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PRODUCT-DETAILS

## S803N-B20 S803N-B20 High Performance MCB



Extended Product Type	S803N-B20
Product ID	2CCS893001R0205
EAN	7612271204075
Catalog Description	S803N-B20 High Performance MCB

The S803N-B20 is a 3-pole High Performance Circuit breaker with B-characteristic, with cage terminal and a rated current of 20 A. It is a current limiting device with a maximum breaking capacity of 36kA at 240/415V. It can be used for voltages up to 400/690V and in DC as well. It has two different tripping mechanisms, the thermal tripping mechanism for overload protection and the electromechanic tripping mechanism for short circuit protection. The S803N-B20 complies with IEC/EN 60898-1 and IEC/EN 60947-2 and allows the use for residential, commercial and industrial applications. It has numerous of approvals, therefore it can be used worldwide. The extensive range of accessory makes the use of S803N-B20 more comfortable. Due to the fast arc extinction of S803N-B20 your application will be

Long Description

Technical

 Standards
 IEC/EN 60947-2, IEC/EN 60898-1

 Tripping Characteristic
 B

 Type of Residual Current
 Standard Version

 Rated Voltage (U<sub>r</sub>)
 acc. to IEC 60947-2 690 V AC acc. to IEC 60947-2 375 V DC

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Marie   Mari		acc. to IEC 60898-1 400 V AC
Rated Impulse Withstand (U)         acc. to IEC/EN 60664-1 809 V (U)           Rated Impulse Withstand (Vollage Ump)         8 kV Vollage Ump)           Input Voltage Type         AC/DC           Rated Current (I,I)         20 A           Rated Operational Current (I,I)         20 A           Rated Operational Current (I,I)         (200 V) 20 kA           Capacity         (400 V) 20 kA           Capacity         (400 V) 20 kA           Clocul Breaking Capacity (I)         (580 V) 4.5 kA (II)           Clocul Breaking Capacity (I)         (200 V) 4.0 kA (II)           Rated Service Short-         (240 V) 415 VA (20) 40 kA (II)           Clocul Breaking Capacity (I)         (200 V) 4.0 kA (II)           Rested Frequency (I)         50 0.60 Hz           Prequency (I)         50 0.60 Hz           Power Loss         at Rated Operating Conditions per Pole 3 (II) 5.0 W           Contact Position         0 10 0.5 W           Lectrical Endurance         10000 cycle           Recharded Endurance         10000 cycle           Number of Protected         3 5 km           Poles         3           Number of Protected         3 5 km           Poles         3 1 km           Number of Poles         3 1 km <td< td=""><td>Rated Operational Voltage Operational Voltage</td><td>acc. to IEC 60898-1 400 V Maximum 230/400 V AC</td></td<>	Rated Operational Voltage Operational Voltage	acc. to IEC 60898-1 400 V Maximum 230/400 V AC
QL   Pated Impulse Withstand   8 kV Voltage (Vimp)   Rated (Pimp)   Rated (Pim		
Nortistage Type		acc. to IEC/EN 60664-1 690 V
Rated Current (In)         20 A           Rated Operational Current (In)         20 A           Rated Short-Circuit         (230 V) 20 KA           Capacity         (400 V) 20 KA           Rated Short-Circuit         (415 V) 36 KA           Circuit Breaking Capacity         (415 V) 36 KA           Circuit Breaking Capacity         (240 / 415 V AC) 30 KA           Circuit Breaking Capacity         (240 / 415 V AC) 30 KA           Circuit Breaking Capacity         (254 / 440 V AC) 15 KA           (Inc)         (155 V AC) 20 KA           Frequency (f)         50 (60 Hz           Power Loss         1 (150 V AC) 20 KA           Power Loss         1 (150 V AC) 20 KA           Contact Position         0 N / 0FF / TRIP           Indication         0 N / 0FF / TRIP           Contact Position         0 N / 0FF / TRIP           Indication         0 N / 0FF / TRIP           Electrical Endurance         10000 cycle           Mechanical Endurance         10000 cycle           Mumber of Poles         3           Overvoltage Category         1 V           Tightening Torque         3 N m           Solver Village Category         1 K           Tightening Torque         1 N <t< td=""><td></td><td>8 kV</td></t<>		8 kV
Rated Operational Current (I <sub>0</sub> )         20 A (I <sub>0</sub> )           (I <sub>0</sub> )         (230 V) 20 kA (230 V) 2		
	Rated Current (I <sub>n</sub> )	20 A
Capacity         (400 V) 20 kA           Circuit Breaking Capacity         (690 V) 4.5 kA           Circuit Breaking Capacity         (690 V) 4.5 kA           Circuit Breaking Capacity         (240 / 415 V AC) 30 kA           Circuit Breaking Capacity         (240 / 415 V AC) 30 kA           Circuit Breaking Capacity         (254 / 440 V AC) 15 kA           (Lgs)         (125 V C) 20 kA           Frequency (f)         50 60 Hz           Rated Frequency (f)         50 60 Hz           Power Loss         10.5 W           Contact Position         0N / 0FF / TRIP           Indication         0N / 0FF / TRIP           Indication         0N / 0FF / TRIP           Electrical Endurance         10000 cycle           Mechanical Endurance         10000 cycle           Mumber of Potes         3           Number of Potes         3           Number of Potes         3.5 N·m           Number of Potes         3.5 N·m <td></td> <td>20 A</td>		20 A
