PRODUCT-DETAILS

S203-Z50NA

Miniature Circuit Breaker - 3+NP - Z - 50 A



General Information

Extended Product Type	S203-Z50NA
Product ID	2CDS253103R0578
EAN	4016779552141
Catalog Description	Miniature Circuit Breaker - 3+NP - Z - 50 A
Long Description	System pro M compact S200 miniature circuit breakers are current limiting. They have two different tripping mechanisms, the delayed thermal tripping mechanism for overload protection and the electromechanic tripping mechanism for short circuit protection. They are available in different characteristics (B,C,D,K,Z), configurations (1P,1P+N,2P,3P,3P+N,4P), breaking capacities (up to 6 kA at 230/400 V AC) and rated currents (up to 63A). All MCBs of the product range S200 comply with IEC/EN 60898-1, IEC/EN 60947-2, UL1077 allowing the use for residential, commercial and industrial applications. Bottom-fitting auxiliary contact can be mounted on S200 to save 50% space.

ABB EcoSolutions

ABB EcoSolutions	Yes
EcoSolutions Profile	9AKK108469A3796
Circular Design Principles Recyclability	Design for Closing Resource Loops - Standard EN45555 - 87.8 %

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Rate	
Offered with Extended Lifetime	Product Durability
End of Life Instructions	9AKK108468A3132
Environmental Product Declaration - EPD	9AKK108467A7832

Technical

Standards	IEC/EN 60898-1 IEC/EN 60947-2 UL 1077
Tripping Characteristic	Z
Rated Operational Voltage	acc. to IEC 60898-1 400 V AC acc. to IEC 60898-1 400 V acc. to IEC 60947-2 440 V AC
Operational Voltage	Maximum (Incl. Tolerance) 440 V AC
Rated Insulation Voltage (U_i)	acc. to IEC/EN 60664-1 440 V
Rated Impulse Withstand Voltage (U_{imp})	4 kV at 2000 m 5 kV at Sea Level 6.2 kV
Dielectric Test Voltage	50/60 Hz-1 min: 2 kV
Input Voltage Type	AC
Rated Current (I_n)	50 A
Rated Short-Circuit Capacity	(AC) 6 kA (DC) 6 kA (400 V AC) 6 kA (400 V) 6 kA
Rated Ultimate Short-Circuit Breaking Capacity (I_{cu})	(230 V AC) 20 kA (400 V AC) 10 kA (440 V AC) 10 kA (230 V) 20 kA (400 V) 10 kA
Rated Conditional Short-Circuit Current (I_{nc})	(230 V) 20 kA (400 V) 10 kA
Rated Service Short-Circuit Breaking Capacity (I_{cs})	(230 V AC) 15 kA (400 V AC) 7.5 kA (440 V AC) 7.5 kA
Frequency (f)	50 Hz
Rated Frequency (f)	50 / 60 Hz
Power Loss	16.4 W at Rated Operating Conditions per Pole 4.1 W
Power Supply Connection	Arbitrary
Contact Position Indication	Red ON / Green OFF
Energy Limiting Class	3
Electrical Endurance	10000 AC cycle
Mechanical Endurance	20000 cycle
Number of Protected Poles	3
Number of Poles	3+N
Overvoltage Category	III
Position of Neutral Terminals	Right
Tightening Torque	2.8 N·m
Mounting Type	DIN-Rail
Screw Terminal Type	Failsafe Bi-directional Cylinder-lift Terminal

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Actuator Marking	I / O
Actuator Material	Insulation Group II, Black, Sealable
Housing Material	Insulation Group II, 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 Driver	Pozidriv 2
Accessories Available	Yes
Connecting Capacity	Busbar 10 / 10 mm² Flexible with Ferrule 0.75 ... 25 mm² Flexible 0.75 ... 25 mm² Rigid 0.75 ... 35 mm² Rigid 0.75 ... 35 mm² Stranded 0.75 ... 35 mm²
Installation Size	acc. to DIN 43880 1
Wire Stripping Length	12.5 mm
Terminal Type	Screw Terminals

Material Compliance

RoHS Information	2CDK403001D0607
RoHS Status	Following EU Directive 2011/65/EU and Amendment 2015/863 July 22, 2019
RoHS Date	0335
REACH Declaration	9AKK107492A1906
REACH Information	True - contains substances > 0.1 mass percentage
REACH Date	20240821
Conflict Minerals Reporting Template (CMRT)	9AKK108468A3363

