shipping

Miscellaneous



Type Test Certific-ates/Test Report Special Test Certific-ate





Marine / Shipping

other









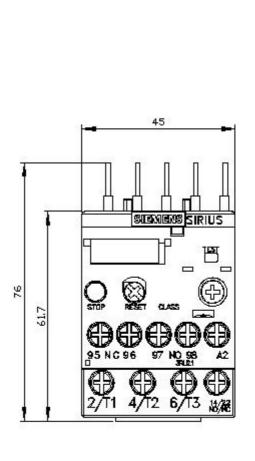


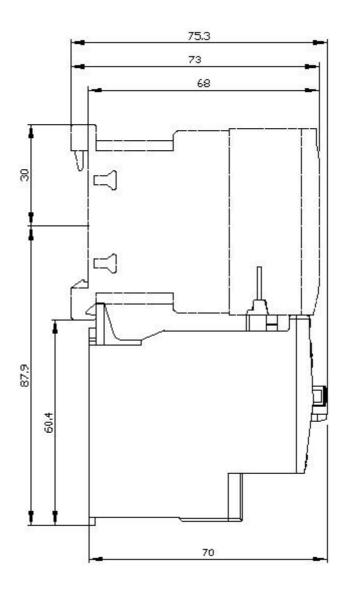
Confirmation

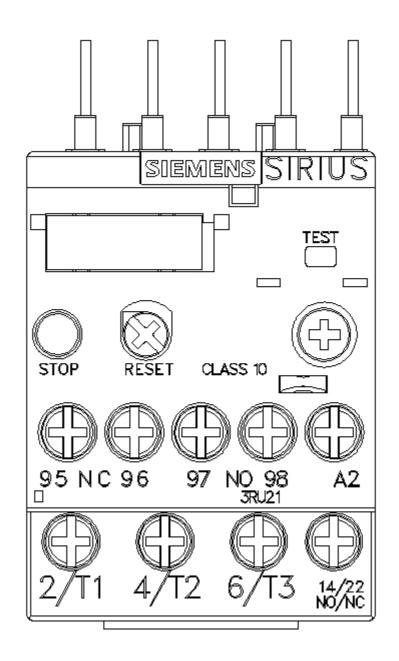
Railway

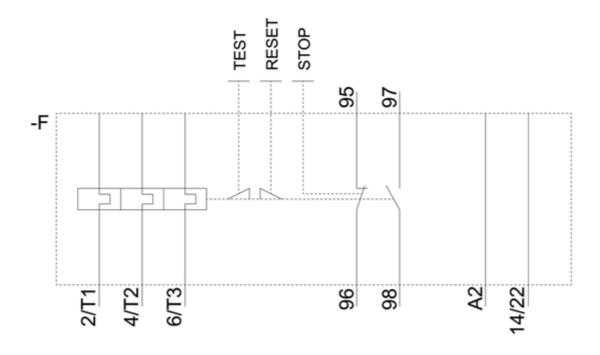
Vibration and Shock

Further information









last modified: 12/15/2020 🖸