SIEMENS

Data sheet 3RT2325-2AK60



contactor AC-1, 35 A, 400 V / 40 °C, 4-pole, 110 V AC, 50 Hz / 120 V, 60 Hz, auxiliary contacts: 1 NO + 1 NC, spring-loaded terminal, size: S0

product brand name	SIRIUS
product designation	Contactor
product type designation	3RT23
General technical data	
size of contactor	S0
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 	7.6 W
 at AC in hot operating state per pole 	1.9 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	7,5g / 5 ms, 4,7g / 10 ms
shock resistance with sine pulse	
• at AC	11,8g / 5 ms, 7,4g / 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
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 %
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	35 A

1404	
• at AC-1	
 up to 690 V at ambient temperature 40 °C rated value 	A
— up to 690 V at ambient temperature 60 °C rated 30	A
value	
• at AC-3	
— at 400 V rated value	5 A
• at AC-4 at 400 V rated value	5 A
	mm ²
value	
operating power ● at AC-3 at 400 V rated value 7.5	k/M/
• at AC-3 at 400 V rated value 7.5	
short-time withstand current in cold operating state up to	IVV
40 °C	
• limited to 1 s switching at zero current maximum Use	e minimum cross-section acc. to AC-1 rated value
• limited to 5 s switching at zero current maximum Use	e minimum cross-section acc. to AC-1 rated value
• limited to 10 s switching at zero current maximum Use	e minimum cross-section acc. to AC-1 rated value
• limited to 30 s switching at zero current maximum Use	e minimum cross-section acc. to AC-1 rated value
• limited to 60 s switching at zero current maximum Use	e minimum cross-section acc. to AC-1 rated value
no-load switching frequency	
• at AC 5 0	00 1/h
operating frequency at AC-1 maximum 1 0	00 1/h
Control circuit/ Control	
type of voltage AC	
type of voltage of the control supply voltage AC	
control supply voltage at AC	
• at 50 Hz rated value) V
at 60 Hz rated value) V
operating range factor control supply voltage rated value of magnet coil at AC	
	1.1
	1.1
apparent pick-up power of magnet coil at AC	1.1
• at 50 Hz	VA
• at 60 Hz 67	
inductive power factor with closing power of the coil	···
• at 50 Hz 0.7	2
• at 60 Hz 0.74	
apparent holding power of magnet coil at AC	
• at 50 Hz 7.9	VA
• at 60 Hz 6.5	VA
inductive power factor with the holding power of the coil	
• at 50 Hz 0.2	5
• at 60 Hz 0.2	8
closing delay	
• at AC 8	. 40 ms
opening delay	
• at AC 4	. 16 ms
arcing time 10	10 ms
	ndard A1 - A2
Auxiliary circuit	
number of NC contacts for auxiliary contacts 1	
• attachable 2	
• instantaneous contact 1	
number of NO contacts for auxiliary contacts 1	
• attachable 2	
• instantaneous contact 1	
	A
• instantaneous contact 1	A
• instantaneous contact 1 operational current at AC-12 maximum 10 /	A

