AEG

MODULAR DIN RAIL PRODUCTS
AEG LINE



AEG Elfanext Range

AEG DIN rail devices guarantee reliable electrical protection.

Safe & Reliable

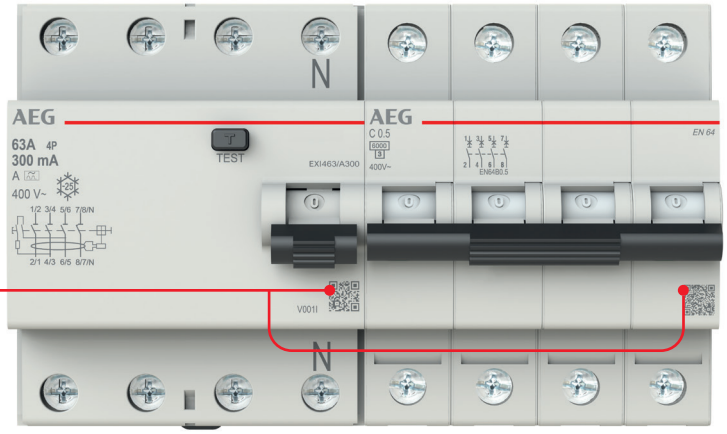
- Fail-safe terminals to ensure proper insertion of wire on clamp avoiding unsafe conditions
- Strong performance of terminals, allowing tightening torques up to 4.5 Nm on most of the product lines
- IP20 finger-safe terminal frontal and on single cage

Easy and innovative installation

- Fork double slot concept on MCBs EX, RCCBs EXI, RCBO DX



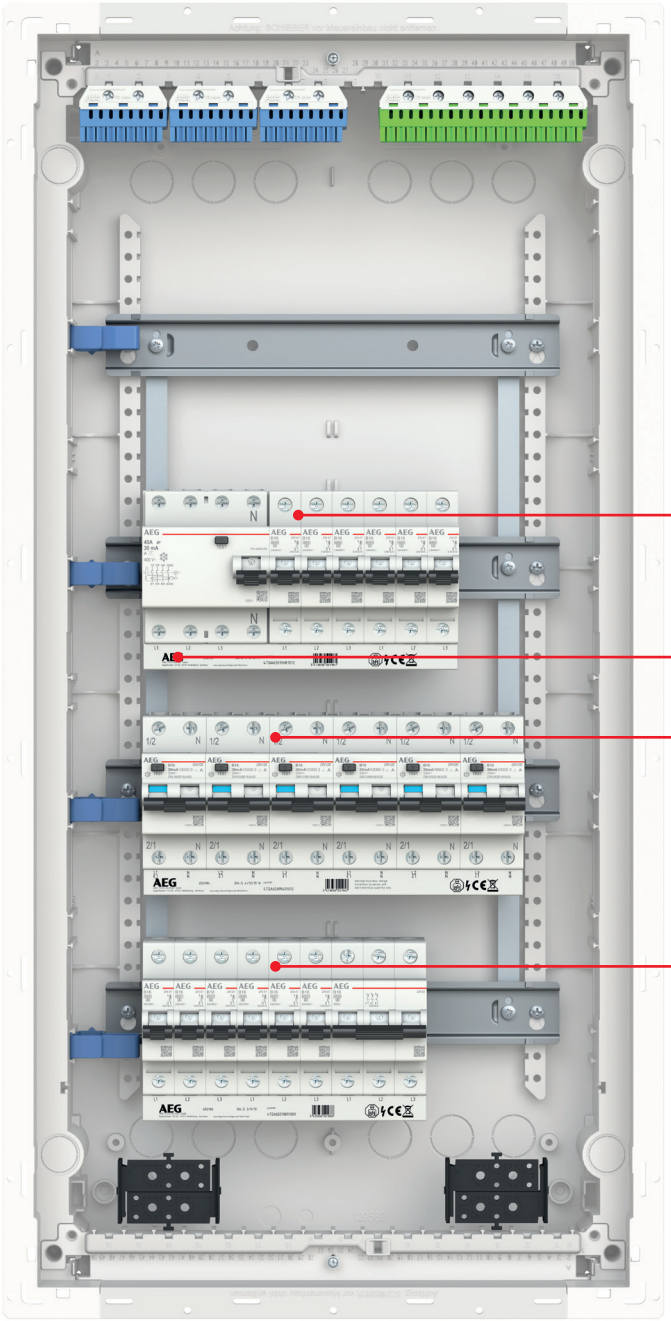
- QR code avaialble for wide part of the range to be addressed directly on web page with document access possibility.



- European Quality Approval depending by the product line for the serie
- MCBs Made in Germany, RCDs Made in Italy

Sustainable materials

- Carton box made of recycled material or naturally grown material
- Compliant with the PEP ecopassport® environmental declaration



EXI Residual current Circuit Breakers (RCCB) 4P, 2P

BAE Fork & Pin busbars

DX Residual current Circuit Breakers with Overcurrent Protection (RCBOs)

EX Miniature Circuit Breakers (MCBs)

Range is integrated with more Product Lines, see on next chapters.

Table of contents

01. MCBs | Circuit protection 6

02. RCDs & AFDDs | People Protection 38

03. Accessories and Busbars 98

04. Comfort Functions and SDs 118

AEG Line Din Rail Products

01. MCBs | Circuit protection

EX40/EX60/EX100	8
EPC and EX NR	15
E880+50	20
Dimensions	**24**
EX40/EX60/EX100	24
EPC and EX41NR, EX61NR	24
E880+50	25
MCBs technical details	**26**
Tripping characteristics	26
Limitation of specific let-through energy I^2t	28
Peak current Ip	32
MCBs internal resistance, power loss and max. permissible earth-fault loop impendance	35
Performances at different ambient temperatures	36

02. RCDs & AFDDs | People Protection

EXI AC/A/Ai/S/Si	42
FN B	45
DX45/60/100	48
DC/HDC/DPC100	53
DMA63Np	57
DX...RCD Blocks	60
DXCE60	63
DXE100	66
EAF AFDD	69
Dimensions	**73**
RCCB EXI, FN	73
RCBO DX range	73
RCBO DPC100	74
RCBO DMA63Np	74
EAF MCB	75
EAF RCBO	75
RCD Blocks	76
DXCE60	77
DXE100	78
RCDs technical details	**79**
Power loss, derating and performance in altitude	79
Limitation of specific let-through energy I^2t	82
Peak current Ip	88
Type B RCDs	94

03. Accessories and Busbars

Accessories	99
Busbars Fork	112
Busbars Pin	114
Busbars Unibis EPC range	116
Accessories	117

04. Comfort Functions and SDs

ESD	121
AST+SZ	122
AST+BL	122
MSC+	122
VI	123
Pulsar SC+	124
PLS+	124
GLX+	124

01

MCBs | Circuit protection

50 kA

10 kA

6 kA

4,5 and 6 kA



E88050+

- IEC/EN 60947.2
- 1P/2P/3P/4P
- B, C, D chars
- 80 – 125 A

Elfanext EX100

- IEC/EN 60898, 60947.2
- 1P/2P/3P/4P
- B, C, D chars
- 0.5 – 63 A
- Double slot fork bottom

Elfanext EX60

- IEC/EN 60898, 60947.2
- 1P/1P+N/2P/3P/3P+N/4P
- B, C,D chars
- 0.5 – 63 A
- Double slot fork bottom

Unibis EPC, EXNR range

- IEC/EN 60898
- 1P+1P, 2P, 1P+N in 1 module
- 3P and 4P in 2 Modules
- B, C chars
- 6 – 40 A

Elfanext EX40

- IEC/EN 60898
- 1P/1P+N/2P/3P/4P
- C chars
- 2–40 A
- Double slot fork bottom

NEW

EX40/EX60/EX100

European Quality Mark Approved

Laser printed information
Information on the device are laser printed to make them clearly visible and long lasting



Combination with accessories
Whatever your application need is applicable with range of accessories

Innovative
QR-Code for direct internet access to all product data/ file

Time saving
Quick identification thanks to laser printed EAN marking and type coding on the front

Dual terminals for separate feeding for fork busbar bottom side and conductor

- Availability on MCB EX series, RCCB EXI, RCBO DX
- Fast installation: Cages terminal delivered fully opened
- Safety: IP 20 – finger safety
- Strong performances: 4.5 Nm max. torque applicable

Series			EX40	EX60	EX100
General Data	Standards		IEC/EN 60898-1	IEC/EN 60898-1, IEC/EN 60947-2	
	Marking approval		VDE, LRS, RINA		
	Poles		1P, 1P+N, 2P, 3P, 4P	1P, 1P+N, 2P, 3P, 4P	1P, 2P, 3P,3P+N, 4P
	Tripping characteristics		C	B, C, D	B, C, D
	Rated current I_n	A	2..40	B: 6...63, C: 0,5....63, D: 2...63"	B: 6...63, C: 0,5....63, D: 0,5...63"
	Rated frequency f	Hz	50 / 60 Hz		
	Rated insulation voltage Ui acc. to IEC/EN 60664-1	V	250 V AC (phase to groud), 440 V AC (phase to phase)		
	Overvoltage category		III		
	Pollution degree		3		
Data acc. to IEC/EN 60898-1	Rated operational voltage Un	V	1P: 230/400 V AC; 1P+N: 230 V AC ; 2...4P: 400 V AC; 3P+N: 400 V AC		
	Max. power frequency recovery voltage (Umax)	V	1P: 253 V AC; 1P+N: 253 V AC; 2P: 440 V AC; 3...4P: 440 V AC; 3P+N: 440 V AC; 1P: 72 V DC; 2P: 125 V DC		
	Min. operating voltage	V	12 V AC – 12 V DC		
	Rated short-circuit capacity Icn	kA	4,5 kA	6 kA	10 kA
	Energy limiting class (B, C)		3		
	Rated impulse withstand voltage Uimp. (1.2/50 µs)	kV	4 kV (test voltage 6.2 kV at sea level, 5kV at 2,000m)		
	Dielectric test voltage	kV	2 kV (50 / 60Hz, 1 min.)		
	Reference temperature for tripping characteristics acc. to IEC/EN 60898-1	°C	B, C, D: 30°C		
	Electrical endurance	ops.	In < 32A: 20,000 ops (AC), 1,000 ops. (DC); 1 cycle 2s – ON, 13s – OFF; In ≥ 32A: 10,000 ops. (AC); 1,000 ops. (DC); 1 cyle 2s – ON, 28s – OFF		
Data acc. to IEC/EN 60947-2	Rated operational voltage Ue	V	1P: 230 V AC; 1P+N: 230 V AC; 2...4P: 440 V AC; 3P+N: 440 V AC		
	Max. power frequency recovery voltage (Umax)	V	1P: 253 V AC; 1P+N: 253 V AC; 2P...4P: 462 V AC; 3P+N: 462 V AC; 1P: 72 V DC; 2P: 125 V DC"		
	Min. operating voltage	V	12 V AC – 12 V DC		
	Rated ultimate short-circuit breaking capacity Icu	V	6 kA	10 kA	15 kA
	Rated impulse withstand voltage Uimp. (1.2/50 µs)	kV	4 kV (test voltage 6.2kV at sea level, 5kV at 2,000m)		
	Dielectric test voltage	kV	2 kV (50 / 60Hz, 1 min.)		
	Reference temperature for tripping characteristics acc. to IEC/EN 60898-1	°C	B, C, D: 55°C		
	Electrical endurance	ops.	In < 32A: 20,000 ops (AC), In ≥ 32A: 10,000 ops. (AC); 1,000 ops. (DC); (1 cycle 2s – ON, 13s – OFF, In ≤ 32A), (1 cyle 2s – ON, 28s – OFF, In > 32A)		
Mechanical Data	Housing type		Insulation group II, RAL 7035		
	Toggle type		Insulation group II, RAL 7024, sealable		
	Contact position indication		Indication on Toggle I/O		
	Protection degree acc. to EN 60529		IP20, IP40 in enclosure with cover		
	Mechanical endurance	ops.	20,000 ops.		
	Shock resistance acc. to IEC/EN 60068-2-27		25 g – 2 shocks – 13 ms		
	Vibration resistance acc. to IEC/EN 60068-2-6		5g – 20 cycles at 5...150...5 Hz with load 0.8In		
	Environmental conditions (damp heat) acc. to IEC/EN 60068-2-30	°C/ RH	28 cycles with 55°C/90-96% and 25°C/95-100%		
	Ambient temperature	°C	-25 ... +55°C		
	Storage temperature	°C	-40 ... +70°C		
Installation	Terminal		Failsafe biconnect fork bottom		
	Connecting Capacity, Flexible	mm^2	0.75 ... 35 (2x16)		
	Connecting Capacity, Flexible with Ferrule	mm^2	0.75 ... 25		
	Connecting Capacity, Rigid	mm^2	0.75 ... 35 (2x16)		
	Connecting Capacity, Stranded	mm^2	0.75 ... 35 (2x16)		
	Cross-section of busbars (top / bottom)	mm^2	10...16 (pin)/10....16 (fork/pin)		
	Tightening Torque	Nm	2.0 Nm (4.5Nm max)		
	Screwdriver		No. 2 Pozidrive		
	Mounting		On DIN rail 35 mm acc. to EN 60715 by fast clip		
	Mounting position		any		
	Supply		optional		
Dimensions and weight	Mounting dimensions acc. to DIN 43880		Mounting dimension 1		
	Installation Size, acc to DIN 43880		1		
	Pole dimensions (H x D x W)	mm	88 x 69 x 17.5 mm		
	Pole weight	g	ca. 115 g		
Combination with aux. elements	Auxiliary/signal contact		Yes		
	Shunt trip		Yes		
	Undervoltage release		Yes		
	Motor Operator Device		Yes		

EX40

IEC/EN 60898 4500 A CE

Poles	In (A)	C curve Type code	Order code	Packaging Unit
1P	0,5			
	1			
	2	EX41C02	2CDS241087R0024	1/10
	3	EX41C03	2CDS241087R0034	1/10
	4	EX41C04	2CDS241087R0044	1/10
	6	EX41C06	2CDS241087R0064	1/10
	10	EX41C10	2CDS241087R0104	1/10
	13	EX41C13	2CDS241087R0134	1/10
	16	EX41C16	2CDS241087R0164	1/10
	20	EX41C20	2CDS241087R0204	1/10
	25	EX41C25	2CDS241087R0254	1/10
	32	EX41C32	2CDS241087R0324	1/10
	40	EX41C40	2CDS241087R0404	1/10
	50			
	63			
1P+N	0,5			
	1			
	2	EX41NC02	2CDS241187R0024	1/10
	3	EX41NC03	2CDS241187R0034	1/10
	4	EX41NC04	2CDS241187R0044	1/10
	6	EX41NC06	2CDS241187R0064	1/10
	10	EX41NC10	2CDS241187R0104	1/10
	13	EX41NC13	2CDS241187R0134	1/10
	16	EX41NC16	2CDS241187R0164	1/10
	20	EX41NC20	2CDS241187R0204	1/10
	25	EX41NC25	2CDS241187R0254	1/10
	32	EX41NC32	2CDS241187R0324	1/10
	40	EX41NC40	2CDS241187R0404	1/10
	50			
	63			
2P	0,5			
	1			
	2	EX42C02	2CDS242087R0024	1/5
	3	EX42C03	2CDS242087R0034	1/5
	4	EX42C04	2CDS242087R0044	1/5
	6	EX42C06	2CDS242087R0064	1/5
	10	EX42C10	2CDS242087R0104	1/5
	13	EX42C13	2CDS242087R0134	1/5
	16	EX42C16	2CDS242087R0164	1/5
	20	EX42C20	2CDS242087R0204	1/5
	25	EX42C25	2CDS242087R0254	1/5
	32	EX42C32	2CDS242087R0324	1/5
	40	EX42C40	2CDS242087R0404	1/5
	50			
	63			

Poles	C curve Type code	Order code	Packaging unit
3P+N			
	EX43C02	2CDS243087R0024	1/1
	EX43C03	2CDS243087R0034	1/1
	EX43C04	2CDS243087R0044	1/1
	EX43C06	2CDS243087R0064	1/1
	EX43C10	2CDS243087R0104	1/1
	EX43C13	2CDS243087R0134	1/1
	EX43C16	2CDS243087R0164	1/1
	EX43C20	2CDS243087R0204	1/1
	EX43C25	2CDS243087R0254	1/1
	EX43C32	2CDS243087R0324	1/1
	EX43C40	2CDS243087R0404	1/1
4P			
	EX44C02	2CDS244087R0024	1/1
	EX44C03	2CDS244087R0034	1/1
	EX44C04	2CDS244087R0044	1/1
	EX44C06	2CDS244087R0064	1/1
	EX44C10	2CDS244087R0104	1/1
	EX44C13	2CDS244087R0134	1/1
	EX44C16	2CDS244087R0164	1/1
	EX44C20	2CDS244087R0204	1/1
	EX44C25	2CDS244087R0254	1/1
	EX44C32	2CDS244087R0324	1/1
	EX44C40	2CDS244087R0404	1/1

EX60

IEC/EN 60898 6000A
IEC/EN 60947-2 10kA

		B curve		C curve		D curve		
Poles	In (A)	Type code	Order code	Type code	Order code	Type code	Order code	Packaging unit
1P	0,5			EX61C0.5	2CDS251087R0984			1/10
	1			EX61C01	2CDS251087R0014			1/10
	2			EX61C02	2CDS251087R0024	EX61D02	2CDS251087R0021	1/10
	3			EX61C03	2CDS251087R0034	EX61D03	2CDS251087R0031	1/10
	4			EX61C04	2CDS251087R0044	EX61D04	2CDS251087R0041	1/10
	6	EX61B06	2CDS251087R0065	EX61C06	2CDS251087R0064	EX61D06	2CDS251087R0061	1/10
	10	EX61B10	2CDS251087R0105	EX61C10	2CDS251087R0104	EX61D10	2CDS251087R0101	1/10
	13	EX61B13	2CDS251087R0135	EX61C13	2CDS251087R0134	EX61D13	2CDS251087R0131	1/10
	16	EX61B16	2CDS251087R0165	EX61C16	2CDS251087R0164	EX61D16	2CDS251087R0161	1/10
	20	EX61B20	2CDS251087R0205	EX61C20	2CDS251087R0204	EX61D20	2CDS251087R0201	1/10
	25	EX61B25	2CDS251087R0255	EX61C25	2CDS251087R0254	EX61D25	2CDS251087R0251	1/10
	32	EX61B32	2CDS251087R0325	EX61C32	2CDS251087R0324	EX61D32	2CDS251087R0321	1/10
	40	EX61B40	2CDS251087R0405	EX61C40	2CDS251087R0404	EX61D40	2CDS251087R0401	1/10
	50	EX61B50	2CDS251087R0505	EX61C50	2CDS251087R0504	EX61D50	2CDS251087R0501	1/10
	63	EX61B63	2CDS251087R0635	EX61C63	2CDS251087R0634	EX61D63	2CDS251087R0631	1/10
1P+N	0,5			EX61NC0.5	2CDS251187R0984			1/10
	1			EX61NC01	2CDS251187R0014			1/10
	2			EX61NC02	2CDS251187R0024	EX61ND02	2CDS251187R0021	1/10
	3			EX61NC03	2CDS251187R0034	EX61ND03	2CDS251187R0031	1/10
	4			EX61NC04	2CDS251187R0044	EX61ND04	2CDS251187R0041	1/10
	6	EX61NB06	2CDS251187R0065	EX61NC06	2CDS251187R0064	EX61ND06	2CDS251187R0061	1/10
	10	EX61NB10	2CDS251187R0105	EX61NC10	2CDS251187R0104	EX61ND10	2CDS251187R0101	1/10
	13	EX61NB13	2CDS251187R0135	EX61NC13	2CDS251187R0134	EX61ND13	2CDS251187R0131	1/10
	16	EX61NB16	2CDS251187R0165	EX61NC16	2CDS251187R0164	EX61ND16	2CDS251187R0161	1/10
	20	EX61NB20	2CDS251187R0205	EX61NC20	2CDS251187R0204	EX61ND20	2CDS251187R0201	1/10
	25	EX61NB25	2CDS251187R0255	EX61NC25	2CDS251187R0254	EX61ND25	2CDS251187R0251	1/10
	32	EX61NB32	2CDS251187R0325	EX61NC32	2CDS251187R0324	EX61ND32	2CDS251187R0321	1/10
	40	EX61NB40	2CDS251187R0405	EX61NC40	2CDS251187R0404	EX61ND40	2CDS251187R0401	1/10
	50	EX61NB50	2CDS251187R0505	EX61NC50	2CDS251187R0504			1/10
	63	EX61NB63	2CDS251187R0635	EX61NC63	2CDS251187R0634			1/10
2P	0,5			EX62C0.5	2CDS252087R0984			1/5
	1			EX62C01	2CDS252087R0014			1/5
	2			EX62C02	2CDS252087R0024	EX62D02	2CDS252087R0021	1/5
	3			EX62C03	2CDS252087R0034	EX62D03	2CDS252087R0031	1/5
	4			EX62C04	2CDS252087R0044	EX62D04	2CDS252087R0041	1/5
	6	EX62B06	2CDS252087R0065	EX62C06	2CDS252087R0064	EX62D06	2CDS252087R0061	1/5
	10	EX62B10	2CDS252087R0105	EX62C10	2CDS252087R0104	EX62D10	2CDS252087R0101	1/5
	13	EX62B13	2CDS252087R0135	EX62C13	2CDS252087R0134	EX62D13	2CDS252087R0131	1/5
	16	EX62B16	2CDS252087R0165	EX62C16	2CDS252087R0164	EX62D16	2CDS252087R0161	1/5
	20	EX62B20	2CDS252087R0205	EX62C20	2CDS252087R0204	EX62D20	2CDS252087R0201	1/5
	25	EX62B25	2CDS252087R0255	EX62C25	2CDS252087R0254	EX62D25	2CDS252087R0251	1/5
	32	EX62B32	2CDS252087R0325	EX62C32	2CDS252087R0324	EX62D32	2CDS252087R0321	1/5
	40	EX62B40	2CDS252087R0405	EX62C40	2CDS252087R0404	EX62D40	2CDS252087R0401	1/5
	50	EX62B50	2CDS252087R0505	EX62C50	2CDS252087R0504	EX62D50	2CDS252087R0501	1/5
	63	EX62B63	2CDS252087R0635	EX62C63	2CDS252087R0634	EX62D63	2CDS252087R0631	1/5

EX60

IEC/EN 60898 6000A
IEC/EN 60947-2 10kA

		B curve		C curve		D curve		
Poles	In (A)	Type code	Order code	Type code	Order code	Type code	Order code	Packaging unit
3P	0,5			EX63C0.5	2CDS253087R0984			1/1
	1			EX63C01	2CDS253087R0014			1/1
	2			EX63C02	2CDS253087R0024	EX63D02	2CDS253087R0021	1/1
	3			EX63C03	2CDS253087R0034	EX63D03	2CDS253087R0031	1/1
	4			EX63C04	2CDS253087R0044	EX63D04	2CDS253087R0041	1/1
	6	EX63B06	2CDS253087R0065	EX63C06	2CDS253087R0064	EX63D06	2CDS253087R0061	1/1
	10	EX63B10	2CDS253087R0105	EX63C10	2CDS253087R0104	EX63D10	2CDS253087R0101	1/1
	13	EX63B13	2CDS253087R0135	EX63C13	2CDS253087R0134	EX63D13	2CDS253087R0131	1/1
	16	EX63B16	2CDS253087R0165	EX63C16	2CDS253087R0164	EX63D16	2CDS253087R0161	1/1
	20	EX63B20	2CDS253087R0205	EX63C20	2CDS253087R0204	EX63D20	2CDS253087R0201	1/1
	25	EX63B25	2CDS253087R0255	EX63C25	2CDS253087R0254	EX63D25	2CDS253087R0251	1/1
	32	EX63B32	2CDS253087R0325	EX63C32	2CDS253087R0324	EX63D32	2CDS253087R0321	1/1
	40	EX63B40	2CDS253087R0405	EX63C40	2CDS253087R0404	EX63D40	2CDS253087R0401	1/1
	50	EX63B50	2CDS253087R0505	EX63C50	2CDS253087R0504	EX63D50	2CDS253087R0501	1/1
	63	EX63B63	2CDS253087R0635	EX63C63	2CDS253087R0634	EX63D63	2CDS253087R0631	1/1
3P+N	0,5			EX63NC0.5	2CDS253187R0984			1/1
	1			EX63NC01	2CDS253187R0014			1/1
	2			EX63NC02	2CDS253187R0024	EX63ND02	2CDS253187R0021	1/1
	3			EX63NC03	2CDS253187R0034	EX63ND03	2CDS253187R0031	1/1
	4			EX63NC04	2CDS253187R0044	EX63ND04	2CDS253187R0041	1/1
	6	EX63NB06	2CDS253187R0065	EX63NC06	2CDS253187R0064	EX63ND06	2CDS253187R0061	1/1
	10	EX63NB10	2CDS253187R0105	EX63NC10	2CDS253187R0104	EX63ND10	2CDS253187R0101	1/1
	13	EX63NB13	2CDS253187R0135	EX63NC13	2CDS253187R0134	EX63ND13	2CDS253187R0131	1/1
	16	EX63NB16	2CDS253187R0165	EX63NC16	2CDS253187R0164	EX63ND16	2CDS253187R0161	1/1
	20	EX63NB20	2CDS253187R0205	EX63NC20	2CDS253187R0204	EX63ND20	2CDS253187R0201	1/1
	25	EX63NB25	2CDS253187R0255	EX63NC25	2CDS253187R0254	EX63ND25	2CDS253187R0251	1/1
	32	EX63NB32	2CDS253187R0325	EX63NC32	2CDS253187R0324	EX63ND32	2CDS253187R0321	1/1
	40	EX63NB40	2CDS253187R0405	EX63NC40	2CDS253187R0404	EX63ND40	2CDS253187R0401	1/1
	50	EX63NB50	2CDS253187R0505	EX63NC50	2CDS253187R0504	EX63ND50	2CDS253187R0501	1/1
	63	EX63NB63	2CDS253187R0635	EX63NC63	2CDS253187R0634	EX63ND63	2CDS253187R0631	1/1
4P	0,5			EX64C0.5	2CDS254087R0984			1/1
	1			EX64C01	2CDS254087R0014			1/1
	2			EX64C02	2CDS254087R0024	EX64D02	2CDS254087R0021	1/1
	3			EX64C03	2CDS254087R0034	EX64D03	2CDS254087R0031	1/1
	4			EX64C04	2CDS254087R0044	EX64D04	2CDS254087R0041	1/1
	6	EX64B06	2CDS254087R0065	EX64C06	2CDS254087R0064	EX64D06	2CDS254087R0061	1/1
	10	EX64B10	2CDS254087R0105	EX64C10	2CDS254087R0104	EX64D10	2CDS254087R0101	1/1
	13	EX64B13	2CDS254087R0135	EX64C13	2CDS254087R0134	EX64D13	2CDS254087R0131	1/1
	16	EX64B16	2CDS254087R0165	EX64C16	2CDS254087R0164	EX64D16	2CDS254087R0161	1/1
	20	EX64B20	2CDS254087R0205	EX64C20	2CDS254087R0204	EX64D20	2CDS254087R0201	1/1
	25	EX64B25	2CDS254087R0255	EX64C25	2CDS254087R0254	EX64D25	2CDS254087R0251	1/1
	32	EX64B32	2CDS254087R0325	EX64C32	2CDS254087R0324	EX64D32	2CDS254087R0321	1/1
	40	EX64B40	2CDS254087R0405	EX64C40	2CDS254087R0404	EX64D40	2CDS254087R0401	1/1
	50	EX64B50	2CDS254087R0505	EX64C50	2CDS254087R0504	EX64D50	2CDS254087R0501	1/1
	63	EX64B63	2CDS254087R0635	EX64C63	2CDS254087R0634	EX64D63	2CDS254087R0631	1/1

EX100

IEC/EN 60898 10000 A
IEC/EN 60947-2 15kA

		B curve		C curve		D curve		
Poles	In (A)	Type code	Order code	Type code	Order code	Type code	Order code	Packaging unit
1P	0,5			EX101C0.5	2CDS271087R0984	EX101D0.5	2CDS271087R0981	1/10
	1			EX101C01	2CDS271087R0014	EX101D01	2CDS271087R0011	1/10
	2			EX101C02	2CDS271087R0024	EX101D02	2CDS271087R0021	1/10
	3			EX101C03	2CDS271087R0034	EX101D03	2CDS271087R0031	1/10
	4			EX101C04	2CDS271087R0044	EX101D04	2CDS271087R0041	1/10
	6	EX101B06	2CDS271087R0065	EX101C06	2CDS271087R0064	EX101D06	2CDS271087R0061	1/10
	10	EX101B10	2CDS271087R0105	EX101C10	2CDS271087R0104	EX101D10	2CDS271087R0101	1/10
	13	EX101B13	2CDS271087R0135	EX101C13	2CDS271087R0134	EX101D13	2CDS271087R0131	1/10
	16	EX101B16	2CDS271087R0165	EX101C16	2CDS271087R0164	EX101D16	2CDS271087R0161	1/10
	20	EX101B20	2CDS271087R0205	EX101C20	2CDS271087R0204	EX101D20	2CDS271087R0201	1/10
	25	EX101B25	2CDS271087R0255	EX101C25	2CDS271087R0254	EX101D25	2CDS271087R0251	1/10
	32	EX101B32	2CDS271087R0325	EX101C32	2CDS271087R0324	EX101D32	2CDS271087R0321	1/10
	40	EX101B40	2CDS271087R0405	EX101C40	2CDS271087R0404	EX101D40	2CDS271087R0401	1/10
	50	EX101B50	2CDS271087R0505	EX101C50	2CDS271087R0504	EX101D50	2CDS271087R0501	1/10
	63	EX101B63	2CDS271087R0635	EX101C63	2CDS271087R0634	EX101D63	2CDS271087R0631	1/10
2P	0,5			EX102C0.5	2CDS272087R0984	EX102D0.5	2CDS272087R0981	1/5
	1			EX102C01	2CDS272087R0014	EX102D01	2CDS272087R0011	1/5
	2			EX102C02	2CDS272087R0024	EX102D02	2CDS272087R0021	1/5
	3			EX102C03	2CDS272087R0034	EX102D03	2CDS272087R0031	1/5
	4			EX102C04	2CDS272087R0044	EX102D04	2CDS272087R0041	1/5
	6	EX102B06	2CDS272087R0065	EX102C06	2CDS272087R0064	EX102D06	2CDS272087R0061	1/5
	10	EX102B10	2CDS272087R0105	EX102C10	2CDS272087R0104	EX102D10	2CDS272087R0101	1/5
	13	EX102B13	2CDS272087R0135	EX102C13	2CDS272087R0134	EX102D13	2CDS272087R0131	1/5
	16	EX102B16	2CDS272087R0165	EX102C16	2CDS272087R0164	EX102D16	2CDS272087R0161	1/5
	20	EX102B20	2CDS272087R0205	EX102C20	2CDS272087R0204	EX102D20	2CDS272087R0201	1/5
	25	EX102B25	2CDS272087R0255	EX102C25	2CDS272087R0254	EX102D25	2CDS272087R0251	1/5
	32	EX102B32	2CDS272087R0325	EX102C32	2CDS272087R0324	EX102D32	2CDS272087R0321	1/5
	40	EX102B40	2CDS272087R0405	EX102C40	2CDS272087R0404	EX102D40	2CDS272087R0401	1/5
	50	EX102B50	2CDS272087R0505	EX102C50	2CDS272087R0504	EX102D50	2CDS272087R0501	1/5
	63	EX102B63	2CDS272087R0635	EX102C63	2CDS272087R0634	EX102D63	2CDS272087R0631	1/5

EX100

IEC/EN 60898 10000 A
IEC/EN 60947-2 15kA



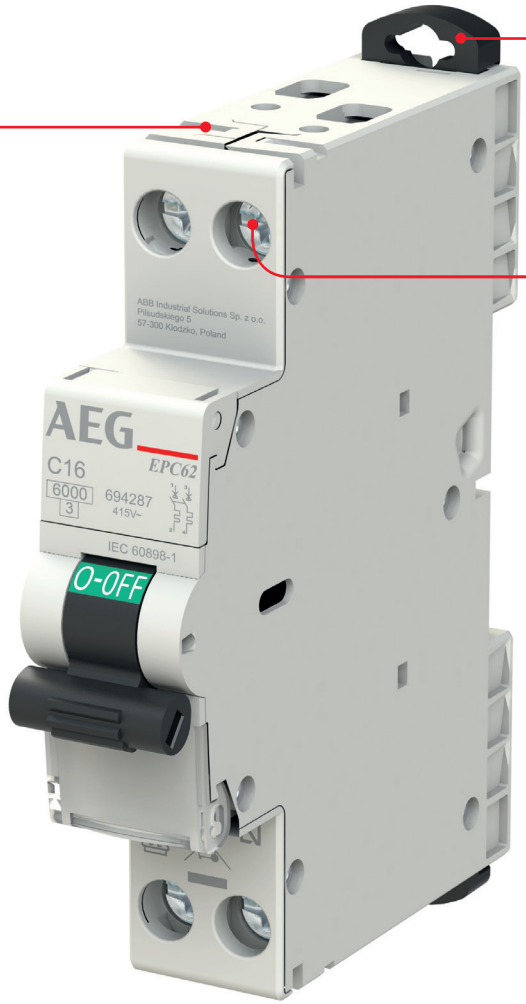


		B curve		C curve		D curve		
Poles	In (A)	Type code	Order code	Type code	Order code	Type code	Order code	Packaging unit
3P	0,5			EX103C0,5	2CDS273087R0984	EX103D0.5	2CDS273087R0981	1/1
	1			EX103C01	2CDS273087R0014	EX103D01	2CDS273087R0011	1/1
	2			EX103C02	2CDS273087R0024	EX103D02	2CDS273087R0021	1/1
	3			EX103C03	2CDS273087R0034	EX103D03	2CDS273087R0031	1/1
	4			EX103C04	2CDS273087R0044	EX103D04	2CDS273087R0041	1/1
	6	EX103B06	2CDS273087R0065	EX103C06	2CDS273087R0064	EX103D06	2CDS273087R0061	1/1
	10	EX103B10	2CDS273087R0105	EX103C10	2CDS273087R0104	EX103D10	2CDS273087R0101	1/1
	13	EX103B13	2CDS273087R0135	EX103C13	2CDS273087R0134	EX103D13	2CDS273087R0131	1/1
	16	EX103B16	2CDS273087R0165	EX103C16	2CDS273087R0164	EX103D16	2CDS273087R0161	1/1
	20	EX103B20	2CDS273087R0205	EX103C20	2CDS273087R0204	EX103D20	2CDS273087R0201	1/1
	25	EX103B25	2CDS273087R0255	EX103C25	2CDS273087R0254	EX103D25	2CDS273087R0251	1/1
	32	EX103B32	2CDS273087R0325	EX103C32	2CDS273087R0324	EX103D32	2CDS273087R0321	1/1
	40	EX103B40	2CDS273087R0405	EX103C40	2CDS273087R0404	EX103D40	2CDS273087R0401	1/1
	50	EX103B50	2CDS273087R0505	EX103C50	2CDS273087R0504	EX103D50	2CDS273087R0501	1/1
	63	EX103B63	2CDS273087R0635	EX103C63	2CDS273087R0634	EX103D63	2CDS273087R0631	1/1
4P	0,5			EX104C0.5	2CDS274087R0984	EX104D0.5	2CDS274087R0981	1/1
	1			EX104C01	2CDS274087R0014	EX104D01	2CDS274087R0011	1/1
	2			EX104C02	2CDS274087R0024	EX104D02	2CDS274087R0021	1/1
	3			EX104C03	2CDS274087R0034	EX104D03	2CDS274087R0031	1/1
	4			EX104C04	2CDS274087R0044	EX104D04	2CDS274087R0041	1/1
	6	EX104B06	2CDS274087R0065	EX104C06	2CDS274087R0064	EX104D06	2CDS274087R0061	1/1
	10	EX104B10	2CDS274087R0105	EX104C10	2CDS274087R0104	EX104D10	2CDS274087R0101	1/1
	13	EX104B13	2CDS274087R0135	EX104C13	2CDS274087R0134	EX104D13	2CDS274087R0131	1/1
	16	EX104B16	2CDS274087R0165	EX104C16	2CDS274087R0164	EX104D16	2CDS274087R0161	1/1
	20	EX104B20	2CDS274087R0205	EX104C20	2CDS274087R0204	EX104D20	2CDS274087R0201	1/1
	25	EX104B25	2CDS274087R0255	EX104C25	2CDS274087R0254	EX104D25	2CDS274087R0251	1/1
	32	EX104B32	2CDS274087R0325	EX104C32	2CDS274087R0324	EX104D32	2CDS274087R0321	1/1
	40	EX104B40	2CDS274087R0405	EX104C40	2CDS274087R0404	EX104D40	2CDS274087R0401	1/1
	50	EX104B50	2CDS274087R0505	EX104C50	2CDS274087R0504	EX104D50	2CDS274087R0501	1/1
	63	EX104B63	2CDS274087R0635	EX104C63	2CDS274087R0634	EX104D63	2CDS274087R0631	1/1

EPC and EX NR

Fast Clips
Easy mounting
and disassembly

Simple Installation
Feed in from top or
bottom possible



Space-saving
Save up to 50 %

Series				EPC611	EPC62	EPC63	EPC64
General Data	Standards			IEC/EN 60898-1			
	Marking approval			VDE			
	Poles			1P+1P/1M	2P/1M	3P/2M	4P/2M
	Tripping characteristics			B,C			
	Rated current I_n		A	6..20	6..32		
	Rated frequency f		Hz	50 / 60			
	Rated insulation voltage Ui acc. to IEC/EN 60664-1		V	500 VAC			
	Overvoltage category			III			
	Pollution degree			2			
Data acc. to IEC/EN 60898-1	Rated operational voltage Un		V	230/240 V	400/415 V		
	Max. power frequency recovery voltage (Umax)		V	264 V	440 V		
	Min. operating voltage		V	12 V			
	Rated short-circuit capacity	ICn	A	6000 A			
	Rated breaking capacity acc. to IEC/EN 60947-2 (only referring to internal short circuit test)	ultimate Icu	kA	6 kA			
		service Ics	kA	6 kA			
	Rated impulse withstand voltage (1.2/50 µs)	Uimp.	kV	4 kV			
	Dielectric test voltage		kV	2 kV (50 / 60Hz, 1 min.)			
	Reference temperature for tripping characteristics acc. IEC/EN 60898-1		°C	30			
	Electrical endurance		ops.	10000			
Mechanical Data	Housing type			Insulation group I, RAL 7035			
	Toggle type			Insulation group II, Black RAL 9005, sealable in ON-OFF positions			
	Protection degree acc. to EN 60529	housing		IP40			
		terminals		IP20			
	Mechanical endurance		ops.	20000			
	Shock resistance acc. to IEC/EN 60068-2-27			40 g (x,y,z) – 18 shocks – 5ms half sinusoidal			
	Vibration resistance acc. to IEC/EN 60068-2-6			0.35 mm or 5g – 20 cycles at 5...150...5 Hz			
	Environmental conditions (damp heat) acc. to IEC/EN 60068-2-30		°C/RH	28 cycles with 55 °C/90–96 % and 25 °C/95–100 %			
	Ambient temperature		°C	-25...+55			
	Storage temperature		°C	-40...+70			
Installation	Terminal			Fail-safe terminals			
	Terminal size for cable		mm^2	10 flexible /16 rigid top & bottom			
	Terminal size for busbars		mm^2	10/10			
	Tightening Torque		Nm	3			
	Stripping length of the cable		mm	12			
	Mounting			on DIN rail EN 60715 (35 mm) by means of mounting clip			
	Mounting position			Vertical & Horizontal			
	Supply from			Top/Bottom terminals			
Dimensions and weight	Pole dimensions (H x D x W)		mm	86 × 70 × 17.8 mm			
	Pole weight		g	160			
Combination with aux. elements	Auxiliary contact/Signal			Yes			

Series				EX41NR	EX61NR
General Data	Standards			IEC/EN 60898-1	
	Marking approval			IMQ, VDE, AENOR, KEMA	
	Poles			1P+N	
	Tripping characteristics			C	
	Rated current I_n		A	2..40	
	Rated frequency f		Hz	50 / 60 Hz	
	Rated insulation voltage Ui acc. to IEC/EN 60664-1		V	500VAC	
	Overvoltage category			III	
	Pollution degree			2	
Data acc. to IEC/EN 60898-1	Rated operational voltage Un		V	230 VAC	
	Max. power frequency recovery voltage (Umax)		V	254 VAC	
	Min. operating voltage		V	12 VAC	
	Rated short-circuit capacity	ICn	A	4,5	6
	Energy limiting class	ultimate Icu	kA	3	
	Rated impulse withstand voltage Uimp. (1.2/50 µs)	service Ics	kA	4 kV (test voltage 6.2kV at sea level, 5kV at 2,000m)	
	Dielectric test voltage	Uimp.	kV	2 kV (50 / 60 Hz, 1 min.)	
	Reference temperature for tripping characteristics acc. IEC/EN 60898-1		kV	30° C	
	Electrical endurance		°C	10000 operations	
Data acc. to IEC/EN 60947-2 (Only referring to internal short circuit test)	Rated ultimate short-circuit breaking capacity Icu	kA		6	10
	Rated service short-circuit breaking capacity Ics	kA		4,5	6
Mechanical Data	Housing type			Insulation group II, RAL 7035	
	Toggle type			Insulation group II, RAL 7024, sealable	
	Contact position indication			Marking on toggle (I / 0)	
	Protection degree acc. to EN 60529			IP2X	
				IP4X	
	Mechanical endurance	ops.		20,000 ops.	
	Shock resistance acc. to IEC/EN 60068-2-27			30 g – 2 shocks – 13 ms	
	Vibration resistance acc. to IEC/EN 60068-2-6			0.35 mm or 5g – 20 cycles at 5...150...5 Hz without load	
	Environmental conditions (damp heat) acc. to IEC/EN 60068-2-30	°C/RH		28 cycles with 55°C/90-96% and 25°C/95-100%	
	Ambient temperature	°C		-25 ... +55°C	
	Storage temperature	°C		-40 ... +70°C	
Installation	Cross-section of conductors (top/bottom) Stranded/Solid		mm^2	16 mm^2 / 16 mm^2	
	Cross-section of conductors (top/bottom) Flexible		mm^2	10 mm^2 / 10 mm^2	
	Tightening Torque		Nm	1.2 Nm	
	Stripping lenght		mm	11mm	
	Mounting			On DIN rail 35 mm acc. to EN 60715 by fast clip	
	Mounting position			any	
	Supply			optional	
Dimensions and weight	Pole dimensions (H x D x W)		mm	85 x 68.9 x 17.6 mm	
	Pole weight		g	ca. 110 g	
Combination with aux. elements	Auxiliary/signal contact			Yes	
	Shunt trip			Yes	
	Undervoltage release			Yes	
	Motor Operator Device			No	

