

\*\*\*phase-out type\*\*\* compact starter direct-on-line starter for IO-Link 690 V 24 V DC 8...32 A IP20 connection main circuit: spring-loaded terminal connection control circuit: spring-loaded terminal alternative 3RK1308 or 3RA8 requirement controller such as ET 200SP in use

<b>product brand name</b>	SIRIUS
<b>product designation</b>	Compact starter for IO-Link
<b>design of the product</b>	direct starter
<b>product type designation</b>	3RA64
<b>General technical data</b>	
product function control circuit interface to parallel wiring	No
product extension auxiliary switch	Yes
<b>power loss [W] for rated value of the current</b>	
• at AC in hot operating state	5.4 W
• at AC in hot operating state per pole	1.8 W
• without load current share typical	3.4 W
<b>insulation voltage rated value</b>	690 V
<b>degree of pollution</b>	3
<b>surge voltage resistance rated value</b>	6 000 V
<b>degree of protection NEMA rating</b>	other
<b>shock resistance</b>	a=60 m/s <sup>2</sup> (6g) with 10 ms per 3 shocks in all axes
<b>vibration resistance</b>	f = 4 ... 5.8 Hz, d = 15 mm; f = 5.8 ... 500 Hz, a = 20 m/s <sup>2</sup> ; 10 cycles
<b>mechanical service life (operating cycles)</b>	
• of the main contacts typical	10 000 000
• of auxiliary contacts typical	10 000 000
• of the signaling contacts typical	10 000 000
<b>electrical endurance (operating cycles) of auxiliary contacts</b>	
• at DC-13 at 6 A at 24 V typical	30 000
• at AC-15 at 6 A at 230 V typical	200 000
<b>type of coordination</b>	continuous operation according to IEC 60947-6-2
<b>reference code according to IEC 81346-2</b>	Q
<b>Substance Prohibitance (day/month/year)</b>	05/01/2012
<b>SVHC substance name</b>	Lead CAS-No. 7439-92-1 Lead monoxide (lead oxide) CAS-No. 1317-36-8 2-(2H-benzotriazol-2-yl)-4-(1,1,3,3-tetramethylbutyl)phenol (UV-329) CAS-No. 3147-75-9 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one CAS-No. 71868-10-5 Melamine CAS-No. 108-78-1 6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol CAS-No. 119-47-1
<b>Net Weight</b>	1.524 kg
<b>Ambient conditions</b>	
installation altitude at height above sea level maximum	2 000 m
<b>ambient temperature</b>	
• during operation	-20 ... +60 °C
• during storage	-55 ... +80 °C
• during transport	-55 ... +80 °C
relative humidity during operation	10 ... 90 %
<b>Main circuit</b>	
<b>number of poles for main current circuit</b>	3
<b>adjustable current response value current of the current-dependent overload release</b>	8 ... 32 A
<b>formula for making capacity limit current</b>	12 x I <sub>e</sub>
<b>formula for limit current breaking capacity</b>	10 x I <sub>e</sub>
<b>yielded mechanical performance for 4-pole AC motor</b>	

<ul style="list-style-type: none"> <li>• at 400 V rated value</li> </ul>	15 kW
<ul style="list-style-type: none"> <li>• at 500 V rated value</li> </ul>	11 kW
<ul style="list-style-type: none"> <li>• at 690 V rated value</li> </ul>	11 kW
operating voltage at AC-3 rated value maximum	400 V
<b>operational current</b>	
<ul style="list-style-type: none"> <li>• at AC at 400 V rated value</li> </ul>	32 A
<ul style="list-style-type: none"> <li>• at AC-3 at 400 V rated value</li> </ul>	32 A
<ul style="list-style-type: none"> <li>• at AC-43 <ul style="list-style-type: none"> <li>— at 400 V rated value</li> <li>— at 500 V rated value</li> <li>— at 690 V rated value</li> </ul> </li> </ul>	29 A 17.6 A 12.8 A
<b>operating power</b>	
<ul style="list-style-type: none"> <li>• at AC-3 at 400 V rated value</li> </ul>	15 kW
<ul style="list-style-type: none"> <li>• at AC-43 <ul style="list-style-type: none"> <li>— at 400 V rated value</li> <li>— at 500 V rated value</li> <li>— at 690 V rated value</li> </ul> </li> </ul>	15 000 W 11 000 W 11 000 W
<b>no-load switching frequency</b>	3 600 1/h
<b>operating frequency</b>	
<ul style="list-style-type: none"> <li>• at AC-41 according to IEC 60947-6-2 maximum</li> </ul>	750 1/h
<ul style="list-style-type: none"> <li>• at AC-43 according to IEC 60947-6-2 maximum</li> </ul>	250 1/h
<b>Control circuit/ Control</b>	
<b>type of voltage</b>	DC
<b>control supply voltage 1 at DC rated value</b>	24 V
<b>control supply voltage 1 at DC</b>	24 V
<b>holding power</b>	
<ul style="list-style-type: none"> <li>• at DC maximum</li> </ul>	3.4 W
<b>Auxiliary circuit</b>	
<b>number of NC contacts for auxiliary contacts</b>	0
<b>number of NO contacts for auxiliary contacts</b>	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
<b>operational current of auxiliary contacts at AC-12 maximum</b>	10 A
operational current of auxiliary contacts at DC-13 at 250 V	0.27 A
<b>Protective and monitoring functions</b>	
<b>trip class</b>	CLASS 10 and 20 adjustable
<b>operating short-circuit current breaking capacity (Ics)</b>	
<ul style="list-style-type: none"> <li>• at 400 V rated value</li> </ul>	53 kA
<ul style="list-style-type: none"> <li>• at 500 V rated value</li> </ul>	1 kA
<ul style="list-style-type: none"> <li>• at 690 V rated value</li> </ul>	1 kA
<b>UL/CSA ratings</b>	
<b>full-load current (FLA) for 3-phase AC motor</b>	
<ul style="list-style-type: none"> <li>• at 480 V rated value</li> </ul>	32 A
yielded mechanical performance [hp] for 3-phase AC motor	
<ul style="list-style-type: none"> <li>• at 200/208 V rated value</li> </ul>	7.5 hp
<ul style="list-style-type: none"> <li>• at 220/230 V rated value</li> </ul>	10 hp
<ul style="list-style-type: none"> <li>• at 460/480 V rated value</li> </ul>	20 hp
<b>Short-circuit protection</b>	
<b>product function short circuit protection</b>	Yes
<b>design of short-circuit protection</b>	electromagnetic
<b>design of the fuse link</b>	
<ul style="list-style-type: none"> <li>• for short-circuit protection of the auxiliary switch required</li> </ul>	fuse gL/gG: 10 A
<b>Installation/ mounting/ dimensions</b>	
<b>mounting position</b>	any
<b>mounting position recommended</b>	vertical, on horizontal standard DIN rail
<b>fastening method</b>	screw and snap-on mounting
<b>height</b>	191 mm

