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



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

Powering Business Worldwide\*

Part no. AFDD-13/2/C/001-LI/A Catalog No. 187184

 $Similar \ to \ illustration$ 

Delivery program			
Basic function			Arc fault detection device
Number of poles			2 pole
Tripping characteristic			С
Application			Switchgear for residential and commercial applications
Rated current	In	Α	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	$I_{\Delta N}$	Α	0.01

Tripping	s	Short time-delayed
Busbar type		ZV-SS
Product range		AFDD
Sensitivity		Pulse-current sensitive

Typ LI/A

Partly surge-proof 250 A

# **Technical data**

Impulse withstand current

### **Electrical**

Type

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

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

# Design verification as per IEC/EN 61439

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Technical data for design verification	1		

Rated operational current for specified heat dissipation	In	Α	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 switch gear must be observed. $\label{eq:specification}$
10.12 Electromagnetic compatibility			Is the panel builder's responsibility. The specifications for the switch gear must be observed. $\label{eq:specification}$
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])

[ECI@5510.0.1-27-14-22-15 [ADI475007]]		
Number of poles		2
Rated voltage	V	230
Rated current	Α	13
Rated fault current	A	0.01
Leakage current type		A
Current limiting class		3
Rated short-circuit breaking capacity acc. EN 61009	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	А	0
Rated voltage auxiliary device	V	230
Control voltage type auxiliary equipment		AC

Degree of protection (IP)

IP20