EX41NR

IEC/EN 60898 **4500 A**



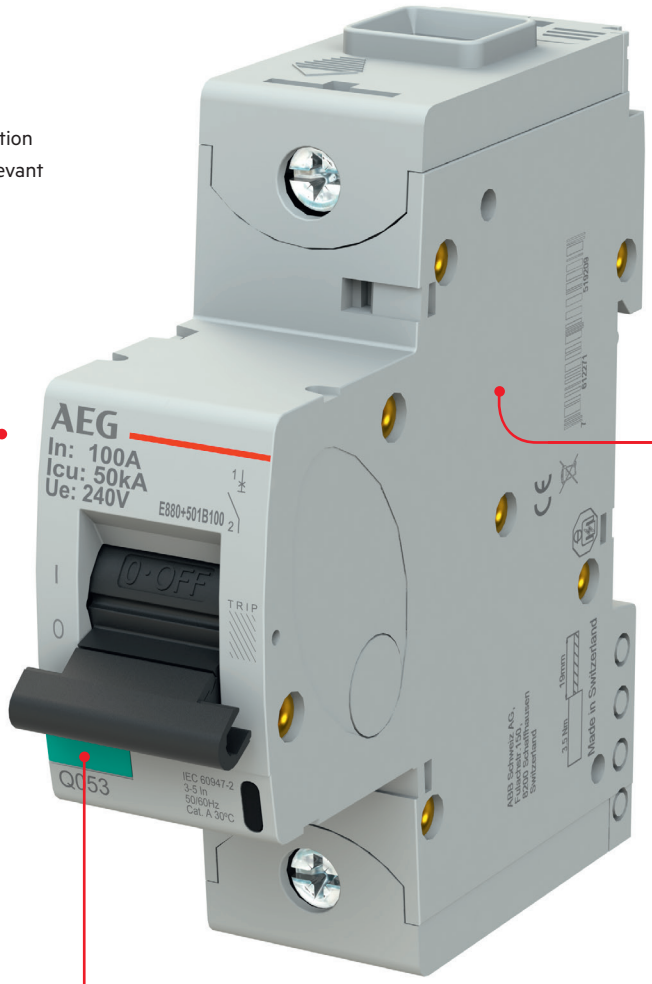
Poles	In (A)	C curve Type code	Order code	Packaging unit
1P+N	2	EX41NRC02	2CSS245146R0024	1/12
	4	EX41NRC04	2CSS245146R0044	1/12
	6	EX41NRC06	2CSS245146R0064	1/12
	10	EX41NRC10	2CSS245146R0104	1/12
	16	EX41NRC16	2CSS245146R0164	1/12
	20	EX41NRC20	2CSS245146R0204	1/12
	25	EX41NRC25	2CSS245146R0254	1/12
	32	EX41NRC32	2CSS245146R0324	1/12
	40	EX41NRC40	2CSS245146R0404	1/12

EPC60, EX61NR

IEC/EN 60898 6000 A CE

Poles	In (A)	B Curve Type code	B Curve Order code	C Curve Type code	C Curve Order code	Packaging unit
1P+1P	6	EPC611 B06	4TQA694272R0000	EPC611 C06	4TQA694388R0000	1/12
	10	EPC611 B10	4TQA694273R0000	EPC611 C10	4TQA694389R0000	1/12
	13	EPC611 B13	4TQA694274R0000	EPC611 C13	4TQA694390R0000	1/12
	16	EPC611 B16	4TQA694275R0000	EPC611 C16	4TQA694391R0000	1/12
	20	EPC611 B20	4TQA694276R0000	EPC611 C20	4TQA694392R0000	1/12
1P+N	6	EX61NRB06	2CSS255146R0065	EX61NRC06	2CSS255146R0064	1/12
	10	EX61NRB10	2CSS255146R0105	EX61NRC10	2CSS255146R0104	1/12
	13	EX61NRB13	2CSS255146R0135	EX61NRC13	2CSS255146R0134	1/12
	16	EX61NRB16	2CSS255146R0165	EX61NRC16	2CSS255146R0164	1/12
	20	EX61NRB20	2CSS255146R0205	EX61NRC20	2CSS255146R0204	1/12
	25	EX61NRB25	2CSS255146R0255	EX61NRC25	2CSS255146R0254	1/12
	32	EX61NRB32	2CSS255146R0325	EX61NRC32	2CSS255146R0324	1/12
	40	EX61NRB40	2CSS255146R0405	EX61NRC40	2CSS255146R0404	1/12
2P	6	EPC62 B06	4TQA693673R0000	EPC62 C06	4TQA694285R0000	1/12
	10	EPC62 B10	4TQA693674R0000	EPC62 C10	4TQA694286R0000	1/12
	13	EPC62 B13	4TQA694950R0000	EPC62 C13	4TQA694952R0000	1/12
	16	EPC62 B16	4TQA693675R0000	EPC62 C16	4TQA694287R0000	1/12
	20	EPC62 B20	4TQA693676R0000	EPC62 C20	4TQA694288R0000	1/12
	25	EPC62 B25	4TQA693677R0000	EPC62 C25	4TQA694289R0000	1/12
	32	EPC62 B32	4TQA693827R0000	EPC62 C32	4TQA694290R0000	1/12
	40	EPC62 B40	4TQA694954R0000	EPC62 C40	4TQA694291R0000	1/12
3P	6	EPC63 B06	4TQA693828R0000	EPC63 C06	4TQA694292R0000	1/6
	10	EPC63 B10	4TQA693829R0000	EPC63 C10	4TQA694293R0000	1/6
	13	EPC63 B13	4TQA694951R0000	EPC63 C16	4TQA694294R0000	1/6
	16	EPC63 B16	4TQA693830R0000	EPC63 C13	4TQA694953R0000	1/6
	20	EPC63 B20	4TQA693831R0000	EPC63 C20	4TQA694295R0000	1/6
	25	EPC63 B25	4TQA694264R0000	EPC63 C25	4TQA694296R0000	1/6
	32	EPC63 B32	4TQA694265R0000	EPC63 C32	4TQA694297R0000	1/6
4P	6	EPC64 B06	4TQA694266R0000	EPC64 C06	4TQA694298R0000	1/6
	10	EPC64 B10	4TQA694267R0000	EPC64 C10	4TQA694299R0000	1/6
	16	EPC64 B16	4TQA694268R0000	EPC64 C16	4TQA694384R0000	1/6
	20	EPC64 B20	4TQA694269R0000	EPC64 C20	4TQA694385R0000	1/6
	25	EPC64 B25	4TQA694270R0000	EPC64 C25	4TQA694386R0000	1/6
	32	EPC64 B32	4TQA694271R0000	EPC64 C32	4TQA694387R0000	1/6

E880+50



Product marking
Clear and easy identification of product name and relevant characteristics

Suitable for upgrading your applications
Compatible with a wide range of accessories

Toggle position indication (TPI)
Clear identification of the moving contact (ON-OFF-TRIP)

Contact position identification (CPI)
Clear visualization of the device status

Series		E880+50
Performance	Tripping characteristics	B, C, D
	Standards	IEC/EN 60947-2
	Poles	1, 2, 3, 4
	Rated current In	80 ... 125 A
	Rated frequency f	50/60 Hz
	Rated insulation voltage Ui acc. to IEC/EN 60664-1 (V)	AC 690 V
	Rated impulse withstand voltage Uimp. (1.2/50 µs)	6 kV
	Overvoltage category	III
	Pollution degree	3
	Suitability for isolation	Yes
Data acc. to IEC/EN 60947-2	Rated operational voltage Ue	AC 400/690 V DC 125 V (1-pole) DC 250 V (2-pole) DC 375 V (3-pole) DC 500 V (4-pole)
	Min. operating voltage	AC 12 V
	Rated ultimate short-circuit capacity Icu	AC 240/415 V = 50 kA AC 254/440 V = 30 kA AC 289/500 V = 15 kA (80 A) AC 289/500 V = 10 kA (100...125 A) AC 400/690 V = 6 kA (80 A) AC 400/690 V = 4.5 kA (100...125 A) DC 125 V (1-pole) = 30 kA DC 250 V (2-pole) = 30 kA DC 375 V (3-pole) = 30 kA DC 500 V (4-pole) = 30 kA
	Rated service short-circuit capacity Ics	AC 240/415 V = 40 kA
	Reference temperature for tripping characteristics	30° C (Char. B, C, D)
	Electrical and Mechanical Endurance	80...100 A: 6000 electrical ops / 10000 mechanical ops 125 A: 4000 electrical ops / 8000 mechanical ops
Data acc. to IEC/ EN 60898-1	Rated short-circuit capacity Icn	Char. B, C, D: AC 230/400 V = 25 kA (80 A) AC 230/400 V = 15 kA (100...125 A)
Mechanical Data Housing	Housing	Material group I, RAL 7035
	Toggle	Black, lockable
	Classification acc. to EN45545-2 component requirement / hazard level	R26 / HL3
	Protection degree acc. to EN 60529	IP20; IP40 (under the cover frame)
	Shock resistance acc. to IEC/EN 60068-2-27	5 g / 30ms, Test Ea
	Shock resistance acc. To IEC/EN 61373	Cat 1 / Class B
	Vibration resistance acc. to IEC/EN 60068-2-6	5 g / 30ms, Cat 1, Class B; Test Fc; 2 – 13.2Hz /1 mm 13.2 – 100Hz / 0.7g with load 100% x Ie
	Environmental condition (dry heat)	Acc. to IEC/EN 60068-2-2: 16 hours 70°C
	Environmental condition (damp heat)	Acc. to IEC/EN 60068-2-30: 2 cycles: 12h 55°C @98% rh; 12h 25°C @93% rh
	Environmental condition (low temp)	Acc. to IEC/EN 60068-2-1: 16 hours -25°C
	Ambient temperature	–25 ... +60°C
	Storage temperature	–40 ... +70°C
Installation	Terminal	Failsafe cage or ringlug terminal
	Connections (top/bottom) – Cu only	25 ... 50 flexible mm^2 25 ... 70 Solid (Rigid / Stranded) mm^2
	Tightening torque	3.5 (Nm) 31 (in-lbs)
	Screwdriver	POZI 2
	Mounting	EN 60715
	Mounting position	Any
	Supply	Any
Dimensions and weight	Pole dimensions (H x L x W)	Please refer to dimensions diagrams pages
	Pole weight	Ca. 240 g

E880+50

IEC/EN 60897.2 **50kA** CE

		B curve		C curve		D curve		
Poles	In (A)	Type code	Order code	Type code	Order code	Type code	Order code	Packaging unit
	80	E880+501B80	2CCG001424R0001	E880+501C80	2CCG001427R0001	E880+501D80	2CCG001430R0001	1/1
	100	E880+501B100	2CCG001422R0001	E880+501C100	2CCG001425R0001	E880+501D100	2CCG001428R0001	1/1
	125	E880+501B125	2CCG001423R0001	E880+501C125	2CCG001426R0001	E880+501D125	2CCG001429R0001	1/1
	80	E880+502B80	2CCG001433R0001	E880+502C80	2CCG001436R0001	E880+502D80	2CCG001439R0001	1/1
	100	E880+502B100	2CCG001431R0001	E880+502C100	2CCG001434R0001	E880+502D100	2CCG001437R0001	1/1
	125	E880+502B125	2CCG001432R0001	E880+502C125	2CCG001435R0001	E880+502D125	2CCG001438R0001	1/1
	80	E880+503B80	2CCG001442R0001	E880+503C80	2CCG001445R0001	E880+503D80	2CCG001448R0001	1/1
	100	E880+503B100	2CCG001440R0001	E880+503C100	2CCG001443R0001	E880+503D100	2CCG001446R0001	1/1
	125	E880+503B125	2CCG001441R0001	E880+503C125	2CCG001444R0001	E880+503D125	2CCG001447R0001	1/1
	80	E880+504B80	2CCG001451R0001	E880+504C80	2CCG001454R0001	E880+504D80	2CCG001457R0001	1/1
	100	E880+504B100	2CCG001449R0001	E880+504C100	2CCG001452R0001	E880+504D100	2CCG001455R0001	1/1
	125	E880+504B125	2CCG001450R0001	E880+504C125	2CCG001453R0001	E880+504D125	2CCG001456R0001	1/1

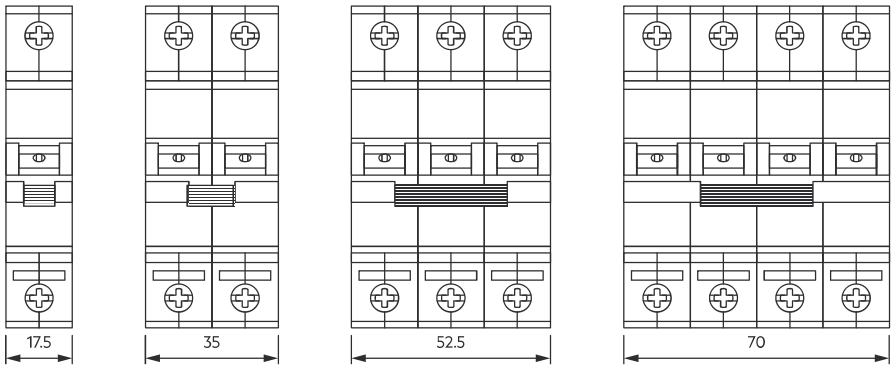
Accessories for E880+50

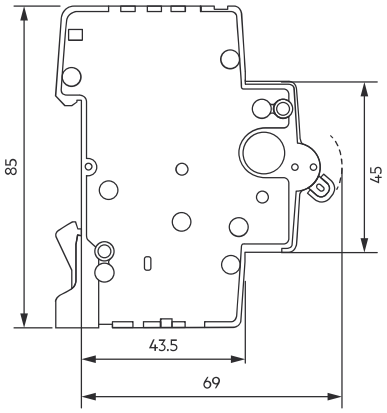
	Type code	Order Code
Auxiliary contact	E880H+	2CCG000322R0001
Auxiliary/signal contact	E880S/H+	2CCG000323R0001
Shunt 220...400 V AC/DC	F6+	2CCG000324R0001
Shunt 110...250 V AC/DC	F5+	2CCG000325R0001
Shunt 48...130 V AC/DC	F4+	2CCG000326R0001
Shunt 24 V AC/DC	F3+	2CCG000327R0001
UVR 220...250 V AC/DC	NUVR+230	2CCG000328R0001
UVR 48...60 V AC/DC	NUVR+48	2CCG000330R0001
UVR 24...26 V AC/DC	NUVR+24	2CCG000331R0001
Padlocking device	E880+KS	2CCG000332R0001

Notes

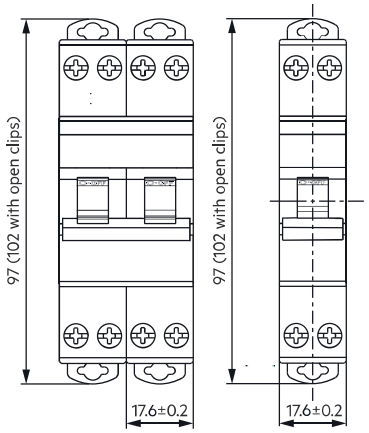
Dimensions

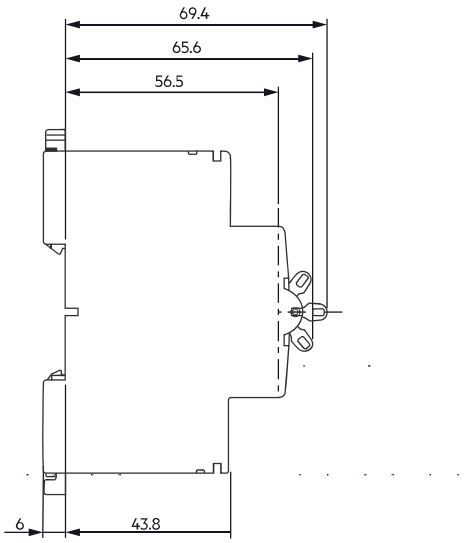
MCB EX40, EX60, EX100





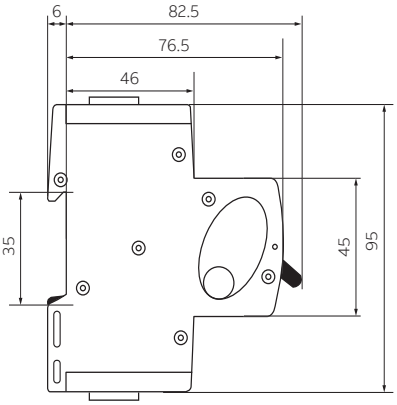
MCB EPC, EX41NR, EX61NR





MCB E880+50



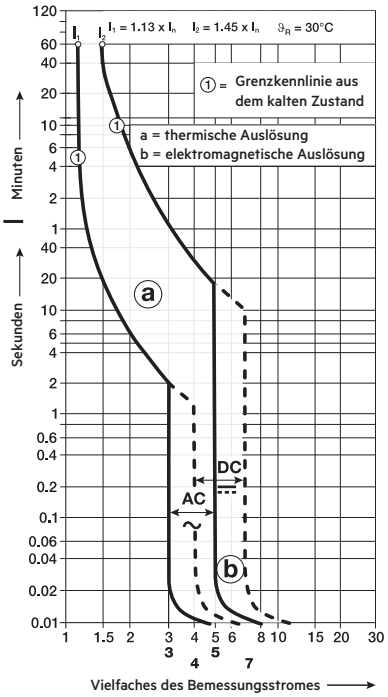


MCBs technical details

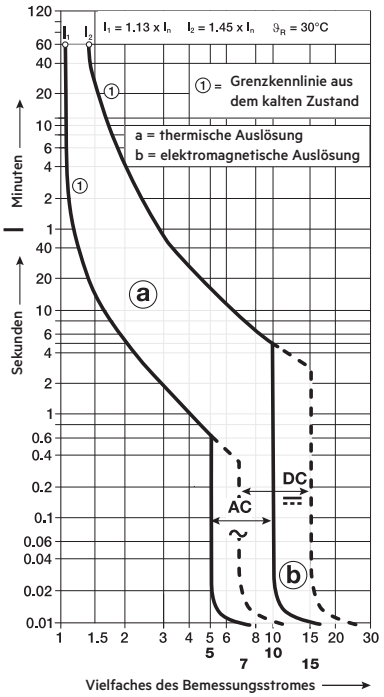
Tripping characteristics

Tripping characteristics EX40/60/100

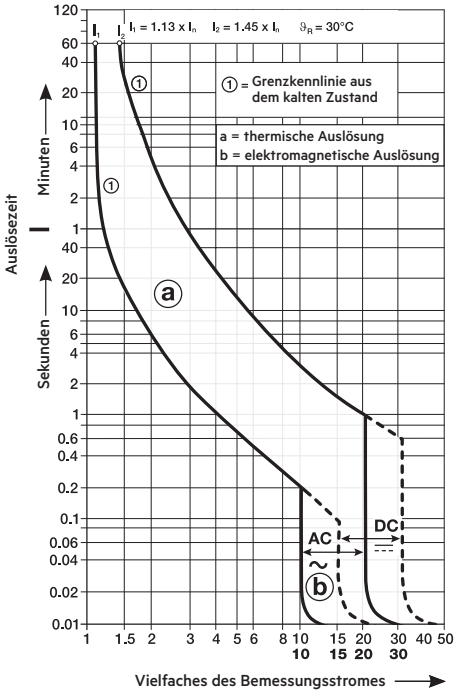
Characteristic B
IEC/EN 60898



Characteristic C
IEC/EN 60898

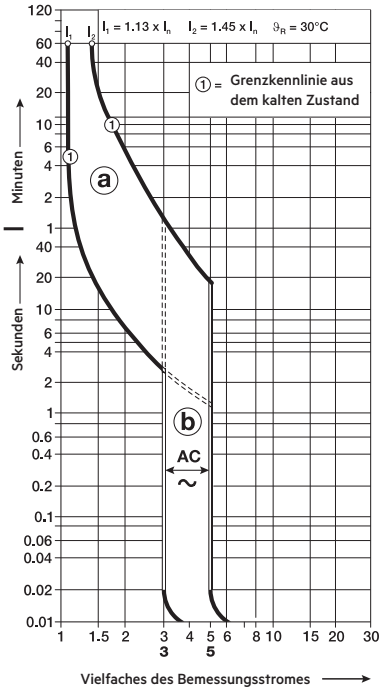


Characteristic D
IEC/EN 60898

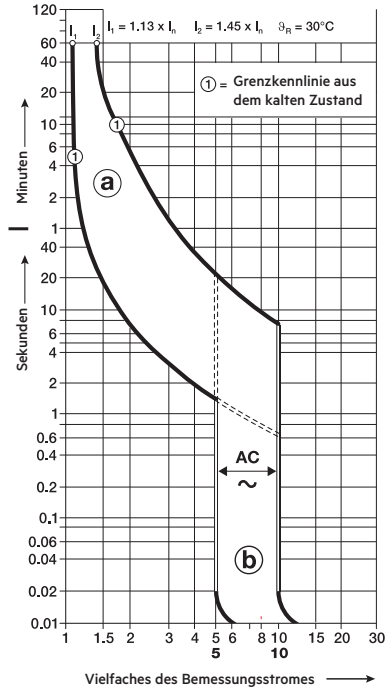


Tripping characteristics EPC

Characteristic B
IEC/EN 60898



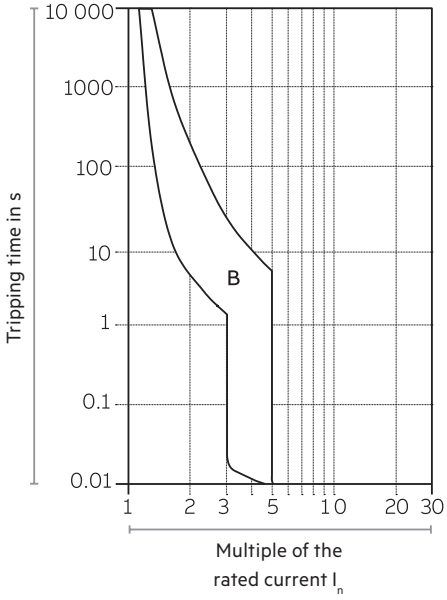
Characteristic C
IEC/EN 60898

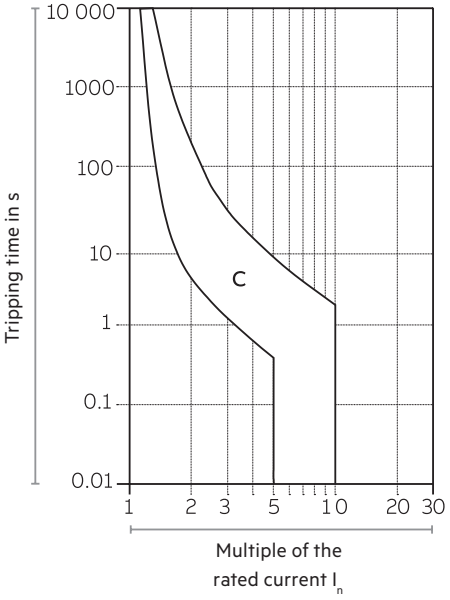


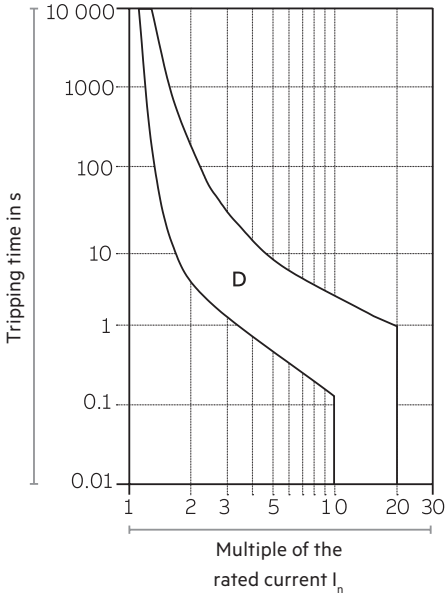
ⓐ thermal trip
ⓑ electromagnetic trip

Tripping characteristics E880+50

Characteristic B
IEC/EN 60898



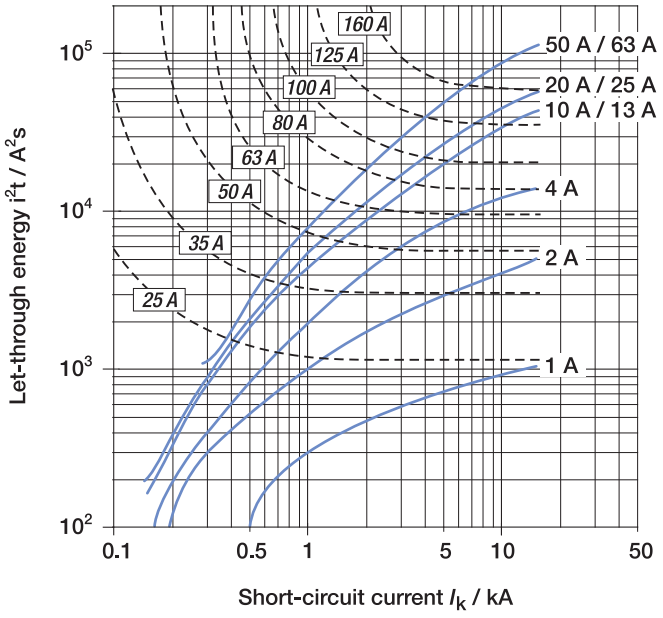


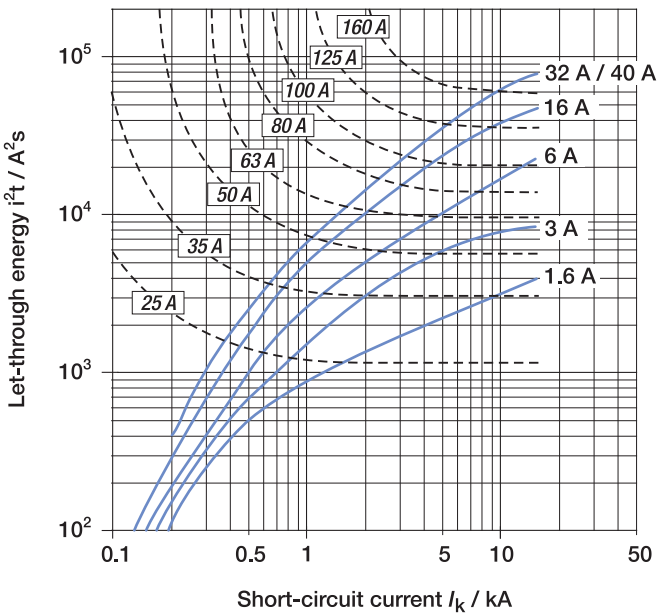


MCBs technical details

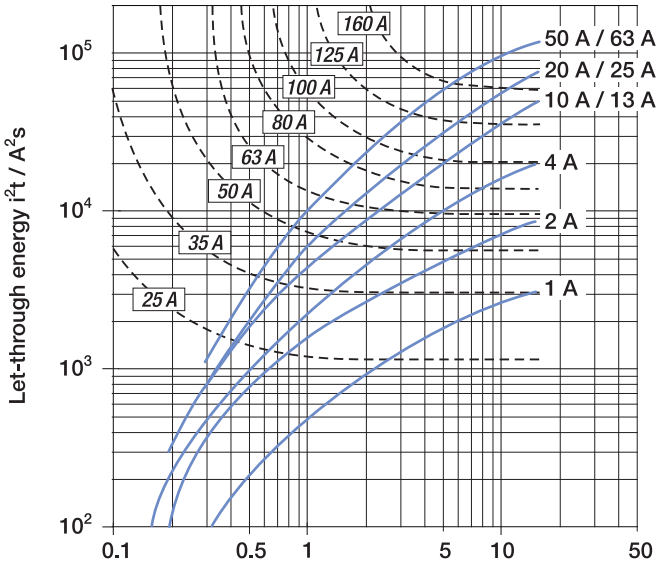
Limitation of specific let-through energy I^2t

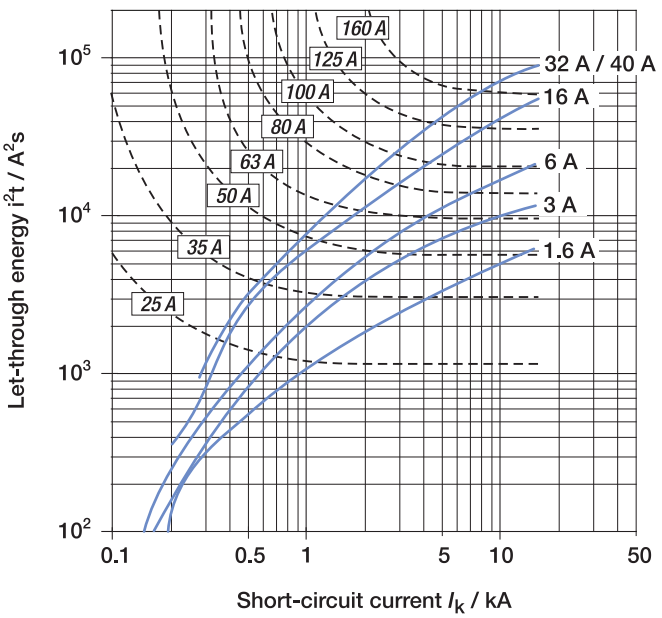
EX40/60/100, characteristics B and C
230/400 V let-through energy



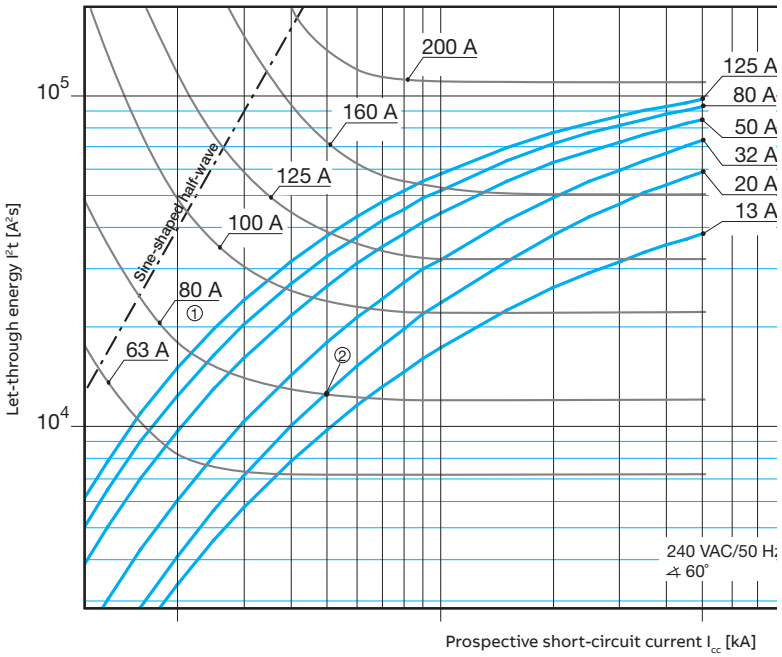


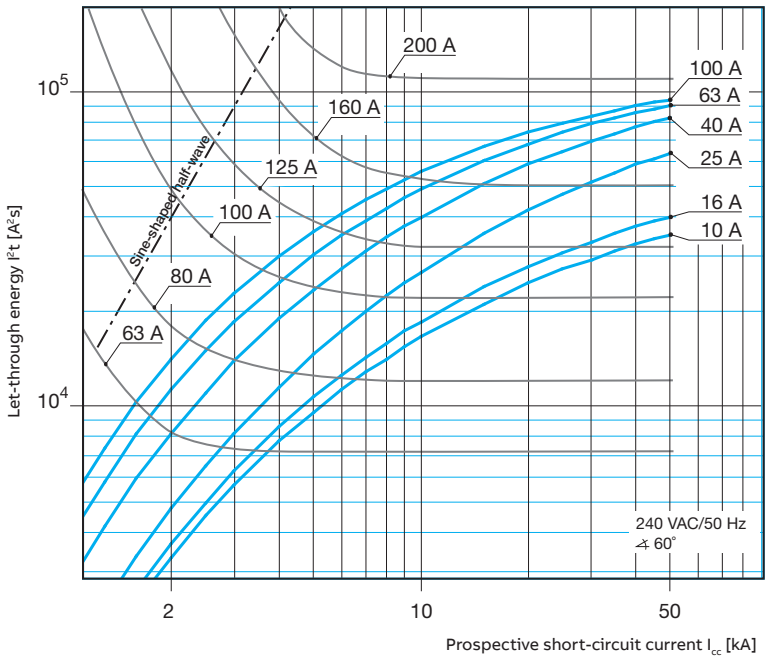
EX60/100, characteristics D
230/400 V let-through energy



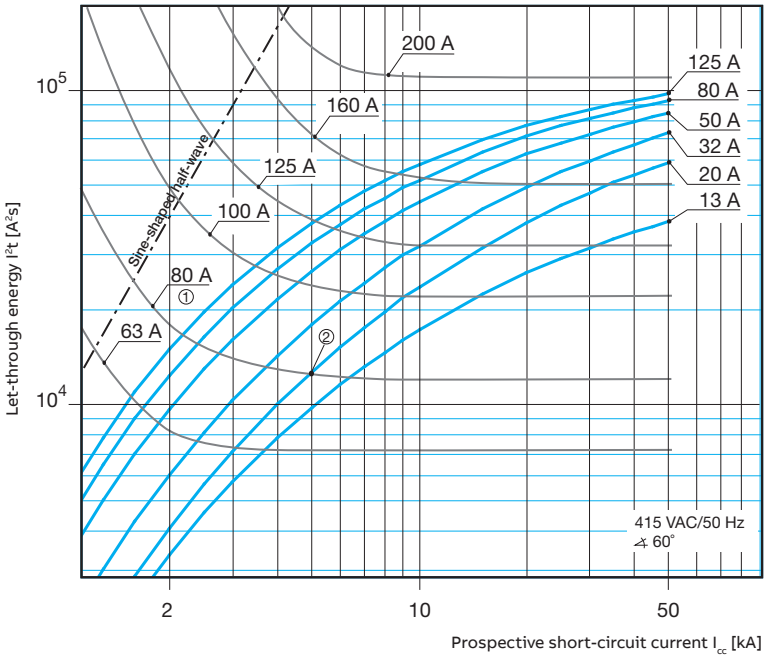


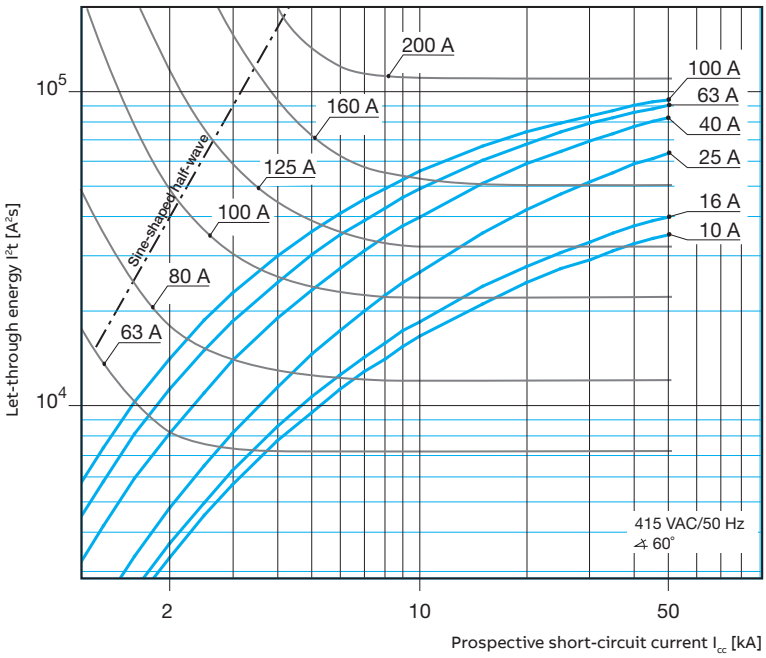
E880+50 characteristics B, C, D
240 V let-through energy



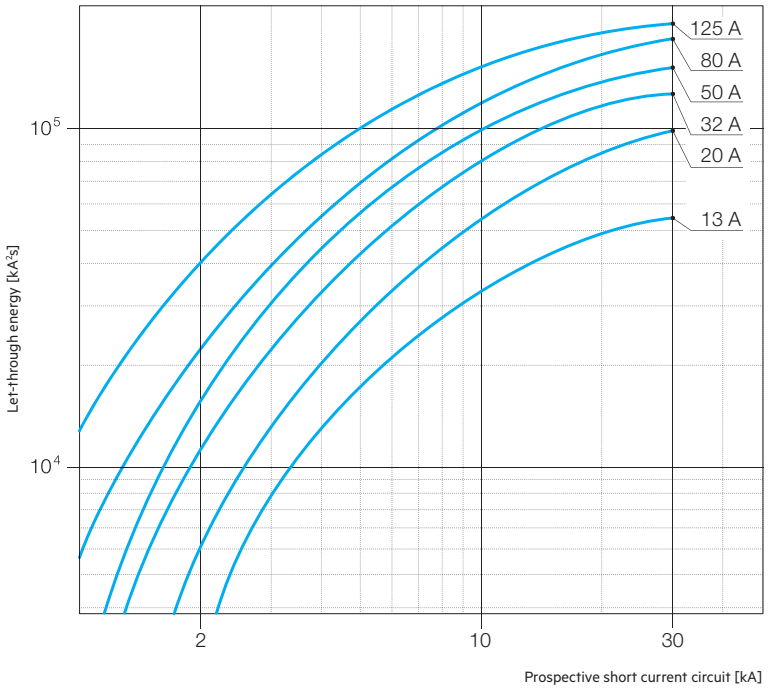


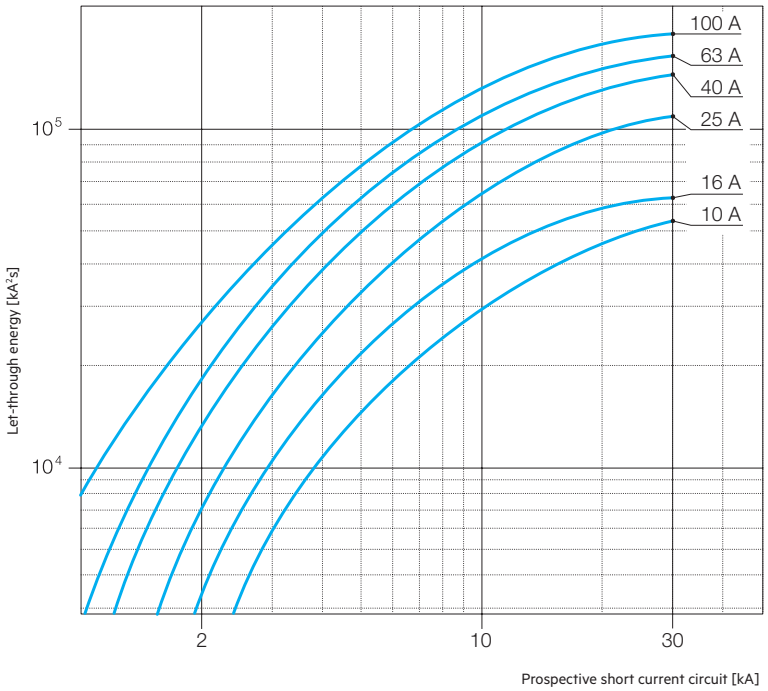
E880+50 characteristics B, C, D
240 V let-through energy





