








Contactors 220 ... 240 V AC/DC AC3 75 kW 400 V AC (50...60 Hz) / DC operation
auxiliary contacts 2 NO + 2 NC, 3-pole, size S6 bar connections conventional
operating mechan. screw terminal

product brand name	SIRIUS
product designation	Power contactor
product type designation	3RT5
General technical data	
size of contactor	S6
product extension auxiliary switch	Yes
power loss [W] for rated value of the current	
• at AC in hot operating state per pole	9 W
• without load current share typical	5.2 W
type of calculation of power loss depending on pole	quadratic
insulation voltage rated value	1 000 V
degree of pollution	3
surge voltage resistance rated value	8 kV
maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1	690 V
shock resistance at rectangular impulse	
• at AC	8,5g / 5 ms, 4,2g / 10 ms
• at DC	8,5g / 5 ms, 4,2g / 10 ms
shock resistance with sine pulse	
• at AC	13,4g / 5 ms, 6,5g / 10 ms
• at DC	13,4g / 5 ms, 6,5g / 10 ms
mechanical service life (operating cycles)	
• of contactor typical	10 000 000
• of the contactor with added auxiliary switch block typical	10 000 000
Substance Prohibition (Date)	03/01/2017
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
number of NC contacts for main contacts	0
operating voltage	
• at AC-3e rated value maximum	1 000 V
operational current	
• at AC-1 up to 690 V	
— at ambient temperature 40 °C rated value	185 A
— at ambient temperature 60 °C rated value	160 A

<ul style="list-style-type: none"> ● at AC-3 <ul style="list-style-type: none"> — at 400 V rated value — at 690 V rated value ● at AC-3e <ul style="list-style-type: none"> — at 400 V rated value — at 690 V rated value 	<p>150 A</p> <p>150 A</p> <p>150 A</p> <p>150 A</p>
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 	<p>70 mm²</p> <p>95 mm²</p>
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>68 A</p> <p>57 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 at 60 °C rated value — at 690 V at 60 °C rated value ● at AC-3 <ul style="list-style-type: none"> — at 230 V rated value — at 400 V rated value — at 690 V rated value ● at AC-3e <ul style="list-style-type: none"> — at 400 V rated value — at 690 V rated value 	<p>60 kW</p> <p>105 kW</p> <p>181 kW</p> <p>50 kW</p> <p>84 kW</p> <p>146 kW</p> <p>75 kW</p> <p>132 kW</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>38 kW</p> <p>55 kW</p>
no-load switching frequency	
<ul style="list-style-type: none"> ● at AC ● at DC 	<p>2 000 1/h</p> <p>2 000 1/h</p>
operating frequency	
<ul style="list-style-type: none"> ● at AC-1 maximum ● at AC-3 maximum ● at AC-3e maximum ● at AC-4 maximum 	<p>800 1/h</p> <p>750 1/h</p> <p>750 1/h</p> <p>130 1/h</p>
Control circuit/ Control	
type of voltage of the control supply voltage	AC/DC
control supply voltage at AC	
<ul style="list-style-type: none"> ● at 50 Hz rated value ● at 60 Hz rated value 	<p>220 ... 240 V</p> <p>220 ... 240 V</p>
control supply voltage at DC	
<ul style="list-style-type: none"> ● rated value 	220 ... 240 V
operating range factor control supply voltage rated value of magnet coil at AC	
<ul style="list-style-type: none"> ● at 50 Hz ● at 60 Hz 	<p>0.8 ... 1.1</p> <p>0.8 ... 1.1</p>
design of the surge suppressor	with varistor
apparent pick-up power of magnet coil at AC	
<ul style="list-style-type: none"> ● at 50 Hz ● at 60 Hz 	<p>300 VA</p> <p>300 VA</p>
inductive power factor with closing power of the coil	
<ul style="list-style-type: none"> ● at 50 Hz ● at 60 Hz 	<p>0.9</p> <p>0.9</p>
apparent holding power of magnet coil at AC	
<ul style="list-style-type: none"> ● at 50 Hz ● at 60 Hz 	<p>5.8 VA</p> <p>5.8 VA</p>
inductive power factor with the holding power of the coil	
<ul style="list-style-type: none"> ● at 50 Hz ● at 60 Hz 	<p>0.8</p> <p>0.8</p>

