## **SIEMENS**

Data sheet 3RV2131-4DA10



Circuit breaker size S2 for motor protection, CLASS 10 with overload relay function A-release 18...25 A N-release 325 A Screw terminal Standard switching capacity

product brand name product designation design of the product product type designation SIRIUS Circuit breaker

For motor protection with overload relay function

3RV2

size of the circuit-breaker size of contactor can be combined company-specific product extension auxiliary switch power loss [W] for rated value of the current  • at AC in hot operating state • at AC in hot operating state per pole insulation voltage with degree of pollution 3 at AC rated value surge voltage resistance rated value surge voltage resistance rated value surge voltage resistance rated value of the main contacts typical • of the main contacts typical selectrical endurance (operating cycles) to fauxiliary contacts typical selectrical endurance (operating cycles) typical reference code according to IEC 81346-2 Substance Prohibitance (Date)  Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage • during transport relative humidity during operation  All in circuit number of poles for main current circuit adjustable current response value current of the current-dependent overload release operating voltage.	product type designation	3RV2	
size of contactor can be combined company-specific product extension auxiliary switch Yes  power loss [W] for rated value of the current  • at AC in hot operating state 14.5 W • at AC in hot operating state per pole insulation voltage with degree of pollution 3 at AC rated value  surge voltage resistance rated value 6 kV shock resistance according to IEC 60068-2-27 25g / 11 ms Sinus  mechanical service life (operating cycles) • of the main contacts typical 50 000 • of auxiliary contacts typical 50 000 electrical endurance (operating cycles) typical 50 000 reference code according to IEC 81346-2 Q Substance Prohibitance (Date) 10/15/2014  Ambient conditions  installation altitude at height above sea level 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  number of poles for main current circuit adjustable current response value current of the current-dependent overload release	General technical data		
product extension auxiliary switch power loss [W] for rated value of the current  • at AC in hot operating state • at AC in hot operating state per pole insulation voltage with degree of pollution 3 at AC rated value surge voltage resistance rated value shock resistance according to IEC 60068-2-27 mechanical service life (operating cycles)  • of the main contacts typical • of auxiliary contacts typical electrical endurance (operating cycles) typical reference code according to IEC 81346-2 Substance Prohibitance (Date)  Ambient conditions  installation altitude at height above sea level maximum ambient temperature • during operation • during storage • during transport relative humidity during operation  Main circuit  number of poles for main current circuit adjustable current response value current of the current-dependent overload release	size of the circuit-breaker	S2	
power loss [W] for rated value of the current  • at AC in hot operating state • at AC in hot operating state per pole insulation voltage with degree of pollution 3 at AC rated value surge voltage resistance rated value shock resistance according to IEC 60068-2-27 mechanical service life (operating cycles) • of the main contacts typical of auxiliary contacts typical lectrical endurance (operating cycles) typical polytical polytical so 000 reference code according to IEC 81346-2 Substance Prohibitance (Date)  Ambient conditions  installation altitude at height above sea level maximum ambient temperature • during operation • during storage • during transport elative humidity during operation  Main circuit  number of poles for main current circuit adjustable current response value current of the current-dependent overload release	size of contactor can be combined company-specific	S2	
at AC in hot operating state at AC in hot operating state per pole at AC in hot operating state per pole insulation voltage with degree of pollution 3 at AC rated value surge voltage resistance rated value shock resistance according to IEC 60068-2-27 mechanical service life (operating cycles)  of the main contacts typical of auxiliary contacts typical electrical endurance (operating cycles) typical reference code according to IEC 81346-2 Substance Prohibitance (Date)  Ambient conditions  installation altitude at height above sea level maximum ambient temperature of during operation of during storage of during storage of during transport relative humidity during operation  number of poles for main current circuit adjustable current response value current of the current-dependent overload release	product extension auxiliary switch	Yes	
at AC in hot operating state per pole insulation voltage with degree of pollution 3 at AC rated value  surge voltage resistance rated value shock resistance according to IEC 60068-2-27 mechanical service life (operating cycles)  of the main contacts typical of auxiliary contacts typical of auxiliary contacts typical electrical endurance (operating cycles) typical reference code according to IEC 81346-2 Substance Prohibitance (Date)  Ambient conditions installation altitude at height above sea level maximum ambient temperature of during operation of during storage of during torage of during torage of during operation  altitude at height above sea level maximum ambient temperature of during operation of during storage of during torage of during			
insulation voltage with degree of pollution 3 at AC rated value  surge voltage resistance rated value shock resistance according to IEC 60068-2-27 mechanical service life (operating cycles)  • of the main contacts typical • of auxiliary contacts typical solution of auxiliary contacts typica	<ul> <li>at AC in hot operating state</li> </ul>	14.5 W	
value surge voltage resistance rated value shock resistance according to IEC 60068-2-27 mechanical service life (operating cycles)  • of the main contacts typical • of auxiliary contacts typical solutions electrical endurance (operating cycles) typical reference code according to IEC 81346-2 Substance Prohibitance (Date)  Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage • during transport relative humidity during operation  Main circuit  number of poles for main current circuit adjustable current response value current of the current-dependent overload release		4.8 W	
shock resistance according to IEC 60068-2-27 mechanical service life (operating cycles)  • of the main contacts typical • of auxiliary contacts typical felectrical endurance (operating cycles) typical solution of auxiliary contacts typical electrical endurance (operating cycles) typical freference code according to IEC 81346-2 Substance Prohibitance (Date)  Ambient conditions  installation altitude at height above sea level maximum ambient temperature • during operation • during storage • during transport relative humidity during operation  Main circuit  number of poles for main current circuit adjustable current response value current of the current-dependent overload release		690 V	
mechanical service life (operating cycles)  of the main contacts typical of auxiliary contacts typical electrical endurance (operating cycles) typical reference code according to IEC 81346-2 Substance Prohibitance (Date)  Ambient conditions  installation altitude at height above sea level maximum ambient temperature of during operation during storage of during transport relative humidity during operation  Main circuit  number of poles for main current circuit adjustable current response value current of the current-dependent overload release  50 000  000  000  000  000  000  000		6 kV	
of the main contacts typical     of auxiliary contacts typical     electrical endurance (operating cycles) typical     reference code according to IEC 81346-2     Substance Prohibitance (Date)  Ambient conditions  installation altitude at height above sea level maximum     ambient temperature     ouring operation     during storage     ouring transport     relative humidity during operation  Main circuit  number of poles for main current circuit     adjustable current response value current of the current-dependent overload release  50 000  Q  Q  Substance Prohibitance (Date)  10/15/2014  Ambient conditions  2 000 m  2 000 m  2 000 m  3 000  4 000 m  4 00 m  4 000		25g / 11 ms Sinus	
of auxiliary contacts typical electrical endurance (operating cycles) typical reference code according to IEC 81346-2 Substance Prohibitance (Date)  Ambient conditions installation altitude at height above sea level maximum ambient temperature     oduring operation     during storage     during transport relative humidity during operation  Main circuit  number of poles for main current circuit adjustable current response value current of the current-dependent overload release  50 000  10/15/2014  2 000 m  3 000  1 0/15/2014  1 0/15/20			
electrical endurance (operating cycles) typical reference code according to IEC 81346-2 Substance Prohibitance (Date)  Ambient conditions installation altitude at height above sea level maximum ambient temperature  • during operation • during storage • during transport relative humidity during operation  Main circuit  number of poles for main current circuit adjustable current response value current of the current-dependent overload release  50 000 Q Q Substance Prohibitance (Date) 10/15/2014  2 000 m 3 0	**		
reference code according to IEC 81346-2 Substance Prohibitance (Date)  Ambient conditions  installation altitude at height above sea level maximum ambient temperature  • during operation • during storage • during transport relative humidity during operation  10 95 %  Main circuit  number of poles for main current circuit adjustable current response value current of the current-dependent overload release			
Substance Prohibitance (Date)  Ambient conditions  installation altitude at height above sea level maximum ambient temperature  • during operation • during storage • during transport relative humidity during operation  10 95 %  Main circuit  number of poles for main current circuit adjustable current response value current of the current-dependent overload release		50 000	
installation altitude at height above sea level maximum ambient temperature  • during operation • during storage • during transport relative humidity during operation  number of poles for main current circuit adjustable current response value current of the current-dependent overload release  2 000 m  -20 +60 °C  -50 +80 °C  -50 +80 °C  10 95 %  18 25 A			
installation altitude at height above sea level maximum  ambient temperature  • during operation  • during storage  • during transport  • Jo +80 °C  relative humidity during operation  10 95 %  Main circuit  number of poles for main current circuit  adjustable current response value current of the current-dependent overload release	Substance Prohibitance (Date)	10/15/2014	
ambient temperature  • during operation • during storage • during transport • during transport • during transport • 10 95 %  Main circuit  number of poles for main current circuit adjustable current response value current of the current-dependent overload release	Ambient conditions		
<ul> <li>during operation</li> <li>during storage</li> <li>during transport</li> <li>telative humidity during operation</li> <li>40 +80 °C</li> <li>10 +80 °C</li> <li>relative humidity during operation</li> <li>10 +95 %</li> <li>Main circuit</li> <li>number of poles for main current circuit</li> <li>adjustable current response value current of the current-dependent overload release</li> <li>18 25 A</li> </ul>	installation altitude at height above sea level maximum	2 000 m	
<ul> <li>during storage</li> <li>during transport</li> <li>telative humidity during operation</li> <li>10 95 %</li> <li>Main circuit</li> <li>number of poles for main current circuit</li> <li>adjustable current response value current of the current-dependent overload release</li> <li>18 25 A</li> </ul>	•		
<ul> <li>during transport</li> <li>relative humidity during operation</li> <li>10 95 %</li> <li>Main circuit</li> <li>number of poles for main current circuit</li> <li>adjustable current response value current of the current-dependent overload release</li> <li>18 25 A</li> </ul>		···	
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 18 25 A			
Main circuit  number of poles for main current circuit  adjustable current response value current of the current-dependent overload release  18 25 A	· ·	-50 +80 °C	
number of poles for main current circuit  adjustable current response value current of the current-dependent overload release  3  18 25 A	relative humidity during operation	10 95 %	
adjustable current response value current of the current-dependent overload release  18 25 A	Main circuit		
current-dependent overload release	number of poles for main current circuit		
operating voltage	current-dependent overload release	18 25 A	
	operating voltage		
• rated value 20 690 V			
• at AC-3 rated value maximum 690 V			
at AC-3e rated value maximum     690 V			
operating frequency rated value 50 60 Hz			
operational current rated value 25 A	•	25 A	
operational current	•		
• at AC-3 at 400 V rated value 25 A			
at AC-3e at 400 V rated value     25 A		25 A	
operating power	operating power		

