

Siemens  
EcoTech



SENTRON, Fuse switch disconnecter 3NP1, 3-pole, NH3, 630 A, for assembly and installation on mounting plate, Box terminal, Fuse monitoring: electronic EFM10, Cover level 70 mm

Model	
product designation	Fuse switch disconnecter
design of the safety monitoring	electronic EFM 10
design of the load switch strip form	No
type of the driving mechanism motor drive	No
General technical data	
number of poles	3
type of device	For assembly and installation on mounting plate
size of disconnecting link	3 and 2
size of fuse link	NH2, NH3
let-through current with closed switch maximum	60 kA
mechanical service life (operating cycles) typical	1 000
I <sup>2</sup> t value with closed switch maximum	5 400 kA <sup>2</sup> ·s
power factor	
• at AC-22 B	0.65
• at AC-23 B	0.35
• with capacitive load	-0.25
fuse system	LV HRC fuse
degree of pollution	2
Voltage	
insulation voltage	
• rated value	690 V
• with degree of pollution 3 at AC rated value	690 V
• with degree of pollution 2 at AC rated value	1 000 V
power factor at AC-21 B	0.95
surge voltage resistance rated value	8 kV
• operational current	
— at 35 °C rated value	630 A
— at 40 °C rated value	610 A
— at 45 °C rated value	575 A
— at 50 °C rated value	555 A
— at 55 °C rated value	530 A
• operational current	
— at AC-21 B at 240 V rated value	630 A
— at AC-21 B at 400 V rated value	630 A

— at AC-21 B at 500 V rated value	630 A
— at AC-21 B at 690 V rated value	630 A
— at AC-22 B at 240 V rated value	630 A
— at AC-22 B at 400 V rated value	630 A
— at AC-22 B at 500 V rated value	630 A
— at AC-22 B at 690 V rated value	500 A
— at AC-23 B at 690 V rated value	200 A
— at AC-23 B at 500 V rated value	500 A
— at AC-23 B at 400 V rated value	630 A
— at AC-23 B at 240 V rated value	630 A
<b>let-through current with high-speed activation maximum permissible</b>	50 kA
<b>operating voltage</b>	
• at AC rated value minimum	230 V
• at AC rated value maximum	690 V
<b>Protection class</b>	
<b>protection class IP</b>	
• with closed switch with cover or cable lug cover	IP40
• with closed switch without cover or cable lug cover	IP30
• open	IP20
<b>Dissipation</b>	
<b>power loss [W]</b>	
• with conventional rated thermal current without fuse per pole	30 W
• with conventional rated thermal current without fuse per device	90 W
• for rated value of the current at AC in hot operating state per pole	36 W
• of the fuse per fuse maximum	48 W
<b>Main circuit</b>	
<b>operational current</b>	
• rated value	630 A
• with capacitive load at 400 V rated value	72 A
• with capacitive load at 500 V rated value	55 A
<b>Auxiliary circuit</b>	
<b>number of CO contacts for auxiliary contacts</b>	0
<b>number of NC contacts for auxiliary contacts</b>	0
<b>number of NO contacts for auxiliary contacts</b>	0
<b>Suitability</b>	
<b>suitability for use main switch</b>	No
<b>suitability for use switch disconnecter</b>	Yes
<b>suitability for use EMERGENCY OFF switch</b>	No
<b>suitability for use safety switch</b>	Yes
<b>suitability for use maintenance/repair switch</b>	Yes
<b>Product details</b>	
<b>product function phase failure monitoring</b>	No
<b>product component</b>	
• undervoltage release	No
• undervoltage release with leading contact	No
<b>product feature sealable</b>	Yes
<b>product extension auxiliary switch</b>	Yes
<b>product extension optional locking capability</b>	Yes
<b>product extension optional phase failure monitoring</b>	Yes
<b>product extension optional voltage trigger</b>	No
<b>product extension optional overvoltage protection monitoring</b>	Yes
<b>Product function</b>	
<b>product function overvoltage protection monitoring</b>	No
<b>Short circuit</b>	
<b>conditional short-circuit current (I<sub>q</sub>)</b>	

• at AC at 240 V with high-speed activation rated value	50 kA
• at AC at 500 V with high-speed activation rated value	50 kA
• at AC at 690 V with high-speed activation rated value	50 kA
• with closed switch at AC at 240 V rated value	100 kA
• with closed switch at AC at 500 V rated value	100 kA
• with closed switch at AC at 690 V rated value	100 kA

### Connections

arrangement of electrical connectors for main current circuit	other
<b>connectable conductor cross-section for main contacts</b>	
• solid or stranded minimum	50 mm <sup>2</sup>
• solid or stranded maximum	300 mm <sup>2</sup>
• finely stranded with core end processing minimum	120 mm <sup>2</sup>
• finely stranded with core end processing maximum	240 mm <sup>2</sup>
• stranded minimum	50 mm <sup>2</sup>
• stranded maximum	300 mm <sup>2</sup>
<b>tightening torque with screw-type terminals</b>	
• minimum	25 N·m
• maximum	25 N·m
type of connectable conductor cross-sections of the laminated conductors maximum	32 x 20 mm
<b>type of connection technology</b>	Box terminal

### Mechanical Design

<b>height</b>	306 mm
<b>width</b>	249.4 mm
<b>depth</b>	169.7 mm
<b>fastening method</b>	mounting plate
<b>fastening method</b>	
• floor mounting	Yes
• rail mounting	No
<b>mounting position</b>	horizontal/vertical
<b>Net Weight</b>	5.583 kg

