DATASHEET - AFDD-13/2/C/003-A



Arc Fault Detection Device, 2 poles, C13A, 30mA, type A

Powering Business Worldwide*

Part no. AFDD-13/2/C/003-A Catalog No. 187186

Similar to illustration

Delivery program

Denvery program			
Basic function			Arc fault detection device
Number of poles			2 pole
Tripping characteristic			C
Application			Switchgear for residential and commercial applications
Rated current	In	Α	13
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	$I_{\Delta N}$	Α	0.03
Туре			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

Linit values of the operating voltage V AC 170 - 264 Test circuit V AC 170 - 264 Sensitivity Pulse-current sensitive Rated short-circuit strength Icn kA 10 Ifespan Operation = 20000 4000 <th>Types conform to</th> <th></th> <th></th> <th>IEC/EN 62606 IEC/EN 61009</th>	Types conform to			IEC/EN 62606 IEC/EN 61009
Test circuit Sensitivity Rated short-circuit strength Rated short-circuit strength Relectrical Relec	Current test marks			As per inscription
Sensitivity Rated short-circuit strength Rated short-circuit strength Relectrical Electrical Mechanical Rated short-circuit strength Relectrical Rele	Limit values of the operating voltage			
Rated short-circuit strength Electrical Mechanical Rated short-circuit strength Mechanical Rated short-circuit strength Mechanical Rated short-circuit strength Ion Ion Ion Ion Ion Ion Ion Io	Test circuit		V AC	170 - 264
Electrical Operations 4000 Mechanical Operations 20000 Rated short-circuit strength Inc. Mechanical Inc. Rated short-circuit strength Inc. Mechanical Inc. Standard front dimension Inc. Standard front dimension Inc. Device height Inc. Built-in width Inc. Mounting Inc. Degree of Protection Inc. Terminals top and bottom Inc. Terminals top and to an	Sensitivity			Pulse-current sensitive
Electrical Operation Mechanical Operation 2000 000 Operation 2000 000 000 000 Operation 2000 000 000 000 000 000 Operation 2000 000 000 000 000 000 000 0	Rated short-circuit strength	I _{cn}	kA	10
Mechanical Rated short-circuit strength Mechanical Standard front dimension Device height Built-in width Mounting Degree of Protection Terminals top and bottom Terminal protection Thickness of busbar material Admissible ambient temperature range Permissible storage and transport temperatures Climatic proofing Degree of Protection Degree of Protection Degree of Protection Topic and bottom Thickness of busbar material Thickness of busb	lifespan			
Rated short-circuit strength Mechanical Standard front dimension Device height Mounting Degree of Protection Terminals top and bottom Terminal protection Thickness of busbar material Admissible ambient temperature range Permissible storage and transport temperatures Climatic proofing Ten kA 10 10 10 10 10 10 10 10 10 1	Electrical		Operation	n≩ 4000
Wechanical 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 1P40 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 - 440 Permissible storage and transport temperatures °C -35 - +60 Climatic proofing according to IEC/EN 61009	Mechanical		Operation	n≩ 20000
Standard front dimension mm 80 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 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 Climatic proofing according to IEC/EN 61009	Rated short-circuit strength	I _{cn}	kA	10
Device height Built-in width mm 54 (3TE) Mounting Degree of Protection Protection IP20 switches IP40 enclosed Trininals top and bottom Terminal protection Thickness of busbar material Admissible ambient temperature range Permissible storage and transport temperatures Climatic proofing mm 80 54 (3TE) Tristable slide catch enables removal from existing combination. IP20 switches IP40 enclosed Twin-purpose terminals Busbar tag shroud as per VBG4, ÖVE-EN 6 -25 - +40 -25 - +60 Climatic proofing according to IEC/EN 61009	Mechanical			
Built-in width mm 54 (3TE) Mounting Degree of Protection Degree of Protection Degree of Protection Terminals top and bottom Terminal protection Terminal protection Thickness of busbar material Admissible ambient temperature range Permissible storage and transport temperatures Climatic proofing mm 54 (3TE) Tristable slide catch enables removal from existing combination. IP20 switches IP40 enclosed Twin-purpose terminals Busbar tag shroud as per VBG4, ÖVE-EN 6 mm 0.8 - 2 -25 - +40 -25 - +40 climatic proofing Climatic proofing according to IEC/EN 61009	Standard front dimension		mm	45
Mounting Tristable slide catch enables removal from existing combination. IP20 switches IP40 enclosed Terminals top and bottom Terminal protection Thickness of busbar material Admissible ambient temperature range "C" -25 - +40 Permissible storage and transport temperatures Climatic proofing Tristable slide catch enables removal from existing combination. IP20 switches IP40 enclosed Twin-purpose terminals Busbar tag shroud as per VBG4, ÖVE-EN 6 Twin-purpose terminals Busbar tag shroud as per VBG4, ÖVE-EN 6 Climatic proofing "C" -25 - +40 according to IEC/EN 61009	Device height		mm	80
Degree of Protection IP20 switches IP40 enclosed Terminals top and bottom Terminal protection Terminal protection Thickness of busbar material Admissible ambient temperature range Permissible storage and transport temperatures Climatic proofing IP20 switches IP40 enclosed Twin-purpose terminals Busbar tag shroud as per VBG4, ÖVE-EN 6 Busbar tag shroud as per VBG4, ÖVE-EN 6 Cu -25 - +40 according to IEC/EN 61009	Built-in width		mm	54 (3TE)
Terminals top and bottom Terminal protection Thickness of busbar material Admissible ambient temperature range Climatic proofing IP40 enclosed Twin-purpose terminals Busbar tag shroud as per VBG4, ÖVE-EN 6 mm 0.8 - 2 -25 - +40 -25 - +60 according to IEC/EN 61009	Mounting			Tristable slide catch enables removal from existing combination.
Terminal protection Busbar tag shroud as per VBG4, ÖVE-EN 6 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	Degree of Protection			
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	Terminals top and bottom			Twin-purpose terminals
Admissible ambient temperature range °C -25 - +40 Permissible storage and transport temperatures °C -35 - +60 Climatic proofing according to IEC/EN 61009	Terminal protection			Busbar tag shroud as per VBG4, ÖVE-EN 6
Permissible storage and transport temperatures °C -35 - +60 Climatic proofing according to IEC/EN 61009	Thickness of busbar material		mm	0.8 - 2
Climatic proofing according to IEC/EN 61009	Admissible ambient temperature range		°C	-25 - +40
	Permissible storage and transport temperatures		°C	-35 - +60
Contact position indicator red / green	Climatic proofing			according to IEC/EN 61009
	Contact position indicator			red / green

Design verification as per IEC/EN 61439

Technical data for design verification		

Rated operational current for specified heat dissipation	In	Α	13
Equipment heat dissipation, current-dependent	P_{vid}	W	4
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 switch gear must be observed. $\label{eq:specification}$
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 (ecl@ss8.1-27-14-22-13 [ADI479004])

(eti@SS6.1-21-14-22-13 [AD14/3004])		
Number of poles		2
Nominal rated voltage	V	230
Nominal rated current	Α	13
Rated fault current	Α	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		С
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	Α	0
Rated voltage auxiliary device	V	230
Control voltage type auxiliary equipment		AC

Degree of protection (IP)

IP20