## SIEMENS

## Data sheet

## 3RA6120-2AP32



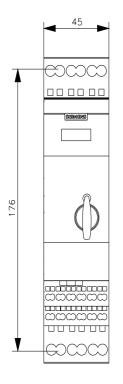
SIRIUS Compact load feeder DOL starter 690 V 110...240 V AC/DC 50...60 Hz 0.1...0.4 A IP20 Connection main circuit: Spring-type terminal Connection auxiliary circuit: Spring-type terminal

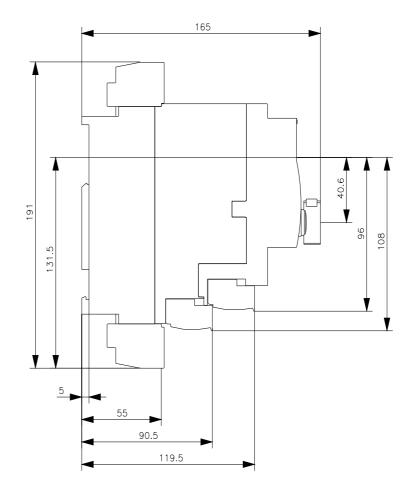
and ust brand name				
product brand name	SIRIUS			
product designation	compact starter			
design of the product	direct starter 3RA61			
product type designation General technical data	JKAO I			
	V			
product function control circuit interface to parallel wiring	Yes			
product extension auxiliary switch	Yes			
power loss [W] for rated value of the current	0.04.144			
at AC in hot operating state	0.01 W			
at AC in hot operating state per pole	0.01 W			
without load current share typical	6 W			
insulation voltage rated value	690 V			
degree of pollution	3			
surge voltage resistance rated value	6 000 V			
maximum permissible voltage for protective separation				
<ul> <li>between main and auxiliary circuit</li> </ul>	400 V			
<ul> <li>between auxiliary and auxiliary circuit</li> </ul>	250 V			
between control and auxiliary circuit	300 V			
degree of protection NEMA rating	other			
shock resistance	a=60 m/s2 (6g) with 10 ms per 3 shocks in all axes			
vibration resistance	f= 4 5.8 Hz, d= 15 mm; f= 5.8 500 Hz, a= 20 m/s²; 10 cycles			
mechanical service life (operating cycles)				
<ul> <li>of the main contacts typical</li> </ul>	10 000 000			
<ul> <li>of auxiliary contacts typical</li> </ul>	10 000 000			
<ul> <li>of the signaling contacts typical</li> </ul>	10 000 000			
electrical endurance (operating cycles) of auxiliary contacts				
<ul> <li>at DC-13 at 6 A at 24 V typical</li> </ul>	30 000			
• at AC-15 at 6 A at 230 V typical	200 000			
type of assignment	continous operation according to IEC 60947-6-2			
reference code according to IEC 81346-2	Q			
Substance Prohibitance (Date)	05/01/2012			
SVHC substance name	Blei - 7439-92-1 Bleimonoxid (Bleioxid) - 1317-36-8 Bleititanzirkonoxid - 12626-81-2 2,2',6,6'-Tetrabrom-4,4'-isopropylidendi - 79-94-7			
Ambient conditions				
installation altitude at height above sea level maximum	2 000 m			
ambient temperature				
<ul> <li>during operation</li> </ul>	-20 +60 °C			
<ul> <li>during storage</li> </ul>	-55 +80 °C			

