

Power contactor, AC-1 275 A, 400 V AC (50-60 Hz) / DC operation
 220-240 V UC Auxiliary contacts 2 NO + 2 NC 3-pole, Size S6
 Busbar connections Drive: conventional



Product brand name	SIRIUS
Product designation	Contacteur
Product type designation	3RT14

General technical data	
Size of contactor	S6
Product extension	
<ul style="list-style-type: none"> function module for communication 	No
<ul style="list-style-type: none"> Auxiliary switch 	Yes
Surge voltage resistance	
<ul style="list-style-type: none"> of main circuit rated value 	8 kV
<ul style="list-style-type: none"> of auxiliary circuit rated value 	6 kV
Protection class IP	
<ul style="list-style-type: none"> on the front 	IP00; IP20 on the front with cover / box terminal
<ul style="list-style-type: none"> of the terminal 	IP00
Shock resistance at rectangular impulse	
<ul style="list-style-type: none"> at AC 	8,5g / 5 ms, 4,2g / 10 ms
<ul style="list-style-type: none"> at DC 	8,5g / 5 ms, 4,2g / 10 ms
Shock resistance with sine pulse	
<ul style="list-style-type: none"> at AC 	13,4g / 5 ms, 6,5g / 10 ms

<ul style="list-style-type: none"> • at DC 	13,4g / 5 ms, 6,5g / 10 ms
Mechanical service life (switching cycles)	
<ul style="list-style-type: none"> • of contactor typical 	10 000 000
<ul style="list-style-type: none"> • of the contactor with added electronics-compatible auxiliary switch block typical 	5 000 000
<ul style="list-style-type: none"> • of the contactor with added auxiliary switch block typical 	10 000 000
Reference code acc. to DIN EN 81346-2	Q

Ambient conditions

Installation altitude at height above sea level	
<ul style="list-style-type: none"> • maximum 	2 000 m
Relative humidity during operation	95 %

Main circuit

Number of poles for main current circuit	3
Number of NO contacts for main contacts	3
Type of voltage for main current circuit	AC
Operating voltage	
<ul style="list-style-type: none"> • at AC <ul style="list-style-type: none"> — at 50 Hz rated value — at 60 Hz rated value 	240 V 220 ... 240 V
Operating current	
<ul style="list-style-type: none"> • at AC-1 at 400 V <ul style="list-style-type: none"> — 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 • at AC-3 <ul style="list-style-type: none"> — at 400 V rated value 	250 A 275 A 250 A 97 A
Minimum cross-section in main circuit	
<ul style="list-style-type: none"> • at maximum AC-1 rated value 	140 mm ²
No-load switching frequency	
<ul style="list-style-type: none"> • at AC • at DC 	2 000 1/h 2 000 1/h
Operating frequency	
<ul style="list-style-type: none"> • at AC-1 maximum 	600 1/h

Control circuit/ Control

Type of voltage	AC/DC
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 	220 ... 240 V

<ul style="list-style-type: none"> • at 60 Hz rated value 	220 ... 240 V
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 DC	
<ul style="list-style-type: none"> • initial value 	0.8
<ul style="list-style-type: none"> • Full-scale value 	1.1
Operating range factor control supply voltage rated value of magnet coil at AC	
<ul style="list-style-type: none"> • at 50 Hz 	0.8 ... 1.1
<ul style="list-style-type: none"> • at 60 Hz 	0.8 ... 1.1
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 	300 V·A
Inductive power factor with closing power of the coil	
<ul style="list-style-type: none"> • at 50 Hz 	0.9
Apparent holding power of magnet coil at AC	
<ul style="list-style-type: none"> • at 50 Hz 	5.8 V·A
Inductive power factor with the holding power of the coil	
<ul style="list-style-type: none"> • at 50 Hz 	0.8
Closing power of magnet coil at DC	360 W
Holding power of magnet coil at DC	5.2 W
Closing delay	
<ul style="list-style-type: none"> • at AC 	20 ... 95 ms
<ul style="list-style-type: none"> • at DC 	20 ... 95 ms
Opening delay	
<ul style="list-style-type: none"> • at AC 	40 ... 60 ms
<ul style="list-style-type: none"> • at DC 	40 ... 60 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
<ul style="list-style-type: none"> • attachable 	4
<ul style="list-style-type: none"> • instantaneous contact 	2
<ul style="list-style-type: none"> • lagging switching 	0
Number of NO contacts for auxiliary contacts	2
<ul style="list-style-type: none"> • attachable 	4
<ul style="list-style-type: none"> • instantaneous contact 	2
<ul style="list-style-type: none"> • leading contact 	0
Operating current at AC-12 maximum	10 A
Operating current at AC-15	

