



Power contactor, AC-3 7 A, 3 kW / 400 V 1 NO, 220 V AC, 50 Hz 240 V, 60 Hz, 3-pole, Size S00, Spring-type terminal

product brand name	SIRIUS
product designation	Power contactor
product type designation	3RT2
General technical data	
size of contactor	S00
product extension	
• function module for communication	No
• auxiliary switch	Yes
power loss [W] for rated value of the current at AC in hot operating state	1.2 W
• per pole	0.4 W
power loss [W] for rated value of the current without load current share typical	4.4 W
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 acc. to EN 60947-1	400 V
shock resistance at rectangular impulse	
• at AC	6,7g / 5 ms, 4,2g / 10 ms
shock resistance with sine pulse	
• at AC	10,5g / 5 ms, 6,6g / 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 acc. to IEC 81346-2	Q
Substance Prohibition (Date)	01.10.2009 00:00:00
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
Main circuit	
number of poles for main current circuit	3
number of NO contacts for main contacts	3
operating voltage at AC-3 rated value maximum	690 V

operational current	
<ul style="list-style-type: none"> ● at AC-1 at 400 V at ambient temperature 40 °C rated value 	18 A
<ul style="list-style-type: none"> ● at AC-1 <ul style="list-style-type: none"> — up to 690 V at ambient temperature 40 °C rated value 	18 A
<ul style="list-style-type: none"> — up to 690 V at ambient temperature 60 °C rated value 	16 A
<ul style="list-style-type: none"> ● at AC-3 <ul style="list-style-type: none"> — at 400 V rated value 	7 A
<ul style="list-style-type: none"> — at 500 V rated value 	6 A
<ul style="list-style-type: none"> — at 690 V rated value 	4.9 A
<ul style="list-style-type: none"> ● at AC-4 at 400 V rated value 	6.5 A
<ul style="list-style-type: none"> ● at AC-5a up to 690 V rated value 	15.8 A
<ul style="list-style-type: none"> ● at AC-5b up to 400 V rated value 	5.8 A
<ul style="list-style-type: none"> ● at AC-6a <ul style="list-style-type: none"> — up to 230 V for current peak value n=20 rated value 	4 A
<ul style="list-style-type: none"> — up to 400 V for current peak value n=20 rated value 	4 A
<ul style="list-style-type: none"> — up to 500 V for current peak value n=20 rated value 	3.8 A
<ul style="list-style-type: none"> — up to 690 V for current peak value n=20 rated value 	3.6 A
<ul style="list-style-type: none"> ● at AC-6a <ul style="list-style-type: none"> — up to 230 V for current peak value n=30 rated value 	2.7 A
<ul style="list-style-type: none"> — up to 400 V for current peak value n=30 rated value 	2.7 A
<ul style="list-style-type: none"> — up to 500 V for current peak value n=30 rated value 	2.5 A
<ul style="list-style-type: none"> — up to 690 V for current peak value n=30 rated value 	2.4 A
minimum cross-section in main circuit at maximum AC-1 rated value	2.5 mm ²
operational current for approx. 200000 operating cycles at AC-4	
<ul style="list-style-type: none"> ● at 400 V rated value 	2.6 A
<ul style="list-style-type: none"> ● at 690 V rated value 	1.8 A
operational current	
<ul style="list-style-type: none"> ● at 1 current path at DC-1 <ul style="list-style-type: none"> — at 24 V rated value 	15 A
<ul style="list-style-type: none"> — at 110 V rated value 	1.5 A
<ul style="list-style-type: none"> — at 220 V rated value 	0.6 A
<ul style="list-style-type: none"> — at 440 V rated value 	0.42 A
<ul style="list-style-type: none"> — at 600 V rated value 	0.42 A
<ul style="list-style-type: none"> ● with 2 current paths in series at DC-1 <ul style="list-style-type: none"> — at 24 V rated value 	15 A
<ul style="list-style-type: none"> — at 110 V rated value 	8.4 A
<ul style="list-style-type: none"> — at 220 V rated value 	1.2 A
<ul style="list-style-type: none"> — at 440 V rated value 	0.6 A
<ul style="list-style-type: none"> — at 600 V rated value 	0.5 A
<ul style="list-style-type: none"> ● with 3 current paths in series at DC-1 <ul style="list-style-type: none"> — at 24 V rated value 	15 A
<ul style="list-style-type: none"> — at 110 V rated value 	15 A
<ul style="list-style-type: none"> — at 220 V rated value 	15 A
<ul style="list-style-type: none"> — at 440 V rated value 	0.9 A
<ul style="list-style-type: none"> — at 600 V rated value 	0.7 A
operational current	
<ul style="list-style-type: none"> ● at 1 current path at DC-3 at DC-5 <ul style="list-style-type: none"> — at 24 V rated value 	15 A