Environmental

Ambient Air Temperature	Operation -25 ... +55 °C Storage -40 ... +70 °C
Degree of Protection	IP20 IP40 Enclosure with Cover IP40
Pollution Degree	3
Environmental Conditions	28 cycles with 55 °C / 90-96 % and 25 °C / 95-100 %
Resistance to Vibrations	20 Cycles with Load 0.8 In: 5g 5 ... 150 ... 5 Hz
Resistance to Shock acc. to IEC 60068-2-27	25g 2 shocks 13 ms

Technical UL/CSA

Maximum Operating Voltage UL/CSA	110 V DC 480Y / 277 V AC
Interrupting Rating acc. to UL1077	(110 V DC) 10 kA (277 V AC) 6 kA (480Y / 277 V AC) 6 kA
Connecting Capacity UL/CSA	Busbar 18-8 AWG Conductor 18-4 AWG
Tightening Torque UL/CSA	18 in·lb

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Dimensions

Width in Number of Modular Spacings	4.0
Product Net Width	70 mm
Product Net Height	88 mm
Product Net Depth / Length	69 mm
Product Net Weight	0.52 kg
Pole Net Weight	0.125 kg
Built-In Depth (t_2)	69 mm
Dimension Diagram	2CDC022007F0010

Ordering

Package Level 1 Units	carton 1 piece
Package Level 1 Gross Weight	0.53 kg
E-Number (Finland)	3210761
E-Number (Norway)	1665644

Certificates and Declarations

Declaration of Conformity - CE	2CDK403001D0607
Declaration of Conformity - UKCA	9AKK108467A5053
I^2t Characteristic	9AKK107992A5104
Certification Agency	EN IEC UL

Installation

Instructions and Manuals	2CDS207104P0002

Popular Downloads

Data Sheet, Technical Information	9AKK107991A8329
I^2t Characteristic	9AKK107992A5104

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	8536 20 10
UNSPSC	39121603
eClass	V11.0 : 27141901

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IDEA Granular Category Code (IGCC)	4897 >> Miniature circuit breakers
Object Classification Code	F

Accessories

Identifier	Description	Type	Quantity	Unit Of Measure
2CDS200922R0001	Signal / Auxiliary Contact	S2C-S/H6R	1	piece
2CDS200912R0001	Auxiliary Contact	S2C-H6R	1	piece
2CDS200970R0031	Auxiliary Contact	S2C-H01	1	piece
2CDS200970R0032	Auxiliary Contact	S2C-H10	1	piece
2CDS200936R0001	Auxiliary Contact	S2C-H11L	1	piece
2CDS200936R0002	Auxiliary Contact	S2C-H20L	1	piece
2CDS200936R0003	Auxiliary Contact	S2C-H02L	1	piece
2CDS200946R0001	Auxiliary Contact	S2C-H6-11R	1	piece
2CDS200946R0002	Auxiliary Contact	S2C-H6-20R	1	piece
2CDS200946R0003	Auxiliary Contact	S2C-H6-02R	1	piece
2CDS200909R0001	Shunt Trip	S2C-A1	1	piece
2CDS200909R0002	Shunt Trip	S2C-A2	1	piece
2CSS200911R0001	Undervoltage Release	S2C-UA 12 DC	1	piece
2CSS200911R0002	Undervoltage Release	S2C-UA 24 AC	1	piece
2CSS200911R0003	Undervoltage Release	S2C-UA 48 AC	1	piece
2CSS200911R0004	Undervoltage Release	S2C-UA 110 AC	1	piece
2CSS200911R0005	Undervoltage Release	S2C-UA 230 AC	1	piece
2CSS200911R0006	Undervoltage Release	S2C-UA 400 AC	1	piece
2CSS200911R0007	Undervoltage Release	S2C-UA 24 DC	1	piece
2CSS200911R0008	Undervoltage Release	S2C-UA 48 DC	1	piece
2CSS200911R0009	Undervoltage Release	S2C-UA 110 DC	1	piece
2CSS200911R0010	Undervoltage Release	S2C-UA 230 DC	1	piece
GHS2001901R0003	Mechanical Accessories	S2C-DH	1	piece
2CSS200998R0001	Mechanical tripping device	S2C-BP	1	piece
2CSS200999R0001	Plug-in base	S2C-EST	1	piece
2CDS200918R0001	Hand Operated Neutral	S2C-NT	1	piece
2CCA880100R0001	Sensor	CMS-100PS	1	piece
2CCA880101R0001	Sensor	CMS-101PS	1	piece
2CCA880102R0001	Sensor	CMS-102PS	1	piece

Categories

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Low Voltage Products and Systems → Modular DIN Rail Products → Miniature Circuit Breakers MCBs → Miniature Circuit Breakers MCBs







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