



phase-out type compact starter reversing starter for IO-Link 690 V 24 V DC
0.1...0.4 A IP20 connection main circuit: plug-in, without terminals connection
control circuit: spring-loaded terminal alternative 3RK1308 or 3RA8 requirement
controller such as ET 200SP in use

product brand name	SIRIUS
product designation	Compact starter for IO-Link
design of the product	reversing starter
product type designation	3RA65
General technical data	
product function control circuit interface to parallel wiring	No
product extension auxiliary switch	Yes
power loss [W] for rated value of the current	
• 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	2.9 W
insulation voltage rated value	690 V
degree of pollution	3
surge voltage resistance rated value	6 000 V
degree of protection NEMA rating	other
shock resistance	a=60 m/s ² (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/s ² ; 10 cycles
mechanical service life (operating cycles)	
• of the main contacts typical	10 000 000
• of auxiliary contacts typical	10 000 000
• of the signaling contacts typical	10 000 000
electrical endurance (operating cycles) of auxiliary contacts	
• at DC-13 at 6 A at 24 V typical	30 000
• at AC-15 at 6 A at 230 V typical	200 000
type of coordination	continuous operation according to IEC 60947-6-2
reference code according to IEC 81346-2	Q
Substance Prohibitance (Date)	05/01/2012
SVHC substance name	Lead - 7439-92-1 Lead monoxide (lead oxide) - 1317-36-8 2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol - 79-94-7 6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol - 119-47-1 Lead titanium zirconium oxide - 12626-81-2
Weight	2.446 kg
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
ambient temperature	
• during operation	-20 ... +60 °C
• during storage	-55 ... +80 °C
• during transport	-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	$120 \times I_e$
formula for limit current breaking capacity	$100 \times I_e$
yielded mechanical performance for 4-pole AC motor - at 400 V rated value - at 500 V rated value - at 690 V rated value	0.09 kW 0.12 kW 0.18 kW
operating voltage at AC-3 rated value maximum	690 V
operational current - at AC at 400 V rated value - at AC-3 at 400 V rated value - at AC-43 - at 400 V rated value - at 500 V rated value - at 690 V rated value	0.4 A 0.4 A 0.3 A 0.32 A 0.35 A
operating power - at AC-3 at 400 V rated value - at AC-43 - at 400 V rated value - at 500 V rated value - at 690 V rated value	0.09 kW 90 W 120 W 180 W
no-load switching frequency	3 600 1/h
operating frequency - at AC-41 according to IEC 60947-6-2 maximum - at AC-43 according to IEC 60947-6-2 maximum	750 1/h 250 1/h
Control circuit/ Control	
type of voltage	DC
control supply voltage 1 at DC rated value	24 V
control supply voltage 1 at DC	24 ... 24 V
holding power at DC maximum	2.9 W
Auxiliary circuit	
number of NC contacts for auxiliary contacts	0
number of NO contacts for auxiliary contacts	0
number of NO contacts of instantaneous short-circuit trip unit for signaling contact	0
number of CO contacts of the current-dependent overload release for signaling contact	0
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 rated value - at 500 V rated value - at 690 V rated value	53 kA 3 kA 3 kA
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor - at 480 V rated value - at 600 V rated value	0.4 A 0.4 A
Short-circuit protection	
product function short circuit protection	Yes
design of short-circuit protection	electromagnetic
design of the fuse link for short-circuit protection of the auxiliary switch required	fuse gL/gG: 10 A
Installation/ mounting/ dimensions	
mounting position	any
mounting position recommended	vertical, on horizontal standard DIN rail
fastening method	screw and snap-on mounting