• at AC-3	E E 1344
— at 230 V rated value	5.5 kW
— at 400 V rated value	11 kW
— at 500 V rated value	15 kW
— at 690 V rated value	22 kW
• at AC-3e	
— at 230 V rated value	5.5 kW
— at 400 V rated value	11 kW
— at 500 V rated value	15 kW
— at 690 V rated value	22 kW
operating frequency	45.48
• at AC-3 maximum	15 1/h
at AC-3e maximum	15 1/h
Auxiliary circuit	
number of NC contacts for auxiliary contacts	0
• note	1
number of NO contacts for auxiliary contacts	0
• note	1
Protective and monitoring functions	
product function	
ground fault detection	No
phase failure detection	Yes
trip class	CLASS 10
design of the overload release	thermal
maximum short-circuit current breaking capacity (Icu)	
at AC at 240 V rated value	100 kA
<ul> <li>at AC at 400 V rated value</li> </ul>	65 kA
<ul> <li>at AC at 500 V rated value</li> </ul>	12 kA
<ul> <li>at AC at 690 V rated value</li> </ul>	5 kA
operating short-circuit current breaking capacity (Ics)	
at AC	
<ul><li>at 240 V rated value</li></ul>	100 kA
<ul> <li>at 400 V rated value</li> </ul>	30 kA
<ul> <li>at 500 V rated value</li> </ul>	6 kA
<ul> <li>at 690 V rated value</li> </ul>	3 kA
response value current of instantaneous short-circuit trip unit	325 A
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
at 480 V rated value	25 A
at 600 V rated value	25 A
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 3-phase AC motor	
— at 200/208 V rated value	7.5 hp
<ul> <li>at 220/230 V rated value</li> </ul>	10 hp
<ul> <li>at 460/480 V rated value</li> </ul>	20 hp
— at 575/600 V rated value	25 hp
Short-circuit protection	
product function short circuit protection	Yes
design of the short-circuit trip	magnetic
design of the fuse link for IT network for short-circuit	
protection of the main circuit	
• at 240 V	none required
● at 400 V	100
● at 500 V	80
• at 690 V	63
Installation/ mounting/ dimensions	
mounting position	any
fastening method	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN
•	60715

