Data sheet

3RA2125-1JA24-0AK6



Fuseless motor starter Direct start 600VAC Size S0 7-10A 110/120VAC 50/60HZ screw connection For screw mounting Or 35 mm rail-mounting Type of coordination 2 IQ = 150 KA Also full fills type Of coordination 1 1NO+1NC (MSP) 1NO+1NC (contactor)

product brand name	SIRIUS
product designation	non-fused motor starter 3RA2
design of the product	direct starter
manufacturer's article number	
of the supplied contactor	<u>3RT2024-1AK60</u>
 of the supplied circuit-breakers 	3RV2011-1JA15
of the supplied link module	3RA2921-1AA00
General technical data	
size of the circuit-breaker	S00
size of load feeder	S0
product extension auxiliary switch	Yes
insulation voltage with degree of pollution 3 at AC rated value	690 V
degree of pollution	3
surge voltage resistance rated value	6 kV
shock resistance according to IEC 60068-2-27	6g / 11 ms
mechanical service life (switching cycles) of contactor typical	10 000 000
type of assignment	2
Ambient conditions	
ambient temperature	
during operation	-20 +60 °C
during storage	-50 +80 °C
during transport	-55 +80 °C
Main circuit	
number of poles for main current circuit	3
design of the switching contact	electromechanical
adjustable current response value current of the current-dependent overload release	7 10 A
operating voltage	
rated value	690 V
at AC-3 rated value maximum	690 V
operating frequency rated value	50 60 Hz
operational current at AC-3 at 400 V rated value	8.5 A
operating power at AC-3	
at 400 V rated value	4 000 W
at 500 V rated value	5 500 W
Control circuit/ Control	
control supply voltage at AC	