at 500 V rated value	2 A
at 690 V rated value at 690 V rated value	1A
operational current at DC-12	
at 24 V rated value	10 A
• at 48 V rated value	6 A
at 60 V rated value	6 A
	3 A
at 110 V rated value at 125 V rated value	
• at 125 V rated value	2 A
• at 220 V rated value	1A
at 600 V rated value	0.15 A
operational current at DC-13	
• at 24 V rated value	10 A
• at 48 V rated value	2 A
• at 110 V rated value	1 A
• at 125 V rated value	0.9 A
 at 220 V rated value 	0.3 A
at 600 V rated value	0.1 A
design of the miniature circuit breaker for short-circuit protection of the auxiliary switch required	gG: 10 A (230 V, 400 A)
contact reliability of auxiliary contacts	1 faulty switching per 100 million (17 V, 1 mA)
UL/CSA ratings	
contact rating of auxiliary contacts according to UL	A600 / Q600
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: 63 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 required	gG: 10 A (690 V, 1 kA)
Installation/ mounting/ dimensions	go. 1011(1000 1, 1111 y
mounting position	+/-180° rotation possible on vertical mounting surface; can be tilted forward and
mounting position	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
fastening method • side-by-side mounting	
-	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715
side-by-side mounting	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 Yes
side-by-side mounting height	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 Yes 102 mm
side-by-side mounting height width	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 Yes 102 mm 60 mm
side-by-side mounting height width depth	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 Yes 102 mm 60 mm
side-by-side mounting height width depth required spacing	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 Yes 102 mm 60 mm
side-by-side mounting height width depth required spacing	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 Yes 102 mm 60 mm 97 mm
side-by-side mounting height width depth required spacing • with side-by-side mounting — forwards	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 Yes 102 mm 60 mm 97 mm
side-by-side mounting height width depth required spacing • with side-by-side mounting — forwards — upwards	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 Yes 102 mm 60 mm 97 mm 10 mm
side-by-side mounting height width depth required spacing • with side-by-side mounting — forwards — upwards — downwards	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 Yes 102 mm 60 mm 97 mm 10 mm 10 mm
side-by-side mounting height width depth required spacing • with side-by-side mounting — forwards — upwards — downwards — at the side	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 Yes 102 mm 60 mm 97 mm 10 mm 10 mm
side-by-side mounting height width depth required spacing with side-by-side mounting — forwards — upwards — downwards — at the side for grounded parts	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 Yes 102 mm 60 mm 97 mm 10 mm 10 mm 10 mm 0 mm
side-by-side mounting height width depth required spacing with side-by-side mounting — forwards — upwards — downwards — at the side for grounded parts — forwards — upwards — upwards	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 Yes 102 mm 60 mm 97 mm 10 mm 10 mm 10 mm 10 mm
side-by-side mounting height width depth required spacing	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 Yes 102 mm 60 mm 97 mm 10 mm 10 mm 10 mm 10 mm 10 mm 6 mm
side-by-side mounting height width depth required spacing with side-by-side mounting — forwards — upwards — downwards — at the side for grounded parts — forwards — upwards — at the side — downwards — at the side — downwards	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 Yes 102 mm 60 mm 97 mm 10 mm 10 mm 0 mm 10 mm
side-by-side mounting height width depth required spacing with side-by-side mounting — forwards — upwards — downwards — at the side for grounded parts — forwards — upwards — at the side of or grounded parts — forwards — upwards — upwards — at the side — downwards of or live parts	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 Yes 102 mm 60 mm 97 mm 10 mm 10 mm 10 mm 10 mm 10 mm 10 mm 10 mm
side-by-side mounting height width depth required spacing with side-by-side mounting — forwards — upwards — downwards — at the side for grounded parts — forwards — upwards — at the side o for grounded parts — forwards — upwards — at the side — downwards o for live parts — forwards	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 Yes 102 mm 60 mm 97 mm 10 mm 10 mm 10 mm 10 mm 10 mm 10 mm 10 mm 10 mm 10 mm
side-by-side mounting height width depth required spacing with side-by-side mounting — forwards — upwards — downwards — at the side for grounded parts — forwards — upwards — upwards — at the side — forwards — upwards — at the side — downwards — at the side — downwards • for live parts — forwards — upwards	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 Yes 102 mm 60 mm 97 mm 10 mm 10 mm 10 mm 10 mm 10 mm 10 mm 10 mm 10 mm 10 mm 10 mm
side-by-side mounting height width depth required spacing with side-by-side mounting — forwards — upwards — downwards — at the side for grounded parts — forwards — upwards — upwards — at the side — downwards — at the side — downwards — at the side — downwards • for live parts — forwards — upwards — upwards — upwards — downwards	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 Yes 102 mm 60 mm 97 mm 10 mm 10 mm 10 mm 10 mm 10 mm 10 mm 10 mm 10 mm 10 mm
side-by-side mounting height width depth required spacing with side-by-side mounting — forwards — upwards — downwards — at the side for grounded parts — forwards — upwards — upwards — at the side — downwards — iforwards — upwards — downwards — upwards — upwards — at the side	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 Yes 102 mm 60 mm 97 mm 10 mm 10 mm 10 mm 10 mm 10 mm 10 mm 10 mm 10 mm 10 mm 10 mm
side-by-side mounting height width depth required spacing	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 Yes 102 mm 60 mm 97 mm 10 mm 10 mm 10 mm 10 mm 10 mm 10 mm 10 mm 10 mm 10 mm
side-by-side mounting height width depth required spacing with side-by-side mounting — forwards — upwards — downwards — at the side for grounded parts — forwards — upwards — at the side — downwards — at the side — downwards — at the side — downwards • for live parts — forwards — upwards — upwards — at the side — downwards — at the side — downwards — at the side Connections/ Terminals type of electrical connection	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 Yes 102 mm 60 mm 97 mm 10 mm 10 mm 10 mm 10 mm 10 mm 10 mm 10 mm 10 mm 10 mm 10 mm 10 mm 10 mm
side-by-side mounting height width depth required spacing	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 Yes 102 mm 60 mm 97 mm 10 mm 10 mm 10 mm 10 mm 10 mm 10 mm 10 mm 10 mm 10 mm
side-by-side mounting height width depth required spacing with side-by-side mounting — forwards — upwards — downwards — at the side for grounded parts — forwards — upwards — at the side — downwards — at the side — downwards — at the side — downwards • for live parts — forwards — upwards — upwards — at the side — downwards — at the side — downwards — at the side Connections/ Terminals type of electrical connection	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 Yes 102 mm 60 mm 97 mm 10 mm 10 mm 10 mm 10 mm 10 mm 10 mm 10 mm 10 mm 10 mm 10 mm 10 mm 10 mm
side-by-side mounting height width depth required spacing with side-by-side mounting — forwards — upwards — downwards — at the side for grounded parts — forwards — upwards — at the side — downwards — upwards — upwards — upwards — upwards — at the side Connections/ Terminals type of electrical connection for main current circuit	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 Yes 102 mm 60 mm 97 mm 10 mm 10 mm 10 mm 10 mm 10 mm 10 mm 10 mm 10 mm 6 mm 10 mm 10 mm 10 mm 10 mm
side-by-side mounting height width depth required spacing with side-by-side mounting — forwards — upwards — downwards — at the side for grounded parts — forwards — upwards — at the side — downwards — at the side — downwards for live parts — forwards — upwards — upwards — at the side Connections/ Terminals type of electrical connection for main current circuit for auxiliary and control circuit	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 Yes 102 mm 60 mm 97 mm 10 mm 10 mm 10 mm 10 mm 10 mm 10 mm 10 mm 6 mm 10 mm 10 mm 10 mm 10 mm
side-by-side mounting height width depth required spacing	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 Yes 102 mm 60 mm 97 mm 10 mm 10 mm 10 mm 10 mm 10 mm 10 mm 10 mm 10 mm 5 mm 10 mm
side-by-side mounting height width depth required spacing	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 Yes 102 mm 60 mm 97 mm 10 mm 10 mm 10 mm 10 mm 10 mm 10 mm 10 mm 10 mm 5 mm 10 mm

