



Arc Fault Detection Device, 2 poles, B13A, 30mA, KV, type A



Part no. AFDD-13/2/B/003-LI/A
Catalog No. 187181

Delivery program

Basic function			Arc fault detection device
Number of poles			2 pole
Tripping characteristic			B
Application			Switchgear for residential and commercial applications
Rated current	I_n	A	13
Rated switching capacity according to IEC/EN 60898-1	I_{cn}	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			Typ LI/A
Tripping		s...	Short time-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_{cn}	kA	10
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	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	I_n	A	13
Equipment heat dissipation, current-dependent	P_{vid}	W	6

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])		
Number of poles		2
Rated voltage	V	230
Rated current	A	13
Rated fault current	A	0.03
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		B
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