height	191 mm
width	90 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 - for auxiliary and control circuit	plug-in without terminals spring-loaded terminals
type of connectable conductor cross-sections for main contacts - solid - finely stranded with core end processing - finely stranded without core end processing	2x (1.5 ... 6 mm ²), 1x 10 mm ² 2x (1.5 ... 6 mm ²) 2x (1.5 ... 6 mm ²)
type of connectable conductor cross-sections - for auxiliary contacts - solid - finely stranded with core end processing - finely stranded without core end processing - for AWG cables for auxiliary contacts	2x (0.25 ... 1.5 mm ²) 2x (0.25 ... 1.5 mm ²) 2x (0.25 ... 1.5 mm ²) 2x (24 ... 16)
Safety related data	
proportion of dangerous failures with high demand rate according to SN 31920	50 %
B10 value with high demand rate according to SN 31920	1 500 000
Electrical Safety	
protection class IP on the front according to IEC 60529	IP20
touch protection on the front according to IEC 60529	finger-safe
Communication/ Protocol	
product function bus communication	Yes
protocol is supported - AS-Interface protocol - IO-Link protocol	No Yes
product function control circuit interface with IO link	Yes
IO-Link transfer rate	COM2 (38,4 kBaud)
point-to-point cycle time between master and IO-Link device minimum	2.5 ms
type of voltage supply via input/output link master	No
data volume - of the address range of the inputs with cyclical transfer total - of the address range of the outputs with cyclical transfer total	2 byte 2 byte
Electromagnetic compatibility	
conducted interference - due to burst according to IEC 61000-4-4 - due to conductor-earth surge according to IEC 61000-4-5 - due to conductor-conductor surge according to IEC 61000-4-5 - due to high-frequency radiation according to IEC 61000-4-6	4 kV main circuits, 2 kV auxiliary circuits, 2 kV IO-Link, 2 kV limit switches, 2 kV line hand-held device 4 kV main circuits, 0.5 kV auxiliary voltage with upstream overvoltage protection 2 kV main circuits, 0.5 kV auxiliary voltage with upstream overvoltage protection 0.15-80Mhz at 10V
field-based interference according to IEC 61000-4-3	80 ... 3000 MHz at 10V/m
electrostatic discharge according to IEC 61000-4-2	8 kV
conducted HF interference emissions according to CISPR11	150 kHz ... 30 MHz Class A
field-bound HF interference emission according to CISPR11	30 ... 1000 MHz Class A
Supply voltage	
Supply voltage required Auxiliary voltage	Yes
Display	
number of LEDs	5
display version as status display of the input/output link device	green/red dual LED
Approvals Certificates	



Functional Safety

Test Certificates

other

Dangerous goods

Environment


[Type Test Certificates/Test Report](#)

[Confirmation](#)
[Transport Information](#)
[Environmental Confirmations](#)

Further information

Information on the packaging

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

Information for data generation and storage

<https://support.industry.siemens.com/cs/ww/en/view/109995012>

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=3RA6500-2AB43>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA6500-2AB43>

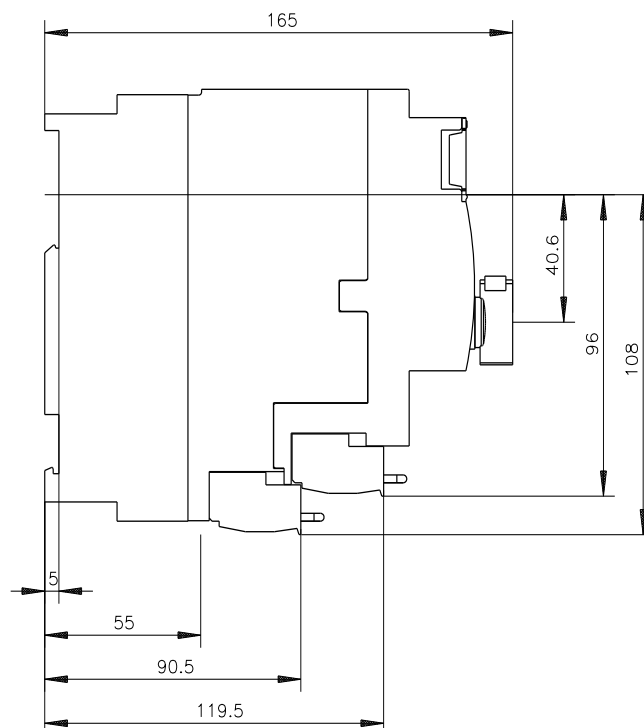
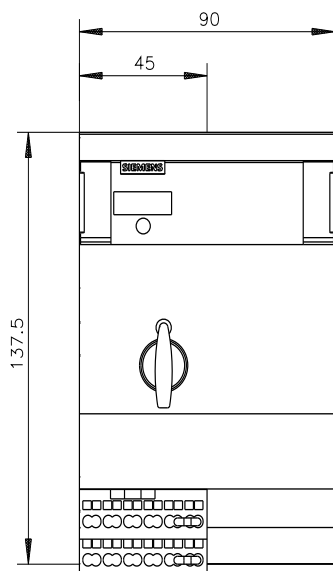
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

