## SIEMENS

## Data sheet

## 3RT2316-1AP00



contactor AC-1, 18 A, 400 V / 40  $^\circ\text{C},$  4-pole, 230 V AC, 50/60 Hz, screw terminal, size: S00

product brand name	SIRIUS
product designation	Contactor
product type designation	3RT23
General technical data	
size of contactor	S00
product extension	
<ul> <li>function module for communication</li> </ul>	No
<ul> <li>auxiliary switch</li> </ul>	Yes
power loss [W] for rated value of the current	
<ul> <li>at AC in hot operating state</li> </ul>	4.4 W
<ul> <li>at AC in hot operating state per pole</li> </ul>	1.1 W
type of calculation of power loss depending on pole	quadratic
insulation voltage	
<ul> <li>of main circuit with degree of pollution 3 rated value</li> </ul>	690 V
<ul> <li>of the auxiliary and control circuit with degree of pollution</li> <li>3 rated value</li> </ul>	690 V
surge voltage resistance	
<ul> <li>of main circuit rated value</li> </ul>	6 kV
<ul> <li>of auxiliary circuit rated value</li> </ul>	6 kV
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 (operating cycles)	
<ul> <li>of contactor typical</li> </ul>	30 000 000
<ul> <li>of the contactor with added auxiliary switch block typical</li> </ul>	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 %
Environmental footprint	
Environmental Product Declaration(EPD)	Yes
Global Warming Potential [CO2 eq] total	94.8 kg
Global Warming Potential [CO2 eq] during manufacturing	1.15 kg
Global Warming Potential [CO2 eq] during operation	93.8 kg

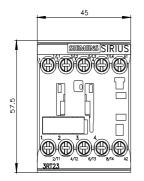
Global Warming Potential ICO2 and after and of life	-0 178 kg
Global Warming Potential [CO2 eq] after end of life Main circuit	-0.178 kg
number of poles for main current circuit	4
number of NO contacts for main contacts	4
operational current	18 A
<ul> <li>at AC-1 at 400 V at ambient temperature 40 °C rated value</li> </ul>	
• at AC-1	
— up to 690 V at ambient temperature 40 °C rated	18 A
value	
— up to 690 V at ambient temperature 60 °C rated value	16 A
• at AC-3	
- at 400 V rated value	9 A
• at AC-4 at 400 V rated value	8.5 A
minimum cross-section in main circuit at maximum AC-1 rated	2.5 mm <sup>2</sup>
value	
operating power	
• at AC-3 at 400 V rated value	4 kW
• at AC-4 at 400 V rated value	4 kW
no-load switching frequency	
• at AC	10 000 1/h
operating frequency at AC-1 maximum	1 000 1/h
Control circuit/ Control	
type of voltage	AC
type of voltage of the control supply voltage	AC
control supply voltage at AC	000.1/
at 50 Hz rated value	230 V
at 60 Hz rated value	230 V
operating range factor control supply voltage rated value of magnet coil at AC	
• at 50 Hz	0.8 1.1
• at 60 Hz	0.85 1.1
apparent pick-up power of magnet coil at AC	
• at 50 Hz	27 VA
• at 60 Hz	24.3 VA
inductive power factor with closing power of the coil	
• at 50 Hz	0.8
• at 60 Hz	0.75
apparent holding power of magnet coil at AC	
• at 50 Hz	4.2 VA
• at 60 Hz	3.3 VA
inductive power factor with the holding power of the coil	
● at 50 Hz	0.25
• at 60 Hz	0.25
closing delay	
• at AC	9 35 ms
opening delay	7 (0
• at AC	7 13 ms
arcing time	10 15 ms
control version of the switch operating mechanism	Standard A1 - A2
Auxiliary circuit	
number of NC contacts for auxiliary contacts	2
attachable     number of NO contacts for auxiliary contacts	2
number of NO contacts for auxiliary contacts <ul> <li>attachable</li> </ul>	2
Altachable Short-circuit protection	-
product function short circuit protection	
	No
	No
design of the fuse link	No
<ul><li>design of the fuse link</li><li>for short-circuit protection of the main circuit</li></ul>	
design of the fuse link	No gG: 35 A (690 V, 100 kA) gG: 20 A (690 V, 100 kA)

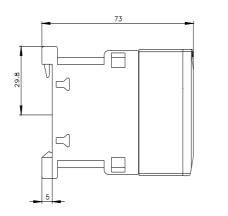
for short-circuit protection of the auxiliary switch required
Installation/mounting/dimensions

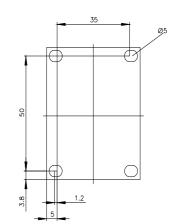
gG: 10 A (690 V, 1 kA)

