SIEMENS

Data sheet 3RT2316-1AK60



Contactor, AC-1, 18 A/400 V/40 $^{\circ}\text{C}$, S00, 4-pole, 110 V AC/50 Hz, 120 V/60 Hz, screw terminal

product brand name	SIRIUS
product designation	Contactor
product type designation	3RT23
General technical data	
size of contactor	S00
product extension	
 function module for communication 	No
auxiliary switch	Yes
power loss [W] for rated value of the current	
 at AC in hot operating state 	4.4 W
 at AC in hot operating state per pole 	1.1 W
insulation voltage	
 of main circuit with degree of pollution 3 rated value 	690 V
 of the auxiliary and control circuit with degree of pollution 3 rated value 	690 V
surge voltage resistance	
 of main circuit rated value 	6 kV
 of auxiliary circuit rated value 	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)	
 of contactor typical 	30 000 000
 of the contactor with added auxiliary switch block typical 	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	95 %
maximum	
Main circuit	
number of poles for main current circuit	4
number of NO contacts for main contacts	4
operational current	
 at AC-1 at 400 V at ambient temperature 40 °C rated value 	18 A

a at AC 1	
 at AC-1 up to 690 V at ambient temperature 40 °C 	18 A
rated value	
— up to 690 V at ambient temperature 60 °C	16 A
rated value	
• 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 value	2.5 mm ²
operating power	
at AC-3 at 400 V rated value	4 kW
• at AC-4 at 400 V rated value	4 kW
short-time withstand current in cold operating state	
up to 40 °C	
 limited to 1 s switching at zero current maximum 	Use minimum cross-section acc. to AC-1 rated value
 limited to 5 s switching at zero current maximum 	Use minimum cross-section acc. to AC-1 rated value
 limited to 10 s switching at zero current maximum 	Use minimum cross-section acc. to AC-1 rated value
limited to 30 s switching at zero current maximum	Use minimum cross-section acc. to AC-1 rated value
Iimited to 60 s switching at zero current maximum	Use minimum cross-section acc. to AC-1 rated value
no-load switching frequency	40,000 4 //-
• at AC	10 000 1/h
operating frequency at AC-1 maximum Control circuit/ Control	1 000 1/h
	A.C.
type of voltage	AC AC
type of voltage of the control supply voltage control supply voltage at AC	AC
• at 50 Hz rated value	110 V
at 60 Hz rated value	120 V
operating range factor control supply voltage rated	, ·
value of magnet coil at AC	
● at 50 Hz	0.8 1.1
● at 60 Hz	0.8 1.1
apparent pick-up power of magnet coil at AC	
• at 50 Hz	26.4 VA
• at 60 Hz	26.4 VA
inductive power factor with closing power of the coil	
● at 50 Hz ● at 60 Hz	0.81
● at 60 ⊓2 apparent holding power of magnet coil at AC	0.81
at 50 Hz	4.4 VA
• at 60 Hz	4.4 VA
inductive power factor with the holding power of the	T.T VA
coil	
● at 50 Hz	0.24
• at 60 Hz	0.24
closing delay	
• at AC	9 35 ms
opening delay	7. 40
• 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 • attachable	2
number of NO contacts for auxiliary contacts	_
attachable	2
Short-circuit protection	
product function short circuit protection	No
design of the fuse link	
for short-circuit protection of the main circuit	
with type of coordination 1 required	gG: 35 A (690 V, 100 kA)
with type of assignment 2 required	gG: 20 A (690 V, 100 kA)
for short-circuit protection of the auxiliary switch	gG: 10 A (690 V, 1 kA)