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depth required spacing  with side-by-ade mounting at the side  6 or grounded parts at 400 V  — downwards  — upwards  — or the side  6 or the parts at 400 V  — downwards  — or the side  6 or the parts at 400 V  — downwards  — upwards  — or the side  6 or or grounded parts at 500 V  — downwards  — upwards  — or or grounded parts at 500 V  — downwards  — upwards  — or the parts at 500 V  — downwards  — or the parts at 500 V  — downwards  — upwards  — or the parts at 500 V  — downwards  — upwards  — or man or the side  6 or in parts at 500 V  — downwards  — upwards  — or man or the side  — or wards  — o	_	
required spacing  • bit provided parts at 400 V  — downwards — at the side • for live parts at 400 V  — downwards — upwards — of the parts at 400 V  — downwards — or the side — upwards — or the side		1 - 1111
• with side-by-side mounting at the side     • for grounded parts at 400 V     — downwards     — upwards     — at the side     • for live parts at 400 V     — downwards     — at the side     • for live parts at 400 V     — downwards     — at the side     • for grounded parts at 500 V     — downwards     — at the side     • for live parts at 500 V     — downwards     — upwards     — at the side     • for live parts at 500 V     — downwards     — at the side     • for live parts at 500 V     — downwards     — upwards     — at the side     • for live parts at 500 V     — downwards     — upwards     — at the side     • for grounded parts at 690 V     — downwards     — at the side     • for grounded parts at 690 V     — downwards     — backwards     — upwards     — backwards     — at the side     — for live parts at 690 V     — downwards     — at the side     — for live parts at 690 V     — downwards     — backwards     — for live parts at 690 V     — downwards     — backwards     — for live parts at 690 V     — downwards     — backwards     — for live parts at 690 V     — downwards     — backwards     — for live parts at 690 V     — downwards     — for live parts at 690 V     — downwards     — for live parts at 690 V     — downwards     — backwards     — for live parts at 690 V     — downwards     — for live parts at 690 V     — downwards     — for live parts at 690 V     — downwards     — for live parts at 690 V     — downwards     — for live parts at 690 V     — downwards     — for live parts at 690 V     — downwards     — for live parts at 690 V     — downwards     — for live parts at 690 V     — downwards     — for live parts at 690 V     — downwards     — for live parts at 690 V     — downwards     — for live parts at 690 V     — downwards     — for live parts at 690 V     — downwards     — for live parts at 690 V     — downwards     — for live parts at 690 V     — downwards     — for live parts at 690 V     — downwards     — for live parts at 690 V     — downwards     — for live parts at 690 V     — down	•	149 11111
• for grounded parts at 400 V     — downwards     — at the side     • for live parts at 400 V     — downwards     — at the side     • for live parts at 400 V     — downwards     — at the side     • for grounded parts at 500 V     — downwards     — upwards     — at the side     • for grounded parts at 500 V     — downwards     — upwards     — or for live parts at 500 V     — downwards     — upwards     — at the side     — upwards     — at the side     — upwards     — or for grounded parts at 650 V     — downwards     — upwards     — or for grounded parts at 650 V     — downwards     — upwards     — or for grounded parts at 650 V     — downwards     — upwards     — or for grounded parts at 650 V     — downwards     — or for grounded parts at 650 V     — downwards     — upwards     — or for grounded parts at 650 V     — downwards     — or for grounded parts at 650 V     — downwards     — or for grounded parts at 650 V     — downwards     — or for grounded parts at 650 V     — downwards     — or for grounded parts at 650 V     — downwards     — or for grounded parts at 650 V     — downwards     — or for grounded parts at 650 V     — downwards     — or for grounded parts at 650 V     — downwards     — or for grounded parts at 650 V     — downwards     — or for grounded parts at 650 V     — downwards     — or for grounded parts at 650 V     — downwards     — or for grounded parts at 650 V     — downwards     — or for grounded parts at 650 V     — downwards     — or for grounded parts at 650 V     — downwards     — or for grounded parts at 650 V     — downwards     — or for grounded parts at 650 V     — downwards     — or for grounded parts at 650 V     — downwards     — or for grounded parts at 650 V     — downwards     — or for grounded parts at 650 V		0 mm
downwards 50 mm		
- upwards		50 mm
• for live parts at 400 V  - downwards - upwards - at the side • for grounded parts at 500 V  - downwards - upwards - or grounded parts at 690 V  - downwards - upwards - or grounded parts at 690 V  - downwards - upwards - or live parts at 690 V  - downwards - upwards - or live parts at 690 V  - downwards - or man upwards - or man contacts - backwards - upwards - backwards - upwards - or man cortect or man upwards - backwards - backwards - to man - at the side - forwards - upwards - backwards - upwards - backwards - upwards - backwards - upwards - or man upwards - backwards - or man - at the side - forwards - or man - at the side - forwards - or man - at the side - forwards - or man - at the side - forwards - or man - at the side - forwards - or man - at the side - forwards - or man - at the side - forwards - or man - at the side - forwards - or man - at the side - forwards - or man - at the side - forwards - or man - at the side - forwards - or man - at the side - forwards - or man - at the side - forwards - or man - forwards - or man - at the side - forwards - or man - at the side - forwards - or man - forwards - or man - forwards - or man - or forwards - or man - or forwards - or man - or forwards - or forman - or forwards -	— upwards	50 mm
downwards	— at the side	10 mm
upwards	<ul> <li>for live parts at 400 V</li> </ul>	
at the side	— downwards	50 mm
• for grounded parts at 500 V     — downwards     — upwards     — at the side     — of live parts at 500 V     — downwards     — upwards     — at the side     — of live parts at 690 V     — downwards     — at the side     • for grounded parts at 690 V     — downwards     — upwards     — ownwards     — upwards     — backwards     — upwards     — backwards     — of rive parts at 690 V     — downwards     — for wards     — of live parts at 690 V     — downwards     — of live parts at 690 V     — downwards     • for live parts at 690 V     • for live parts at 690 V     • for live parts at 690 V     • for awaillary and control circuit     • for main contacts     • for main contacts     • for main contacts with screw-type terminals	•	