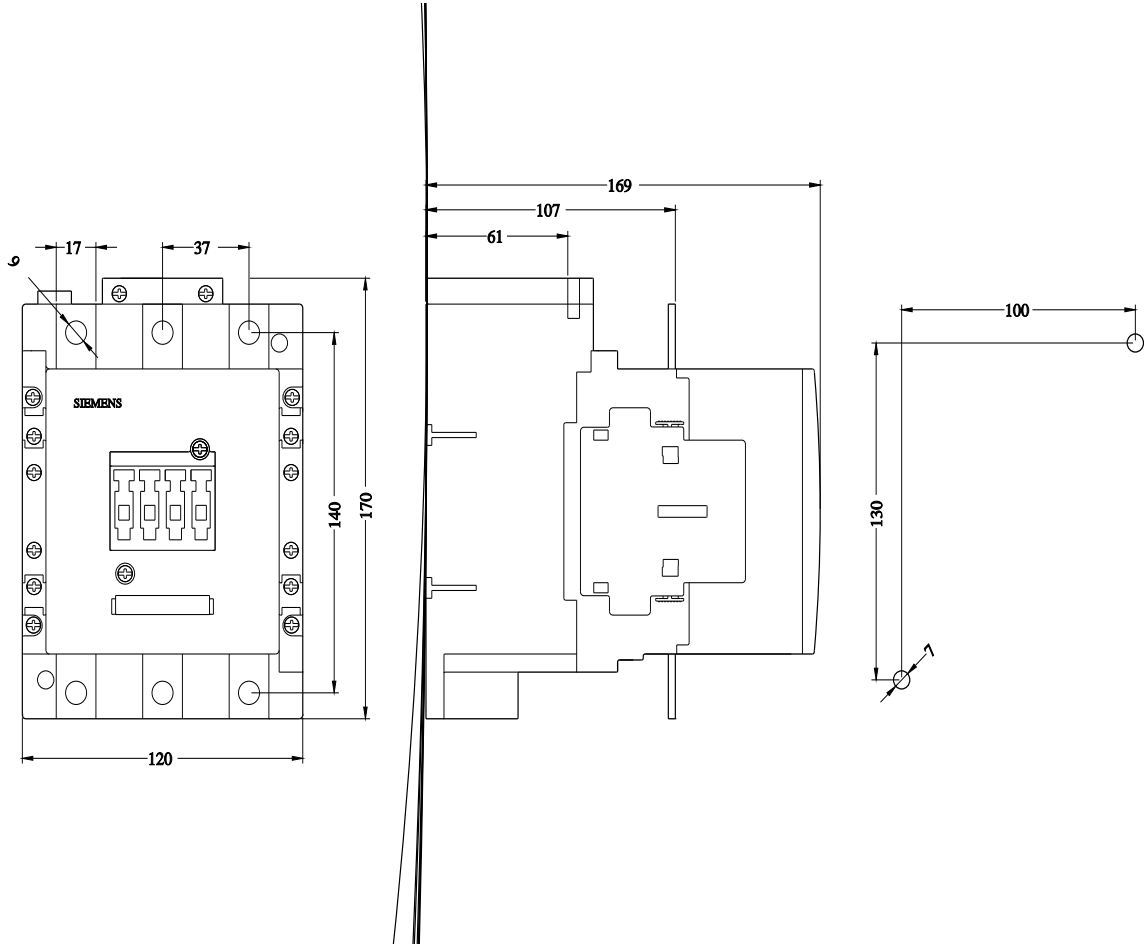
closing power of magnet coil at DC	360 W				
holding power of magnet coil at DC	5.2 W				
Auxiliary circuit					
number of NC contacts for auxiliary contacts instantaneous contact	2				
number of NO contacts for auxiliary contacts instantaneous contact	2				
operational current at AC-12 maximum	10 A				
operational current at AC-15					
• at 230 V rated value	6 A				
• at 400 V rated value	3 A				
operational current at DC-12					
• at 24 V rated value	6 A				
• at 110 V rated value	3 A				
• at 220 V rated value	1 A				
operational current at DC-13					
• at 24 V rated value	6 A				
• at 110 V rated value	1 A				
• at 220 V rated value	0.3 A				
UL/CSA ratings					
yielded mechanical performance [hp] for 3-phase AC motor at 460/480 V rated value	125 hp				
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: 355 A				
— with type of assignment 2 required	fuse gL/gG: 315 A				
• for short-circuit protection of the auxiliary switch required	fuse gL/gG: 10 A				
Installation/ mounting/ dimensions					
mounting position	with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back				
fastening method	screw fixing				
• side-by-side mounting	Yes				
height	172 mm				
width	120 mm				
depth	170 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 auxiliary contacts					
— 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				
Safety related data					
product function mirror contact according to IEC 60947-4-1	Yes				
protection class IP on the front according to IEC 60529	IP00; IP20 with box terminal/cover				
touch protection on the front according to IEC 60529	finger-safe, for vertical contact from the front with box terminal/cover				
Certificates/ approvals					
General Product Approval	EMC				
	Confirmation				
Declaration of Conformity	other				



Confirmation

Further information

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
<https://support.industry.siemens.com/cs/products?pnid=16027&lc=en-CN>



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