E880+50 characteristics B, C, D
240 V let-through energy

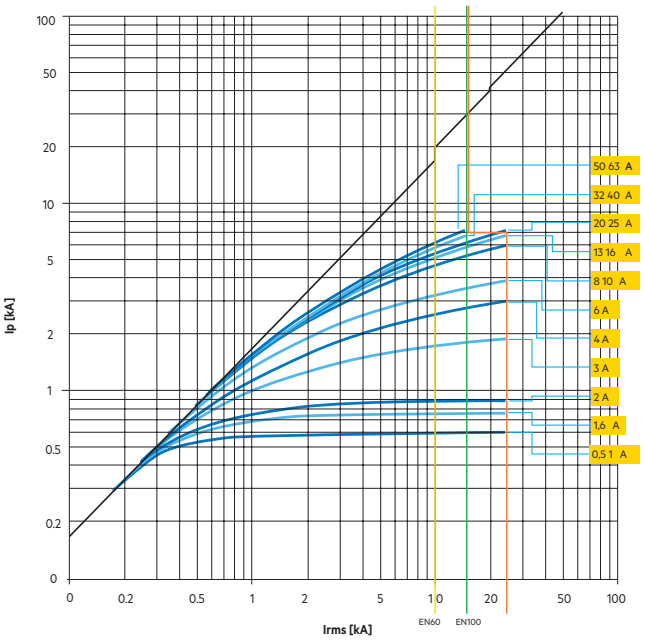




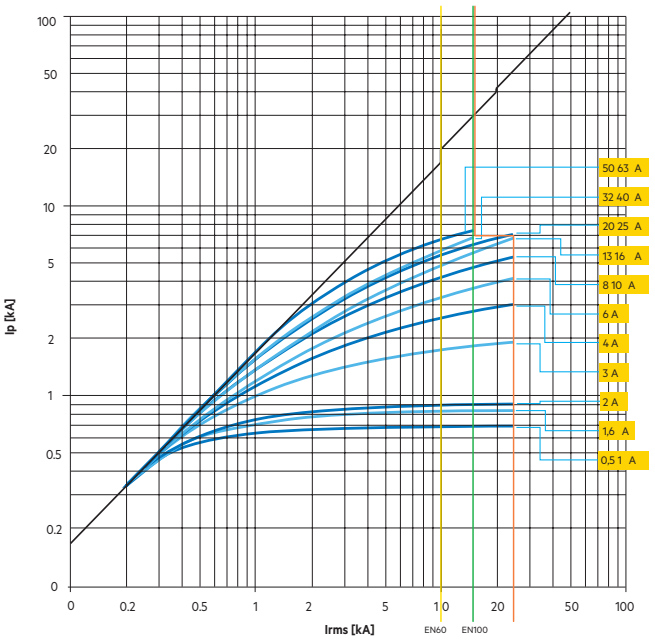
MCBs technical details

Peak current I_p

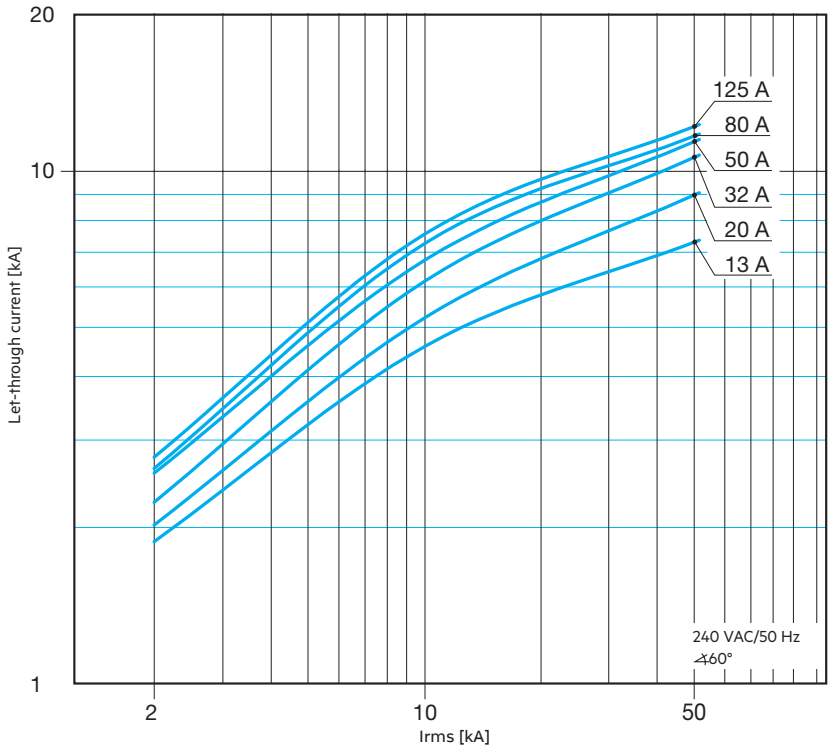
EX40/EX60/EX100 characteristics B-C

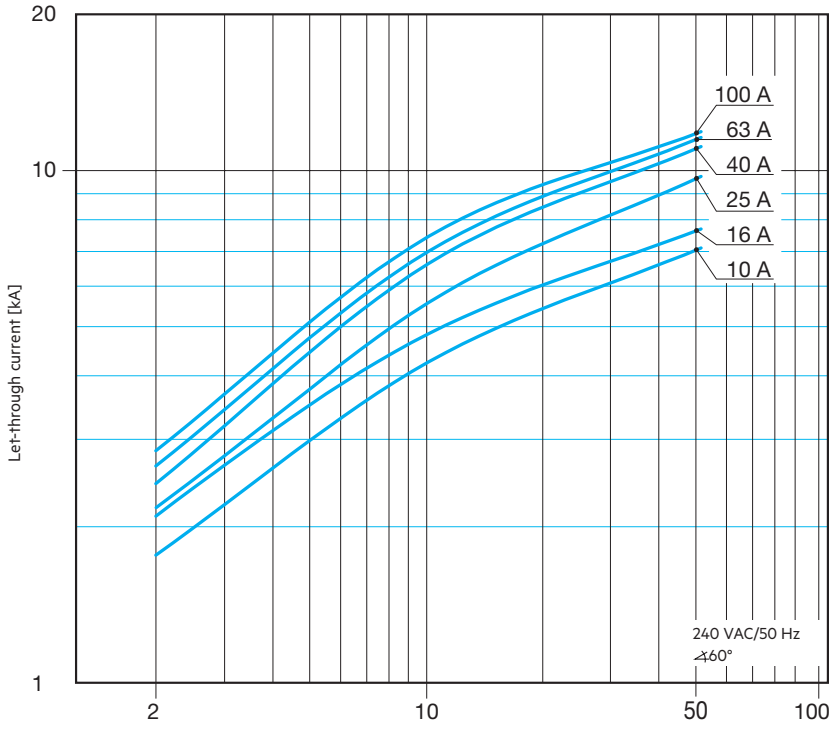


EX60/EX100 characteristics D

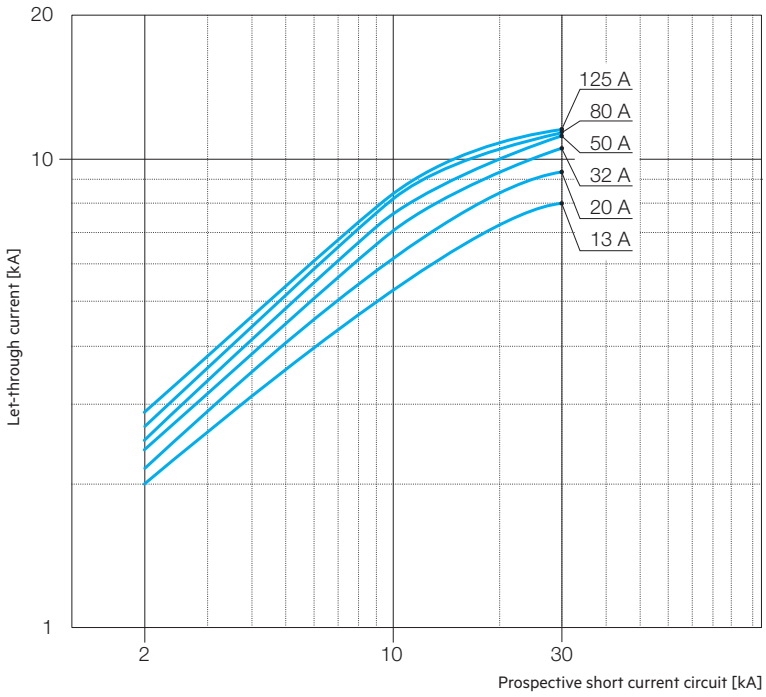


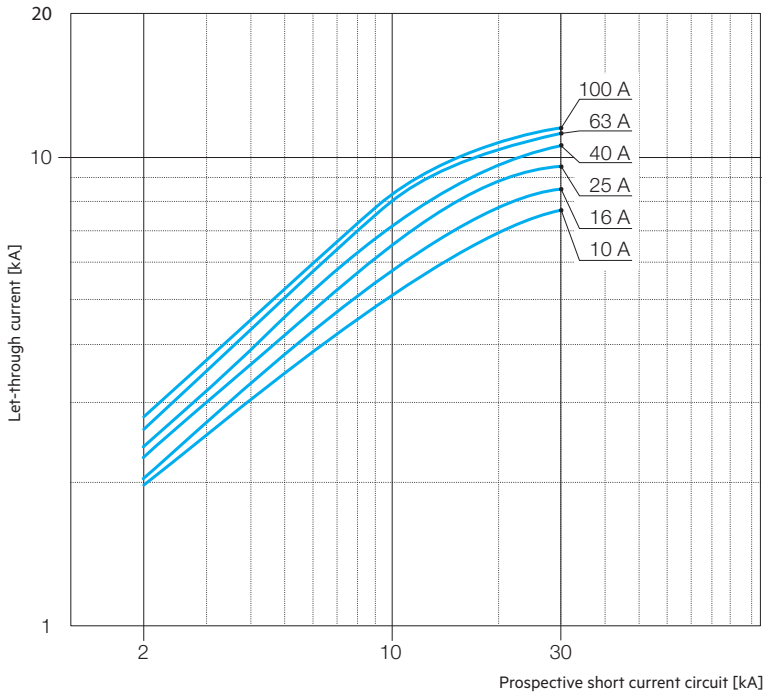
E880+50 characteristics B,C,D
240V/415V Ipeak





E880+50 characteristics B,C,D
240V/415V Ipeak





MCBs technical details

MCBs internal resistance, power loss and max. permissible earth-fault loop impedance

Type	Rated current	Device series			
		B, C ①		D	
	I_n A	mΩ	W	mΩ	W
EX40/60/100	0.5	5500	1.4	4300	1.1
	1	1440	1.4	1250	1.25
	1.6	630	1.6	600	1.5
	2	460	1.8	410	1.65
	3	150	1.3	130	1.2
	4	110	1.8	105	1.7
	6	55	2.0	52	1.9
	8	23	1.5	24	1.5
	10	19	2.1	16	1.6
	13	14	2.3	14	2.2
	16	8.5	2.5	8.5	2.5
	20	6.25	2.5	6.1	2.3
	25	5.0	3.2	4.3	3.1
	32	3.6	3.7	3.5	3.6
	40	3.0	4.8	2.2	4.2
	50	1.3	3.25	1.25	2.9
	63	1.2	4.8	1.2	4.8

① Current intensities 0.5 – 4 apply exclusively to C-type trip characteristics.

Type	Rated current	Device series (internal resistance and power loss per device) B, C, D	
	I_n A	mΩ	W
EX41NR, EX61NR	2	28.5	0.9
	4	24.8	1.6
	6	14.0	1.5
	10	9.5	1.3
	16	6.6	1.7
	20	5.8	2.3
	25	3.7	2.3
	32	2.8	2.9
	40	1.8	2.9

Power losses EPC series (per device)

I_n (A)	1P+1P (W)	2P (W)	3P (W)	4P (W)
2	2.2	2.2	3.3	4.4
4	2.7	2.7	4.0	5.4
6	3.0	3.0	4.6	6.1
10	3.3	3.3	4.9	6.6
13	3.8	3.8	NA	NA
15	NA	3.9	NA	NA
16	4.2	4.2	6.3	8.4
20	5.0	5.0	7.6	10.1
25	NA	6.2	9.3	12.4
32	NA	7.6	11.4	15.2
40	NA	8.9	NA	NA

E880+50

Typical internal resistances and power losses at 25 °C ambient temperature (per pole)

Type	Rated current	Device series	
		B, C, D	
	I_n A	mΩ	W
E880+50	80	1	6.4
	100	0.8	8
	125	0.6	9.4

MCBs technical details

Performances at different ambient temperatures

Tripping characteristics	Rated current I_n A	Maximum operating current at ambient temperature T °C											
		-40	-30	-20	-10	0	10	20	30	40	50	60	70
EX40/60/100 B, C and D[1]	0.5	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4
	1	1.2	1.2	1.2	1.1	1.1	1.1	1.0	1	1.0	0.9	0.9	0.9
	2	2.4	2.4	2.3	2.2	2.2	2.1	2.1	2	1.9	1.9	1.8	1.8
	3	3.6	3.5	3.5	3.4	3.3	3.2	3.1	3	2.9	2.8	2.7	2.6
	4	4.8	4.7	4.6	4.5	4.4	4.2	4.1	4	3.9	3.8	3.6	3.5
	6	7.3	7.1	6.9	6.7	6.5	6.4	6.2	6	5.8	5.6	5.5	5.3
	8	9.7	9.4	9.2	9.0	8.7	8.5	8.2	8	7.8	7.5	7.3	7.0
	10	12.1	11.8	11.5	11.2	10.9	10.6	10.3	10	9.7	9.4	9.1	8.8
	13	15.7	15.3	15.0	14.6	14.2	13.8	13.4	13	12.6	12.2	11.8	11.4
	16	19.4	18.9	18.4	17.9	17.4	17.0	16.5	16	15.5	15.0	14.6	14.1
	20	24.2	23.6	23.0	22.4	21.8	21.2	20.6	20	19.4	18.8	18.2	17.6
	25	30.3	29.5	28.8	28.0	27.3	26.5	25.8	25	24.3	23.5	22.8	22.0
	32	38,7	37.8	36.8	35.8	34.9	33.9	33.0	32	31.0	30.1	29.1	28.2
	40	48.4	47.2	46.0	44.8	43.6	42.4	41.2	40	38.8	37.6	36.4	35.2
	50	60.5	59.0	57.5	56.0	54.5	53.0	51.5	50	48.5	47.0	45.5	44.0
	63	76.2	74.3	72.5	70.6	68.7	66.8	64.9	63	61.1	59.2	57.3	55.4

1) For dedicated availibility, see catalogue

EPC611 and EPC62

B and C char

Rated current I_n (A)	Temperature T (°C)										
	-25	-20	-10	0	10	20	25	30	40	50	55
2	2.60	2.55	2.45	2.34	2.23	2.12	2.06	2.00	1.87	1.74	1.67
4	5.13	5.03	4.84	4.65	4.44	4.23	4.11	4.00	3.76	3.51	3.37
6	7.54	7.42	7.15	6.88	6.60	6.30	6.15	6.00	5.68	5.35	5.17
10	12.86	12.62	12.14	11.64	11.11	10.57	10.29	10.00	9.40	8.77	8.43
13	16.42	16.14	15.56	14.96	14.33	13.68	13.35	13.00	12.28	11.52	11.11
15	18.93	18.61	17.95	17.26	16.54	15.79	15.40	15.00	14.16	13.26	12.78
16	20.2	19.8	19.1	18.4	17.6	16.8	16.4	16.0	15.1	14.1	13.6
20	25.4	24.9	24.0	23.1	22.1	21.1	20.5	20.0	18.9	17.6	17.0
25	30.9	30.4	29.4	28.4	27.3	26.2	25.6	25.0	23.8	22.5	21.8
32	39.3	38.7	37.5	36.2	34.8	33.5	32.7	32.0	30.5	28.8	28.0
40	48.1	47.4	46.0	44.6	43.1	41.6	40.8	40.0	38.4	36.6	35.7

EPC63 and EPC64

B and C char

Rated current I_n (A)	Temperature T (°C)										
	-25	-20	-10	0	10	20	25	30	40	50	55
2	2.48	2.44	2.36	2.27	2.18	2.09	2.05	2.00	1.89	1.78	1.73
4	5.23	5.13	4.92	4.70	4.48	4.25	4.12	4.00	3.74	3.45	3.31
6	7.15	7.05	6.85	6.65	6.44	6.22	6.11	6.00	5.73	5.44	5.29
10	13.11	12.86	12.33	11.78	11.21	10.62	10.31	10.00	9.31	8.57	8.19
16	19.33	19.05	18.49	17.90	17.29	16.66	16.33	16.00	15.24	14.44	14.03
20	24.33	23.97	23.23	22.46	21.67	20.85	20.43	20.00	18.79	17.51	16.83
25	35.37	34.54	32.83	31.04	29.15	27.15	26.09	25.00	22.67	20.11	18.73
32	43.09	42.18	40.32	38.38	36.35	34.23	33.13	32.00	29.38	26.55	25.04

EX41NR, EX61NR

B, C and D										
I_n (A)	-25	-20	-10	0	10	20	30	40	50	55
2	2.37	2.32	2.26	2.18	2.12	2.06	2.00	1.95	1.91	1.89
4	4.74	4.60	4.53	4.37	4.24	4.12	4.00	3.90	3.85	3.79
6	7.20	7.00	6.80	6.40	6.30	6.20	6.00	5.90	5.80	5.70
10	11.80	11.60	11.30	10.90	10.60	10.30	10.00	9.80	9.70	9.50
16	18.10	17.70	17.40	46.90	16.60	16.30	16.00	15.80	15.70	15.50
20	23.70	23.20	22.60	21.80	21.20	20.60	20.00	19.60	19.10	18.90
25	29.40	29.00	28.20	27.40	26.70	26.00	25.00	24.20	23.50	23.10
32	38.70	38.10	37.20	36.20	34.60	33.00	32.00	31.30	30.50	30.00
40	48.30	47.50	45.80	44.40	42.70	41.00	40.00	39.50	38.60	38.20

E880+50

Max. Operating currents depending on the ambient temperature T (°C) for B, C, D characteristics:

B, C, D	Current Rating																						
I_n[A]	−40	−35	−30	−25	−20	−15	−10	−5	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70
80A	103,4	101,9	100,4	99,0	97,5	96,1	94,7	93,2	91,7	90,3	88,8	87,3	85,9	84,4	82,9	81,5	80,0	78,5	77,1	75,6	74,1	72,7	71,2
100A	129,6	127,7	125,8	123,9	122,0	120,2	118,4	116,5	114,7	112,8	111,0	109,2	107,3	105,5	103,7	101,8	100,0	98,2	96,3	94,5	92,7	90,8	89,0
125A	162,2	159,8	157,3	154,9	152,5	150,2	147,9	145,6	143,4	141,1	138,8	136,5	134,2	131,9	129,6	127,3	125,0	122,7	120,4	118,1	115,8	113,5	111,2

02

RCDs & AFDDs | People Protection

Type F

Complete Type AS Functionality
+ Pulse current with direct current components of max. 10mA
+ Detection of mixed frequency currents up to 1 kHz.

Type B

Complete Type F Functionality
+ Detection of smooth direct currents high-frequency currents up to 2 kHz, high system availability

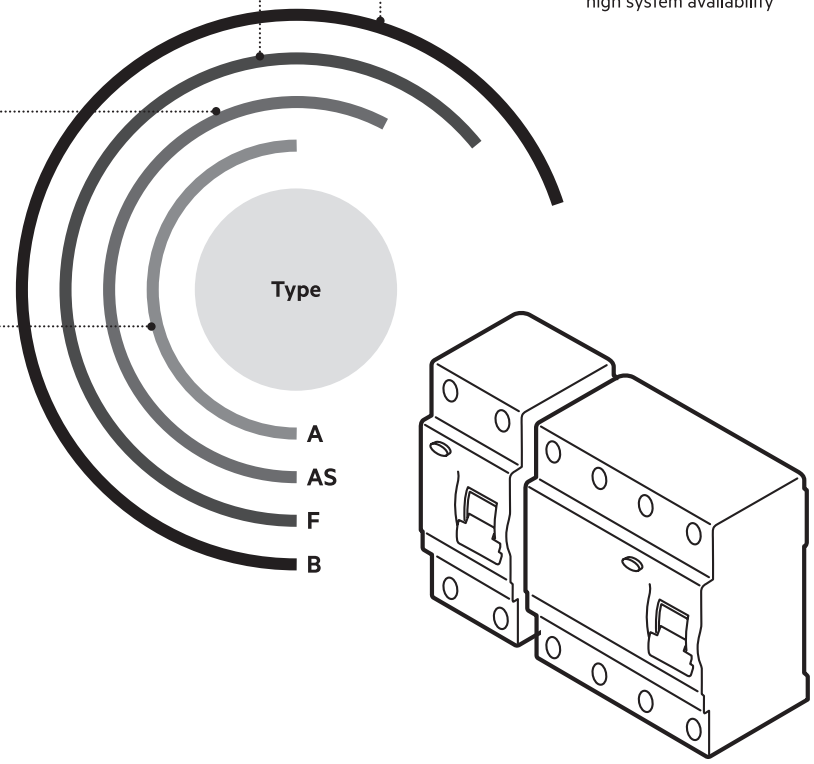
Type AS

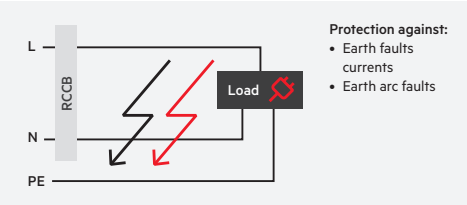
AP-R

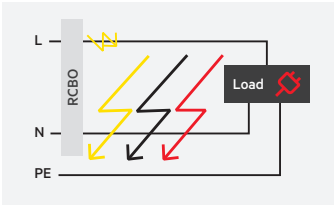
Complete Type A Functionality
+ high insensitivity to unwanted triggering (short-time delay).

Type A

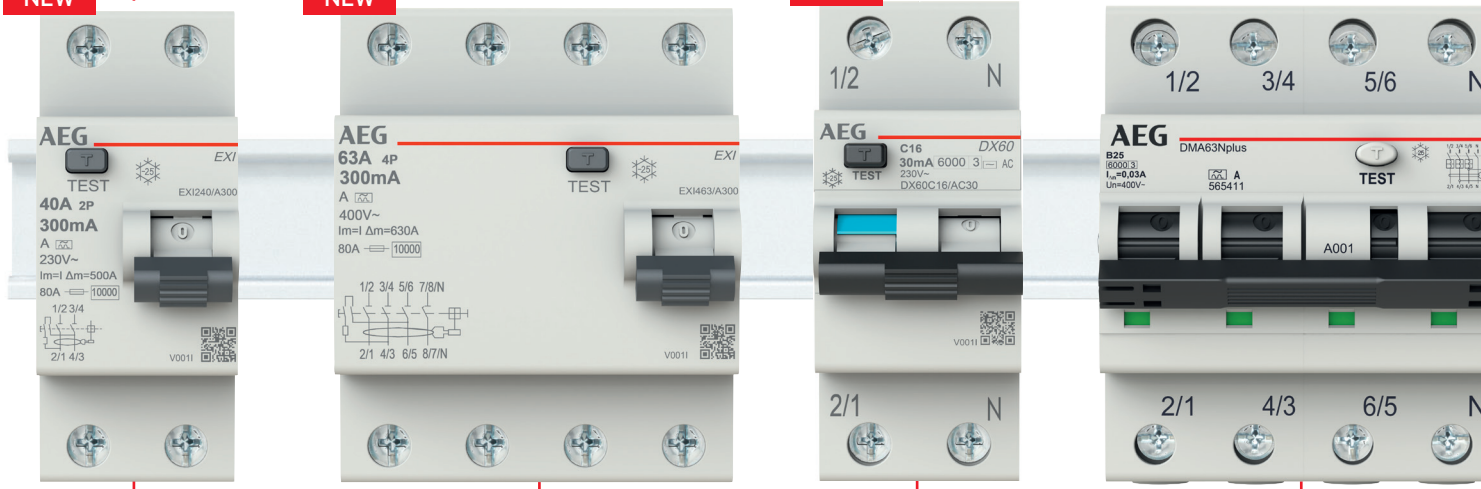
Complete Type AC Functionality
+ detection of pulse current with direct current components of max. 6mA.







NEW NEW NEW



Elfanext EXI 2P, 4P

- IEC/EN 61008
- AC,A, Ai, B, Si, AS types
- 30 / 300 / 500mA
- 25, 40, 63, 80, 100 A
- 2P in 2M for B type
- Double slot fork bottom (B type and 80-100A only pin)

Elfanext DX RCBO 1P+N

- IEC/EN 61009-1
- Up to 10 kA breaking capacity
- AC, A, Ai, F types
- B, C Chars
- 10,30, 100 300 mA
- 4 to 40 A
- Double slot fork bottom

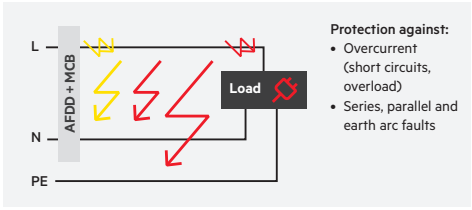
DMA63Np RCBO 3p+N

- IEC/EN 61009-1
- 6 kA breaking capacity
- A types
- B, C Chars
- 30,300 mA
- 6- 32A
- Double slot pin
- top/bottom

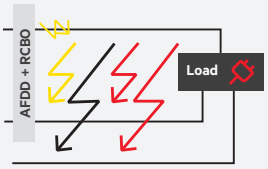
02 DS-ARC1 AFDD with integrated RCBO

Maximum Protection

Protection against:
- Overcurrent (short circuits, overload)
- Earth fault currents
- Earth arc faults



Protection against:
- Overcurrent (short circuits, overload)
- Series, parallel and earth arc faults



Protection against:
- Overcurrent (short circuits, overload)
- Earth fault currents
- Series, parallel and earth arc faults



DC/HDC RCBO 2P/2M

- IEC/EN 61009-1
- Up to 10 kA breaking capacity
- AC, A, Ai types
- B, C Chars
- 10, 30, 300 mA
- 6- 40A
- Double slot fork top/bottom

Elfanext EAF AFDD

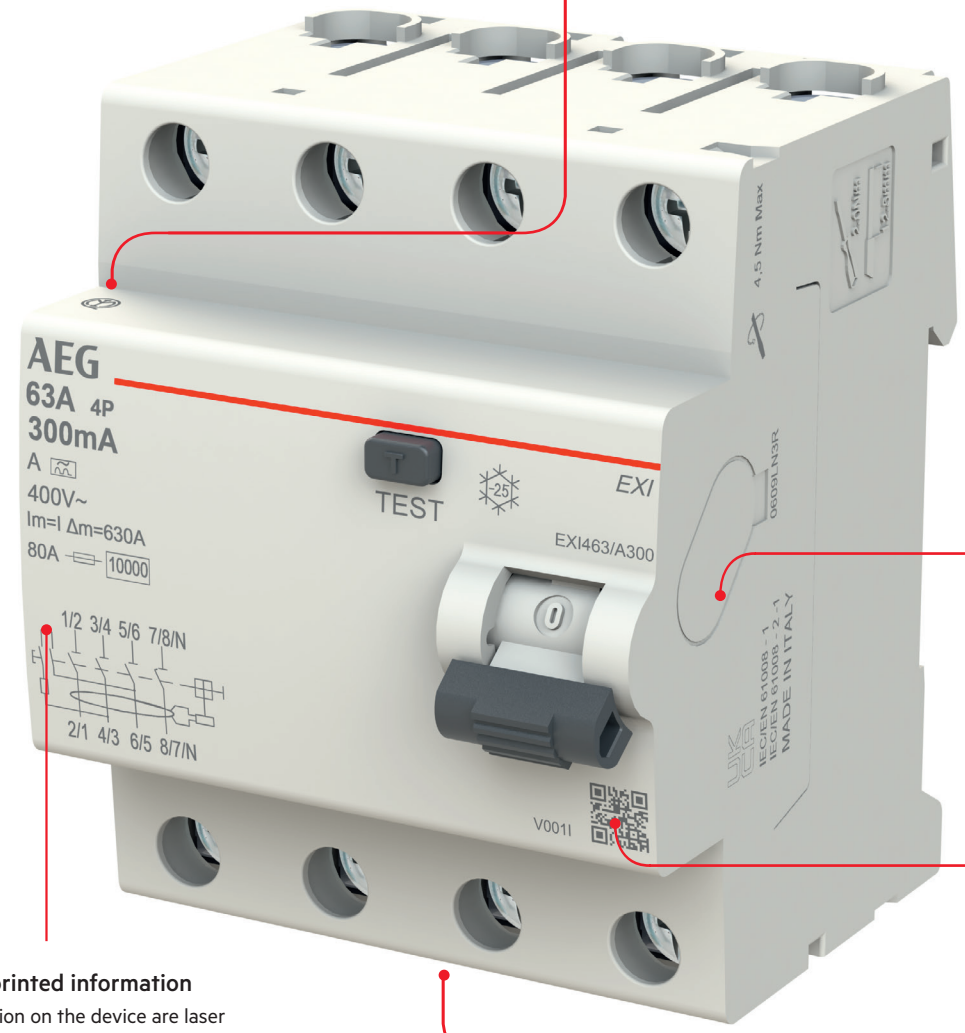
- IEC/EN 62606, IEC 60898-1,
- IEC 61009-1
- Double slot pin top/bottom

The range is completed by availalbility of RCD Blocks and Electronic RCBOs. For more details refer to next pages.

NEW

EXI AC/A/Ai/S/Si

European Quality Mark Approved



Combination with accessories
Whatever your application need is applicable with range of accessories

Innovative
QR-Code for direct internet access to all product data/ file

Laser printed information
Information on the device are laser printed to make them clearly visible and long lasting

Dual terminals for separate feeding for fork busbar bottom side and conductor

- Availability on MCB EX series, RCCB EXI, RCBO DX
- Fast installation: Cages terminal delivered fully opened
- Safety: IP 20 – finger safety
- Strong performances: 4.5Nm max torque applicable

Series				EXI AEG	FN AEG	FN 80-100 AEG
General Data	Standards			IEC/EN 61008-1; IEC/EN 61008-2-1		
	Marking approval			IMQ	VDE, AENOR, KEMA	VDE, IMQ, AENOR, KEMA
	Type (wave form of the earth leakage sensed)			AC, A, AS, AI	A,SI, F	AC, A, AS, SI
	Number of poles			2P, 4P		
	Rated current I_n		A	25, 40, 63		80,100
	Rated sensitivity IΔn		A	0.03-0.1-0.3-0.5		
	Rated voltage Ue	IEC	V	230/400		
	Rated Insulation voltage Ui acc. to IEC/EN 60664-1		V	500 V AC		440 V AC
	Operating voltage of circuit test Ut	IEC	V	2P: 110 (170 for 30mA) – 4P: 230 (300 for 30mA) 4P – PN version 30mA: 170V	2P: 110 (170 for 30mA) – 4P: 230 (300 for 30mA)	110-253 (170-253 for 30mA)
	Min. operating voltage for detecting Type B residual currents		Hz	-		50
	Rated frequency f		kA	50		50/60
	Rated conditional short circuit current Inc=IΔ	SCPD – fuse gG 80 A	kA	10		
	Rated residual breaking capacity IΔm=Im		kV	1		
	Rated impulse withstand voltage (1.2/50) Uimp		kV	4		
	Dielectric test voltage at ind. freq. for 1 min.			2,5		
	Overvoltage category			III, disconnector abilities		
	Rated residual breaking capacity IΔm (kA)			500 A (or 10 x In)		1000 A
	Rated residual breaking capacity Im (kA)			500 A (or 10 x In)		1000 A
	Pollution degree			2		3
	Surge current resistance (wave 8/20)		A	AI, A-S : 3000	F, A-S : 3000	3000
Mechanical Data	Housing type			RAL7035, fire exposure V2 acc.to UL94		
	Toggle type			Insulation group II,RAL7024		
	Contact position indication (CPI)			On toggle indication I/O	On toggle indication I/O + Real CPI window	
	Electrical life		cycles	10000		
	Mechanical life		cycles	20000		
	Protecion degree acc. to EN 60529	housing		IP40		
		terminals		IP20		
	Shock resistance acc. to IEC/EN 60068-2-27			30 g – 2 shocks – 13ms		
	Vibration resistance acc. to IEC/EN 60068-2-6			0.1 mm or 1 g – 20 cycles at 5...150...5 Hz		
	Environmental conditions (damp heat) acc. to IEC/EN 60068-2-30		°C/RH	28 cycles with 55°C/90-96% and 25°C/95-100%		
	Ambient temperature (with daily average ≤ +35 °C)		°C	-25...+40		-25...+70 (for system current <= 32 A) -25...+65 for system current = 40 A -25...+50 for system current = 63 A For other system current see derating table
	Storage temperature		°C	-40...+70		
Installation	Terminal type	top / bottom		failsafe biconnect fork bottom (shock protected)	failsafe biconnect fork top and bottom (shock protected)	failsafe bi-directional cylinder-lift terminal at top and bottom (shock protected)
	Busbars top/bottom	Fork	mm^2	No/Yes	Yes/Yes	No/No
		Pin		Yes/Yes		
	Terminal cover (top/bottom)			No	Yes (sealable/removable)	No
	Terminal size top/bottom for busbar		mm^2	10...16 (pin type)/ 10...16 (fork/pin type)	10...16/10...16 (fork/pin type)	10...16/10...16 (pin type)
	Cable cross section	min.	mm^2	1 (rigid)/ 1 (flexible)	1 (rigid)/ 1 (flexible)	1 (rigid)/ 1 (flexible)
		max.		35 (rigid)/ 35 (flexible)	35 (rigid)/ 35 (flexible)	35 (rigid)/ 16 (flexible)
	Tightening torque		Nm	2 nom.		
	Stripping length of the cable		mm	12.5 mm		12.7 mm Top terminals, 14,9 mm Bottom Terminals
	Tool			No. 2 Pozidrive		
	Mounting			On DIN rail 35 mm acc. to EN 60715 by fast clip		
	Mounting position			any		
	Supply from			from top and bottom		
Dimensions and weight	Dimensions (H X D X W)	2P	mm	85 x 69 x 35		
		4P	mm	85 x 69 x 70		
	Weight	2P	g	180		220
		4P	g	330		380
Combination with aux. elements	Auxiliary/signal contact			Yes		
	Shunt trip			Yes		
	Undervoltage release			Yes		
	Autoreclosing, Motor Operator device			Yes		

EXI/FN

IEC/EN 61008 50kA

Poles	Idn (mA)	In (A)	AC type		A type		Ai type (High immunity)		PU
			Type code	Order code	Type code	Order code	Type code	Order code	
2P		25	EXI225/AC30	2CSF702054R1250	EXI225/A30	2CSF702154R1250	EXI225/Ai30	2CSF702454R1250	1/6
		40	EXI240/AC30	2CSF702054R1400	EXI240/A30	2CSF702154R1400	EXI240/Ai30	2CSF702454R1400	1/6
	30	63	EXI263/AC30	2CSF702054R1630	EXI263/A30	2CSF702154R1630	EXI263/Ai30	2CSF702454R1630	1/6
		80	FN280/AC30	2CSF702056R1800	FN280/A30	2CSF702156R1800			1/6
		100			FN2100/A30	2CSF702156R1900			1/6
		25	EXI225/AC100	2CSF702054R2250					1/6
	100	40	EXI240/AC100	2CSF702054R2400					1/6
		63	EXI263/AC100	2CSF702054R2630					1/6
		25	EXI225/AC300	2CSF702054R3250	EXI225/A300	2CSF702154R3250			1/6
		40	EXI240/AC300	2CSF702054R3400	EXI240/A300	2CSF702154R3400			1/6
	300	63	EXI263/AC300	2CSF702054R3630	EXI263/A300	2CSF702154R3630			1/6
		80	FN280/AC300	2CSF702056R3800	FN280/A300	2CSF702156R3800			1/6
		100	FN2100/AC300	2CSF702056R3900	FN2100/A300	2CSF702156R3900			1/6
		25	EXI225/AC500	2CSF702054R4250					1/6
	500	40	EXI240/AC500	2CSF702054R4400					1/6
		63	EXI263/AC500	2CSF702054R4630					1/6
4P		25	EXI425/AC30	2CSF704054R1250	EXI425/A30	2CSF704154R1250	EXI425/AI30	2CSF704454R1250	1/3
		40	EXI440/AC30	2CSF704054R1400	EXI440/A30	2CSF704154R1400	EXI440/AI30	2CSF704454R1400	1/3
		40- Left			EXI440/A30L	2CSF704151R1400			1/3
	30	63	EXI463/AC30	2CSF704054R1630	EXI463/A30	2CSF704154R1630	EXI463/AI30	2CSF704454R1630	1/3
		63 ph-n			EXI463/A30PN	2CSF704954R1630			1/3
		80	FN480/AC30	2CSF704056R1800	FN480/A30	2CSF704156R1800			1/3
		100	FN4100/AC30	2CSF704056R1900	FN4100/A30	2CSF704156R1900			1/3
		25							1/3
		40			EXI440/A100	2CSF704154R2400			1/3
	100	63			EXI463/A100	2CSF704154R2630			1/3
		80	FN480/AC100	2CSF704056R2800					1/3
		100							1/3
		25			FN4100/A100	2CSF704154R3250			1/3
		40			EXI425/A300	2CSF704154R3400			1/3
	300	63			EXI440/A300	2CSF704154R3630			1/3
		80	FN480/AC300	2CSF704056R3800	EXI463/A300	2CSF704156R3800			1/3
		100	FN4100/AC300	2CSF704056R3900	FN480/A300	2CSF704156R3900			1/3
		25							1/3
		40							1/3
	500	63							1/3
		80	FN480/AC500	2CSF704056R4800	FN480/A500	2CSF704156R4800			1/3
		100	FN4100/AC500	2CSF704056R4900	FN480/A500	2CSF704156R4900			1/3
			FN4100/AC500		FN4100/A500				

Poles	Idn (mA)	In (A)	Selective		Selective High Immunity		PU
			Type code	Order code	Type code	Order code	
2P		25	EXI225/AS300	2CSF702254R3250			1/6
	300	40	EXI240/AS300	2CSF702254R3400			1/6
		63	EXI263/AS300	2CSF702254R3630			1/6
	500	40	EXI240/AS500	2CSF702254R4400			1/6
		63	EXI263/AS500	2CSF702254R5630			1/6
4P		25	EXI425/Ai30	2CSF704454R1250			1/3
	30	40	EXI440/Ai30	2CSF704454R1400			1/3
		63	EXI463/Ai30	2CSF704454R1630			1/3
		25	EXI425/AS300	2CSF704254R3250			1/3
	300	40	EXI440/AS300	2CSF704254R3400			1/3
		63	EXI463/AS300	2CSF704254R3630			1/3
		100	FN4100/AS300	2CSF704256R3900			1/3
	500	40	EXI440/AS500	2CSF704254R4400			1/3
		63	EXI463/AS500	2CSF704254R4630			1/3
		80	FN480/AS500	2CSF704256R4800	FN480/Si300	2CSF704756R3800	1/3
		100	FN4100/AS500	2CSF704256R4900	FN4100/Si300	2CSF704756R3900	1/3

NEW

FN B

Availability of two terminals slot

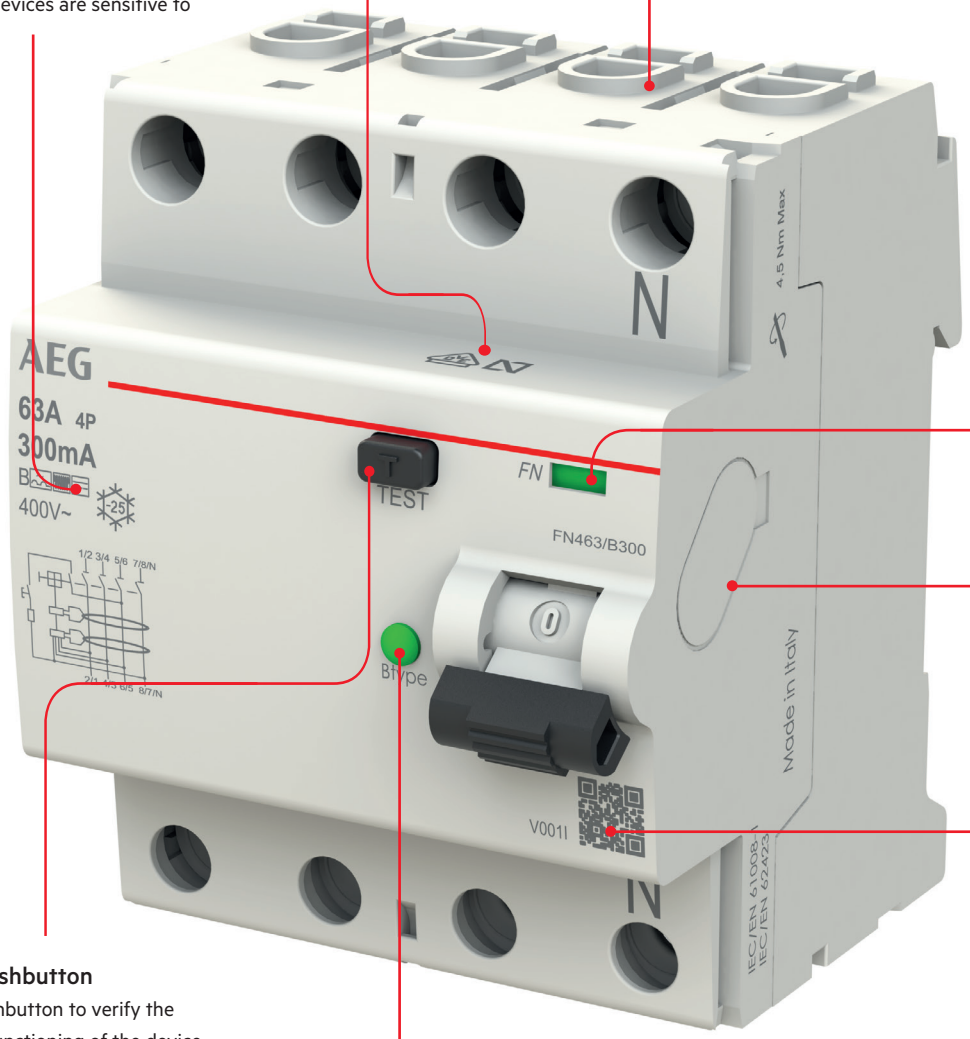
- Easy to connect thanks to availability of two terminals slot
- Pin busbar compatibility
- Safety : IP20 finger safety terminal

Laser printed information Type B residual current devices are marked according to EN 62423.
The marking indicates the different current types that Type B residual current devices are sensitive to

European Quality Mark

Contact position indicator (CPI)

To indicate the status of the contacts independently from the toggle position: green (open), red (closed)



Combination with accessories

Whatever your application need is applicable with range of accessories

Innovative

QR-Code for direct internet access to all product data/ file

Test pushbutton

Test pushbutton to verify the correct functioning of the device

Self-diagnostics feature

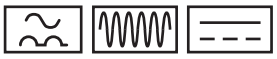
continuously verify the status of the DC fault currents detection functionality: each few seconds, an internal microcontroller is able to check the status of the main electronic components as well as the firmware integrity of the Voltage Dependent PCBA.

