## **SIEMENS**

Data sheet 3RV2431-4XA10



Circuit breaker size S2 for transformer protection A-release 49-59 A N-release 1040 A screw terminal Standard switching capacity



product brand name	SIRIUS	
product designation	Circuit breaker	
design of the product	For transformer protection	
product type designation	3RV2	
General technical data		
size of the circuit-breaker	S2	
size of contactor can be combined company-specific	S2	
product extension auxiliary switch	Yes	
power loss [W] for rated value of the current		
<ul> <li>at AC in hot operating state</li> </ul>	26 W	
• at AC in hot operating state per pole	8.7 W	
insulation voltage with degree of pollution 3 at AC rated value	690 V	
surge voltage resistance rated value	6 kV	
shock resistance according to IEC 60068-2-27	25g / 11 ms Sinus	
mechanical service life (operating cycles)		
<ul> <li>of the main contacts typical</li> </ul>	20 000	
<ul> <li>of auxiliary contacts typical</li> </ul>	20 000	
electrical endurance (operating cycles) typical	20 000	
reference code according to IEC 81346-2	Q	
Substance Prohibitance (Date)	03/01/2017	
SVHC substance name	Lead - 7439-92-1	
Ambient conditions		
installation altitude at height above sea level maximum	2 000 m	
ambient temperature		
<ul> <li>during operation</li> </ul>	-20 +60 °C	
during storage	-50 +80 °C	
during transport	-50 +80 °C	
relative humidity during operation	10 95 %	
Main circuit		
number of poles for main current circuit	3	
adjustable current response value current of the current- dependent overload release	49 59 A	
operating voltage		
• rated value	20 690 V	
<ul> <li>at AC-3 rated value maximum</li> </ul>	690 V	
at AC-3e rated value maximum	690 V	
operating frequency rated value	50 60 Hz	

