



CONTACTOR,AC3:18.5KW/400V, 2NO+2NC, 230V AC 50/60HZ, WITH PLUGGED-IN VARISTOR, 3-POLE, SIZE S2, SCREW TERMINAL, AUXILIARY CONTACT INSEPARABLE

Figure similar

product brand name	SIRIUS
Product designation	3RT2 contactor

General technical data:

<b>Insulation voltage</b>		
• Rated value	V	690
<b>Degree of pollution</b>		3
<b>Surge voltage resistance Rated value</b>	kV	6
<b>Mechanical service life (switching cycles)</b>		
• of the contactor typical		10 000 000
• of the contactor with added electronics-compatible auxiliary switch block typical		5 000 000
• of the contactor with added auxiliary switch block typical		10 000 000
<b>Thermal short-time current restricted to 10 s</b>	A	400
<b>Protection class IP</b>		
• on the front		IP20
• of the terminal		IP00
<b>Equipment marking</b>		
• acc. to DIN EN 61346-2		Q
• acc. to DIN EN 81346-2		Q

Main circuit:

<b>Number of poles for main current circuit</b>		3
<b>Number of NC contacts for main contacts</b>		0
<b>Number of NO contacts for main contacts</b>		3
<b>Operating voltage</b>		

• at AC-3 Rated value maximum	V	690
<b>Operating current</b>		
• at AC-1		
— at 400 V at ambient temperature 40 °C Rated value	A	60
— up to 690 V at ambient temperature 40 °C Rated value	A	60
— up to 690 V at ambient temperature 60 °C Rated value	A	55
• at AC-2 at 400 V Rated value	A	40
• at AC-3		
— at 400 V Rated value	A	40
— at 500 V Rated value	A	40
— at 690 V Rated value	A	24
• at AC-4 at 400 V Rated value	A	35
<b>Operating current with 1 current path</b>		
• at DC-1		
— at 24 V Rated value	A	55
— at 110 V Rated value	A	4.5
— at 220 V Rated value	A	2
— at 440 V Rated value	A	0.4
— at 600 V Rated value	A	0.25
• at DC-3 at DC-5		
— at 24 V Rated value	A	35
— at 110 V Rated value	A	2.5
— at 220 V Rated value	A	2
— at 440 V Rated value	A	0.1
— at 600 V Rated value	A	0.06
<b>Operating current with 2 current paths in series</b>		
• at DC-1		
— at 24 V Rated value	A	55
— at 110 V Rated value	A	45
— at 220 V Rated value	A	5
— at 440 V Rated value	A	1
— at 600 V Rated value	A	0.8
• at DC-3 at DC-5		
— at 110 V Rated value	A	25
— at 220 V Rated value	A	5
— at 24 V Rated value	A	55
— at 440 V Rated value	A	0.27
— at 600 V Rated value	A	0.16
<b>Operating current with 3 current paths in series</b>		

<ul style="list-style-type: none"> <li>• at DC-1 <ul style="list-style-type: none"> <li>— at 24 V Rated value</li> <li>— at 110 V Rated value</li> <li>— at 220 V Rated value</li> <li>— at 440 V Rated value</li> <li>— at 600 V Rated value</li> </ul> </li> <li>• at DC-3 at DC-5 <ul style="list-style-type: none"> <li>— at 110 V Rated value</li> <li>— at 220 V Rated value</li> <li>— at 24 V Rated value</li> <li>— at 440 V Rated value</li> <li>— at 600 V Rated value</li> </ul> </li> </ul>	A	55
	A	45
	A	45
	A	2.9
	A	1.4
	A	45
	A	25
	A	55
	A	0.6
	A	0.6
<b>Operating power</b>		
<ul style="list-style-type: none"> <li>• at AC-1 at 400 V Rated value</li> <li>• at AC-2 at 400 V Rated value</li> <li>• at AC-4 at 400 V Rated value</li> </ul>	kW	39
	kW	18.5
	kW	18.5
<b>Operating power</b>		
<ul style="list-style-type: none"> <li>• at AC-1 <ul style="list-style-type: none"> <li>— at 230 V at 60 °C Rated value</li> <li>— at 230 V Rated value</li> <li>— at 400 V at 60 °C Rated value</li> <li>— at 690 V at 60 °C Rated value</li> <li>— at 690 V Rated value</li> </ul> </li> <li>• at AC-3 <ul style="list-style-type: none"> <li>— at 230 V Rated value</li> <li>— at 400 V Rated value</li> <li>— at 500 V Rated value</li> <li>— at 690 V Rated value</li> </ul> </li> </ul>	kW	21
	kW	23
	kW	36
	kW	62
	kW	68
	kW	11
	kW	18.5
	kW	22
	kW	22
<b>Operating power for ≥ 200000 operating cycles at AC-4</b>		
<ul style="list-style-type: none"> <li>• at 400 V Rated value</li> <li>• at 690 V Rated value</li> </ul>	kW	11.6
	kW	16.8
<b>Operating frequency</b>		
<ul style="list-style-type: none"> <li>• at AC-3 maximum</li> </ul>	1/h	1 000
<b>Control circuit/ Control:</b>		
<b>Type of voltage of the control supply voltage</b>		AC
<b>Control supply voltage with AC</b>		
<ul style="list-style-type: none"> <li>• at 50 Hz Rated value</li> <li>• at 60 Hz Rated value</li> </ul>	V	230
	V	230
<b>Operating range factor control supply voltage rated value of the magnet coil with AC</b>		

