SIEMENS

Data sheet

3RA2225-1HD24-0AP6

product branch name product grantion design of the product manufacturer's article number of the supplied crimul-breakers of the supplied crimul-breakers of the supplied RS assembly kit of the supplied passes adapter of the supplied passes adapter of the supplied in module of the supplied passes adapter of passe		Fuseless motor starter Reversing operation 600VAC Size S0 5.5-8Amp 220/240VAC 50/60HZ screw connection For snapping onto 60 mm busbar systems Type of coordination 2 IQ = 150 KA Also full fills type Of coordination 1 1NO+1NC (MSP) 1NO+1NC (per contactor)
design of the product manufacturer's article number of the supplied circuit-breakers of the supplied circuit-breakers of the supplied circuit-breakers of the supplied RS assembly kit of the supplied Iss adapter of the supplied Iss adapter substance and the substance an	product brand name	SIRIUS
manufacturer's article number of the supplied contactor of the supplied forcult-breakers of the supplied Bassembly kit of the supplied Bassembly kit of the supplied busbar adapter street of the supplied Inkin Module of the supplied Inkin Module street of the circuit-breaker size of the circuit-breaker size of the circuit-breaker size of toad feeder So product extension auxiliary switch insulation voltage with degree of politition 3 at AC rated value degree of politition 3 surge voltage resistance rated value 690 V degree of politition 3 surge voltage resistance rated value 691 tims mechanical service life (operating cycles) of contactor typical 10 000 000 type of assignment 2 Substance Prohibitance (Date) Weight Ambient conditions ambient temperature • during operation • during storage • during transport • during transport ### ABO 'C	product designation	non-fused motor starter 3RA2
of the supplied contactor of the supplied Cruit-breakers of the supplied RS assembly kit of the supplied bushar adapter of the supplied bushar adapter of the supplied link module of the supplie	design of the product	reversing starter
of the supplied circuit-breakers of the supplied unk adapter of the supplied unk module Star Star Star Star Star Star Star Star	manufacturer's article number	
of the supplied RS assembly kit of the supplied busbar adapter of the supplied busbar adapter after supplied busbar adapter of the supplied busbar adapter size of the circuit-breaker size of the circuit-breaker size of the circuit-breaker size of load feeder product extension auxiliary switch product extension auxiliary switch product extension auxiliary switch product extension auxiliary switch size of load feeder so product extension auxiliary switch product extension auxiliary switch size of load feeder so so grevoltage resistance rated value shock resistance according to IEC 60068-2-27 substance according to IEC 60068-2-27 so fy 11 ms mechanical service life (operating cycles) of contactor typical type of assignment substance Prohibitance (Date) substance Prohibitance (D	 of the supplied contactor 	3RT2024-1AP60
of the supplied busbar adapter of the supplied link module 3RA2921-1AA00 Ceneral technical data size of the circuit-breaker size of load feeder product extension auxiliary switch yes insulation voltage with degree of pollution 3 at AC rated value degree of pollution 3 surge voltage resistance rated value shock resistance according to IEC 60088-2.27 mechanical service life (operating cycles) of contactor typical 10 000 000 Type of assignment 2 Substance Prohibitance (Date) 03/01/2017 Weight 1,75 kg Ambient conditions ambient temperature during operation during storage -50+80 °C during transport I unmber of poles for main current circuit design of the switching contact department verificated value current of the current-dependent overload release operating voltage	 of the supplied circuit-breakers 	3RV2011-1HA15
of the supplied link module Secretal technical data size of the circuit-breaker Size of load feeder So product extension auxiliary switch insulation voltage with degree of pollution 3 at AC rated value degree of pollution surge voltage resistance rated value 6 kW shock resistance according to IEC 60068-227 mechanical service life (operating cycles) of contactor typical type of assignment Substance Prohibitance (Date) Weight 1,75 kg Ambient conditions ambient temperature • during operation • during storage • during transport Assign of the switching contact design of the switching contact adjustable current response value current of the current-dependent overload release operating voltage • rated value • al AC-3 rated value verale value operating power at AC-3 * al 400 V rated value at 500 V rated value * at 50 Hz rated value * at 50 Hz rated value * at 60 Hz	 of the supplied RS assembly kit 	3RA2923-1DB1