oar AC-3 at 400 V rated value		
# at AC-3 at 400 V rated value   59 A   operating power	operational current rated value	59 A
Part AC-3e at AC-3e at 400 V rated value   59 A	•	
	<ul><li>at AC-3 at 400 V rated value</li></ul>	59 A
# all AC-3	at AC-3e at 400 V rated value	59 A
	operating power	
at 400 V rated value	• at AC-3	
at 500 V rated value	— at 230 V rated value	15 kW
at 800 V rated value at 120 V rated v	— at 400 V rated value	30 kW
	— at 500 V rated value	37 kW
— at 200 V rated value	— at 690 V rated value	55 kW
	• at AC-3e	
	— at 230 V rated value	15 kW
— at 889 V rated value   55 kW	— at 400 V rated value	30 kW
Ac-3 maximum	— at 500 V rated value	37 kW
Ac-3 maximum		
4 A AC-3 maximum         15 1/h           Auxillary circuit         Turnbor of NC contacts for auxillary contacts         0           number of NC contacts for auxillary contacts         0           product function         No           • ground fault detection         Yes           • from fault detection         Yes           • trip class         CLASS 10           design of the overload release         thermal           maximum short-circuit current breaking capacity (lcu)         65 kA           • at AC at 400 V rated value         65 kA           • at AC at 500 V rated value         8 kA           • at AC at 500 V rated value         4 kA           • at AC at 500 V rated value         4 kA           • at 34 CA at 500 V rated value         4 kA           • at 3500 V rated value         4 kA           • at 3500 V rated value         4 kA           • at 600 V rated value         5 A           • at 600 V rated value         5 D           • at 600 V rated value		
4 at AC-3e maximum         15 1/h           Auxillary circuit         V           number of NC contacts for auxillary contacts         0           Protective and monitoring functions         V           product function         No           • ground fault detection         Yes           trip class         CLASS 10           design of the overload release         thermal           maximum short-circuit current breaking capacity (feu)         65 kA           • at AC at 240 V rated value         65 kA           • at AC at 500 V rated value         8 kA           • at AC at 500 V rated value         4 kA           • at 400 V rated value         30 kA           • at 400 V rated value         30 kA           • at 400 V rated value         30 kA           • at 400 V rated value         4 kA           • at 500 V rated value         2 kA           • at 600 V rated value         5 bA           • at 600 V		15 1/h
Auxiliary circuit number of NC contacts for auxiliary contacts number of NC contacts for auxiliary contacts product function		
number of NC contacts for auxiliary contacts 0 number of NO contacts for auxiliary contacts  Protective and monitoring functions  product function • ground fault detection • prose failure detection •		
Number of NO contacts for auxiliary contacts   Protective and monitoring functions   Protective and monitoring functions   Product function   Ground fault detection   Yes   CLASS 10   C		0
Protective and monitoring functions  product function  • ground fault detection • phase failure detection • phase failure detection • phase failure detection • yes  CLASS 10  design of the overload release  maximum short-circuit current breaking capacity (icu) • at AC at 240 V rated value • at AC at 400 V rated value • at AC at 550 V rated value • at 40 V rated value • at 400 V rated value • at 400 V rated value • at 550 V rated value • at 650 V rated value • at 550 V rated value • at 650 V rated value • at 660 V rated value • for 3-phase AC motor • at 170 /120 V rated value • for 3-phase AC motor • at 220 /230 V rated value • for 3-phase AC motor • at 230 / vated value • for 3-phase AC motor • at 675 /600 V rated value • for 3-phase AC motor • at 275 /2500 V rated value • for 3-phase AC motor • at 275 /2500 V rated value • for 3-phase AC motor • at 275 /2500 V rated value • for 3-phase AC motor • at 275 /2500 V rated value • for 3-phase AC motor • at 275 /2500 V rated value • for 3-phase AC motor • at 275 /2500 V rated value • for 3-phase AC motor • at 275 /2500 V rated value • for 3-phase AC motor • at 275 /2500 V rated value • for 3-phase AC motor • at 275 /2500 V rated value • for 3-phase AC motor • at 675 /2500 V rated value • for 3-phase AC motor • at 275 /2500 V rated value • for 3-phase AC motor • at 275 /2500 V rated value • for 3-phase AC motor • at 275 /2500 V rated value • for 3-phase AC motor • at 275 /2500 V rated value • for 3-phase AC motor • at 275 /2500 V rated value • for 3-phase AC motor • for 3-phas	-	
product function   • ground fault detection	-	0
e ground fault detection		
	•	
trip class  design of the overload release  maximum short-circuit current breaking capacity (Icu)  at AC at 240 V rated value at AC at 440 V rated value at AC at 4500 V rated value at AC at 500 V rated value be at AC at 500 V rated value at 240 V rated value at 240 V rated value be at 240 V rated value at 240 V rated value at 240 V rated value at 400 V rated value at 400 V rated value at 400 V rated value at 500 V rated value at 600 V rated value be at 600 V rated value at 600 V rated value be at 600 V rated value be at 600 V rated value be at 600 V rated value at 600 V rated value be	-	