downwards		10 mm
upwards		=0
at the side  • for live parts at 500 V  downwards upwards at the side  • for grounded parts at 690 V  downwards upwards upwards upwards backwards at the side forwards at the side forwards at the side forwards or min contacts at the side forwards upwards for live parts at 690 V  downwards for min current circuit forwards upwards backwards upwards browards upwards browards upwards for min current circuit forwards upwards browards upwards up		
• for live parts at 500 V	·	
- downwards		10 111111
upwards at the side at the side of orgrounded parts at 690 V downwards upwards backwards backwards the side forwards for live parts at 690 V downwards for live parts at 690 V downwards upwards upwards upwards upwards upwards upwards upwards upwards backwards upwards backwards upwards on mm backwards on mm backwards on mm the side forwards on mm the side forwards on mm		50 mm
- at the side • for grounded parts at 690 V - downwards - upwards - backwards - at the side - forwards - or main corrections - for auxiliary and control contacts - for main contacts with screw-type terminals • for main contacts - solid or stranded - finely stranded with core end processing • at AWG cables for main contacts • for main contacts with screw-type terminals • for auxiliary contacts with screw-type termin		
• for grounded parts at 690 V  — downwards — upwards — backwards — 10 mm — for live parts at 690 V — downwards — upwards — upwards — upwards — backwards — upwards — backwards — on mm — the side — 10 mm — forwards — on mm — at the side — 10 mm — forwards — on mm — at the side — 10 mm — forwards — on mm — the side — solid or stranded with core end processing — at AWG cables for main contacts tightening torque — of or main contacts with screw-type terminals — of an auxiliary contacts with screw-type terminals design of screwdriver shaft size of the screwdriver shaft size of the screwdriver tip design of the thread of the connection screw — of or main contacts — of the handliary contacts with screw-type terminals design of screwdriver shaft size of the screwdriver tip design of the thread of the connection screw — of or main contacts — of the handliary contacts with screw-type terminals design of the thread of the connection screw — of or main contacts — of the williary and control contacts — of the williary contacts with screw-type terminals design of the will ow demand rate according to SN 31920 proportion of dangerous fallures — with high demand rate according to SN 31920 for with high demand rate according to SN 31920 for with low demand rate according to SN 31920 for with low demand rate according to SN 31920 for with low demand rate according to SN 31920 for with low demand rate according t	·	
- downwards		
- backwards - at the side - forwards - for live parts at 690 V - downwards - upwards - backwards - upwards - backwards - backwards - backwards - the side - forwards - o mm - backwards - at the side - forwards - at the side - forwards - o mm - or main current - forwards - for auxiliary and control circuit - for auxiliary and control consections - for main contacts - solid or stranded - finely stranded with core end processing - at AVVC cables for main contacts - for auxiliary contacts with screw-type terminals - for for main contacts - for auxiliary contacts with screw-type terminals - for auxiliary contacts with screw-type terminals - for auxiliary contacts with screw-type terminals - for main contacts - for		50 mm
- at the side — forwards 0 mm  for live parts at 690 V  - downwards 50 mm  - puwards 50 mm  - backwards 0 mm  - at the side 10 mm  - forwards 50 mm  - at the side 10 mm  - forwards 0 mm  Connections/ Terminals  type of electrical connection  • for main current circuit arrangement of electrical connectors for main current circuit arrangement electrical connectors for main current circuit arrangement electrical connectors for main current circuit arrangement electrical connectors for main current electrical connectors for main current electrical connectors for main current electrical e	— upwards	50 mm
• for live parts at 690 V  - downwards  • upwards  - upwards  - at the side  - torwards  - at the side  - forwards  • for main current circuit  • for auxiliary and control circuit arrangement of electrical connections  • for main contacts  - solid or stranded  - finely stranded with core end processing  • at AWG cables for main contacts  • for main contacts with screw-type terminals  • for auxiliary and control circuit arrangement of electrical connectors for main contacts  - solid or stranded  - finely stranded with core end processing  • at AWG cables for main contacts  • for main contacts with screw-type terminals  • for auxiliary and control contacts  M6  • of the auxiliary and control contacts  M8  Safety related data  B10 value  • with high demand rate according to SN 31920  roportion of dangerous failures  • with low demand rate according to SN 31920  • with low demand rate according to SN 31920  T1 value for proof test interval or service life according to IEC 61508  protection class IP on the front according to IEC  IP20	— backwards	
of rolive parts at 690 V     odwnwards		
- downwards - upwards - backwards - at the side - forwards 0 mm  Connections/ Terminals  type of electrical connection • for main current circuit • for auxiliary and control contacts - solid or stranded - finely stranded with core end processing • at AWG cables for main contacts (for main contacts with screw-type terminals • for rauxiliary contacts with screw-type terminals • for rauxiliary contacts with screw-type terminals • for main contacts with screw-type terminals • for main contacts with screw-type terminals • for auxiliary contacts with screw-type terminals  2 x. (1 25 mm³), 1x (1 35 mm²)  2 x. (18 3), 1x (18 2)  1 size of the screwdriver shaft  2 x. (1 15 mm²), 1x (1 25 mm²)  2 x. (18 3), 1x (18 2)  1 size of the screwdriver shaft  3 4.5 N·m  Diameter 5 to 6 mm  Pozidriv size 2   5 000  5 000  • with high demand rate according to SN 31920 • with low demand rate according to SN 31920 • with low demand rate according to SN 31920 • with low demand rate according to SN 31920  1 value for proof test interval or service life according to IEC  10 a  10 a  10 a  10 a  10 a		0 mm
- upwards - backwards 0 mm 0 mm - the side 10 mm 0		FO
- backwards - at the side - forwards 0 mm  Connections/ Terminals  type of electrical connection • 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 • at AWG cables for main contacts 2x (1 25 mm²), 1x (1 35 mm²) • at AWG cables for main contacts 2x (1 16 mm²), 1x (1 25 mm²) • for main contacts with screw-type terminals • for auxiliary 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  of the auxiliary and control contacts  B10 value • with high demand rate according to SN 31920 proportion of dangerous failures • with low demand rate according to SN 31920 failure rate [FIT] • with low demand rate according to SN 31920 T1 value for proof test interval or service life according to IEC IP20		
