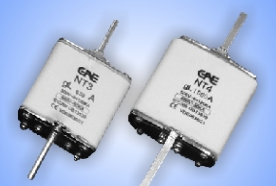
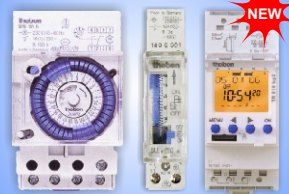




- LOW VOLTAGE COMPONENT
- CAPACITOR & REGULATOR
- PANEL ACCESSORIES
- CAM SWITCHES
- TIME SWITCHES
- CONDUIT & ACCESSORIES
- NT FUSE & FUSE HOLDER





Miniatur Circuite Breakers (MCB)

Technical data MCB's

Series		G45	G60	G100	GT25	Hti
Standards		IEC 60898	IEC 60898	IEC 60898	IEC 60947-2	IEC 60947-2
Tripping characteristics		C	C	C	5-10In	5-10In
Nominal current	A	2-40	0.5-63	0.5-63	0.5-63	80 upto 125
Calibration temperature	°C	30	30	30	40	40
Number of poles (#mod)		1/2/3/4	1/2/3/4	1/2/3/4	1/2/3/4	1/2/3/4
Neutral pole protected		-	yes	yes	-	-
Nominal voltage Un AC	1P V	240/415	240/415	240/415	240/415	240/415
	2P V	415	415	415	415	415
	3P, 4P V	415	415	415	415	415
DC	1P (1) VDC	48	48	48	48	48
	2P (in series) (1) VDC	110	110	110	110	110
Frequency	Hz	50/60	50/60	50/60	50/60	50/60
	Hz	DC: magn.trip +40%	DC: magn.trip +40%	DC: magn.trip +40%	DC: magn.trip +40%	DC: magn.trip +40%
	Hz	400: magn.trip +50%	400: magn.trip +50%	400: magn.trip +50%	400: magn.trip +50%	W32
Maximum service voltage U _{bmax} between two wires	V	250/440 53/120	250/440 53/120	250/440 53/120	250/440 53/120	250/440 53/120
Minimum service voltage U _{bmin}	V	12; 12	12; 12	12; 12	12; 12	12; 12
Selectivity class (IEC 60898)		3	3	3	-	-
Isolator application		yes	yes	yes	yes	yes
Rated Insulation voltage	V	500	500	500	500	500
	V	440	440	440	440	440
Impulse withstand test voltage	kV	6	6	6	6	6
Insulation resistance	MOhm	10,000	10,000	10,000	10,000	10,000
Dielectric rigidity	kV	2.5	2.5	2.5	2.5	2.5
Vibrations resistance (in x, y, z direction)(IEC 77/16.3)		3g	3g	3g	3g	3g
Endurance		10,000	10,000	10,000	4,000	10,000
		20,000	20,000	20,000	20,000	20,000
Utilisation category (IEC 60947-2)		A	A	A	A	A
Mounting position		any	any	any	any	any
Incoming top or bottom		yes	yes	yes	yes	yes
Protection degree (outside / inside enclosure with door)		IP20/IP40	IP20/IP40	IP20/IP40	IP20/IP40	IP20/IP40
Self-extinguish degree (according to UL94)		V2	V2	V2	V2	V2
Tropicalisation (according to IEC 60068-2 / DIN 40046)	°C/RH	+55°C/95% RH	+55°C/95% RH	+55°C/95% RH	+55°C/95% RH	+55°C/95% RH
Operating temperature	°C	-25/+55	-25/+55	-25/+55	-25/+55	-25/+55
Storage temperature	°C	-55/+55	-55/+55	-55/+55	-55/+55	-55/+55
Terminal capacity	Rigid Cable min/max (top) mm ²	1/35	1/35	1/35	1/35	70
	Flexible Cable min*/max (top) mm ²	0.75/25	0.75/25	0.75/25	0.75/25	-
	Rigid Cable min/max (bottom) mm ²	1/35	1/35	1/35	1/35	70
	Flexible Cable min*/max (bottom) Mm ²	0.75/25	0.75/25	0.75/25	0.75/25	-
	Torque Nm	4.5	4.5	4.5	4.5	5
Add-on devices	Auxiliary Contact	yes	yes	yes	yes	yes
(side add-on)	Tele U	yes	yes	yes	yes	-
	Tele L	yes	yes	yes	yes	yes
	Tele Mp	yes	yes	yes	yes	-
	PBS	yes	yes	yes	yes	yes
Busbar systems	PIN (top/bottom)	yes /yes	yes /yes	yes /yes	yes /yes	-
	Fork (top/bottom)	-/yes	-/yes	-/yes	-/yes	-
Accessories		yes	yes	yes	yes	-
Dimensions, weights, packaging	(HxDxW) 86x68xW mm/mod.	18	18	18	18	27
	Weight / Mod g	120	120	120	120	210
	Package Mod.	12	12	12	12	12
Approvals		KEMA	KEMA	KEMA	-	-
CE-marking		Yes	Yes	Yes	Yes	Yes