maximum short-circuit current breaking capacity (Icu)  • at AC at 240 V rated value • at AC at 400 V rated value • at AC at 550 V rated value • at 240 V rated value • at 240 V rated value • at 240 V rated value • at 400 V rated value • at 550 V rated value • at 450 V rated value • at 550 V rated value • at 650 V rated value • at 480 V rated value • at 480 V rated value • at 650 V rated value • bringle-phase AC motor  — at 110/120 V rated value • for 3-phase AC motor — at 220 V rated value • for 3-phase AC motor — at 220 V rated value • for 3-phase AC motor — at 460/48 0V rated value • for 3-phase AC motor — at 460/48 0V rated value • for 3-phase AC motor — at 460/48 0V rated value • for 3-phase AC motor — at 460/49 0V rated value • for 3-phase AC motor — at 250 V rated value • for 3-phase AC motor — at 250 V rated value • for 3-phase AC motor — at 250 V rated value • for 3-phase AC motor — at 250 V rated value • for 3-phase AC motor — at 250 V rated value • for 3-phase AC motor — at 250 V rated value • for 3-phase AC motor — at 250 V rated value • for 3-phase AC motor — at 250 V rated value • for 3-phase AC motor — at 450/48 0V rated value • for 3-phase AC motor — at 250 V rated value • for 3-phase AC motor — at 250 V rated value • for 3-phase AC motor — at 450/48 0V rated value • for 3-phase AC motor — at 250 V rated value • for 3-phase AC motor — at 250 V rated value • for 3-phase AC motor — at 450/48 0V rated value • for 3-phase AC motor — at 450/48 0V rated value • for 3-phase AC motor — at 450/48 0V rated val	·	
maximum short-circuit current breaking capacity (Icu)         65 kA           a tt AC at 240 V rated value         65 kA           a tt AC at 500 V rated value         8 kA           a tt AC at 500 V rated value         4 kA           opporating short-circuit current breaking capacity (Ics) at AC         100 kA           at 240 V rated value         30 kA           at 400 V rated value         4 kA           at 500 V rated value         2 kA           at 500 V rated value         2 kA           e at 690 V rated value         2 kA           e at 400 V rated value         59 A           e at 400 V rated value         59 A           e at 600 V rated value         59 A           e at 600 V rated value         59 A           e at 600 V rated value         10 hp           e for single-phase AC motor         5 hp           e at 230 V rated value         10 hp           e for 3-phase AC motor         0 hp           e at 220/230 V rated value         10 hp           e for 3-phase AC motor         0 hp           e at 60/480 V rated value         5 hp           e at 575/600 V rated value         50 hp           b fort-circuit protection         Yes           design of the short-circuit trip         mp	•	
at AC at 240 V rated value at AC at 400 V rated value bat AC at 500 V rated value at AC at 500 V rated value bat AC at 500 V rated value at 240 V rated value at 500 V rated value at 500 V rated value at 500 V rated value at 690 V rated value at 690 V rated value at 690 V rated value bat 690 V rated value at 690 V rated value at 690 V rated value bat 69		thermal
e at AC at 400 V rated value e at AC at 500 V rated value  operating short-circuit current breaking capacity (lcs) at AC e at 400 V rated value e at 600 V rated value for single-phase AC motor e at 100 V rated value e 50 A  yielded mechanical performance [hp] e for single-phase AC motor e at 230 V rated value e 10 hp e for 3-phase AC motor e at 230 V rated value e 10 hp e for 3-phase AC motor at 230 V rated value e 50 hp short-circuit protection product function short circuit protection product function short circuit protection product function short circuit protection specification of the short-circuit trip magnetic Installation/mounting/dimensions mounting position fastening method height width 55 mm depth 655 mm  149 mm	maximum short-circuit current breaking capacity (Icu)	
at AC at 500 V rated value  at AC at 690 V rated value  100 kA  at 400 V rated value  100 kA  at 400 V rated value  30 kA  at 500 V rated value  4 kA  at 690 V rated value  4 kA  at 690 V rated value  4 kA  at 690 V rated value  5 kA  4 kA  5 kA  4 kA  4 kA  5 kA  6 kA	at AC at 240 V rated value	65 kA
• at AC at 690 V rated value  operating short-circuit current breaking capacity (Ics) at AC  • at 240 V rated value  at 400 V rated value  4 kA  • at 690 V rated value  4 kA  • at 690 V rated value  1 040 A  UI/CSA ratings  full-load current (FLA) for 3-phase AC motor  • at 480 V rated value  • at 690 V rated value  59 A  • at 690 V rated value  59 A  • at 690 V rated value  • for single-phase AC motor  — at 1101/120 V rated value  • for 3-phase AC motor  — at 230 V rated value  • for 3-phase AC motor  — at 220/230 V rated value  • for 3-phase AC motor  — at 460/480 V rated value  • for 3-phase AC motor  — at 460/480 V rated value  • for 3-phase AC motor  — at 460/480 V rated value  • for 3-phase AC motor  — at 4575/600 V rated value  • for 3-phase AC motor  — at 460/480 V rated value  • for 3-phase AC motor  — at 4575/600 V rated value  • for 3-phase AC motor  — at 4575/600 V rated value  • for 3-phase AC motor  — at 4575/600 V rated value  • for 3-phase AC motor  — at 575/600 V rated value  • for 3-phase AC motor  — at 460/480 V rated value  • for 3-phase AC motor  — at 575/600 V rated value  • for 3-phase AC motor  — at 460/480 V rated value  • for 3-phase AC motor  — at 460/480 V rated value  • for 3-phase AC motor  — at 460/480 V rated value  5 hp  10 hp  • for 3-phase AC motor  — at 575/600 V rated value  5 on hp  Short-circuit protection  yes  design of the short-circuit trip  magnetic  Installation/ mounting/ dimensions  mounting position  fastening method  55 mm  depth  40 mm	<ul> <li>at AC at 400 V rated value</li> </ul>	65 kA
operating short-circuit current breaking capacity (Ics) at AC  at 240 V rated value at 400 V rated value at 500 V rated value at 500 V rated value 2 kA  response value current of instantaneous short-circuit trip unit 1 040 A  UL/CSA ratings  full-load current (FLA) for 3-phase AC motor at 480 V rated value 59 A at 600 V rated value 59 A yielded mechanical performance [hp]  of or single-phase AC motor — at 110/120 V rated value for 3-phase AC motor — at 220 V rated value  of 3-phase AC motor — at 220/230 V rated value  of 3-phase AC motor — at 260/480 V rated value  of 3-phase AC motor  — at 260/480 V rated value  of 3-phase AC motor  — at 270/500 V rated value  of 3-phase AC motor  — at 270/500 V rated value  of 40 hp  at 575/600 V rated value 50 hp  Short-circuit protection  product function short circuit protection  design of the short-circuit trip magnetic  Installation/mounting/dimensions  mounting position fastening method screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 height width 55 mm  depth 140 mm	<ul> <li>at AC at 500 V rated value</li> </ul>	8 kA
