



CIRCUIT BREAKER 3VA2 IEC FRAME 160 BREAKING CAPACITY CLASS M ICU=55KA @ 415 V 4POLE, LINE PROTECTION ETU350, LSI, IN=40A OVERLOAD PROTECTION IR=16A ...40A SHORT CIRCUIT PROTECTION ISD=1,5... 10 X IR, II=12 X IN NEUTRAL PROTECTION ADJUSTABLE(OFF,100%) CABLE CONNECTION

Model	
product brandname	SENTRON
Product designation	Molded case circuit breaker
Design of the product	Line protection
Type of load switch / according to UL 489 / Heating, Air Conditioning, and Refrigeration circuit breaker (HACR Type)	Yes
Design of the overcurrent release	ETU350
Protective function of the overcurrent release	LSI
Number of poles	4
General technical data	
Tension assignée d'isolement Ui	800 V
Max. rated operational voltage Ue with AC 50/60Hz	690 V
Active power loss / for rated value of the current / at AC / in hot operating state / per device	1.6 W
Active power loss / for rated value of the current / at AC / in hot operating state / per pole	0.53 W
Mechanical service life (switching cycles) / typical	20 000

Electrical endurance (switching cycles) / at AC-1 / at 380/415 V 50/60 Hz	12 000
Neutral conductors / upgradeable/retrofitable	No
Ground fault monitoring version	Without
Product function	
• communication function	No
• other measurement function	No
Net weight	3.13 kg

### Electricity

Marking / according to UL 489 / 100%-rated breaker	No
Max. rated operational voltage of the size of the circuit-breaker	160 A
Courant permanent assigné Iu	40 A
Operating current	
• at 40 °C	40 A
• at 45 °C	40 A
• at 50 °C	40 A
• at 55 °C	40 A
• at 60 °C	40 A
• at 65 °C	40 A
• at 70 °C	40 A

### Switching capacity according to IEC 60947

Switching capacity class of the circuit breaker	M
Maximum short-circuit current breaking capacity (Icu)	
• at 240 V	85 kA
• at 415 V	55 kA
• at 440 V	55 kA
• at 500 V	36 kA
• at 690 V	2.5 kA
Operational short-circuit current breaking capacity (Ics)	
• at 240 V	85 kA
• at 415 V	55 kA
• at 440 V	55 kA
• at 500 V	36 kA
• at 690 V	2.5 kA
Short-circuit current making capacity (Icm)	
• at 240 V	187 kA
• at 415 V	121 kA
• at 440 V	121 kA
• at 500 V	76 kA
• at 690 V	3.8 kA

Adjustable parameters	
Adjustable response value current / I <sub>g</sub> min.	16 A
Adjustable response value current / I <sub>g</sub> min.	40 A
Adjustable response value current / I <sub>g</sub> min.	0.5
Adjustable response value current / I <sub>g</sub> min.	17
Adjustable response value current / I <sub>g</sub> min.	60 A
Adjustable response value current / I <sub>g</sub> min.	400 A
Short-term delayed / tripping switchable / I <sub>2t</sub> =ON/OFF	No
Adjustable response value current / I <sub>g</sub> min.	0 s
Adjustable response value current / I <sub>g</sub> min.	0 s
Adjustable response value current / I <sub>g</sub> min.	0.02 s
Adjustable response value current / I <sub>g</sub> min.	0.4 s
Adjustable response value current / I <sub>i</sub> min.	480 A
Adjustable response value current / I <sub>i</sub> max.	480 A
Design of the N-conductor protection	adjustable OFF; 100%
Ground fault protection / tripping switchable / I <sub>2t</sub> =ON/OFF	No

Mechanical Design	
Height [in]	7.1 in
Height	181 mm
Width [in]	5.5 in
Width	140 mm
Depth [in]	4.2 in
Depth	107 mm

Connections	
Arrangement of electrical connectors / for main current circuit	Front terminal
Type of electrical connection / for main current circuit	Box terminal
Type of connectable conductor cross-section, round conductor terminal, stranded	1 x (6-120 mm <sup>2</sup> )

Auxiliary circuit	
Number of CO contacts / for auxiliary contacts	0

Accessories	
Product extension / optional / motor drive	Yes

Environmental conditions	
Protection class IP / on the front	IP40
Ambient temperature	
<ul style="list-style-type: none"> <li>• during operation / minimum</li> <li>• during operation / maximum</li> <li>• during storage / minimum</li> </ul>	<ul style="list-style-type: none"> <li>-25 °C</li> <li>70 °C</li> <li>-40 °C</li> </ul>