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 680 V shock resistance according to IEC 60068-2-27 69 /11 ms mechanical service life (operating cycles) of contactor typical 1 type of assignment 2 Substance Prohibitance (Date) 03/01/2017 Weight 1,75 kg Ambient conditions ambient temperature • during operation • during storage - 50 +60 °C • during transport - 20 +60 °C • during transport - 55 +80 °C Main circuit number of poles for main current circuit adesign of the switching contact electromechanical adjustable current response value current of the current-dependent overload release operating voltage • 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 3 000 W • at 400 V rated value 3 000 W • at 500 V rated value 3 000 W • at 500 V rated value 4 000 W Control Circuit Control control supply voltage at AC • at 50 Hz rated value 220 V • at 60 Hz rated value 240 V	 of the supplied busbar adapter 	<u>8US1251-5NT10</u>
Size of the circuit-breaker S00	 of the supplied link module 	3RA2921-1AA00
Size of load feeder	General technical data	
product extension auxiliary switch insulation voltage with degree of pollution 3 at AC rated value 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 (operating cycles) of contactor typical 10 0000 000 type of assignment 2 Substance Prohibitance (Date) 03/01/2017 Weight 1,75 kg Ambient conditions ambient temperature • during operation • during storage • during storage • during transport 7-20 +60 °C • 55 +80 °C 4 during transport 7-25 +80 °C 4 during transport 8-35 +80 °C 4 during transport 9-35 +80 °C 5-35 +80 °C 5-35 +80 °C 4 during transport 9-35 +80 °C 4 during transport 9-36 +80 °C 4 during transport 1-35 +80 °C 4 during transport 9-35 +80 °C 4 during transport 9-36 +80 °C 9-37	size of the circuit-breaker	S00
insulation voltage with degree of pollution 3 at AC rated value 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 (operating cycles) of contactor typical 10 000 000 type of assignment 2 2 Substance Prohibitance (Date) 03/01/2017 Weight 1.75 kg Ambient conditions ambient temperature	size of load feeder	S0
degree of pollution 3 surge voltage resistance rated value 6 kV	product extension auxiliary switch	Yes
surge voltage resistance rated value 6 kV shock resistance according to IEC 60068-2-27 6g / 11 ms mechanical service life (operating cycles) of contactor typical 10 000 000 type of assignment 2 Substance Prohibitance (Date) 03/01/2017 Weight 1.75 kg Ambient conditions	insulation voltage with degree of pollution 3 at AC rated value	690 V
shock resistance according to IEC 60068-2-27 mechanical service life (operating cycles) of contactor typical type of assignment 2 Substance Prohibitance (Date) 03/01/2017 Weight 1.75 kg Ambient conditions ambient temperature • during operation • during storage • during transport -55 +80 °C • during transport 4 design of the switching contact adjustable current response value current of the current-dependent overload release operating voltage • at AC-3 rated value operational current at AC-3 at 400 V rated value • at 50 Hz rated value • at 60 Hz rated value	degree of pollution	3
mechanical service life (operating cycles) of contactor typical type of assignment 2 Substance Prohibitance (Date) 3/01/2017 Weight 1.75 kg Ambient conditions ambient temperature • during operation • during storage • during transport -50 +80 °C • during transport -55 +80 °C Main circuit number of poles for main current circuit design of the switching contact adjustable current response value current of the current- dependent overload release operating voltage • rated value • at AC-3 rated value maximum 690 V operating frequency rated value 0perational current at AC-3 at 400 V rated value 0 at 400 V rated value 1 at 500 V rated value 1 at 500 V rated value 1 at 500 V rated value 2 at 50 Hz rated value 1 at 50 Hz rated value 2 at 50 Hz rated value 1 at 60 Hz rated value 2 at 60 Hz rated value 3 at 60 Hz rated value 2 at 60 Hz rated value 3 at 60 Hz rated value	surge voltage resistance rated value	6 kV
type of assignment 2 Substance Prohibitance (Date) 03/01/2017 Weight 1.75 kg Ambient conditions ambient temperature -20 +60 °C • during peration -20 +80 °C • during transport -55 +80 °C Main circuit 3 design of the switching contact electromechanical adjustable current response value current of the current-dependent overload release 5.5 8 A operating voltage • rated value • rated value 690 V • at AC-3 rated value maximum 690 V operating frequency rated value 50 60 Hz operating power at AC-3 3 000 W • at 400 V rated value 3 000 W • at 50 Hz rated value 4 000 W Control circuit/ Control 220 V • at 50 Hz rated value 220 V • at 50 Hz rated value 176 242 V • at 60 Hz rated value 240 V • at 60 Hz rated value 240 V	shock resistance according to IEC 60068-2-27	6g / 11 ms
