



PRODUCT-DETAILS

S-ARC1 C20

S-ARC1 C20 Arc fault detection device integrated with MCB



General Information	
Extended Product Type	S-ARC1 C20
Product ID	2CSA255901R9204
EAN	8012542175438
Catalog Description	S-ARC1 C20 Arc fault detection device integrated with MCB
Long Description	S-ARC1 is a 1P+N arc fault detection device (AFDD) with an integrated MCB in two modules, for the protection against short-circuit currents, overload, earth arc faults, parallel arc faults and series arc faults.

ABB EcoSolutions	
ABB EcoSolutions	Yes
EcoSolutions Profile	9AKK108471A1002
Recyclability Rate of the Product acc. to EN45555	Design for Closing Resource Loops - Standard EN45555 - 81.91 %
ABB Site Meeting Group Waste To Landfill Target	No non-hazardous waste is sent to a landfill UL 2799 Zero Waste To Landfill Validation available
Extended Product Lifetime	Product Durability
End Of Life	9AKK108469A4799

Disassembling
Instructions

Environmental Product
Declaration - EPD

9AKK108468A8866

Technical

Dielectric Test Voltage	2.5 kV
Rated Ultimate Short-Circuit Breaking Capacity (I _{cu})	7.5 kA
Rated Service Short-Circuit Breaking Capacity (I _{cs})	6 kA
Power Supply Connection	Arbitrary
Contact Position Indication	Red ON / Green OFF
Energy Limiting Class	3
Electrical Endurance	10000 cycle
Mechanical Endurance	20000 cycle
Number of Protected Poles	1
Number of Poles	1P+N
Number of Modular Spacings per DIN Rail	2
Operating Characteristic	Instantaneous
Position of Neutral Terminals	Right
Tightening Torque	2.8 N·m
Accessory Type	Auxiliary contact Auxiliary/Signal contact Shunt trip Undervoltage release Overvoltage release
Actuator Type	Toggle - Insulation group II, Orange RAL 2004, sealable in ON-OFF-positions
Housing Type	Insulation group I, RAL 7035
Screw Terminal Type	Failsafe Bi-directional Cylinder-lift Terminal
Includes	Fire protection switch
Accessories Available	Yes
Mounting Position of Accessories	Right
Number of Batteries	0
Connecting Capacity	Busbar 10 mm ² Rigid 1...25 mm ² Flexible 1...16 mm ²
Wire Stripping Length	12 mm
Terminal Type	Screw Terminals

Electrical

Tripping Characteristic	C
Rated Operational Voltage	230...240 V AC
Rated Insulation Voltage (U _i)	500 V
Rated Impulse	4 kV

Withstand Voltage (U_{imp})

Input Voltage Type	AC
Rated Current (I _n)	20 A
Rated Short-Circuit Capacity	6 kA
Rated Frequency (f)	50 Hz
Power Loss	3.6 W
Overvoltage Category	III

Design

Number of Modules	2
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Material Compliance

RoHS Declaration	9AKK107045A1564
RoHS Information	Following EU Directive 2011/65/EU and Amendment 2015/863 July 22, 2019
RoHS Date	20170621
REACH Declaration	9AKK108467A9482
REACH Information	True - contains substances > 0.1 mass percentage
REACH Date	20240429
Conflict Minerals Reporting Template (CMRT)	9AKK108468A3363
WEEE Category	5. Small Equipment (No External Dimension More Than 50 cm)
WEEE B2C / B2B	Business To Consumer

Environmental

Ambient Air Temperature	Operation -25 ... 55 °C Storage -40 ... 70 °C
Reference Ambient Air Temperature	30 °C
Degree of Protection	Terminals IP20 Housing IP40
Pollution Degree	2
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 or 0.2mm 5 ... 150 Hz
Resistance to Shock acc. to IEC 60068-2-27	30g 2 shocks 13 ms

Dimensions

Width in Number of Modular Spacings	2
Product Net Width	35 mm
Product Net Height	85 mm
Product Net Depth / Length	69 mm
Product Net Weight	180 g
Built-In Depth (t ₂)	69 mm

Dimension Diagram

9AKK106930A8989

Engineering

EPLAN Data

9AAC190689_EPLAN

Ordering

Package Level 1 Units	box 1 piece
Package Level 1 Gross Weight	0.200 kg
E-Number (Finland)	3211055
E-Number (Sweden)	2100156

Certificates and Declarations

Declaration of Conformity - CE	9AKK107045A1563
IMQ Certificate	9AKK107045A1660
KC Certificate	9AKK108466A5923
VDE Certificate	9AKK107045A6736

Installation

Instructions and Manuals	9AKK106930A8985 9AKK106930A8986
Mounting Type	DIN-Rail
Mounting Position	Any

Popular Downloads

Data Sheet, Technical Information	2CDC420032D0201
Mechanical Drawings	9AKK106930A8988 9AKK106930A8989

External Classifications and Standards

ETIM 9	EC002694 - Miniature circuit breaker (MCB) with auxiliary device
ETIM 10	EC002694 - Miniature circuit breaker (MCB) with auxiliary device
UNSPSC	39121603
eClass	V11.0 : 27141906
IDEA Granular Category Code (IGCC)	4900 >> Miniature circuit breaker (MCB) with auxiliary device
Object Classification Code	F
Standards	IEC/EN 62606 IEC/EN 60898-1

Accessories

Identifier	Description	Type	Quantity	Unit Of Measure
2CDS200912R0001	S2C-H6R Auxiliary Contact 1CO	S2C-H6R	1	piece
2CDS200946R0001	S2C-H6-11R Auxiliary contact 1NO/1NC	S2C-H6-11R	1	piece
2CDS200946R0002	S2C-H6-20R Auxiliary contact 2NO	S2C-H6-20R	1	piece
2CDS200946R0003	S2C-H6-02R Auxiliary contact 2NC	S2C-H6-02R	1	piece
2CDS200922R0001	S2C-S/H6R Universal Auxiliary/Signal Con	S2C-S/H6R	1	piece
2CSS200911R0001	S2C-UA 12 DC Undervoltage release	S2C-UA 12 DC	1	piece
2CSS200911R0002	S2C-UA 24 AC Undervoltage release	S2C-UA 24 AC	1	piece
2CSS200911R0003	S2C-UA 48 AC Undervoltage release	S2C-UA 48 AC	1	piece
2CSS200911R0004	S2C-UA 110 AC Undervoltage release	S2C-UA 110 AC	1	piece
2CSS200911R0005	S2C-UA 230 AC Undervoltage release	S2C-UA 230 AC	1	piece
2CSS200911R0006	S2C-UA 400 AC Undervoltage release	S2C-UA 400 AC	1	piece
2CSS200911R0007	S2C-UA 24 DC Undervoltage release	S2C-UA 24 DC	1	piece
2CSS200911R0008	S2C-UA 48 DC Undervoltage release	S2C-UA 48 DC	1	piece
2CSS200911R0009	S2C-UA 110 DC Undervoltage release	S2C-UA 110 DC	1	piece
2CSS200911R0010	S2C-UA 230 DC Undervoltage release	S2C-UA 230 DC	1	piece

Categories

Low Voltage Products and Systems → Modular DIN Rail Products → Protection Against Arc Faults AFDDs → Arc Fault Detection Devices with Integrated Overcurrent Protection - AFDD+MCB

