



PRODUCT-DETAILS

DS-ARC1 C20 A30

DS-ARC1 C20 A30 Arc fault detection device integrated with RCBO



General Information

Extended Product Type	DS-ARC1 C20 A30
Product ID	2CSA255103R1204
EAN	8012542735113
Catalog Description	DS-ARC1 C20 A30 Arc fault detection device integrated with RCBO
Long Description	DS-ARC1 is a 1P+N arc fault detection device (AFDD) with an integrated RCBO in three modules, for the protection against earth arc faults, parallel arc faults, series arc faults, overvoltage, short-circuit currents, overload, earth fault currents

ABB EcoSolutions

Environmental Product Declaration - EPD	9AKK108470A1707
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Technical

Type of Residual Current	Type A
Test Voltage (Ut)	170 ... 264 V
Dielectric Test Voltage	2.5 kV
Rated Ultimate Short-	7.5 kA

Circuit Breaking Capacity (I _{cu})	
Rated Residual Breaking Capacity (I _{Δm})	6 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	3
Fault Indication	Blue Flag on Toggle
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 Bottom fitting auxiliary contact
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
Accessories Available	Yes
Mounting Position of Accessories	Right
Number of Batteries	0
Connecting Capacity	Busbar 10 mm² Rigid 1...25 mm² Flexible 1...16 mm²
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 Withstand Voltage (U _{imp})	4 kV
Input Voltage Type	AC
Rated Current (I _n)	20 A
Rated Residual Current	30 mA
Rated Short-Circuit Capacity	6 kA
Rated Frequency (f)	50 ... 60 Hz
Power Loss	Total 4.2 W
Overvoltage Category	III

Design

Number of Modules	3
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Material Compliance

RoHS Declaration	9AKK107046A6530
RoHS Information	Following EU Directive 2011/65/EU
RoHS Date	20180903
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	3
Product Net Width	52.5 mm
Product Net Height	85 mm
Product Net Depth / Length	69 mm
Product Net Weight	240 g
Built-In Depth (t ₂)	69 mm
Dimension Diagram	9AKK107046A6174

Engineering

EPLAN Data	9AAC190691 EPLAN
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Ordering

Package Level 1 Units	box 1 piece
Package Level 1 Gross Weight	0.270 kg
E-Number (Finland)	3211096
E-Number (Norway)	1683248

Certificates and Declarations

Declaration of Conformity - CE	9AKK107046A6529
IMQ Certificate	9AKK107046A6176
KC Certificate	9AKK108466A5927
VDE Certificate	9AKK107046A6538

Installation

Instructions and Manuals	9AKK107046A6173 9AKK106930A8986
Mounting Type	DIN-Rail
Mounting Position	Any

Popular Downloads

Data Sheet, Technical Information	9AKK107046A7200
Mechanical Drawings	9AKK107046A6174 9AKK107046A6175

External Classifications and Standards

ETIM 9	EC002695 - Earth leakage circuit breaker with auxiliary device
ETIM 10	EC002695 - Earth leakage circuit breaker with auxiliary device
eClass	V11.0 : 27142213
Object Classification Code	F
Standards	IEC/EN 62606 IEC/EN 61009-1 IEC/EN 61009-2-1

Accessories

Identifier	Description	Type	Quantity	Unit Of Measure
2CDS200912R0001	S2C-H6R Auxiliary Contact 1CO	S2C-H6R	1	piece
2CDS200922R0001	S2C-S/H6R Universal Auxiliary/Signal Con	S2C-S/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
2CDS200970R0002	S2C-H10 Bottom-fitting auxiliary contact 1NO	S2C-H10	1	piece
2CDS200970R0031	S2C-H01 Bottom-fitting auxiliary contact S2C-H01 Bottom-fitting auxiliary contact 1NC	S2C-H01	1	piece
2CDS200970R0032	S2C-H10 Bottom-fitting auxiliary contact 1NO	S2C-H10	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 and Residual Current Protection - AFDD+RCBO