<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>6 A</p> <p>3 A</p> <p>2 A</p> <p>1 A</p>
Operating current at DC-13 <ul style="list-style-type: none"> • at 24 V rated value • at 48 V rated value • at 60 V rated value • at 110 V rated value • at 125 V rated value • at 220 V rated value • at 600 V rated value 	<p>10 A</p> <p>2 A</p> <p>2 A</p> <p>1 A</p> <p>0.9 A</p> <p>0.3 A</p> <p>0.1 A</p>
Design of the miniature circuit breaker <ul style="list-style-type: none"> • for short-circuit protection of the auxiliary switch required 	<p>gG: 10 A (230 V, 400 A)</p>
Contact reliability of auxiliary contacts	<p>1 faulty switching per 100 million (17 V, 1 mA)</p>

Short-circuit protection	
Product function Short circuit protection	<p>No</p>
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 — with type of assignment 2 required • for short-circuit protection of the auxiliary switch required 	<p>gG: 355 A (690 V, 100 kA)</p> <p>gR: 350 A (690 V, 100 kA)</p> <p>gG: 10 A (500 V, 1 kA)</p>

Installation/ mounting/ dimensions	
Mounting position	<p>with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back</p>
Mounting type <ul style="list-style-type: none"> • Side-by-side mounting 	<p>screw fixing</p> <p>Yes</p>
Height	<p>172 mm</p>
Width	<p>120 mm</p>
Depth	<p>170 mm</p>
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 	<p>20 mm</p> <p>10 mm</p> <p>10 mm</p> <p>0 mm</p> <p>20 mm</p> <p>10 mm</p>

— at the side	10 mm
— downwards	10 mm
• for live parts	
— forwards	20 mm
— upwards	10 mm
— downwards	10 mm
— at the side	10 mm

Connections/Terminals

Type of electrical connection <ul style="list-style-type: none"> • for main current circuit • for auxiliary and control current circuit • at contactor for auxiliary contacts • of magnet coil 	Connection bar screw-type terminals Screw-type terminals Screw-type terminals
Type of connectable conductor cross-sections <ul style="list-style-type: none"> • at AWG conductors for main contacts 	4 ... 250 kcmil
Connectable conductor cross-section for main contacts <ul style="list-style-type: none"> • single or multi-stranded • stranded 	25 ... 120 mm ² 25 ... 120 mm ²
Connectable conductor cross-section for auxiliary contacts <ul style="list-style-type: none"> • single or multi-stranded • finely stranded with core end processing 	0.5 ... 4 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 — single or multi-stranded — finely stranded with core end processing • at AWG conductors for auxiliary contacts 	2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²), max. 2x (0.75 ... 4 mm ²) 2x (0,5 ... 1,5 mm ²), 2x (0,75 ... 2,5 mm ²), max. 2x (0,75 ... 4 mm ²) 2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²) 2x (20 ... 16), 2x (18 ... 14), 1x 12

Safety related data

Product function <ul style="list-style-type: none"> • Mirror contact acc. to IEC 60947-4-1 • positively driven operation acc. to IEC 60947-5-1 	Yes No
Protection against electrical shock	finger-safe when touched vertically from front acc. to IEC 60529

Certificates/approvals

General Product Approval	Functional Safety/Safety of Machinery	Declaration of Conformity
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[Type Examination Certificate](#)



Declaration of Conformity	Test Certificates	Marine / Shipping
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[Miscellaneous](#)

[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



other	Railway
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[Confirmation](#)

[Miscellaneous](#)

[Special Test Certificate](#)

Further information

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

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

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RT1456-6AP36>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT1456-6AP36>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RT1456-6AP36>