<b>width</b>	45 mm
<b>depth</b>	165 mm
<b>Connections/ Terminals</b>	
<b>product component removable terminal for main circuit</b>	Yes
<b>product component removable terminal for auxiliary and control circuit</b>	Yes
<b>type of electrical connection</b>	
<ul style="list-style-type: none"> <li>• for main current circuit</li> <li>• for auxiliary and control circuit</li> </ul>	spring-loaded terminals spring-loaded terminals
<b>type of connectable conductor cross-sections for main contacts</b>	
<ul style="list-style-type: none"> <li>• solid</li> <li>• finely stranded with core end processing</li> <li>• finely stranded without core end processing</li> </ul>	2x (2.5 ... 6 mm <sup>2</sup> ), 1x 10 mm <sup>2</sup> 2x (2.5 ... 6 mm <sup>2</sup> ) 2x (2.5 ... 6 mm <sup>2</sup> )
<b>type of connectable conductor cross-sections</b>	
<ul style="list-style-type: none"> <li>• for auxiliary contacts               <ul style="list-style-type: none"> <li>— solid</li> <li>— finely stranded with core end processing</li> <li>— finely stranded without core end processing</li> </ul> </li> <li>• for AWG cables for auxiliary contacts</li> </ul>	2x (0.25 ... 1.5 mm <sup>2</sup> ) 2x (0.25 ... 1.5 mm <sup>2</sup> ) 2x (0.25 ... 1.5 mm <sup>2</sup> ) 2x (24 ... 16)
<b>Safety related data</b>	
<b>proportion of dangerous failures</b>	
<ul style="list-style-type: none"> <li>• with high demand rate according to SN 31920</li> </ul>	50 %
<b>B10 value with high demand rate according to SN 31920</b>	2 000 000
<b>Electrical Safety</b>	
<b>protection class IP on the front according to IEC 60529</b>	IP20
<b>touch protection on the front according to IEC 60529</b>	finger-safe
<b>Communication/ Protocol</b>	
<b>product function bus communication</b>	Yes
<b>protocol is supported</b>	
<ul style="list-style-type: none"> <li>• AS-Interface protocol</li> <li>• IO-Link protocol</li> </ul>	No Yes
<b>product function control circuit interface with IO link</b>	Yes
<b>IO-Link transfer rate</b>	COM2 (38,4 kBaud)
<b>point-to-point cycle time between master and IO-Link device minimum</b>	2.5 ms
<b>type of voltage supply via input/output link master</b>	No
<b>data volume</b>	
<ul style="list-style-type: none"> <li>• of the address range of the inputs with cyclical transfer total</li> <li>• of the address range of the outputs with cyclical transfer total</li> </ul>	2 byte 2 byte
<b>Electromagnetic compatibility</b>	
<b>conducted interference</b>	
<ul style="list-style-type: none"> <li>• due to burst according to IEC 61000-4-4</li> <li>• due to conductor-earth surge according to IEC 61000-4-5</li> <li>• due to conductor-conductor surge according to IEC 61000-4-5</li> <li>• due to high-frequency radiation according to IEC 61000-4-6</li> </ul>	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
<b>field-based interference according to IEC 61000-4-3</b>	80 ... 3000 MHz at 10V/m
<b>electrostatic discharge according to IEC 61000-4-2</b>	8 kV
<b>conducted HF interference emissions according to CISPR11</b>	150 kHz ... 30 MHz Class A
<b>field-bound HF interference emission according to CISPR11</b>	30 ... 1000 MHz Class A
<b>Supply voltage</b>	
<b>Supply voltage required Auxiliary voltage</b>	Yes
<b>Display</b>	
<b>number of LEDs</b>	3
<b>display version as status display of the input/output link device</b>	green/red dual LED

## Approvals Certificates

Environment	General Product Approval
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[Environmental Confirmations](#)



EMV	Functional Safety	Test Certificates	other
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[Type Examination Certificate](#)

[Type Test Certificates/Test Report](#)

[Confirmation](#)

[Confirmation](#)



## Dangerous goods

[Transport Information](#)

## 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=3RA6400-2EB42>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RA6400-2EB42>

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

[https://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RA6400-2EB42&lang=en](https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA6400-2EB42&lang=en)

Cax online generator

<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA6400-2EB42>

Characteristic curves

[https://curves.simaris.siemens.com/curves/<mmp\\_prod\\_noCOMP="HAUPT"></mmp\\_prod\\_no>](https://curves.simaris.siemens.com/curves/<mmp_prod_noCOMP=)

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