at 240 V rated value at 400 V rated value 30 kA 30 kA 4 kA 4 kA 4 kA 2 ka 690 V rated value 2 kA response value current of instantaneous short-circuit trip unit 1040 A  UL/CSA ratings  full-load current (FLA) for 3-phase AC motor 4 at 800 V rated value 59 A 4 at 600 V rated value 59 A 59 A 6 for single-phase AC motor — at 110/120 V rated value 6 for single-phase AC motor — at 230 V rated value 10 hp 6 for 3-phase AC motor — at 220/230 V rated value 10 hp  6 for 3-phase AC motor — at 220/230 V rated value 10 hp  7 at 460/480 V rated value 9 to hp  8 at 600 V rated value 9 to hp  10 hp  11 hy  12 hy  13 hy  14 hy  15 hy  15 hy  16 hy  17 hy  18 h	at AC at 690 V rated value	4 kA
at 400 V rated value at 500 V rated value at 500 V rated value 2 kA  response value current of instantaneous short-circuit trip unit UL/CSA ratings  full-load current (FLA) for 3-phase AC motor at 480 V rated value 59 A at 600 V rated value 59 A  in the original performance [hp]  of or single-phase AC motor — at 110/120 V rated value for 3-phase AC motor — at 220/230 V rated value 10 hp  of or 3-phase AC motor — at 460/480 V rated value 20 hp — at 460/480 V rated value 40 hp — at 575/600 V rated value 90 hp  Short-circuit protection  product function short circuit protection design of the short-circuit trip magnetic  Installation/ mounting/ dimensions  mounting position fastening method screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 height vidth 55 mm depth	operating short-circuit current breaking capacity (Ics) at AC	
at 500 V rated value at 690 V rated value 2 kA response value current of instantaneous short-circuit trip unit  UL/CSA ratings  full-load current (FLA) for 3-phase AC motor at 480 V rated value at 600 V rated value 59 A yielded mechanical performance [hp]  for single-phase AC motor  at 110/120 V rated value 5 hp  at 230 V rated value 5 hp  at 230 V rated value 20 hp  at 460/480 V rated value 20 hp  at 460/480 V rated value 40 hp  at 575/600 V rated value 50 hp  Short-circuit protection  product function short circuit protection product function short circuit trip magnetic Installation/ mounting/ dimensions  mounting position fastening method 55 mm depth 4 kA  4 kA  4 kA  2 kA  4 ba  4 0 40  4 0 40  59 A	at 240 V rated value	100 kA
at 690 V rated value  response value current of instantaneous short-circuit trip unit  UL/CSA ratings  full-load current (FLA) for 3-phase AC motor  at 480 V rated value  59 A  at 600 V rated value  59 A  yielded mechanical performance [hp]  for single-phase AC motor  at 110/120 V rated value  5 hp  at 230 V rated value  5 hp  at 230 V rated value  5 hp  at 220/230 V rated value  40 hp  at 575/600 V rated value  50 hp  Short-circuit protection  product function short circuit protection  product function short-circuit trip  Installation/ mounting/ dimensions  mounting position fastening method  screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715  height  identify  149 mm	• at 400 V rated value	30 kA
response value current of instantaneous short-circuit trip unit  UL/CSA ratings  full-load current (FLA) for 3-phase AC motor  • at 480 V rated value • at 600 V rated value • at 100 V rated value  • for single-phase AC motor  — at 110/120 V rated value  • for single-phase AC motor  — at 230 V rated value  • for 3-phase AC motor  — at 220/230 V rated value  • for 3-phase AC motor  — at 460/480 V rated value — at 460/480 V rated value — at 55/600 V rated value  — at 575/600 V rated value  — at 65/5/600 V rated value — at 775/600 V rated value  — at 7875/600 V rated value  — at 200/230 V rate	at 500 V rated value	4 kA
UL/GSA ratings       full-load current (FLA) for 3-phase AC motor       • at 480 V rated value     59 A       • at 600 V rated value     59 A       yielded mechanical performance [hp]     • for single-phase AC motor       — at 110/120 V rated value     5 hp       — at 230 V rated value     10 hp       • for 3-phase AC motor     20 hp       — at 220/230 V rated value     40 hp       — at 460/480 V rated value     50 hp       Short-circuit protection       Yes       design of the short-circuit protection     Yes       design of the short-circuit trip     magnetic       Installation/ mounting/ dimensions       mounting position     any       fastening method     screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715       height     140 mm       width     55 mm       depth     149 mm	at 690 V rated value	2 kA
full-load current (FLA) for 3-phase AC motor  • at 480 V rated value  • at 600 V rated value  • for single-phase AC motor  — at 110/120 V rated value  • for 3-phase AC motor  — at 220/230 V rated value  • for 3-phase AC motor  — at 220/230 V rated value  • at 460/480 V rated value  — at 460/480 V rated value  — at 575/600 V rated value  — at 575/600 V rated value  — at one to return the short circuit protection  product function short circuit protection  product function short circuit trip  magnetic  Installation/ mounting/ dimensions  mounting position  fastening method  height  40 mm  width  depth  140 mm  149 mm	response value current of instantaneous short-circuit trip unit	1 040 A
