SIEMENS

Product data sheet 3RA2120-4EE27-0AP0

LOAD FEEDER FUSELESS DIRECT START,
AC 400V, SZ S0, 27...32A,
AC 230V SPRING-LOADED CONNECTION FOR RAIL-MOUNTING,
TYPE OF COORDINATION 2,
IQ = 150KA (ALSO FULFILLS TYPE OF COORDINATION 1)
1NO+1NC (CONTACTOR)

General technical data:		
Product brand name		SIRIUS
product designation		non-fused load feeders 3RA2
Design of the product		direct starter
Size of the load feeder		S0
Protection class IP / on the front		IP20
Degree of pollution		3
Insulation voltage / rated value	V	690
Installation altitude / at a height over sea level / maximum	m	2,000
Ambient temperature		
• during transport	°C	-55 … 80
• during storage	°C	-55 … 80
• during operating	°C	-20 … 60
Impulse voltage resistance / rated value	kV	6
Active power loss / per conductor / typical	W	4.3
Item designation		
• according to DIN 40719 extendable after IEC 204-2 / according to IEC 750		Q
• according to DIN EN 61346-2		Q
Type of assignement		2

Mechanical operating cycles as operating time / of the contactor		
• typical		10,000,000
Manufacturer article number		
• of the circuit-breakers included in the scope of supply		3RV2021-4EA20
• of the contactor included in the scope of supply		3RT2027-2AP00
• of the link module included in the scope of supply		3RA2921-2AA00
Design of the switching contact		mechanical
Type of the motor protection		bimetal
Adjustable response current		
• of the current-dependent overload release	A	27 … 32

Communication:		
Product function / bus-communication		No
Protocol / will be supported		
• AS interface protocol		No
• PROFIBUS DP protocol		No
• PROFINET protocol		No
Product extension / function module for communication		No

Main circuit:		
Number of poles / for main current circuit		3
Number of NC contacts / for main contacts		0
Number of NO contacts / for main contacts		3
Operating voltage / at AC-3 / rated value / maximum	V	690
Operating current		
• at AC-1 / at 400 V / rated value	A	32
• at AC-2 / at 400 V / rated value	A	29
• at AC-3 / at 400 V / rated value	A	29
• at AC-4 / at 400 V / rated value	A	29
Service power		
• at AC-2 / at 400 V / rated value	W	15,000
• at AC-3		
• at 400 V / rated value	W	15,000
• at 500 V / rated value	W	18,500
• at 690 V / rated value	W	30,000
• at AC-4 / at 400 V / rated value	W	15,000
Off-load operating frequency	1/h	10,000
Frequency of operation		
• at AC-1 / according to IEC 60947-6-2 / maximum	1/h	1,000
• at AC-2 / according to IEC 60947-6-2 / maximum	1/h	1,000

• at AC-3 / according to IEC 60947-6-2 / maximum	1/h	1,000
• at AC-4 / according to IEC 60947-6-2 / maximum	1/h	300

Control circuit:		
Type of voltage / of the controlled supply voltage		AC
Control supply voltage frequency		
• 1 / rated value	Hz	50
Control supply voltage / 1		
• at 50 Hz / for AC / rated value	V	230
• at 60 Hz / for AC / rated value	V	230
Apparent holding power / of the solenoid / for AC	V·A	9.8
Inductive power factor / with the pull-in power of the coil		0.27

Auxiliary circuit:		
Product extension / auxiliary switch		Yes
Number of NC contacts / for auxiliary contacts		1
Number of NO contacts / for auxiliary contacts		1
Number of change-over switches / for auxiliary contacts		0

Inputs/ Outputs:		
Number of digital inputs		0

Short-circuit:		
Product function / short circuit protection		Yes
Design of the short-circuit protection		circuit-breakers
Breaking capacity limit short-circuit current (Icu)		
• at 400 V / rated value	A	25,000
• at 500 V / rated value	A	5,000
• at 690 V / rated value	A	2,000

Installation/mounting/dimensions:		
Built in orientation		vertical
Type of mounting		screw and snap-on mounting onto 35 mm standard mounting rail
Width	mm	45
Height	mm	242.6
Depth	mm	106.9
Distance, to be maintained, to the ranks assembly		
• forwards	mm	10
• backwards	mm	0
• upwards	mm	30
• downwards	mm	30