Substance Prohibitance (Date) 03/01/2017 Weight 1.75 kg Ambient conditions ambient temperature - during operation -20 +60 °C • during storage -50 +80 °C • during transport -55 +80 °C Main circuit 3 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 5.5 8 A operating voltage 690 V • rated value 690 V operating frequency rated value 50 60 Hz operating power at AC-3 6.5 A operating power at AC-3 3 000 W • at 500 V rated value 3 000 W • at 500 V rated value 4 000 W Control circuit/ Control 220 V • at 50 Hz rated value 220 V • at 50 Hz rated value 240 V • at 60 Hz rated value 240 V • at 60 Hz rated value 192 264 V	mechanical service life (operating cycles) of contactor typical	10 000 000
Weight Amblent conditions amblent temperature • during operation • during storage • during transport -50 +80 °C -55 +80 °C Main circuit number of poles for main current circuit design of the switching contact adjustable current response value current of the current-dependent overload release operating voltage • rated value • at AC-3 rated value maximum operating power at AC-3 operating power at AC-3 • at 400 V rated value • at 50 Hz rated value • at 50 Hz rated value • at 50 Hz rated value • at 60 Hz rated value	type of assignment	2
Ambient temperature • during operation • during storage • during transport • during transport • during transport • during transport • during transport • during transport • during transport • during transport • during transport • during transport • during transport • during transport • during transport • during transport • during transport • during transport • during transport • during transport • during transport • during transport • at during transport • during transport • at during transport • during transport • during transport • at during transport •	Substance Prohibitance (Date)	03/01/2017
ambient temperature • during operation • during storage • during transport -50 +80 °C • during transport -55 +80 °C Main circuit number of poles for main current circuit design of the switching contact adjustable current response value current of the current-dependent overload release operating voltage • rated value • at AC-3 rated value maximum operating frequency rated value operating power at AC-3 • at 400 V rated value • at 500 V rated value • at 500 V rated value • at 500 V rated value • at 500 V rated value • at 500 V rated value • at 500 V rated value • at 500 Hz rated value	Weight	1.75 kg
 during operation during storage during transport -50 +80 °C during transport -55 +80 °C Main circuit number of poles for main current circuit design of the switching contact adjustable current response value current of the current-dependent overload release operating voltage rated value at AC-3 rated value maximum operating frequency rated value operating frequency rated value operating power at AC-3 at 400 V rated value at 400 V rated value at 400 V rated value at 50 V rated value at 50 V rated value at 50 Hz rated value Control circuit/ Control control supply voltage at AC at 50 Hz rated value at 60 Hz rated value 	Ambient conditions	
during storage during transport design of the switching contact adjustable current response value current of the current-dependent overload release operating voltage rated value at AC-3 rated value maximum operating frequency rated value operating opwer at AC-3 at 400 V rated value at 50 Hz rated value at 50 Hz rated value at 60 Hz rated value	ambient temperature	
oduring transport	during operation	-20 +60 °C
Nameric result number of poles for main current circuit design of the switching contact adjustable current response value current of the current- dependent overload release operating voltage • rated value • at AC-3 rated value maximum operating frequency rated value operational current at AC-3 at 400 V rated value operating power at AC-3 • at 400 V rated value • at 50 V volume • at 50 V volume • at 50 V volume • at 50 V rated value • at 50 Hz rated value • at 60 Hz rated value	during storage	-50 +80 °C
number of poles for main current circuit design of the switching contact adjustable current response value current of the current- dependent overload release operating voltage • rated value • at AC-3 rated value maximum 690 V operating frequency rated value operational current at AC-3 at 400 V rated value operating power at AC-3 • at 400 V rated value • at 500 V rated value 20 V control circuit/ Control control supply voltage at AC • at 50 Hz rated value • at 60 Hz rated value	during transport	-55 +80 °C
