

CIRCUIT-BREAKER, SIZE S3, FOR PLANT PROTECTION, WITH APPROVAL CIRCUIT-BREAKER UL 489, CSA C22.2 NO.5-02, A-TRIGGER 70 A, N-TRIGGER 910 A, SCREW CONNECTION,



Figure similar

Product brand name	SIRIUS
Product designation	Circuit breaker
Design of the product	For system protection according to UL 489/CSA C22.2 No. 5
Product type designation	3RV2

General technical data	
Size of the circuit-breaker	S3
Size of contactor can be combined company-specific	S3
Product extension	
• Auxiliary switch	Yes
Power loss [W] total typical	20 W
Insulation voltage with degree of pollution 3 rated value	1 000 V
Surge voltage resistance rated value	8 kV
maximum permissible voltage for safe isolation	
• in networks with grounded star point between main and auxiliary circuit	400 V
• in networks with grounded star point between main and auxiliary circuit	400 V

Protection class IP	
• on the front	IP20
• of the terminal	IP00
Shock resistance	
• acc. to IEC 60068-2-27	25g / 11 ms Sinus
Mechanical service life (switching cycles)	
• of the main contacts typical	25 000
• of auxiliary contacts typical	25 000
Electrical endurance (switching cycles)	
• typical	25 000
Protection against electrical shock	finger-safe when touched vertically from front acc. to IEC 60529
Equipment marking acc. to DIN EN 81346-2	Q

Ambient conditions

Installation altitude at height above sea level	
• maximum	2 000 m
Ambient temperature	
• during operation	-20 ... +60 °C
• during storage	-50 ... +80 °C
• during transport	-50 ... +80 °C
Temperature compensation	-20 ... +60 °C
Relative humidity during operation	10 ... 95 %

Main circuit

Number of poles for main current circuit	3
Operating voltage	
• rated value	690 V
Operating frequency rated value	50 ... 60 Hz
Operating current rated value	70 A
Operating current	
• at AC-3	
— at 400 V rated value	70 A
Operating power	
• at AC-3	
— at 400 V rated value	37 000 W

Protective and monitoring functions

Product function	
• Ground fault detection	No
• Phase failure detection	Yes
Design of the overload release	thermal
Operational short-circuit current breaking capacity (Ics) at AC	
• at 240 V rated value	100 000 A

<ul style="list-style-type: none"> • at 400 V rated value 	50 000 A
Maximum short-circuit current breaking capacity (Icu)	
<ul style="list-style-type: none"> • at AC at 240 V rated value 	100 kA
<ul style="list-style-type: none"> • at AC at 400 V rated value 	100 kA
<ul style="list-style-type: none"> • at 480 AC Y/277 V acc. to UL 489 rated value 	65 000 A
Response value current	
<ul style="list-style-type: none"> • of instantaneous short-circuit trip unit 	910 A

Short-circuit protection

Product function Short circuit protection	Yes
Design of the short-circuit trip	magnetic

Installation/ mounting/ dimensions

Mounting position	any
Mounting type	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715
Height	170 mm
Width	70 mm
Depth	176 mm
Required spacing	
<ul style="list-style-type: none"> • with side-by-side mounting <ul style="list-style-type: none"> — forwards — Backwards — upwards — downwards — at the side • for grounded parts <ul style="list-style-type: none"> — forwards — Backwards — upwards — at the side — downwards • for live parts <ul style="list-style-type: none"> — forwards — Backwards — upwards — downwards — at the side 	0 mm 0 mm 150 mm 150 mm 0 mm 0 mm 0 mm 150 mm 30 mm 150 mm 0 mm 0 mm 150 mm 150 mm 30 mm

Connections/Terminals

Product function	
<ul style="list-style-type: none"> • removable terminal for auxiliary and control circuit 	No
Type of electrical connection	


<ul style="list-style-type: none"> • for main current circuit 	screw-type terminals
Arrangement of electrical connectors for main current circuit	Top and bottom
Type of connectable conductor cross-sections	
<ul style="list-style-type: none"> • for main contacts <ul style="list-style-type: none"> — solid — single or multi-stranded 	2x (2.5 ... 16 mm ²) 2x (2,5 ... 50 mm ²), 1x (10 ... 70 mm ²)
Tightening torque	
<ul style="list-style-type: none"> • for main contacts with screw-type terminals 	4.5 ... 6 N·m

