## **SIEMENS**

Data sheet 3RV2041-4JA10



Circuit breaker size S3 for motor protection, CLASS 10 A-release 45...63 A N-release 819 A screw terminal Standard switching capacity

product brand name	SIRIUS	
product designation	Circuit breaker	
design of the product	For motor protection	
product type designation	3RV2	
General technical data		
size of the circuit-breaker	S3	
size of contactor can be combined company-specific	S3	
product extension auxiliary switch	Yes	
power loss [W] for rated value of the current		
<ul> <li>at AC in hot operating state</li> </ul>	34 W	
<ul> <li>at AC in hot operating state per pole</li> </ul>	11.3 W	
insulation voltage with degree of pollution 3 at AC rated value	1 000 V	
surge voltage resistance rated value	8 kV	
maximum permissible voltage for safe isolation in networks with grounded star point		
<ul> <li>between main and auxiliary circuit</li> </ul>	400 V	
<ul> <li>between main and auxiliary circuit</li> </ul>	400 V	
shock resistance acc. to IEC 60068-2-27	25g / 11 ms Sinus	
mechanical service life (switching cycles)		
<ul> <li>of the main contacts typical</li> </ul>	25 000	
of auxiliary contacts typical	25 000	
electrical endurance (switching cycles) typical	25 000	
type of protection according to ATEX directive 2014/34/EU	Ex II (2) GD	
certificate of suitability according to ATEX directive 2014/34/EU	DMT 02 ATEX F 001	
reference code acc. to IEC 81346-2	Q	
Ambient conditions		
installation altitude at height above sea level maximum	2 000 m	
<ul> <li>ambient temperature during operation</li> </ul>	-20 +60 °C	
<ul> <li>ambient temperature during storage</li> </ul>	-50 +80 °C	
<ul> <li>ambient temperature during transport</li> </ul>	-50 +80 °C	
temperature compensation	-20 +60 °C	
relative humidity during operation	10 95 %	
Main circuit		
number of poles for main current circuit	3	
adjustable current response value current of the	45 63 A	

current-dependent overload release		
<ul> <li>operating voltage rated value</li> </ul>	690 V	
<ul> <li>operating voltage at AC-3 rated value maximum</li> </ul>	690 V	
operating frequency rated value	50 60 Hz	
operational current rated value	63 A	
operational current at AC-3 at 400 V rated value	63 A	
operating power at AC-3		
at 230 V rated value	18 500 W	
• at 400 V rated value	30 000 W	
at 500 V rated value	37 000 W	
• at 690 V rated value	55 000 W	
operating frequency at AC-3 maximum	15 1/h	
Protective and monitoring functions		
product function		
ground fault detection	No	
phase failure detection	Yes	
trip class	CLASS 10	
design of the overload release	thermal	
breaking capacity operating short-circuit current (lcs) at AC		
at 240 V rated value	100 kA	
at 400 V rated value	30 kA	
at 500 V rated value	6 kA	
at 690 V rated value	3 kA	
breaking capacity maximum short-circuit current (Icu)		
at AC at 240 V rated value	100 kA	
at AC at 400 V rated value	65 kA	
at AC at 500 V rated value	12 kA	
at AC at 690 V rated value	6 kA	
response value current of instantaneous short-circuit trip	819 A	
unit		
UL/CSA ratings		
full-load current (FLA) for 3-phase AC motor		
• at 480 V rated value	63 A	
at 600 V rated value	63 A	
yielded mechanical performance [hp]		
• for single-phase AC motor		
— at 110/120 V rated value	5 hp	
— at 230 V rated value	15 hp	
• for 3-phase AC motor		
— at 200/208 V rated value	20 hp	
— at 220/230 V rated value	25 hp	
— at 460/480 V rated value	50 hp	
— at 575/600 V rated value	60 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 standard mounting rail according to DIN EN 60715	
height	165 mm	
width	70	
	70 mm	
depth	176 mm	
depth required spacing		
required spacing		