- at the side — forwards 0 mm  Connections/ Terminals  type of electrical connection  • for main current circuit screw-type terminals  • for auxillary and control circuit arrangement of electrical connectors for main current circuit  type of connectable conductor cross-sections  • for main contacts — solid or stranded 2x (1 25 mm²), 1x (1 35 mm²) — at AWG cables for main contacts (15 min contacts with screw-type terminals of or auxillary contacts with screw-type terminals • for main contacts with screw-type terminals • for auxillary contacts with screw-type terminals • for main contacts with screw-type terminals • for auxillary contacts with screw-type terminals • for main contacts with screw-type terminals • for auxillary contacts • for main contact	·	
Connections/ Terminals  type of electrical connection		
type of electrical connection		0 mm
• for main current circuit     • for auxiliary and control 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     • at AWG cables for main contacts     • for an in contacts with screw-type terminals     • for auxiliary contacts with screw-type terminals     • for main contacts     • for main contacts      • for main contacts     • for main	Connections/ Terminals	
• for auxiliary and control 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     • at AWG cables for main contacts     • for main contacts with screw-type terminals     • for main contacts with screw-type terminals     • for auxiliary contacts with screw-type terminals     • for auxiliary 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     • of the auxiliary and control contacts     Safety related data  B10 value     • with high demand rate according to SN 31920     • with low demand rate according to SN 31920     • with low demand rate according to SN 31920     • with low demand rate according to SN 31920     failure rate [FIT]     • with low demand rate according to SN 31920     T1 value for proof test interval or service life according to IEC     IP20	type of electrical connection	
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 • at AWG cables for main contacts  • for main contacts with screw-type terminals • for auxiliary 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 • of the auxiliary and control contacts  Safety related data  B10 value • with high demand rate according to SN 31920 proportion of dangerous failures • with low demand rate according to SN 31920 failure rate [FIT] • with low demand rate according to SN 31920 T1 value for proof test interval or service life according to IEC  IP20  To yand bottom  To pand bottom  To p	• for main current circuit	screw-type terminals
type of connectable conductor cross-sections  • for main contacts  — solid or stranded — finely stranded with core end processing • at AWG cables for main contacts  • for main contacts with screw-type terminals • for auxiliary contacts with screw-type terminals • for auxiliary 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 • of the auxiliary and control contacts  B10 value • with high demand rate according to SN 31920 • with low demand rate according to SN 31920 • With low demand rate according to SN 31920 • With low demand rate according to SN 31920 • With low demand rate according to SN 31920 • With low demand rate according to SN 31920 • With low demand rate according to SN 31920 • With low demand rate according to SN 31920 • With low demand rate according to SN 31920 • With low demand rate accordi		
type of connectable conductor cross-sections  • for main contacts  — solid or stranded — finely stranded with core end processing • at AWG cables for main contacts  • for main contacts  • for main contacts with screw-type terminals • for auxiliary contacts with screw-type terminals • for auxiliary contacts with screw-type terminals design of screwdriver shaft size of the screwdriver shaft size of the thread of the connection screw • for main contacts • of the auxiliary and control contacts  B10 value • with high demand rate according to SN 31920 proportion of dangerous failures • with low demand rate according to SN 31920 • with high demand rate according to SN 31920  • with low demand rate according to SN 31920	<ul> <li>for auxiliary and control circuit</li> </ul>	screw-type terminals
• for main contacts  — solid or stranded — finely stranded with core end processing • at AWG cables for main contacts  • for main contacts with screw-type terminals • for auxiliary (18 2)  **Mathematical members**  **Solution**  **Mathematical members**  **Mathematical mem	for auxiliary and control circuit     arrangement of electrical connectors for main current	screw-type terminals
- finely stranded with core end processing  • at AWG cables for main contacts  tightening torque  • for main contacts with screw-type terminals  • for auxiliary contacts with screw-type terminals  • for auxiliary contacts with screw-type terminals  • for auxiliary 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  • of the auxiliary and control contacts  M6  • of the auxiliary and control contacts  M3  Safety related data  B10 value  • with high demand rate according to SN 31920  proportion of dangerous failures  • with low demand rate according to SN 31920  • with high demand rate according to SN 31920  • with low demand rate according to SN 31920  • with low demand rate according to SN 31920  • with low demand rate according to SN 31920  • with low demand rate according to SN 31920  • with low demand rate according to SN 31920  • with low demand rate according to SN 31920  • with low demand rate according to SN 31920  • with low demand rate according to SN 31920  • In the mm², 1x (1 25 mm²)  2x (18 3), 1x (18 2)  3 4.5 N·m  0.8 1.2	<ul> <li>for auxiliary and control circuit</li> <li>arrangement of electrical connectors for main current circuit</li> </ul>	screw-type terminals
at AWG cables for main contacts  tightening torque  for main contacts with screw-type terminals  for auxiliary contacts with screw-type terminals  for auxiliary contacts with screw-type terminals  for auxiliary 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  for main contacts  of the auxiliary and control contacts  M6  of the auxiliary and control contacts  M3  Safety related data  B10 value  with high demand rate according to SN 31920  proportion of dangerous failures  with low demand rate according to SN 31920  with high demand rate according to SN 31920  with low demand rate according to SN 31920  with low demand rate according to SN 31920  with low demand rate according to SN 31920  failure rate [FIT]  with low demand rate according to SN 31920  for HT  11 value for proof test interval or service life according to IEC  IP20	• for auxiliary and control circuit arrangement of electrical connectors for main current circuit type of connectable conductor cross-sections	screw-type terminals