				FN B
Electrical features	Standards			IEC/EN 61008-1, IEC/EN 61008-2-1, EN 62423
	Marking approval			VDE
	Type (wave form of the earth leakage sensed)			B
	Number of poles			2P, 4P
	Rated current In		A	40, 63
	Rated sensitivity IΔn		A	0.03-0.3
	Rated voltage Ue	IEC	V	230/400
	Rated Insulation voltage Ui acc. to IEC/EN 60664-1		V	440 V AC
	Operating voltage of circuit test Ut	IEC	V	110-253 (170-253 for 30mA)
	Min. operating voltage for detecting Type B residual currents		V	50
	Rated frequency f		Hz	50/60
	Rated conditional short circuit current Inc=IΔ	SCPD – fuse gG 80 A	kA	10
	Rated residual breaking capacity IΔm=Im		kA	1
	Rated impulse withstand voltage (1.2/50) Uimp		kV	4
	Dielectric test voltage at ind. freq. for 1 min.		kV	2,5
	Overvoltage category			III, disconnector abilities
	Rated residual breaking capacity IΔm (kA)			1000 A
	Rated residual breaking capacity Im (kA)			1000 A
	Pollution degree			3
	Surge current resistance (wave 8/20)		A	3000
Mechanical features	Housing type	°C/RH		RAL7035, fire exposure V2 acc.to UL94
	Toggle type	°C		Insulation group II,RAL7024
	Contact position indication (CPI)	°C		Yes
	Electrical life		cycles	10000
	Mechanical life		cycles	20000
	Protection degree acc. to EN 60529	housing		IP40
		terminals		IP20
	Shock resistance acc. to IEC/EN 60068-2-27			30 g – 2 shocks – 13ms
	Vibration resistance acc. to IEC/EN 60068-2-6			0.1 mm or 1 g – 20 cycles at 5...150...5 Hz
	Environmental conditions (damp heat) acc. to IEC/EN 60068-2-30		°C/RH	28 cycles with 55°C/90-96% and 25°C/95-100%
	Ambient temperature (with daily average ≤ +35 °C)		°C	-25...+70 (for system current <= 32 A) -25...+65 for system current = 40 A -25...+50 for system current = 63 A For other system current see derating table
	Storage temperature		°C	-40...+70
Installation	Terminal type	top / bottom		failsafe bi-directional cylinder-lift terminal at top and bottom (shock protected)
	Busbars top/bottom	Fork		No/No
		Pin		Yes/Yes
	Terminal cover (top/bottom)			Yes (sealable/removable)
	Terminal size top/bottom for busbar		mm^2	10...16/10...16 (pin type)
	Cable cross section	min	mm^2	1 (rigid)/ 1 (flexible)
		max	mm^2	25 (rigid)/ 16 (flexible)
	Tightening torque		Nm	2 nom. (4.5 max)
	Stripping length of the cable		mm	12 mm
	Tool			Nr. 2 Pozidriv
	Mounting			on DIN rail EN 60715 (35 mm) by means of fast clip device
	Mounting position			Any
	Supply from			from top and bottom
Dimensions and weight	Dimensions (H X D X W)	2P	mm	85 x 69 x 35
		4P	mm	85 x 69 x 70
	Weight	2P	g	220
		4P	g	380
Combination with auxiliary elements	Auxiliary contact			Yes
	Signal contact/auxiliary switch			Yes
	Shunt trip			Yes
	Undervoltage release			Yes
	Autoreclosing, Motor Operator device			Yes

FN B

IEC/EN 61008-1,
IEC/EN 61008-2-1, EN 62423

CE



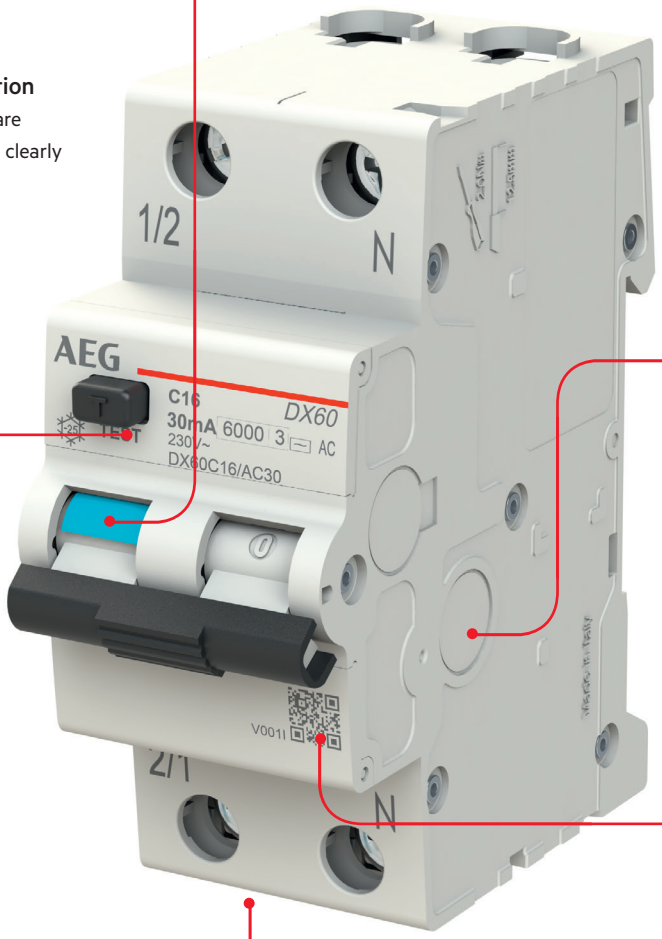
Poles		Idn (mA)	In (A)	B type		
				Type code	Order code	PU
	2P	30	25	FN225/B30	2CSF702556R1250	1/6
			40	FN240/B30	2CSF702556R1400	1/6
			63	FN263/B30	2CSF702556R1630	1/6
		300	40	FN240/B300	2CSF702556R3400	1/6
			63	FN263/B300	2CSF702556R3630	1/6
	4P	30	25	FN425/B30	2CSF704556R1250	1/3
			40	FN440/B30	2CSF704556R1400	1/3
			63	FN463/B30	2CSF704556R1630	1/3
		300	40	FN440/B300	2CSF704556R3400	1/3
			63	FN463/B300	2CSF704556R3630	1/3

NEW

DX45/60/100

Differential Trip Indicator (DTI)
To indicate if RCBO has tripped due to leakage current (blue indicator on toggle) or for overcurrents (no indication)

Laser printed information
Information on the device are laser printed to make them clearly visible and long lasting



Combination with accessories
Whatever your application need is applicable with range of accessories

Innovative
QR-Code for direct internet access to all product data/ file

Dual terminals for separate feeding for fork busbar bottom side and conductor

- Avaialbility on MCB EX, RCCB EXI, RCBO DX
- Fast installation: Cages terminal delivered fully opened
- Safety: IP 20 – finger safety

Series				DX45	DX60	DX100
General Data	Standards			IEC/EN 61009-1; IEC/EN 61009-2-1		
	Marking approval			IMQ		
	Type (wave form of the earth leakage sensed)			A, AC, F	A, AC, AI, F	
	Number of poles			1P + N		
	Rated current I_n		A	6 ≤ In ≤ 40 (AC, F) ; 6 ≤ In ≤ 32 (A)	6 ≤ In ≤ 40	
	Rated sensitivity IΔn		A	0.03	0.01- 0.03 – 0.3	
	Rated operational voltage Ue		V	230-240		
	Rated Insulation voltage Ui acc. to IEC/EN 60664-1		V	500 V AC		
	Overvoltage category			III		
	Pollution degree			2		
	Operating voltage of circuit test Ut		V	110 (170 for 30mA) – 264		
	Rated frequency f		Hz	50		
	Rated short circuit breaking capacity acc. to IEC/EN 61009-1	Icn	A	4500	6000	10000
	Rated short circuit breaking capacity acc. to IEC/EN 60947-2 (only referring to internal short circuit test)	ultimate Icu	kA	6	10	15
		service Ics	kA	4.5	7.5	11.2
	Grid distance		mm	35		
	Rated residual breaking capacity IΔm according to EN 61009-1	IΔm	A	4500	6000	
	Rated residual breaking capacity IΔm according to IEC 61009-1	IΔm	A	4500	6000 up to 25 A; 4500 for 32A and 40A	
	Rated impulse withstand voltage Uimp. (1.2/50Δs)		kV	4 kV		
	Dielectric test voltage at ind. freq. for 1 min. according to IEC 61009-1		kV	2 kV (50 Hz)		
	Tripping characteristic	B: 3 In ≤ In ≤ 5 In			■	■
		C: 5 In ≤ In ≤ 10In		■	■	■
	Energy limiting class acc. to EN 61009-1			3		
	Surge current resistance (wave 8/20)		A	NA for A, AC version; 3000 for F version		
Mechanical Data	Housing type			Insulation group I – II, RAL 7035		
	Toggle type			Insulation group II, RAL 7024, sealable		
	Contact position indication (CPI)			I/O indication on toggle		
	Earth fault trip indication			Blue flag on toggle		
	Electrical Endurance		cycles	10000		
	Mechanical Endurance		cycles	20000		
	Protecion degree acc. to EN 60529	housing		IP40		
		terminals		IP20		
	Resistance to Shock acc. to IEC 60068-2-27			25 g – 2 shocks – 13 ms		
	Resistance to Vibrations acc. to IEC 60068-2-6			0.1 mm or 1 g – 20 cycles at 5...150...5 Hz		
	Environmental conditions (damp heat) acc. to IEC/EN 60068-2-30		°C/RH	28 cycles with 55°C/90-96% and 25°C/95-100%		
	Reference temperature for tripping characteristics		°C	30		
	Ambient temperature (with daily average ≤ +35 °C)		°C	-25...+55		
	Storage temperature		°C	-40...+70		
Installation	Terminal type	top / bottom		Failsafe biconnect fork top and bottom		
	Cable cross section	top / bottom min	mm^2	1 (rigid/flexible)/ 1 (rigid/flexible)		
		top / bottom max	mm^2	35 (rigid/flexible)/ 35 (rigid/flexible)		
	Terminal size for busbar	top / bottom	mm^2	bottom: 10...16 (pin type) top: 10...16 (fork/pin type)"		
	Tightening torque	top / bottom	Nm	2 nom.		
	Wire Stripping Length		mm	12.5		
	Skrewdriver			No. 2 Pozidrive		
	Mounting type			on DIN rail EN 60715 (35 mm) by means of mounting clip		
	Mounting Position			Any		
	Supply from			Top/Bottom terminals		
Dimensions and weight	Dimensions (H X D X W)	2P	mm	85 x 69 x 35		
	Weight	4P	g	200		
Combination with aux. elements	Auxiliary/Signal contact			Yes		
	Shunt trip			Yes		
	Undervoltage release			Yes		
	Overvoltage release			Yes		
	Motor Operating Device			Yes		

DX45

IEC/EN 61009-1;
IEC/EN 61009-2-1

Poles	Sensitivity (mA)	In (A)	C curve Type code	Order code	Packaging Unit
1P+N				AC type	
	30	6	DX45C06/AC30	2CSR945032R1064	1/5
		10	DX45C10/AC30	2CSR945032R1104	1/5
		16	DX45C16/AC30	2CSR945032R1164	1/5
		20	DX45C20/AC30	2CSR945032R1204	1/5
		25	DX45C25/AC30	2CSR945032R1254	1/5
		32	DX45C32/AC30	2CSR945032R1324	1/5
		40	DX45C40/AC30	2CSR945032R1404	1/5
1P+N				A type	
	30	6	DX45C06/A30	2CSR945132R1064	1/5
		10	DX45C10/A30	2CSR945132R1104	1/5
		16	DX45C16/A30	2CSR945132R1164	1/5
		20	DX45C20/A30	2CSR945132R1204	1/5
		25	DX45C25/A30	2CSR945132R1254	1/5
		32	DX45C32/A30	2CSR945132R1324	1/5
		40	DX45C40/A30	2CSR945132R1404	1/5
1P+N				F type	
	30	6	DX45C06/F30	2CSR945532R1064	1/5
		10	DX45C10/F30	2CSR945532R1104	1/5
		16	DX45C16/F30	2CSR945532R1164	1/5
		20	DX45C20/F30	2CSR945532R1204	1/5
		25	DX45C25/F30	2CSR945532R1254	1/5
		32	DX45C32/F30	2CSR945532R1324	1/5
		40	DX45C40/F30	2CSR945532R1404	1/5

DX60

IEC/EN 61009-1; IEC/EN 61009-2-1

CE

Poles	Sensitivity (mA)	In (A)	B curve Type code	B curve Order code	C curve Type code	C curve Order code	Packaging Unit
1P+N	Sensitivity (mA)				AC type		
	30	4			DX60C04/AC30	2CSR955032R1044	1/5
		6			DX60C06/AC30	2CSR955032R1064	1/5
		10			DX60C10/AC30	2CSR955032R1104	1/5
		16			DX60C16/AC30	2CSR955032R1164	1/5
		20			DX60C20/AC30	2CSR955032R1204	1/5
		25			DX60C25/AC30	2CSR955032R1254	1/5
		32			DX60C32/AC30	2CSR955032R1324	1/5
		40			DX60C40/AC30	2CSR955032R1404	1/5
	300	6			DX60C06/AC300	2CSR955032R3064	1/5
		10			DX60C10/AC300	2CSR955032R3104	1/5
		16			DX60C16/AC300	2CSR955032R3164	1/5
		20			DX60C20/AC300	2CSR955032R3204	1/5
		25			DX60C25/AC300	2CSR955032R3254	1/5
		32			DX60C32/AC300	2CSR955032R3324	1/5
		40			DX60C40/AC300	2CSR955032R3404	1/5
1P+N					A type		
	10	10			DX60C10/A10	2CSR955132R0104	1/5
		16			DX60C16/A10	2CSR955132R0164	1/5
	30	4			DX60C04/A30	2CSR955132R1044	1/5
		6	DX60B06/A30	2CSR955132R1065	DX60C06/A30	2CSR955132R1064	1/5
		10	DX60B10/A30	2CSR955132R1105	DX60C10/A30	2CSR955132R1104	1/5
		13	DX60B13/A30	2CSR955132R1135	DX60C13/A30	2CSR955132R1134	1/5
		16	DX60B16/A30	2CSR955132R1165	DX60C16/A30	2CSR955132R1164	1/5
		20	DX60B20/A30	2CSR955132R1205	DX60C20/A30	2CSR955132R1204	1/5
		25	DX60B25/A30	2CSR955132R1255	DX60C25/A30	2CSR955132R1254	1/5
		32	DX60B32/A30	2CSR955132R1325	DX60C32/A30	2CSR955132R1324	1/5
		40	DX60B40/A30	2CSR955132R1405	DX60C40/A30	2CSR955132R3404	1/5
	300	6			DX60C06/A300	2CSR955132R3064	1/5
		10			DX60C10/A300	2CSR955132R3104	1/5
		16			DX60C16/A300	2CSR955132R3164	1/5
		20			DX60C20/A300	2CSR955132R3204	1/5
		25			DX60C25/A300	2CSR955132R3254	1/5
		32			DX60C32/A300	2CSR955132R3324	1/5
		40			DX60C40/A300	2CSR955132R3404	1/5
1P+N					F type		
	30	6			DX60C06/F30	2CSR955532R1064	1/5
		10			DX60C10/F30	2CSR955532R1104	1/5
		16			DX60C16/F30	2CSR955532R1164	1/5
		20			DX60C20/F30	2CSR955532R1204	1/5
		25			DX60C25/F30	2CSR955532R1254	1/5
		32			DX60C32/F30	2CSR955532R1324	1/5
		40			DX60C40/F30	2CSR955532R1404	1/5
1P+N					Ai type		
	30	6			DX60C06/AI30	2CSR955432R1064	1/5
		10			DX60C10/AI30	2CSR955432R1104	1/5
		16			DX60C16/AI30	2CSR955432R1164	1/5
		20			DX60C20/AI30	2CSR955432R1204	1/5
		25			DX60C25/AI30	2CSR955432R1254	1/5
		32			DX60C32/AI30	2CSR955432R1324	1/5
		40			DX60C40/AI30	2CSR955432R1404	1/5

DX100

IEC/EN 61009-1; IEC/EN 61009-2-1

Poles	Sensitivity (mA)	In (A)	B curve Type code	B curve Order code	C curve Type code	C curve Order code	Packaging Unit
1P+N	Sensitivity (mA)				AC type		
	30	6			DX100C06/AC30	2CSR975032R1064	1/5
		10			DX100C10/AC30	2CSR975032R1104	1/5
		16			DX100C16/AC30	2CSR975032R1164	1/5
		20			DX100C20/AC30	2CSR975032R1204	1/5
		25			DX100C25/AC30	2CSR975032R1254	1/5
		32			DX100C32/AC30	2CSR975032R1324	1/5
		40			DX100C40/AC30	2CSR975032R1404	1/5
1P+N					A type		
	10	10			DX100C10/A10	2CSR975132R0104	1/5
		16			DX100C16/A10	2CSR975132R0164	1/5
	30	6	DN100B06/A30	2CSR975131R1065	DN100C06/A30	2CSR975131R1064	1/5
		10	DN100B10/A30	2CSR975131R1105	DN100C10/A30	2CSR975131R1104	1/5
		13	DN100B13/A30	2CSR975131R1135	DN100C13/A30	2CSR975131R1134	1/5
		16	DN100B16/A30	2CSR975131R1165	DN100C16/A30	2CSR975131R1164	1/5
		20	DN100B20/A30	2CSR975131R1205	DN100C20/A30	2CSR975131R1204	1/5
		25	DN100B25/A30	2CSR975131R1255	DN100C25/A30	2CSR975131R1254	1/5
		32	DN100B32/A30	2CSR975131R1325	DN100C32/A30	2CSR975131R1324	1/5
		40	DN100B40/A30	2CSR975131R1405	DN100C40/A30	2CSR975131R1404	1/5
	100	6			DX100C06/A100	2CSR975132R2064	1/5
		10	DX100B10/A100	2CSR975132R2105	DX100C10/A100	2CSR975132R2104	1/5
		16	DX100B16/A100	2CSR975132R2165	DX100C16/A100	2CSR975132R2164	1/5
		20	DX100B20/A100	2CSR975132R2205	DX100C20/A100	2CSR975132R2204	1/5
		25			DX100C25/A100	2CSR975132R2254	1/5
		32			DX100C32/A100	2CSR975132R2324	1/5
		40			DX100C40/A100	2CSR975132R2404	1/5
	300	6			DX100C06/A300	2CSR975132R3064	1/5
		10			DX100C10/A300	2CSR975132R3104	1/5
		16			DX100C16/A300	2CSR975132R3164	1/5
		20			DX100C20/A300	2CSR975132R3204	1/5
		25			DX100C25/A300	2CSR975132R3254	1/5
		32			DX100C32/A300	2CSR975132R3324	1/5
		40			DX100C40/A300	2CSR975132R3404	1/5
1P+N					F type		
	30	6			DX100C06/F30	2CSR975532R1064	1/5
		10			DX100C10/F30	2CSR975532R1104	1/5
		16			DX100C16/F30	2CSR975532R1164	1/5
		20			DX100C20/F30	2CSR975532R1204	1/5
		25			DX100C25/F30	2CSR975532R1254	1/5
		32			DX100C32/F30	2CSR975532R1324	1/5
		40			DX100C40/F30	2CSR975532R1404	1/5
1P+N					Ai type		
	30	6			DX100C06/AI30	2CSR975432R1064	1/5
		10			DX100C10/AI30	2CSR975432R1104	1/5
		16			DX100C16/AI30	2CSR975432R1164	1/5
		20			DX100C20/AI30	2CSR975432R1204	1/5
		25			DX100C25/AI30	2CSR975432R1254	1/5
		32			DX100C32/AI30	2CSR975432R1324	1/5
		40			DX100C40/AI30	2CSR975432R1404	1/5

DC/HDC/DPC100

Dual terminals for separate feeding for fork busbar top/bottom side and conductor

- Fast installation: Cages terminal delivered fully opened
- Strong performances: 4.5Nm max torque applicable



Laser printed information
Information on the device are laser printed to make them clearly visible and long lasting

Contact position indicator (CPI)
To indicate the status of the contacts independently from the toggle position: green (open), red (closed)

Differential Trip Indicator (DTI)
To indicate if RCBO has tripped due to leakage current (blue indicator on toggle) or for overcurrents (no indication)

Combination with accessories
Whatever your application need is applicable with range of accessories

Series				DC/HDC90E	DC/HDC90	DC/HDC90S, DPC100
General Data	Standards			IEC/EN 61009-1; IEC/EN 61009-2-1		
	Type (wave form of the earth leakage sensed)			AC, A		AC, A, Ai
	Number of poles			2P		
	Rated current I_n		A	6 ≤ In ≤ 40		
	Rated sensitivity I∆n		A	0.01-0.03-0.3		
	Rated operational voltage Ue		V	230		
	Rated Insulation voltage Ui acc. to IEC/EN 60664-1		V	440		
	Overvoltage category			III		
	Pollution degree			3		
	Operating voltage of circuit test Ut		V	117 (150 for 30 mA) – 254		
	Rated frequency f		Hz	50		
	Rated short circuit breaking capacity acc. to IEC/EN 61009-1	Icn	A	4500	6000	10000
	Rated short circuit breaking capacity acc. to IEC/EN 60947-2 (only referring to internal short circuit test)	ultimate Icu	kA	6	10	10
		service Ics	kA	6	7.5	7.5
	Rated residual breaking capacity I∆m according to EN 61009-1	I∆m	A		3	
	Rated impulse withstand voltage Uimp. (1.2/50∆s)		kV		4	
	Dielectric test voltage at ind. freq. for 1 min. according to IEC 61009-1		kV		2.5	
	Tripping characteristic	B: 3 In ≤ In ≤ 5 In				■
		C: 5 In ≤ In ≤ 10In		■	■	■
	Energy limiting class acc. to EN 61009-1				3	
	Surge current resistance (wave 8/20)		A	NA for A version	NA for A version; 3000 for Ai version	
Mechanical Data	Housing type			Insulation group I – II, RAL 7035		
	Toggle type			Insulation group II, RAL 7024, sealable		
	Contact position indication (CPI)			CPI on toggle (green/red)		
	Electrical Endurance		cycles	10000		
	Mechanical Endurance		cycles	20000		
	Protecion degree acc. to EN 60529	housing		IP4X		
		terminals		IP2X		
	Resistance to Shock acc. to IEC 60068-2-27			25g – 2 shocks – 13ms		
	Resistance to Vibrations acc. to IEC 60068-2-6			0.1 mm or 1 g – 20 cycles at 5...150...5 Hz		
	Environmental conditions (damp heat) acc. to IEC/EN 60068-2-30		°C/RH	28 cycles with 55°C/90-96% and 25°C/95-100%		
	Reference temperature for tripping characteristics		°C	30		
	Ambient temperature (with daily average ≤ +35 °C)		°C	-25...+55		
	Storage temperature		°C	-40...+70		
Installation	Terminal type	top / bottom		Failsafe biconnect fork top and bottom		
	Cable cross section	top / bottom min	mm^2	1 (rigid)/ 1 (flexible)		
		top / bottom max	mm^2	35 (rigid)/ 35 (flexible)		
	Terminal size for busbar	top / bottom	mm^2	10...16/10...16 (fork/pin type)		
	Tightening torque	top / bottom	Nm	4		
	Wire Stripping Length		mm	12.5		
	Skrewdriver			No. 2 Pozidrive		
	Mounting type			on DIN rail EN 60715 (35 mm) by means of mounting clip		
	Mounting Position			Any		
	Supply from			Top/Bottom terminals		
Dimensions and weight	Dimensions (H X D X W)	2P	mm	86 x 72 x 36		
	Weight	4P	g	220		
Combination with aux. elements	Auxiliary/Signal contact			Yes		
	Shunt trip			Yes		
	Undervoltage release			Yes		
	Overvoltage release			Yes		

DC90E/HDC90E

IEC/EN 61009-1;
IEC/EN 61009-2-1



Poles	Sensitivity (mA)	In (A)	AC type C curve Type code	AC type C curve Order code	A type C curve Type code	A type C curve Order code	Packaging Unit
2P/2M	30	6	DC90EC06/030	4TQA607896R0000	HDC90EC06/030	4TQA607880R0000	1
		10	DC90EC10/030	4TQA607897R0000	HDC90EC10/030	4TQA607881R0000	1
		13	DC90EC13/030	4TQA607898R0000	HDC90EC13/030	4TQA607882R0000	1
		16	DC90EC16/030	4TQA607899R0000	HDC90EC16/030	4TQA607883R0000	1
		20	DC90EC20/030	4TQA607900R0000	HDC90EC20/030	4TQA607884R0000	1
		25	DC90EC25/030	4TQA607901R0000	HDC90EC25/030	4TQA607885R0000	1
		32	DC90EC32/030	4TQA607902R0000	HDC90EC32/030	4TQA607886R0000	1
		40	DC90EC40/030	4TQA607903R0000	HDC90EC40/030	4TQA607887R0000	1
	300	6	DC90EC06/300	4TQA607904R0000			1
		10	DC90EC10/300	4TQA607905R0000			1
		13	DC90EC13/300	4TQA607906R0000			1
		16	DC90EC16/300	4TQA607907R0000			1
		20	DC90EC20/300	4TQA607908R0000			1
		25	DC90EC25/300	4TQA607909R0000			1
		32	DC90EC32/300	4TQA607910R0000			1
		40	DC90EC40/300	4TQA607911R0000			1

DC90/HDC90

IEC/EN 61009-1;
IEC/EN 61009-2-1



Poles	Sensitivity (mA)	In (A)	AC type C curve Type code	AC type C curve Order code	A type C curve Type code	A type C curve Order code	Packaging Unit
2P/2M	30	6	DC90C06/030	4TQA608223R0000	HDC90C06/030	4TQA607934R0000	1
		10	DC90C10/030	4TQA608224R0000	HDC90C10/030	4TQA607935R0000	1
		16	DC90C16/030	4TQA608226R0000	HDC90C16/030	4TQA608188R0000	1
		20	DC90C20/030	4TQA608227R0000	HDC90C20/030	4TQA608189R0000	1
		25	DC90C25/030	4TQA608228R0000	HDC90C25/030	4TQA608190R0000	1
		32	DC90C32/030	4TQA608229R0000	HDC90C32/030	4TQA608191R0000	1
		40	DC90C40/030	4TQA608230R0000	HDC90C40/030	4TQA608192R0000	1
	300	6	DC90C06/300	4TQA608231R0000	HDC90C06/300	4TQA608193R0000	1
		10	DC90C10/300	4TQA608232R0000	HDC90C10/300	4TQA608194R0000	1
		13	DC90C13/300	4TQA608233R0000	HDC90C13/300	4TQA608195R0000	1
		16	DC90C16/300	4TQA608234R0000	HDC90C16/300	4TQA608196R0000	1
		20	DC90C20/300	4TQA608235R0000	HDC90C20/300	4TQA608197R0000	1
		25	DC90C25/300	4TQA608236R0000	HDC90C25/300	4TQA608198R0000	1
		32	DC90C32/300	4TQA608237R0000	HDC90C32/300	4TQA608199R0000	1
		40	DC90C40/300	4TQA608238R0000	HDC90C40/300	4TQA608200R0000	1

DC90S/HDC90S/DPC100

IEC/EN 61009-1;
IEC/EN 61009-2-1

Poles	Sensitivity (mA)	In (A)	AC type C curve Type code	AC type C curve Order code	A type B curve Type code	A type B curve Order code	A type C curve Type code	A type C curve Order code	Packaging Unit
2P/2M	10	16			DPC100 A B16/010	4TQA611485R0000			1
	30	6	DC90SC06/030	4TQA606481R0000	DPC100 A B06/030	4TQA611486R0000			1
		10	DC90SC10/030	4TQA606482R0000	DPC100 A B10/030	4TQA611487R0000			1
		13	DC90SC13/030	4TQA606483R0000	DPC100 A B13/030	4TQA611489R0000	HDC90SC13/030	4TQA606441R0000	1
		16	DC90SC16/030	4TQA606484R0000	DPC100 A B16/030	4TQA611490R0000	HDC90SC16/030	4TQA606442R0000	1
		20	DC90SC20/030	4TQA606485R0000	DPC100 A B20/030	4TQA611492R0000	HDC90SC20/030	4TQA606443R0000	1
		25	DC90SC25/030	4TQA606486R0000	DPC100 A B25/030	4TQA611494R0000	HDC90SC25/030	4TQA606448R0000	1
		32	DC90SC32/030	4TQA606487R0000	DPC100 A B32/030	4TQA611495R0000	HDC90SC32/030	4TQA606449R0000	1
		40	DC90SC40/030	4TQA606488R0000	DPC100 A B40/030	4TQA611496R0000	HDC90SC40/030	4TQA606450R0000	1
	300	6					HDC90SC06/300	4TQA606451R0000	1
		10					HDC90SC10/300	4TQA606452R0000	1
		16			DPC100 A B16/300	4TQA611497R0000	HDC90SC16/300	4TQA606454R0000	1
		20			DPC100 A B20/300	4TQA611498R0000	HDC90SC20/300	4TQA606455R0000	1
		25					HDC90SC25/300	4TQA606456R0000	1
		32			DPC100 A B32/300	4TQA611499R0000	HDC90SC32/300	4TQA606457R0000	1
		40					HDC90SC40/300	4TQA606458R0000	1

Ai type (High immunity)

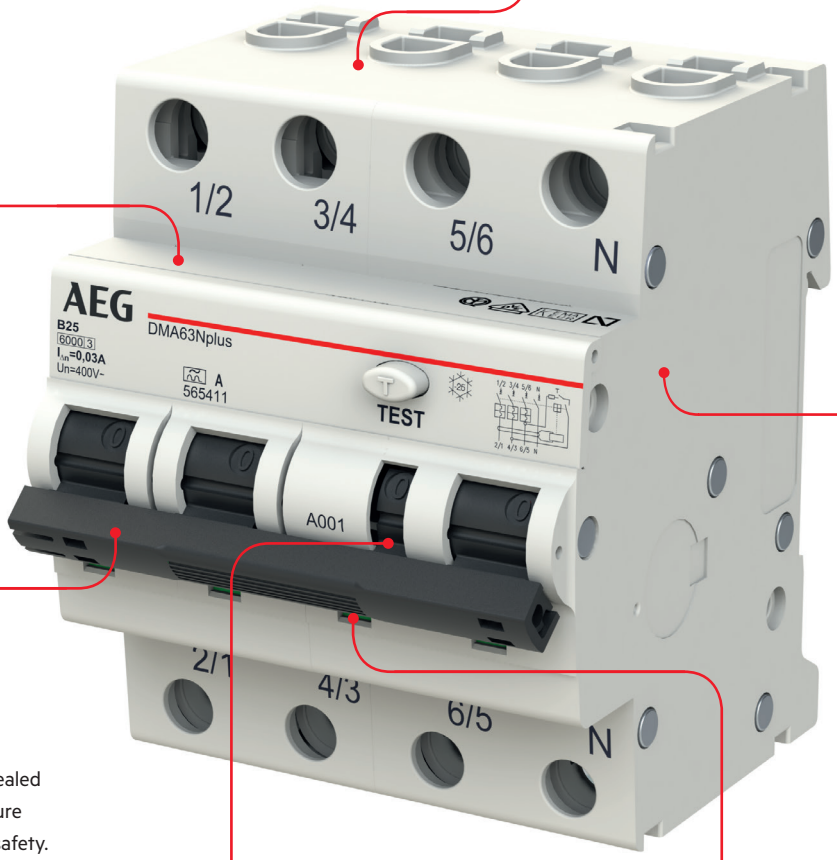
			B curve		C curve				
	30	6	DPC100 AI B06/030	4TQA611500R0000	DPC100 AI C06/030	4TQA611526R0000			1
		10	DPC100 AI B10/030	4TQA611501R0000	DPC100 AI C10/030	4TQA611527R0000			1
		13	DPC100 AI B13/030	4TQA611502R0000	DPC100 AI C13/030	4TQA611528R0000			1
		16	DPC100 AI B16/030	4TQA611503R0000	DPC100 AI C16/030	4TQA611529R0000			1
		20	DPC100 AI B20/030	4TQA611504R0000	DPC100 AI C20/030	4TQA611530R0000			1
		25	DPC100 AI B25/030	4TQA611505R0000	DPC100 AI C25/030	4TQA611531R0000			1
		32	DPC100 AI B32/030	4TQA611506R0000	DPC100 AI C32/030	4TQA611532R0000			1
		40	DPC100 AI B40/030	4TQA611507R0000	DPC100 AI C40/030	4TQA611533R0000			1

DMA63Np

Availability of two terminals slot

- Easy to connect thanks to availability of two terminals slot
- Pin busbar compatibility
- Safety: IP20 finger safety terminal

Compact size for easy installation in small spaces and retrofitting of already existing facilities.



Combination with accessories

Whatever your application need is applicable with range of accessories

Operating toggle can be sealed into on/off position to ensure maintenance in complete safety.

Differential Trip Indicator (DTI)

To indicate if RCBO has tripped due to leakage current (blue indicator on toggle) or for overcurrents (no indication)

Contact position indicator (CPI)

To indicate the status of the contacts independently from the toggle position: green (open), red (closed)

				DMA63Np
Electrical features	Standards			IEC/EN 61009-1; IEC/EN 61009-2-1
	Type (wave form of the earth leakage sensed)			A
	Number of poles			3P+N
	Rated Current In		A	6≤ In ≤ 32A
	Rated sensitivity IΔn		A	30
	Rated operational voltage Ue		V	400 – 415V
	Rated Insulation voltage Ui acc. to IEC/EN 60664-1		V	500 V AC
	Overvoltage category			III
	Pollution degree			2
	Rated frequency f		Hz	50/60
	Rated short circuit breaking capacity acc. to IEC/EN 61009-1	Icn	A	6000
	Rated short circuit breaking capacity acc. to IEC/EN 60947-2 (only referring to internal short circuit test)	ultimate Icu	kA	10
		service Ics	kA	5
	Grid distance		mm	6
	Rated residual breaking capacity IΔm according to EN 61009-1	IΔm	A	4.5
	Rated residual breaking capacity IΔm according to EN 61009-1	IΔm	A	4
	Rated impulse withstand voltage Uimp. (1.2/50 µs)		kV	2.5
	Dielectric test voltage at ind. freq. for 1 min.		kV	2 kV (50 Hz)
	Tripping characteristic	B: 3 In ≤ In ≤ 5 In		■
		C: 5 In ≤ In ≤ 10In		■
	Energy limiting class acc. to EN 61009-1			3
	Surge current resistance (wave 8/20)		A	NA for A version
Mechanical features	Housing type			Insulation group II, RAL 7035
	Toggle type			black, sealable in ON-OFF positions
	Contact position indication (CPI)			CPI on window
	Earth fault trip indication			blue on toggle
	Electrical Endurance		cycles (OFF-ON-OFF)	10000
	Mechanical Endurance		cycles (OFF-ON-OFF)	20000
	Protecion degree acc. to EN 60529	housing		IP4X
		terminals		IP2X
	Resistance to Shock acc. to IEC 60068-2-27			0.35mm or 5g – 20 cycles at
	Resistance to Vibrations acc. to IEC 60068-2-6			5...150...5 Hz without load
	Environmental conditions (damp heat) acc. to IEC/EN 60068-2-30		°C/RH	28 cycles with 55°C/90-96% and 25°C/95-100%
	Reference temperature for tripping characteristics		°C	30
	Ambient temperature (with daily average ≤ +35 °C)		°C	-25...+55
	Storage temperature		°C	-40...+70
Installation	Terminal type	top / bottom		failsafe bi-directional cylinder-lift terminal (shock protected)
	Cable cross section	top / bottom min	mm^2	1 (rigid)/ 1 (flexible)
		top / bottom max	mm^2	25 (rigid)/ 25 (flexible)
	Terminal size for busbar	top / bottom	mm^2	10/10 (pin)
	Tightening torque	top / bottom	Nm	2 nom. (4.5 max)
	Wire Stripping Length		mm	12.5
	Screwdriver			No. 2 Pozidrive
	Mounting type			on DIN rail EN 60715 (35 mm) by means of mounting clip
	Mounting Position			Any
	Supply from			Top/Bottom terminals
Dimensions and weight	Dimensions (H X D X W)		mm	85 x 69 x 70.4
	Weight		g	480
Combination with auxiliary elements	Auxiliary contact			Yes
	Auxiliary/Signal contact			Yes
	Shunt trip			Yes
	Undervoltage release			Yes
	Overvoltage release			Yes

DMA63Np

IEC/EN 61009-1;
IEC/EN 61009-2-1

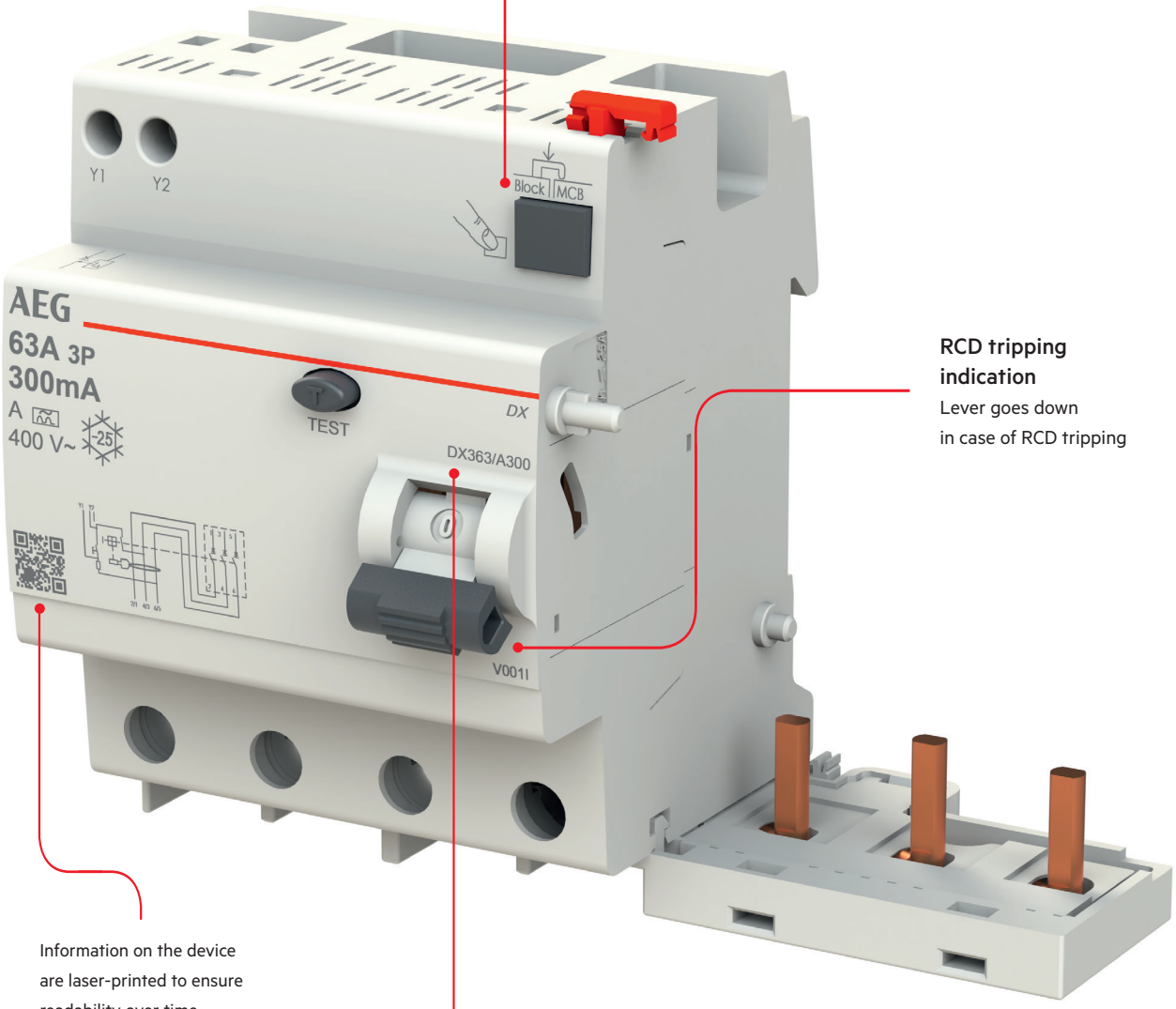
CE



Poles	Sensitivity (mA)	In (A)	A type B curve Type code	Order code	C curve Type code	Order code	Packaging Unit
3P+N	30	6	DMA63N+ B06/030	2CSR256154R1065	DMA63N+ C06/030	2CSR256154R1064	1
		10	DMA63N+ B10/030	2CSR256154R1105	DMA63N+ C10/030	2CSR256154R1104	1
		13	DMA63N+ B13/030	2CSR256154R1135	DMA63N+ C13/030	2CSR256154R1134	1
		16	DMA63N+ B16/030	2CSR256154R1165	DMA63N+ C16/030	2CSR256154R1164	1
		20	DMA63N+ B20/030	2CSR256154R1205	DMA63N+ C20/030	2CSR256154R1204	1
		25	DMA63N+ B25/030	2CSR256154R1255	DMA63N+ C25/030	2CSR256154R1254	1
		32	DMA63N+ B32/030	2CSR256154R1325	DMA63N+ C32/030	2CSR256154R1324	1
	300	10	DMA63NpB10/300	2CSR945132R1404	DMA63NpC10/300	2CSR256154R3104	1
		13	DMA63NpB13/300	2CSR256154R3135	DMA63NpC13/300	2CSR256154R3134	1
		16	DMA63NpB16/300	2CSR256154R3165	DMA63NpC16/300	2CSR256154R3164	1
		20	DMA63NpB20/300	2CSR256154R3205	DMA63NpC20/300	2CSR256154R3204	1
		25	DMA63NpB25/300	2CSR256154R3255	DMA63NpC25/300	2CSR256154R3254	1
		32	DMA63NpB32/300	2CSR256154R3325	DMA63NpC32/300	2CSR256154R3324	1