design of the switching contact adjustable current response value current of the current- dependent overload release operating voltage • rated value • at AC-3 rated value maximum operating frequency rated value operating at AC-3 at 400 V rated value operating power at AC-3 • at 400 V rated value • at 500 V rated value • at 500 V rated value • at 500 V rated value 220 V • at 50 Hz rated value • at 50 Hz rated value • at 60 Hz rated value	Main circuit	
adjustable current response value current of the current- dependent overload release operating voltage • rated value • at AC-3 rated value maximum 690 V operating frequency rated value operational current at AC-3 at 400 V rated value operating power at AC-3 • at 400 V rated value • at 500 V rated value control circuit/ Control control supply voltage at AC • at 50 Hz rated value • at 60 Hz rated value 176 242 V • at 60 Hz rated value • at 60 Hz rated value 192 264 V	number of poles for main current circuit	3
adjustable current response value current of the current- dependent overload release operating voltage • rated value • at AC-3 rated value maximum 690 V operating frequency rated value operational current at AC-3 at 400 V rated value operating power at AC-3 • at 400 V rated value • at 500 V rated value • at 500 V rated value • at 50 Hz rated value • at 50 Hz rated value • at 60 Hz rated value	design of the switching contact	electromechanical
 rated value o 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 6.5 A operating power at AC-3 o at 400 V rated value o at 500 V rated value o at 500 V rated value o at 50 Hz rated value o at 50 Hz rated value o at 50 Hz rated value o at 60 Hz rated value 	,	5.5 8 A
 at AC-3 rated value maximum operating frequency rated value 50 60 Hz operational current at AC-3 at 400 V rated value 6.5 A operating power at AC-3 at 400 V rated value at 500 V rated value 4 000 W Control circuit/ Control control supply voltage at AC at 50 Hz rated value at 50 Hz rated value at 50 Hz rated value at 60 Hz rated value 	operating voltage	
operating frequency rated value 50 60 Hz operational current at AC-3 at 400 V rated value 6.5 A operating power at AC-3 • at 400 V rated value 3 000 W • at 500 V rated value 4 000 W Control circuit/ Control control supply voltage at AC • at 50 Hz rated value 220 V • at 50 Hz rated value 176 242 V • at 60 Hz rated value 240 V • at 60 Hz rated value 192 264 V	rated value	690 V
operational current at AC-3 at 400 V rated value operating power at AC-3 • at 400 V rated value • at 500 V rated value Control circuit/ Control control supply voltage at AC • at 50 Hz rated value • at 50 Hz rated value 176 242 V • at 60 Hz rated value • at 60 Hz rated value 192 264 V	 at AC-3 rated value maximum 	690 V
operating power at AC-3 • at 400 V rated value 3 000 W • at 500 V rated value 4 000 W Control circuit/ Control control supply voltage at AC • at 50 Hz rated value 220 V • at 50 Hz rated value 176 242 V • at 60 Hz rated value 240 V • at 60 Hz rated value 192 264 V	operating frequency rated value	50 60 Hz
 at 400 V rated value at 500 V rated value 4 000 W Control circuit/ Control control supply voltage at AC at 50 Hz rated value at 50 Hz rated value at 50 Hz rated value at 60 Hz rated value 	operational current at AC-3 at 400 V rated value	6.5 A
 at 500 V rated value Control circuit/ Control control supply voltage at AC at 50 Hz rated value at 50 Hz rated value at 50 Hz rated value at 60 Hz rated value 	operating power at AC-3	
Control circuit/ Control control supply voltage at AC • at 50 Hz rated value • at 50 Hz rated value • at 60 Hz rated value	• at 400 V rated value	3 000 W
control supply voltage at AC • at 50 Hz rated value • at 50 Hz rated value • at 60 Hz rated value	at 500 V rated value	4 000 W
 at 50 Hz rated value at 50 Hz rated value at 50 Hz rated value at 60 Hz rated value 	Control circuit/ Control	
 at 50 Hz rated value at 60 Hz rated value at 60 Hz rated value 176 242 V 240 V 192 264 V 	control supply voltage at AC	
 at 60 Hz rated value at 60 Hz rated value 240 V at 60 Hz rated value 192 264 V 	• at 50 Hz rated value	220 V
• at 60 Hz rated value 192 264 V	• at 50 Hz rated value	176 242 V
	• at 60 Hz rated value	240 V
apparent holding power of magnet coil at AC 7.2 VA	• at 60 Hz rated value	192 264 V
The state of the s	apparent holding power of magnet coil at AC	7.2 VA
inductive power factor with the holding power of the coil 0.28	inductive power factor with the holding power of the coil	0.28
Auxiliary circuit	Auxiliary circuit	
number of NC contacts for auxiliary contacts 3	number of NC contacts for auxiliary contacts	3
number of NO contacts for auxiliary contacts 3		3