at 480 V rated value 59 A  it 600 V rated value 59 A  yielded mechanical performance [hp]  for single-phase AC motor  — at 110/120 V rated value 5 hp — at 230 V rated value 10 hp  for 3-phase AC motor — at 220/230 V rated value 20 hp — at 460/480 V rated value 40 hp — at 575/600 V rated value 5 hort-circuit protection  product function short circuit protection design of the short-circuit trip magnetic  Installation/ mounting/ dimensions  mounting position fastening method height 40 mm  width depth 149 mm	UL/CSA ratings	
at 480 V rated value 59 A  it 600 V rated value 59 A  yielded mechanical performance [hp]  for single-phase AC motor  — at 110/120 V rated value 5 hp — at 230 V rated value 10 hp  for 3-phase AC motor — at 220/230 V rated value 20 hp — at 460/480 V rated value 40 hp — at 575/600 V rated value 5 hort-circuit protection  product function short circuit protection design of the short-circuit trip magnetic  Installation/ mounting/ dimensions  mounting position fastening method height 40 mm  width depth 149 mm	full-load current (FLA) for 3-phase AC motor	
• at 600 V rated value  yielded mechanical performance [hp]      • for single-phase AC motor      — at 110/120 V rated value     — at 230 V rated value     • for 3-phase AC motor      — at 220/230 V rated value     — at 460/480 V rated value     — at 575/600 V rated value     — at 575/600 V rated value     — both possible for the short-circuit protection  product function short circuit protection  product function short circuit protection  product function short circuit protection  fastening method  product function short circuit trip  magnetic  Installation/ mounting/ dimensions  mounting position  fastening method  height  140 mm  width  depth  149 mm		59 A
yielded mechanical performance [hp]  • for single-phase AC motor  — at 110/120 V rated value 5 hp  — at 230 V rated value 10 hp  • for 3-phase AC motor  — at 220/230 V rated value 20 hp  — at 460/480 V rated value 40 hp  — at 575/600 V rated value 50 hp  Short-circuit protection  product function short circuit protection 4 yes  design of the short-circuit trip magnetic  Installation/ mounting/ dimensions  mounting position any fastening method screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715  height 140 mm  width 55 mm  depth 149 mm		
• for single-phase AC motor     — at 110/120 V rated value		
- at 110/120 V rated value 5 hp - at 230 V rated value 10 hp  • for 3-phase AC motor - at 220/230 V rated value 20 hp - at 460/480 V rated value 40 hp - at 575/600 V rated value 50 hp  Short-circuit protection  product function short circuit protection Yes design of the short-circuit trip magnetic  Installation/ mounting/ dimensions  mounting position any fastening method screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 height 140 mm  width 55 mm depth 149 mm		
- at 230 V rated value  • for 3-phase AC motor  - at 220/230 V rated value 20 hp  - at 460/480 V rated value 40 hp  - at 575/600 V rated value 50 hp  Short-circuit protection  product function short circuit protection  design of the short-circuit trip magnetic  Installation/ mounting/ dimensions  mounting position fastening method height vidth 55 mm depth 149 mm	9 .	5 hp
● for 3-phase AC motor  — at 220/230 V rated value 20 hp  — at 460/480 V rated value 50 hp  Short-circuit protection  product function short circuit protection Yes design of the short-circuit trip magnetic  Installation/ mounting/ dimensions  mounting position any fastening method screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 height 140 mm  width 55 mm depth 149 mm		
- at 220/230 V rated value 20 hp - at 460/480 V rated value 50 hp  Short-circuit protection product function short circuit protection Yes design of the short-circuit trip magnetic  Installation/ mounting/ dimensions mounting position any fastening method screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 height 140 mm width 55 mm depth 149 mm		
- at 460/480 V rated value 40 hp - at 575/600 V rated value 50 hp  Short-circuit protection  product function short circuit protection Yes design of the short-circuit trip magnetic  Installation/ mounting/ dimensions mounting position any fastening method screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 height 140 mm width 55 mm depth 149 mm	·	20 hp
— at 575/600 V rated value 50 hp  Short-circuit protection  product function short circuit protection Yes  design of the short-circuit trip magnetic  Installation/ mounting/ dimensions  mounting position any fastening method screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715  height 140 mm  width 55 mm  depth 149 mm		
product function short circuit protection  design of the short-circuit trip  Installation/ mounting/ dimensions  mounting position  fastening method  height  width  55 mm  depth  149 mm		
product function short circuit protection  design of the short-circuit trip Installation/ mounting/ dimensions  mounting position any fastening method screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 height 140 mm width 55 mm depth 149 mm		ov np
design of the short-circuit trip     magnetic       Installation/ mounting/ dimensions     any       fastening method     screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715       height     140 mm       width     55 mm       depth     149 mm		Voc
Installation/ mounting/ dimensions  mounting position any fastening method screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 height 140 mm width 55 mm depth 149 mm	· ·	
mounting positionanyfastening methodscrew and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715height140 mmwidth55 mmdepth149 mm		magneuc
fastening method screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 height 140 mm width 55 mm depth 149 mm		
height         140 mm           width         55 mm           depth         149 mm	mounting position	•
width         55 mm           depth         149 mm	fastening method	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715
depth 149 mm	height	140 mm
·	width	55 mm
required spacing	depth	149 mm
	required spacing	