 solid or stranded 	2x (1 10 mm²)
 finely stranded with core end processing 	2x (1 6 mm²)
 finely stranded without core end processing 	2x (1 6 mm²)
connectable conductor cross-section for main contacts	
• solid	1 10 mm²
solid or stranded	1 10 mm²
• stranded	1 10 mm²
 finely stranded with core end processing 	1 6 mm²
 finely stranded without core end processing 	1 6 mm²
connectable conductor cross-section for auxiliary contacts	
solid or stranded	0.5 2.5 mm²
 finely stranded with core end processing 	0.5 1.5 mm²
 finely stranded without core end processing 	0.5 2.5 mm²
type of connectable conductor cross-sections	
for auxiliary contacts	
— solid	2x (0.5 2.5 mm²)
— solid or stranded	2x (0.5 2.5 mm²)
 finely stranded with core end processing 	2x (0.5 1.5 mm²)
 finely stranded without core end processing 	2x (0.5 2.5 mm²)
 for AWG cables for auxiliary contacts 	2x (20 14)
AWG number as coded connectable conductor cross section	
• for main contacts	18 8
 for auxiliary contacts 	20 14
Safety related data	
product function	
 mirror contact according to IEC 60947-4-1 	Yes
T1 value for proof test interval or service life according to IEC 61508	20 a
protection class IP on the front according to IEC 60529	IP20
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	FMC:

General Product Approval

EMC





Confirmation







Functional Safety/Safety of Machinery

Declaration of Conformity

Test Certificates

Marine / Shipping

Type Examination Certificate





Special Test Certificate

Type Test Certificates/Test Report



Marine / Shipping













other Railway Environment



Further information

Siemens has decided to exit the Russian market (see here).

https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business

Siemens is working on the renewal of the current EAC certificates.

Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

Information on the packaging

https://support.industry.siemens.com/cs/ww/en/view/109813875

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=3RT2325-2AK60

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2325-2AK60

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

https://support.industry.siemens.com/cs/ww/en/ps/3RT2325-2AK60

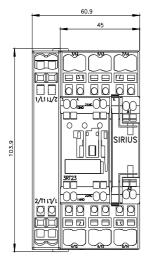
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

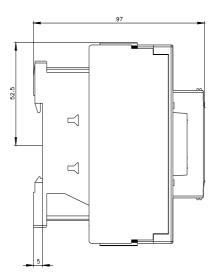
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2325-2AK60&lang=en

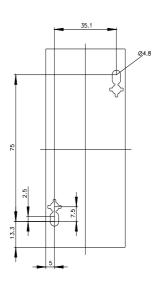
Characteristic: Tripping characteristics, I2t, Let-through current

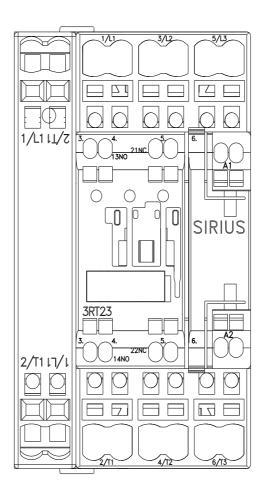
https://support.industry.siemens.com/cs/ww/en/ps/3RT2325-2AK60/char

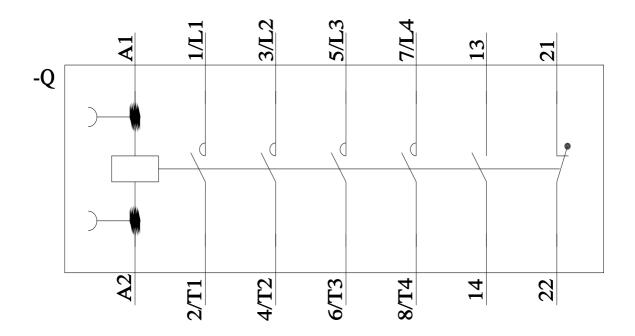
Further characteristics (e.g. electrical endurance, switching frequency) http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2325-2AK60&objecttype=14&gridview=view1











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