SIEMENS

Data sheet 3RT2518-2BF40



Power contactor, AC-3 16 A, 7.5 kW, 400 V 2 NO + 2 NC 110 V DC 4-pole Size S00 Spring-type terminals

product brand name	SIRIUS
product designation	contactor
product type designation	3RT25
General technical data	
size of contactor	S00
product extension	
 function module for communication 	No
auxiliary switch	Yes
insulation voltage	
 of main circuit with degree of pollution 3 rated value 	690 V
 of auxiliary circuit with degree of pollution 3 rated value 	690 V
surge voltage resistance	
 of main circuit rated value 	6 kV
of auxiliary circuit rated value	6 kV
maximum permissible voltage for safe isolation between coil and main contacts according to EN 60947-1	400 V
shock resistance at rectangular impulse	
• at DC	7.3g / 5 ms, 4.7g / 10 ms
shock resistance with sine pulse	
• at DC	11,4g / 5 ms, 7,3g / 10 ms
mechanical service life (switching cycles)	
of contactor typical	30 000 000
 of the contactor with added electronically optimized auxiliary switch block typical 	5 000 000
 of the contactor with added auxiliary switch block typical 	10 000 000
reference code according to IEC 81346-2	Q
Substance Prohibitance (Date)	10/01/2009
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
ambient temperature	
during operation	-25 +60 °C
during storage	-55 +80 °C
relative humidity minimum	10 %
relative humidity at 55 °C according to IEC 60068-2-30 maximum	95 %
Main circuit	
number of poles for main current circuit	4
number of NO contacts for main contacts	2

number of NC contests for main acres	2
number of NC contacts for main contacts	2
operational current	
• at AC-1 up to 690 V	00.4
— at ambient temperature 40 °C rated value	22 A
— at ambient temperature 60 °C rated value	20 A
• at AC-2 at AC-3 at 400 V	40.4
— per NO contact rated value	16 A
— per NC contact rated value	9 A
minimum cross-section in main circuit at maximum AC-1 rated value	4 mm ²
operational current	
at 1 current path at DC-1	
— at 24 V rated value	20 A
— at 110 V rated value	2.1 A
— at 220 V rated value	0.8 A
— at 440 V rated value	0.6 A
with 2 current paths in series at DC-1	
— at 24 V rated value	20 A
— at 110 V rated value	12 A
— at 220 V rated value	1.6 A
— at 440 V rated value	0.8 A
• at 1 current path at DC-3 at DC-5	
at 24 V per NC contact rated value	20 A
at 24 V per NO contact rated value	20 A
at 110 V per NC contact rated value	0.075 A
— at 110 V per NO contact rated value	0.15 A
— at 220 V per NC contact rated value	0.375 A
at 220 V per NO contact rated value	0.75 A
• with 2 current paths in series at DC-3 at DC-5	
at 24 V per NC contact rated value	20 A
— at 24 V per NO contact rated value	20 A
at 110 V per NC contact rated value	0.175 A
— at 110 V per NO contact rated value	0.35 A
operating power at AC-2 at AC-3	
at 230 V per NC contact rated value	2.2 kW
at 230 V per NO contact rated value	4 kW
at 400 V per NC contact rated value	4 kW
at 400 V per NO contact rated value	7.5 kW
short-time withstand current in cold operating state up to 40 °C	
Iimited to 1 s switching at zero current maximum	165 A; Use minimum cross-section acc. to AC-1 rated value
Ilimited to 1 s switching at zero current maximum Ilimited to 5 s switching at zero current maximum	165 A; Use minimum cross-section acc. to AC-1 rated value
limited to 3 s switching at zero current maximum	128 A; Use minimum cross-section acc. to AC-1 rated value
limited to 30 s switching at zero current maximum	92 A; Use minimum cross-section acc. to AC-1 rated value
limited to 50 s switching at zero current maximum limited to 60 s switching at zero current maximum	74 A; Use minimum cross-section acc. to AC-1 rated value
power loss [W] at AC-3 at 400 V for rated value of the	2.2 W
operational current per conductor	2.2.17
no-load switching frequency	
• at AC	10 000 1/h
• at DC	10 000 1/h
operating frequency	
at AC-1 maximum	1 000 1/h
Control circuit/ Control	
type of voltage of the control supply voltage	DC
control supply voltage at DC • rated value	110 V
operating range factor control supply voltage rated value of magnet coil at DC	1 10 V
• initial value	0.8
• full-scale value	1.1
inductive power factor with closing power of the coil	0.8