<ul style="list-style-type: none"> — at 110 V rated value ● with 2 current paths in series at DC-3 at DC-5 <ul style="list-style-type: none"> — at 24 V rated value — at 110 V rated value ● with 3 current paths in series at DC-3 at DC-5 <ul style="list-style-type: none"> — at 24 V rated value — at 110 V rated value — at 220 V rated value — at 440 V rated value — at 600 V rated value 	<p>0.1 A</p> <p>15 A</p> <p>0.25 A</p> <p>15 A</p> <p>15 A</p> <p>1.2 A</p> <p>0.14 A</p> <p>0.14 A</p>
<p>operating power</p> <ul style="list-style-type: none"> ● at AC-2 at 400 V rated value ● at AC-3 <ul style="list-style-type: none"> — at 230 V rated value — at 400 V rated value — at 500 V rated value — at 690 V rated value 	<p>3 kW</p> <p>1.5 kW</p> <p>3 kW</p> <p>3 kW</p> <p>4 kW</p>
<p>operating power for approx. 200000 operating cycles at AC-4</p> <ul style="list-style-type: none"> ● at 400 V rated value ● at 690 V rated value 	<p>1.15 kW</p> <p>1.15 kW</p>
<p>operating apparent power at AC-6a</p> <ul style="list-style-type: none"> ● up to 230 V for current peak value n=20 rated value ● up to 400 V for current peak value n=20 rated value ● up to 500 V for current peak value n=20 rated value ● up to 690 V for current peak value n=20 rated value 	<p>1.5 kV·A</p> <p>2.7 kV·A</p> <p>3.3 kV·A</p> <p>4.3 kV·A</p>
<p>operating apparent power at AC-6a</p> <ul style="list-style-type: none"> ● up to 230 V for current peak value n=30 rated value ● up to 400 V for current peak value n=30 rated value ● up to 500 V for current peak value n=30 rated value ● up to 690 V for current peak value n=30 rated value 	<p>1 kV·A</p> <p>1.8 kV·A</p> <p>2.2 kV·A</p> <p>2.9 kV·A</p>
<p>short-time withstand current in cold operating state up to 40 °C</p> <ul style="list-style-type: none"> ● 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 	<p>120 A; Use minimum cross-section acc. to AC-1 rated value</p> <p>86 A; Use minimum cross-section acc. to AC-1 rated value</p> <p>67 A; Use minimum cross-section acc. to AC-1 rated value</p> <p>52 A; Use minimum cross-section acc. to AC-1 rated value</p> <p>43 A; Use minimum cross-section acc. to AC-1 rated value</p>
<p>no-load switching frequency</p> <ul style="list-style-type: none"> ● at AC 	<p>10 000 1/h</p>
<p>operating frequency</p> <ul style="list-style-type: none"> ● at AC-1 maximum ● at AC-2 maximum ● at AC-3 maximum ● at AC-4 maximum 	<p>1 000 1/h</p> <p>750 1/h</p> <p>750 1/h</p> <p>250 1/h</p>
Control circuit/ Control	
<p>type of voltage of the control supply voltage</p>	<p>AC</p>
<p>control supply voltage at AC</p> <ul style="list-style-type: none"> ● at 50 Hz rated value ● at 60 Hz rated value 	<p>220 V</p> <p>240 V</p>
<p>operating range factor control supply voltage rated value of magnet coil at AC</p> <ul style="list-style-type: none"> ● at 50 Hz ● at 60 Hz 	<p>0.8 ... 1.1</p> <p>0.8 ... 1.1</p>
<p>apparent pick-up power of magnet coil at AC</p> <ul style="list-style-type: none"> ● at 50 Hz ● at 60 Hz 	<p>26.4 V·A</p> <p>26.4 V·A</p>
<p>inductive power factor with closing power of the coil</p> <ul style="list-style-type: none"> ● at 50 Hz 	<p>0.81</p>

