



CIRCUIT-BREAKER SIZE S2. FOR MOTOR PROTECTION,  
CLASS 10, A-REL. 40...50A, N-REL. 650A,  
SCREW TERMINAL,  
STANDARD SWITCHING CAPACITY

**General technical data:**

<b>product brand name</b>		SIRIUS
<b>product designation</b>		circuit breaker
<b>Size of the circuit-breaker</b>		S2
<b>Number of poles / for main current circuit</b>		3
<b>Product function</b>		
• removable terminal for auxiliary and control circuit		No
• overload protection		Yes
• phase disturbance recognition		Yes
• short-circuit to earth recognition		No
<b>Product component</b>		
• auxiliary switch		No
• undervoltage release mechanism		No
• trip indicator		No
<b>Product extension</b>		
• auxiliary switch		Yes
• optional / motor drive		Yes
<b>Impulse voltage resistance / rated value</b>	V	6,000
<b>Protection class IP / on the front</b>		IP20
<b>Protection against electrical shock</b>		finger-safe

<b>Installation altitude / at a height over sea level / maximum</b>	m	2,000
<b>Resistance against shock</b>		25g / 11 ms
<b>Ambient temperature</b>		
• during transport	°C	-50 ... +80
• during storage	°C	-50 ... +80
• during operating	°C	-20 ... +70
<b>Active power loss / total / typical</b>	W	20

#### Main circuit:

<b>Operating voltage / rated value</b>	V	690
<b>type of voltage</b>		AC/DC
<b>Service power / at AC-3 / at 400 V / rated value</b>	kW	22
<b>Operational current / at AC-3 / at 400 V / rated value</b>	A	50
<b>Mechanical operating cycles as operating time / of the main contacts / typical</b>		50,000
<b>Frequency of operation / at AC-3 / according to IEC 60947-6-2</b>	1/h	15

#### Auxiliary circuit:

<b>Number of change-over switches / for auxiliary contacts</b>		0
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#### Protection function:

<b>Trip class</b>		CLASS 10
<b>Adjustable response current / of the current-dependent overload release</b>	A	40 ... 50
<b>Breaking capacity limit short-circuit current (I<sub>cu</sub>)</b>		
• at 400 V / rated value	kA	50
• at 500 V / rated value	kA	10
• at 690 V / rated value	kA	4

#### Installation/mounting/dimensions:

<b>Type of mounting</b>		screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022
<b>mounting position</b>		any
<b>Depth</b>	mm	149
<b>Height</b>	mm	140
<b>Width</b>	mm	55

#### Connections:

<b>Arrangement of electrical connectors / for main current circuit</b>		front side
<b>Design of the electrical connection</b>		
• for main current circuit		screw-type terminals with box terminals
• for auxiliary and control current circuit		screw-type terminals
<b>Type of the connectable conductor cross-section</b>		

- for main contacts
  - solid
  - finely stranded
    - with conductor end processing
  - stranded
- for AWG conductors / for main contacts

2x (0.75 ... 16 mm<sup>2</sup>)

2x (0.75 ... 16 mm<sup>2</sup>), 0.75 ... 25 mm<sup>2</sup>

2x (0.75 ... 25 mm<sup>2</sup>), 0.75 ... 35 mm<sup>2</sup>

2x (18 ... 2), 1x (18 ... 2)

### Certificates/approvals:

#### General Product Approval

#### For use in hazardous locations

#### Declaration of Conformity



CSA



GOST



KETI



UL



ATEX



EG-Konf.

#### Test Certificates

[Special Test Certificate](#)

#### Shipping Approval



ABS



BUREAU VERITAS



DNV



GL



LRS



RMRS

#### other

[Confirmation](#)

[Declaration of Conformity](#)

[other](#)

[Environmental Confirmations](#)

### 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:

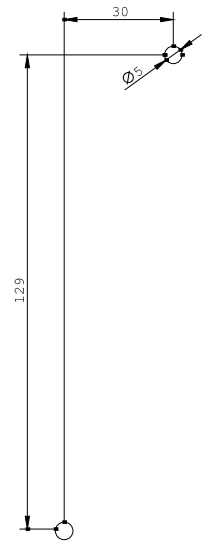
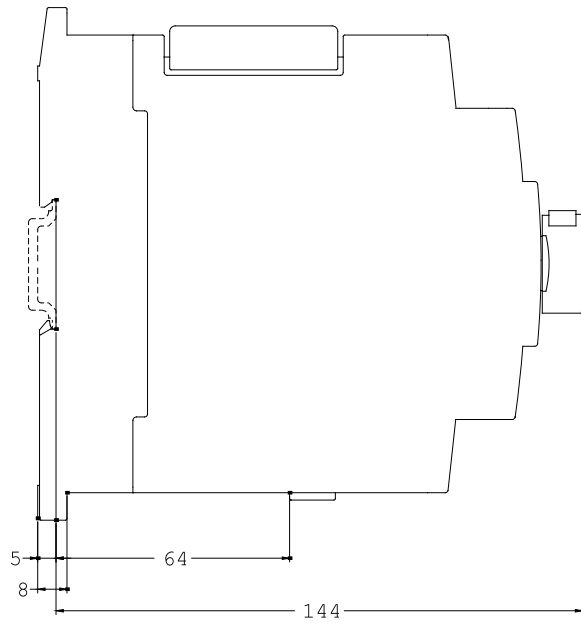
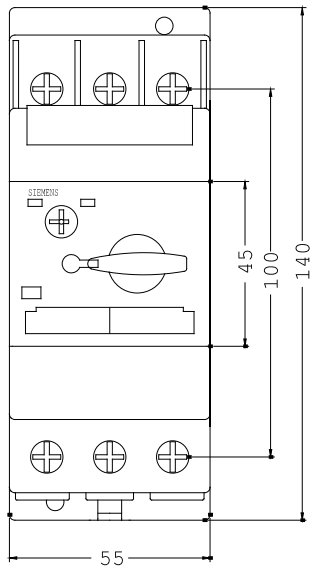
<http://www.siemens.com/cax>

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

<http://support.automation.siemens.com/WW/view/en/3RV1031-4HA10/all>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3RV1031-4HA10](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RV1031-4HA10)



last change:

Feb 26, 2013