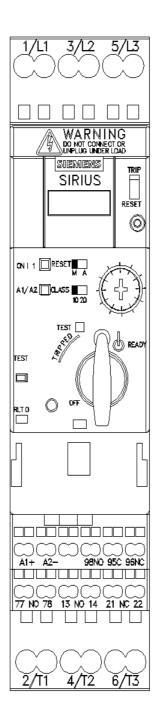
relative humidity during operation	10 90 %
Main circuit	
number of poles for main current circuit	3
adjustable current response value current of the current- dependent overload release	0.1 0.4 A
formula for making capacity limit current	120 x le
formula for limit current breaking capacity	100 x le
yielded mechanical performance for 4-pole AC motor	
• at 400 V rated value	0.09 kW
• at 500 V rated value	0.12 kW
• at 690 V rated value	0.18 kW
operating voltage at AC-3 rated value maximum	690 V
operational current	
<ul> <li>at AC at 400 V rated value</li> </ul>	0.4 A
• at AC-3 at 400 V rated value	0.4 A
• at AC-43	
— at 400 V rated value	0.3 A
— at 500 V rated value	0.32 A
— at 690 V rated value	0.35 A
operating power	
• at AC-3 at 400 V rated value	0.09 kW
• at AC-43	
— at 400 V rated value	90 W
— at 500 V rated value	120 W
— at 690 V rated value	180 W
no-load switching frequency	3 600 1/h
operating frequency	
<ul> <li>at AC-41 according to IEC 60947-6-2 maximum</li> </ul>	750 1/h
<ul> <li>at AC-43 according to IEC 60947-6-2 maximum</li> </ul>	250 1/h
Control circuit/ Control	
type of voltage	AC/DC
control supply voltage 1 at AC	
• at 50 Hz rated value	240 V
● at 50 Hz	110 240 V
● at 60 Hz	110 240 V
control supply voltage frequency	
• 1 rated value	50 Hz
• 2 rated value	60 Hz
control supply voltage 1	
at DC rated value	240 V
• at DC	110 240 V
holding power	
at AC maximum	6 W
• at DC maximum	5.1 W
Auxiliary circuit	
number of NC contacts for auxiliary contacts	1
number of NO contacts for auxiliary contacts	1
number of NO contacts of instantaneous short-circuit trip unit for signaling contact	1
number of CO contacts of the current-dependent overload release for signaling contact	1
operational current of auxiliary contacts at AC-12 maximum	10 A
operational current of auxiliary contacts at DC-13 at 250 V	0.27 A
Protective and monitoring functions	
trip class	CLASS 10 and 20 adjustable
operating short-circuit current breaking capacity (Ics)	
• at 400 V	53 kA
• at 500 V rated value	3 kA
• at 690 V rated value	3 kA
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	

