SIEMENS

Data sheet 3RV2431-4DA10



CIRCUIT BREAKER, SIZE S2, FOR TRANSFORMER PROTECTION, A-RELEASE 18...25A, N-RELEASE 500A, SCREW TERMINAL, STANDARD BREAKING CAPACITY

Figure similar

product brand name	SIRIUS
Product designation	3RV2 circuit breaker

General technical data:	
Size of contactor can be combined company-specific	S2
Product expansion	
Auxiliary switch	Yes
Active power loss total typical	12 W
Insulation voltage	
 with degree of pollution 3 Rated value 	690 V
Surge voltage resistance Rated value	6 kV
Protection class IP	
• on the front	IP20
• of the terminal	IP00
Mechanical service life (switching cycles)	
 of the main contacts typical 	50 000
 of the auxiliary contacts typical 	50 000
Electrical endurance (switching cycles)	
• typical	50 000
Temperature compensation	-20 +60 °C

Ambient conditions:	
Installation altitude at height above sea level	2 000 m
maximum	
Ambient temperature	
 during operation 	-20 +60 °C
during storage	-50 +80 °C

during transport	-50 +80 °C
Relative humidity during operation	10 95 %
Main circuit:	
Adjustable response value current of the current-	18 25 A
dependent overload release	
Operating voltage	
Rated value	690 V
 at AC-3 Rated value maximum 	690 V
Operating frequency Rated value	50 60 Hz
Operating current Rated value	25 A
Operating current	
• at AC-3	
— at 400 V Rated value	25 A
Operating power	
● at AC-3	
— at 230 V Rated value	5 500 W
— at 400 V Rated value	11 000 W
— at 500 V Rated value	15 000 W
— at 690 V Rated value	22 000 W
Operating frequency	
• at AC-3 maximum	15 1/h
Protective and monitoring functions:	
Protective and monitoring functions: Trip class	CLASS 10
	CLASS 10 thermal
Trip class	
Trip class Design of the overload circuit breaker Operational short-circuit current breaking capacity	
Trip class Design of the overload circuit breaker Operational short-circuit current breaking capacity (Ics) at AC	thermal
Trip class Design of the overload circuit breaker Operational short-circuit current breaking capacity (Ics) at AC • at 240 V Rated value	thermal 100 A
Trip class Design of the overload circuit breaker Operational short-circuit current breaking capacity (Ics) at AC • at 240 V Rated value • at 400 V Rated value	thermal 100 A 30 kA
Trip class Design of the overload circuit breaker Operational short-circuit current breaking capacity (Ics) at AC • at 240 V Rated value • at 400 V Rated value • at 500 V Rated value	thermal 100 A 30 kA 6 kA
Trip class Design of the overload circuit breaker Operational short-circuit current breaking capacity (Ics) at AC • at 240 V Rated value • at 400 V Rated value • at 500 V Rated value • at 690 V Rated value	thermal 100 A 30 kA 6 kA
Trip class Design of the overload circuit breaker Operational short-circuit current breaking capacity (Ics) at AC • at 240 V Rated value • at 400 V Rated value • at 500 V Rated value • at 690 V Rated value Maximum short-circuit current breaking capacity (Icu)	100 A 30 kA 6 kA 3 kA
Trip class Design of the overload circuit breaker Operational short-circuit current breaking capacity (Ics) at AC • at 240 V Rated value • at 400 V Rated value • at 500 V Rated value • at 690 V Rated value Maximum short-circuit current breaking capacity (Icu) • at AC at 240 V Rated value	100 A 30 kA 6 kA 3 kA
Trip class Design of the overload circuit breaker Operational short-circuit current breaking capacity (Ics) at AC • at 240 V Rated value • at 400 V Rated value • at 500 V Rated value • at 690 V Rated value Maximum short-circuit current breaking capacity (Icu) • at AC at 240 V Rated value • with AC at 400 V Rated value	100 A 30 kA 6 kA 3 kA
Trip class Design of the overload circuit breaker Operational short-circuit current breaking capacity (Ics) at AC • at 240 V Rated value • at 400 V Rated value • at 500 V Rated value • at 690 V Rated value Maximum short-circuit current breaking capacity (Icu) • at AC at 240 V Rated value • with AC at 400 V Rated value • at AC at 500 V Rated value	thermal 100 A 30 kA 6 kA 3 kA 100 kA 65 kA 12 kA
Trip class Design of the overload circuit breaker Operational short-circuit current breaking capacity (Ics) at AC • at 240 V Rated value • at 400 V Rated value • at 500 V Rated value • at 690 V Rated value Maximum short-circuit current breaking capacity (Icu) • at AC at 240 V Rated value • with AC at 400 V Rated value • at AC at 500 V Rated value • at AC at 500 V Rated value • at AC at 690 V Rated value Response value current of the instantaneous short-circuit release UL/CSA ratings:	thermal 100 A 30 kA 6 kA 3 kA 100 kA 65 kA 12 kA 5 kA
Trip class Design of the overload circuit breaker Operational short-circuit current breaking capacity (Ics) at AC • at 240 V Rated value • at 400 V Rated value • at 500 V Rated value • at 690 V Rated value Maximum short-circuit current breaking capacity (Icu) • at AC at 240 V Rated value • with AC at 400 V Rated value • at AC at 500 V Rated value • at AC at 500 V Rated value • at AC at 690 V Rated value Response value current of the instantaneous short-circuit release	100 A 30 kA 6 kA 3 kA 100 kA 65 kA 12 kA 5 kA
Trip class Design of the overload circuit breaker Operational short-circuit current breaking capacity (Ics) at AC • at 240 V Rated value • at 400 V Rated value • at 500 V Rated value • at 690 V Rated value Maximum short-circuit current breaking capacity (Icu) • at AC at 240 V Rated value • with AC at 400 V Rated value • at AC at 500 V Rated value • at AC at 500 V Rated value • at AC at 690 V Rated value Response value current of the instantaneous short-circuit release UL/CSA ratings:	thermal 100 A 30 kA 6 kA 3 kA 100 kA 65 kA 12 kA 5 kA