	20 40414
at 50 Hz rated value	88 121 V
at 60 Hz rated value	120 V
at 60 Hz rated value	96 132 V
apparent holding power of magnet coil at AC	7.2 VA
inductive power factor with the holding power of the coil	0.28
Auxiliary circuit	
number of NC contacts for auxiliary contacts	2
number of NO contacts for auxiliary contacts	2
Protective and monitoring functions	
trip class	CLASS 10
design of the overload release	thermal (bimetallic)
response value current of instantaneous short-circuit trip unit	130 A
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
at 480 V rated value	7.92 A
at 600 V rated value	9.19 A
yielded mechanical performance [hp]	
for single-phase AC motor	
— at 110/120 V rated value	0.5 hp
— at 230 V rated value	1.5 hp
• for 3-phase AC motor	
— at 200/208 V rated value	2 hp
— at 220/230 V rated value	3 hp
— at 460/480 V rated value	5 hp
— at 575/600 V rated value	7.5 hp
Short-circuit protection	
product function short circuit protection	Yes
design of the short-circuit trip	magnetic
	magnotio
conditional short-circuit current (la)	
conditional short-circuit current (Iq) • at 400 V according to IEC 60947-4-1 rated value	153 000 A
at 400 V according to IEC 60947-4-1 rated value	153 000 A
• at 400 V according to IEC 60947-4-1 rated value Installation/ mounting/ dimensions	
at 400 V according to IEC 60947-4-1 rated value Installation/ mounting/ dimensions mounting position	vertical
at 400 V according to IEC 60947-4-1 rated value Installation/ mounting/ dimensions mounting position fastening method	vertical Snap-mounted to DIN rail or screw-mounted with additional push-in lug
at 400 V according to IEC 60947-4-1 rated value Installation/ mounting/ dimensions mounting position fastening method height	vertical Snap-mounted to DIN rail or screw-mounted with additional push-in lug 193.1 mm
at 400 V according to IEC 60947-4-1 rated value Installation/ mounting/ dimensions mounting position fastening method height width	vertical Snap-mounted to DIN rail or screw-mounted with additional push-in lug 193.1 mm 45 mm
at 400 V according to IEC 60947-4-1 rated value Installation/ mounting/ dimensions mounting position fastening method height width depth	vertical Snap-mounted to DIN rail or screw-mounted with additional push-in lug 193.1 mm
at 400 V according to IEC 60947-4-1 rated value Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing	vertical Snap-mounted to DIN rail or screw-mounted with additional push-in lug 193.1 mm 45 mm
at 400 V according to IEC 60947-4-1 rated value Installation/ mounting/ dimensions mounting position fastening method height width depth	vertical Snap-mounted to DIN rail or screw-mounted with additional push-in lug 193.1 mm 45 mm
at 400 V according to IEC 60947-4-1 rated value Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing for grounded parts	vertical Snap-mounted to DIN rail or screw-mounted with additional push-in lug 193.1 mm 45 mm 97.1 mm
at 400 V according to IEC 60947-4-1 rated value Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing for grounded parts — forwards	vertical Snap-mounted to DIN rail or screw-mounted with additional push-in lug 193.1 mm 45 mm 97.1 mm
at 400 V according to IEC 60947-4-1 rated value Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing for grounded parts — forwards — backwards	vertical Snap-mounted to DIN rail or screw-mounted with additional push-in lug 193.1 mm 45 mm 97.1 mm
at 400 V according to IEC 60947-4-1 rated value Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing for grounded parts — forwards — backwards — upwards — at the side	vertical Snap-mounted to DIN rail or screw-mounted with additional push-in lug 193.1 mm 45 mm 97.1 mm 10 mm 0 mm 30 mm 9 mm
at 400 V according to IEC 60947-4-1 rated value Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing for grounded parts	vertical Snap-mounted to DIN rail or screw-mounted with additional push-in lug 193.1 mm 45 mm 97.1 mm 10 mm 0 mm 30 mm
at 400 V according to IEC 60947-4-1 rated value Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing ofor grounded parts	vertical Snap-mounted to DIN rail or screw-mounted with additional push-in lug 193.1 mm 45 mm 97.1 mm 10 mm 0 mm 30 mm 9 mm 10 mm
at 400 V according to IEC 60947-4-1 rated value Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing ofor grounded parts — forwards — backwards — upwards — at the side — downwards ofor live parts — forwards — forwards	vertical Snap-mounted to DIN rail or screw-mounted with additional push-in lug 193.1 mm 45 mm 97.1 mm 10 mm 0 mm 30 mm 9 mm 10 mm
at 400 V according to IEC 60947-4-1 rated value Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing • for grounded parts — forwards — backwards — upwards — at the side — downwards • for live parts — forwards — backwards — backwards	vertical Snap-mounted to DIN rail or screw-mounted with additional push-in lug 193.1 mm 45 mm 97.1 mm 10 mm 0 mm 30 mm 9 mm 10 mm
at 400 V according to IEC 60947-4-1 rated value Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing at for grounded parts — forwards — backwards — upwards — at the side — downwards for live parts — forwards — backwards — upwards — upwards — upwards — to rive parts — forwards — backwards — backwards — upwards	vertical Snap-mounted to DIN rail or screw-mounted with additional push-in lug 193.1 mm 45 mm 97.1 mm 10 mm 0 mm 30 mm 10 mm 10 mm 10 mm
at 400 V according to IEC 60947-4-1 rated value Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing for grounded parts — forwards — backwards — upwards — at the side — downwards — forwards — forwards — upwards — upwards — downwards — backwards — upwards — downwards — backwards — backwards — backwards — backwards — upwards — downwards — downwards	vertical Snap-mounted to DIN rail or screw-mounted with additional push-in lug 193.1 mm 45 mm 97.1 mm 10 mm 0 mm 30 mm 9 mm 10 mm 10 mm 0 mm 30 mm
at 400 V according to IEC 60947-4-1 rated value Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing at for grounded parts - forwards - backwards - upwards - at the side - downwards for live parts - backwards - backwards - downwards at the side - downwards - backwards - backwards - backwards - backwards - at the side - downwards - at the side - downwards - at the side	vertical Snap-mounted to DIN rail or screw-mounted with additional push-in lug 193.1 mm 45 mm 97.1 mm 10 mm 0 mm 30 mm 10 mm 10 mm 10 mm
at 400 V according to IEC 60947-4-1 rated value Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing at for grounded parts - forwards - backwards - upwards - at the side - downwards for live parts - forwards - backwards - at the side - downwards - to forwards - to	vertical Snap-mounted to DIN rail or screw-mounted with additional push-in lug 193.1 mm 45 mm 97.1 mm 10 mm 0 mm 30 mm 10 mm 10 mm 10 mm 10 mm 9 mm 10 mm 9 mm 10 mm 9 mm 10 mm
at 400 V according to IEC 60947-4-1 rated value Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing • for grounded parts — forwards — backwards — upwards — at the side — downwards • for live parts — forwards — backwards — upwards — at the side — downwards — to rule parts — forwards — backwards — upwards — backwards — upwards — at the side Connections/ Terminals type of electrical connection for main current circuit	vertical Snap-mounted to DIN rail or screw-mounted with additional push-in lug 193.1 mm 45 mm 97.1 mm 10 mm 0 mm 30 mm 9 mm 10 mm 10 mm 0 mm 30 mm
at 400 V according to IEC 60947-4-1 rated value Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing o for grounded parts	vertical Snap-mounted to DIN rail or screw-mounted with additional push-in lug 193.1 mm 45 mm 97.1 mm 10 mm 0 mm 30 mm 10 mm 10 mm 0 mm 30 mm 9 mm 10 mm screw-type terminals
at 400 V according to IEC 60947-4-1 rated value Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing	vertical Snap-mounted to DIN rail or screw-mounted with additional push-in lug 193.1 mm 45 mm 97.1 mm 10 mm 0 mm 30 mm 9 mm 10 mm 0 mm 30 mm 9 mm 10 mm screw-type terminals 1 10 mm², 2x (2.5 6 mm²)
at 400 V according to IEC 60947-4-1 rated value Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing for grounded parts	vertical Snap-mounted to DIN rail or screw-mounted with additional push-in lug 193.1 mm 45 mm 97.1 mm 10 mm 0 mm 30 mm 9 mm 10 mm 10 mm 0 mm 30 mm 10 mm screw-type terminals 1 10 mm², 2x (2.5 6 mm²) 2x (16 12), 2x (14 8)
at 400 V according to IEC 60947-4-1 rated value Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing	vertical Snap-mounted to DIN rail or screw-mounted with additional push-in lug 193.1 mm 45 mm 97.1 mm 10 mm 0 mm 30 mm 9 mm 10 mm 0 mm 30 mm 9 mm 10 mm screw-type terminals 1 10 mm², 2x (2.5 6 mm²)
at 400 V according to IEC 60947-4-1 rated value Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing for grounded parts forwards backwards upwards at the side downwards for live parts forwards upwards at the side downwards for lawards upwards for lawards forwards formain current circuit for main contacts stranded for main contacts connectable conductor cross-section for main contacts finely stranded with core end processing	vertical Snap-mounted to DIN rail or screw-mounted with additional push-in lug 193.1 mm 45 mm 97.1 mm 10 mm 0 mm 30 mm 9 mm 10 mm 10 mm 0 mm 30 mm 10 mm screw-type terminals 1 10 mm², 2x (2.5 6 mm²) 2x (16 12), 2x (14 8)
at 400 V according to IEC 60947-4-1 rated value Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing	vertical Snap-mounted to DIN rail or screw-mounted with additional push-in lug 193.1 mm 45 mm 97.1 mm 10 mm 0 mm 30 mm 9 mm 10 mm 10 mm 0 mm 30 mm 10 mm screw-type terminals 1 10 mm², 2x (2.5 6 mm²) 2x (16 12), 2x (14 8)