DX...RCD Blocks

Test pushbutton
to verify the correct
functioning of the device



RCD tripping indication
Lever goes down
in case of RCD tripping

Information on the device
are laser-printed to ensure
readability over time
(including product code)

Laser-marked order code
on the front to make easier future orders

				DX
Electrical features	Standards			IEC/EN 61009-1 Ann. G, IEC/EN 61009-2, IEC EN 62423 2nd ed. (F type)
	Marking approvals			IMQ, VDE
	Type (wave form of the earth leakage sensed)			AC, A, Ai, Si
	Number of poles			2P , 3P, 4P
	Rated Current In		A	40, 63
	Rated sensitivity IΔn		A	30 m, 300 m, 500 m, 1000 m
	Rated operational voltage Ue		V	230/400
	Rated Insulation voltage Ui acc. to IEC/EN 60664-1		V	500
	Grid distance	DX + EN250	mm	75 (up to 25 A)
			mm	90 (32; 40; 50; 63 A)
		DX + EN100	mm	60
		DX + EX100	mm	60
		DX + EN60	mm	60
		DX + EX60	mm	60
		DX + EX40	mm	35
	Overvoltage category			III
	Pollution degree			2
	Rated frequency f		Hz	50
	Rated short circuit breaking capacity acc. to IEC/EN 61009-1	Icn	A	same of coupled MCB
	Rated residual breaking capacity IΔm according to EN 61009-1	$I\Delta_m$	A	same of coupled MCB
	Rated impulse withstand voltage Uimp. (1.2/50 µs)		kV	4
	Dielectric test voltage at ind. freq. for 1 min.		kV	2.5
	Surge current resistance (wave 8/20)		A	Ai:3000 A, Si:5000A
Mechanical features	Housing type			RAL 7035
	Toggle type			RAL 7024
	Contact position indication (CPI)			I/O indicator on the toggle and CPI available on the MCB associated
	Electrical Endurance		cycles (OFF-ON-OFF)	10000
	Mechanical Endurance		cycles (OFF-ON-OFF)	20000
	Protecion degree acc. to EN 60529	housing		IP4X
		terminals		IP2X
	Resistance to Shock acc. to IEC 60068-2-27			25g – 2 shocks – 13ms
	Resistance to Vibrations acc. to IEC 60068-2-6			0,1 mm or 1 g – 20 cycles at 5...150...5 Hz
	Environmental conditions (damp heat) acc. to IEC/EN 60068-2-30		°C/RH	28 cycles with 55°C/90-96% and 25°C/95-100%
	Reference temperature for tripping characteristics		°C	30
	Ambient temperature (with daily average ≤ +35 °C)		°C	-25...+55
	Storage temperature		°C	-40...+70
Installation	Terminal type	2P		bi-directional cylinder-lift
		3P/4P In=40A		cage type
		3P/4P In=63A		bi-directional cylinder-lift
	Cable cross section			Rigid up to 25 mm² Flexible up to 25 mm²
	Tightening torque	2P	Nm	2.8
		3P/4P In=40A		1.2
		3P/4P In=63A		2.8
	Wire Stripping Length		mm	12,5 (10,2 for the additional terminals for remote tripping, only for In=63A)
	Screwdriver			No. 2 Pozidrive
	Mounting type			On DIN rail 35 mm acc. to EN 60715
	Mounting Position			Any
	Supply from			bottom
Dimensions and weight	Dimensions (H X D X W)	2P	mm	85 x 69 x 35
		3P/4P In=40A	mm	85 x 69 x 35
		3P/4P In=63A	mm	85 x 69 x 70
	Weight	2P	g	175
		3P/4P In=40A	g	175
		3P/4P In=63A	g	325
Suitable with				EX40, EX60, EX100

DX Blocks

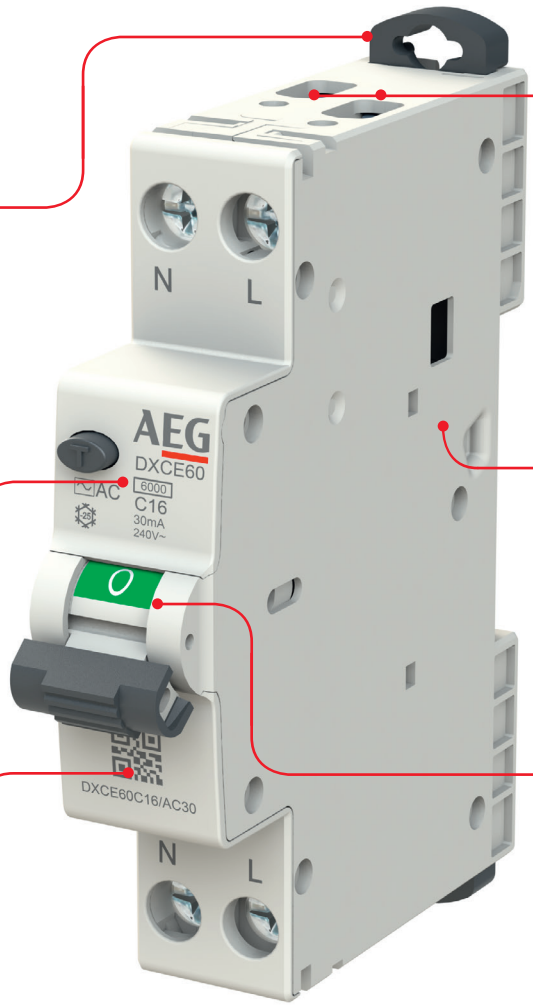
IEC/EN 61008-1; IEC/ EN 61008-2-1

Poles	Idn (mA)	In (A)	AC type		A type		Ai type (High immunity)		Selective High Immunity		PU
			Type code	Order code	Type code	Order code	Type code	Order code			
2P/2Mod	30	40	DX240/AC30	2CSB202090R1320	DX240/A30	2CSB202190R1320	DX240/AI30	2CSB202490R1320			1/1
		63	DX263/AC30	2CSB202090R1630	DX263/A30	2CSB202190R1630	DX263/AI30	2CSB202490R1630			1/1
	300	40	DX240/AC300	2CSB202090R3320	DX240/A300	2CSB202190R3320			DX240/SI300	2CSB202290R3320	1/1
		63	DX263/AC300	2CSB202090R3630	DX263/A300	2CSB202190R3630			DX263/SI300	2CSB202290R3630	1/1
	500	40			DX240/A500	2CSB202190R4320					1/1
		63			DX263/A500	2CSB202190R4630	DX263/SI500	2CSB202290R4630	DX263/SI500	2CSB202290R4630	1/1
	1000	63					DX263/SI1000	2CSB202290R5630	DX263/SI1000	2CSB202290R5630	1/1
3P/4Mod	30	63	DX363/AC30	2CSB203090R1630							1/1
	300	63	DX363/AC300	2CSB203090R3630	DX363/A300	2CSB203190R3630	DX363/AI300	2CSB203190R1630	DX363/SI300	2CSB203290R3630	1/1
	500	63			DX363/A500	2CSB203190R4630					1/1
	1000	63							DX363/SI1000	2CSB203290R5630	1/1
4P/2Mod	30	40	DX440/AC30	2CSB204090R1320	DX440/A30	2CSB204190R1320	DX440/AI30	2CSB204490R1320			1/1
	300	40	DX440/AC300	2CSB204090R3320	DX440/A300	2CSB204190R3320					1/1
	500	40	DX440/AC500	2CSB204090R4320	DX440/A500	2CSB204190R4320					1/1
	1000	40									1/1
4P/4Mod	30	63	DX463/AC30	2CSB204090R1630	DX463/A30	2CSB204190R1630	DX463/AI30	2CSB204490R1630			1/1
	300	63	DX463/AC300	2CSB204090R3630	DX463/A300	2CSB204190R3630			DX463/SI300	2CSB204290R3630	1/1
	500	63	DX463/AC500	2CSB204090R4630	DX463/A500	2CSB204190R4630			DX463/SI500	2CSB204290R4630	1/1
	1000	63							DX463/SI1000	2CSB204290R5630	1/1

DXCE60

Easy supply
Supply possible from top and bottom side, either with cables or busbars. The neutral is switched.

High performance clips
To facilitate the mounting and dismounting operation, guaranteeing an easy removal from a battery or device supplied with busbars.



Combination with accessories
Possibility to use signal or aux EAUC to extend to other accessories

Technical information
Main technical information are printed on the front side, visible also when the device is installed.

Guaranteed security
Indication of the contacts status with 1-ON/0-FF indication in green/red on the toggle.

Innovative
QR-Code for direct internet access to all product data/file

				DXCE60
Electrical features	Standards			IEC 61009-1; IEC 61009-2-2
	Type (wave form of the earth leakage sensed)			AC, A
	Number of poles			1P+N
	Rated Current In		A	6 ≤ In ≤ 32
	Rated sensitivity IΔn		A	0.03
	Rated operational voltage Ue		V	230/240
	Rated Insulation voltage Ui acc. to IEC/EN 60664-1		V	500V AC/DC
	Overvoltage category			III
	Pollution degree			2
	Operating voltage of circuit test Ut		V	160 – 264
	Max operating voltage		V	264
	Min. operating voltage for protection against IΔn residual sinusoidal alternating currents		V	85
	Rated frequency f		Hz	50/60
	Rated short circuit breaking capacity acc. to IEC/EN 61009-1	Icn	A	6000
	Rated short circuit breaking capacity acc. to IEC/EN 60947-2 (only referring to internal short circuit test)	ultimate Icu	kA	6
		service Ics	kA	6
	Rated residual breaking capacity IΔm to IEC 61009-1	IΔm	A	3000
	Grid distance		mm	60
	Rated impulse withstand voltage Uimp. (1.2/50 µs)		kV	4
	Dielectric test voltage at ind. freq. for 1 min.		kV	2.5 kV (50 / 60Hz)
	Thermomagnetic release – characteristic	B: 3 In ≤ Im ≤ 5 In		■
		C: 5 In ≤ Im ≤ 10 In		■
	Energy limiting class		A	3
Mechanical features	Housing type			Insulation group I
	Toggle type			Insulation group II
	Contact position indication (CPI)			green/red indication on toggle
	Electrical Endurance		cycles (OFF-ON-OFF)	10000
	Mechanical Endurance		cycles (OFF-ON-OFF)	20000
	Protecion degree acc. to EN 60529	housing		IP40
		terminals		IP20
	Resistance to Shock acc. to IEC 60068-2-27			40g (x,y,z) – 18 shocks – 5ms half sinusoidal
	Resistance to Vibrations acc. to IEC 60068-2-6			1.5g, 30 min, 0...80Hz
	Environmental conditions (damp heat) acc. to IEC/EN 60068-2-30		°C/RH	28 cycles with 55°C/90-96% and 25°C/95-100%
	Reference temperature for tripping characteristics		°C	30
	Ambient temperature (with daily average ≤ +35 °C)		°C	–25...+55
	Storage temperature		°C	–25...+70
Installation	Terminal type	top / bottom		Fail-safe cage terminals
	Cross-section of conductors	top / bottom	mm^2	16/16 flexible; 25/25 rigid
	Cross-section of busbars	top / bottom	mm^2	10/10
	Tightening torque	top / bottom	Nm	1.2/1.2 (Max 2.5/2.5)
	Wire Stripping Length		mm	13
	Screwdriver			No. 2 Pozidrive
	Neutral cable	Length	mm	–
		Section	mm^2	–
		Color		–
	Mounting type		mm	on DIN rail EN 60715 (35mm) by means of mounting clip
	Mounting position			Vertical & Horizontal
	Supply from			Top and Botom terminals
Dimensions and weight	Dimensions (H X D X W)		mm	86 x 70 x 17.8 mm
	Weight		g	119
Combination with auxiliary elements	Combinable with accessories and auxiliaries			Yes

DXCE60

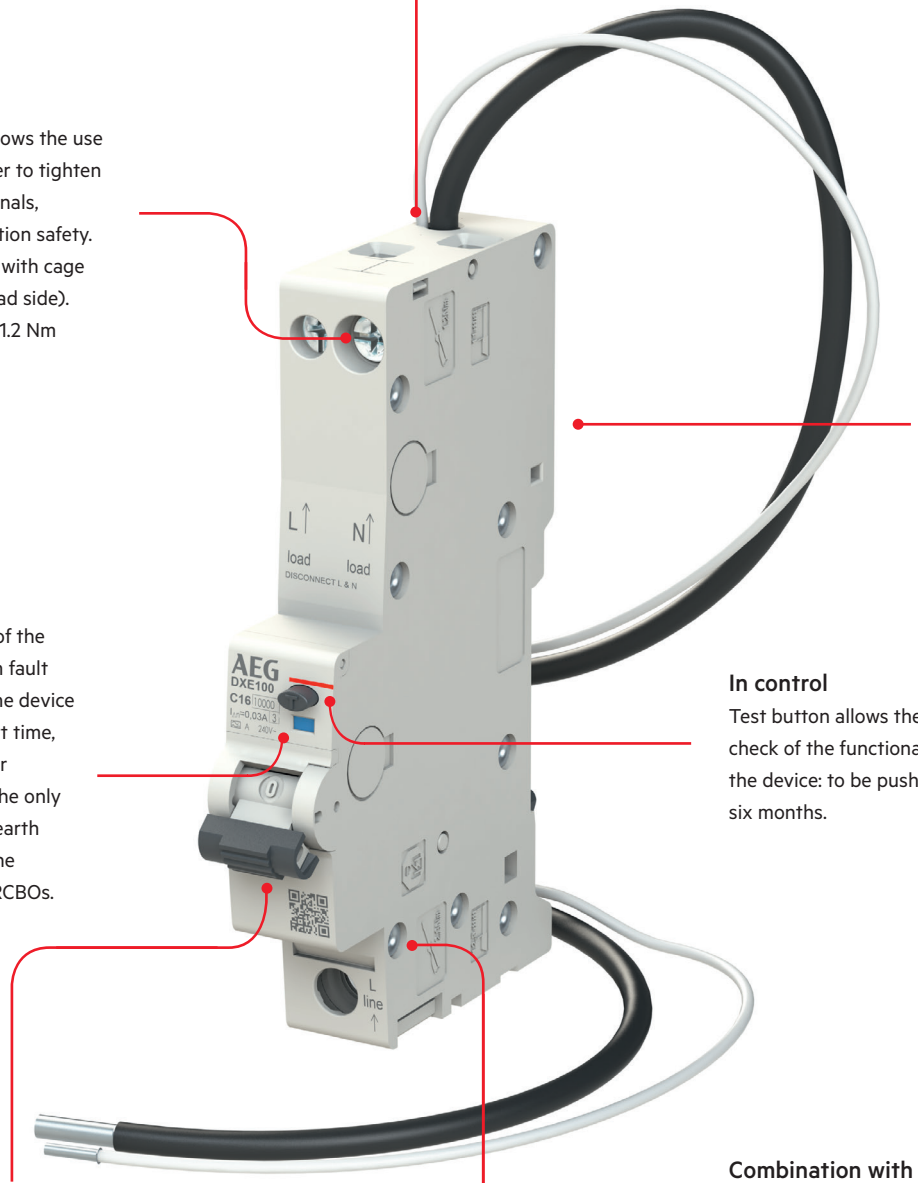
IEC 61009-1; IEC 61009-2-2

Poles	Sensitivity (mA)	In (A)	B curve Type code	B curve Order code	C curve Type code	C curve Order code	Packaging Unit
1P+N/1M	Sensitivity (mA)				AC type		
	30	6	DXCE60B06/AC30	2TAZ280111R2061	DXCE60C06/AC30	2TAZ280111R2064	1/1
		10	DXCE60B10/AC30	2TAZ280111R2101	DXCE60C10/AC30	2TAZ280111R2104	1/1
		13	DXCE60B13/AC30	2TAZ280111R2131	DXCE60C13/AC30	2TAZ280111R2134	1/1
		16	DXCE60B16/AC30	2TAZ280111R2161	DXCE60C16/AC30	2TAZ280111R2204	1/1
		20	DXCE60B20/AC30	2TAZ280111R2201	DXCE60C20/AC30	2TAZ280111R2254	1/1
		25	DXCE60B25/AC30	2TAZ280111R2251	DXCE60C25/AC30	2TAZ280111R2324	1/1
		32	DXCE60B32/AC30	2TAZ280111R2321	DXCE60C32/AC30	2TAZ280111R2324	1/1
					A type		
	30	6	DXCE60B06/A30	2TAZ280114R2061	DXCE60C06/A30	2TAZ280114R2064	1/1
		10	DXCE60B10/A30	2TAZ280114R2101	DXCE60C10/A30	2TAZ280114R2104	1/1
		13	DXCE60B13/A30	2TAZ280114R2131	DXCE60C13/A30	2TAZ280114R2134	1/1
		16	DXCE60B16/A30	2TAZ280114R2161	DXCE60C16/A30	2TAZ280114R2164	1/1
		20	DXCE60B20/A30	2TAZ280114R2201	DXCE60C20/A30	2TAZ280114R2204	1/1
		25	DXCE60B25/A30	2TAZ280114R2251	DXCE60C25/A30	2TAZ280114R2254	1/1
		32	DXCE60B32/A30	2TAZ280114R2321	DXCE60C32/A30	2TAZ280114R2324	1/1

DXE100

Easy to install
Fast installation is supported by the two flying leads for neutral cable and functional earth, each integrated in the device. which can be directly connected to the main neutral bar and main earth bar

Space for insulated screwdrivers
The larger neutral hole allows the use of an insulated screwdriver to tighten the screw of neutral terminals, ensuring maximum operation safety. All versions are equipped with cage type terminals (16 mm² load side). with tightening torque of 1.2 Nm



Reduced height
Thanks to its reduced height, only 115 mm, DXE100 makes easier wiring operation inside the consumer unit or the distribution board.

Earth fault indicator
Blue window in the front of the device to detect any earth fault trip: the cause of trip of the device can be identified in a short time, reducing the downtime for maintenance. DXE100 is the only device equipped with an earth fault indicator between one module width electronic RCBOs.

In control
Test button allows the regular check of the functionality of the device: to be pushed every six months.

Real contact position
indicator below the toggle. Directly linked to the moving contact of the device, the green/ red window in the front of the device can identify the current position of the contacts (open/ closed) independently on the toggle position.

Combination with auxiliary elements
A platform suitable for quick installation in combination with the standard auxiliary elements that can be mounted with RCDs and MCBs.

				DXE100
Electrical features	Standards			IEC 61009-1; IEC 61009-2-2
	Type (wave form of the earth leakage sensed)			A
	Number of poles			1P+N
	Rated Current In		A	6 ≤ In ≤ 50
	Rated sensitivity IΔn		A	0.03
	Rated operational voltage Ue		V	230/240
	Rated Insulation voltage Ui acc. to IEC/EN 60664-1		V	500V AC
	Overvoltage category			III
	Pollution degree			2
	Operating voltage of circuit test Ut		V	195 – 264
	Max operating voltage	Icn	V	264
	Min. operating voltage for protection against IΔn residual sinusoidal alternating currents		V	85
	Rated frequency f		Hz	50/60
	Rated short circuit breaking capacity acc. to IEC/EN 61009-1	Icn	A	10000
	Rated short circuit breaking capacity acc. to IEC/EN 60947-2 (only referring to internal short circuit test)	ultimate Icu	kA	15 (10 for In = 50 A)
		service Ics	kA	7.5
	Rated residual breaking capacity IΔm according to EN 61009-1	IΔm	A	10000
	Grid distance		mm	35
	Rated impulse withstand voltage Uimp. (1.2/50 µs)		kV	4
	Dielectric test voltage at ind. freq. for 1 min.		kV	2 kV (50 / 60Hz)
	Thermomagnetic release – characteristic	B: 3 In ≤ Im ≤ 5 In		■
		C: 5 In ≤ Im ≤ 10 In		■
		D: 10 In ≤ Im ≤ 20 In		
	Energy limiting class			3
Mechanical features	Housing type			Insulation group II
	Toggle type			Insulation group II
	Earth fault trip indicator			blue window
	Contact position indication (CPI)			green/red indication on toggle
	Electrical Endurance		cycles (OFF-ON-OFF)	10000
	Mechanical Endurance		cycles (OFF-ON-OFF)	20000
	Protecion degree acc. to EN 60529	housing		IP40
		terminals		IP20
	Resistance to Shock acc. to IEC 60068-2-27			40g (x,y,z) – 18 shocks – 5ms half sinusoidal
	Resistance to Vibrations acc. to IEC 60068-2-6			1.5g, 30 min, 0...80Hz
	Environmental conditions (damp heat) acc. to IEC/EN 60068-2-30		°C/RH	28 cycles with 55°C/90–96% and 25°C/95–100%
	Reference temperature for tripping characteristics		°C	30
	Ambient temperature (with daily average ≤ +35 °C)		°C	–25...+55
	Storage temperature		°C	–25...+70
Installation	Terminal type	top		Fail-safe cage
		bottom		failsafe bi-directional cylinder-lift terminal
	Cross-section of conductors	top / bottom		10/25 flexible; 16/35 rigid
	Cross-section of busbars		mm^2	10
	Tightening torque	top / bottom	mm^2	1.2/2.8
	Wire Stripping Length	bottom	Nm	11/12.5
	Screwdriver		mm	No. 2 Pozidrive
	Neutral cable	Length	mm	750
		Section	mm^2	2.5 mm^2 up to 20 A, 4 mm^2 above 20A
		Color		Black
	Functional earth cable	Length	mm	750
		Section	mm^2	0.75
		Color		White
	Mounting type		mm	on DIN rail EN 60715 (35 mm) by means of mounting clip
	Mounting position			Any
	Supply from			Bottom terminals
Dimensions and weight	Dimensions (H X D X W)		mm	118 x 68.9 x 17.5 mm
	Weight		g	200
Combination with auxiliary elements	Combinable with accessories and auxiliaries			Yes

DXE100

IEC 61009-1; IEC 61009-2-2

Poles	Sensitivity (mA)	In (A)	B curve Type code	B curve Order code	C curve Type code	C curve Order code	Packaging Unit
1P+N/1M	Sensitivity (mA)				A type 		
	30	6	DXE100B06/A30	2CSR275137R1065	DXE100C06/A30	2CSR275137R1064	1/1
		10	DXE100B10/A30	2CSR275137R1105	DXE100C10/A30	2CSR275137R1104	1/1
		16	DXE100B16/A30	2CSR275137R1165	DXE100C16/A30	2CSR275137R1164	1/1
		20	DXE100B20/A30	2CSR275137R1205	DXE100C20/A30	2CSR275137R1204	1/1
		25	DXE100B25/A30	2CSR275137R1255	DXE100C25/A30	2CSR275137R1254	1/1
		32	DXCE60B32/A30	2CSR275137R1325	DXE100C32/A30	2CSR275137R1324	1/1
		40	DXE100B40/A30	2CSR275137R1405	DXE100C40/A30	2CSR275137R1404	1/1
		50	DXE100B50/A30	2CSR275137R1505	DXE100C50/A30	2CSR275137R1504	1/1

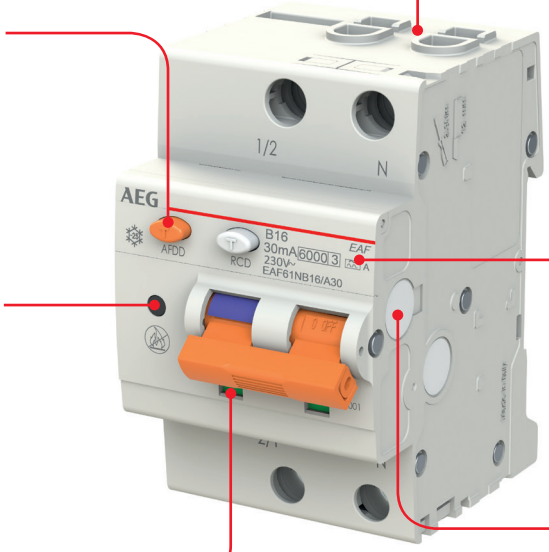
EAF AFDD

EAF RCBO

Test pushbutton and self test
White test pushbutton to verify the correct functioning of RCD. Orange test pushbutton to verify the correct functioning of AFDD. Internal self test is also continuously running in order to check the arc detection circuit.

LED for troubleshooting
LED troubleshooting indicator to monitor the operation of the AFDD and give indication of the cause of the trip. Possibility to recall in memory the last tripping due to arc fault and overvoltage.

Contact position indicator (CPI)
To always know the status of the contacts (red: close; green: open) Independent from the toggle position



Availability of two terminals slot
- Easy to connect thanks to availability of two terminals slot
- Pin busbar compatibility
- Safety : IP20 finger safety terminal

Laser printed information
Information on the device are laser printed to ensure readability over time.

Combination with auxiliary elements
Platform suitable for combination with accessories.

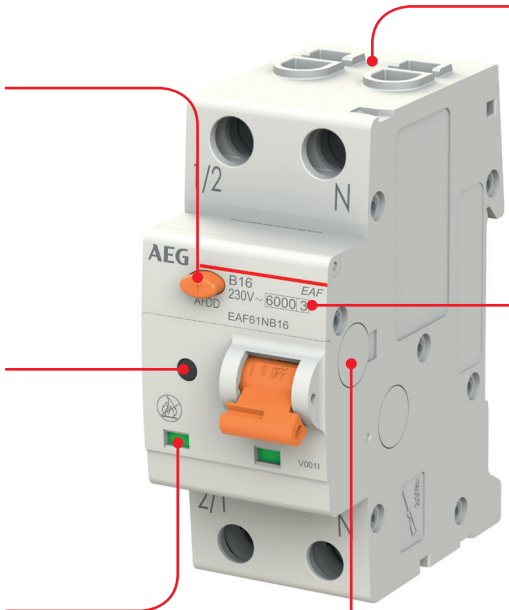
EAF MCB

Test pushbutton and self test
Test pushbutton to verify the correct functioning of the arc fault detection device. Internal self test is also continuously running in order to check the arc detection circuit.

LED for troubleshooting
LED troubleshooting indicator to monitor the operation of the AFDD and give indication of the cause of the trip. Possibility to recall in memory the las tripping due to arc fault and overvoltage.

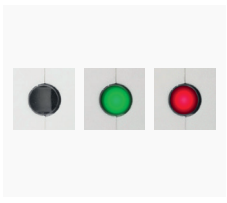
Contact position indicator (CPI)
To always know the status of the contacts (red: closed; green: open) independent from the toggle position

Combination with auxiliary elements
Platform suitable for combination with accessories.



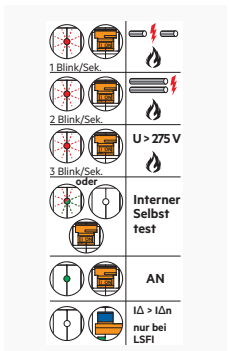
Availability of two terminals slot
- Easy to connect thanks to availability of two terminals slot
- Pin busbar compatibility

Laser printed information
Information on the device are laser printed to ensure readability over time.



LED color	Blink/ sec	Signalling duration	Cause of trip
Green		Permanent	Manual trip, manual test, overcurrent
Red blinking	1	5 sec	Series arc
Red blinking	2	5 sec	Parallel arc
Red blinking	3	5 sec	Over voltage

In case of internal self test failure, the led can switch off or start blinking green/red alternatively.



Dedicated sticker for LED
Dedicated sticker that summarizes the LED function is present in addition to the instructions sheet.

			EAF RCBO
Electrical Functions	Standards		IEC/EN 62606; IEC/EN 61009-1; IEC/EN 61009-2-1
	Marking approval		VDE
	Type (wave form of the earth leakage sensed)		A
	Number of poles		1P+N
	Rated current In	A	6-20
	Rated sensitivity IΔn	A	0.03
	Rated voltage Ue	V	230 – 240
	Insulation voltage Ui	V	500 V AC
	Overvoltage category		III
	Pollution degree		2
	Operating voltage of RCD circuit test Ut	V	170
	Threshold for protection against overvoltage	V	275
	Rated frequency	Hz	50/60
	Rated breaking capacity acc. to IEC/EN 61009-1	A	EAF61N: 6000; EAF101N: 10000
	Rated breaking capacity acc. to IEC/EN 60947-2 (only referring to short circuit test)	kA	7.5
	Rated residual breaking capacity IΔm	A	6000
	Rated impulse withstand voltage (1.2/50) Uimp	kV	4
	Dielectric test voltage at ind. freq. for 1 min.	kV	2.5 (50/60 Hz, 1 min.)
	Thermomagnetic release – characteristic		B
	Energy limiting class		3
Mechanical Main features	Housing		Insulation group I, RAL 7035
	Toggle		Insulation group II, Orange RAL 2004, sealable in ON-OFF-positions
	Contact position indication		Green/red window
	Earth fault trip indication		Blue flag on toggle
	Electrical life		10000 operations
	Mechanical life		20000 operations
	Protection degree acc. to EN 60529		IP4X
			IP2X
	Shock resistance acc. to IEC/EN 60068-2-27		25 g – 2 shocks – 13 ms
	Vibration resistance acc. to IEC/EN 60068-2-6		0.2 mm or 5 g – 20 cycles at 5 ... 150 ... 5 Hz
	Environmental conditions (damp heat) acc. to IEC/EN 60068-2-30	°C/RH	28 cycles with 55°C/90 – 96 % and 25°C/95 – 100 %
	Reference temperature for setting of thermal element	°C	30
	Ambient temperature (with daily average ≤ +35 °C)	°C	-25...+55
	Storage temperature	°C	-40...+70
Assembly	Terminal type		failsafe bi-directional cylinder-lift terminal (shock protected)
	Terminal size for cables	mm^2	25/25
	Terminal size for busbars	mm^2	NA
	Tightening torque	Nm	2.8
	Stripping length of the cable	mm	12
	Mounting		on DIN rail EN 60715 (35 mm) by means of mounting clip
	Mounting position		any
	Supply from		Top/bottom terminals
	Dimensions (H x D x W)	mm	85 × 69 × 52.5
	Weight	g	240
Combination with auxiliary elements	Auxiliary contact		Yes
	Auxiliary/Signal contact		Yes
	Shunt trip		Yes
	Undervoltage release		Yes

				EAF MCB
Electrical Functions	Standard			IEC/EN 62606; IEC/EN 60898-1
	Marking approval			VDE
	Number of poles			1P + N
	Rated current In		A	6-40
	Rated voltage Ue		V	230 – 240
	Insulation voltage Ui		V	500 V AC
	Overvoltage category		V	III
	Pollution degree		V	2
	Min. operating voltage		Hz	170
	Threshold for protection against overvoltage		A	275
	Rated frequency		kA	50/60
	Rated breaking capacity acc. to IEC/EN 60898-1	ultimate Icn	kA	EAF61N: 6000; EAF101N: 10000
	Rated breaking capacity acc. to IEC/EN 60947-2 (only referring to short circuit test)	ultimate Icu	A	7.5
		service Ics	kV	6
	Rated making and breaking capacity of one individual pole		kV	6000
	Rated impulse withstand voltage (1.2/50) Uimp			4
	Dielectric test voltage at ind. freq. for 1 min.			2.5 (50/60 Hz, 1 min.)
	Thermomagnetic release – characteristic	B: 3 In ≤ Im ≤ 5 In		
	Energy limiting class			3
Mechanical Main features	Housing			Insulation group I, RAL 7035
	Toggle			Insulation group II, Orange RAL 2004, sealable in ON-OFF-positions
	Contact position indication			Green/red window
	Electrical life			Blue flag on toggle
	Mechanical life			20000 operations
	Protection degree acc. to EN 60529	housing		IP4X
		terminals		IP2X
	Shock resistance acc. to IEC/EN 60068-2-27			25 g – 2 shocks – 13 ms
	Vibration resistance acc. to IEC/EN 60068-2-6			0.2 mm or 5 g – 20 cycles at 5 ... 150 ... 5 Hz
	Environmental conditions (damp heat) acc. to IEC/EN 60068-2-30		°C/RH	28 cycles with 55°C/90 – 96 % and 25°C/95 – 100 %
	Reference temperature for setting of thermal element		°C	30
	Ambient temperature (with daily average ≤ +35 °C)		°C	-25...+55
	Storage temperature		°C	-40...+70
Assembly	Terminal type	top/bottom		failsafe bi-directional cylinder-lift terminal (shock protected)
	Terminal size for cables	top/bottom	mm^2	25/25
	Terminal size for busbars	top/bottom	mm^2	NA
	Tightening torque top/bottom		Nm	2.8
	Stripping length of the cable		mm	12
	Mounting			on DIN rail EN 60715 (35 mm) by means of mounting clip
	Mounting position			any
	Supply from			Top/bottom terminals
Dimensions and weight	Dimensions (H x D x W)		mm	85 × 69 × 35
	Weight		g	180
	Terminal type	top / bottom		failsafe bi-directional cylinder-lift terminal (shock protected)
	Terminal size for cables	top / bottom	mm^2	25/25
	Terminal size for busbars	top / bottom	mm^2	NA
	Tightening torque	top / bottom	Nm	2.8
	Stripping length of the cable		mm	12.5
	Mounting			on DIN rail EN 60715 (35mm) by means of mounting clip
	Mounting position			Any
	Supply from		mm	Top/Bottom terminals
	Dimensions (H x D x W)		g	85 x 69 x 35 mm
	Weight			180
Combination with auxiliary elements	Auxiliary contact			Yes
	Auxiliary/Signal contact			Yes
	Shunt trip			Yes
	Undervoltage release			Yes

EAF61N

IEC/EN 62606;
IEC/EN 60898-1 (MCB),
IEC/EN 61009-1 (RCBO)



				B curve		C curve		
				Type code	Order code			Packaging Unit
	1P+N	30	6	EAF61NB06	2CSA255910R9065	EAF61NC06	2CSA255910R9064	1
			10	EAF61NB10	2CSA255910R9105	EAF61NC10	2CSA255910R9104	1
			13	EAF61NB13	2CSA255910R9135	EAF61NC13	2CSA255910R9134	1
			16	EAF61NB16	2CSA255910R9165	EAF61NC16	2CSA255910R9164	1
			20	EAF61NB20	2CSA255910R9205	EAF61NC20	2CSA255910R9204	1
			25	EAF61NB25	2CSA255910R9255	EAF61NC25	2CSA255910R9254	1
			32	EAF61NB32	2CSA255910R9325	EAF61NC32	2CSA255910R9324	1
			40	EAF61NB40	2CSA255910R9405	EAF61NC40	2CSA255910R9404	1

IEC/EN 62606,
IEC/EN 61009-1 (RCBO)



				A type				
				B curve		C curve		
Poles		Sensitivity (mA)	In (A)	Type code	Order code			Packaging Unit
	1P+N	30	6	EAF61NB06/A30	2CSA255111R1065	EAF61NC06/A30	2CSA255111R1064	1
			10	EAF61NB10/A30	2CSA255111R1105	EAF61NC10/A30	2CSA255111R1104	1
			13	EAF61NB13/A30	2CSA255111R1135	EAF61NC13/A30	2CSA255111R1134	1
			16	EAF61NB16/A30	2CSA255111R1165	EAF61NC16/A30	2CSA255111R1164	1
			20	EAF61NB20/A30	2CSA255111R1205	EAF61NC20/A30	2CSA255111R1204	1

EAF101N

IEC/EN 62606;
IEC/EN 60898-1 (MCB),
IEC/EN 61009-1 (RCBO)



				B curve		C curve		
				Type code	Order code			Packaging Unit
	1P+N	30	6	EAF101NB06	2CSA275910R9065	EAF101NC06	2CSA275910R9064	1
			10	EAF101NB10	2CSA275910R9105	EAF101NC10	2CSA275910R9104	1
			13	EAF101NB13	2CSA275910R9135	EAF101NC13	2CSA275910R9134	1
			16	EAF101NB16	2CSA275910R9165	EAF101NC16	2CSA275910R9164	1
			20	EAF101NB20	2CSA275910R9205	EAF101NC20	2CSA275910R9204	1
			25	EAF101NB25	2CSA275910R9255	EAF101NC25	2CSA275910R9254	1
			32	EAF101NB32	2CSA275910R9325	EAF101NC32	2CSA275910R9324	1
			40	EAF101NB40	2CSA275910R9405	EAF101NC40	2CSA275910R9404	1

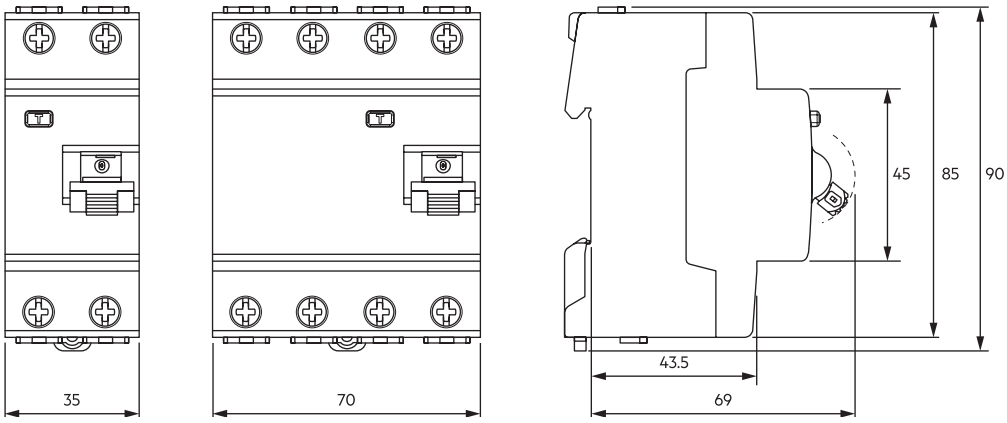
IEC/EN 62606,
IEC/EN 61009-1 (RCBO)



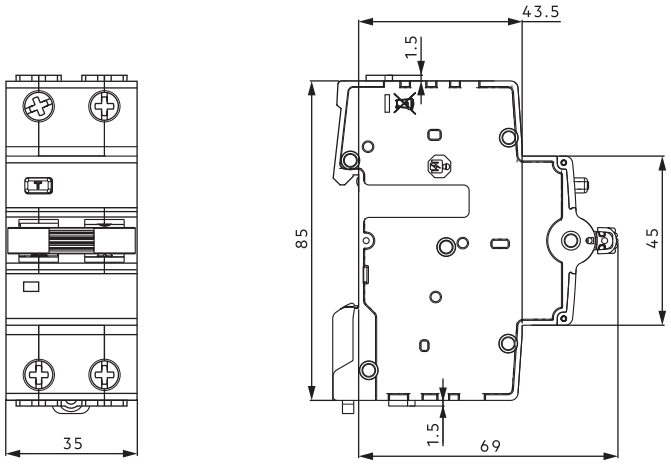
				A type				
				B curve		C curve		
Poles		Sensitivity (mA)	In (A)	Type code	Order code			Packaging Unit
	1P+N	30	6	EAF101NB06/A30	2CSA275111R1065	EAF101NC06/A30	2CSA275111R1064	1
			10	EAF101NB10/A30	2CSA275111R1105	EAF101NC10/A30	2CSA275111R1104	1
			13	EAF101NB13/A30	2CSA275111R1135	EAF101NC13/A30	2CSA275111R1134	1
			16	EAF101NB16/A30	2CSA275111R1165	EAF101NC16/A30	2CSA275111R1164	1
			20	EAF101NB20/A30	2CSA275111R1205	EAF101NC20/A30	2CSA275111R1204	1