<ul> <li>with side-by-side mounting at the side</li> </ul>	0 mm
<ul> <li>for grounded parts at 400 V</li> </ul>	
— downwards	50 mm
— upwards	50 mm
— at the side	10 mm
<ul> <li>for live parts at 400 V</li> </ul>	
— downwards	50 mm
— upwards	50 mm
— at the side	10 mm
● for grounded parts at 500 V	
— downwards	50 mm
— upwards	50 mm
— at the side	10 mm
• for live parts at 500 V	
— downwards	50 mm
— upwards	50 mm
— at the side	10 mm
• for grounded parts at 690 V	
— downwards	50 mm
— upwards	50 mm
— upwarus — backwards	0 mm
— at the side	10 mm
— at the side — forwards	0 mm
	O HIIII
• for live parts at 690 V	F0
— downwards	50 mm
— upwards	50 mm
— backwards	0 mm
— at the side	10 mm
— forwards	0 mm
Connections/ Terminals	<u> </u>
tune of electrical connection	
type of electrical connection	
for main current circuit	screw-type terminals
for main current circuit  arrangement of electrical connectors for main current	screw-type terminals Top and bottom
for main current circuit     arrangement of electrical connectors for main current circuit	
for main current circuit     arrangement of electrical connectors for main current circuit     type of connectable conductor cross-sections	
for main current circuit  arrangement of electrical connectors for main current circuit  type of connectable conductor cross-sections     for main contacts	Top and bottom
for main current circuit  arrangement of electrical connectors for main current circuit  type of connectable conductor cross-sections     for main contacts	Top and bottom  2x (1 35 mm²), 1x (1 50 mm²)
for main current circuit  arrangement of electrical connectors for main current circuit  type of connectable conductor cross-sections     for main contacts         — solid or stranded         — finely stranded with core end processing	Top and bottom  2x (1 35 mm²), 1x (1 50 mm²) 2x (1 25 mm²), 1x (1 35 mm²)
for main current circuit     arrangement of electrical connectors for main current circuit     type of connectable conductor cross-sections	Top and bottom  2x (1 35 mm²), 1x (1 50 mm²)
for main current circuit     arrangement of electrical connectors for main current circuit     type of connectable conductor cross-sections	Top and bottom  2x (1 35 mm²), 1x (1 50 mm²)  2x (1 25 mm²), 1x (1 35 mm²)  2x (18 2), 1x (18 1)
for main current circuit  arrangement of electrical connectors for main current circuit  type of connectable conductor cross-sections     for main contacts	Top and bottom  2x (1 35 mm²), 1x (1 50 mm²) 2x (1 25 mm²), 1x (1 35 mm²) 2x (18 2), 1x (18 1)  3 4.5 N·m
for main current circuit  arrangement of electrical connectors for main current circuit  type of connectable conductor cross-sections     for main contacts         — solid or stranded         — finely stranded with core end processing         for AWG cables for main contacts  tightening torque     for main contacts with screw-type terminals  design of screwdriver shaft	Top and bottom  2x (1 35 mm²), 1x (1 50 mm²) 2x (1 25 mm²), 1x (1 35 mm²) 2x (18 2), 1x (18 1)  3 4.5 N·m  Diameter 5 to 6 mm
for main current circuit  arrangement of electrical connectors for main current circuit  type of connectable conductor cross-sections     for main contacts         — solid or stranded         — finely stranded with core end processing         • for AWG cables for main contacts  tightening torque         • for main contacts with screw-type terminals  design of screwdriver shaft size of the screwdriver tip	Top and bottom  2x (1 35 mm²), 1x (1 50 mm²) 2x (1 25 mm²), 1x (1 35 mm²) 2x (18 2), 1x (18 1)  3 4.5 N·m
for main current circuit  arrangement of electrical connectors for main current circuit  type of connectable conductor cross-sections     for main contacts         — solid or stranded         — finely stranded with core end processing     for AWG cables for main contacts  tightening torque     for main contacts with screw-type terminals  design of screwdriver shaft size of the screwdriver tip  design of the thread of the connection screw	Top and bottom  2x (1 35 mm²), 1x (1 50 mm²) 2x (1 25 mm²), 1x (1 35 mm²) 2x (18 2), 1x (18 1)  3 4.5 N·m Diameter 5 to 6 mm Pozidriv size 2
for main current circuit  arrangement of electrical connectors for main current circuit  type of connectable conductor cross-sections     for main contacts         — solid or stranded         — finely stranded with core end processing     for AWG cables for main contacts  tightening torque     for main contacts with screw-type terminals  design of screwdriver shaft size of the screwdriver tip  design of the thread of the connection screw     for main contacts	Top and bottom  2x (1 35 mm²), 1x (1 50 mm²) 2x (1 25 mm²), 1x (1 35 mm²) 2x (18 2), 1x (18 1)  3 4.5 N·m Diameter 5 to 6 mm
for main current circuit  arrangement of electrical connectors for main current circuit  type of connectable conductor cross-sections     for main contacts         — solid or stranded         — finely stranded with core end processing     for AWG cables for main contacts  tightening torque     for main contacts with screw-type terminals  design of screwdriver shaft size of the screwdriver tip  design of the thread of the connection screw     for main contacts  Safety related data	Top and bottom  2x (1 35 mm²), 1x (1 50 mm²) 2x (1 25 mm²), 1x (1 35 mm²) 2x (18 2), 1x (18 1)  3 4.5 N·m  Diameter 5 to 6 mm  Pozidriv size 2
• for main current circuit  arrangement of electrical connectors for main current circuit  type of connectable conductor cross-sections      • for main contacts	Top and bottom  2x (1 35 mm²), 1x (1 50 mm²) 2x (1 25 mm²), 1x (1 35 mm²) 2x (18 2), 1x (18 1)  3 4.5 N·m Diameter 5 to 6 mm Pozidriv size 2
for main current circuit  arrangement of electrical connectors for main current circuit  type of connectable conductor cross-sections     for main contacts         — solid or stranded         — finely stranded with core end processing     for AWG cables for main contacts  tightening torque     for main contacts with screw-type terminals  design of screwdriver shaft size of the screwdriver tip  design of the thread of the connection screw     for main contacts  Safety related data	Top and bottom  2x (1 35 mm²), 1x (1 50 mm²) 2x (1 25 mm²), 1x (1 35 mm²) 2x (18 2), 1x (18 1)  3 4.5 N·m  Diameter 5 to 6 mm  Pozidriv size 2
• for main current circuit  arrangement of electrical connectors for main current circuit  type of connectable conductor cross-sections      • for main contacts	Top and bottom  2x (1 35 mm²), 1x (1 50 mm²) 2x (1 25 mm²), 1x (1 35 mm²) 2x (18 2), 1x (18 1)  3 4.5 N·m  Diameter 5 to 6 mm  Pozidriv size 2
for main current circuit     arrangement of electrical connectors for main current circuit     type of connectable conductor cross-sections         • for main contacts             — solid or stranded             — finely stranded with core end processing         • for AWG cables for main contacts         tightening torque         • for main contacts with screw-type terminals     design of screwdriver shaft     size of the screwdriver tip     design of the thread of the connection screw         • for main contacts  Safety related data     product function suitable for safety function     suitability for use	Top and bottom  2x (1 35 mm²), 1x (1 50 mm²) 2x (1 25 mm²), 1x (1 35 mm²) 2x (18 2), 1x (18 1)  3 4.5 N·m  Diameter 5 to 6 mm  Pozidriv size 2  M6
for main current circuit     arrangement of electrical connectors for main current circuit     type of connectable conductor cross-sections         • for main contacts             — solid or stranded             — finely stranded with core end processing         • for AWG cables for main contacts             tightening torque             • for main contacts with screw-type terminals             design of screwdriver shaft             size of the screwdriver tip             design of the thread of the connection screw             • for main contacts  Safety related data             product function suitable for safety function             suitability for use             • safety-related switching on	Top and bottom  2x (1 35 mm²), 1x (1 50 mm²) 2x (1 25 mm²), 1x (1 35 mm²) 2x (18 2), 1x (18 1)  3 4.5 N·m  Diameter 5 to 6 mm  Pozidriv size 2  M6  Yes
