## DATASHEET - AFDD-13/2/C/001-A

Part no. Catalog No.

**EL-Nummer** 

(Norway)



Arc Fault Detection Device, 2p, C, 13 A, 10 mA, type A

1601424

AFDD-13/2/C/001-A 187183 Powering Business Worldwide"

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	In	А	13
Rated switching capacity according to IEC/EN 60898-1	I <sub>cn</sub>	kA	10
Rated switching capacity according to IEC/EN 61009		kA	10
Rated short-circuit strength	I <sub>cn</sub>	kA	10
Rated fault current	$I_{\Delta N}$	А	0.01
Туре			Туре А
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
Rated switching capacity according to IEC/EN 60898-1	I <sub>cn</sub>	kA	10
Limit values of the operating voltage			
Test circuit		V AC	170 - 264
Sensitivity			Pulse-current sensitive
Rated short-circuit strength	I <sub>cn</sub>	kA	10
lifespan			
Electrical	Operations		≧ 4000
Mechanical	Operations		≧ 20000
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			
Rated operational current for specified heat dissipation	In	А	13
Equipment heat dissipation, current-dependent	P <sub>vid</sub>	W	8
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 7.0**

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@ss10.0.1-27-14-22-13 [ADI479007])

Rated voltage       V       30         Rated current       A       30         Rated fault current       A       00         Leakage current type       A       A         Current limiting class       A       3         Rated short-circuit breaking capacity acc. EN 61009       A       0         Rated short-circuit breaking capacity IEC 60947-2       KA       0         Release characteristic       KA       0         Release characteristic       KA       0         Route degree       KA       0         Pollution degree       KA       0         With in number of modular spacings       KA       0         Buil-in degrie       KA       0         Additional equipipment attached at delivery       KA       0	(ecl@ss10.0.1-27-14-22-13 [ADI479007])		
Rated current       A       3         Rated current Querent Type       C       A         Leakage current type       A       A         Current limiting class       A       A         Rated short-circuit breaking capacity acc. EN 61009       KA       D         Rated short-circuit breaking capacity IEC 60947-2       KA       D         Release characteristic       C       C       D         Courrently switching N-neutral       KA       D       D         Over voltage category       KA       D       D         Pollution degree       S       D       D         With in number of modular spacings       S       D       D         Buil-in degth       C       S       D       D         Additional equipment attached at delivery       C	Number of poles		2
Rated fault current       A       A         Leakage current type       A       A         Current limiting class       A       A         Rated short-circuit breaking capacity acc. EN 61009       KA       D         Rated short-circuit breaking capacity IEC 60947-2       KA       D         Release characteristic       KA       D         Concurrently switching N-neutral       KA       D         Over voltage category       KA       So         Pollution degree       KA       So         Buil-in number of modular spacings       Man       A         Additional equipment attached at delivery       Man       So	Rated voltage	V	230
Leakage current type       A         Leakage current type       A         Current limiting class       S         Rated short-circuit breaking capacity acc. EN 61009       KA         Rated short-circuit breaking capacity IEC 60947-2       KA         Frequency       KA         Release characteristic       F         Concurrently switching N-neutral       C         Over voltage category       S         Pollution degree       S         With in number of modular spacings       M         Built-in depth       M         Automal equipment atteched at delivery       M	Rated current	А	13
Current limiting class       Image: Current limiting class         Rated short-circuit breaking capacity acc. EN 61009       KA         Rated short-circuit breaking capacity IEC 60947-2       KA         Frequency       KA         Release characteristic       KA         Concurrently switching N-neutral       Mo         Over voltage category       Image: Current Sum of the section of t	Rated fault current	А	0.01
Rated short-circuit breaking capacity acc. EN 61009       KA       0         Rated short-circuit breaking capacity IEC 60947-2       KA       0         Frequency       Hz       0         Release characteristic       F       0         Concurrently switching N-neutral       Image: S       0         Over voltage category       Image: S       0         Pollution degree       Image: S       0         Width in number of modular spacings       Image: S       0         Built-in depth       Image: S       Image: S         Additional equipment attached at delivery       Image: S       Image: S	Leakage current type		A
Rated short-circuit breaking capacity IEC 60947-2       KA       0         Frequency       Hz       50         Release characteristic       C       KA       0         Concurrently switching N-neutral       M       KA       0         Over voltage category       M       KA       0         Pollution degree       M       M       M         Width in number of modular spacings       M       M       1         Built-in depth       Mm       For potection switch       For potection switch	Current limiting class		3
FrequencyHz50Release characteristicCCConcurrently switching N-neutralCSOver voltage categorySSPollution degreeSSWidth in number of modular spacingsSSBuilt-in depthMmmFAdditional equipment attached at deliverySF	Rated short-circuit breaking capacity acc. EN 61009	kA	10
Release characteristic       Image: Release characteristic <thimage: characteristic<="" release="" th=""> <t< td=""><td>Rated short-circuit breaking capacity IEC 60947-2</td><td>kA</td><td>0</td></t<></thimage:>	Rated short-circuit breaking capacity IEC 60947-2	kA	0
Concurrently switching N-neutral     Mo       Over voltage category     Image: Concurrently switching N-neutral       Pollution degree     Image: Concurrently switching N-neutral       Width in number of modular spacings     Image: Concurrently switching N-neutral       Built-in depth     Image: Concurrently switching N-neutral       Additional equipment attached at delivery     Image: Concurrently switching N-neutral	Frequency	Hz	50
Over voltage category     Image: Constraint of the constra	Release characteristic		C
Pollution degree     2       Width in number of modular spacings     Model       Built-in depth     Model       Additional equipment attached at delivery     Model	Concurrently switching N-neutral		No
Width in number of modular spacings     Model     3       Built-in depth     Model     67       Additional equipment attached at delivery     Model     Fire protection switch	Over voltage category		3
Built-in depth     mm     67       Additional equipment attached at delivery     interference     Fire protection switch	Pollution degree		2
Additional equipment attached at delivery Fire protection switch	Width in number of modular spacings		3
	Built-in depth	mm	67
Rated switch current auxiliary device A 0	Additional equipment attached at delivery		Fire protection switch
	Rated switch current auxiliary device	А	0

Rated voltage auxiliary device	V	:	230
Control voltage type auxiliary equipment			AC
Degree of protection (IP)			IP20