## **SIEMENS**

Data sheet 3RH2244-2BD80



contactor relay, 4 NO + 4 NC, 115 V DC, size S00, spring-loaded terminal, captive auxiliary switch

product brand name	SIRIUS
product designation	Auxiliary contactor
product type designation	3RH2
General technical data	
size of contactor	S00
product extension auxiliary switch	No
insulation voltage with degree of pollution 3 at AC rated value	690 V
degree of pollution	3
surge voltage resistance rated value	6 kV
shock resistance at rectangular impulse	
• at DC	10g / 5 ms, 5g / 10 ms
shock resistance with sine pulse	
• at DC	15g / 5 ms, 8g / 10 ms
mechanical service life (operating cycles)	
of contactor typical	10 000 000
reference code according to IEC 81346-2	К
Substance Prohibitance (Date)	10/01/2009
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
ambient temperature	
during operation	-25 +60 °C
during storage	-55 +80 °C
relative humidity minimum	10 %
relative humidity at 55 °C according to IEC 60068-2-30 maximum	95 %
Main circuit	
no-load switching frequency	
• at AC	10 000 1/h
• at DC	10 000 1/h
Control circuit/ Control	
type of voltage of the control supply voltage	DC
control supply voltage at DC	
rated value	115 V
operating range factor control supply voltage rated value of magnet coil at DC	
• initial value	0.8
• full-scale value	1.1
closing power of magnet coil at DC	4 W
holding power of magnet coil at DC	4 W
closing delay	
• at DC	30 100 ms

opening delay	7. 40
• at DC	7 13 ms
arcing time	10 15 ms
Auxiliary circuit	4
number of NC contacts for auxiliary contacts	4
instantaneous contact  number of NO contacts for auxiliary contacts.	4
number of NO contacts for auxiliary contacts  • instantaneous contact	4
identification number and letter for switching elements	44 E
operational current at AC-12 maximum	10 A
operational current at AC-15	
at 230 V rated value	6 A
at 400 V rated value	3 A
at 500 V rated value	2 A
at 690 V rated value	1 A
operational current at 1 current path at DC-12	
at 24 V rated value	10 A
• at 110 V rated value	3 A
• at 220 V rated value	1 A
• at 440 V rated value	0.3 A
at 600 V rated value	0.15 A
operational current with 2 current paths in series at DC-12	
• at 24 V rated value	10 A
at 60 V rated value	10 A
● at 110 V rated value	4 A
at 220 V rated value	2 A
• at 440 V rated value	1.3 A
at 600 V rated value	0.65 A
operational current with 3 current paths in series at DC-12	
at 24 V rated value	10 A
at 60 V rated value	10 A
at 110 V rated value	10 A
at 220 V rated value	3.6 A
at 440 V rated value	2.5 A
at 600 V rated value  operating frequency at DC-12 maximum	1.8 A 1 000 1/h
operational current at 1 current path at DC-13	1 000 1/11
at 24 V rated value	6 A
at 110 V rated value	1 A
at 220 V rated value	0.3 A
at 440 V rated value	0.14 A
at 600 V rated value	0.1 A
operational current with 2 current paths in series at DC-13	
at 24 V rated value	10 A
• at 60 V rated value	3.5 A
at 110 V rated value	1.3 A
• at 220 V rated value	0.9 A
• at 440 V rated value	0.2 A
at 600 V rated value	0.1 A
operational current with 3 current paths in series at DC-13	
• at 24 V rated value	10 A
• at 60 V rated value	4.7 A
at 110 V rated value	3 A
at 220 V rated value	1.2 A
at 440 V rated value	0.5 A
at 600 V rated value	0.26 A
operating frequency at DC-13 maximum	1 000 1/h
design of the miniature circuit breaker for short-circuit protection of the auxiliary circuit up to 230 V	C characteristic: 6 A; 0.4 kA
contact reliability of auxiliary contacts	1 faulty switching per 100 million (17 V, 1 mA)
UL/CSA ratings	

