

Circuit breaker size S3 for starter combination Rated current 75 A N-release 975 A screw terminal Increased switching capacity 100 kA



Product brand name	SIRIUS
Product designation	Circuit breaker
Design of the product	For starter combinations
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	32 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	

<ul style="list-style-type: none"> • on the front • of the terminal 	IP20 IP00
Shock resistance <ul style="list-style-type: none"> • acc. to IEC 60068-2-27 	25g / 11 ms Sinus
Mechanical service life (switching cycles) <ul style="list-style-type: none"> • of the main contacts typical • of auxiliary contacts typical 	25 000 25 000
Electrical endurance (switching cycles) <ul style="list-style-type: none"> • typical 	25 000
Protection against electrical shock	finger-safe when touched vertically from front acc. to IEC 60529
Reference code acc. to DIN EN 81346-2	Q

Ambient conditions

Installation altitude at height above sea level <ul style="list-style-type: none"> • maximum 	2 000 m
Ambient temperature <ul style="list-style-type: none"> • during operation • during storage • during transport 	-20 ... +60 °C -50 ... +80 °C -50 ... +80 °C
Relative humidity during operation	10 ... 95 %

Main circuit

Number of poles for main current circuit	3
Operating voltage <ul style="list-style-type: none"> • rated value • at AC-3 rated value maximum 	690 V 690 V
Operating frequency rated value	50 ... 60 Hz
Operating current rated value	75 A
Operating current <ul style="list-style-type: none"> • at AC-3 <ul style="list-style-type: none"> — at 400 V rated value 	75 A
Operating power <ul style="list-style-type: none"> • at AC-3 <ul style="list-style-type: none"> — at 230 V rated value — at 400 V rated value — at 500 V rated value — at 690 V rated value 	22 000 W 37 000 W 45 000 W 55 000 W
Operating frequency <ul style="list-style-type: none"> • at AC-3 maximum 	15 1/h

Protective and monitoring functions

Product function <ul style="list-style-type: none"> • Ground fault detection • Phase failure detection 	No No
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Design of the overload release	thermal
Operational short-circuit current breaking capacity (Ics) at AC	
<ul style="list-style-type: none"> • at 240 V rated value • at 400 V rated value • at 500 V rated value • at 690 V rated value 	<p>100 000 A</p> <p>50 000 A</p> <p>5 000 A</p> <p>3 000 A</p>
Maximum short-circuit current breaking capacity (Icu)	
<ul style="list-style-type: none"> • at AC at 240 V rated value • at AC at 400 V rated value • at AC at 500 V rated value • at AC at 690 V rated value 	<p>100 kA</p> <p>100 kA</p> <p>10 kA</p> <p>6 kA</p>
Response value current	
<ul style="list-style-type: none"> • of instantaneous short-circuit trip unit 	975 A

UL/CSA ratings

Full-load current (FLA) for three-phase AC motor	
<ul style="list-style-type: none"> • at 480 V rated value • at 600 V rated value 	<p>75 A</p> <p>75 A</p>
Yielded mechanical performance [hp]	
<ul style="list-style-type: none"> • for single-phase AC motor <ul style="list-style-type: none"> — at 110/120 V rated value — at 230 V rated value • for three-phase AC motor <ul style="list-style-type: none"> — at 200/208 V rated value — at 220/230 V rated value — at 460/480 V rated value — at 575/600 V rated value 	<p>7.5 hp</p> <p>15 hp</p> <p>25 hp</p> <p>30 hp</p> <p>60 hp</p> <p>75 hp</p>

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	165 mm
Width	70 mm
Depth	97 mm
Required spacing	
<ul style="list-style-type: none"> • with side-by-side mounting <ul style="list-style-type: none"> — forwards — Backwards 	<p>0 mm</p> <p>0 mm</p>

— upwards	150 mm
— downwards	150 mm
— at the side	0 mm
• for grounded parts	
— forwards	0 mm
— Backwards	0 mm
— upwards	150 mm
— at the side	30 mm
— downwards	150 mm
• for live parts	
— forwards	0 mm
— Backwards	0 mm
— upwards	150 mm
— downwards	150 mm
— at the side	30 mm