Dimensions

RCCB EXI, FN

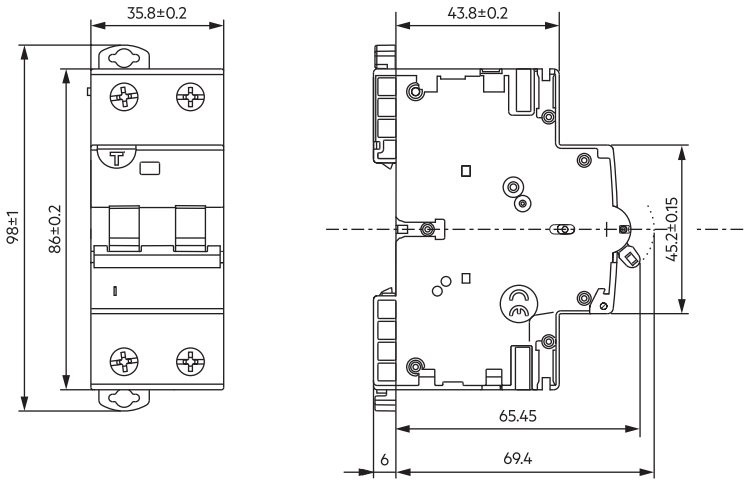


RCBO DX range

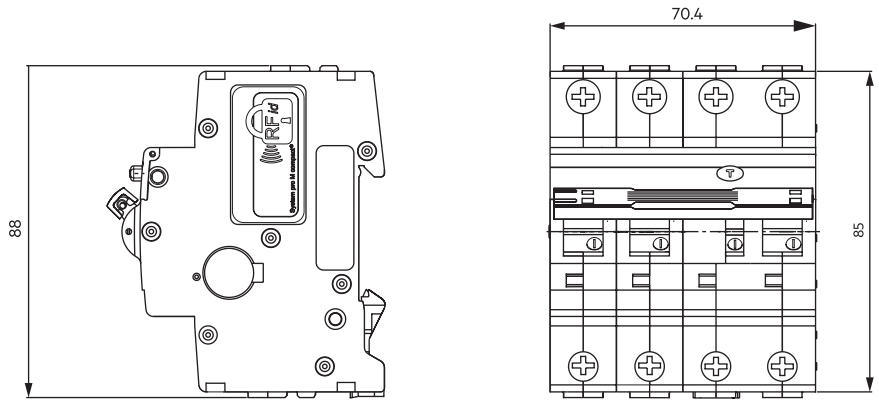


Dimensions

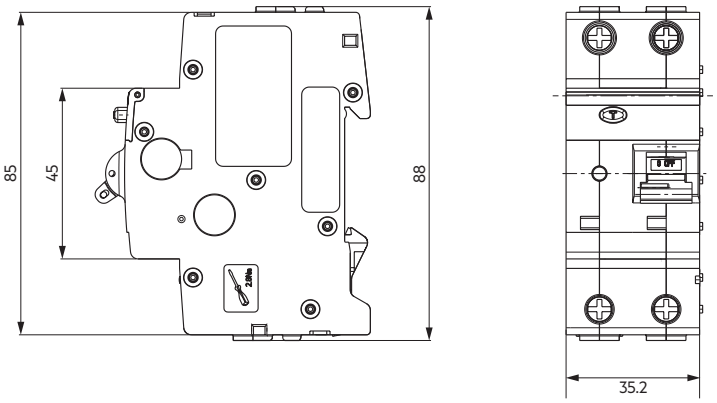
RCBO DPC100



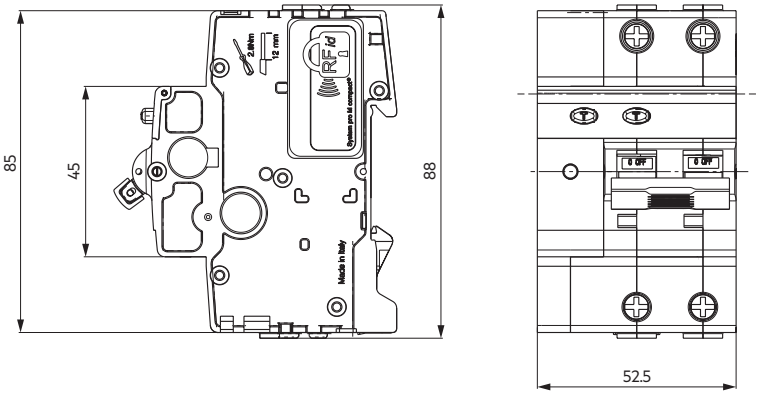
RCBO DMA63Np



EAF MCB



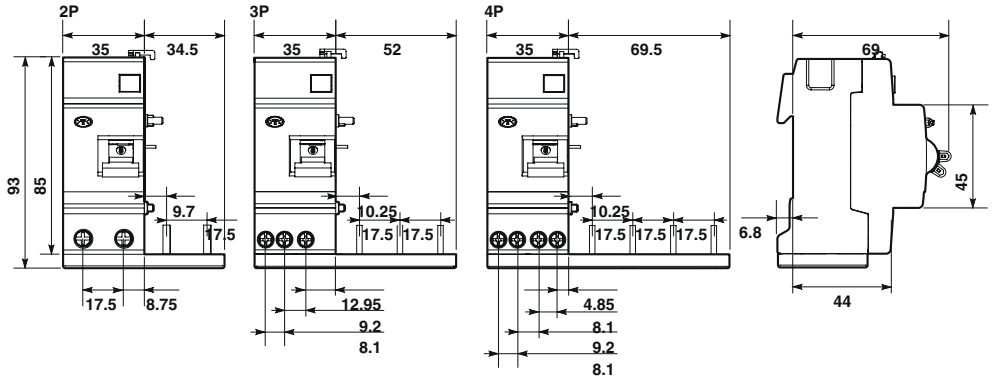
EAF RCBO



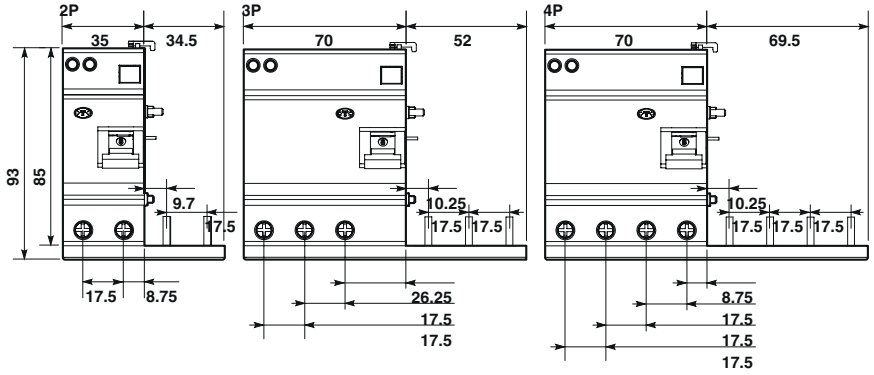
Dimensions

RCD Blocks

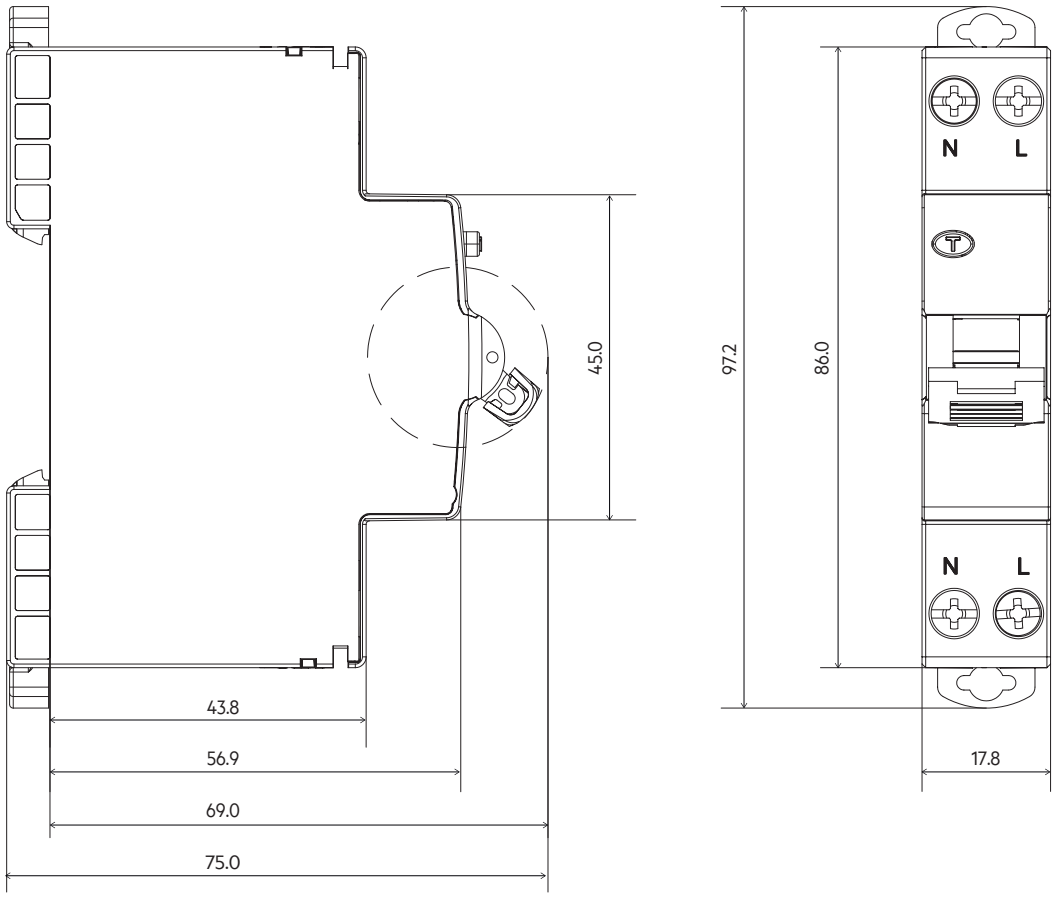
In=25-40 A



In=63 A

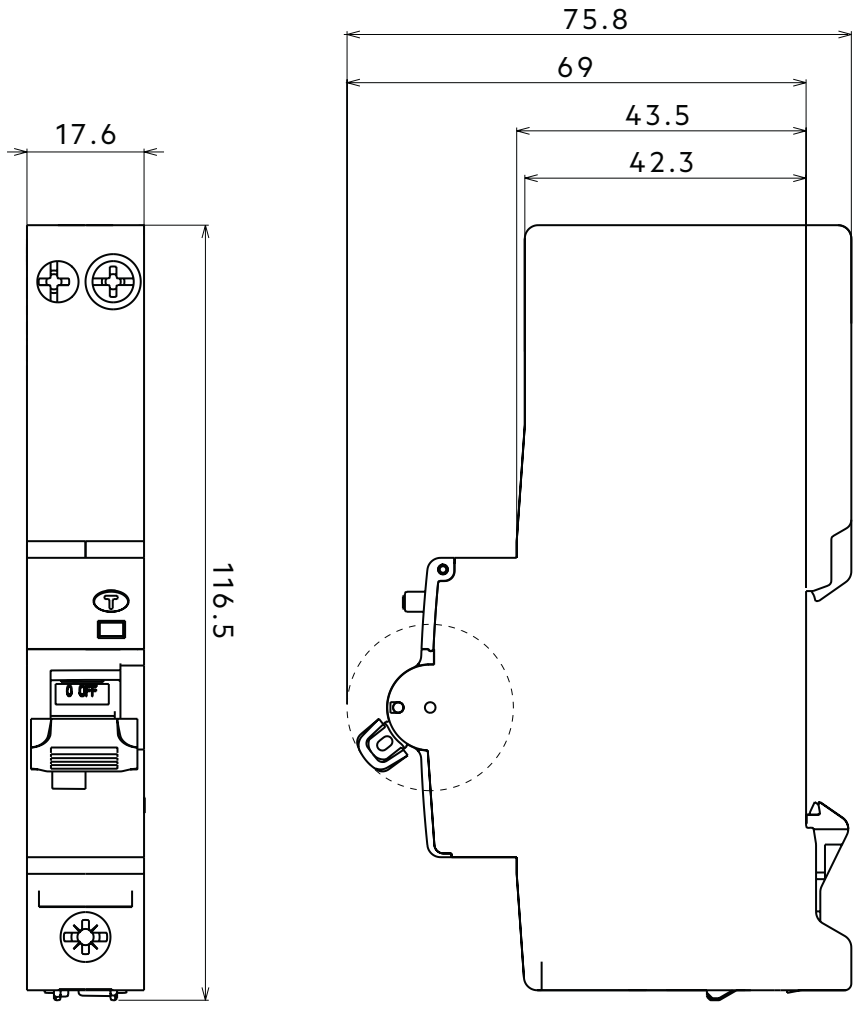


DXCE60



Dimensions

DXE100



RCDs technical details

Power loss, derating

Power loss and internal resistance of RCDs and RCBOs

RCCBs EXI, FN

Power @ In [W]	per Pole	Total
2P 25A	0.7	1.4
2P 40A	1.8	3.5
2P 63A	4	7.9
4P 25A	1.2	3.5
4P 40A	3	9.1
4P 63A	4.9	14.7
2P 80A	4.5	9
2P 100A	6.5	13
4P 80A	5.3	21.2
4P 100A	8.2	32.8

RCCBs FN Type B

Power Loss [W]	In [A]	Per Pole	Total
2P	40	1.65	3.6
	63	4.14	8.58
4P	40	1.92	6.96
	63	4.8	15.6

RCBO DX

In [A]	Power loss [W] [a]	Internal resistance [mΩ]
6	2.4	66.7
8	1.9	29.7
10	1.8	18.0
13	2.5	15.0
16	3.3	12.8
20	3.6	9.0
25	5.5	8.8
32	6.4	6.3
40	5.0	3.1

RCBOs DPC100 series

In [A]	Power loss [W] [a]	Internal resistance [mΩ]
6	3.0	84.4
10	3.3	32.8
13	3.8	22.5
15	3.9	16.4
16	4.2	16.4
20	5.0	12.6
25	6.2	9.9
32	7.6	7.4
40	8.9	5.6

RCBOs DMA63Np series

In [A]	Power loss [W] [a]	Internal resistance [mΩ]
6	7.5	207.3
10	5.6	55.9
13	7.2	42.5
16	10.0	39.3
20	11.8	29.5
25	10.3	16.4
32	15.1	14.8

EAF MCB AFDD

In [A]	Power loss [W] [a]	Internal resistance [mΩ]
6	2.3	63.3
10	2.0	20.3
13	2.2	12.8
16	2.8	10.9
20	3.6	9.1
25	3.5	5.6
32	4.8	4.7
40	6.2	3.9

EAF RCBO AFDD

In [A]	Power loss [W] [a]	Internal resistance [mΩ]
6	2.5	68
10	1.8	18
13	2.0	20
16	3.1	12
20	4.2	11

DXCE60 RCBO

In [A]	Power loss [W] [a]
6	1.8
10	2.0
13	2.2
16	2.5
20	3.0
25	3.7
32	4.9

DXE100 RCBO

In [A]	Power loss [W] [a]	Internal resistance [mΩ]
6	0.30	49
10	0.18	18
16	0.15	9.5
20	0.15	7.6
25	0.13	5.3
32	0.14	4.3
40	0.14	3.4
50	0.11	2.1

RCDs technical details
Power loss, derating

Derating temperature for EXI, FN series

Max operating current depending on the ambient temperature of the residual current circuit breaker.

	Temperature (°C)						
In	-5...40	45	50	55	60	65	70
25A	25	25	25	25	24	22	20
40A	40	39	37	35	32	29	26
63A	63	60	56	51	46	40	32

Derating temperature for FN B series

Max operating current depending on the ambient temperature of the residual current circuit breaker.

	Temperature (°C)				
In	-25...50	55	60	65	70
40A	40	40	40	40	32
63A	63	55	48	40	32

Derating temperature for DX RCBOs series

Max operating current depending on the ambient temperature of a circuit breaker in load circuit of characteristics type B, C. Daily average ambient temperature is intended to be ≤ +35 °C.

	Temperature (°C)												
In	-25	-20	-10	0	10	20	30	40	50	55	60	65	70
6A	8.7	8.4	7.7	7.3	7.0	6.4	6.0	5.5	5.3	5.1	4.9	4.7	4.6
10A	13.5	13.0	12.1	11.5	11.0	10.6	10.0	9.4	9.0	8.8	8.6	8.4	8.3
13A	16.0	15.6	14.9	14.5	14.0	13.4	13.0	12.4	11.7	11.4	11.2	11.0	10.8
16A	18.9	18.6	18.1	17.5	17.0	16.4	16.0	15.3	14.8	14.5	14.3	14.1	14.0
20A	24.0	23.5	22.7	22.0	21.4	20.7	20.0	19.1	18.5	18.3	18.0	17.8	17.7
25A	27.9	27.5	27.1	26.6	26.0	25.3	25.0	24.3	23.6	23.4	23.2	23.0	22.8
32A	36.8	36.2	35.4	34.8	34.0	32.9	32.0	31.3	30.5	30.0	29.7	29.5	29.4
40A	44.8	44.6	44.0	43.2	42.1	41.0	40.0	39.0	38.1	37.9	37.6	37.4	37.2

Derating temperature for DPC RCBO 2P series

Max. operating current depending on the ambient temperature of a circuit-breaker in load circuit of characteristics type B and C.
Daily average ambient temperature is intended to be ≤ +35 °C.

	Temperature (°C)							
In	0	10	20	25	30	40	50	60
6A	7.2	6.8	6.4	6.2	6.0	5.5	5.1	4.5
10A	12.2	11.5	10.8	10.4	10.0	9.1	8.2	7.1
13A	15.7	14.8	13.9	13.5	13.0	12.0	10.9	9.6
16A	19.1	18.2	17.1	16.6	16.0	14.8	13.4	11.9
20A	24.0	22.8	21.4	20.7	20.0	18.4	16.6	14.5
25A	30.2	28.6	26.9	26.0	25.0	22.9	20.6	18.0
32A	37.6	35.9	34.0	33.0	32.0	29.9	27.5	25.0
40A	46.5	44.4	42.3	41.2	40.0	37.5	34.9	31.9

Derating temperature for DMA63Np series

Max operating current depending on the ambient temperature of a circuit breaker in load circuit of characteristics type B, C.
Daily average ambient temperature is intended to be ≤ +35 °C.

	Temperature (°C)									
In	-25	-20	-10	0	10	20	30	40	55	70
6A	7.29	7.16	6.91	6.65	6.41	6.17	6.00	5.90	5.75	
10A	12.13	11.92	11.49	11.06	10.68	10.31	10.00	9.76	9.39	
13A	15.77	15.49	14.93	14.37	13.89	13.41	13.00	12.65	12.12	
16A	19.40	19.06	18.37	17.68	17.10	16.52	16.00	15.54	14.5	13.8
20A	23.66	23.32	22.63	21.94	21.26	20.57	20.00	19.53	18.84	
25A	29.00	28.65	27.96	27.27	26.46	25.65	25.00	24.53	23.83	
32A	38.67	38.13	37.04	35.96	34.48	33.00	32.00	31.47	29	27

Derating temperature for EAF MCB series

Max operating current depending on the ambient temperature of a circuit breaker in load circuit of characteristics type B and C.
Daily average ambient temperature is intended to be ≤ +35 °C.

	Temperature (°C)									
In	-25	-20	0	10	20	25	30	40	50	55
6A	7.2	6.8	6.4	6.3	6.1	6.0	6.0	6.0	5.8	5.8
10A	12.2	11.9	10.8	10.7	10.5	10.2	10.0	10.0	9.8	9.6
13A	15.6	15.2	14.2	13.8	13.4	13.2	13.0	12.9	12.7	12.6
16A	19.5	18.9	17.9	17.3	16.7	16.3	16.0	15.8	15.5	15.4
20A	24.4	24.0	22.4	21.6	21.0	20.4	20.0	19.8	19.5	19.4
25A	29.5	28.9	28.0	27.0	26.2	25.5	25.0	24.6	24.2	24.0
32A	36.5	35.9	35.0	33.9	33.0	32.3	32.0	31.1	30.4	30.0
40A	47.0	46.4	43.0	42.1	41.1	40.4	40.0	38.9	38.0	37.1

Derating temperature for EAF RCBO series

	Temperature (°C)									
In	-25	-20	0	10	20	25	30	40	50	55
6A	7.2	6.8	6.4	6.3	6.1	6.0	6.0	6.0	5.8	5.8
10A	12.2	11.9	10.8	10.7	10.5	10.2	10.0	10.0	9.8	9.6
13A	15.6	15.2	14.2	13.8	13.4	13.2	13.0	12.9	12.7	12.6
16A	19.5	18.9	17.9	17.3	16.7	16.3	16.0	15.8	15.5	15.4
20A	24.4	24.0	22.4	21.6	21.0	20.4	20.0	19.8	19.5	19.4
25A	29.5	28.9	28.0	27.0	26.2	25.5	25.0	24.6	24.2	24.0
32A	36.5	35.9	35.0	33.9	33.0	32.3	32.0	31.1	30.4	30.0
40A	47.0	46.4	43.0	42.1	41.1	40.4	40.0	38.9	38.0	37.1

Derating temperature for DXCE60 RCBO

Max operating current depending on the ambient temperature of a circuit breaker in load circuit of characteristics type B and C.
Daily average ambient temperature is intended to be ≤ +35 °C.

	Temperature (°C)																
In	-25	-20	-15	-10	-5	0	5	10	15	20	25	30	35	40	45	50	55
6	6.9	6.8	6.7	6.6	6.6	6.5	6.4	6.3	6.2	6.2	6.1	6.0	5.9	5.8	5.8	5.7	5.6
10	11.4	11.3	11.1	11.0	10.9	10.8	10.6	10.5	10.4	10.3	10.1	10.0	9.9	9.7	9.6	9.5	9.4
13	14.9	14.7	14.6	14.4	14.2	14.0	13.9	13.7	13.5	13.3	13.2	13.0	12.8	12.7	12.5	12.3	12.1
16	18.3	18.1	17.9	17.7	17.5	17.3	17.1	16.8	16.6	16.4	16.2	16.0	15.8	15.6	15.4	15.2	14.9
20	23.3	23.0	22.7	22.4	22.1	21.8	21.5	21.2	20.9	20.6	20.3	20.0	19.7	19.4	19.1	18.8	18.5
25	29.7	29.2	28.8	28.4	28.0	27.5	27.1	26.7	26.3	25.8	25.4	25.0	24.6	24.2	23.7	23.3	22.9
32	38.6	38.0	37.4	36.8	36.2	35.6	35.0	34.4	33.8	33.2	32.6	32.0	31.4	30.8	30.2	29.6	29.0

Derating temperature for DXE100 RCBO

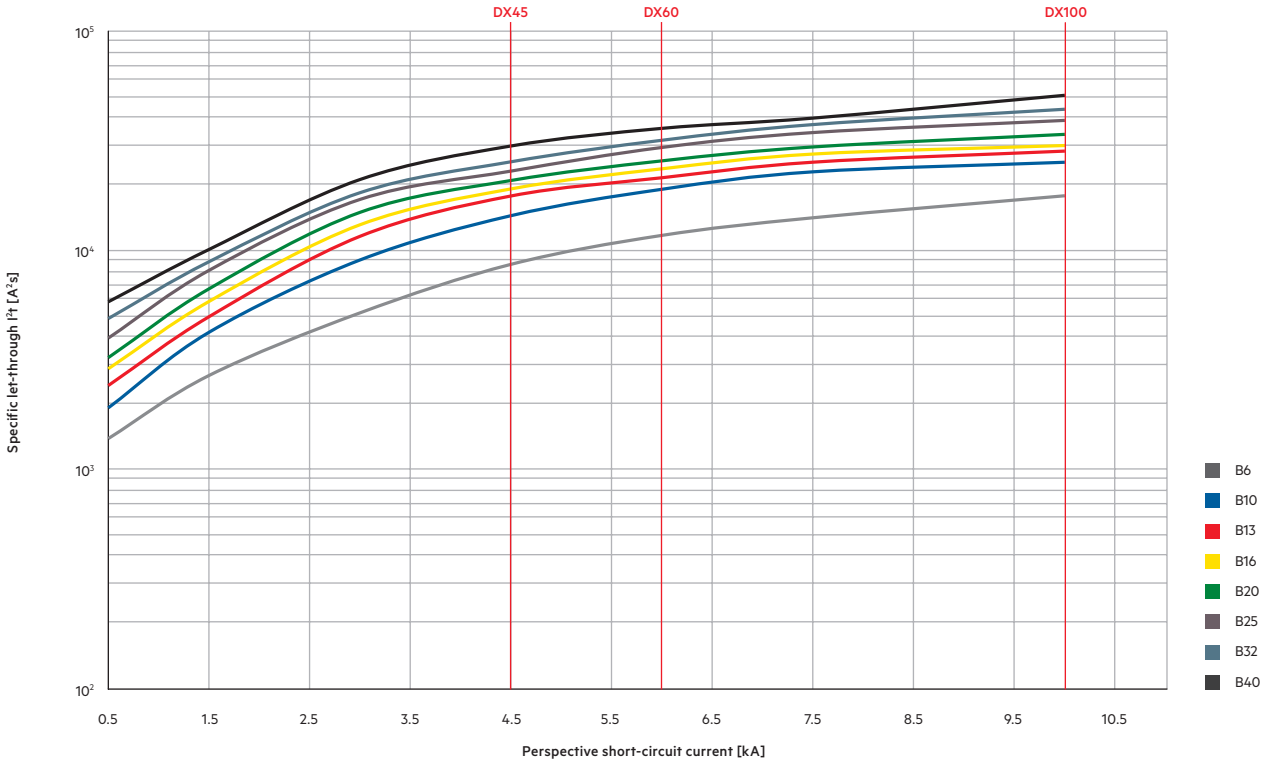
Max operating current depending on the ambient temperature of a circuit breaker in load circuit of characteristics type B and C.
Daily average ambient temperature is intended to be ≤ +35 °C.

	Temperature (°C)									
In	-25	-20	-10	0	10	20	30	40	50	55
6A	7,3	7,2	6,9	6,7	6,4	6,2	6,0	5,9	5,9	5,8
10A	13,0	12,9	12,2	11,4	10,9	10,4	10,0	9,8	9,7	9,5
16A	20,2	19,7	18,7	17,8	17,3	16,6	16,0	15,8	15,4	15,2
20A	26,0	25,2	24,0	22,8	21,9	20,7	20,0	19,8	19,6	19,5
25A	32,6	31,5	30,4	29,0	27,5	26,0	25,0	24,6	24,2	23,9
32A	41,1	39,7	38,0	36,3	34,8	33,1	32,0	30,9	29,8	29,6
40A	50,3	49,4	47,9	45,6	43,7	41,5	40,0	39,0	38,4	38,1
50A	61,1	60,4	59,2	57,1	54,7	51,7	50	48,8	48	47,9

RCDs technical details

Limitation of specific let-through energy I^2t

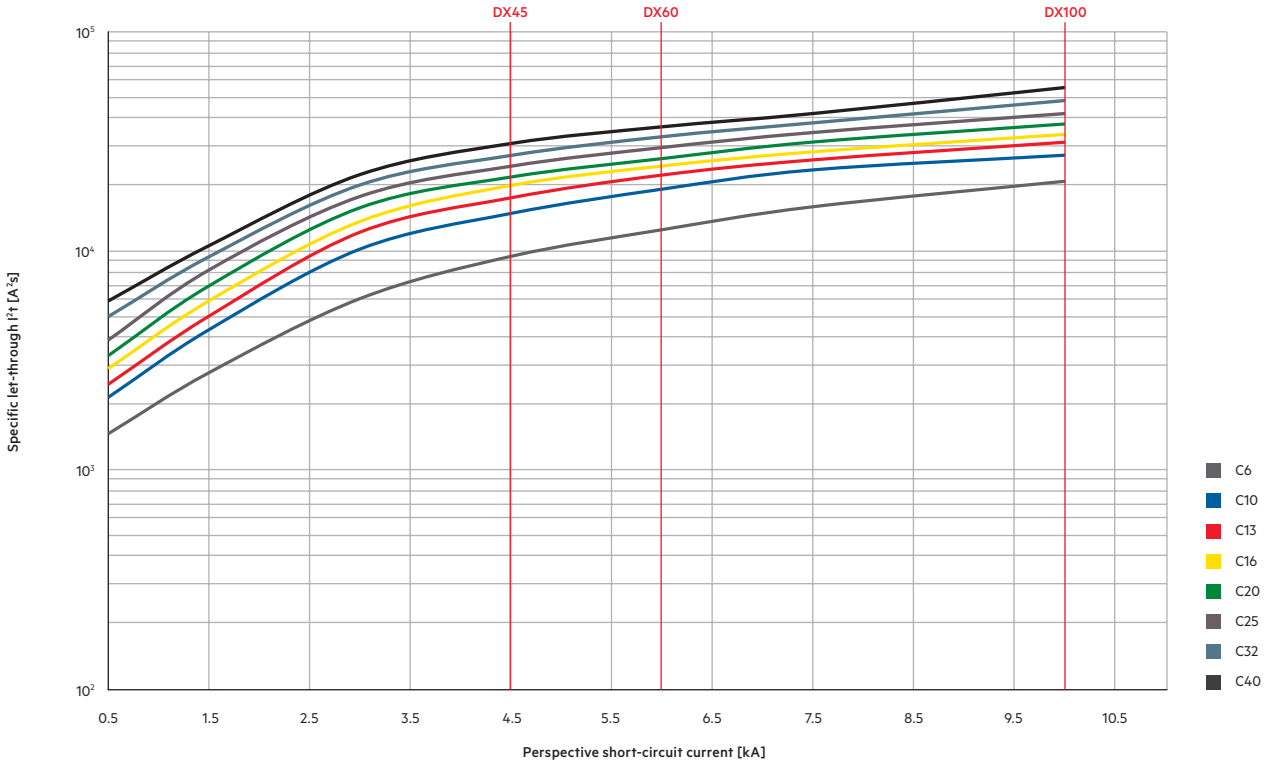
Specific let-through energy I2t DX RCBO serie – Characteristic B



RCDs technical details

Limitation of specific let-through energy I^2t

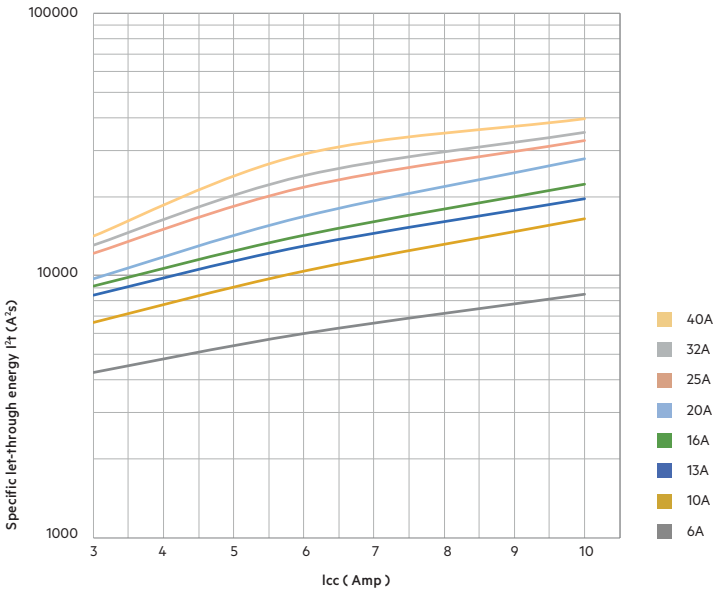
Specific let-through energy I2t DX RCBO serie – Characteristic C



RCDs technical details

Limitation of specific let-through energy I^2t

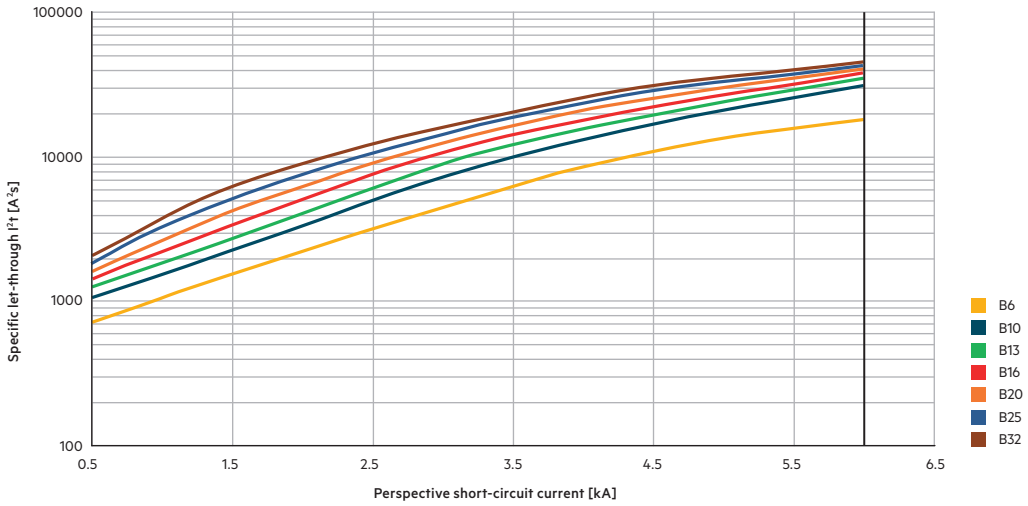
DPC RCBO 2P characteristics B and C
230 V let-through energy



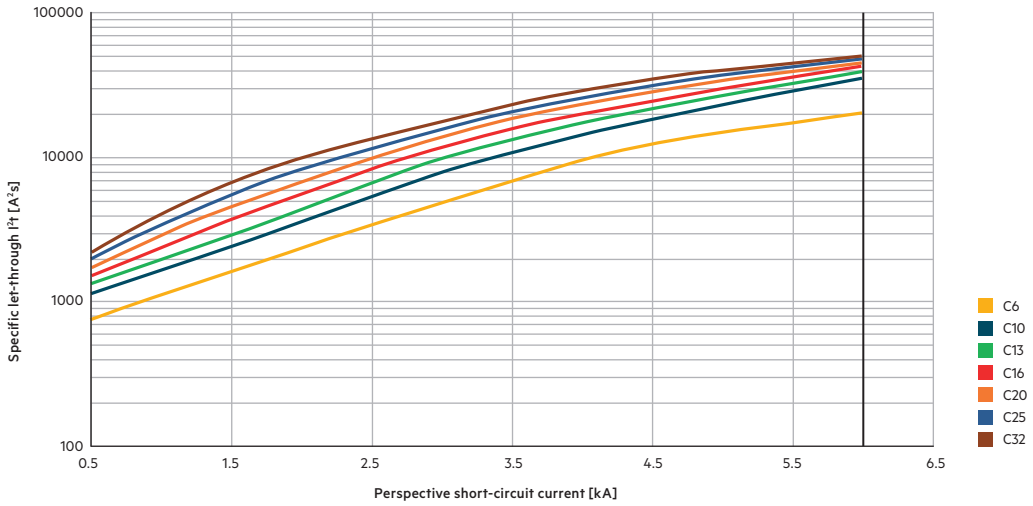
RCDs technical details

Limitation of specific let-through energy I^2t

DMA63Np, characteristic B
400 V let-through energy



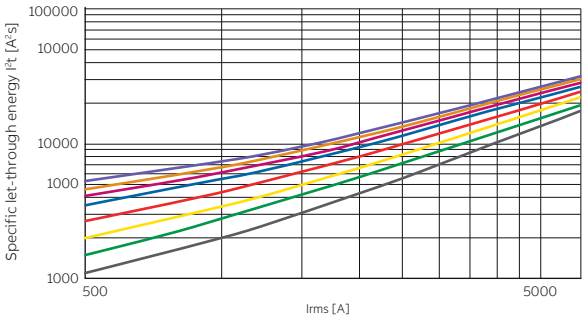
DMA63Np, characteristic C
400 V let-through energy



