SAFE GREEN SMART

AFDD

- Prevents fires
- Fits in new and existing installations
- Switched neutral
- 4 in 1 protection

OVERLOAD

Test current: In:6-40A
1.13 x In No tripping within an hour
1.45 x In Tripping within an hour

ARC FAULT

Serial Arcing Fault
Parallel Arcing Fault
Grounding Arc Fault

SHORT CIRCUIT

B,C Tripping Characteristics
B:(3-5) x In
C:(5-10) x In

EARTH LEAKAGE

I△n: 10,30,100,300mA
Type A & AC

MAXGE

SGBR2-40AFD Series Arc Fault Detection Device

Standard		IEC/EN 62606,IEC/EN 61009-1
Rated conditional short-circuit current(kA)		6,10
Rated current(A),In		6,10,16,20,25,32,40
Number of poles		1P+N
Rated sensitivity currents(mA),I∆n		10,30,100,300
Tripping curve		B,C
Rated residual non-operating current		0.5XI∆n
Rated impulse withstand voltage Uimp(kV)		4
Rated voltage(V)		AC 230/240
Ambient temperature (°C)		-25~+40,Max.95%humidity
Residual current off time		≤0.1s
Type of trip	Ground fault	Electronic
	Over current	Thermal-magnetic
	Arc fault	Serial Arcing Fault,Parallel Arcing Fault,Grounding Arc Fault
	Power supply failure	Over voltage protection
Electrical endurance		2000
Mechanical endurance		10000
Terminal capacity		16mm² flexible/25mm² rigid
Protection degree		IP20
Installation		35mm DIN rail

SGBR2-40AFD

SGBR2-40AFD Series Arc Fault Detection Device

Type AC

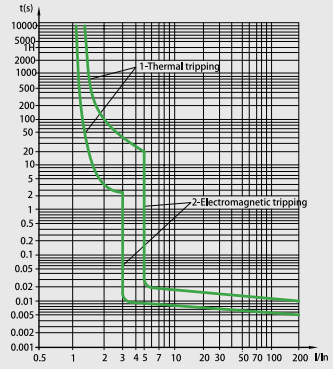
Type A

Rated current(A)	IΔn	Type AC		Type A		Packing unit
		B curve	C curve	B curve	C curve	
6	10mA	SGBR2-40AFD-B6/10	SGBR2-40AFD-C6/10	SGBR2-40AFD-B6/10-A	SGBR2-40AFD-C6/10-A	6
10		SGBR2-40AFD-B10/10	SGBR2-40AFD-C10/10	SGBR2-40AFD-B10/10-A	SGBR2-40AFD-C10/10-A	
16		SGBR2-40AFD-B16/10	SGBR2-40AFD-C16/10	SGBR2-40AFD-B16/10-A	SGBR2-40AFD-C16/10-A	
20		SGBR2-40AFD-B20/10	SGBR2-40AFD-C20/10	SGBR2-40AFD-B20/10-A	SGBR2-40AFD-C20/10-A	
25		SGBR2-40AFD-B25/10	SGBR2-40AFD-C25/10	SGBR2-40AFD-B25/10-A	SGBR2-40AFD-C25/10-A	
32		SGBR2-40AFD-B32/10	SGBR2-40AFD-C32/10	SGBR2-40AFD-B32/10-A	SGBR2-40AFD-C32/10-A	
40		SGBR2-40AFD-B40/10	SGBR2-40AFD-C40/10	SGBR2-40AFD-B40/10-A	SGBR2-40AFD-C40/10-A	
6	30mA	SGBR2-40AFD-B6/30	SGBR2-40AFD-C6/30	SGBR2-40AFD-B6/30-A	SGBR2-40AFD-C6/30-A	
10		SGBR2-40AFD-B10/30	SGBR2-40AFD-C10/30	SGBR2-40AFD-B10/30-A	SGBR2-40AFD-C10/30-A	
16		SGBR2-40AFD-B16/30	SGBR2-40AFD-C16/30	SGBR2-40AFD-B16/30-A	SGBR2-40AFD-C16/30-A	
20		SGBR2-40AFD-B20/30	SGBR2-40AFD-C20/30	SGBR2-40AFD-B20/30-A	SGBR2-40AFD-C20/30-A	
25		SGBR2-40AFD-B25/30	SGBR2-40AFD-C25/30	SGBR2-40AFD-B25/30-A	SGBR2-40AFD-C25/30-A	
32		SGBR2-40AFD-B32/30	SGBR2-40AFD-C32/30	SGBR2-40AFD-B32/30-A	SGBR2-40AFD-C32/30-A	
40		SGBR2-40AFD-B40/30	SGBR2-40AFD-C40/30	SGBR2-40AFD-B40/30-A	SGBR2-40AFD-C40/30-A	
6	100mA	SGBR2-40AFD-B6/100	SGBR2-40AFD-C6/100	SGBR2-40AFD-B6/100-A	SGBR2-40AFD-C6/100-A	
10		SGBR2-40AFD-B10/100	SGBR2-40AFD-C10/100	SGBR2-40AFD-B10/100-A	SGBR2-40AFD-C10/100-A	
16		SGBR2-40AFD-B16/100	SGBR2-40AFD-C16/100	SGBR2-40AFD-B16/100-A	SGBR2-40AFD-C16/100-A	
20		SGBR2-40AFD-B20/100	SGBR2-40AFD-C20/100	SGBR2-40AFD-B20/100-A	SGBR2-40AFD-C20/100-A	
25		SGBR2-40AFD-B25/100	SGBR2-40AFD-C25/100	SGBR2-40AFD-B25/100-A	SGBR2-40AFD-C25/100-A	
32		SGBR2-40AFD-B32/100	SGBR2-40AFD-C32/100	SGBR2-40AFD-B32/100-A	SGBR2-40AFD-C32/100-A	
40		SGBR2-40AFD-B40/100	SGBR2-40AFD-C40/100	SGBR2-40AFD-B40/100-A	SGBR2-40AFD-C40/100-A	
6	300mA	SGBR2-40AFD-B6/300	SGBR2-40AFD-C6/300	SGBR2-40AFD-B6/300-A	SGBR2-40AFD-C6/300-A	
10		SGBR2-40AFD-B10/300	SGBR2-40AFD-C10/300	SGBR2-40AFD-B10/300-A	SGBR2-40AFD-C10/300-A	
16		SGBR2-40AFD-B16/300	SGBR2-40AFD-C16/300	SGBR2-40AFD-B16/300-A	SGBR2-40AFD-C16/300-A	
20		SGBR2-40AFD-B20/300	SGBR2-40AFD-C20/300	SGBR2-40AFD-B20/300-A	SGBR2-40AFD-C20/300-A	
25		SGBR2-40AFD-B25/300	SGBR2-40AFD-C25/300	SGBR2-40AFD-B25/300-A	SGBR2-40AFD-C25/300-A	
32		SGBR2-40AFD-B32/300	SGBR2-40AFD-C32/300	SGBR2-40AFD-B32/300-A	SGBR2-40AFD-C32/300-A	
40		SGBR2-40AFD-B40/300	SGBR2-40AFD-C40/300	SGBR2-40AFD-B40/300-A	SGBR2-40AFD-C40/300-A	