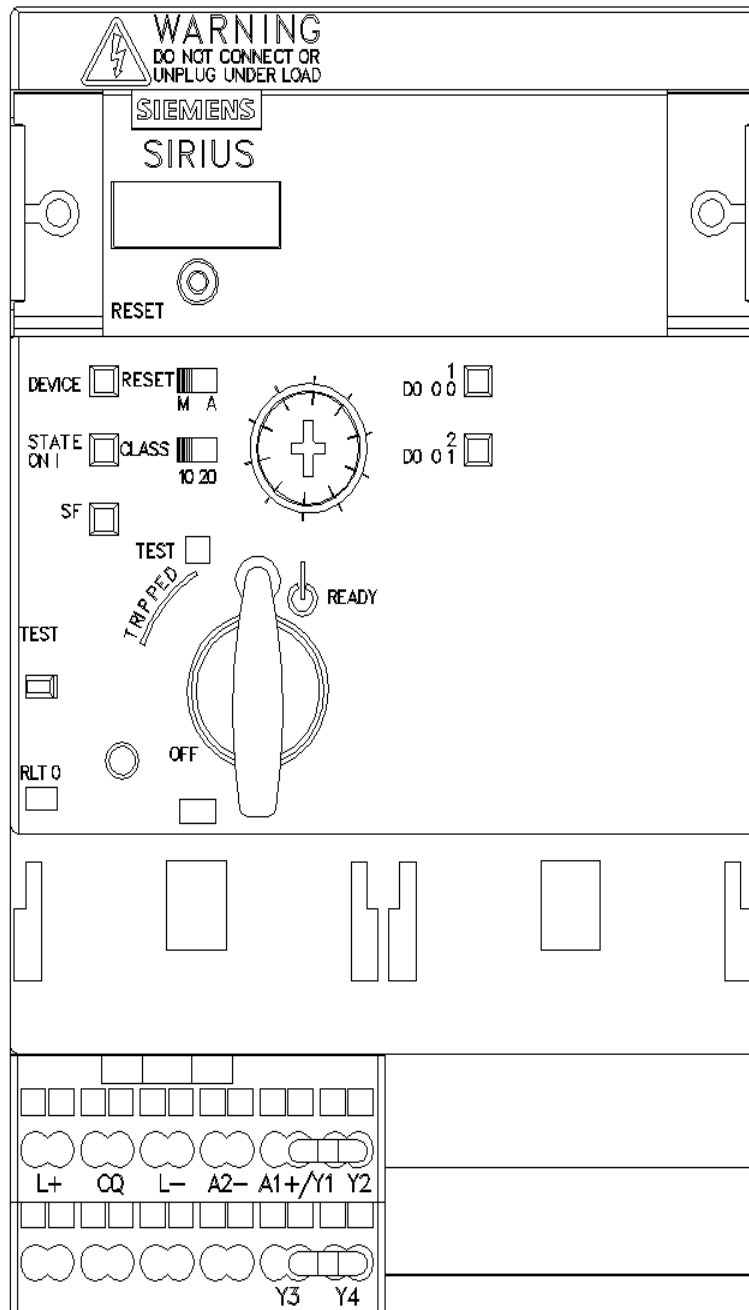
<https://support.industry.siemens.com/cs/ww/en/ps/3RA6500-2AB43>