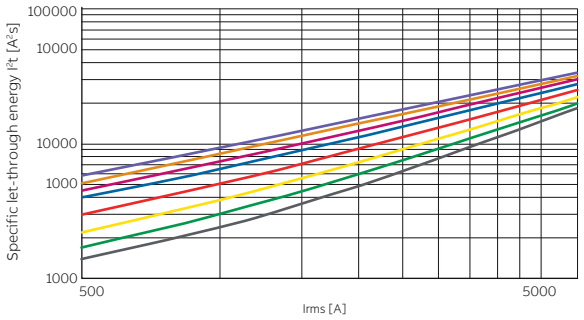
AFDD technical details

Limitation of specific let-through energy I^2t

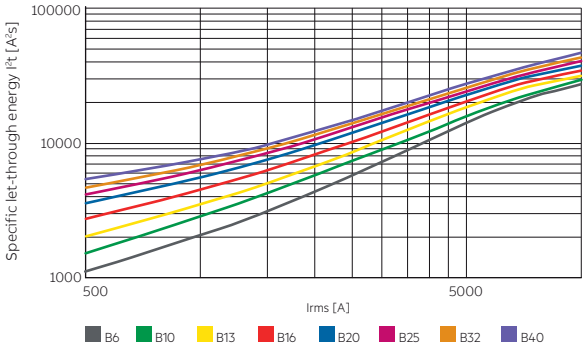
EAF MCB 6kA Tripping Characteristic B



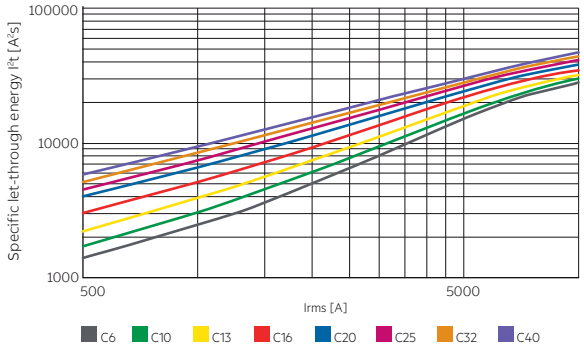
EAF MCB 6kA Tripping Characteristic C



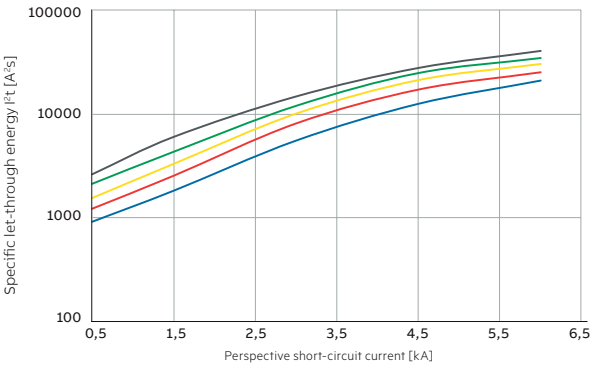
EAF MCB 10kA Tripping Characteristic C



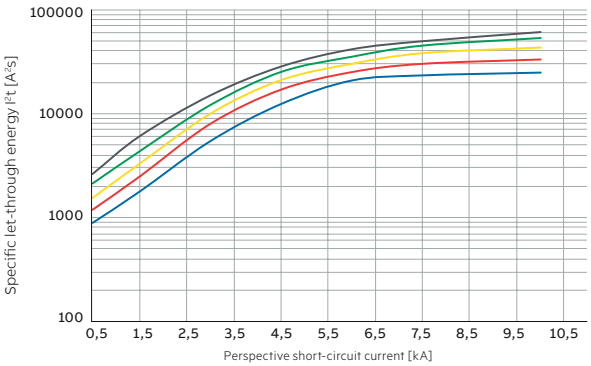
EAF MCB 10kA Tripping Characteristic C



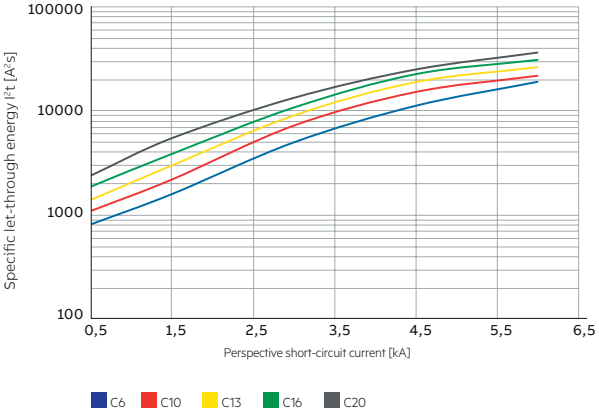
EAF RCBO 6kA Tripping Characteristic C



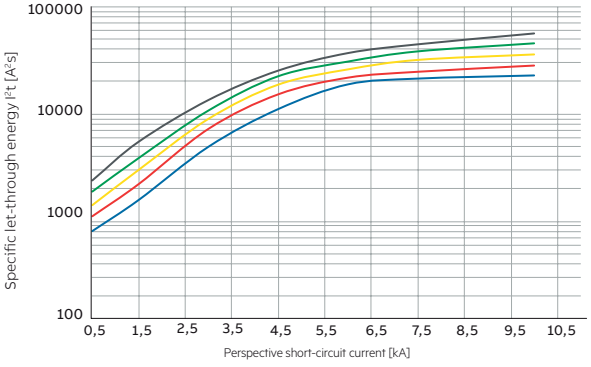
EAF RCBO 10kA Tripping Characteristic C



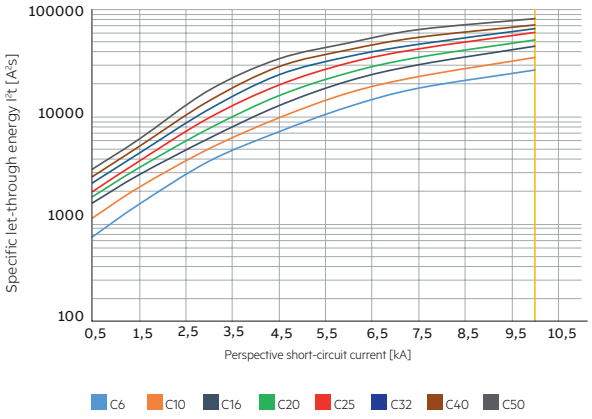
EAF RCBO 6kA Tripping Characteristic B



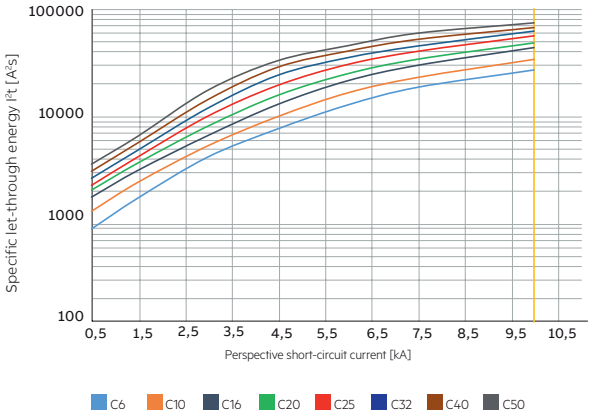
EAF RCBO 10kA Tripping Characteristic B



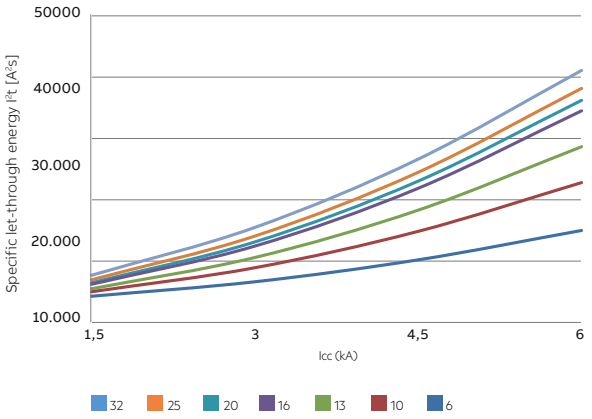
DXE100, characteristic C



DXE100, characteristic B



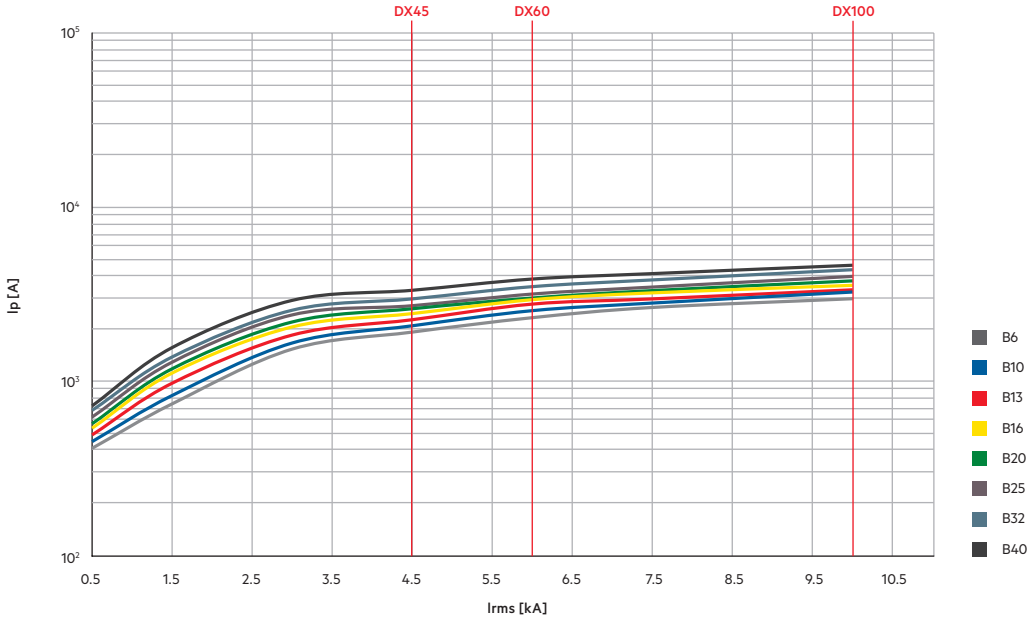
DXCE60 6kA, tripping characteristic C



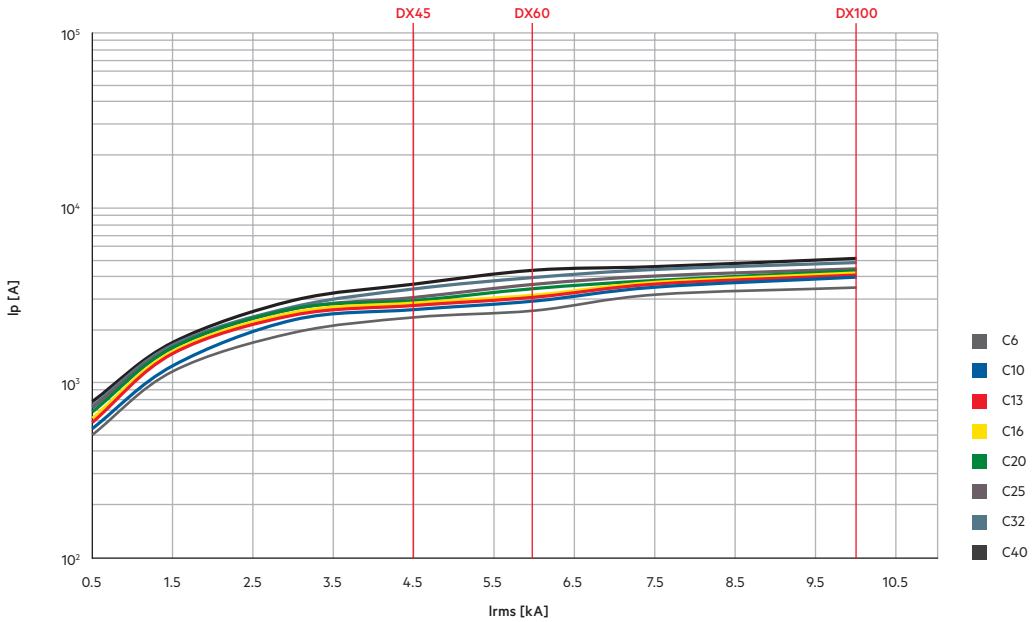
RCDs technical details

Peak current I_p

Ipeak DX RCBO – Characteristic B



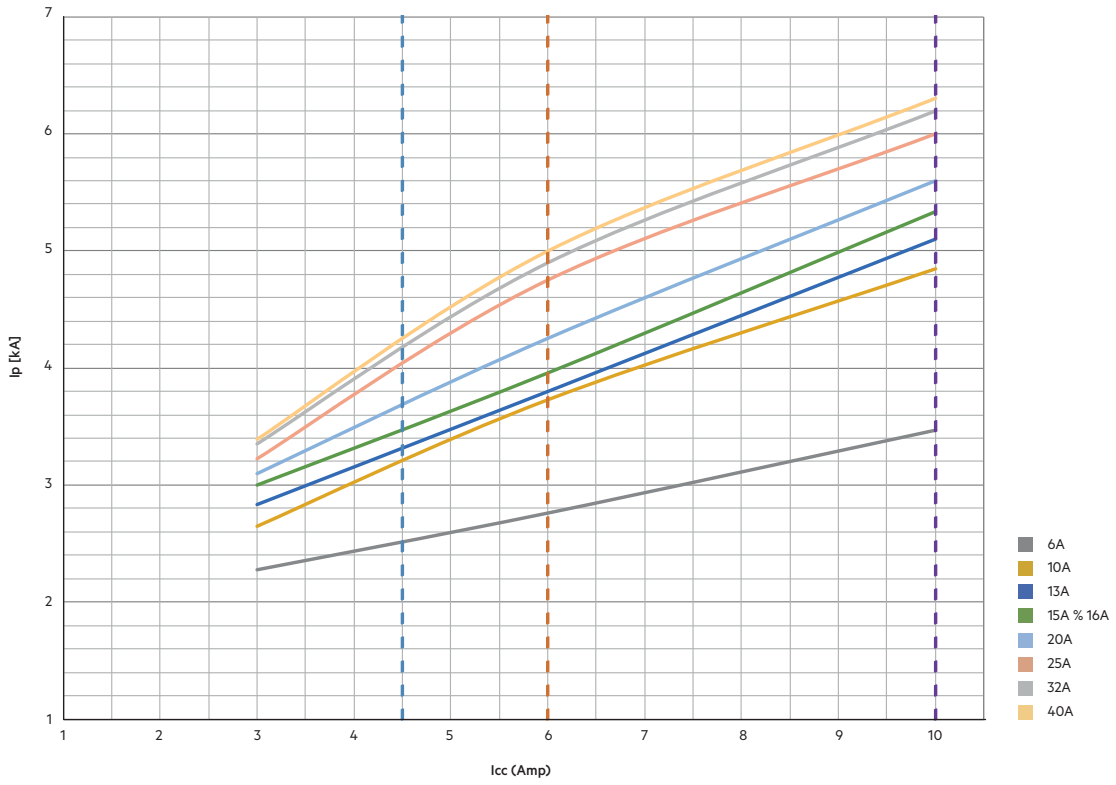
Ipeak DX RCBO – Characteristic C



RCDs technical details

Peak current I_p

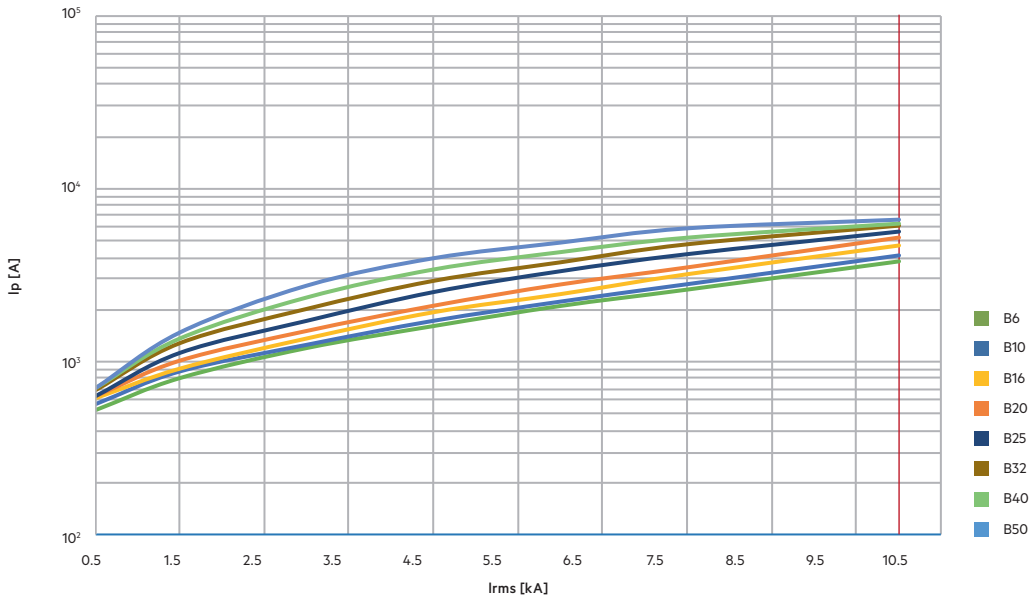
DPC range, characteristics B and C
230 V



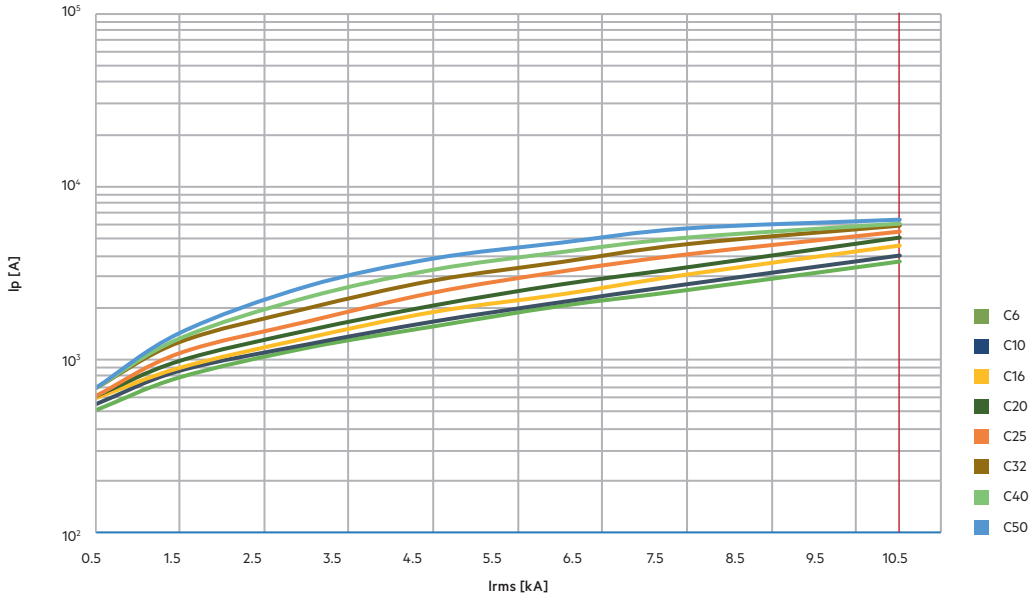
RCDs technical details

Peak current I_p

DXE100, characteristic B



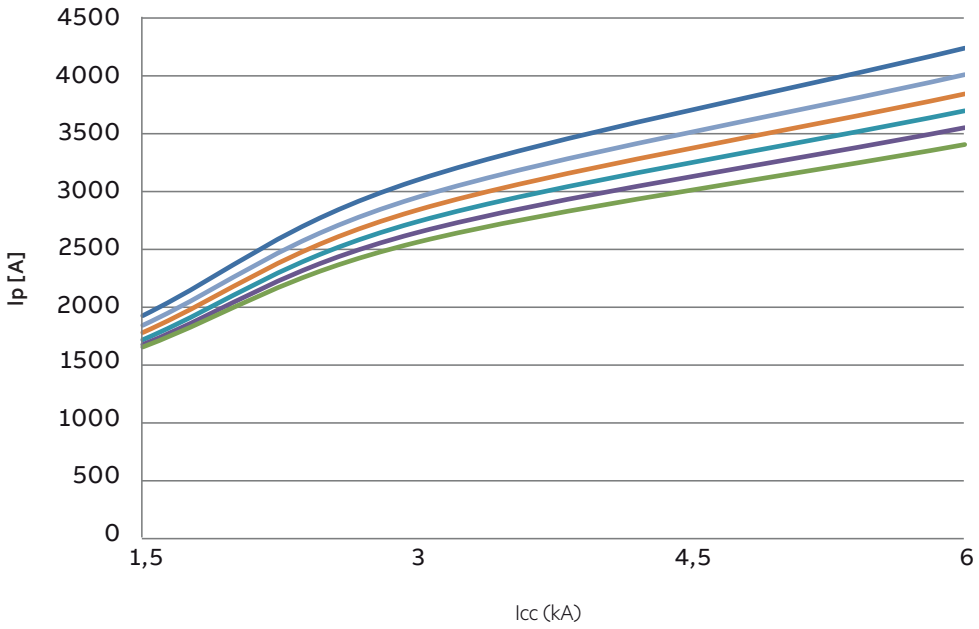
DXE100, characteristic C



RCDs technical details

Peak current I_p

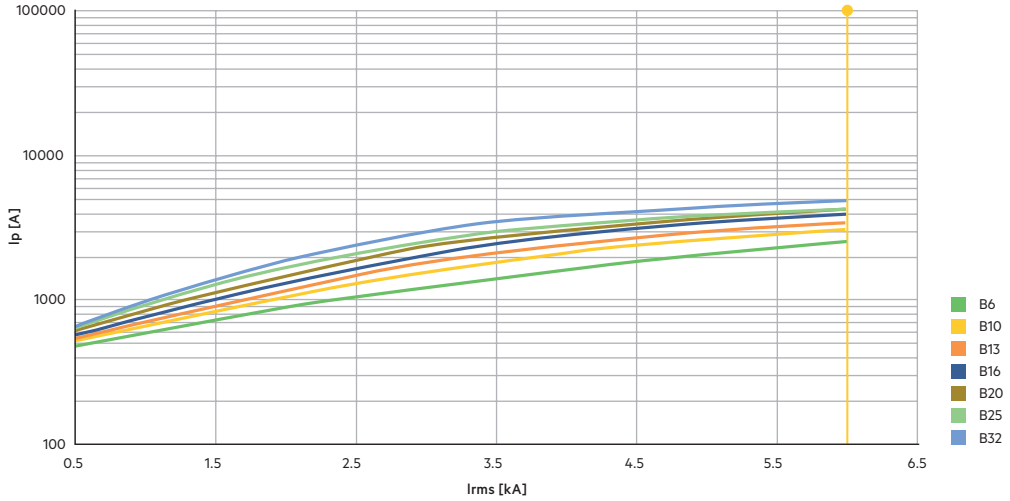
DXCE60, characteristic C



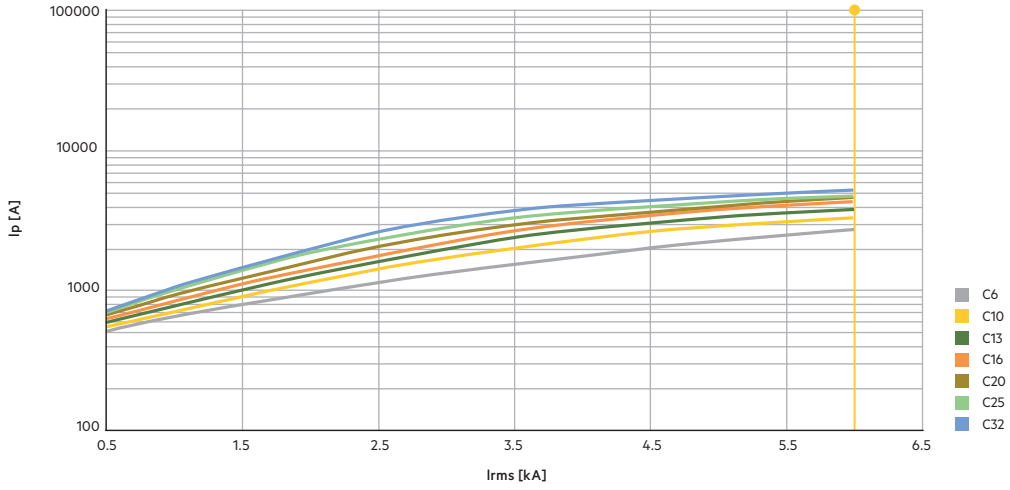
RCDs technical details

Peak current I_p

DMA63Np, characteristic B



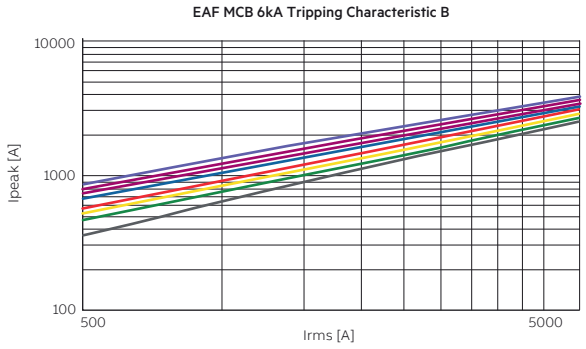
DMA63Np, characteristic C

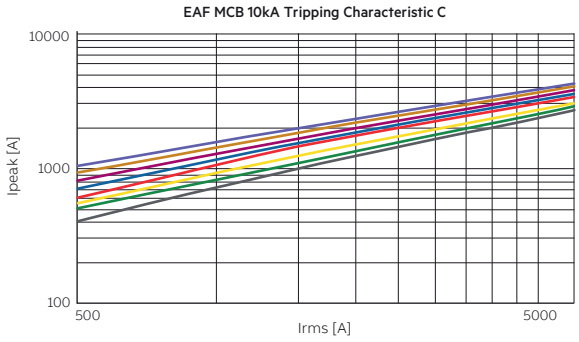


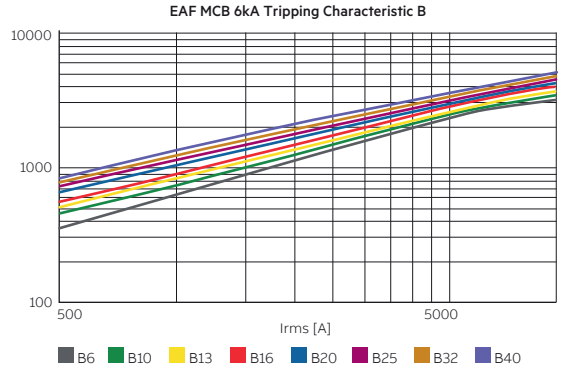
AFDD technical details

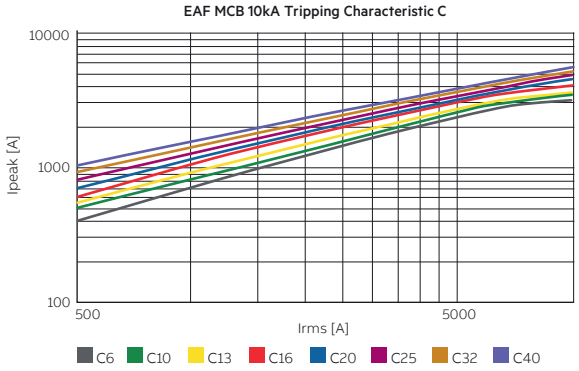
Peak Current I_p

Ipeak EAF MCB

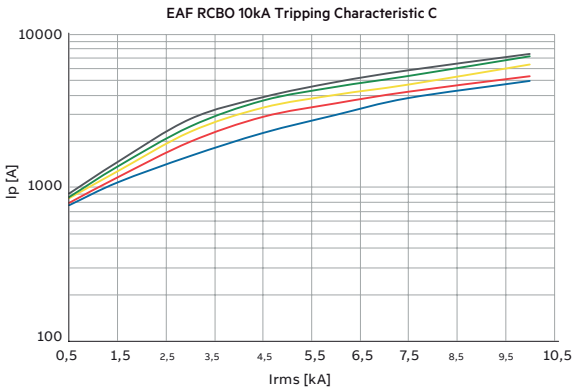


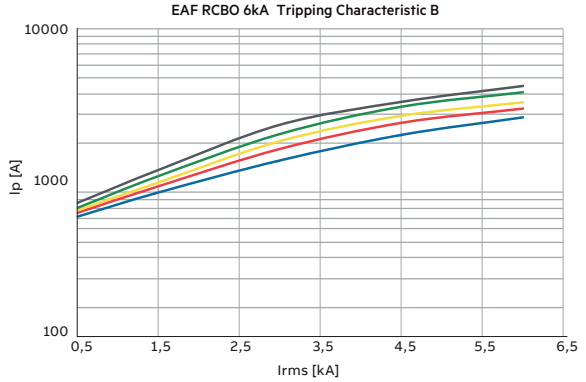


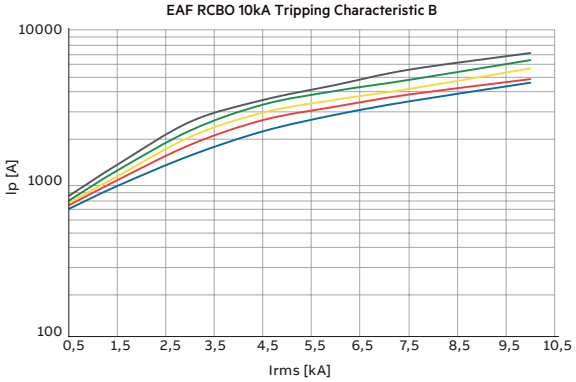




Ipeak EAF RCBO









RCDs technical details
Type B RCDs

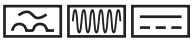
Type B RCDs
In industrial electrical applications it is more and more common to use devices where in the event of an earth fault current unidirectional direct currents or currents with a minimum residual ripple which flow through the PE conductor can emerge. These devices can be for example inverters, medical equipment (e.g. x-ray equipment and CAT), or UPS.

Type A RCDs sensitive to pulsating currents (in addition to sinusoidal currents detected by RCDs of type AC as well) cannot detect and break these earth fault direct currents or currents with a minimum level residual ripple. In case there are electrical appliances which generate this type of currents in the event of an earth fault the use of RCDs of type AC or type A would not be appropriate.

In addition to Type A RCDs, Type F RCDs with an intermediate characteristics are also tested according to IEC/EN 62423 which foresees the application of a simulated multi-frequency residual current with appropriate coefficient associated to the each level of frequency up to 1kHz. A single phase frequency converter, also named as inverter, is a commonly used electric drive which regulates the speed of an electric motor, operating on supply voltage and frequency.
During normal operation, the current generated by a single phase inverter in the downstream section is the result of the overlapping of mixed frequency components which varies from 10Hz (motor frequency), to 50Hz (rated frequency) and 1000Hz (switching frequency).
RCDs type F have been specifically designed for single phase inverters applications in order to meet the requirement to assure adequate protection level in case of an earth fault with such harmonic content, offering at the same time an increased resistance to nuisance tripping.
On the other side only RCD type B remain the only devices which are suitable to detect smooth DC components in the residual current caused by insulation faults in the DC section of a three phase frequency converter

Standard IEC 62423 specifies requirements and tests for type B RCDs (RCCBs and/or RCBOs) for household and similar uses. Requirements and tests given in this standard are in addition to the requirements of type A given in IEC 61008 (for RCCBs) or IEC 61009 (for RCBOs, including RCD-blocks). This means that RCDs of type B have to be compliant also to all the requirements of residual current devices of type A.

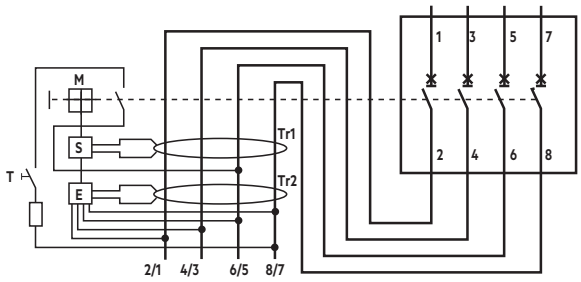
As already said, type B RCDs are not only sensitive to alternating and pulsating earth fault currents with DC components at a frequency of 50/60 Hz (type A), but they are also sensitive to:
- alternating currents up to a frequency of 1000 Hz;
- alternating and/or pulsating currents with DC components overlapping with a direct current;
- earth fault currents generated by a rectifier with two or more phases;
- direct earth fault currents without residual ripple

Type B RCDs must be marked with the following symbols highlighting the switches' capacity to detect every type of current: .

RCDs technical details
Type B RCDs

Construction features

Type B RCDs consist of one section for the detection of alternating earth fault currents and unidirectional pulsating earth fault currents, which functions independently of the line voltage. For the detection of direct earth fault currents or currents with a minimum residual ripple, type B RCDs have a second electronic section, the functioning of which depends on the line voltage.
The structure of the product is illustrated in the following diagram.



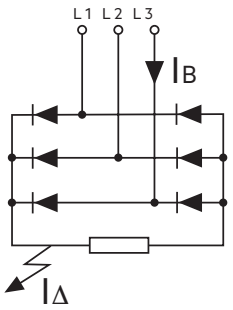
S Release
M Protection device mechanism
E Electronics for the intervention with direct unidirectional earth fault currents
T Test device
Tr1 Residual current transformer for the detection of sinusoidal earth fault currents
Tr2 Residual current transformer for the detection of direct unidirectional currents.

The residual current transformer Tr1 monitors the presence of pulsating and alternating earth fault currents in the electronic installation while residual current transformer Tr2 measures the direct unidirectional currents. In the event of a fault the second transformer transmits the opening command to the release S via the (printed) circuit board E. In type B RCCBs, the section whose functioning depends on the line voltage is supplied by all three-phase conductors and the neutral, so that the functioning as type B is guaranteed even if there is a voltage only in two of the 4 power conductors. In addition, the supply of the electronic section is sized in such a way that the device can safely intervene even if there is a voltage drop of 70 %.
In this way an intervention takes place when direct unidirectional earth fault currents emerge, even in the event of faults in the electric power supply grid, for example if there is no neutral conductor.

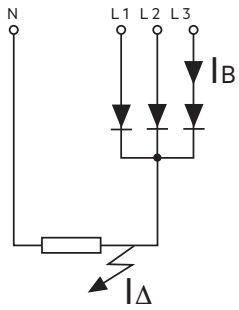
Direct or similar earth fault currents

An increasing amount of industrial equipment is supplied by circuits which in the event of a fault generate direct earth fault currents with a very low residual ripple, which can be even less than 10 %. For example with direct current supplied motor drives for pumps, elevators, textile machines etc. it is becoming more common to use inverters with a three-phase rectifier bridge. In the event of an earth fault current the wave of the earth fault is as indicated in the figure below.

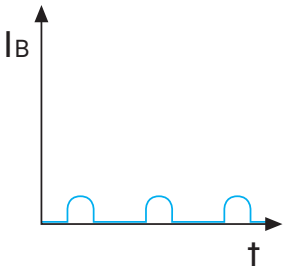
Three-phase rectifier bridge



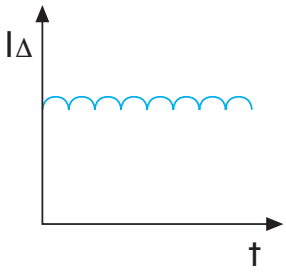
Three-phase wye rectifier



Phase currents



Earth fault current



RCDs technical details
Type B RCDs

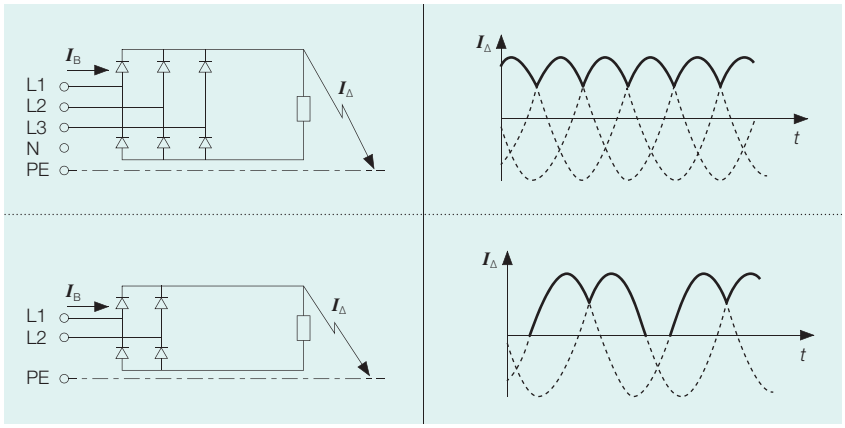
FN B RCCBs provide additional protection against direct contact and are the right choice to ensure maximum system safety thanks to early detection of fault currents with continuous waveforms or high frequencies.

Selection of RCDs. General rules

Type B RCDs are suitable for non-linear circuits that can generate leakages with high direct current (> 6 mA) and/or high frequency components. Such components can be found in several industrial components and applications that embed or depend on electronics.

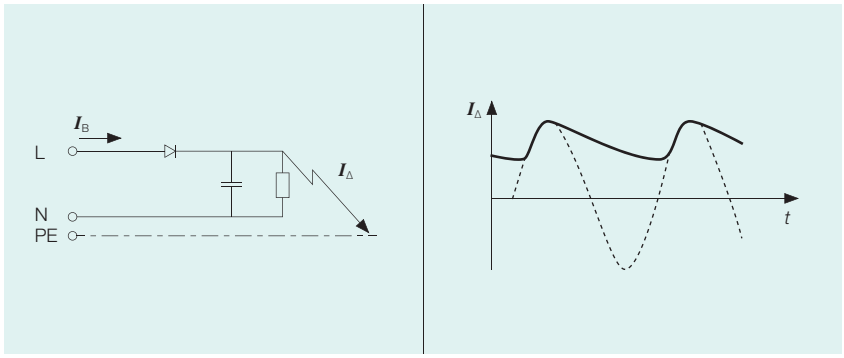
The main circuits that can be considered responsible for such leakages and the common applications where Type B could be demanded are:

Circuits containing single and three-phase rectifiers



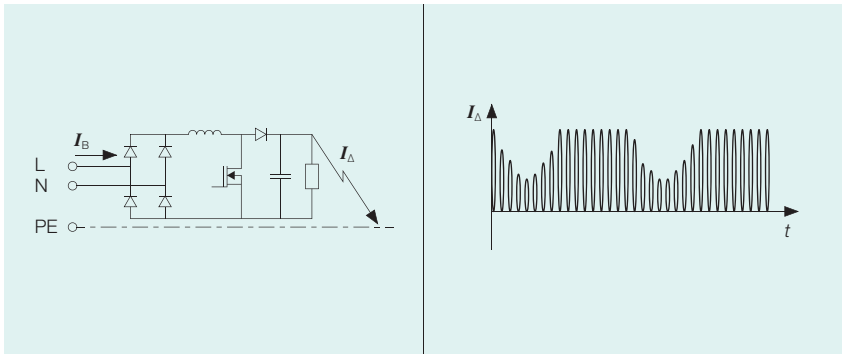


Circuits containing rectifiers with high levelling capacity





Circuits containing rectifiers with active power factor correction





Notes

03

Accessories and Busbars

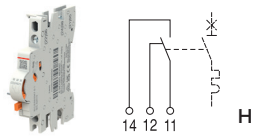
Accessories

Auxiliary Elements for Elfanext Serie

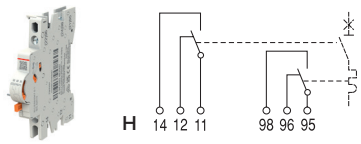
Auxiliary- Auxiliary / signal contact , Auxiliary/signal contact		EBHH/SH, EAH/S
Suitable for		See details on accessory schematics.
Utilization category		AC14 1A/400V, 2A/230V -DC12 1A/220V, 1,5A/110V -DC13 2A/60V, 4A/24V Max operation frequency is 60cycles/1min for Utilization category
Conventional free air thermal current	A	10
Min. operational current/voltage		10 mA at 12 V; 5 mA at 24 V
Rated conditional short-circuit current		230 V AC 1000 A with S201 K4
Overvoltage category		III
Rated impulse withstand voltage (1.2/50 µs)	kV	4
Cross section of conductors	mm^2	0.75...2.5 (max 2 x 1.5 mm^2)
Rated tightening torque	Nm	0.8 (Max 1.0Nm)
Contact stability in vibration resistance acc. to IEC/EN 60068-2-6:		Up to 5g, 20 sweep cycles 5...150...5 Hz at 24 V AC/DC, 5 mA automatic reclosing < 10 ms (Vibration data will be the lower one of coupling device and the Auxilirary)
Mechanical service life		10000 operations
Dimensions(HxDxW)	mm	85x69x8.8

Signal contacts indicate if a device tripped due to a failure (overcurrent/ short-circuit for MCBs and RCBOs; earth fault for RCCBs and RCBOs). Auxiliary contacts indicate the position of the contacts, independent if a failure occurred or the device was operated manually. EB Aux is including Aux and selectable Signal/Aux, EA Selectable Signal / Aux. Both solutions are in just half module width with fork/pin busbar passthrough from bottom side.

EA

Auxiliary/Signal contact		Function	Type code	Order code	PU
	**1/2 Mod.**	H/S	EAH/S	2TAZ941080R0002	1

EB for Elfanext Serie

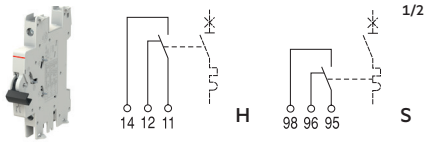
Auxiliary+ Auxiliary/signal contact for Elfanext Serie		Function	Type code	Order code	PU
	**1/2 Mod.**	SH/HH	EBHH/SH	2TAZ941070R0001	1

Accessories

Auxiliary interface and Signal for EX41NR, EX61NR, HD/DC/DPC, DMA63Np

Auxiliary contact Interface, Signal Contact		EAU
Suitable for		EX41NR, EX61NR, DMA63Np, DPC/HDC RCBO 2P
Utilization category		AC14, 415/ 400 V, 3AAC14, 240/ 230 V, 6ADC12, 220V, 1ADC12, 110V, 1.5ADC13, 60V, 1,5ADC13, 24V, 4A
Conventional free air thermal current	A	10
Min. operational current/voltage		10 mA at 12 V; 5 mA at 24 V
Rated conditional short-circuit current		230V AC 1000A with EX61NR C6230/ 415V AC 1000A with Fuse 10 A gG
Overvoltage category		III
Rated impulse withstand voltage (1.2/50 µs)	kV	6
Cross section of conductors	mm^2	0.75...2.5 (max 2 x 1.5 mm^2)
Rated tightening torque	Nm	Max 1Nm
Contact stability in vibration resistance acc. to IEC/EN 60068-2-6:		IEC 60068-2-65g, 20 cycles 5...150...5Hzat 24V AC/DC, 5mAshort-term interruption <10m
Mechanical service life		20000 switching cycles
Dimensions(HxDxW)	mm	85 x 69 x 8.8

EAU

Auxiliary Interface for EX61NR, DMA63Np		Function	Type code	Order code	PU
	1/2 Mod.	H for EX61NR, DMA63Np	EAUHR	2CDS200933R0006	1
		S for EX61NR, DMA63Np	EAUSR	2CDS200933R0007	1
		H for DC/HDC/DPC(*), DXCE60	EAUCHR	2CDS200933R0014	1
		S or DC/HDC (*), DXCE60	EAUCSR	2CDS200933R0015	1
		(*)= for DC/HDC/DPC please mount the handle available on box			

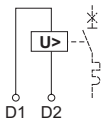
Accessories

Shunt trip for Elfanext Serie

Shunt trip			ETL-1	ETL-2
Rated voltage	AC	V	12...110	110...415
	DC	V	12...110	110...250
Max release duration	ms	ms	<10 @ Rated voltage	<10 @ Rated voltage
Min. release voltage	AC	V	8.4	77.0
	DC	V	10	77.0
Power consumption	Ub	V	12 V DC 12 V AC 24 V DC 24 V AC 60 V DC 60 V AC 110 V DC 110 V AC	110 V DC 110 V AC 220 V DC 230 V AC 250 V DC 415 V AC
	Ibmax/A	A	2.8 3.3 5.3 6.2 14 15 25.3 25	0.5 0.7 1.1 1.5 1.2 2.5
Coil resistance	ohm		4	210
Tightening torque	Nm		0.8	0.8
Dimensions (H x D x W)	mm²		85 x 74.1 x 17.4	85 x 74.1 x 17.4
Standards:			UL1077	UL1077
Operating temperature			-25°C...+55°C	-25°C...+55°C
Storage temperature			-40°C...+70°C	-40°C...+70°C
Cross-section of conductors			0,75mm²...2.5mm², 2 wires max. 2x1,5mm²	0,75mm²...2.5mm², 2 wires max. 2x1,5mm²
Stripping length of cable			7...8mm	7...8mm

Function: remote opening of the device when a voltage is applied. Suitalble for MCB, RCCBs, RCBO, ESD up to 63A, AFDD of Elfanext Series. It can be used with MCBs EX61NR RCBOs DMA63Np, RCBOs DPC/HDC/DC by means EAU interface module. Shunt trips use a coil like MCBs for tripping. To trip a shunt it is necessary to choose the right voltage and make sure the corresponding Ibmax (as mentioned in the table above) is provided by the power supply used. If the power supply can provide higher currents the shunt trip will reduce the current to Ibmax due to its internal resistance. As soon as the shunt tripped, the contact inside is open – the electrical circuit is disconnected even if the shunt trip is still powered on. The free-tripping mechanism of the shunt trip allows a restart of the main protection device only after the shunt trip gets no external release signal anymore. The solution are fork/pin busbar passthrough from bottom side.

ETL

Shunt trip for Elfanext Serie			Function	Type code	Order code	PU
		1 Mod.	12-110 VAC/DC	ETL-1	2CDS200982R0011	1
			110-250 VDC/110-415 VAC	ETL-2	2CDS200982R0012	1

Accessories

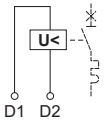
Undervoltage release for Elfanext Serie

Undervoltage release			S3C-UA 12 DC/AC	S3C-UA 24 DC/AC	S3C-UA 48 DC/AC	S3C-UA 110 DC/AC	S3C-UA 230 DC/AC	S3C-UA 230D DC/AC
Standards			IEC/EN 60947-1					
Rated voltage	AC/DC	V	12	24	48	110	230	230
Delayed			Yes ≥ 200 ms					
Frequency		Hz	50...60					
Release trip		V	0.35 Un ≥ V ≥ 0.7 Un					
Terminals		mm^2	1 wire from 0,75 mm^2 to 2.5 mm^2 or 2 wires up to 1,5 mm^2 each					
Consumption		VA	DC: 0,8 AC: 2,50	DC: 0,8 AC: 2,50	DC: 0,8 AC: 2,50	DC: 0,8 AC: 2,50	DC: 0,8 AC: 2,50	DC: 0,8 AC: 2,50
Resistence to corrosion		°C/RH	constant atmosphere: 23/83 – 40/93 – 55/20; variable atmosphere: 25/95 – 40/93					
Protection degree			IPXXB/IP2X					
Tightening torque		Nm	0,8					
Dimensions (H x D x W)		mm	85 x 74.1 x 17.4					

Undervoltage release			ETU-12	ETU-24	ETU-48	ETU-230	ETU-230D
Standards			IEC/EN 60947-1				
Rated voltage	AC/DC	V	12	24	48	230	230
Delayed			Yes ≥ 200 ms				
Frequency		Hz	50...60				
Release trip		V	0.35 Un ≥ V ≥ 0.7 Un				
Terminals		mm^2	1 wire from 0,75 mm^2 to 2.5 mm^2 or 2 wires up to 1,5 mm^2 each				
Consumption		VA	DC: 0,8 AC:2,50	DC: 0,8 AC:2,50	DC: 0,8 AC:2,50	DC: 0,8 AC:2,50	DC: 0,8 AC:2,50
Resistence to corrosion		°C/RH	constant atmosphere: 23/83 – 40/93 – 55/20; variable atmosphere: 25/95 – 40/93				
Protection degree			IPXXB/IP2X				
Tightening torque		Nm	0,8				
Dimensions (H x D x W)		mm	85 x 74.1 x 17.4				

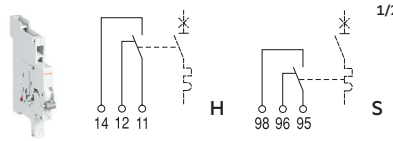
Function: protection of the load in the event of a voltage drop (between 70 % and 35 % of its rated value); positive safety (device's tripping when the voltage is disconnected) emergency stop by means of a button. Suitalble for MCB, RCCBs, RCBO, ESD up to 63A, AFDD of Elfanext Series. It can be used with MCBs EX61NR RCBOs DMA63Np, RCBOs DPC/HDC/DC by means EAU interface module. The solution are fork/pin busbar passthrough from bottom side.