• for main current circuit  arrangement of electrical connectors for main current circuit  type of connectable conductor cross-sections     • for main contacts     — solid or stranded     — finely stranded with core end processing     • for AWG cables for main contacts  tightening torque     • for main contacts with screw-type terminals  design of screwdriver shaft size of the screwdriver tip  design of the thread of the connection screw     • for main contacts  Safety related data  product function suitable for safety function  suitability for use     • safety-related switching OFF	Top and bottom  2x (1 35 mm²), 1x (1 50 mm²) 2x (1 25 mm²), 1x (1 35 mm²) 2x (18 2), 1x (18 1)  3 4.5 N·m  Diameter 5 to 6 mm  Pozidriv size 2  M6  Yes
• for main current circuit  arrangement of electrical connectors for main current circuit  type of connectable conductor cross-sections     • for main contacts     — solid or stranded     — finely stranded with core end processing     • for AWG cables for main contacts  tightening torque     • for main contacts with screw-type terminals  design of screwdriver shaft size of the screwdriver tip  design of the thread of the connection screw     • for main contacts  Safety related data  product function suitable for safety function  suitability for use     • safety-related switching on     • safety-related switching OFF  service life maximum	Top and bottom  2x (1 35 mm²), 1x (1 50 mm²) 2x (1 25 mm²), 1x (1 35 mm²) 2x (18 2), 1x (18 1)  3 4.5 N·m  Diameter 5 to 6 mm  Pozidriv size 2  M6  Yes  No  Yes  10 a
• for main current circuit  arrangement of electrical connectors for main current circuit  type of connectable conductor cross-sections     • for main contacts     — solid or stranded     — finely stranded with core end processing     • for AWG cables for main contacts  tightening torque     • for main contacts with screw-type terminals  design of screwdriver shaft size of the screwdriver tip  design of the thread of the connection screw     • for main contacts  Safety related data  product function suitable for safety function  suitability for use     • safety-related switching on     • safety-related switching OFF  service life maximum  test wear-related service life necessary	Top and bottom  2x (1 35 mm²), 1x (1 50 mm²) 2x (1 25 mm²), 1x (1 35 mm²) 2x (18 2), 1x (18 1)  3 4.5 N·m  Diameter 5 to 6 mm  Pozidriv size 2  M6  Yes  No  Yes  10 a
• for main current circuit  arrangement of electrical connectors for main current circuit  type of connectable conductor cross-sections     • for main contacts     — solid or stranded     — finely stranded with core end processing     • for AWG cables for main contacts  tightening torque     • for main contacts with screw-type terminals  design of screwdriver shaft size of the screwdriver tip  design of the thread of the connection screw     • for main contacts  Safety related data  product function suitable for safety function  suitability for use     • safety-related switching on     • safety-related switching OFF  service life maximum  test wear-related service life necessary  proportion of dangerous failures	Top and bottom  2x (1 35 mm²), 1x (1 50 mm²) 2x (1 25 mm²), 1x (1 35 mm²) 2x (18 2), 1x (18 1)  3 4.5 N·m  Diameter 5 to 6 mm  Pozidriv size 2  M6  Yes  No  Yes  10 a  Yes
• for main current circuit  arrangement of electrical connectors for main current circuit  type of connectable conductor cross-sections     • for main contacts     — solid or stranded     — finely stranded with core end processing     • for AWG cables for main contacts  tightening torque     • for main contacts with screw-type terminals  design of screwdriver shaft size of the screwdriver tip  design of the thread of the connection screw     • for main contacts  Safety related data  product function suitable for safety function  suitability for use     • safety-related switching on     • safety-related switching OFF  service life maximum  test wear-related service life necessary  proportion of dangerous failures     • with low demand rate according to SN 31920	Top and bottom  2x (1 35 mm²), 1x (1 50 mm²) 2x (1 25 mm²), 1x (1 35 mm²) 2x (18 2), 1x (18 1)  3 4.5 N·m  Diameter 5 to 6 mm  Pozidriv size 2  M6  Yes  No  Yes  10 a  Yes
• for main current circuit  arrangement of electrical connectors for main current circuit  type of connectable conductor cross-sections     • for main contacts     — solid or stranded     — finely stranded with core end processing     • for AWG cables for main contacts  tightening torque     • for main contacts with screw-type terminals  design of screwdriver shaft size of the screwdriver tip  design of the thread of the connection screw     • for main contacts  Safety related data  product function suitable for safety function  suitability for use     • safety-related switching on     • safety-related switching OFF  service life maximum  test wear-related service life necessary  proportion of dangerous failures     • with low demand rate according to SN 31920     • with high demand rate according to SN 31920	Top and bottom  2x (1 35 mm²), 1x (1 50 mm²) 2x (1 25 mm²), 1x (1 35 mm²) 2x (18 2), 1x (18 1)  3 4.5 N·m  Diameter 5 to 6 mm  Pozidriv size 2  M6  Yes  No Yes  10 a Yes  40 % 50 %
• for main current circuit  arrangement of electrical connectors for main current circuit  type of connectable conductor cross-sections     • for main contacts     — solid or stranded     — finely stranded with core end processing     • for AWG cables for main contacts  tightening torque     • for main contacts with screw-type terminals  design of screwdriver shaft size of the screwdriver tip  design of the thread of the connection screw     • for main contacts  Safety related data  product function suitable for safety function  suitability for use     • safety-related switching on     • safety-related switching OFF  service life maximum  test wear-related service life necessary  proportion of dangerous failures     • with low demand rate according to SN 31920     • with high demand rate according to SN 31920  failure rate [FIT] with low demand rate according to SN	Top and bottom  2x (1 35 mm²), 1x (1 50 mm²) 2x (1 25 mm²), 1x (1 35 mm²) 2x (18 2), 1x (18 1)  3 4.5 N·m  Diameter 5 to 6 mm  Pozidriv size 2  M6  Yes  No Yes  10 a Yes  40 % 50 % 5 000
• for main current circuit  arrangement of electrical connectors for main current circuit  type of connectable conductor cross-sections     • for main contacts     — solid or stranded     — finely stranded with core end processing     • for AWG cables for main contacts  tightening torque     • for main contacts with screw-type terminals  design of screwdriver shaft size of the screwdriver tip  design of the thread of the connection screw     • for main contacts  Safety related data  product function suitable for safety function  suitability for use     • safety-related switching on     • safety-related switching OFF  service life maximum  test wear-related service life necessary  proportion of dangerous failures     • with low demand rate according to SN 31920     • with high demand rate according to SN 31920  failure rate [FIT] with low demand rate according to SN 31920  failure rate [FIT] with low demand rate according to SN 31920	Top and bottom  2x (1 35 mm²), 1x (1 50 mm²) 2x (1 25 mm²), 1x (1 35 mm²) 2x (18 2), 1x (18 1)  3 4.5 N·m  Diameter 5 to 6 mm  Pozidriv size 2  M6  Yes  No Yes  10 a Yes  40 % 50 % 5 000
• for main current circuit  arrangement of electrical connectors for main current circuit  type of connectable conductor cross-sections     • for main contacts     — solid or stranded     — finely stranded with core end processing     • for AWG cables for main contacts  tightening torque     • for main contacts with screw-type terminals  design of screwdriver shaft size of the screwdriver tip  design of the thread of the connection screw     • for main contacts  Safety related data  product function suitable for safety function  suitability for use     • safety-related switching on     • safety-related switching OFF  service life maximum  test wear-related service life necessary  proportion of dangerous failures     • with low demand rate according to SN 31920     • with high demand rate according to SN 31920  failure rate [FIT] with low demand rate according to SN 31920  ISO 13849	Top and bottom  2x (1 35 mm²), 1x (1 50 mm²) 2x (1 25 mm²), 1x (1 35 mm²) 2x (18 2), 1x (18 1)  3 4.5 N·m  Diameter 5 to 6 mm  Pozidriv size 2  M6  Yes  No  Yes  10 a  Yes  40 % 50 % 5 000 50 FIT

