



Contactor, 2NO + 2NC, AC-3, 7.5 kW, 110 V AC, 50 Hz, 120 V, 60Hz, 4-pole, 2NO + 2NC, Size S00, Spring-type terminal

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 AC	7,3g / 5 ms, 4,7g / 10 ms
shock resistance with sine pulse	
• at AC	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 contacts for main contacts	2
operational current - at AC-1 up to 690 V - at ambient temperature 40 °C rated value - at ambient temperature 60 °C rated value - at AC-2 at AC-3 at 400 V - per NO contact rated value - per NC contact rated value	22 A 20 A 16 A 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 - at 110 V rated value - at 220 V rated value - at 440 V rated value with 2 current paths in series at DC-1 - at 24 V rated value - at 110 V rated value - at 220 V rated value - at 440 V rated value at 1 current path at DC-3 at DC-5 - at 24 V per NC contact rated value - at 24 V per NO contact rated value - at 110 V per NC contact rated value - at 110 V per NO contact rated value - at 220 V per NC contact rated value - at 220 V per NO contact rated value with 2 current paths in series at DC-3 at DC-5 - at 24 V per NC contact rated value - at 24 V per NO contact rated value - at 110 V per NC contact rated value - at 110 V per NO contact rated value	20 A 2.1 A 0.8 A 0.6 A 20 A 12 A 1.6 A 0.8 A 20 A 20 A 0.075 A 0.15 A 0.375 A 0.75 A 20 A 20 A 0.175 A 0.35 A
operating power at AC-2 at AC-3 - at 230 V per NC contact rated value - at 230 V per NO contact rated value - at 400 V per NC contact rated value - at 400 V per NO contact rated value	2.2 kW 4 kW 4 kW 7.5 kW
short-time withstand current in cold operating state up to 40 °C - limited to 1 s switching at zero current maximum - limited to 5 s switching at zero current maximum - limited to 10 s switching at zero current maximum - limited to 30 s switching at zero current maximum - limited to 60 s switching at zero current maximum	165 A; Use minimum cross-section acc. to AC-1 rated value 165 A; Use minimum cross-section acc. to AC-1 rated value 128 A; Use minimum cross-section acc. to AC-1 rated value 92 A; Use minimum cross-section acc. to AC-1 rated value 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 operational current per conductor	2.2 W
no-load switching frequency - at AC - at DC	10 000 1/h 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	AC
control supply voltage at AC - at 50 Hz rated value - at 60 Hz rated value	110 V 120 V
operating range factor control supply voltage rated value of magnet coil at AC - at 50 Hz - at 60 Hz	0.8 ... 1.1 0.8 ... 1.1

apparent pick-up power of magnet coil at AC	43 VA
• at 50 Hz	43 VA
• at 60 Hz	43 VA
inductive power factor with closing power of the coil	0.8
• at 50 Hz	0.77
• at 60 Hz	0.77
apparent holding power of magnet coil at AC	6.5 VA
• at 50 Hz	6.5 VA
• at 60 Hz	6.5 VA
inductive power factor with the holding power of the coil	0.25
• at 50 Hz	0.25
• at 60 Hz	0.25
closing delay	
• at AC	9 ... 35 ms
opening delay	
• at AC	7 ... 13 ms
arcing time	10 ... 15 ms
residual current of the electronics for control with signal <0>	
• at AC at 230 V maximum permissible	0.004 A
Auxiliary circuit	
number of NC contacts for auxiliary contacts instantaneous contact	0
number of NO contacts for auxiliary contacts instantaneous contact	0
operational current at AC-12 maximum	10 A
operational current at AC-15	
• at 230 V rated value	10 A
• at 400 V rated value	3 A
operational current at DC-12	
• 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	
• 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
Installation/ mounting/ dimensions	
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

• side-by-side mounting	according to DIN EN 50022
height	Yes
width	70 mm
depth	45 mm
required spacing	73 mm
• with side-by-side mounting	
— forwards	0 mm
— backwards	0 mm
— upwards	0 mm
— downwards	0 mm
— at the side	0 mm
• for grounded parts	
— forwards	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 mm ²)
— solid or stranded	2x (0.5 ... 4 mm ²)
— finely stranded with core end processing	2x (0.5 ... 2.5 mm ²)
— finely stranded without core end processing	2x (0.5 ... 2.5 mm ²)
• at AWG cables for main contacts	2x (20 ... 12)
type of connectable conductor cross-sections	
• for auxiliary contacts	
— solid	2x (0.5 ... 4 mm ²)
— solid or stranded	2x (0.5 ... 4 mm ²)
— finely stranded with core end processing	2x (0.5 ... 2.5 mm ²)
— finely stranded without core end processing	2x (0.5 ... 2.5 mm ²)
• 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



[Confirmation](#)



Functional
Safety/Safety of
Machinery

Declaration of Conformity

Test Certificates

Marine / Shipping

[Type Examination
Certificate](#)



[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



Marine / Shipping



other

[Confirmation](#)



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=3RT2518-2AK60>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2518-2AK60>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RT2518-2AK60>

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

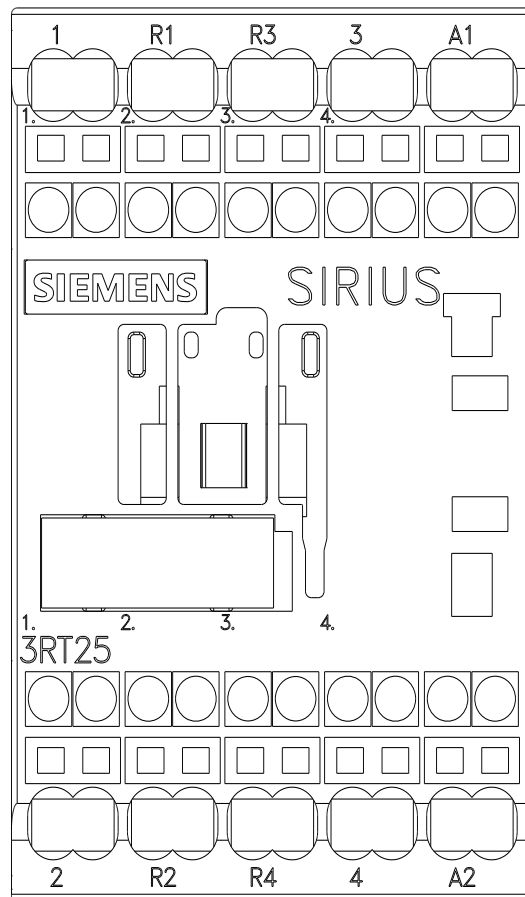
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2518-2AK60&lang=en

Characteristic: Tripping characteristics, I²t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RT2518-2AK60/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2518-2AK60&objecttype=14&gridview=view1>



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