Connections/Terminals

Product function	
• removable terminal for auxiliary and control circuit	No
Type of electrical connection	
• for main current circuit	screw-type terminals
Arrangement of electrical connectors for main current circuit	Top and bottom
Type of connectable conductor cross-sections	
• for main contacts	
— solid	2x (2.5 ... 16 mm ²)
— single or multi-stranded	2x (2,5 ... 50 mm ²), 1x (10 ... 70 mm ²)
— finely stranded with core end processing	2x (2.5 ... 35 mm ²), 2.5 ... 50 mm ²
Tightening torque	
• for ring cable lug	
— for main contacts	4.5 ... 6 N·m
Outer diameter of the usable ring cable lug maximum	19 mm
Tightening torque	
• for main contacts with screw-type terminals	4.5 ... 6 N·m




Safety related data

B10 value	
• with high demand rate acc. to SN 31920	5 000
Proportion of dangerous failures	
• with low demand rate acc. to SN 31920	50 %
• with high demand rate acc. to SN 31920	50 %

T1 value for proof test interval or service life acc. to IEC 61508	10 y
Display version	Handle
• for switching status	

Certificates/approvals

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

Test Certificates	Marine / Shipping	other
Declaration of the Compliance with the order	 ABS	Confirmation
	 DNVGL.COM/AF	 VDE
		Miscellaneous

Railway

[Vibration and Shock](#)

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=3RV2342-4KC10>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2342-4KC10>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2342-4KC10>

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

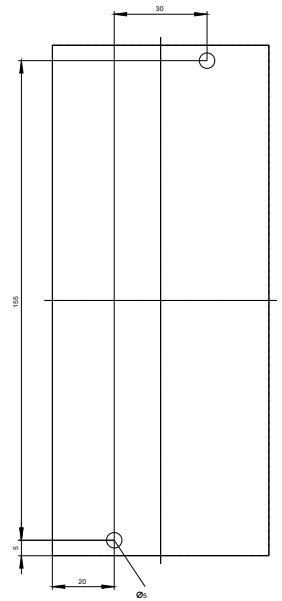
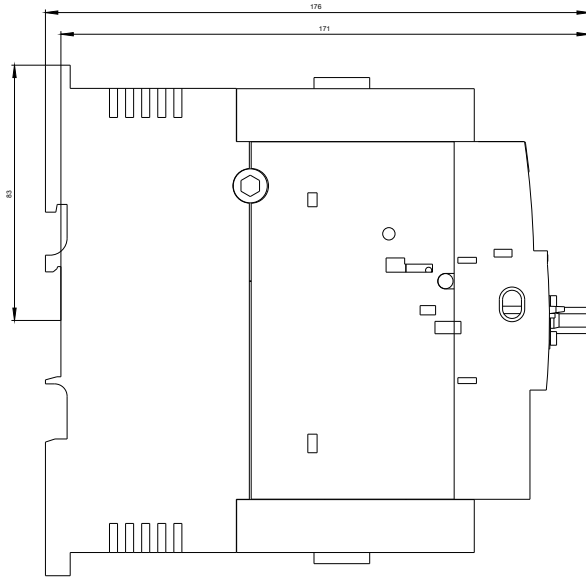
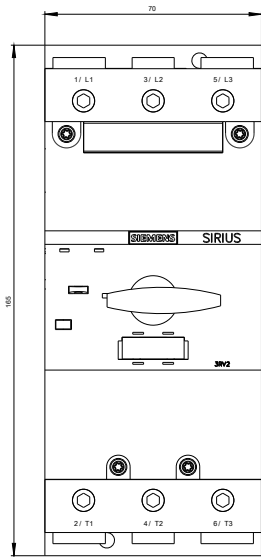
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2342-4KC10&lang=en