Circuit Breaking Capacity (La)         (89 V) 4.5 k A (La)           Rated Service Short- (Cruit Breaking Capacity (La)         (240 / 415 V AC) 30 k A (240 / 580 V AC) 3 k A (400 / 580 V AC) 3 k A (125 V DC) 20 k A		
Circuit Breaking Capacity (Ics)         2524 / 440 V AC) 15 k AC (18 k)         2524 / 440 V AC) 15 k AC (18 k)         2525 / 244 0 V AC) 18 k AC (125 V DC) 20 k AC (125 V	Circuit Breaking Capacity	
Frequency (f)         5060 Hz           Rated Frequency (f)         50.060 Hz           Power Loss         at Rated Operating Conditions per Pole 3.5 W           Contact Position         ON / OFF / TRIP Indication           Indication         ON / OFF / TRIP Indication           Energy Limiting Class         3           Electrical Endurance         10000 cycle Mechanical Endurance           Mechanical Endurance         10000 cycle Mechanical Endurance           Number of Potected         3           Poles         3           Number of Poles         3           Overvoltage Category         IV           Tightening Torque         3.5 Nrm           Release Type         B           Actuator Marking         1/0           Housing Material         1/0           Mounting on DIN Rail         TH35-15 (35 x 15 mm Mounting Rail) acc. to IEC 60715 TH35-7,5 (35 x 7.5 mm Mounting Rail) acc. to IEC 60715 TH35-7,5 (35 x 7.5 mm Mounting Rail) acc. to IEC 60715 TH35-7,5 (35 x 7.5 mm Mounting Rail) acc. to IEC 60715 TH35-7,5 (35 x 7.5 mm Mounting Rail) acc. to IEC 60715 TH35-7,5 (35 x 7.5 mm Mounting Rail) acc. to IEC 60715 TH35-7,5 (35 x 7.5 mm Mounting Rail) acc. to IEC 60715 TH35-7,5 (35 x 7.5 mm Mounting Rail) acc. to IEC 60715 TH35-7,5 (35 x 7.5 mm Mounting Rail) acc. to IEC 60715 TH35-7,5 (35 x 7.5 mm Mounting Rail) acc. to IEC 60715 TH35-7,5 (35 x 7.5 mm Mounting Rail) acc. to IEC 60715 TH35-7,5 (35 x 7.5 mm Mounting Rail) acc. to IEC 60715	Circuit Breaking Capacity	(254 / 440 V AC) 15 kA (400 / 690 V AC) 3 kA
Power Loss         at Rated Operating Conditions per Pole 3.5 W at Rated Operating Conditions per Pole 3.5 W Contact Position Indication           Contact Position Indication         ON / OFF / TRIP Indication           Energy Limiting Class         3           Electrical Endurance         10000 cycle           Mechanical Endurance         10000 cycle           Number of Protected Poles         3           Number of Poles         3           Number of Poles         3           Overvoltage Category         1           Tightening Torque         3.5 N·m           Release Type         8           Actuator Marking         1           Housing Material         Insulation group I, RAL 7035           Mounting on DIN Rail         TH35-15 (35 x 15 mm Mounting Rail) acc. to IEC 60715           Mounting Position         Any           Recommended Screw         Position           Recommended Screw         Position           Remarks         Connection from top and bottom Connecting with CU only IP40 in enclosure with cover Cage terminal with captive screw           Connecting Capacity         Fiexible 0. 50 mm²           Connecting Capacity         Fiexible 0. 50 mm²           Material Compliance         Screw Terminals           Material Compliance         Following EU Dire	Frequency (f)	· · · · · ·
Contact Position	Rated Frequency (f)	50/60 Hz
Contact Position Indication         ON / OFF / TRIP Indication           Energy Limiting Class         3           Electrical Endurance         10000 cycle           Mechanical Endurance         10000 cycle           Number of Protected Poles         3           Overyotage Category         10           Tightening Torque         3.5 N m           Release Type         3.1 in-lb           Release Type         8           Actuator Marking         1 / O           Housing Material         Insulation group I, RAL 7035           Mounting on DIN Rail         TH35-15 (35 x 15 mm Mounting Rail) acc. to IEC 60715           Mounting Position         Any           Recommended Screw         Pozidriv 2           Driver         Pozidriv 2           Accessories Available         Yes           Remarks         Connection from top and bottom Connecting with CU only IP40 in enclosure with cover Cage terminal with captive screw           Connecting Capacity         Flexible 0 - 50 mm² Rigid 0 - 70 mm²           Terminal Type         Screw Terminals           RoHS Information         PAKK 107680A3903, ACCO050830D202           RoHS Status         Following EU Directive 2011/R6/EU           RoHS Date	Power Loss	
Energy Limiting Class   3     Electrical Endurance   10000 cycle     Mechanical Endurance   10000 cycle     Mumber of Protected   3     Poles   3     Number of Protected   3     Number of Poles   3     Release Type   8     Actuator Marking   1     Number of Poles   1     Number of Poles of Poles   1     Number of Poles   1     Number of Poles of Poles   1     Number o		