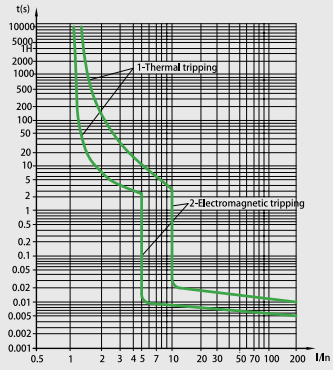
SGBR2-40AFD Series Arc Fault Detection Device

Curves

B type



C type



Breaking time of residual current

Max.breaking time					
In(A)	I△n(A)	I△n	2 I△n	5 I△n	5-500A
6-40	0.01,0.03,0.1,0.3	0.1s	0.08s	0.04s	0.04s

Wiring (The suitable conductors should be used for connection,see table below for relative parameters)

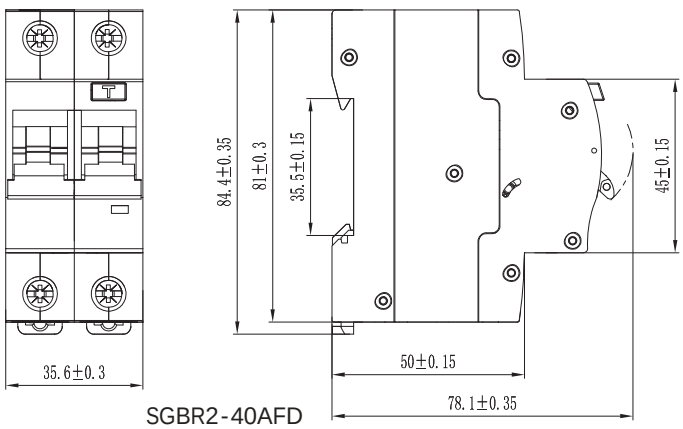
Rated current In (A)	Cross section area s(mm²)	Tightening torque(N.m)
6	1	2.0
10	1.5	
13	1.5	
16-20	2.5	
25	4	
32	6	
40	10	

AFDD For The Consumer Unit

The 18th edition wiring regulations (BS7671) sets out requirements for electrical installations in the UK, including requirements for protection of persons, livestock & property against the risk from fires that may be generated & propagated in electrical installations.