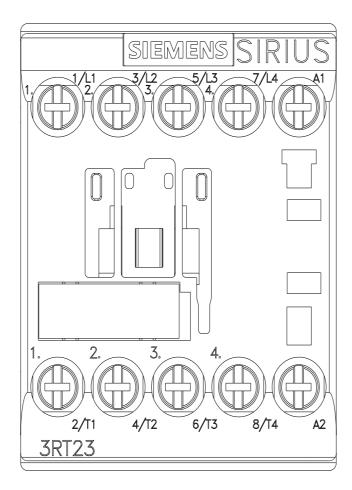
stallation/ mounting/ dimensions					
mounting position	+/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface				
fastening method	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715				
height	58 mm				
width	45 mm				
depth	73 mm				
required spacing					
<ul> <li>with side-by-side mounting</li> </ul>					
— forwards	10 mm				
— upwards	10 mm				
— downwards	10 mm				
— at the side	0 mm				
<ul> <li>for grounded parts</li> </ul>					
— forwards	10 mm				
— upwards	10 mm				
— at the side	6 mm				
— downwards	10 mm				
• for live parts					
— forwards	10 mm				
— upwards	10 mm				
— downwards	10 mm				
— at the side	6 mm				
connections/ Terminals					
type of electrical connection					
for main current circuit	screw-type terminals				
<ul> <li>for auxiliary and control circuit</li> </ul>	screw-type terminals				
<ul> <li>at contactor for auxiliary contacts</li> </ul>	Screw-type terminals				
<ul> <li>of magnet coil</li> </ul>	Screw-type terminals				
type of connectable conductor cross-sections for main contacts					
• solid	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²), 2x 4 mm²				
<ul> <li>solid or stranded</li> </ul>	2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²), 2x 4 mm²				
<ul> <li>finely stranded with core end processing</li> </ul>	2x (0.5 1.5 mm <sup>2</sup> ), 2x (0.75 2.5 mm <sup>2</sup> )				
connectable conductor cross-section for main contacts					
• solid	0.5 4 mm²				
solid or stranded	0.5 4 mm²				
• stranded	0.5 4 mm <sup>2</sup>				
<ul> <li>finely stranded with core end processing</li> </ul>	0.5 2.5 mm <sup>2</sup>				
connectable conductor cross-section for auxiliary contacts					
solid or stranded	0.5 4 mm²				
<ul> <li>finely stranded with core end processing</li> </ul>	0.5 2.5 mm <sup>2</sup>				
type of connectable conductor cross-sections					
for auxiliary contacts					
— solid	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)				
— solid or stranded	2x (0.5 1.5 mm <sup>2</sup> ), 2x (0.75 2.5 mm <sup>2</sup> ), 2x 4 mm <sup>2</sup>				
<ul> <li>— finely stranded with core end processing</li> </ul>	2x (0.5 1.5 mm <sup>2</sup> ), 2x (0.75 2.5 mm <sup>2</sup> )				
for AWG cables for auxiliary contacts	2x (0.5 1.5 mm), 2x (0.7 2.5 mm) 2x (20 16), 2x (18 14), 2x 12				
AWG number as coded connectable conductor cross section					
<ul> <li>for main contacts</li> </ul>	20 12				
for auxiliary contacts	20 12				
afety related data					
product function					
mirror contact according to IEC 60947-4-1	Yes; with 3RH29				
<ul> <li>positively driven operation according to IEC 60947-5-1</li> </ul>	No				
IEC 61508					
T1 value					
<ul> <li>for proof test interval or service life according to IEC 61508</li> </ul>	20 a				

output protection on the front according to IEC 60523         Ingre-sate, for vertical contact from the front         Contaction to us communication         No         Approvals Contificates         General Product Approval         Continuation         Continuation         Continuation         Continuation         Continuation Continuation         Continuation         Continuation         Continuation         Continuation         Continuation         Continuation         Continuation         Continuation         Continuation         Continuation         Continuation         Continuation         Continuation         Marine / Shipping         Marine / Shipping         Marine / Shipping         Continuation         Continuation         Special Test Centrice         Continuation         Continuation	protection class IP or	n the front according to II	EC 60529	IP20			
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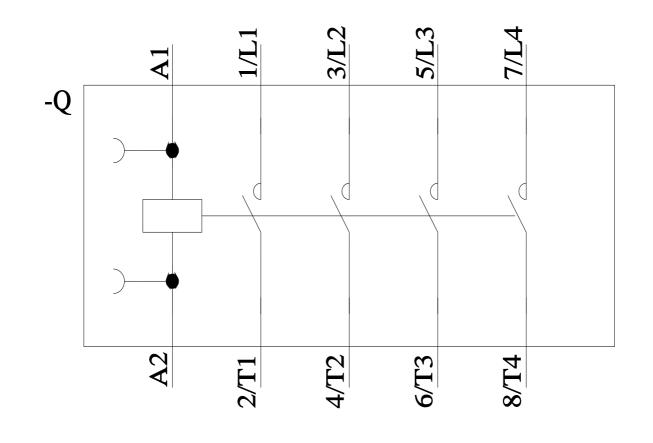








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