



 PRODUCT-DETAILS

FS451M-C10/0.03

FS451M-C10/0.03 Residual Current Circuit Breaker with Overcurrent Protection



General Information

Extended Product Type:	FS451M-C10/0.03
Product ID:	2CCG001795R0001
EAN:	7612271522643
Catalog Description:	FS451M-C10/0.03 Residual Current Circuit Breaker with Overcurrent Protection
Long Description:	The FS451 series is a 1P+N RCBO in two-modules for the SMISLINE Classic DIN system width for the protection of end user circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contacts and additional protection against direct contacts.
Display Name:	FS451M-C10/0.03

ABB EcoSolutions

Carbon Footprint (Full Lifecycle):	2.40477 kg CO ₂ eq
ABB EcoSolutions:	Yes
Recyclability Rate of the Product acc. to EN45555:	Design for Closing Resource Loops - Standard EN45555 - 81.14 %

ABB Site Meeting Group Waste To Landfill No non-hazardous waste is sent to a landfill

Target:

Sustainable Material Content in Packaging (wt. %): Recycled Cardboard - 100 %

Extended Product Lifetime: Product Durability

Offered with Takeback Services: Take Back for Recycling

End Of Life Disassembling Instructions: 9AKK108471A2435

Environmental Product Declaration - EPD: 9AKK108470A5865

Technical

Type of Residual Current: Type A

Dielectric Test Voltage: 2500 kV

Rated Operational Current (I_e): 10 A

Rated Ultimate Short-Circuit Breaking Capacity (I_{cu}): 25 kA

Rated Residual Breaking Capacity ($I_{\Delta m}$): 10000 A

Rated Service Short-Circuit Breaking Capacity (I_{cs}): (240 V AC) 15 kA

Rated Service Short-Circuit Breaking Capacity, in % of I_{cu} (I_{cs}): 10 kA

Maximum Surge Current: 3 kA

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: 2P

Operating Characteristic: Instantaneous

Position of Neutral Terminals: Right

Tightening Torque: 2.8 N·m

Actuator Type: Toggle

Earthing Switch Type: Undelayed

Screw Terminal Type: Failsafe Bi-directional Cylinder-lift Terminal

Actuator Material: Insulation Group II, Black, Sealable

Accessories Available: Yes

Connecting Capacity: Stranded 0.75 ... 35 mm²
Flexible 0.75 ... 25 mm²

Rated Cross-Section: 1 - Solid-Core 0.75 ... 35 mm²
4 - Multi-Wired 0.75 ... 10 mm²

Electrical

Tripping Characteristic: C

Rated Operational Voltage:	acc. to IEC 60898-1 240 V
Rated Insulation Voltage (U_i):	acc. to IEC/EN 60664-1 500 V
Rated Impulse Withstand Voltage (U_{imp}):	4 kV
Input Voltage Type:	AC
Rated Current (I_n):	10 A
Rated Residual Current:	30 mA
Rated Short-Circuit Capacity:	10 kA
Rated Frequency (f):	50 ... 60 Hz
Power Loss:	Total 3.4 W
Overvoltage Category:	III

Design

Housing Material:	Insulation Group I, RAL 7035
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Material Compliance

RoHS Declaration:	9AKK108469A5446
RoHS Information:	Following EU Directive 2011/65/EU and Amendment 2015/863 July 22, 2019
RoHS Date:	20240603
REACH Declaration:	9AKK108467A9561
REACH Information:	True - contains substances > 0.1 mass percentage
REACH Date:	20230417
Conflict Minerals Reporting Template (CMRT):	9AKK108468A3363
WEEE Category:	5. Small Equipment (No External Dimension More Than 50 cm)
WEEE B2C / B2B:	Business To Business

Environmental

Ambient Air Temperature:	Operation -25 ... 60 °C
Reference Ambient Air Temperature:	30 °C
Degree of Protection:	IP20
Pollution Degree:	2
Resistance to Vibrations:	1 mm 2 ... 13.2 Hz
Environmental Information:	9AKK108467A9561

Dimensions

Width in Number of Modular Spacings:	2
Product Net Width:	36 mm
Product Net Height:	87 mm

Product Net Depth / Length:	68 mm
Product Net Weight:	210 g
Built-In Depth (t₂):	78 mm
Dimension Diagram:	9AKK108469A6771

Ordering

Package Level 1 Units:	carton 1 piece
Package Level 1 Gross Weight:	235 g

Certificates and Declarations

Declaration of Conformity - CE:	9AKK108469A5467
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Installation

Instructions and Manuals:	2CCR665900B0001
Mounting Position:	Any

Popular Downloads

Data Sheet, Technical Information:	9AKK107680A1587
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External Classifications and Standards

ETIM 9:	EC000905 - Earth leakage circuit breaker
ETIM 10:	EC000905 - Earth leakage circuit breaker
Object Classification Code:	FB
Standards:	IEC 61009-1 EN 61009-1 EN 61009-2-1

Accessories

Identifier	Description	Type	Qty	Unit Of Measure
2CCF201002R0001	Auxiliary switch left side mounted	HK45020-L	1	piece
2CCF201004R0001	Auxiliary switch left side mounted	HK45002-L	1	piece
2CCS400900R0021	Auxiliary switch left side mounted	HK45011-L	1	piece
2CCF201052R0001	Signal contact left side mounted	SK45020-L	1	piece
2CCF201054R0001	Signal contact left side mounted	SK45002-L	1	piece
2CCS400900R0031	Signal contact left side mounted	SK45011-L	1	piece

Identifier	Description	Type	Qty	Unit Of Measure
2CCA880212R0001	Open-Core Sensor 20A	CMS-122PS	1	piece
2CCA880102R0001	18mm Solid-Core Sensor 20A	CMS-102PS	1	piece

Categories

Products > Low Voltage Products and Systems > Modular DIN Rail Products > SMISLINE Classic > SMISLINE Classic