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

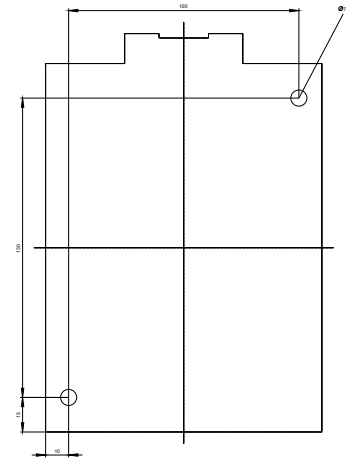
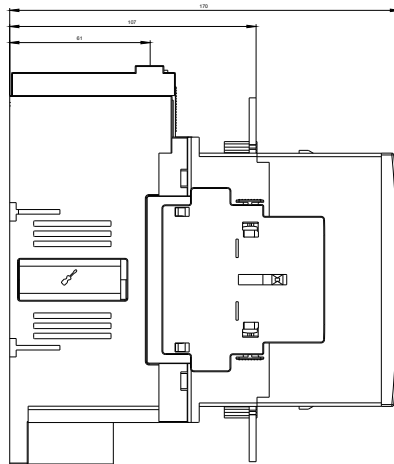
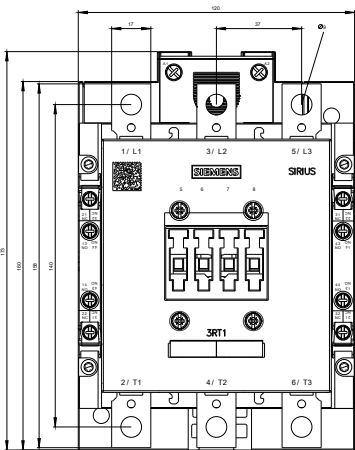
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT1456-6AP36&lang=en

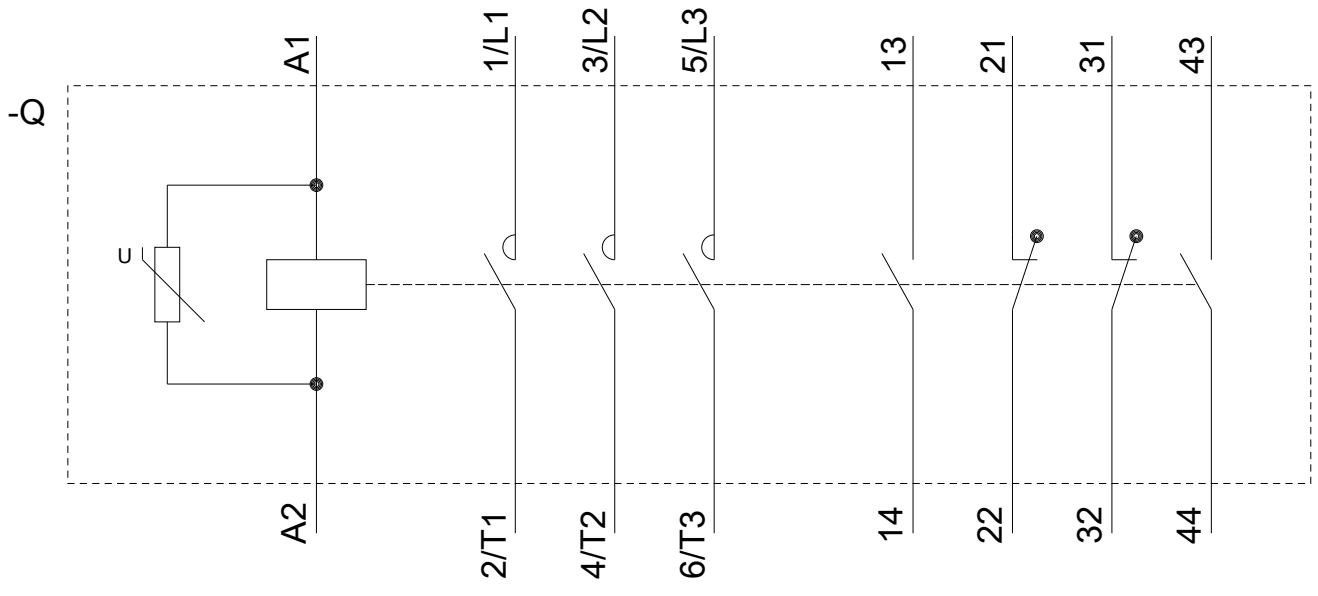
Characteristic: Tripping characteristics, I_t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RT1456-6AP36/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT1456-6AP36&objecttype=14&gridview=view1>





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