IEC 61508	
safety device type according to IEC 61508-2	Type A
T1 value	
<ul> <li>for proof test interval or service life according to IEC 61508</li> </ul>	10 a
Electrical Safety	
protection class IP on the front according to IEC 60529	IP20
touch protection on the front according to IEC 60529	finger-safe, for vertical contact from the front
Display	
display version for switching status	Handle
Approvals Certificates	

**General Product Approval** 

Confirmation









<u>KC</u>

**General Product Ap**proval

**Test Certificates** 

Marine / Shipping



Special Test Certificate

Type Test Certificates/Test Report







Marine / Shipping

other







**Miscellaneous** 

Confirmation



Railway

**Environment** 

**Special Test Certific**ate

Confirmation



Siemens EcoTech



**Environmental Con**firmations

## Further information

Information on the packaging

https://support.industry.siemens.com/cs/ww/en/view/109813875

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

https://www.siemens.com/ic10

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RV2431-4XA10

Cax online generator

 $\underline{http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en\&mlfb=3RV2431-4XA10}$ 

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

https://support.industry.siemens.com/cs/ww/en/ps/3RV2431-4XA10

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

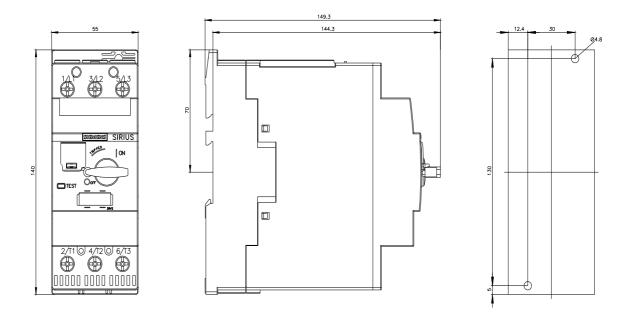
http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RV2431-4XA10&lang=en

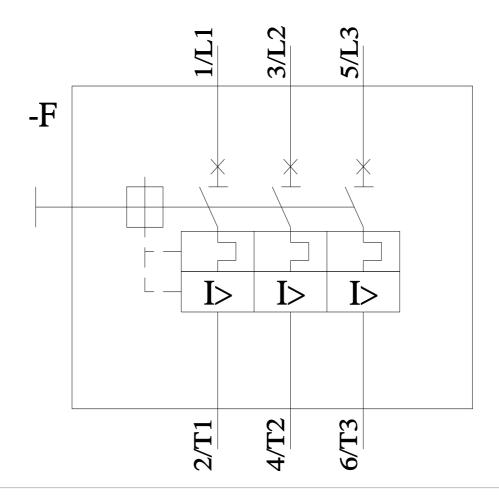
Characteristic: Tripping characteristics, I²t, Let-through current

https://support.industry.siemens.com/cs/ww/en/ps/3RV2431-4XA10/char

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

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2431-4XA10&objecttype=14&gridview=view1





last modified: 4/12/2024 🖸