Protective and monitoring functions		
trip class	CLASS 10	
design of the overload release	thermal (bimetallic)	
response value current of instantaneous short-circuit trip unit	104 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	6.33 A	
yielded mechanical performance [hp]		
for single-phase AC motor		
— at 110/120 V rated value	0.33 hp	
— at 230 V rated value	1 hp	
• for 3-phase AC motor	·	
— at 200/208 V rated value	2 hp	
— at 220/230 V rated value	2 hp	
— at 460/480 V rated value	5 hp	
— at 575/600 V rated value	5 hp	
Short-circuit protection	- 17	
product function short circuit protection	Yes	
design of the short-circuit trip	magnetic	
conditional short-circuit current (Iq)		
at 400 V according to IEC 60947-4-1 rated value	153 000 A	
Installation/ mounting/ dimensions		
mounting position	vertical	
fastening method	for snapping onto 60 mm busbar systems	
height	260 mm	
width	90 mm	
depth	155 mm	
required spacing	100 11111	
for grounded parts		
— forwards	10 mm	
— backwards	0 mm	
— upwards	30 mm	
— at the side	9 mm	
— downwards	10 mm	
• for live parts		
— forwards	10 mm	
— backwards	0 mm	
— upwards	30 mm	
— downwards	10 mm	
— at the side	9 mm	
Connections/ Terminals		
type of electrical connection for main current circuit	screw-type terminals	
type of connectable conductor cross-sections for main contacts stranded	1 10 mm², 2x (2.5 6 mm²)	
connectable conductor cross-section for main contacts finely stranded with core end processing	1 6 mm²	
Safety related data		
proportion of dangerous failures with high demand rate according to SN 31920	73 %	
B10 value with high demand rate according to SN 31920	1 000 000	
Electrical Safety		
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	
Approvals Certificates		
General Product Approval		For use in hazard- ous locations





Confirmation







Test Certificates

Marine / Shipping

Special Test Certificate Type Test Certificates/Test Report









Marine / Shipping

other Railway

Environment







Confirmation

Special Test Certificate

Environmental Confirmations

Further information

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=3RA2225-1HD24-0AP6

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2225-1HD24-0AP6

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

https://support.industry.siemens.com/cs/ww/en/ps/3RA2225-1HD24-0AP6

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

 $\underline{\text{http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2225-1HD24-0AP6\&lang=en}}$

Characteristic: Tripping characteristics, I2t, Let-through current

https://support.industry.siemens.com/cs/ww/en/ps/3RA2225-1HD24-0AP6/char

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

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2225-1HD24-0AP6&objecttype=14&gridview=view1

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