-4-11-4:	
nstallation/ 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
actorning mourou	60715
 side-by-side mounting 	Yes
height	58 mm
width	45 mm
depth	73 mm
required spacing	
 with side-by-side mounting 	
— forwards	10 mm
— upwards	10 mm
— downwards	10 mm
— at the side	0 mm
 for grounded parts 	
— 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
onnections/ Terminals	
type of electrical connection	
for main current circuit	screw-type terminals
for main current circuit for auxiliary and control circuit	screw-type terminals
at contactor for auxiliary contacts	Screw-type terminals
of magnet coil	Screw-type terminals
type of connectable conductor cross-sections	Ociew-type terminals
• for main contacts	
— solid	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²), 2x 4 mm²
— solid or stranded	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²), 2x 4 mm²
finely stranded with core end processing	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
at AWG cables for main contacts	2x (20 16), 2x (18 14), 2x 12
connectable conductor cross-section for main	ZX (20 10), ZX (10 14), ZX 12
contacts	
• solid	0.5 4 mm²
solid or stranded	0.5 4 mm²
stranded	0.5 4 mm²
finely stranded with core end processing	0.5 2.5 mm ²
connectable conductor cross-section for auxiliary	
contacts	
solid or stranded	0.5 4 mm²
 finely stranded with core end processing 	0.5 2.5 mm²
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 mm²), 2x (0.75 2.5 mm²), 2x 4 mm²
finely stranded with core end processing	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
at AWG cables for auxiliary contacts	2x (20 16), 2x (18 14), 2x 12
AWG number as coded connectable conductor cross	
section	
for main contacts	20 12
for auxiliary contacts	20 12
afety related data	
product function	
mirror contact according to IEC 60947-4-1	Yes; with 3RH29
T1 value for proof test interval or service life according to	20 y
IEC 61508	

60529

touch protection on the front according to IEC 60529

finger-safe, for vertical contact from the front

Communication/ Protocol

product function bus communication

No

Certificates/ approvals

General Product Approval

EMC



Confirmation









Functional Safety/Safety of Machinery

Declaration of Conformity

Test Certificates

Marine / Shipping

Type Examination Certificate





Type Test Certificates/Test Report

Special Test Certificate



Marine / Shipping













other

Railway

Confirmation

Environmental Confirmations



Vibration and Shock

Further information

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=3RT2316-1AK60

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2316-1AK60

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT2316-1AK60

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

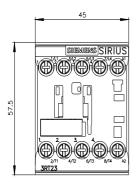
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2316-1AK60&lang=en

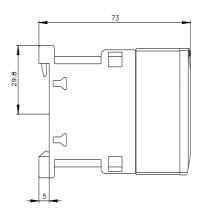
Characteristic: Tripping characteristics, I2t, Let-through current

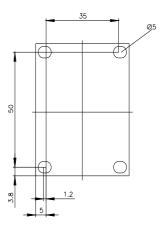
https://support.industry.siemens.com/cs/ww/en/ps/3RT2316-1AK60/char

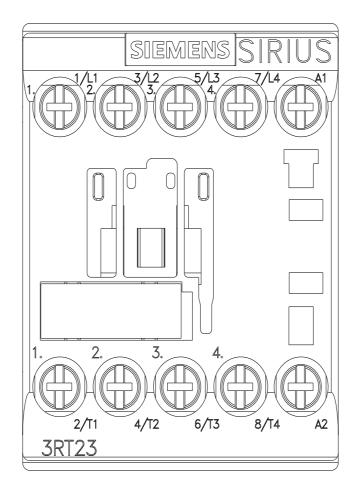
Further characteristics (e.g. electrical endurance, switching frequency)

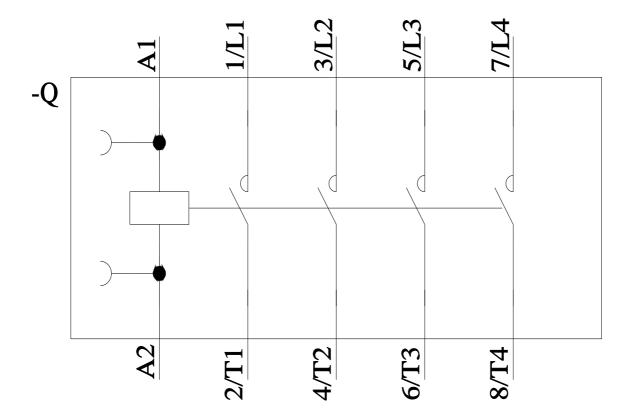
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2316-1AK60&objecttype=14&gridview=view1











last modified: 11/21/2022 🖸