tightening torque  • for main contacts with screw-type terminals • for auxiliary 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 • of the auxiliary and control contacts  M6 • of the auxiliary and control contacts  M3  Safety related data  B10 value • with high demand rate according to SN 31920 proportion of dangerous failures • with low demand rate according to SN 31920 • with high demand rate according to SN 31920 • with low demand rate according to SN 31920 • with low demand rate according to SN 31920 • with low demand rate according to SN 31920 • with low demand rate according to SN 31920  • with low demand rate according to SN 31920	for auxiliary and control circuit     arrangement of electrical connectors for main current circuit     type of connectable conductor cross-sections	screw-type terminals Top and bottom
• for main contacts with screw-type terminals     • for auxiliary contacts with screw-type terminals     • for auxiliary 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     • of the auxiliary and control contacts  B10 value     • with high demand rate according to SN 31920 proportion of dangerous failures     • with low demand rate according to SN 31920     • with high demand rate according to SN 31920     • with low demand rate according to SN 31920     • with low demand rate according to SN 31920     • with low demand rate according to SN 31920     • with low demand rate according to SN 31920     10 a  T1 value for proof test interval or service life according to IEC  IP20	for auxiliary and control circuit     arrangement of electrical connectors for main current circuit     type of connectable conductor cross-sections	screw-type terminals Top and bottom  2x (1 25 mm²), 1x (1 35 mm²)
• for auxiliary 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  • of the auxiliary and control contacts  M6  • of the auxiliary and control contacts  M3  Safety related data  B10 value  • with high demand rate according to SN 31920  proportion of dangerous failures  • with low demand rate according to SN 31920  • with high demand rate according to SN 31920  • with high demand rate according to SN 31920  • with low demand rate according to SN 31920  • with low demand rate according to SN 31920  failure rate [FIT]  • with low demand rate according to SN 31920  T1 value for proof test interval or service life according to ID a  IEC 61508  protection class IP on the front according to IEC  IP20	<ul> <li>for auxiliary and control circuit</li> <li>arrangement of electrical connectors for main current circuit</li> <li>type of connectable conductor cross-sections</li> <li>for main contacts</li> <li>solid or stranded</li> <li>finely stranded with core end processing</li> <li>at AWG cables for main contacts</li> </ul>	screw-type terminals Top and bottom  2x (1 25 mm²), 1x (1 35 mm²) 2x (1 16 mm²), 1x (1 25 mm²)
design of screwdriver shaft size of the screwdriver tip Pozidriv size 2  design of the thread of the connection screw  • for main contacts • of the auxiliary and control contacts  M6 • of the auxiliary and control contacts  M3  Safety related data  B10 value • with high demand rate according to SN 31920 proportion of dangerous failures • with low demand rate according to SN 31920 • with high demand rate according to SN 31920 • with high demand rate according to SN 31920 • with low demand rate according to SN 31920 failure rate [FIT] • with low demand rate according to SN 31920 T1 value for proof test interval or service life according to IEC IP20	for auxiliary and control circuit     arrangement of electrical connectors for main current circuit     type of connectable conductor cross-sections	screw-type terminals Top and bottom  2x (1 25 mm²), 1x (1 35 mm²) 2x (1 16 mm²), 1x (1 25 mm²) 2x (18 3), 1x (18 2)
size of the screwdriver tip  design of the thread of the connection screw  of or main contacts of the auxiliary and control contacts  M3  Safety related data  B10 value of with high demand rate according to SN 31920 proportion of dangerous failures of with high demand rate according to SN 31920 with high demand rate according to SN 31920 of with high demand rate according to SN 31920 with high demand rate according to SN 31920 failure rate [FIT] of with low demand rate according to SN 31920 T1 value for proof test interval or service life according to IEC 61508 protection class IP on the front according to IEC  IP20	for auxiliary and control circuit     arrangement of electrical connectors for main current circuit     type of connectable conductor cross-sections	screw-type terminals Top and bottom  2x (1 25 mm²), 1x (1 35 mm²) 2x (1 16 mm²), 1x (1 25 mm²) 2x (18 3), 1x (18 2)  3 4.5 N·m
design of the thread of the connection screw  • for main contacts • of the auxiliary and control contacts  M3  Safety related data  B10 value • with high demand rate according to SN 31920 proportion of dangerous failures • with low demand rate according to SN 31920 • with high 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  T1 value for proof test interval or service life according to IEC 61508 protection class IP on the front according to IEC	for auxiliary and control 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         • at AWG cables for main contacts  tightening torque     for main contacts with screw-type terminals     for auxiliary contacts with screw-type terminals	screw-type terminals Top and bottom  2x (1 25 mm²), 1x (1 35 mm²) 2x (1 16 mm²), 1x (1 25 mm²) 2x (18 3), 1x (18 2)  3 4.5 N·m 0.8 1.2 N·m
<ul> <li>for main contacts</li> <li>of the auxiliary and control contacts</li> <li>M3</li> </ul> Safety related data B10 value <ul> <li>with high demand rate according to SN 31920</li> <li>proportion of dangerous failures</li> <li>with low demand rate according to SN 31920</li> <li>with high demand rate according to SN 31920</li> <li>with high demand rate according to SN 31920</li> <li>with low demand rate according to SN 31920</li> <li>failure rate [FIT]</li> <li>with low demand rate according to SN 31920</li> <li>T1 value for proof test interval or service life according to IEC 61508</li> <li>protection class IP on the front according to IEC</li> </ul>	for auxiliary and control circuit  arrangement of electrical connectors for main current circuit  type of connectable conductor cross-sections	screw-type terminals Top and bottom  2x (1 25 mm²), 1x (1 35 mm²) 2x (1 16 mm²), 1x (1 25 mm²) 2x (18 3), 1x (18 2)  3 4.5 N·m 0.8 1.2 N·m Diameter 5 to 6 mm