<ul style="list-style-type: none"> <li>• at 50 Hz</li> </ul>		0.8 ... 1.1
<ul style="list-style-type: none"> <li>• at 60 Hz</li> </ul>		0.85 ... 1.1
<b>Design of the surge suppressor</b>		with varistor

#### Auxiliary circuit:

<b>Number of NC contacts</b>		
<ul style="list-style-type: none"> <li>• for auxiliary contacts <ul style="list-style-type: none"> <li>— instantaneous contact</li> </ul> </li> </ul>		2
<b>Number of NO contacts</b>		
<ul style="list-style-type: none"> <li>• for auxiliary contacts <ul style="list-style-type: none"> <li>— instantaneous contact</li> </ul> </li> </ul>		2
<b>Product expansion Auxiliary switch</b>		No
<b>Operating current at AC-15</b>		
<ul style="list-style-type: none"> <li>• at 230 V Rated value</li> </ul>	A	6
<ul style="list-style-type: none"> <li>• at 400 V Rated value</li> </ul>	A	3
<ul style="list-style-type: none"> <li>• at 690 V Rated value</li> </ul>	A	1
<b>Operating current</b>		
<ul style="list-style-type: none"> <li>• at DC-12 at 125 V Rated value</li> </ul>	A	2
<ul style="list-style-type: none"> <li>• at DC-12 at 220 V Rated value</li> </ul>	A	1
<ul style="list-style-type: none"> <li>• at DC-12 at 600 V Rated value</li> </ul>	A	0.15
<ul style="list-style-type: none"> <li>• at DC-13 at 125 V Rated value</li> </ul>	A	0.9
<ul style="list-style-type: none"> <li>• at DC-13 at 220 V Rated value</li> </ul>	A	0.3
<ul style="list-style-type: none"> <li>• at DC-13 at 600 V Rated value</li> </ul>	A	0.1
<b>Operating current</b>		
<ul style="list-style-type: none"> <li>• at DC-12 <ul style="list-style-type: none"> <li>— at 60 V Rated value</li> <li>— at 110 V Rated value</li> </ul> </li> </ul>	A	6
	A	3
<ul style="list-style-type: none"> <li>• at DC-13 <ul style="list-style-type: none"> <li>— at 24 V Rated value</li> <li>— at 60 V Rated value</li> <li>— at 110 V Rated value</li> </ul> </li> </ul>	A	6
	A	2
	A	1
<b>Contact reliability of the auxiliary contacts</b>		1 faulty switching per 100 million (17 V, 1 mA)

#### UL/CSA ratings:

<b>Full-load current (FLA) for three-phase AC motor</b>		
<ul style="list-style-type: none"> <li>• at 480 V Rated value</li> </ul>	A	40
<ul style="list-style-type: none"> <li>• at 600 V Rated value</li> </ul>	A	41
<b>yielded mechanical performance [hp]</b>		
<ul style="list-style-type: none"> <li>• for single-phase AC motor at 110/120 V Rated value</li> </ul>	metric hp	3
<ul style="list-style-type: none"> <li>• for single-phase AC motor at 230 V Rated value</li> </ul>	metric hp	7.5

• for three-phase AC motor at 200/208 V Rated value	metric hp	10
• for three-phase AC motor at 220/230 V Rated value	metric hp	15
• for three-phase AC motor at 460/480 V Rated value	metric hp	30
• for three-phase AC motor at 575/600 V Rated value	metric hp	40
<b>Contact rating of the auxiliary contacts acc. to UL</b>		A600 / Q600

### Short-circuit:

<b>Design of the fuse link</b>		
<ul style="list-style-type: none"> <li>• for short-circuit protection of the main circuit <ul style="list-style-type: none"> <li>— with type of assignment 1 required</li> <li>— with type of assignment 2 required</li> </ul> </li> <li>• for short-circuit protection of the auxiliary switch required</li> </ul>		gL/gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 160 A gL/gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 80 A fuse gL/gG: 10 A