<ul style="list-style-type: none"> • at 60 Hz 	0.81
apparent holding power of magnet coil at AC	
<ul style="list-style-type: none"> • at 50 Hz 	4.4 V·A
<ul style="list-style-type: none"> • at 60 Hz 	4.4 V·A
inductive power factor with the holding power of the coil	
<ul style="list-style-type: none"> • at 50 Hz 	0.24
<ul style="list-style-type: none"> • at 60 Hz 	0.24
closing delay	
<ul style="list-style-type: none"> • at AC 	9 ... 35 ms
opening delay	
<ul style="list-style-type: none"> • at AC 	7 ... 13 ms
arcing time	10 ... 15 ms
control version of the switch operating mechanism	Standard A1 - A2
Auxiliary circuit	
number of NO contacts for auxiliary contacts instantaneous contact	1
operational current at AC-12 maximum	10 A
operational current at AC-15	
<ul style="list-style-type: none"> • at 230 V rated value 	10 A
<ul style="list-style-type: none"> • at 400 V rated value 	3 A
<ul style="list-style-type: none"> • at 500 V rated value 	2 A
<ul style="list-style-type: none"> • at 690 V rated value 	1 A
operational current at DC-12	
<ul style="list-style-type: none"> • at 24 V rated value 	10 A
<ul style="list-style-type: none"> • at 48 V rated value 	6 A
<ul style="list-style-type: none"> • at 60 V rated value 	6 A
<ul style="list-style-type: none"> • at 110 V rated value 	3 A
<ul style="list-style-type: none"> • at 125 V rated value 	2 A
<ul style="list-style-type: none"> • at 220 V rated value 	1 A
<ul style="list-style-type: none"> • at 600 V rated value 	0.15 A
operational current at DC-13	
<ul style="list-style-type: none"> • at 24 V rated value 	10 A
<ul style="list-style-type: none"> • at 48 V rated value 	2 A
<ul style="list-style-type: none"> • at 60 V rated value 	2 A
<ul style="list-style-type: none"> • at 110 V rated value 	1 A
<ul style="list-style-type: none"> • at 125 V rated value 	0.9 A
<ul style="list-style-type: none"> • at 220 V rated value 	0.3 A
<ul style="list-style-type: none"> • 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	
full-load current (FLA) for 3-phase AC motor	
<ul style="list-style-type: none"> • at 480 V rated value 	4.8 A
<ul style="list-style-type: none"> • at 600 V rated value 	6.1 A
yielded mechanical performance [hp]	
<ul style="list-style-type: none"> • for single-phase AC motor <ul style="list-style-type: none"> — at 110/120 V rated value 	0.25 hp
<ul style="list-style-type: none"> — at 230 V rated value 	0.75 hp
<ul style="list-style-type: none"> • for 3-phase AC motor <ul style="list-style-type: none"> — at 200/208 V rated value 	1.5 hp
<ul style="list-style-type: none"> — at 220/230 V rated value 	2 hp
<ul style="list-style-type: none"> — at 460/480 V rated value 	3 hp
<ul style="list-style-type: none"> — at 575/600 V rated value 	5 hp
contact rating of auxiliary contacts according to UL	A600 / Q600
Short-circuit protection	
design of the fuse link	
<ul style="list-style-type: none"> • for short-circuit protection of the main circuit <ul style="list-style-type: none"> — with type of coordination 1 required 	gG: 35A (690V,100kA), aM: 20A (690V,100kA), BS88: 35A (415V,80kA)