of the auxiliary and control contacts      Safety related data  B10 value     with high demand rate according to SN 31920     proportion of dangerous failures     with low demand rate according to SN 31920     with high demand rate according to SN 31920     with high demand rate according to SN 31920     with low demand rate according to SN 31920     failure rate [FIT]      with low demand rate according to SN 31920     T1 value for proof test interval or service life according to ID a  IEC 61508  protection class IP on the front according to IEC  IP20	for auxiliary and control circuit  arrangement of electrical connectors for main current circuit  type of connectable conductor cross-sections	screw-type terminals Top and bottom  2x (1 25 mm²), 1x (1 35 mm²) 2x (1 16 mm²), 1x (1 25 mm²) 2x (18 3), 1x (18 2)  3 4.5 N·m 0.8 1.2 N·m Diameter 5 to 6 mm
B10 value  • with high demand rate according to SN 31920  proportion of dangerous failures  • with low demand rate according to SN 31920  • with high 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 according to SN 31920  failure rate [FIT]  • with low demand rate according to SN 31920  T1 value for proof test interval or service life according to ID a  IEC 61508  protection class IP on the front according to IEC  IP20	for auxiliary and control circuit     arrangement of electrical connectors for main current circuit     type of connectable conductor cross-sections	screw-type terminals Top and bottom  2x (1 25 mm²), 1x (1 35 mm²) 2x (1 16 mm²), 1x (1 25 mm²) 2x (18 3), 1x (18 2)  3 4.5 N·m 0.8 1.2 N·m Diameter 5 to 6 mm Pozidriv size 2
B10 value  • with high demand rate according to SN 31920  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 proof test interval or service life according to IDC  IP20	for auxiliary and control circuit     arrangement of electrical connectors for main current circuit     type of connectable conductor cross-sections	screw-type terminals Top and bottom  2x (1 25 mm²), 1x (1 35 mm²) 2x (1 16 mm²), 1x (1 25 mm²) 2x (18 3), 1x (18 2)  3 4.5 N·m 0.8 1.2 N·m Diameter 5 to 6 mm Pozidriv size 2
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  T1 value for proof test interval or service life according to IEC 61508  protection class IP on the front according to IEC  IP20	for auxiliary and control circuit  arrangement of electrical connectors for main current circuit  type of connectable conductor cross-sections	screw-type terminals Top and bottom  2x (1 25 mm²), 1x (1 35 mm²) 2x (1 16 mm²), 1x (1 25 mm²) 2x (18 3), 1x (18 2)  3 4.5 N·m 0.8 1.2 N·m Diameter 5 to 6 mm Pozidriv size 2
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 T1 value for proof test interval or service life according to IEC 61508 protection class IP on the front according to IEC  i S0 %  50 %  50 FIT  10 a	for auxiliary and control circuit     arrangement of electrical connectors for main current circuit     type of connectable conductor cross-sections	screw-type terminals Top and bottom  2x (1 25 mm²), 1x (1 35 mm²) 2x (1 16 mm²), 1x (1 25 mm²) 2x (18 3), 1x (18 2)  3 4.5 N·m 0.8 1.2 N·m Diameter 5 to 6 mm Pozidriv size 2
<ul> <li>with high demand rate according to SN 31920</li> <li>failure rate [FIT]</li> <li>with low demand rate according to SN 31920</li> <li>T1 value for proof test interval or service life according to IEC 61508</li> <li>protection class IP on the front according to IEC</li> <li>IP20</li> </ul>	for auxiliary and control circuit     arrangement of electrical connectors for main current circuit     type of connectable conductor cross-sections	screw-type terminals Top and bottom  2x (1 25 mm²), 1x (1 35 mm²) 2x (1 16 mm²), 1x (1 25 mm²) 2x (18 3), 1x (18 2)  3 4.5 N·m 0.8 1.2 N·m Diameter 5 to 6 mm Pozidriv size 2  M6 M3
failure rate [FIT]  ● with low demand rate according to SN 31920  T1 value for proof test interval or service life according to IEC 61508  protection class IP on the front according to IEC  IP20	for auxiliary and control circuit     arrangement of electrical connectors for main current circuit     type of connectable conductor cross-sections	screw-type terminals Top and bottom  2x (1 25 mm²), 1x (1 35 mm²) 2x (1 16 mm²), 1x (1 25 mm²) 2x (18 3), 1x (18 2)  3 4.5 N·m 0.8 1.2 N·m Diameter 5 to 6 mm Pozidriv size 2  M6 M3
<ul> <li>with low demand rate according to SN 31920</li> <li>T1 value for proof test interval or service life according to IEC 61508</li> <li>protection class IP on the front according to IEC</li> <li>IP20</li> </ul>	for auxiliary and control circuit     arrangement of electrical connectors for main current circuit     type of connectable conductor cross-sections	screw-type terminals Top and bottom  2x (1 25 mm²), 1x (1 35 mm²) 2x (1 16 mm²), 1x (1 25 mm²) 2x (18 3), 1x (18 2)  3 4.5 N·m 0.8 1.2 N·m Diameter 5 to 6 mm Pozidriv size 2  M6 M3
T1 value for proof test interval or service life according to IEC 61508  protection class IP on the front according to IEC IP20	for auxiliary and control circuit     arrangement of electrical connectors for main current circuit     type of connectable conductor cross-sections	screw-type terminals Top and bottom  2x (1 25 mm²), 1x (1 35 mm²) 2x (1 16 mm²), 1x (1 25 mm²) 2x (18 3), 1x (18 2)  3 4.5 N·m 0.8 1.2 N·m Diameter 5 to 6 mm Pozidriv size 2  M6 M3
Protection class IP on the front according to IEC IP20	for auxiliary and control circuit     arrangement of electrical connectors for main current circuit     type of connectable conductor cross-sections	screw-type terminals Top and bottom  2x (1 25 mm²), 1x (1 35 mm²) 2x (1 16 mm²), 1x (1 25 mm²) 2x (18 3), 1x (18 2)  3 4.5 N·m 0.8 1.2 N·m Diameter 5 to 6 mm Pozidriv size 2  M6 M3  5 000  50 % 50 %
protection class IP on the front according to IEC IP20	for auxiliary and control circuit     arrangement of electrical connectors for main current circuit     type of connectable conductor cross-sections	screw-type terminals Top and bottom  2x (1 25 mm²), 1x (1 35 mm²) 2x (1 16 mm²), 1x (1 25 mm²) 2x (18 3), 1x (18 2)  3 4.5 N·m 0.8 1.2 N·m Diameter 5 to 6 mm Pozidriv size 2  M6 M3  5 000  50 % 50 % 50 %
·	for auxiliary and control circuit     arrangement of electrical connectors for main current circuit     type of connectable conductor cross-sections	screw-type terminals Top and bottom  2x (1 25 mm²), 1x (1 35 mm²) 2x (1 16 mm²), 1x (1 25 mm²) 2x (18 3), 1x (18 2)  3 4.5 N·m 0.8 1.2 N·m Diameter 5 to 6 mm Pozidriv size 2  M6 M3  5 000  50 % 50 % 50 %
	for auxiliary and control circuit     arrangement of electrical connectors for main current circuit     type of connectable conductor cross-sections	screw-type terminals Top and bottom  2x (1 25 mm²), 1x (1 35 mm²) 2x (1 16 mm²), 1x (1 25 mm²) 2x (18 3), 1x (18 2)  3 4.5 N·m 0.8 1.2 N·m Diameter 5 to 6 mm Pozidriv size 2  M6 M3  5 000  50 % 50 % 50 FIT 10 a