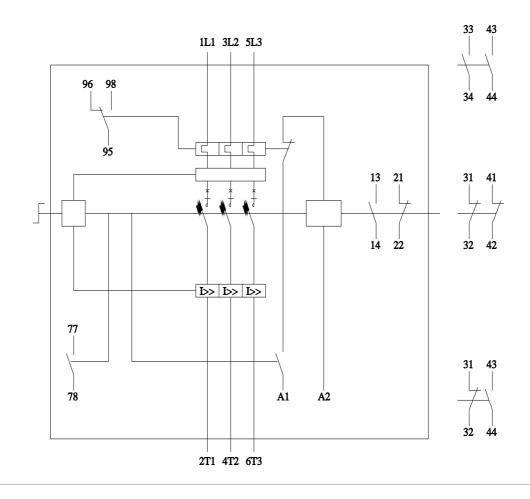
• at 480 V rated value	0.4 A		
at 600 V rated value	0.4 A		
contact rating of auxiliary contacts according to UL	contacts 21-22, 13-14, 43-44 Q600 / A600, contacts 77-78 R300 / B300, contacts 95-96-98 R300 / D300		
Short-circuit protection			
product function short circuit protection	Yes		
design of short-circuit protection	electromagnetic		
design of the fuse link			
<ul> <li>for short-circuit protection of the auxiliary switch required</li> </ul>	fuse gL/gG: 10 A		
<ul> <li>for short-circuit protection of the signaling switch of the</li> </ul>	6A gL/gG/400V		
<ul><li>short-circuit release required</li><li>for short-circuit protection of the signaling switch of the</li></ul>	4A gL/gG/400V		
overload release required			
Installation/ mounting/ dimensions			
mounting position	any		
recommended	vertical, on horizontal standard DIN rail		
fastening method	screw and snap-on mounting		
height	191 mm		
width	45 mm		
depth	165 mm		
Connections/ Terminals			
product component removable terminal for main circuit	Yes		
product component removable terminal for auxiliary and control circuit	Yes		
type of electrical connection			
for main current circuit	spring-loaded terminals		
for auxiliary and control circuit	spring-loaded terminals		
type of connectable conductor cross-sections for main contacts			
solid	2x (1.5 6 mm²), 1x 10 mm²		
<ul> <li>finely stranded with core end processing</li> </ul>	2x (1.5 6 mm <sup>2</sup> )		
<ul> <li>finely stranded with our ore end processing</li> </ul>	2x (1.5 6 mm <sup>2</sup> )		
type of connectable conductor cross-sections			
for auxiliary contacts			
— solid	2x (0.25 1.5 mm²)		
<ul> <li>— finely stranded with core end processing</li> </ul>	2x (0.25 1.5 mm <sup>2</sup> )		
— finely stranded without core end processing	2x (0.25 1.5 mm <sup>2</sup> )		
for AWG cables for auxiliary contacts	2x (24 16)		
Safety related data			
B10 value with high demand rate according to SN 31920	3 000 000		
proportion of dangerous failures			
with low demand rate according to SN 31920	40 %		
<ul> <li>with high demand rate according to SN 31920</li> </ul>	50 %		
failure rate [FIT] with low demand rate according to SN 31920	100 FIT		
T1 value for proof test interval or service life according to IEC	20 a		
protection class IP on the front according to IEC 60529	IP20		
touch protection on the front according to IEC 60529	finger-safe		
Communication/ Protocol			
product function bus communication	No		
protocol is supported			
AS-Interface protocol	No		
IO-Link protocol	No		
product function control circuit interface with IO link	No		
Electromagnetic compatibility			
conducted interference			
• due to burst according to IEC 61000-4-4	4 kV main contacts, 2 kV auxiliary contacts		
• due to conductor-earth surge according to IEC 61000-4-5	4 kV main contacts, 2 kV auxiliary contacts		
• due to conductor-conductor surge according to IEC	2 kV main contacts, 1 kV auxiliary contacts		
61000-4-5 ● due to high-frequency radiation according to IEC 61000- 4-6	0.15-80Mhz at 10V		
field-based interference according to IEC 61000-4-3	10 V/m		
÷			