— with type of assignment 2 required

- for short-circuit protection of the auxiliary switch required

gG: 20A (690V,100kA), aM: 16A (690V, 100kA), BS88: 20A (415V, 80kA)
gG: 10 A (500 V, 1 kA)

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 according to DIN EN 60715
<ul style="list-style-type: none"> • side-by-side mounting 	Yes
height	70 mm
width	45 mm
depth	73 mm
required spacing	
<ul style="list-style-type: none"> • with side-by-side mounting <ul style="list-style-type: none"> — forwards — upwards — downwards — at the side • for grounded parts <ul style="list-style-type: none"> — forwards — upwards — at the side — downwards • for live parts <ul style="list-style-type: none"> — forwards — upwards — downwards — at the side 	10 mm 10 mm 10 mm 0 mm 10 mm 10 mm 6 mm 10 mm 10 mm 10 mm 10 mm 6 mm

Connections/ Terminals

type of electrical connection	
<ul style="list-style-type: none"> • for main current circuit • for auxiliary and control circuit • at contactor for auxiliary contacts • of magnet coil 	spring-loaded terminals spring-loaded terminals Spring-type terminals Spring-type terminals
type of connectable conductor cross-sections	
<ul style="list-style-type: none"> • for main contacts <ul style="list-style-type: none"> — solid — solid or stranded — finely stranded with core end processing — finely stranded without core end processing • at AWG cables for main contacts 	2x (0.5 ... 4 mm ²) 2x (0,5 ... 4 mm ²) 2x (0.5 ... 2.5 mm ²) 2x (0.5 ... 2.5 mm ²) 2x (20 ... 12)
connectable conductor cross-section for main contacts	
<ul style="list-style-type: none"> • solid • stranded • finely stranded with core end processing • finely stranded without core end processing 	0.5 ... 4 mm ² 0.5 ... 4 mm ² 0.5 ... 2.5 mm ² 0.5 ... 2.5 mm ²
connectable conductor cross-section for auxiliary contacts	
<ul style="list-style-type: none"> • solid or stranded • finely stranded with core end processing • finely stranded without core end processing 	0.5 ... 4 mm ² 0.5 ... 2.5 mm ² 0.5 ... 2.5 mm ²
type of connectable conductor cross-sections	
<ul style="list-style-type: none"> • for auxiliary contacts <ul style="list-style-type: none"> — solid or stranded — finely stranded with core end processing — finely stranded without core end processing • at AWG cables for auxiliary contacts 	2x (0,5 ... 4 mm ²) 2x (0.5 ... 2.5 mm ²) 2x (0.5 ... 2.5 mm ²) 2x (20 ... 12)

AWG number as coded connectable conductor cross section	
• for main contacts	20 ... 12
• for auxiliary contacts	20 ... 12

Safety related data

product function mirror contact acc. to IEC 60947-4-1	Yes; with 3RH29
B10 value with high demand rate acc. to SN 31920	1 000 000
proportion of dangerous failures	
• with low demand rate acc. to SN 31920	40 %
• with high demand rate acc. to SN 31920	73 %
failure rate [FIT] with low demand rate acc. to SN 31920	100 FIT
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
suitability for use	
• safety-related switching OFF	Yes

Certificates/ approvals

General Product Approval	EMC
---------------------------------	-----



[KC](#)



Functional Safety/Safety of Machinery	Declaration of Conformity	Test Certificates	Marine / Shipping
--	----------------------------------	--------------------------	--------------------------

[Type Examination Certificate](#)



EG-Konf.