Designers & installers are required to ensure that installations are arranged so that the risk of ignition from high temperatures or electric arc is minimised,Protection requirements include protecting against the risk of fire from insulation faults, arcs & sparks & high temperatures.Installing arc fault detection devices is recommended in the 18th Edition as a method for mitigating the risk from fire in final AC circuits from arc faults.

Overall and mounting dimensions

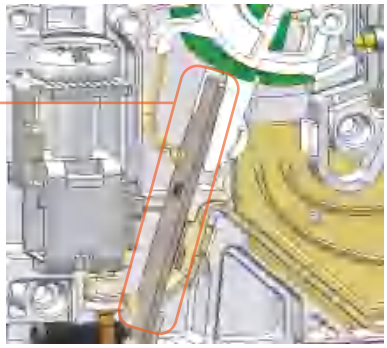


SGBR2-40AFD

SGBR2-40AFD Series Arc Fault Detection Device

Overload Operation

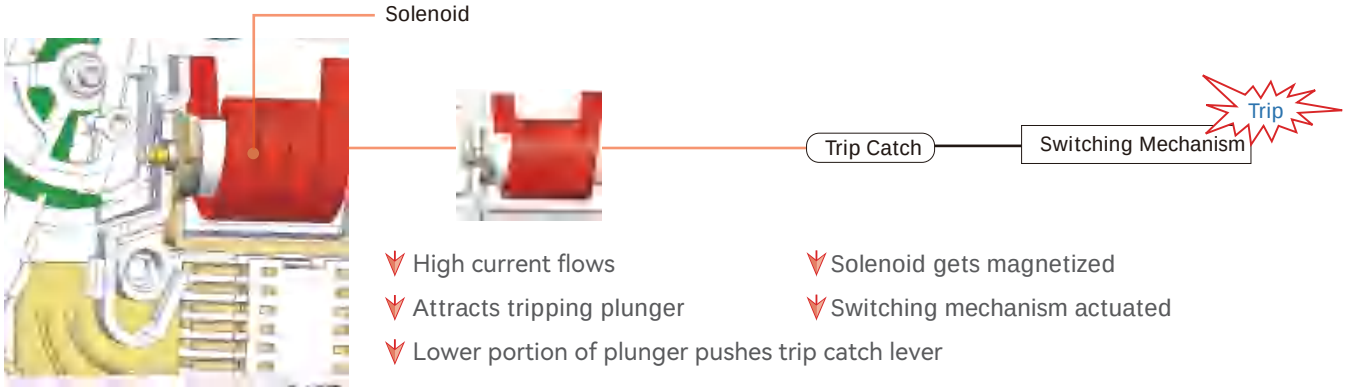
Bimetal
Metal Alloy



Overload Protection:Through
Consists of 2 differernt metals bonded together
Different metals have different coefficient of expansion

- On heating-it bends towards tripping
- Pushes the trip catch lever
- Switching mechanism actuated

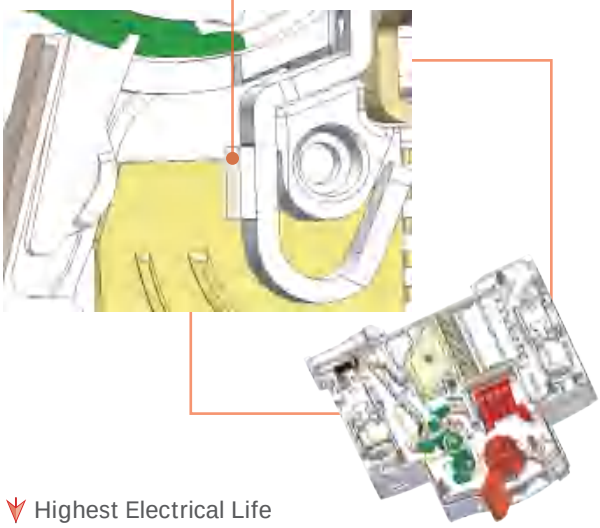
Short Circuit Operation



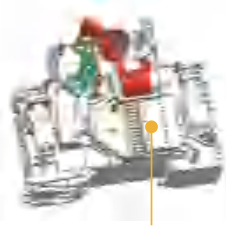
- High current flows
- Attracts tripping plunger
- Solenoid gets magnetized
- Switching mechanism actuated
- Lower portion of plunger pushes trip catch lever

Features & Benefits

Real Silver Graphite,AGC
anti-weld contact tips



Energy Limiting
Class 3



13 Plates Arc Chamber

- Highest Electrical Life
- Maximum Safety against Contact welding
- Rare possibility of AFDD replacement
- Quick & Efficient Arc Quenching
- Very low let through energy,class 3
- Increases life of Installation & equipment