ETU

Undervoltage Release for Elfanext serie		Function	Type code	Order code	PU
 	1 Mod.	12VDC	ETU-12	2CDS200987R0041	1
		24 VAC/DC	ETU-24	2CDS200987R0042	1
		48 VAC/DC	ETU-48	2CDS200987R0043	1
		230 VAC/DC	ETU-230	2CDS200987R0044	1
		230 VAC/DC 200mS delay	ETU-230D	2CDS200987R0045	1

Others

CA UN

Auxiliary Interface for EPC; DPC/DC/HDC Unibis	Function	Type code	Order code	PU
 1/2 Mod.	H (Interface)	CA UN H	4TQA670897R0000	1/40
	S/H	CA UN S/H	4TQA670896R0000	1/40

KS

Padlocking	Function	Type code	Order code	PU
	Padlock 8mm diameter	KS	4TQA624921R0000	1

Accessories

Motor Operator Device for Elfanext Serie

Motor operator devices	EMP24**	EMP230
Suitable for:	MCBs EN60, EN100, EX45, EX60, EX100 series RCCBs FN, EXI (up to 100A) and FNB type (up to 63A) RCBOs DN100, DX Switch Disconnectors ESD (up to 63 A)	
Number of modules	1	
Operating voltage	24...48 VAC/DC (–10% +10%)	230–240 VAC (–15% +10%)
Minimum operating voltage	21,6 V AC/DC	110 V AC
Power consumption during operation	<28 VA	<30 VA
Power consumption at rest	<1 VA	<1,5 VA
Closing time	<1 s	
Opening time	<1 s	
Mechanical endurance	10000 operations	
Protection degree acc. to EN 60529	IP40 (housing)/IP20 (terminals)	
Operating temperature	–25 ...+60 °C	
Storage temperature	–40 ...+70 °C	
Overvoltage category	III	
Pollution degree acc. to EN 60664	2	
Shock resistance acc. to IEC/EN 60068-2-27	25g, 2shock, 13ms	
Vibration resistance acc. to IEC/EN 60068-2-6	1g – 20 cycle at 5... 150 ...5 Hz	
Environmental conditions (damp heat) acc. to IEC/EN 60068-2-30	28 cycles with 55°C/90–96% and 25°C/95–100%	
Terminal type	plug-in	
Cross-section of conductors	0,2...2,5 mm^2	
Tightening torque	0,4 Nm	
Stripping length of the cable	5 mm	
Cable length of the control circuits	10 m	
Remote control: close contact*	Terminal 6	
Remote control: open contact	Terminal 5	
Auxiliary contact	Terminal 4	
Signal contact	Terminal 3	

* In case of MCB trip the remote control inputs are inhibited
** Coupling with EN64 or ESD204 allowed only in case of DC supply

Motor Operating Devices are particularly suitable for centralized systems (either large or difficult to access) and where multiple daily interventions are required, such as unattended electrical lines, safety lines and unmanned stations

EMP

Motor Operator		Function	Type code	Order code	PU
	**1 Mod.**	Motor Operator Device 230V	EMP230	2CSS202998R0073	1
	1 Mod.	Motor Operator Device 24V	EMP24	2CSS201998R0073	1

Accessories

Autoreclosing for Elfanext Serie

Auto re-closing units	EREC24	EREC230	EREC230D
Suitable for:		RCCBs FN, EXI (up to 100A) and FNB type (up to 63A)	
Number of modules		1	
Operating voltage	24...48 VAC/DC (-10% +10%)	230-240 V AC (-15% +10%)	230-240 V AC (-15% +10%)
Minimum operating voltage	21,6 V AC/DC	110 V AC	110 V AC
Number of automatic reclosing attempts		3	
Waiting time between autoreset attempts	3 s	3 s	30 s
Power consumption during operation	<25 VA	<30 VA	<30 VA
Power consumption at rest	<1 VA	<1,5 VA	<1,5 VA
Closing time		<1 s	
Opening time		<1 s	
Mechanical endurance		15000 operations	
Protection degree acc. to EN 60529		IP40 (housing)/IP20 (terminals)	
Operating temperature		–25 ...+60 °C	
Storage temperature		–40 ...+70 °C	
Overvoltage category		III	
Pollution degree acc. to EN 60664		2	
Shock resistance acc. to IEC/EN 60068-2-27		25g, 2shock, 13ms	
Vibration resistance acc. to IEC/EN 60068-2-6		1g – 20 cycle at 5... 150 ...5 Hz	
Environmental conditions (damp heat) acc. to IEC/EN 60068-2-30		28 cycles with 55°C/90–96% and 25°C/95–100%	
Terminal type		plug-in	
Cross-section of conductors		0,2...2,5 mm^2	
Tightening torque		0,4 Nm	
Stripping length of the cable		5 mm	
Cable length of the control circuits		10 m	
Remote control: close contact*		Terminal 6	
Remote control: open contact		Terminal 5	
Auxiliary contact		Terminal 4	
Signal contact		Terminal 3	

Auto-Reclosing units are used to automatically reclose the associated device in the event of an untimely trip, such as an overcurrent caused by lightning. These devices are particularly suitable either in unattended systems or where continuity of service must be maintained.

EREC for FN RCCBs

Autoreclosing		Function	Type code	Order code	PU
	**1 Mod.**	Autorec (3 attempts each 3 sec)	EREC230	2CSF202998R0074	1
	1 Mod.	Autorec delayed attempts 230V (each 30s)	EREC230D	2CSF203998R0074	1
	1 Mod.	Autorec (3 attempts each 3 sec) 24V	EREC24	2CSF201998R0074	1

Accessories

Autoreclosing with System Check for Elfanext Serie

Auto re-closing units	ERECH2/30	ERECH2/300	ERECH4/30	ERECH4/300
Standard:		IEC63024		
Suitable for:		RCCBs FN, EXI (up to 100A) and FN B type (up to 63A)		
Number of modules		1,5		
Operating voltage		230-240 V AC (-15% +10%)		
Automatic reclosure after untimely tripping		Yes (up to 24 hours after the fault) System check: 1st time: ≈ 3 seconds 2nd time: ≈ 2 minutes 3rd time: ≈ 5 minutes 4th time to 48th time: ≈ 30 minutes		
Earth leakage check		Yes		
Max number of consecutive automatic reclosure attempts		48		
Reset time for counter of automatic reclosing attempts		45 s		
Power consumption during operation		<26 VA		
Power consumption at rest		<1,5 VA		
Closing time		<1 s		
Opening time		<1 s		
Protection degree acc. To EN 60529		IP40 (housing)/IP20 (terminals)		
Operating temperature		-25 ...+60 °C		
Storage temperature		-40 ...+70 °C		
Overvoltage category		III		
Pollution degree acc. To EN 60664		2		
Shock resistance acc. To IEC/EN 60068-2-27		25g, 2shocks, 13ms		
Vibration resistance acc. to IEC/EN 60068-2-6		1g – 20 cycle at 5... 150 ...5 Hz		
Environmental conditions (damp heat) acc. to IEC/EN 60068-2-30		28 cycles with 55°C/90-96%		
Terminal type		plug-in		
Cross-section of conductors		0,2...2,5 mm²		
Tightening torque		0,4 Nm		
Stripping length of the cable		5 mm		
Cable length of the control circuits		10 m		
Locked state		Terminal 3		

Function: it recloses the associated residual current device, only after having checked that there are no effective faults in the system protected by the RCCB.

ERECH for FN RCCBs

Autoreclosing with System check for for EXI, FN RCCB		Function	Type code	Order code	PU
	**1,5 Mod.**	Autorec for 2P,30 mA RCCB	ERECH2/30	2CSF201998R0075	1
	1,5 Mod.	Autorec for 2P,300 mA RCCB	ERECH2/300	2CSF202998R0075	1
	1,5 Mod.	Autorec for 4P,30 mA RCCB	ERECH4/30	2CSF203998R0075	1
	1,5 Mod.	Autorec for 4P,300 mA RCCB	ERECH4/300	2CSF204998R0075	1

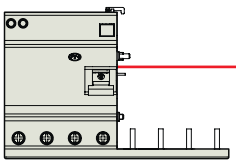
Accessories Scheme

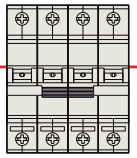
*ESD 80 100 A accepts only stack up to 2 EAH/S or 2 EBSH/HH

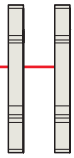
** not allowed for ESD

D/HD Blocks (**)

EX MCBs,
ESD (up to 63 A*) Isolators



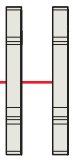




EAH/S, EBSH/HH

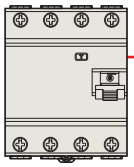


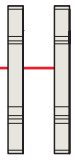
ETL, ETU



EAH/S, EBSH/HH

EXI, FN
RCCBs

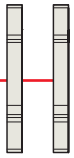




EAH/S or EBSH/HH



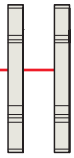
ETL, ETU



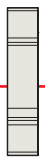
EAH/S or EBSH/HH

DX45/60/100 RCBOs, EAF
AFDDs

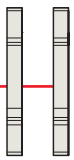




EAH/S or EBSH/HH



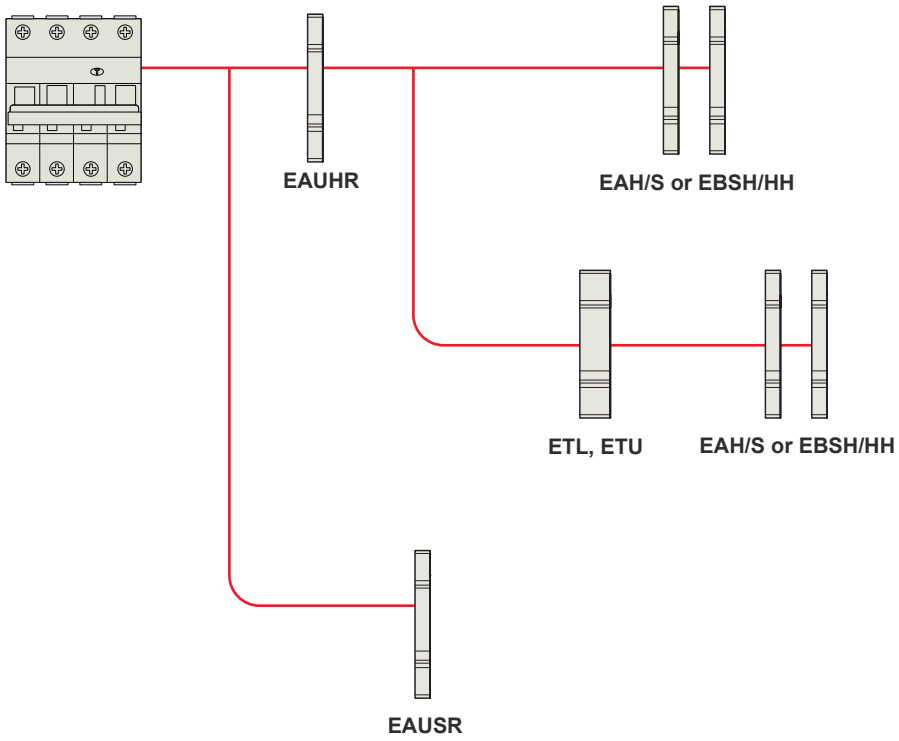
ETL, ETU



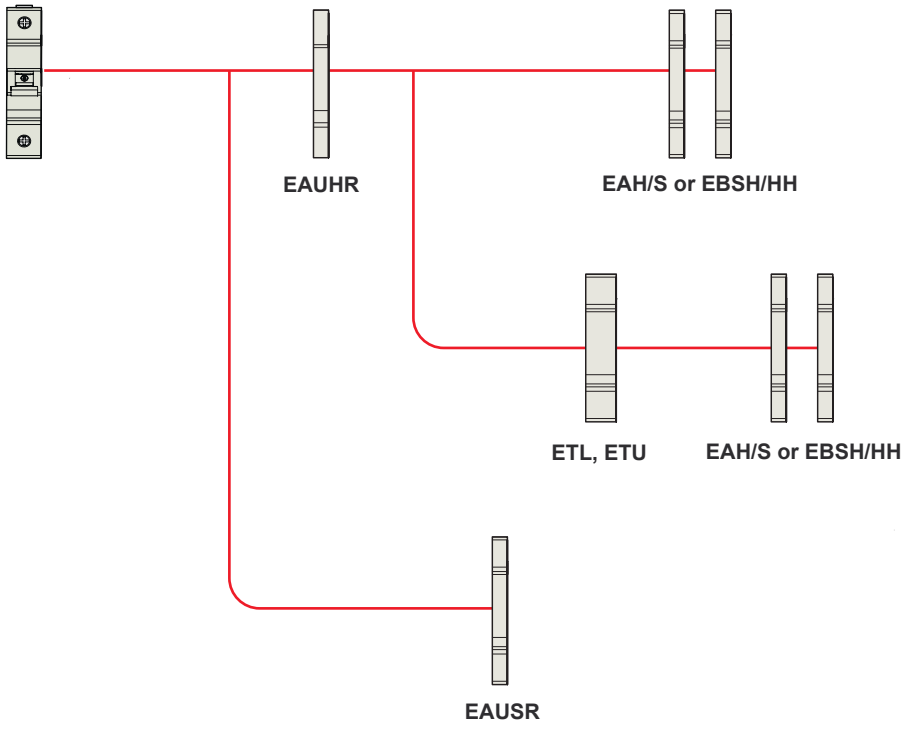
EAH/S or EBSH/HH

Accessories Scheme

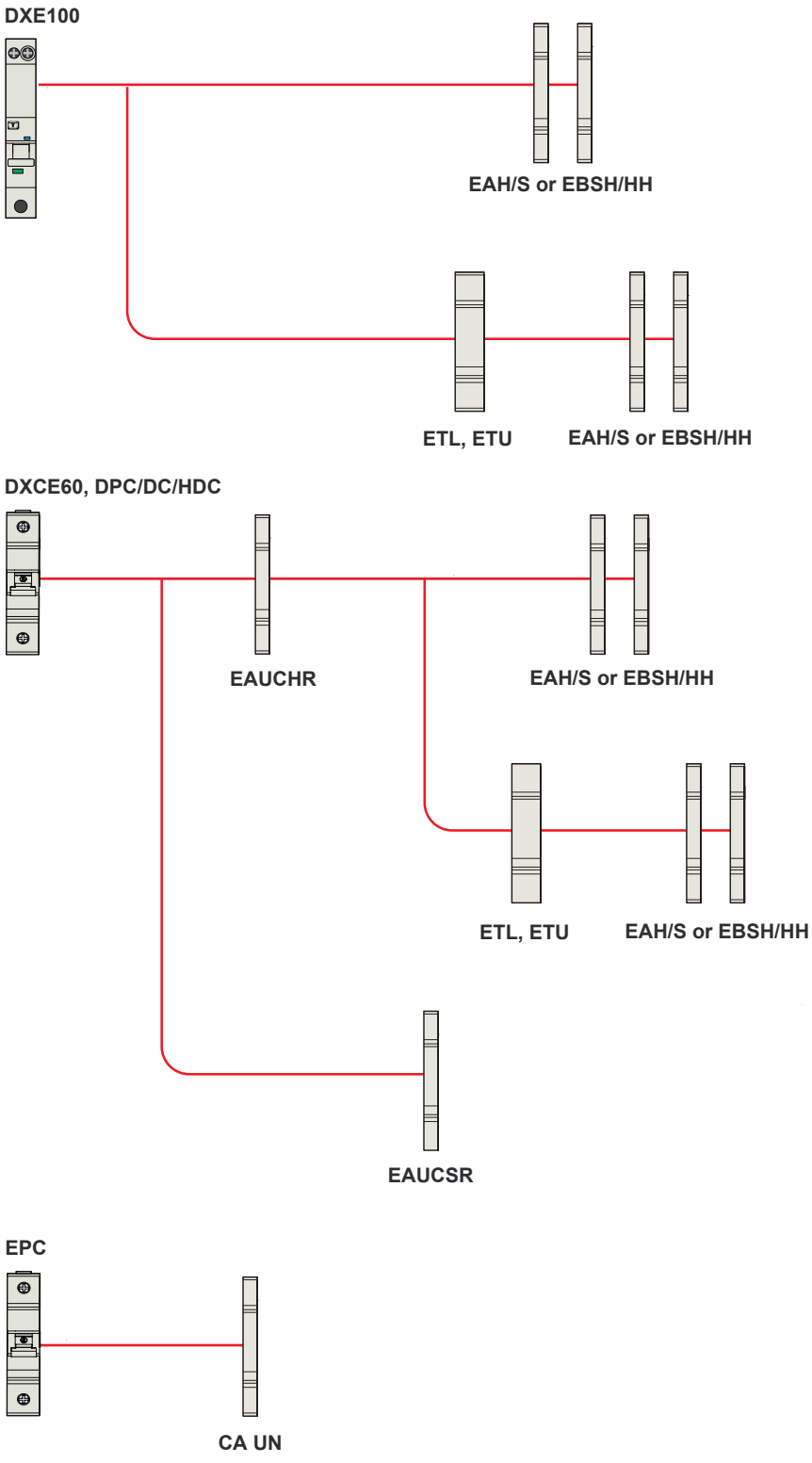
DMA63Np



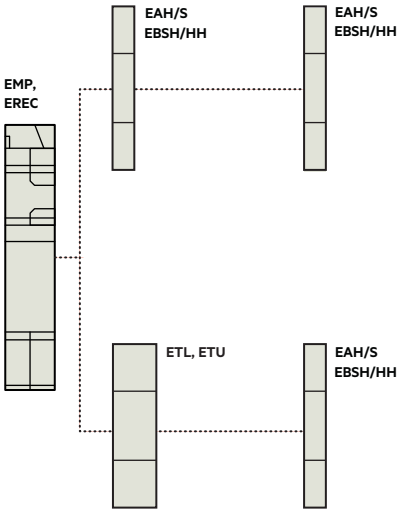
EX41NR, EX61NR



Accessories Scheme

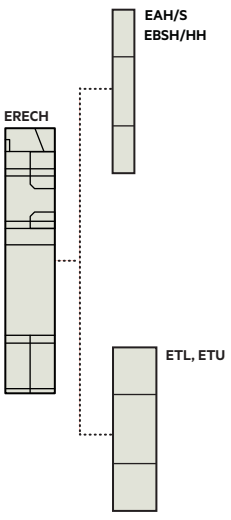


Accessories Scheme



EMP: allowed right coupling with EX MCBs, EXI/FN RCCBs, DX45/60/100 RCBO, ESD (up to 63A) Switch disconnectors. Not allowed when EX MCBs are coupled with D/HD Blocks.

EREC: compatible with RCCB EXI, FN.



ERECH:
allowed right coupling with RCCB FN/EXI.

BA Prefix [ ] [ ] [ ] / [ ] [ ] / [ ] [ ] [ ] [ ] [ ] [ ]

			1	2 3	4 5	6 7 8
AEG 17,6 mm pitch	E					
9 mm pitch						
Type						
Fork		G				
Pin		S				
Unibis (9 mm pitch)		SU				
Phases						
1 Phase			1			
2 Phase			2			
3 Phase			3			
4 Phase			4			
Number of Pins						
Number of Pins						
Cross-section						
10 mm²					1 0	
16 mm²					1 6	
Application						
Cross connection of RCCB and MCB (4th pin removed for RCCB 3+N)						F I
Use of neutral conductor (phase sequence e.g. L1-N-L2-N-L3-N-L1...)						N
Space for 1 side mounted auxiliary contact						H

Busbars Fork

1-phase

Section (mm²)	Description	Material Number	PU	Number of pins	Phase sequence
10	BAE-G 1/2/10	4TQA750197R1002	20	2	L-L
10	BAE-G 1/3/10	4TQA750218R1003	20	3	L-L-L
10	BAE-G 1/6/10	4TQA750217R1006	20	6	L-L-L-....
10	BAE-G 1/12/10	4TQA750195R1012	20	12	L-L-L-....

1-phase – 90°degrees

Section (mm²)	Description	Material Number	PU	Number of pins	Phase sequence
10	BAE-G 1/9/10	4TQA750343R1009	20	9	L-L-L-....
16	BAE-G 1/57/16	4TQA750378R1657	50	57	L-L-L-....
16	BAE-G 1/57/16	4TQA750384R1657	10	57	L-L-L-....

1-phase – 1P+Aux

Section (mm²)	Description	Material Number	PU	Number of pins	Phase sequence
10	BAE-G 1/4/10H(1+H)	4TQA750348R1004	20	4	L1-H...
10	BAE-G 1/6/10H(1+H)	4TQA750344R1006	20	6	L1-H...

1-phase – 1P+Aux – 90°degrees

Section (mm²)	Description	Material Number	PU	Number of pins	Phase sequence
16	BAE-G 1/37/16H(1+H)	4TQA750373R1637	50	37	L1-H...

2-phases

Section (mm²)	Description	Material Number	PU	Number of pins	Phase sequence
10	BAE-G 2/4/10	4TQA750359R1004	10	4	L1-L2-L1-L2
10	BAE-G 2/6/10	4TQA750354R1006	10	6	L1-L2-L1-L2-...
10	BAE-G 2/12/10	4TQA750229R1012	10	12	L1-L2-L1-L2-...
16	BAE-G 2/56/16	4TQA750390R1656	10	56	L1-L2-L1-L2-...

2-phases (2P+Aux)

Section (mm²)	Description	Material Number	PU	Number of pins	Phase sequence
10	BAE-G 2/4/10H(2+H)	4TQA750366R1004	10	4	L1-L2-H-L1-L2
10	BAE-G 2/6/10H(2+H)	4TQA750228R1006	10	6	L1-L2-H-L1-L2-H-L1-L2
10	BAE-G 2/8/16H(2+H)	4TQA750357R1608	10	8	L1-L2-H-L1-L2-H-L1-L2-...
10	BAE-G 2/10/10H(2+H)	4TQA750362R1010	10	10	L1-L2-H-L1-L2-H-L1-L2-...
16	BAE-G 2/46/16H(2+H)	4TQA750370R1644	10	46	L1-L2-H-L1-L2-H-L1-L2-...

Pitch 17.6 mm applicable for MCB EN60, EN100, RCCB FN (excluded B type), RCBO DN100. For DPC100 please contact sales for solution

Busbars Fork

3-phases

Section (mm²)	Description	Material Number	PU	Number of pins	Phase sequence
10	BAE-G 3/6/10	4TQA750189R1006	10	6	L1-L2-L3..
10	BAE-G 3/9/10	4TQA750188R1009	10	9	L1-L2-L3..
10	BAE-G 3/12/10	4TQA750184R1012	10	12	L1-L2-L3..
10	BAE-G 3/15/10	4TQA750360R1015	10	15	L1-L2-L3..
16	BAE-G 3/57/16	4TQA750346R1657	20	57	L1-L2-L3..

3-phases (3P+Aux)

Section (mm²)	Description	Material Number	PU	Number of pins	Phase sequence
10	BAE-G 3/6/10H(3+H)	4TQA750368R1006	10	6	L1-L2-L3-H...
10	BAE-G 3/9/10H(3+H)	4TQA750376R1009	10	9	L1-L2-L3-H...
10	BAE-G 3/12/10H(3+H)	4TQA750361R1012	10	12	L1-L2-L3-H...
16	BAE-G 3/48/16H(3+H)	4TQA750350R1645	20	48	L1-L2-L3-H...

3-phases (1P+Aux)

Section (mm²)	Description	Material Number	PU	Number of pins	Phase sequence
10	BAE-G 3/6/10H(1+H)	4TQA750353R1006	10	6	L1-H-L2-H-L3-H....
10	BAE-G 3/9/10H(1+H)	4TQA750367R1009	10	9	L1-H-L2-H-L3-H....
16	BAE-G 3/36/16H(1+H)	4TQA750379R1636	20	36	L1-H-L2-H-L3-H....

4-phases (3P+N or 4P)

Section (mm²)	Description	Material Number	PU	Number of pins	Phase sequence
10	BAE-G 3/9/10 FI	4TQA750347R1009	10	9	L1-L2-L3- -L2-L3-L1-L2-L3
10	BAE-G 3/10/10 FI	4TQA750196R1012	10	10	L1-L2-L3- -L1-L2-L3
10	BAE-G 3/12/10 FI	4TQA750185R1012	10	12	L1-L2-L3--L1-L2-L3-L1-L2-L3-L1-L2
10	BAE-G 4/8/10	4TQA750209R1008	5	8	L1-L2-L3-N...
10	BAE-G 4/12/10	4TQA750220R1012	5	12	L1-L2-L3-N...
16	BAE-G 4/56/16	4TQA750374R1656	15	56	L1-L2-L3-N...

4-phases (1P+N or 2P)

Section (mm²)	Description	Material Number	PU	Number of pins	Phase sequence
10	BAE-G 4/12/10 N	4TQA750194R1012	5	12	L1-N-L2-N-L3-N...
16	BAE-G 4/54/16 N	4TQA750358R1654	15		L1-N-L2-N-L3-N...

4-phases (4P+Aux)

Section (mm²)	Description	Material Number	PU	Number of pins	Phase sequence
16	BAE-G 4/48/16H(4+H)	4TQA750383R1648	15	48	L1-L2-L3-N....

Busbars Pin

1-phase

Section (mm²)	Description	Material Number	PU	Number of pins	Phase sequence
10	BAE-S 1/2/10	4TQA750219R1002	10	2	L-L
10	BAE-S 1/12/10	4TQA750369R1012	10	12	L-L-L-....
16	BAE-S 1/57/16	4TQA750385R1657	10	57	L-L-L-....

1-phase – 1P+Aux

Section (mm²)	Description	Material Number	PU	Number of pins	Phase sequence
10	BAE-S 1/37/10H(1+H)	4TQA750371R1036	50	37	L1-H...
16	BAE-S 1/37/16H(1+H)	4TQA750399R1636	50	37	L1-H...

2-phases

Section (mm²)	Description	Material Number	PU	Number of pins	Phase sequence
16	BAE-S 2/56/16	4TQA750388R1656	20	56	L1-L2-L1-L2

2-phases (2P+Aux)

Section (mm²)	Description	Material Number	PU	Number of pins	Phase sequence
16	BAE-S 2/46/16H(2+H)	4TQA750382R1622	20	46	L1-L2-H-L1-L2-H..

3-phases

Section (mm²)	Description	Material Number	PU	Number of pins	Phase sequence
10	BAE-S 3/12/10 FI*	4TQA750208R1012	10	12	L1-L2-L3-N-L1-L2-L3...
10	BAE-S 3/12/10	4TQA750200R1012	10	12	L1-L2-L3-....
16	BAE-S 3/57/16	4TQA750389R1657	10	57	L1-L2-L3-....

* Possible only from bottom side

Pitch 17.6 mm applicable for all serie. For DPC100 please contact sales for solution

Busbars Pin

3-phases (3P+Aux)

Section (mm²)	Description	Material Number	PU	Number of pins	Phase sequence
10	BAE-S 3/48/10H(3+H)	4TQA750386R1045	20	48	L1-L2-L3-H-L1-L2-L3-H-.....

3-phases (1P+Aux)

Section (mm²)	Description	Material Number	PU	Number of pins	Phase sequence
10	BAE-S 3/6/10H(1+H)	4TQA750198R1006	10	6	L1-H-L2-H-L3-H....
10	BAE-S 3/9/10H(1+H)	4TQA750345R1009	10	9	L1-H-L2-H-L3-H....
16	BAE-S 3/36/16H(1+H)	4TQA750355R1636	20	36	L1-H-L2-H-L3-H....

4-phases (3P+N or 4P)

Section (mm²)	Description	Material Number	PU	Number of pins	Phase sequence
16	BAE-S 4/56/16	4TQA750387R1656	15	56	L1-L2-L3-N....

4-phases (1P+N or 2P)

Section (mm²)	Description	Material Number	PU	Number of pins	Phase sequence
10	BAE-S 4/18/10 FI	4TQA750395R1018	5	18	L1-L2-L3--L1-N-L2-N-L3-N-...
16	BAE-S 4/54/16 N	4TQA750396R1654	15	54	L1-N-L2-N-L3-N-L1-N-L2-N-L3-N-....

Busbars Unibis EPC range

3-phases

Section (mm²)	Description	Material Number	PU	Number of pins	Phase sequence
10	BA-SU 3/16/10 FI	4TQA650364R1015	16	20	L1-L2-L3-frei-L1-L2-L3-L1-L2...

possible only from bottom side

1-phases (90°)

Section (mm²)	Description	Material Number	PU
10	BA-SU 1/13/10 GREY	4TQA650397R1013	15

1-phases (1P+N or 2P)

Section (mm²)	Description	Material Number	PU
10	BA-SU 2/18/10	4TQA650372R1018	20
10	BA-SU 2/55/10	4TQA650381R1055	1/20

3-phases

Section (mm²)	Description	Material Number	PU
10	BA-SU 3/24/10	4TQA650352R1024	15
10	BA-SU 3/112/10	4TQA650363R1011	1/15
10	BA-SU 3/16/10 FI	4TQA650364R1015	20

4-phases (1P+N or 2P)

Section (mm²)	Description	Material Number	PU
10	BA-SU 4/110/10 N	4TQA50351R10110	1/10

4-phases (4P or 3P+N)

Section (mm²)	Description	Material Number	PU
10	BA-SU 4/55/10 Kit	4TQA650380R1055	1/5
	incl. 4 end caps and 4 feed in terminals		

For EX41NR, EX61NR busbar contact Sales Unit

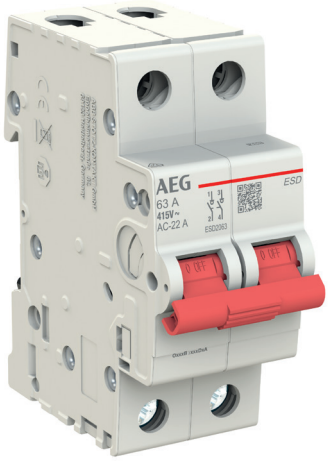
Accessories

		Diameter (mm²)	Type code	Order code	Packaging Unit
	End Caps	10/16	BA-END 1.1	4TQA650349R0000	50
		10	BA-END 2.1	4TQA650210R0000	10
		10	BA-END 3.1	4TQA650186R0000	10
		16	BA-END 3.2	4TQA650193R0000	10
		10/16	BA-END 4.1	4TQA650190R0000	10
	Feed In Terminals	25	BA-FG 25/16	4TQA650391R0000	30
		25	BA-FS 25/14	4TQA650392R0000	30
		25	BA-FS 25/27	4TQA650393R0000	50
		35	BA-FS 35 Direkt	4TQA650394R0000	10
		25	BA-FS 25/27 Q	4TQA650199R0000	30
	Shock Protection Caps		BA-BS	4TQA650191R0000	10
	Terminal Block for Neutral Conductor	16	LK/N7	4TQA650192R0000	10
		16	LK/N12	4TQA650227R0000	10
	Terminal Block for Protective Conductor	16	LK/S7	4TQA650187R0000	10
		16	LK/S12	4TQA650207R0000	10

04

Comfort Functions and SDs





The AEG Line comfort functions consist of a large selection of controlling and signaling devices and products for the automation of lighting systems, stores, offices and much more.





Following devices are in the portfolio:

- Main switches, On-Off-switches, indicator lights
- Sockets
- Installation Contactors
- Staircase lighting timer
- Impulse switches
- Digital timer
- Twilight switches

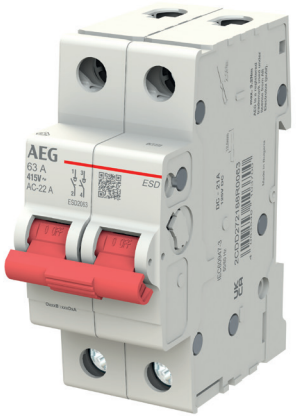




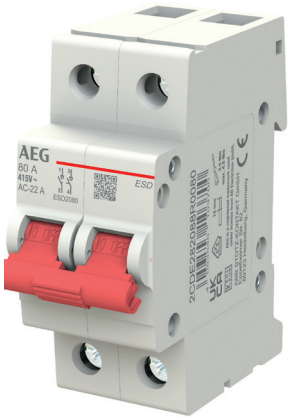


		ESD
General Data	Standards	IEC/EN 60947-3
	Marking approval	VDE, KEMA
	Poles	1P, 2P, 3P, 4P
	Utilization category	AC-22A, DC-21B
	Rated current In	40, 63, 80, 100
	Rated frequency f	50 / 60 Hz, DC
	Rated insulation voltage Ui	440 V AC
	Overvoltage category	III
	Pollution degree	3
	Rated voltage Ue	1P: 240V AC, 60 V DC, 2P: 415 V AC, 125 V DC 3...4P: 415 V AC
	Max. power frequency recovery voltage (Umax)	1P: 252V AC, 63 V DC, 2P: 436 V AC, 131 V DC 3...4P: 436 V AC
	Min. operating voltage	12 V AC
	Suitable for isolation	Yes
	Rated short-circuit capacity Icn	up to 63 A 10 kA in series with NH 00 ≤ 63 A gG; 80-100A: 25 kA
	Rated impulse withstand voltage Uimp. (1.2/50 µs)	4 kV (test voltage 6.2kV at sea level, 5kV at 2,000m)
	Dielectric test voltage	2 kV
	Electrical endurance	Up to 63A : 10,000 ops. (AC), 1,500 ops. (DC); 80-100A: 1,500 ops
Mechanical Data	Housing type	Insulation group II, RAL 7035
	Toggle type	Insulation group II, red, sealable
	Contact position indication	Up to 63A: Marking on toggle, I ON / 0 OFF; 80-100A :On toggle (I ON / 0 OFF), on dome (I / 0)
	Protection degree acc. to EN 60529	Up to 63A: IP20 / IP40 in enclosure with cover, 80-100A: IP10, IP40 in enclosure with cover
	Mechanical endurance	20,000 ops.
	Shock resistance acc. to IEC/EN 60068-2-27	25 g, 2 shocks, 13 ms
	Vibration resistance acc. to IEC/EN 60068-2-6	5g, 20 cycles at 5...150...5 Hz with load 0.8 In
	Environmental conditions (damp heat) acc. to IEC/EN 60068-2-30	28 cycles with 55°C/90 – 96 % and 25°C/95 – 100 % [°C/RH]; 80-100A:Constant climate 23/83, 40/93, 55/20 [°C/RH] Alternating climate 25/95 – 40/93 [°C/RH]
	Ambient temperature	-25 ... +55°C
	Storage temperature	-40 ... +70°C
Installation	Terminal	Single cage without Failsafe
	Cross section for conductors	Up to 63A: 25mmq; 80-100A: 50 mmq
	Tightening Torque	Up to 63A: 2.0 Nm (3.2 Nm max); 80-100A: 2,5 Nm (4,5 Nm max)
	Screwdriver	No. 2 Pozidrive
	Mounting	On DIN rail 35 mm acc. to EN 60715 by fast clip
	Mounting position	any
	Supply	optional
Dimensions and weight	Mounting dimensions acc. to DIN 43880	Mounting dimension 1
	Installation Size, acc to DIN 43880	1
	Pole dimensions (H x D x W)	Up to 63A : 85 x 69 x 17.5 mm 80-100A: 85 x 70 x 17.5mm
	Pole weight	Up to 63A: 75 g; 80-100A: 9 g
Combination with auxiliary elements	Auxiliary contact	Yes
	Signal contact (only up to 63A)	Yes
	Shunt trip (only up to 63A)	Yes
	Undervoltage release (only up to 63A)	Yes
	Motor Operator device	Yes

ESD up to 63A



ESD 80–100A



ESD

IEC/EN 60947-3

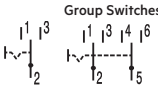
CE

Poles	In (A)	Contacts	Type code	Order code	Packaging Unit
 1P	40	1NO	ESD1040	2CDD271188R0040	10
	63	1NO	ESD1063	2CDD271188R0063	10
	80	1NO	ESD1080	2CDE281088R0080	10
	100	1NO	ESD10100	2CDE281088R0100	10
 2P	40	2NO	ESD2040	2CDD272188R0040	5
	63	2NO	ESD2063	2CDD272188R0063	5
	80	2NO	ESD2080	2CDE282088R0080	5
	100	2NO	ESD20100	2CDE282088R0100	5
 3P	40	3NO	ESD3040	2CDD273188R0040	1
	63	3NO	ESD3063	2CDD273188R0063	1
	80	3NO	ESD3080	2CDE283088R0080	1
	100	3NO	ESD30100	2CDE283088R0100	1
 4P	40	4NO	ESD4040	2CDD274188R0040	1
	63	4NO	ESD4063	2CDD274188R0063	1
	80	4NO	ESD4080	2CDE284088R0080	1
	100	4NO	ESD40100	2CDE284088R0100	1

AST+SZ



Main Switches, On-Off-Switches

		Rated Voltage	Contacts	Modules	Type Code	Order Code	PU
	Group Switches	16A/240VAC	1x I-0-II	1	AST+ SZ161	2CCG000211R0001	12
		16A/240VAC	2x I-0-II	1	AST+ SZ162	2CCG000213R0001	12
	On-Off-Switches	16A/240VAC	1S	1	AST+ S1610	2CCG000210R0001	10
		16A/240VAC/400VAC	2S	1	AST+ S1620	2CCG000212R0001	10

Standards

EN 60947-3, NBN EN 60947-3, VDE 0632 Part 101



Fuse Switch Disconnectors LD 020+

Poles	Rated Voltage	Modules	Type Code	Order Code	PU
1	63A	1	LD021+	2CDE101005R1905	1
2	63A	2	LD022+	2CDE102005R1905	1
3	63A	3	LD023+	2CDE103005R1905	1

AST+BL



Indicator Lights with LED

Rated Voltage	Color	Modules	Type Code	Order Code	PU
230 V AC/DC	Red	1/2	AST+ BL230R	2CCG000214R0001	12
230 V AC/DC	Green	1/2	AST+ BL230G	2CCG000215R0001	12

MSC+



Sockets

Modules	Type Code	Order Code	PU
2.5	MSC+ SE	2CSM616959R0721	1

Standards

NBN C61-112-1, NF C61-303 (86), IEC 60884-1

VI



Standards

IEC 60947-4-1, IEC 61095, EN 61095

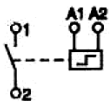
Installation Contactors

		Contacts	Voltage	AC/DC	Modules	Type Code	Order Code	PU
	16A	0S/2Ö	24V	AC/DC	1	VI 160201	4TQB111113R0000	12
	20A	0S/2Ö	230V	AC/DC	1	VI 200206	4TQB111163R0000	12
	16A	2S	24V	AC/DC	1	VI162001	4TQB111111R0000	12
	16A	1S/1Ö	24V	AC/DC	1	VI161101	4TQB111112R0000	12
	16A	2S	230V	AC/DC	1	VI162006	4TQB111161R0000	12
	16A	1S/1Ö	230V	AC/DC	1	VI161106	4TQB111162R0000	12
	20A	2S	24V	AC/DC	1	VI202001	4TQB111211R0000	12
	20A	1S/1Ö	24V	AC/DC	1	VI201101	4TQB111212R0000	12
	20A	2Ö	24V	AC/DC	1	VI200201	4TQB111213R0000	12
	20A	2S	230V	AC/DC	1	VI202006	4TQB111261R0000	12
	20A	1S/1Ö	230V	AC/DC	1	VI201106	4TQB111262R0000	12
	20A	2Ö	230V	AC/DC	1	VI200206	4TQB111263R0000	12
	24A	4S	24V	AC/DC	2	VI254001	4TQB113314R0000	6
	24A	4Ö	24V	AC/DC	2	VI250401	4TQB113315R0000	6
	24A	2S/2Ö	24V	AC/DC	2	VI252201	4TQB113316R0000	6
	24A	3C	24V	AC/DC	2	VI253001	4TQB113319R0000	6
	24A	4C	230V	AC/DC	2	VI254006	4TQB113364R0000	6
	24A	4Ö	230V	AC/DC	2	VI250406	4TQB113365R0000	6
	24A	2S/2Ö	230V	AC/DC	2	VI252206	4TQB113366R0000	6
	24A	3S	230V	AC/DC	2	VI253006	4TQB113369R0000	6
	40A	2S	24V	AC/DC	3	VI402001	4TQB115411R0000	3
	40A	3S	24V	AC/DC	3	VI403001	4TQB115419R0000	3
	40A	4S	24V	AC/DC	3	VI404001	4TQB115414R0000	3
	40A	2S	230V	AC/DC	3	VI402006	4TQB115461R0000	3
	40A	3S	230V	AC/DC	3	VI403006	4TQB115469R0000	3
	40A	4S	230V	AC/DC	3	VI404006	4TQB115464R0000	3
	63A	4S	24V	AC/DC	3	VI634001	4TQB115514R0000	3
	63A	2S	230V	AC/DC	3	VI632006	4TQB115561R0000	3
	63A	4S	230V	AC/DC	3	VI634006	4TQB115564R0000	3
	20A	2S	230V	AC/DC	1	VID202006	4TQB112261R0000	12
	24A	3S	230V	AC/DC	2	VID253006	4TQB114369R0000	5
	24A	4S	230V	AC/DC	2	VID254006	4TQB114364R0000	5
	40A	2S	230V	AC/DC	3	VID402006	4TQB116461R0000	3
	40A	3S	230V	AC/DC	3	VID403001	4TQB116419R0000	4
	40A	4S	230V	AC/DC	3	VID404006	4TQB116464R0000	3
Auxiliary Contacts	6A	1S/1Ö	230V		0.5	VI11N	4TQB119001R0000	5
	6A	2S	230V		0.5	VI20N	4TQB119002R0000	5
Accessories	Sealing Cap for VI25, VID25				2	VIPK2N	4TQB119004R0000	–
	Sealing Cap for VI40, VI63, VID40				3	VIPK3N	4TQB119005R0000	–
	Spacer				0.5	VIDISN	4TQB119003R0000	–

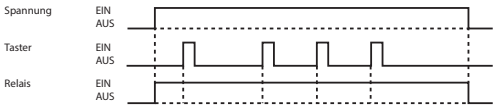
Pulsar SC+



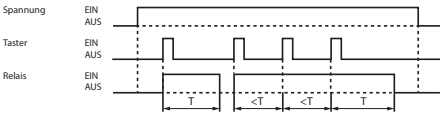
Staircase Lighting Switches

	Rated Current	Contacts	Voltage AC	Voltage DC	Modules	Type Code	Order Code	PU
	16A	1S	230 V AC (-15%...+10%)	-	1	PLS+ SC	2CDE110005R0505	1

Beleuchtung dauerhaft EIN



Automatik



PLS+



Impulse Switches

	Rated Current	Contacts	AC Voltage	Modules	Type Code	Order Code	PU
	16A	1S	12V	1	PLS+ S161012	2TAZ372000R2051	1
	16A	1S	230V	1	PLS+ S1610230	2TAZ372000R2011	1
	16A	2S	12V	1	PLS+ S162012	2TAZ372000R2052	1
	16A	2S	230V	1	PLS+ S1620230	2TAZ372000R2012	1

Central ON-OFF

	Rated Current	Contacts	AC Voltage	Modules	Type Code	Order Code	PU
			230V	1/2	PLS+ C230	2TAZ372001R2013	1

Auxiliary Contact

	Rated Current	Contacts	AC Voltage	Modules	Type Code	Order Code	PU
	16A	1W		1/2	PLS+ M16001	2CCG000208R0001	1
	16A	2S		1/2	PLS+ M1620	2CCG000209R0001	1

GLX+



Digital Timers

	Program	Channels	Rated Current	Operational Reserve	Min. Switch Time	Modules	Type Code	Order Code	PU
	Rated Voltage with battery: 230VAC (-15%... +10%)								
Weekly Program	7x24h/0.5	1W	16A (10) at 250V AC	5 years	30 Min	2	GLX+ Q 21 W 120	2CSM208121R1000	1

Notes

Notes

Notes

aeg-low-voltage.com

AEG is a registered trademark used
under license by AB Electrolux.

aeg-low-voltage.com

07/2024