[UK Declaration of Conformity](#)

[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



ABS

Marine / Shipping



LRS



PRS



RINA



RMRS



DNV-GL

other

[Confirmation](#)



VDE

[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=3RT2015-2AP61>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2015-2AP61>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RT2015-2AP61>

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

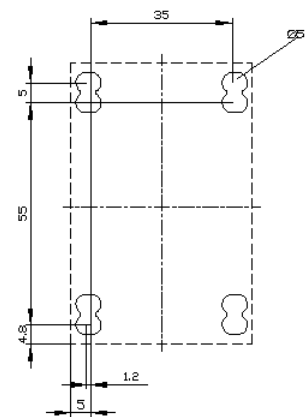
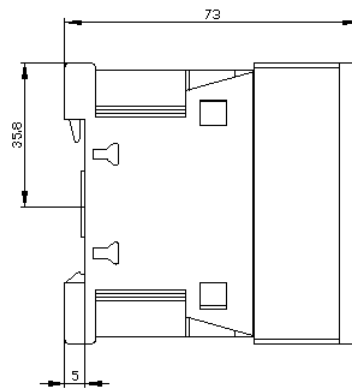
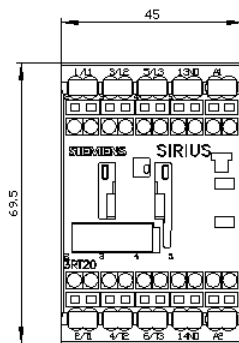
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2015-2AP61&lang=en

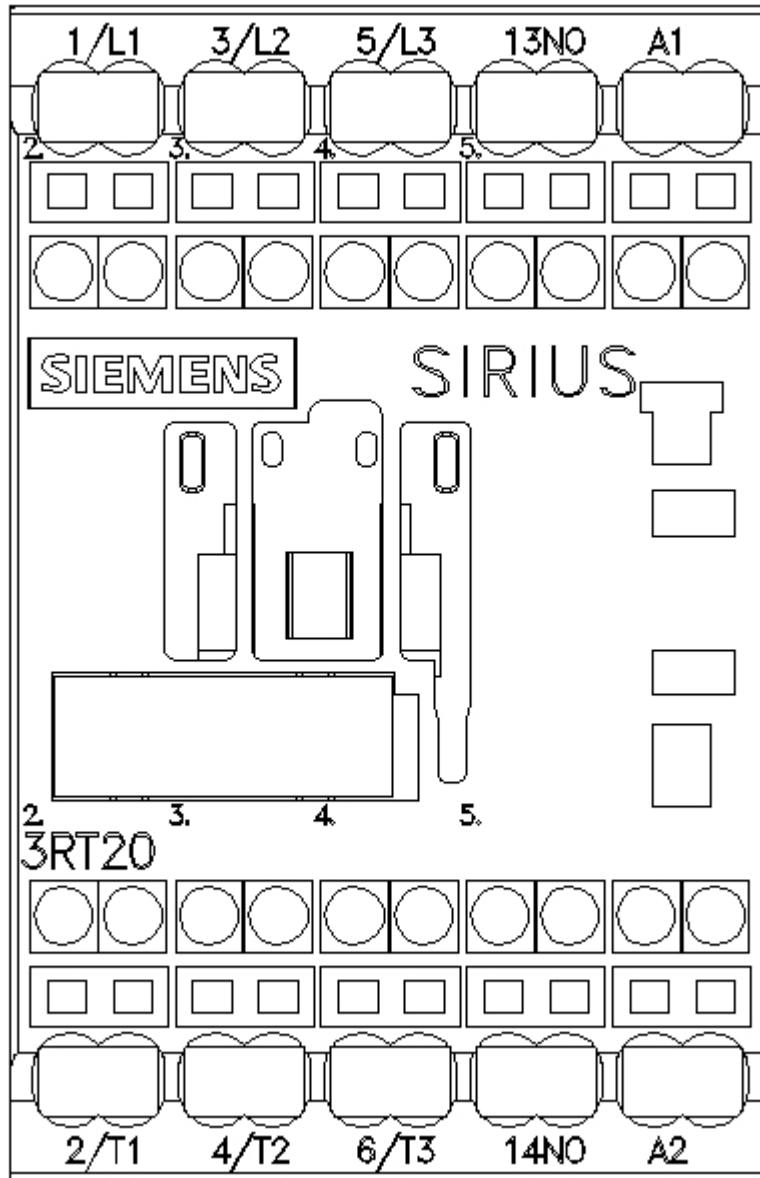
Characteristic: Tripping characteristics, I^2t , Let-through current