closing power of magnet coil at DC	4 W
holding power of magnet coil at DC	4 W
closing delay	
• at DC	30 100 ms
opening delay	
• at DC	7 13 ms
arcing time	10 15 ms
Auxiliary circuit	
number of NC contacts for auxiliary contacts	0
instantaneous contact	
number of NO contacts for auxiliary contacts	0
instantaneous contact	40.4
operational current at AC-12 maximum	10 A
operational current at AC-15	40.4
at 230 V rated value	10 A
at 400 V rated value	_ 3 A
operational current at DC-12	O A
at 48 V rated value	6 A
at 60 V rated value	6 A
at 110 V rated value	3 A
at 125 V rated value	2 A
at 220 V rated value	1 A
at 600 V rated value	0.15 A
operational current at DC-13	40.4
at 24 V rated value	10 A
at 48 V rated value	2 A
at 60 V rated value	2 A
at 110 V rated value	1 A
 at 220 V rated value 	0.3 A
at 600 V rated value	0.1 A
contact reliability of auxiliary contacts	1 faulty switching per 100 million (17 V, 1 mA)
UL/CSA ratings	
yielded mechanical performance [hp]	
 for single-phase AC motor at 230 V rated value 	2 hp
• for 3-phase AC motor at 460/480 V rated value	5 hp
contact rating of auxiliary contacts according to UL	A600 / Q600
Short-circuit protection	
design of the fuse link	
 for short-circuit protection of the main circuit 	
 — with type of coordination 1 required 	gG: 35 A (690 V, 100 kA)
 — with type of assignment 2 required 	gG: 20A (690V, 100kA)
for short-circuit protection of the auxiliary switch required.	fuse gG: 10 A
required	
Installation/ mounting/ dimensions	./4000
mounting position	+/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface
fastening method	screw and snap-on mounting onto 35 mm standard mounting rail
a cida by cida mayorting	according to DIN EN 50022
• side-by-side mounting	Yes 70 mm
height	70 mm
width	45 mm
depth required enacing	73 mm
required spacing • with side-by-side mounting	
	0 mm
— forwards	0 mm
forwardsbackwards	0 mm
forwardsbackwardsupwards	0 mm 0 mm
forwardsbackwardsupwardsdownwards	0 mm 0 mm 0 mm
forwardsbackwardsupwardsdownwardsat the side	0 mm 0 mm
forwardsbackwardsupwardsdownwards	0 mm 0 mm 0 mm

— backwards	0 mm
— upwards	0 mm
— at the side	6 mm
— downwards	0 mm
 for live parts 	
— forwards	0 mm
— backwards	0 mm
— upwards	0 mm
— downwards	0 mm
— at the side	6 mm
Connections/ Terminals	
type of electrical connection	
 for main current circuit 	spring-loaded terminals
 for auxiliary and control circuit 	spring-loaded terminals
 at contactor for auxiliary contacts 	Spring-type terminals
of magnet coil	Spring-type terminals
type of connectable conductor cross-sections	
 for main contacts 	
— solid	2x (0.5 4 mm²)
— solid or stranded	2x (0,5 4 mm²)
 finely stranded with core end processing 	2x (0.5 2.5 mm²)
 finely stranded without core end processing 	2x (0.5 2.5 mm²)
at AWG cables for main contacts	2x (20 12)
type of connectable conductor cross-sections	
 for auxiliary contacts 	
— solid	2x (0.5 4 mm²)
— solid or stranded	2x (0,5 4 mm²)
 finely stranded with core end processing 	2x (0.5 2.5 mm²)
 finely stranded without core end processing 	2x (0.5 2.5 mm²)
at AWG cables for auxiliary contacts	2x (20 12)
AWG number as coded connectable conductor cross section for main contacts	20 12
Safety related data	
product function	
 mirror contact according to IEC 60947-4-1 	Yes; with 3RH29
 positively driven operation according to IEC 60947- 5-1 	No
T1 value for proof test interval or service life according to IEC 61508	20 y
protection class IP on the front according to IEC 60529	IP20
touch protection on the front according to IEC 60529	finger-safe, for vertical contact from the front
Certificates/ approvals	
General Product Approval	EMC

General Product Approval







Confirmation







Functional Safety/Safety of Machinery

Declaration of Conformity

Test Certificates

Marine / Shipping

Type Examination Certificate





Special Test Certificate

Type Test Certificates/Test Report



Marine / Shipping













other

Dangerous Good

Confirmation



<u>Transport Information</u>

Further information

Information- and Downloadcenter (Catalogs, Brochures,...)

https://www.siemens.com/ic10

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RT2518-2BF40

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2518-2BF40

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

https://support.industry.siemens.com/cs/ww/en/ps/3RT2518-2BF40

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

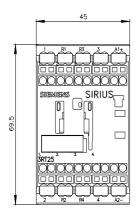
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2518-2BF40&lang=en

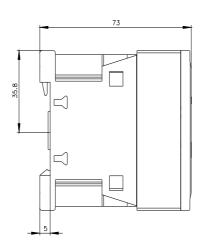
Characteristic: Tripping characteristics, I2t, Let-through current

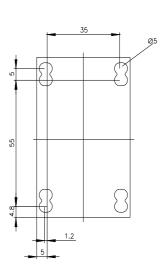
https://support.industry.siemens.com/cs/ww/en/ps/3RT2518-2BF40/char

Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2518-2BF40&objecttype=14&gridview=view1







last modified:

8/26/2021