(1) Preferred values of rated control supply voltage (IEC 60947-2): 24V, 48V, 110V, 125V, 220V, 250V



Redline

Characteristics

According to EN/IEC 60898

Miniature Circuit Breakers (MCB) are intended for the protection of wiring installations against both overload and short-circuits in domestic or commercial wiring installations Where operations where operation is possible by uninstructed people.

Magnetic release

An electromagnet with plunger ensures instantaneous Tripping in the event of short-circuit. The standard distinguishes three different types, following the current for instantaneous release: type B, C, D.

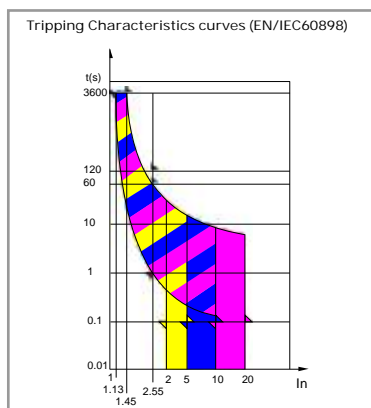
Icn (A)	Test Current	Tripping Time	Applications Only for resistive loads such as:
B	3 x In 5 x In	0.1 < t < 45s (In ≤ 32A) 0.1 < t < 90s (In > 32A) t < 0.1s	- electrical heating - water heater - stoves
C	5 x In 10 x In	0.1 < t < 15s (In ≤ 32A) 0.1 < t < 30s (In > 32A) t < 0.1s	Usual loads such as: - lighting - socket-outlets - motors
D	10 x In 20 x In	0.1 < t < 4s(1) (In ≤ 32A) 0.1 < t < 8s (In > 32A) t < 0.1s	Control and protection of circuits having important transient inrush currents

Thermal release

Thermal release is initiated by a bimetal strip in case of overload. The standard defines the range of releases for specific overload values.

Reference ambient temperature is 30°C.

Test Current	Tripping time
1.13 x In	t > 1 h (In ≤ 63 A) t > 2 h (In > 63 A)
1.45 x In	t < 1 h (In ≤ 63 A) t < 2 h (In > 63 A)
2.55 x In	1s < t < 60s (In ≤ 32 A) 1s < t < 120s (In > 32 A)



Characteristics

According to EN/IEC 60947-2

Magnetic release

An electromagnet with plunger ensures instantaneous tripping in the event of short-circuit. The standard leaves the calibration of magnetic release to the manufacturer's discretion.

GE offers instantaneous tripping ranges:

- B: 4 In
- C: 8.5 In (7.5 In for 63A)
- D and M: 14 In
- K: 10 In (6 In > 2 s.)

Thermal release

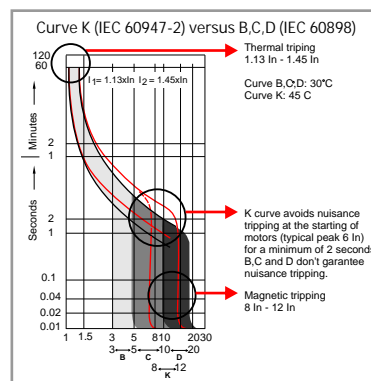
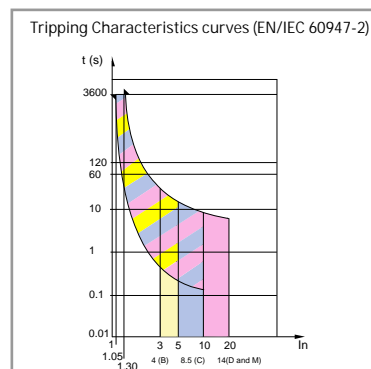
The release is initiated by a bimetal strip in case of overload. The standard defines the range of releases for two special overload values.