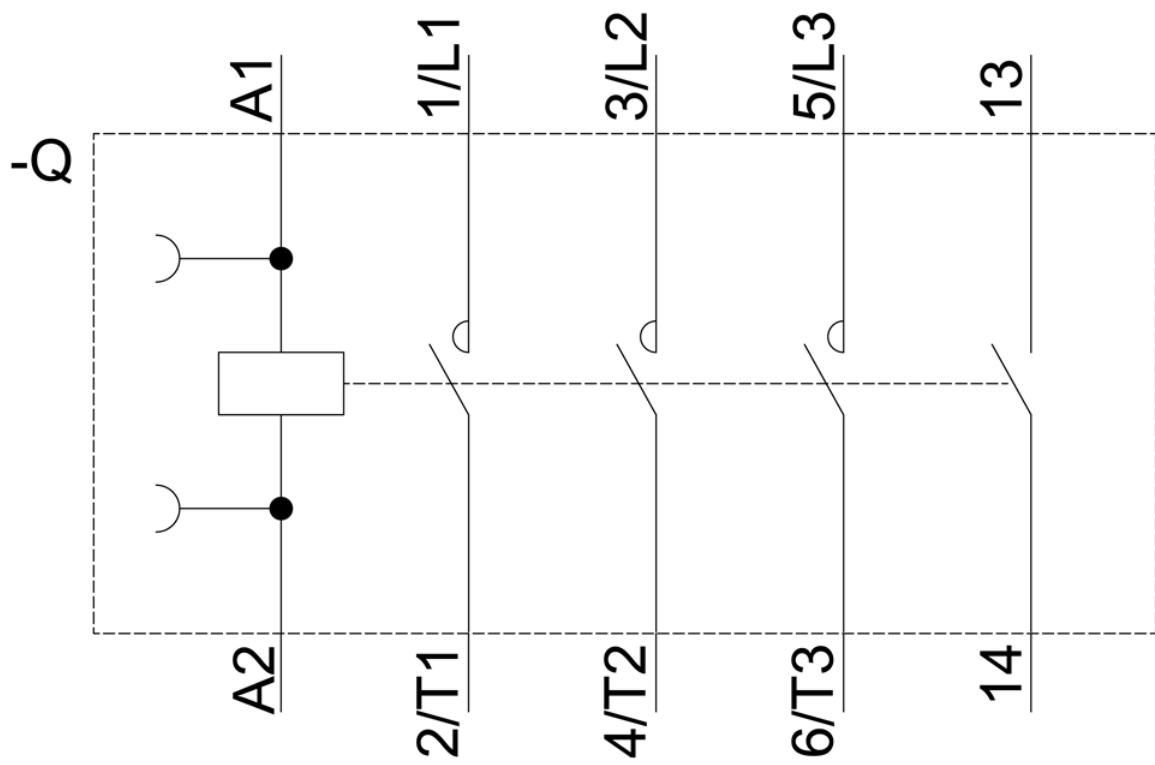
<https://support.industry.siemens.com/cs/ww/en/ps/3RT2015-2AP61/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2015-2AP61&objecttype=14&gridview=view1>







last modified:

7/2/2021 