### Installation/ mounting/ dimensions:

<b>mounting position</b>		+/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface
<b>Mounting type</b>		screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022
• Side-by-side mounting		Yes
<b>Height</b>	mm	113.4
<b>Width</b>	mm	55
<b>Depth</b>	mm	173.5
<b>Required spacing</b>		
• with side-by-side mounting		
— forwards	mm	0
— Backwards	mm	0
— upwards	mm	0
— downwards	mm	0
— at the side	mm	0
• for grounded parts		
— forwards	mm	0
— Backwards	mm	0
— upwards	mm	50
— at the side	mm	6
— downwards	mm	50
• for live parts		
— forwards	mm	0
— Backwards	mm	0

— upwards	mm	50
— downwards	mm	50
— at the side	mm	6

#### Connections/ Terminals:

<b>Type of electrical connection</b>		
<ul style="list-style-type: none"> <li>• for main current circuit</li> <li>• for auxiliary and control current circuit</li> </ul>		screw-type terminals screw-type terminals
<b>Type of connectable conductor cross-section</b>		
<ul style="list-style-type: none"> <li>• for main contacts               <ul style="list-style-type: none"> <li>— single or multi-stranded</li> <li>— finely stranded with core end processing</li> </ul> </li> <li>• for AWG conductors for main contacts</li> <li>• for auxiliary contacts               <ul style="list-style-type: none"> <li>— single or multi-stranded</li> <li>— finely stranded with core end processing</li> </ul> </li> <li>• for AWG conductors for auxiliary contacts</li> </ul>		2x (1 ... 35 mm <sup>2</sup> ), 1x (1 ... 50 mm <sup>2</sup> ) 2x (1 ... 25 mm <sup>2</sup> ), 1x (1 ... 35 mm <sup>2</sup> ) 2x (18 ... 2), 1x (18 ... 1) 2x (0,5 ... 1,5 mm <sup>2</sup> ), 2x (0,75 ... 2,5 mm <sup>2</sup> ) 2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> ) 2x (20 ... 16), 2x (18 ... 14)
<b>Apparent pick-up power of the magnet coil with AC</b>		
<ul style="list-style-type: none"> <li>• at 50 Hz</li> <li>• at 60 Hz</li> </ul>	V·A V·A	210 188

#### Safety related data:

<b>Proportion of dangerous failures</b>		
<ul style="list-style-type: none"> <li>• with low demand rate acc. to SN 31920</li> <li>• with high demand rate acc. to SN 31920</li> </ul>	% %	40 73
<b>Product function Mirror contact acc. to IEC 60947-4-1</b>		Yes
<b>Protection against electrical shock</b>		finger-safe when touched vertically from front acc. to IEC 60529

#### Mechanical data:

<b>Size of contactor</b>		S2
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#### Ambient conditions:

<b>Installation altitude at height above sea level maximum</b>	m	2 000
<b>Ambient temperature</b>		
<ul style="list-style-type: none"> <li>• during operation</li> <li>• during storage</li> </ul>	°C °C	-25 ... +60 -55 ... +80

#### Certificates/ approvals:



[Environmental  
Confirmations](#)

## Further information

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

<http://www.siemens.com/industrial-controls/catalogs>

### Industry Mall (Online ordering system)

<http://www.siemens.com/industrymall>

### Cax online generator

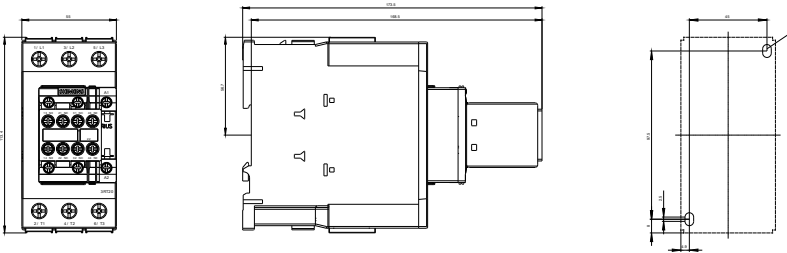
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mfb=3RT20351CL243MA0>

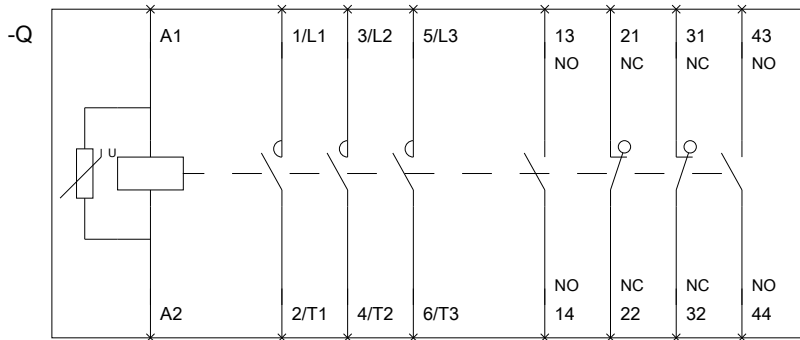
### Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<http://support.automation.siemens.com/WW/view/en/3RT20351CL243MA0/all>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mfb=3RT20351CL243MA0&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mfb=3RT20351CL243MA0&lang=en)





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