Electrical Endurance         10000 cycle           Mechanical Endurance         10000 cycle           Number of Protected         3           Poles         3           Number of Poles         3           Overvoltage Category         IV           Tightening Torque         3.5 N·m           Actuator Marking         1.7 O           Housing Material         Insulation group I, RAL 7035           Mounting on DIN Rail         TH35-15 (35 x 15 mm Mounting Rail) acc. to IEC 60715           Mounting Position         Any           Recommended Screw         Pozidriv 2           Driver         2           Accessories Available         Yes           Remarks         Connection from top and bottom Connecting with CU only IP40 in enclosure with cover Cage terminal with captive screw           Connecting Capacity         Flexible 0 50 mm² Rigid 0 50 mm² Rigid 0 70 mm²           Terminal Type         Screw Terminals           Material Compliance         Position for top and bottom Connecting with CU only IP40 in enclosure with cover Cage terminal with captive screw           Following EU Directive 2011/65/EU         Screw Terminals           Material Compliance         Position for top and bottom Connecting with CU only IP40 in enclosure with cover Cage terminal with captive screw           Topic of the comp		3
Mechanical Endurance         10000 cycle           Number of Protected Poles         3           Number of Poles         3           Overvoltage Category         IV           Tightening Torque         3.5 N·m           31 in-lib         31 in-lib           Release Type         B           Actuator Marking         1 / 0           Housing Material         Insulation group I, RAL 7035           Mounting on DIN Rail         TH35-15 (35 x 15 mm Mounting Rail) acc. to IEC 60715           Mounting Position         Any           Recommended Screw         Pozidriv 2           Driver         Pozidriv 2           Accessories Available         Yes           Remarks         Connection from top and bottom Connecting with CU only IP40 in enclosure with cover Cage terminal with captive screw with cover Cage terminal with cap		
Poles         Number of Poles         3           Overvoltage Category         IV           Tightening Torque         3.5 N·m           Release Type         8           Actuator Marking         I.70           Housing Material         Insulation group I, RAL 7035           Mounting on DIN Rail         TH35-15 (35 x 15 mm Mounting Rail) acc. to IEC 60715           Mounting Position         Any           Recommended Screw         Pozidriv 2           Driver         Pozidriv 2           Accessories Available         Yes           Remarks         Connection from top and bottom Connecting with CU only IP40 in enclosure with cover Cage terminal with captive screw           Connecting Capacity         Flexible 0 50 mm² Rigid 0 70 mm² Rigid 0 70 mm² Terminal Type           Material Compliance         Screw Terminals           RoHS Information         9AKK107680A3903 2CCC005083B0202           RoHS Status         Following EU Directive 2011/65/EU           RoHS Status         Following EU Directive 2011/65/EU           RoHS Date         9AKK107680A3903 2CCCC005083B0202           RoHS Information         9AKK107680A3903 2CCCC005083B0202           RoHS Status         Following EU Directive 2011/65/EU           RoHS Status         9AKK107680A3003 2CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC	Mechanical Endurance	-
Overvoltage Category Tightening Torque 3.5 N·m 3.1 in/b Release Type Bctuator Marking It O Housing Material Insulation group I, RAL 7035 Mounting on DIN Rail TH35-15 (35 x 15 mm Mounting Rail) acc. to IEC 60715 TH35-7.5 (35 x 7.5 m		3
Tightening Torque         3.5 N·m           Release Type         B           Actuator Marking         1 / O           Housing Material         Insulation group I, RAL 7035           Mounting on DIN Rail         TH35-15 (35 x 15 mm Mounting Rail) acc. to IEC 60715           Mounting Position         Any           Recommended Screw         Pozidriv 2           Driver         Pozidriv 2           Accessories Available         Yes           Remarks         Connection from top and bottom Connecting with CU only IP40 in enclosure with cover Cage terminal with captive screw           Connecting Capacity         Flexible 0 50 mm² Rigid 0 70 mm²           Terminal Type         Screw Terminals           Material Compliance         Screw Terminals           RoHS Information         9AKK107680A3903 2CCC005083D0202           RoHS Status         Following EU Directive 2011/65/EU           RoHS Date         20170426           Conflict Minerals         9AKK108468A368           Reporting Template         9AKK108468A368	Number of Poles	3
Release Type	Overvoltage Category	IV