— at the side	10 mm	
• for live parts at 400 V		
— downwards	70 mm	
— upwards	70 mm	
— at the side	10 mm	
<ul> <li>for grounded parts at 500 V</li> </ul>		
— downwards	110 mm	
— upwards	110 mm	
— at the side	10 mm	
<ul> <li>for live parts at 500 V</li> </ul>		
— downwards	110 mm	
— upwards	110 mm	
— at the side	10 mm	
<ul> <li>for grounded parts at 690 V</li> </ul>		
— downwards	150 mm	
— upwards	150 mm	
— backwards	0 mm	
— at the side	30 mm	
— forwards	0 mm	
<ul> <li>for live parts at 690 V</li> </ul>		
— downwards	150 mm	
— upwards	150 mm	
— backwards	0 mm	
— at the side	30 mm	
— forwards	0 mm	
Connections/ Terminals		
product function removable terminal for auxiliary and control circuit	No	
type of electrical connection		
for main current circuit	screw-type terminals	
arrangement of electrical connectors for main current	Top and bottom	
circuit	·	
type of connectable conductor cross-sections		
<ul> <li>for main contacts</li> </ul>		
— solid	2x (2.5 16 mm²)	
<ul><li>— solid or stranded</li></ul>	2x (2,5 50 mm²), 1x (10 70 mm²)	
<ul> <li>finely stranded with core end processing</li> </ul>	2x (2.5 35 mm²), 1x (2.5 50 mm²)	
— finely stranded without core end processing	2x (10 35 mm²), 1x (10 50 mm²)	
tightening torque		
— for main contacts for ring cable lug	4.5 6 N·m	
outer diameter of the usable ring cable lug maximum	19 mm	
<ul> <li>tightening torque for main contacts with screw-type terminals</li> </ul>	4.5 6 N·m	
Safety related data		
B10 value		
<ul> <li>with high demand rate acc. to SN 31920</li> </ul>	5 000	
proportion of dangerous failures		
<ul> <li>with low demand rate acc. to SN 31920</li> </ul>	50 %	
with high demand rate acc. to SN 31920	50 %	
T1 value for proof test interval or service life acc. to IEC 61508	10 y	
protection class IP on the front acc. to IEC 60529	IP20	
touch protection on the front acc. to IEC 60529	finger-safe, for vertical contact from the front	
display version for switching status	Handle	
Certificates/ approvals		
General Product Approval		For use in hazardous locations













For use in
hazardous
locations

**Declaration of Conformity** 

**Test Certificates** 

<u>KC</u>

Marine / Shipping



**Miscellaneous** 



Special Test Certificate Type Test Certificates/Test Report



## Marine / Shipping













other

Railway

Confirmation

Confirmation



Vibration and Shock

Confirmation

## Further information

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=3RV2041-4JA10

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2041-4JA10

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

https://support.industry.siemens.com/cs/ww/en/ps/3RV2041-4JA10

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

 $\underline{\text{http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RV2041-4JA10\&lang=en}}$ 

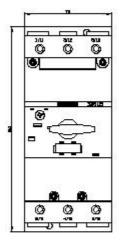
Characteristic: Tripping characteristics, I2t, Let-through current

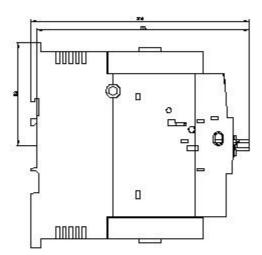
https://support.industry.siemens.com/cs/ww/en/ps/3RV2041-4JA10/char

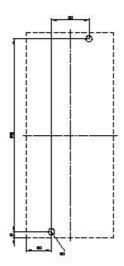
Further characteristics (e.g. electrical endurance, switching frequency)

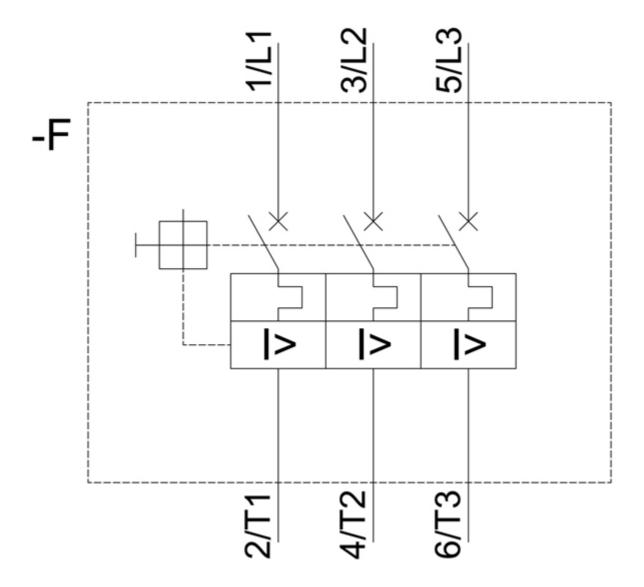
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2041-4JA10&objecttype=14&gridview=view1











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