

Power contactor, AC-3 80 A, 37 kW / 400 V 220 V DC, 3-pole, Size S3 Screw terminal !!! Phased-out product !!! Successor is SIRIUS 3RT2 Preferred successor type is >>3RT2038-1NP30<<

product brand name	SIRIUS
product designation	power contactor
General technical data	
size of contactor	S3
insulation voltage rated value	1 000 V
degree of pollution	3
surge voltage resistance rated value	6 kV
maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1	690 V
protection class IP	
<ul style="list-style-type: none"> • on the front • of the terminal 	IP20; IP20 on the front with cover / box terminal IP00
shock resistance at rectangular impulse	
<ul style="list-style-type: none"> • at DC 	6,8g / 5 ms, 4g / 10 ms
shock resistance with sine pulse	
<ul style="list-style-type: none"> • at DC 	10,6g / 5 ms, 6,2g / 10 ms
mechanical service life (operating cycles)	
<ul style="list-style-type: none"> • of contactor typical • of the contactor with added electronically optimized auxiliary switch block typical • of the contactor with added auxiliary switch block typical 	10 000 000 5 000 000 10 000 000
reference code according to IEC 81346-2	Q
Substance Prohibitance (Date)	05/01/2012
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
ambient temperature	
<ul style="list-style-type: none"> • during operation • during storage 	-25 ... +60 °C -55 ... +80 °C
Main circuit	
number of poles for main current circuit	3
number of NO contacts for main contacts	3
number of NC contacts for main contacts	0
operational current	
<ul style="list-style-type: none"> • at AC-1 at 400 V at ambient temperature 40 °C rated value • at AC-1 <ul style="list-style-type: none"> — up to 690 V at ambient temperature 40 °C rated value — up to 690 V at ambient temperature 60 °C rated value — up to 1000 V at ambient temperature 40 °C rated value — up to 1000 V at ambient temperature 60 °C rated value • at AC-3 <ul style="list-style-type: none"> — at 400 V rated value — at 690 V rated value — at 1000 V rated value • at AC-4 at 400 V rated value 	120 A 120 A 100 A 60 A 50 A 80 A 58 A 30 A 66 A
connectable conductor cross-section in main circuit at AC-1	
<ul style="list-style-type: none"> • at 60 °C minimum permissible • at 40 °C minimum permissible 	35 mm ² 50 mm ²

operational current for approx. 200000 operating cycles at AC-4	
<ul style="list-style-type: none"> • at 400 V rated value • at 690 V rated value 	<p>34 A</p> <p>22 A</p>
operating power	
<ul style="list-style-type: none"> • at AC-1 <ul style="list-style-type: none"> — at 230 V at 60 °C rated value — at 400 V rated value — at 690 V rated value — at 690 V at 60 °C rated value — at 1000 V at 60 °C rated value • 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 — at 1000 V rated value 	<p>38 kW</p> <p>66 kW</p> <p>114 kW</p> <p>114 kW</p> <p>82 W</p> <p>37 kW</p> <p>22 kW</p> <p>37 kW</p> <p>45 kW</p> <p>55 kW</p> <p>37 W</p>
operating power for approx. 200000 operating cycles at AC-4	
<ul style="list-style-type: none"> • at 400 V rated value • at 690 V rated value 	<p>17.9 kW</p> <p>21.1 kW</p>
thermal short-time current limited to 10 s	760 A
no-load switching frequency	
<ul style="list-style-type: none"> • at DC 	1 000 1/h
operating frequency	
<ul style="list-style-type: none"> • at AC-1 maximum • at AC-2 maximum • at AC-3 maximum • at AC-4 maximum 	<p>900 1/h</p> <p>400 1/h</p> <p>1 000 1/h</p> <p>300 1/h</p>
Control circuit/ Control	
type of voltage of the control supply voltage	DC
control supply voltage at DC	
<ul style="list-style-type: none"> • rated value 	220 V
operating range factor control supply voltage rated value of magnet coil at DC	
<ul style="list-style-type: none"> • initial value • full-scale value 	<p>0.8</p> <p>1.1</p>
closing power of magnet coil at DC	15 W
holding power of magnet coil at DC	15 W
closing delay	
<ul style="list-style-type: none"> • at DC 	90 ... 230 ms
opening delay	
<ul style="list-style-type: none"> • at DC 	14 ... 20 ms
arcing time	10 ... 15 ms
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	
<ul style="list-style-type: none"> • at 230 V rated value • at 400 V rated value 	<p>6 A</p> <p>3 A</p>
operational current at DC-12	
<ul style="list-style-type: none"> • at 60 V rated value • at 110 V rated value • at 220 V rated value 	<p>6 A</p> <p>3 A</p> <p>1 A</p>
operational current at DC-13	
<ul style="list-style-type: none"> • at 24 V rated value • at 60 V rated value • at 110 V rated value 	<p>10 A</p> <p>2 A</p> <p>1 A</p>

• at 220 V rated value	0.3 A
contact reliability of auxiliary contacts	1 faulty switching per 100 million (17 V, 1 mA)
UL/CSA ratings	
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	fuse gL/gG: 250 A
— with type of assignment 2 required	fuse gL/gG: 160 A
• for short-circuit protection of the auxiliary switch required	fuse gL/gG: 10 A
Installation/ mounting/ dimensions	
fastening method	screw and snap-on mounting onto 35 mm and 75 mm DIN rail
• side-by-side mounting	Yes
height	146 mm
width	70 mm
depth	152 mm
required spacing for grounded parts at the side	6 mm
Connections/ Terminals	
type of electrical connection	
• for main current circuit	screw-type terminals
• for auxiliary and control circuit	screw-type terminals
type of connectable conductor cross-sections for main contacts	
• solid	2x (2.5 ... 16 mm ²)
• stranded	2x (10 ... 50 mm ²)
• solid or stranded	2x (2.5 ... 16 mm ²)
• finely stranded with core end processing	2x (2.5 ... 35 mm ²)
• finely stranded without core end processing	2x (10 ... 35 mm ²)
type of connectable conductor cross-sections	
• for auxiliary contacts	
— solid	2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²), max. 2x (0.75 ... 4 mm ²)
— finely stranded with core end processing	2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²)
• for AWG cables for auxiliary contacts	2x (20 ... 16), 2x (18 ... 14), 1x 12

Approvals Certificates





General Product Approval





[Confirmation](#)




General Product Approval	EMV	Test Certificates	Marine / Shipping
		Special Test Certificate	
		Type Test Certificates/Test Report	

other	Railway
Miscellaneous	Special Test Certificate
Confirmation	
Miscellaneous	

Further information

Siemens has decided to exit the Russian market (see here).
<https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business>

Siemens is working on the renewal of the current EAC certificates.
Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

Information on the packaging

<https://support.industry.siemens.com/cs/ww/en/view/109813875>

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=3RT1045-1BM40>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT1045-1BM40>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RT1045-1BM40>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT1045-1BM40&lang=en

Characteristic: Tripping characteristics, I²t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RT1045-1BM40/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT1045-1BM40&objecttype=14&gridview=view1>

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