• during storage / maximum

80 °C

## Certificates

Equipment marking / acc. to DIN EN 81346-2	Q	
Certificate of suitability / as approval for NAVAL (no combat vessels) / Supplement SB	No	
<b>General Product Approval</b>	<b>EMC</b>	<b>Declaration of Conformity</b>



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## Test Certificates

[Typprüfbescheinigung/Werkszeugnis](#)

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ABS

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## Shipping Approval

other

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## Further information

**Information- and Downloadcenter (Catalogs, Brochures,...)**

<http://www.siemens.com/lowvoltage/catalogs>

**Industry Mall (Online ordering system)**

<https://eb.automation.siemens.com/mall/en/WW/Catalog/Product/3VA2140-5HN46-0AA0>

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

<http://support.automation.siemens.com/WW/view/en/3VA2140-5HN46-0AA0/all>

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

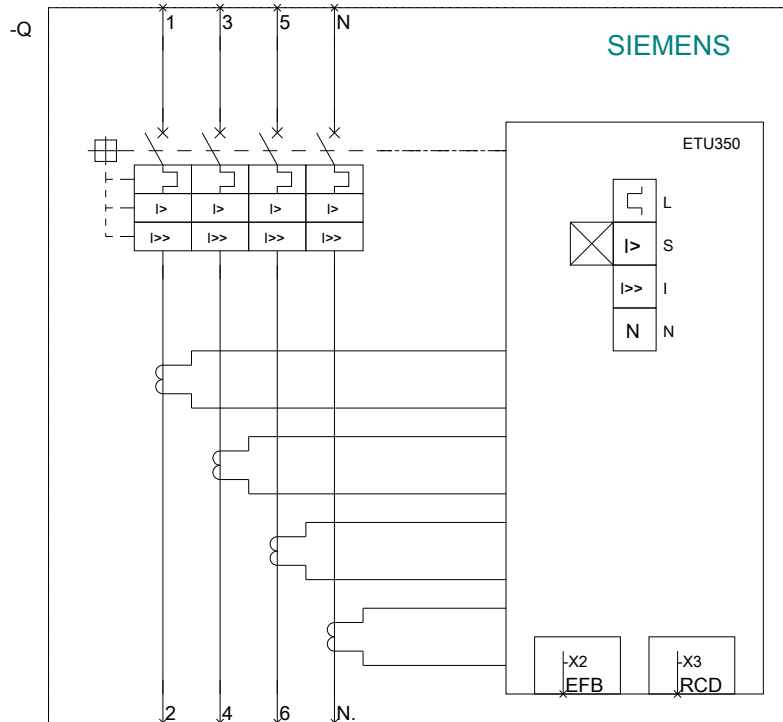
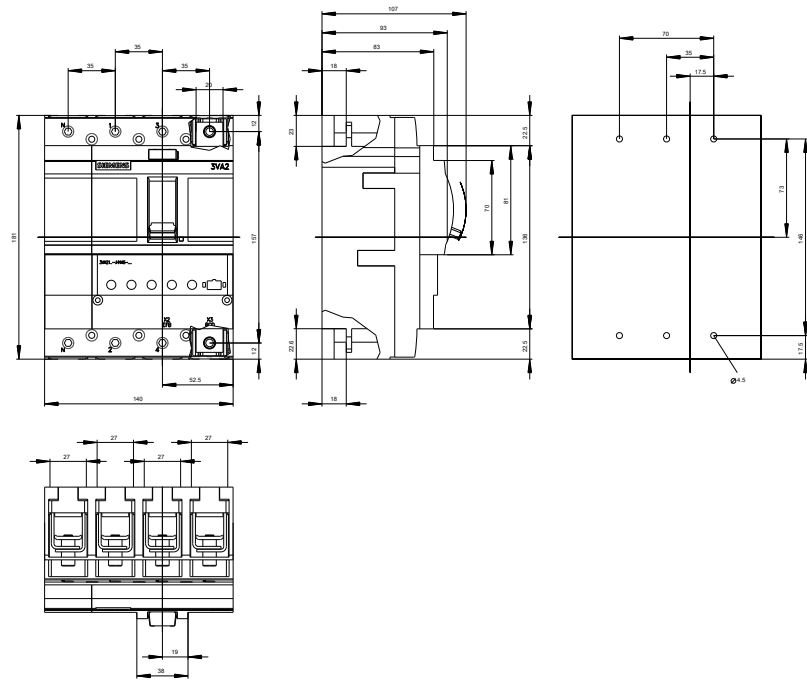
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mfb=3VA2140-5HN46-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mfb=3VA2140-5HN46-0AA0)

**CAX-Online-Generator**

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

**Tender specifications**

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



**last modified:**

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