yielded mechanical performance [hp]	
 for single-phase AC motor 	
— at 110/120 V Rated value	2 hp
— at 230 V Rated value	5 hp
 for three-phase AC motor 	
— at 200/208 V Rated value	7.5 hp
— at 220/230 V Rated value	10 hp
— at 460/480 V Rated value	20 hp
— at 575/600 V Rated value	25 hp

Design of the short-circuit trip	magnetic	
nstallation/ mounting/ dimensions:		
mounting position	any	
Mounting type	screw and snap-on mounting onto 35 mm standard mounting rail	
	according to DIN EN 60715	
Height	140 mm	
Width	55 mm	
Depth	149 mm	
Required spacing		
with side-by-side mounting		
— forwards	0 mm	
— Backwards	0 mm	
— upwards	50 mm	
— downwards	50 mm	
— at the side	0 mm	
• for grounded parts		
— forwards	0 mm	
— Backwards	0 mm	
— upwards	50 mm	
— at the side	10 mm	
— downwards	50 mm	
• for live parts		
— forwards	0 mm	
— Backwards	0 mm	
— upwards	50 mm	
— downwards	50 mm	
— at the side	10 mm	

Connections/ Terminals:

Product function

Short-circuit:

• 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-section	
• for main contacts	
— single or multi-stranded	2x (1 25 mm²), 1x (1 35 mm²)
 finely stranded with core end processing 	2x (1 16 mm²), 1x (1 25 mm²)
 for AWG conductors for main contacts 	2x (18 3), 1x (18 2)
Design of screwdriver shaft	Diameter 5 to 6 mm
Design of the thread of the connection screw	
• for main contacts	M6

Safety related data:

T1 value for proof test interval or service life acc. to IEC 61508

10 y

S2

Mechanical data:

Size of the circuit-breaker

Display:

Display version

• for switching status

Handle

Certificates/ approvals:

General Product Approval

other





Bestätigungen

Umweltbestätigung

Further information

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

http://www.siemens.com/industrial-controls/catalogs

Industry Mall (Online ordering system)

http://www.siemens.com/industrymall

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV24314DA10

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

 $\underline{\text{https://support.industry.siemens.com/cs/ww/en/ps/3RV24314DA10}}$

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV24314DA10&lang=en