contact rating of auxiliary contacts according to UL	A600 / Q600	
Short-circuit protection		
design of the fuse link for short-circuit protection of the auxiliary switch required	fuse gL/gG: 10 A	
nstallation/ mounting/ dimensions		
mounting position	+/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface	
fastening method	screw and snap-on mounting onto 35 mm DIN rail	
height	70 mm	
width	45 mm	
depth	121 mm	
required spacing		
<ul> <li>with side-by-side mounting</li> </ul>		
— forwards	10 mm	
— upwards	10 mm	
— downwards	10 mm	
— at the side	0 mm	
for grounded parts		
— forwards	10 mm	
— upwards	10 mm	
— at the side	6 mm	
— downwards	10 mm	
• for live parts		
— forwards	10 mm	
— upwards	10 mm	
— downwards	10 mm	
— at the side	6 mm	
Connections/ Terminals		
type of electrical connection for auxiliary and control circuit	spring-loaded terminals	
type of connectable conductor cross-sections		
for auxiliary contacts		
— solid or stranded	2x (0,5 4 mm²)	
<ul> <li>finely stranded with core end processing</li> </ul>	2x (0.5 2.5 mm²)	
finely stranded without core end processing	2x (0.5 2.5 mm²)	
for AWG cables for auxiliary contacts	2x (20 12)	
Safety related data		
product function positively driven operation according to IEC 60947-5-1	Yes	
B10 value with high demand rate according to SN 31920	1 000 000; With 0.3 x le	
proportion of dangerous failures		
with low demand rate according to SN 31920	40 %	
with high demand rate according to SN 31920	73 %	
failure rate [FIT] with low demand rate according to SN 31920	100 FIT	
T1 value for proof test interval or service life according to IEC 61508	20 a	
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	
Certificates/ approvals		





Confirmation



<u>KC</u>



Functional Safety/Safety of Machinery	Declaration of Conformity	Test Certificates
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## Type Examination Cer**tificate**





Type Test Certificates/Test Report

**Special Test Certific**ate

## Marine / Shipping













Marine / Shipping

Railway

**Dangerous Good** 



Confirmation



Vibration and Shock

**Transport Information** 

## Further information

Siemens has decided to exit the Russian market (see here).

https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business

Siemens is working on the renewal of the current EAC certificates.

Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

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=3RH2244-2BD80

Cax online generator

 $\underline{\text{http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en\&mlfb=3RH2244-2BD80}$ 

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

https://support.industry.siemens.com/cs/ww/en/ps/3RH2244-2BD80

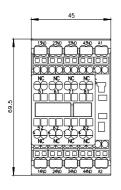
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

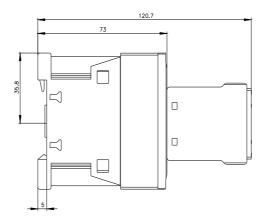
http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RH2244-2BD80&lang=en

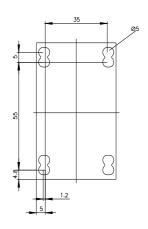
Characteristic: Tripping characteristics, I2t, Let-through current

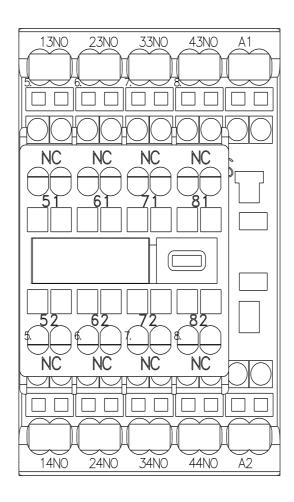
https://support.industry.siemens.com/cs/ww/en/ps/3RH2

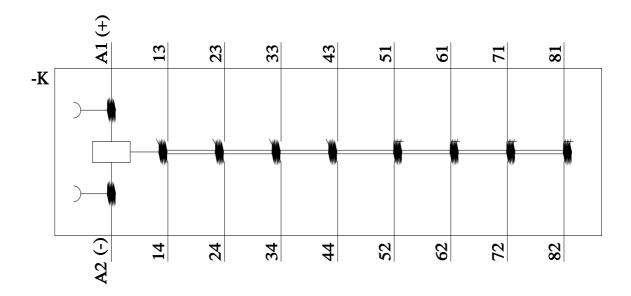
Further characteristics (e.g. electrical endurance, switching frequency)
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RH2244-2BD80&objecttype=14&gridview=view1











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