display version for switching status

finger-safe, for vertical contact from the front Handle

Certificates/ approvals

## **General Product Approval**





Confirmation



<u>KC</u>



**Declaration of Conformity** 

**Test Certificates** 

Marine / Shipping





Special Test Certificate

Type Test Certificates/Test Report





Marine / Shipping









Confirmation

other

other

Railway



Confirmation

Vibration and Shock

## **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=3RV2131-4DA10

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2131-4DA10

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

https://support.industry.siemens.com/cs/ww/en/ps/3RV2131-4DA10

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

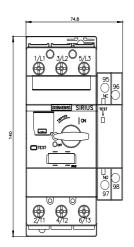
 $\underline{\text{http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RV2131-4DA10\&lang=en}}$ 

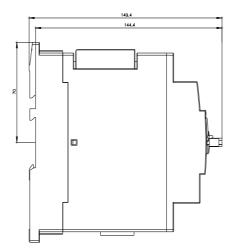
Characteristic: Tripping characteristics, I²t, Let-through current

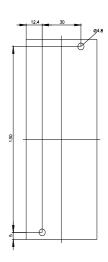
https://support.industry.siemens.com/cs/ww/en/ps/3RV2131-4DA10/char

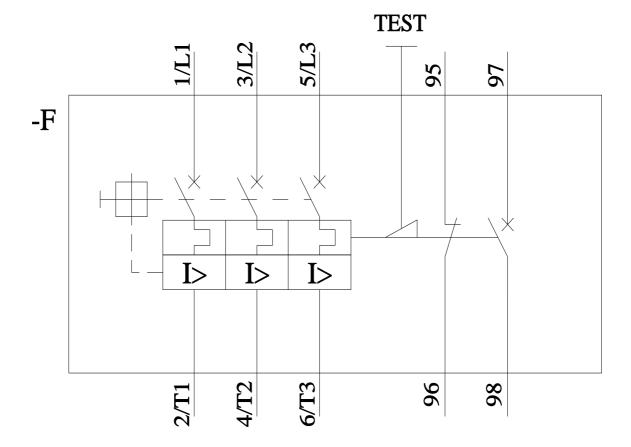
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2131-4DA10&objecttype=14&gridview=view1









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