Actuator Marking         1/ O           Housing Material         Insulation group I, RAL 7035           Mounting on DIN Rail         TH35-15 (35 x 15 mm Mounting Rail) acc. to IEC 60715           Mounting Position         Any           Recommended Screw         Pozidriv 2           Driver         Pozidriv 2           Accessories Available         Yes           Remarks         Connection from top and bottom Connecting with CU only IP40 in enclosure with cover Cage terminal with captive screw           Connecting Capacity         Flexible 0 50 mm² Rigid 0 70 mm² Rigid 0 70 mm²           Terminal Type         Screw Terminals           Material Compliance           RoHS Information         9AKK107680A3903 2CCC005083D0202           RoHS Status         Following EU Directive 2011/65/EU           RoHS Date         20170426           Conflict Minerals         9AKK108468A3363           Reporting Template         9AKK108468A3363	Tightening Torque	
Housing Material Insulation group I, RAL 7035 Mounting on DIN Rail TH35-15 (35 x 15 mm Mounting Rail) acc. to IEC 60715 TH35-7.5 (35 x 7.5 mm Mounting Rail) acc. to IEC 60715 Mounting Position Any Recommended Screw Pozidriv 2 Driver Paccessories Available Yes Remarks Connection from top and bottom Connecting with CU only IP40 in enclosure with cover Cage terminal with captive screw Connecting Capacity Flexible 0 50 mm² Rigid 0 70 mm² Terminal Type Screw Terminals  Material Compliance RoHS Information 9AKK107680A3903 2CCC005083D0202 ROHS Status Following EU Directive 2011/65/EU ROHS Date 20170426 Conflict Minerals 9AKK108468A3363 Reporting Template	Release Type	
Mounting on DIN Rail TH35-15 (35 x 15 mm Mounting Rail) acc. to IEC 60715 TH35-7.5 (35 x 7.5 mm Mounting Rail) acc. to IEC 60715 Mounting Position Any Recommended Screw Driver Pozidriv 2 Driver Remarks Connection from top and bottom Connecting with CU only IP40 in enclosure with cover Cage terminal with captive screw Connecting Capacity Flexible 0 50 mm² Rigid 0 70 mm² Terminal Type Screw Terminals  Material Compliance RoHS Information SAKK107680A3903 2CCC005083D0202 ROHS Status Following EU Directive 2011/65/EU ROHS Date 20170426 Conflict Minerals Reporting Template	7	
Mounting Position Any Recommended Screw Pozidriv 2 Driver Pozidriv 2 Accessories Available Yes Remarks Connection from top and bottom Connecting with CU only IP40 in enclosure with cover Cage terminal with captive screw Connecting Capacity Flexible 0 50 mm² Rigid 0 70 mm² Rigid 0 70 mm² Rigid 0 70 mm² Rigid 0 70 mm² Screw Terminals  Material Compliance  ROHS Information 9AKK107680A3903 2CCC005083D0202 ROHS Status Following EU Directive 2011/65/EU ROHS Date 20170426 Conflict Minerals Reporting Template		
Recommended Screw Driver  Accessories Available Yes Remarks Connection from top and bottom Connecting with CU only IP40 in enclosure with cover Cage terminal with captive screw Connecting Capacity Flexible 0 50 mm² Rigid 0 70 mm² Terminal Type Screw Terminals  Material Compliance  RoHS Information 9AKK107680A3903 2CCC005083D0202  RoHS Status Following EU Directive 2011/65/EU RoHS Date 20170426  Conflict Minerals 9AKK108468A3363  Reporting Template	Ç	TH35-7.5 (35 x 7.5 mm Mounting Rail) acc. to IEC 60715
Driver Accessories Available Remarks Connection from top and bottom Connecting with CU only IP40 in enclosure with cover Cage terminal with captive screw Connecting Capacity Flexible 0 50 mm² Rigid 0 70 mm² Terminal Type Screw Terminals  Material Compliance  RoHS Information PAKK107680A3903 2CCC005083D0202 RoHS Status Following EU Directive 2011/65/EU RoHS Date Conflict Minerals Reporting Template	-	
Remarks  Connection from top and bottom Connecting with CU only IP40 in enclosure with cover Cage terminal with captive screw  Flexible 0 50 mm² Rigid 0 70 mm²  Terminal Type  Screw Terminals  Material Compliance  RoHS Information  9AKK107680A3903 2CCC005083D0202  RoHS Status  Following EU Directive 2011/65/EU  RoHS Date  Conflict Minerals  Reporting Template		POZIUTIV 2
With cover Cage terminal with captive screw	Accessories Available	Yes
Material Compliance           RoHS Information         9AKK107680A3903 2CCC005083D0202           RoHS Status         Following EU Directive 2011/65/EU           RoHS Date         20170426           Conflict Minerals Reporting Template         9AKK108468A3363	Remarks	
Material Compliance           RoHS Information         9AKK107680A3903 2CCC005083D0202           RoHS Status         Following EU Directive 2011/65/EU           RoHS Date         20170426           Conflict Minerals Reporting Template         9AKK108468A3363	Connecting Capacity	
RoHS Information         9AKK107680A3903 2CCC005083D0202           RoHS Status         Following EU Directive 2011/65/EU           RoHS Date         20170426           Conflict Minerals Reporting Template         9AKK108468A3363	Terminal Type	Screw Terminals
RoHS Information         9AKK107680A3903 2CCC005083D0202           RoHS Status         Following EU Directive 2011/65/EU           RoHS Date         20170426           Conflict Minerals Reporting Template         9AKK108468A3363		
ROHS Status         Following EU Directive 2011/65/EU           ROHS Date         20170426           Conflict Minerals         9AKK108468A3363           Reporting Template         9AKK108468A363	Material Compliance	_
RoHS Date 20170426 Conflict Minerals Reporting Template	RoHS Information	
Conflict Minerals 9AKK108468A3363 Reporting Template		
Reporting Template		
	Reporting Template	9AKK108468A3363