• sidewards	mm	0
Distance, to be maintained, to earthed part		
• forwards	mm	10
• backwards	mm	0
• upwards	mm	30
• downwards	mm	10
• sidewards	mm	9
Distance, to be maintained, conductive elements		
• forwards	mm	10
• backwards	mm	0
• upwards	mm	30
• downwards	mm	10
• sidewards	mm	9

Connections:

Design of the electrical connection		
• for main current circuit		spring-loaded terminals
• for auxiliary and control current circuit		spring-loaded terminals
Type of the connectable conductor cross-section		
• for main contacts		
• solid		2x (1 ... 10 mm²)
• stranded		2x (1.0 ... 10 mm2)
• finely stranded		
• with conductor end processing		2x (1 ... 6 mm²)
• without conductor final cutting		2x (1 ... 6 mm²)
• for AWG conductors / for main contacts		2x (18 ... 8)
• for auxiliary contacts		
• solid		2x (0.5 ... 2.5 mm²)
• finely stranded		
• with conductor end processing		2x (0.5 ... 1.5 mm²)
• without conductor final cutting		2x (0.5 ... 1.5 mm²)
• for AWG conductors / for auxiliary contacts		2x (20 ... 14)

Certificates/approvals:

Verification of suitability		CE / UL / CSA / CCC
Varification of suitability / ATEX		No

General Product Approval	For use in hazardous locations	Test Certificates	Shipping Approval		
ROSTEST	DEKRA EXAM, DMT	Manufacturer	ABS	PRS	RINA
other					
Manufacturer	other				

UL/CSA ratings		
yielded mechanical performance (hp)		
• for single-phase squirrel cage motors		
• at 230 V / rated value	hp	5
• for three-phase squirrel cage motors		
• at 220/230 V / rated value	hp	10
• at 460/480 V / rated value	hp	20
• at 575/600 V / rated value	hp	25
Operating current (FLA) / for three-phase squirrel cage motors		
• at 480 V / rated value	A	14
• at 600 V / rated value	A	17
Contact rating designation / for auxiliary contacts / according to UL		A600 / Q600

Safety:		
B10 value / with high demand rate		
• according to SN 31920		1,000,000
Failure rate (FIT value) / with low demand rate		
• according to SN 31920	FIT	150
Proportion of dangerous failures		
• with low demand rate / according to SN 31920	%	40
• with high demand rate / according to SN 31920	%	75
T1 value / for proof test interval or service life		
• according to IEC 61508	a	10
Protection against electrical shock		finger-safe

Further information:

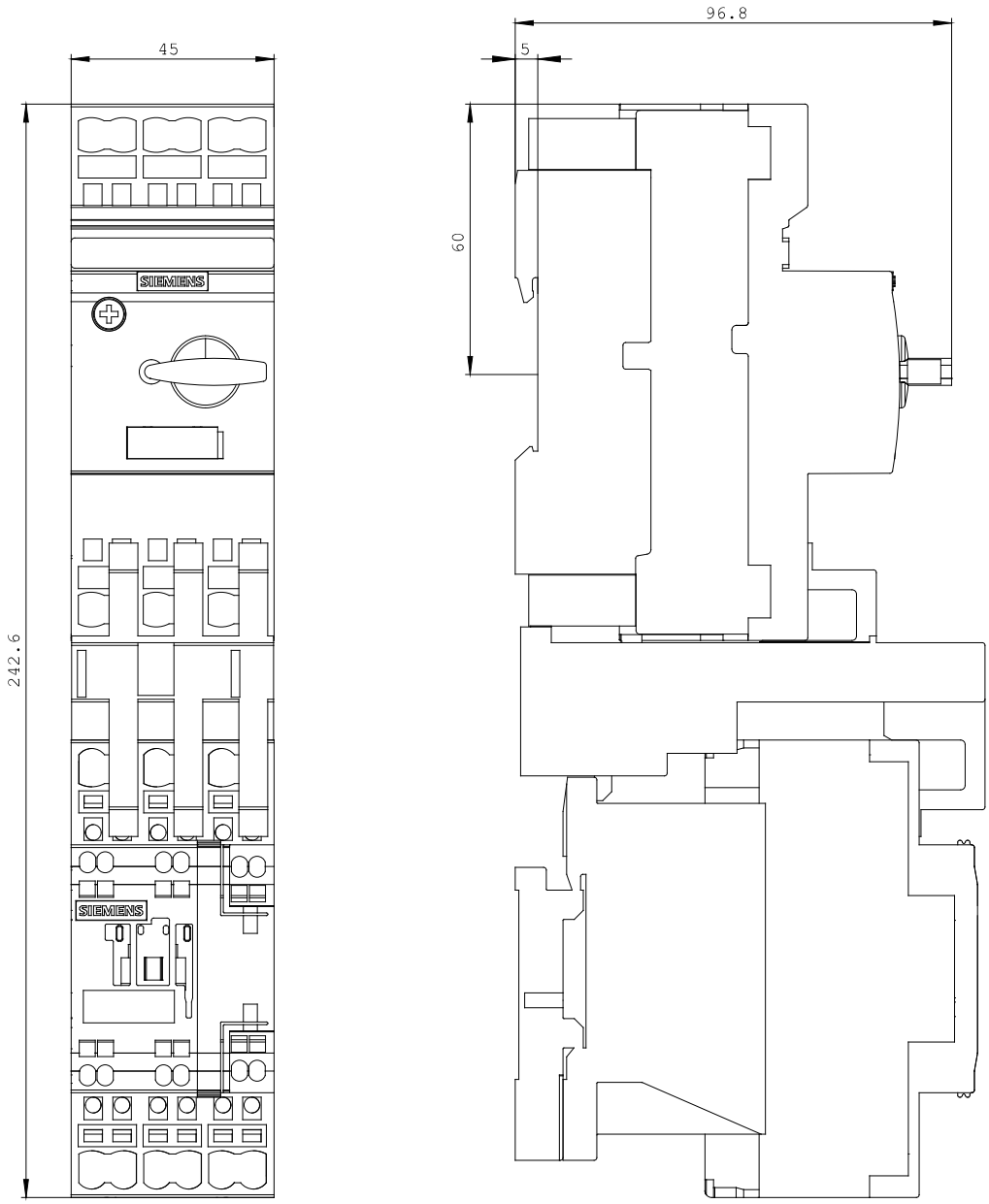
Information- and Downloadcenter (Catalogs, Brochures,…)
http://www.siemens.com/industrial-controls/catalogs

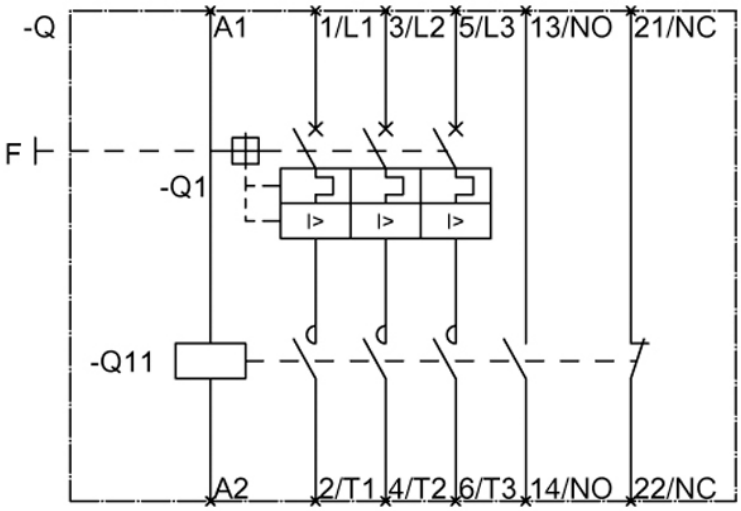
Industry Mall (Online ordering system)
http://www.siemens.com/industrial-controls/mall

CAx-Online-Generator
http://www.siemens.com/cax

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
http://support.automation.siemens.com/WW/view/en/3RA2120-4EE27-0AP0/all

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RA2120-4EE27-0AP0





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