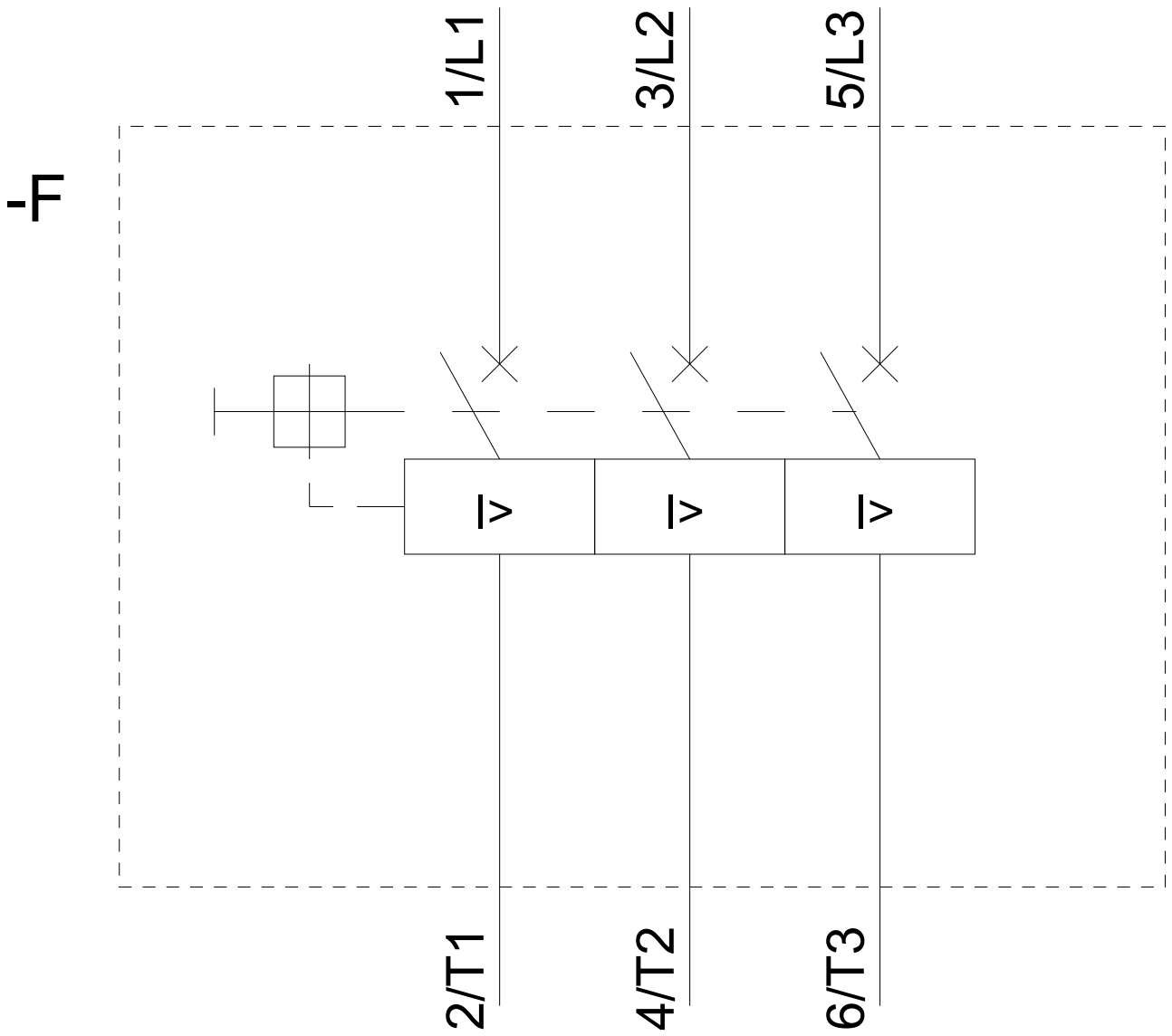
Characteristic: Tripping characteristics, I²t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2342-4KC10/char>

Further characteristics (e.g. electrical endurance, switching frequency)

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2342-4KC10&objecttype=14&gridview=view1>





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