proportion of dangerous failures with high demand rate according to SN 31920

protection class IP on the front according to IEC 60529

touch protection on the front according to IEC 60529

finger-safe, for vertical contact from the front

Certificates/ approvals

General Product Approval

For use in hazardous locations Declaration of Conformity



Confirmation









Declaration of Conformity

Test Certificates

Marine / Shipping



Special Test Certificate

Type Test Certificates/Test Report







Marine / Shipping





Confirmation

other

Vibration and Shock

Railway

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=3RA2125-1JA24-0AK6

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2125-1JA24-0AK6

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

https://support.industry.siemens.com/cs/ww/en/ps/3RA2125-1JA24-0AK6

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

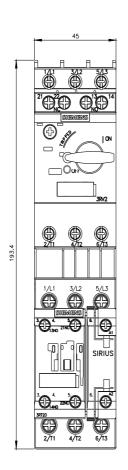
 $\underline{\text{http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2125-1JA24-0AK6\&lang=en}$

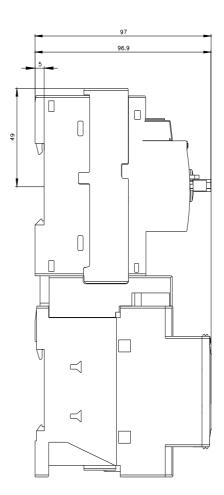
Characteristic: Tripping characteristics, I2t, Let-through current

https://support.industry.siemens.com/cs/ww/en/ps/3RA2125-1JA24-0AK6/char

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

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2125-1JA24-0AK6&objecttype=14&gridview=view1





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