



Arc Fault Detection Device, 2 poles, C20A, 30mA, type A

Part no.

AFDD-20/2/C/003-A

Catalog No.

187222

Similar to illustration

Delivery program

Basic function			Arc fault detection device
Number of poles			2 pole
Tripping characteristic			C
Application			Switchgear for residential and commercial applications
Rated current	I_n	A	20
Rated switching capacity according to IEC/EN 60898-1		kA	10
Rated switching capacity according to IEC/EN 61009		kA	10
Rated short-circuit strength	I_{cn}	kA	10
Rated fault current	$I_{\Delta N}$	A	0.03
Type			Type A
Tripping		S	non-delayed
Busbar type			ZV-SS
Product range			AFDD
Sensitivity			Pulse-current sensitive
Impulse withstand current			Partly surge-proof 250 A

Technical data

Electrical

Types conform to			IEC/EN 62606 IEC/EN 61009
Current test marks			As per inscription
Limit values of the operating voltage			
Test circuit		V AC	170 - 264
Sensitivity			Pulse-current sensitive
Rated short-circuit strength	I_{cn}	kA	10
lifespan			
Electrical			Operation \geq 4000
Mechanical			Operation \geq 20000
Rated short-circuit strength	I_{cn}	kA	10

Mechanical

Standard front dimension		mm	45
Device height		mm	80
Built-in width		mm	54 (3TE)
Mounting			Tristable slide catch enables removal from existing combination.
Degree of Protection			IP20 switches IP40 enclosed
Terminals top and bottom			Twin-purpose terminals
Terminal protection			Busbar tag shroud as per VBG4, ÖVE-EN 6
Thickness of busbar material		mm	0.8 - 2
Admissible ambient temperature range		°C	-25 - +40
Permissible storage and transport temperatures		°C	-35 - +60
Climatic proofing			according to IEC/EN 61009
Contact position indicator			red / green

Design verification as per IEC/EN 61439

Technical data for design verification			
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Rated operational current for specified heat dissipation	I _n	A	20
Equipment heat dissipation, current-dependent	P _{vid}	W	5.9
Operating ambient temperature min.		°C	-25
Operating ambient temperature max.		°C	40
IEC/EN 61439 design verification			
10.2 Strength of materials and parts			
10.2.2 Corrosion resistance			Meets the product standard's requirements.
10.2.3.1 Verification of thermal stability of enclosures			Meets the product standard's requirements.
10.2.3.2 Verification of resistance of insulating materials to normal heat			Meets the product standard's requirements.
10.2.3.3 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric effects			Meets the product standard's requirements.
10.2.4 Resistance to ultra-violet (UV) radiation			Meets the product standard's requirements.
10.2.5 Lifting			Does not apply, since the entire switchgear needs to be evaluated.
10.2.6 Mechanical impact			Does not apply, since the entire switchgear needs to be evaluated.
10.2.7 Inscriptions			Meets the product standard's requirements.
10.3 Degree of protection of ASSEMBLIES			Does not apply, since the entire switchgear needs to be evaluated.
10.4 Clearances and creepage distances			Meets the product standard's requirements.
10.5 Protection against electric shock			Does not apply, since the entire switchgear needs to be evaluated.
10.6 Incorporation of switching devices and components			Does not apply, since the entire switchgear needs to be evaluated.
10.7 Internal electrical circuits and connections			Is the panel builder's responsibility.
10.8 Connections for external conductors			Is the panel builder's responsibility.
10.9 Insulation properties			
10.9.2 Power-frequency electric strength			Is the panel builder's responsibility.
10.9.3 Impulse withstand voltage			Is the panel builder's responsibility.
10.9.4 Testing of enclosures made of insulating material			Is the panel builder's responsibility.
10.10 Temperature rise			The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices.
10.11 Short-circuit rating			Is the panel builder's responsibility. The specifications for the switchgear must be observed.
10.12 Electromagnetic compatibility			Is the panel builder's responsibility. The specifications for the switchgear must be observed.
10.13 Mechanical function			The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.

Technical data ETIM 6.0

Circuit breakers and fuses (EG000020) / Earth leakage circuit breaker with auxiliary device (EC002695)			
Electric engineering, automation, process control engineering / Electrical installation, device / Residual current protection system / Earth leakage circuit breaker with auxiliary device (ec1@ss8.1-27-14-22-13 {ADI479004})			
Number of poles			2
Nominal rated voltage		V	230
Nominal rated current		A	20
Rated fault current		A	0.03
Leakage current type			A
Current limiting class			3
Rated short-circuit breaking capacity EN 60898		kA	10
Rated short-circuit breaking capacity IEC 60947-2		kA	0
Frequency		Hz	50
Release characteristic			C
Concurrently switching N-neutral			No
Over voltage category			3
Pollution degree			2
Width in number of modular spacings			3
Built-in depth		mm	67
Additional equipment attached at delivery			Fire protection switch
Rated switch current auxiliary device		A	0
Rated voltage auxiliary device		V	230
Control voltage type auxiliary equipment			AC

Degree of protection (IP)			IP20
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