Supply voltage required Auxiliary voltage     No       Display     0       number of LEDs     2       Certificates/ approvals     Functional							
CISPR11       20 1000 MHz Class A         Supply Voltage required Auxiliary voltage       No         Supply Voltage required Auxiliary voltage       No         Supply Voltage required Auxiliary voltage       2         Centeral Product Approval       2         Contraction       Confirmation         Confirmation       Test Confirmation         Marine / Shipping       Confirmation         Type: Test Confirmation       Type: Test Confirmation         Signed       Confirmation         Type: Test Confirmation       True: Test Confirmation         Signed       Confirmation         Confirmation       Confirmation         Confirmation       Confirmation         Signed       Confirmation         Confirmation       True: Test Confirmation         Signed       Confirmation         Confirmation       Confirmation         Confirmation       Confirma	electrostatic discharge according to IEC 61000-4-2			8 kV			
Supply voltage       No         Supply voltage required Auxiliary voltage       No         Deplays       Tumber of LEDs       2         Ceneral Product Approval       EMC       Functional Safety/Safety of Ma Safety/Safety of Ma Safety/Safety of Ma Confirmation       EMC       Functional Safety/Safety of Ma Safety/Safety of Ma Safety/Safety of Ma Safety/Safety of Ma Confirmation         Declaration of Conformity       Test Certificates       Marine / Shipping         USES       Exc.       Type Test Certificates       Marine / Shipping         USES       Exc.       Type Test Certificates       Safety/Safety of Ma Safety/Safety of			150 kHz 30 MHz Class	S A			
Supply voltage required Auxiliary voltage       No         Under of LDS       2         Confimation       Confimation         Confimation       Test Contificates         Marine / Shipping       Confimation         Confimation       Transport Information         Confimation       Confimation         Confimation       Transport Information         Confimation       Transport Information         Confimation       Transport Information         Confimation       Transport Information         Stemars is working on the reveaued of the current EAC confilmates.         Please contact your local Stemars Confidention (Confirmates.)         Information on the packeging         Information       Transport Information         The contact mate (other than sanchone EAC confirmates.         Please contact your local Stemars Confirmates of	field-bound HF interference emission according to CISPR11		30 1000 MHz Class A				
Display       2         General Product Approval       EMC         Exciting approvals       EMC         Continuation       EMC         Excit Product Approval       Emc         Excit Product Product Product Approval       Emc         Excit Product Pr	Supply voltage						
number of LEDs       2         Sertificates/ approvals       EMC       Functional Satety/Safety of Ma chinery         Confirmation       Image: Confirmation       Image: Confirmation       Image: Confirmation         Confirmation       Image: Confirmation       Image: Confirmation       Image: Confirmation         Declaration of Conformity       Test Certificates       Marine / Shipping       Image: Confirmation         Image: Confirmation       Image: Confirmation       Image: Confirmation       Image: Confirmation       Image: Confirmation         Marine / Shipping       Image: Confirmation       Image: Confirmation       Image: Confirmation       Image: Confirmation         Marine / Shipping       Image: Confirmation       Image: Confirmation       Image: Confirmation       Image: Confirmation         Marine / Shipping       Image: Confirmation       Image: Confirmation       Image: Confirmation       Image: Confirmation         Verther Information       Image: Confirmation       Image: Confirmation       Image: Confirmation       Image: Confirmation         Stemmes Law Colded to confit the Russian market (coe bron). https://www.stemes.com/colden/russers/enables/ena	Supply voltage required A	uxiliary voltage		No			
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General Product Approval       EMC       Functional Safety/Safety of Matching         Confirmation       Image: Confirmation       Image: Confirmation       Image: Confirmation         Declaration of Conformity       Test Certificates       Marine / Shipping       Image: Confirmation         Declaration of Conformity       Test Certificates       Marine / Shipping       Image: Confirmation         Marine / Shipping       Image: Confirmation       Image: Confirmation       Image: Confirmation         Image: Confirmation       Image: Confirmation       Image: Confirmation       Image: Confirmation         Image: Confirmation       Image: Confirmation       Image: Confirmation       Image: Confirmation         Status Confirmation       Image: Confirmation       Image: Confirmation       Image: Confirmation	number of LEDs			2			
General Product Approval       EMC       Startery/Startery of Machinery         Confirmation $\ensuremath{\$	Certificates/ approvals						
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Eventimization       Confirmation         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 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 ar 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://support.industry.siemens.com/c10         Industry Mall (Online ordering system)         https://support.automation.siemens.com/WV/CAXorder/default.aspx?lang=en&mlfb=3RA6120-2AP32         Cax online generator         http://support.industry.siemens.com/cs/ww/en/ps/3RA6120-2AP32         Service&Support (Manuals, Certificates, Characteristics, FAQs,)         http://support.industry.siemens.com/cs/we/en/ps/3RA6120-2AP32         Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros,)         http://www.automation.siemens.com/bid/db/cax_de.aspx?mlfb=3RA6120-2AP32⟨=en         Characteristic: Tripping characteristics, F	UK CA	CE EG-Konf.		ort 💓		Llovds Kegister us	
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	Further characteristics (e.	g. electrical endura	nce, switching fre	quency)	objecttype=14&aridview=	=view1	









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