### Environmental conditions

<b>ambient temperature during operation</b>	
• minimum	-25 °C
• maximum	55 °C
<b>ambient temperature during storage</b>	
• minimum	-50 °C
• maximum	80 °C

### Certificates

<b>reference code according to IEC 81346-2</b>	Q
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### Approvals Certificates

<b>Environment</b>	<b>General Product Approval</b>
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[Environmental Confirmations](#)

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<b>General Product Approval</b>	other
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[Confirmation](#)

### 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/lowvoltage/catalogs>

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3NP1163-1DA22>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3NP1163-1DA22>

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

[https://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3NP1163-1DA22](https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3NP1163-1DA22)

CAX-Online-Generator

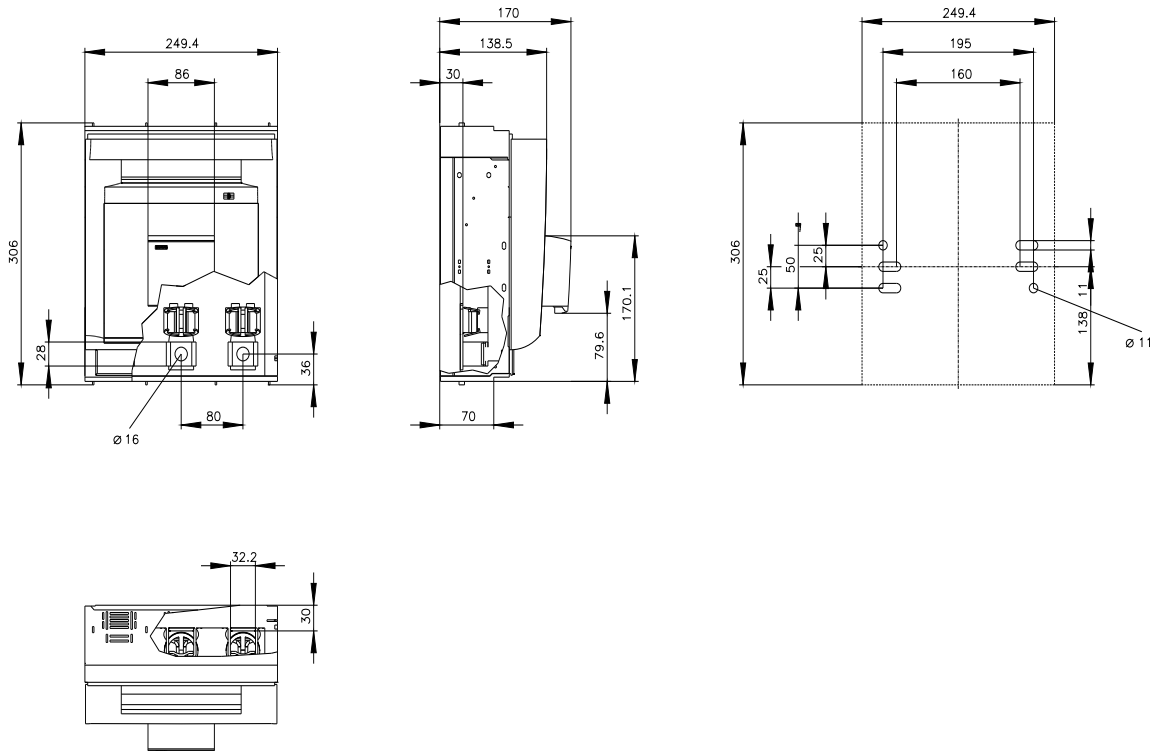
<https://www.siemens.com/cax>

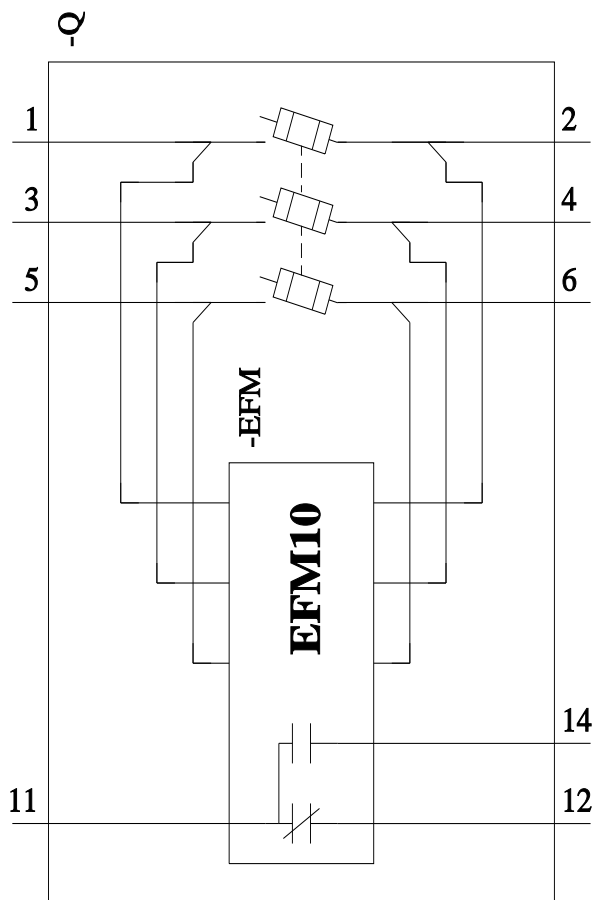
Tender specifications

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

Characteristic curves

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





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