Safety related data

Proportion of dangerous failures	
<ul style="list-style-type: none"> • with low demand rate acc. to SN 31920 • with high demand rate acc. to SN 31920 	50 % 50 %
Failure rate [FIT]	
<ul style="list-style-type: none"> • with low demand rate acc. to SN 31920 	50 FIT
T1 value for proof test interval or service life acc. to IEC 61508	10 y
Display version	
<ul style="list-style-type: none"> • for switching status 	Handle

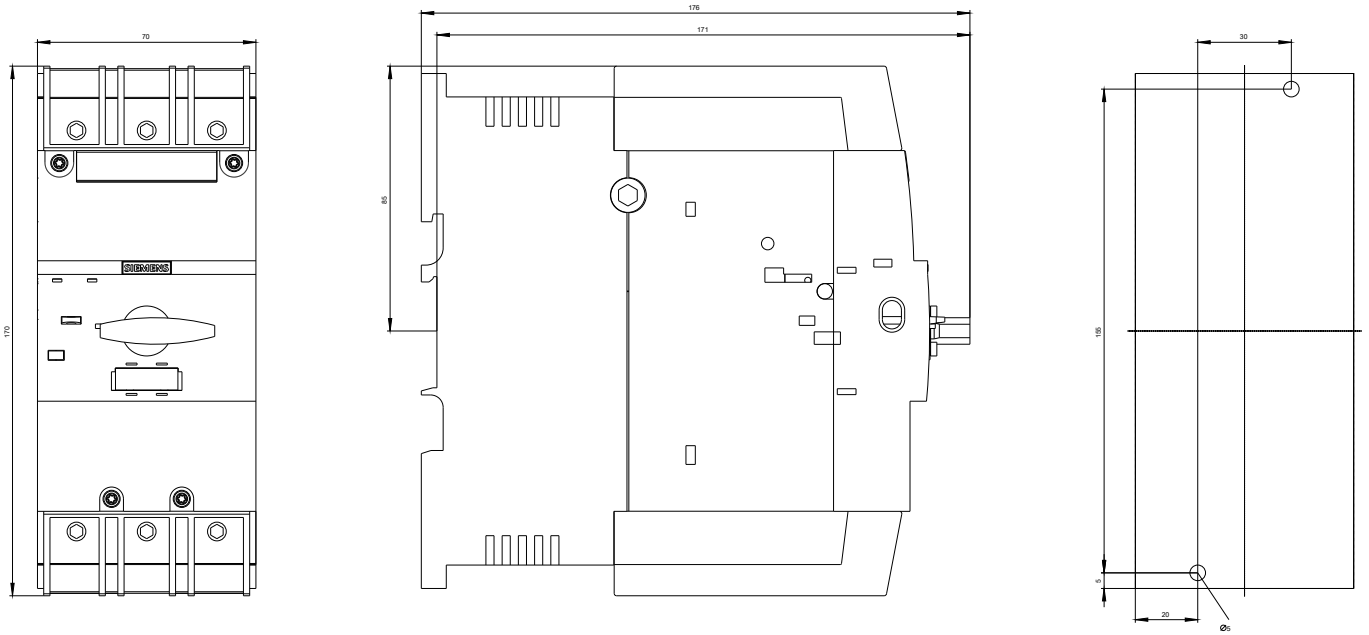
Certificates/approvals

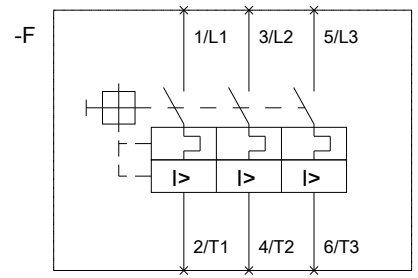
General Product Approval	Declaration of Conformity	Test Certificates
 CCC	 CSA	 UL
 EAC	 EG-Konf.	Special Test Certificate

Test Certificates	other
Declaration of the Compliance with the order	Confirmation
	Environmental Confirmations
	 VDE
	Miscellaneous

Further information

- Information- and Downloadcenter (Catalogs, Brochures,...)**
<http://www.siemens.com/industrial-controls/catalogs>
- Industry Mall (Online ordering system)**
<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RV2742-5QD10>
- Cax online generator**
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2742-5QD10>
- Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**
<https://support.industry.siemens.com/cs/ww/en/ps/3RV2742-5QD10>





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