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Environmental	
Ambient Temperature	-2560 °C
Ambient Air Temperature	Operation -25 60 °C
Reference Ambient Air Temperature	acc. to IEC60947-2 30 °C acc. to EN60898-1 30 °C
Degree of Protection	IP20
Pollution Degree	3
Resistance to Vibrations	1 mm 2 - 13.2 Hz 0.7g with Load 100% x le 13.2 - 100 Hz -
Resistance to Shock acc. to IEC 60068-2-27	5 g 30 ms
Environmental Information	2CCY413207D0203
Dimensions	
Width in Number of Modular Spacings	4.5
Product Net Width	81 mm
Product Net Height	95 mm
Product Net Depth / Length	82.5 mm
Product Net Weight	735 g
Size	3 modules
Built-In Depth (t <sub>2</sub> )	82.5 mm
<u>Dimension Diagram</u>	2CCC413003C0201
Ordering	
Package Level 1 Units	box 1 piece
Package Level 1 Gross Weight	770 g
Certificates and Declarations	
Declaration of Conformity - CE	2CCC005083D0202
Installation	
Instructions and Manuals	2CCC413016M0008
Popular Downloads	
Data Sheet, Technical Information	9AKK108468A9560 9AKK108468A9561 9AKK108468A9562
Classifications	
ETIM 8	EC000042 - Miniature circuit breaker (MCB)
ETIM 9	EC000042 - Miniature circuit breaker (MCB)
WEEE Category	5. Small Equipment (No External Dimension More Than 50 cm)
WEEE B2C / B2B	Business To Business
CN8 UNSPSC	85362020 39121603
UNGFOC	39121003

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eClass V11.0 : 27141901

IDEA Granular Category 4899 >> Miniature circuit breaker (MCB) screw-in model Code (IGCC)

Object Classification Code F

## Categories

 $Low\ Voltage\ Products\ and\ Systems\ \rightarrow\ Modular\ DIN\ Rail\ Products\ \rightarrow\ High\ Performance\ Circuit\ Breakers\ HPCBs\ \rightarrow\ High\ Performance\ Circuit\ Breakers\ HPCBs$ 









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