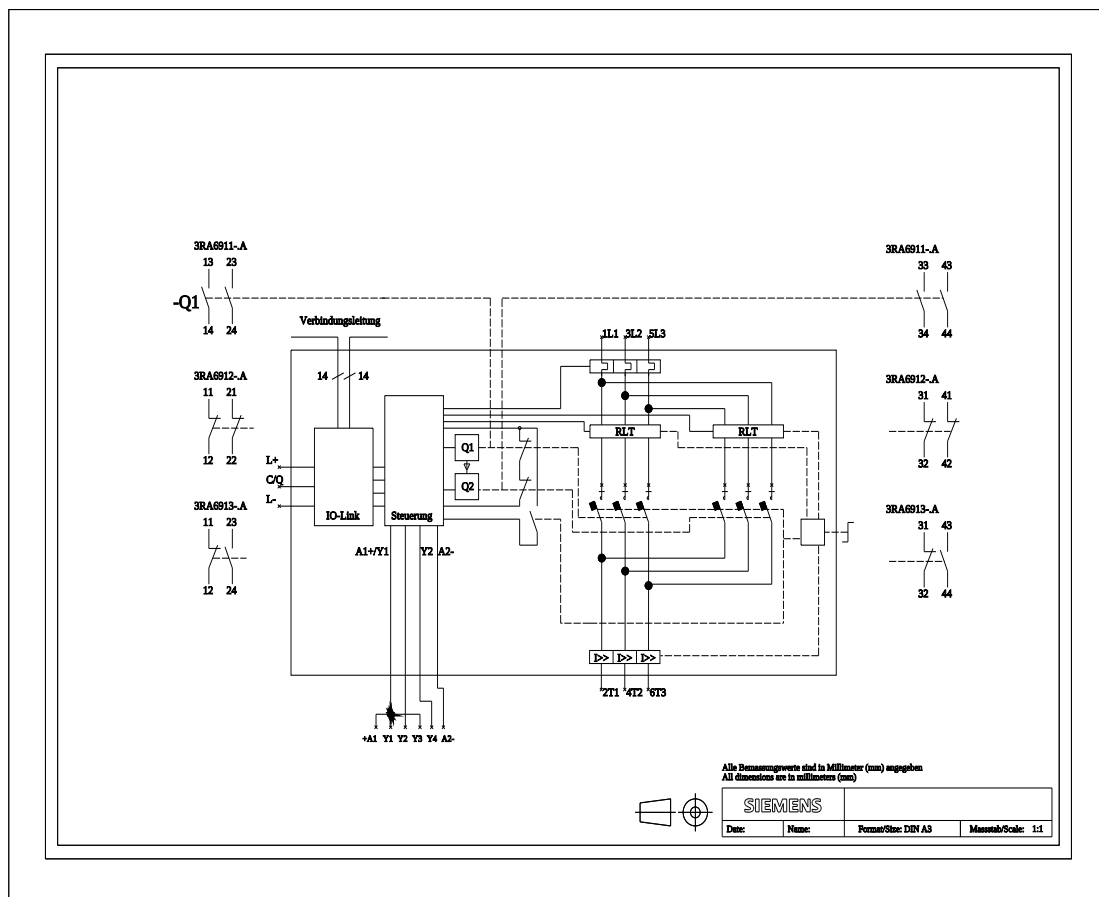
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA6500-2AB43&lang=en
Characteristic: Tripping characteristics, I_t, Let-through current
<https://support.industry.siemens.com/cs/ww/en/ps/3RA6500-2AB43/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA6500-2AB43&objecttype=14&gridview=view1>






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4/2/2025