Reference ambient temperature is:

40°C for GT10 and GT25

50°C for G60 and G100, except for K: 45°C

Test Current		Tripping time
B - C - D	K	t1h (In ≤ 63A) t2h (In > 63A)
1.05 x In	1.13 x In	t < 1h (In ≤ 63A) T < 2h (In > 63A)
1.30 x In	1.45 x In	



Miniature Circuit Breakers

G45



IEC 60898 4500
3

IEC 60947-2 6kA

Applications



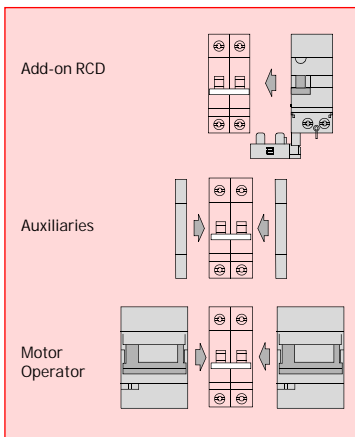
Approval / Marking



Performances

Thermal Setting In	(A)	2-40
Rated voltage AC Un	(V)	240/415
Minimum operated voltage UB min	(V)	12
Tripping Characteristics		C
Selectivity Class		3
Mechanical/electrical endurance		20000/10000
Tropicalisation acc.to IEC 60068-2		95%RH at 55°C
Terminal Capacity flexible/rigid cable	(mm ²)	25-35
Poles		1,2,3,4
Weight	(g/Pole)	120

Add-on Devices



Short-circuit capacity

Acc. to IEC 60898

Poles	V	Icn/Ics (kA)
1-4	230/400	4.5

Acc. to IEC 60947-2

Poles	V	Icu (kA)
1	240	6
2	127	15
	240	10
	415	6
3,4	240	10
	415	6



Series G45 - Characteristics - C



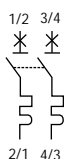
1P
1 mod



In (A)	Cat. No.	Code No.
2	G41C02	403674490
4	G41C04	403674492
6	G41C06	403674493
10	G41C10	403674495
16	G41C16	403674497
20	G41C20	403674498
25	G41C25	403674499
32	G41C32	403674500
40	G41C40	403674501



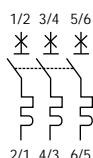
2P
2 mod



In (A)	Cat No	Code No
2	G42C02	403674506
4	G42C04	403674508
6	G42C06	403674509
10	G42C10	403674511
16	G42C16	403674513
20	G42C20	403674514
25	G42C25	403674515
32	G42C32	403674516
40	G42C40	403674517



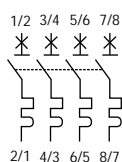
3P
3 mod



In (A)	Cat No	Code No
2	G43C02	403674522
4	G43C04	403674524
6	G43C06	403674525
10	G43C10	403674527
16	G43C16	403674529
20	G43C20	403674530
25	G43C25	403674531
32	G43C32	403674532
40	G43C40	403674533



4P
4 mod



In (A)	Cat. No.	Code No.
2	G44C02	403674538
4	G44C04	403674540
6	G44C06	403674541
10	G44C10	403674543
16	G44C16	403674545
20	G44C20	403674546
25	G44C25	403674547
32	G44C32	403674548
40	G44C40	403674549

Miniature Circuit Breakers

G60



IEC 60898	6000
	3
IEC 60947-2	10kA

Applications



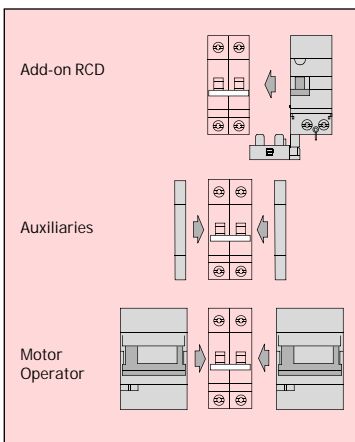
Approval / Marking



Performances

Thermal Setting I_n	(A)	2-63
Rated voltage AC U_n	(V)	240/415
Minimum operated voltage U_B min	(V)	12
Tripping Characteristics		C
Selectivity Class		3
Mechanical/electrical endurance		20000/10000
Tropicalisation acc.to IEC 60068-2		95%RH at 55°C
Terminal Capacity flexible/rigid cable	(mm ²)	25-35
Poles		1,2,3,4
Weight	(g/Pole)	120

Add-on Devices



Short-circuit capacity

AC acc. to IEC 60898

Poles	V	I_{cn}/I_{cs} (kA)
1-4	230/400	6

AC acc. to IEC 60947-2

Poles	V	I_{cu} (kA)
1	240	10
2	127	30
	240	20
	415	10
3,4	240	20
	415	10

DC acc. to IEC 60947-2

Poles	V	I_{cu}/I_{cs} (kA)
1	60	20
2	125	25



Series G60 - Characteristics - C



1P
1 mod



In (A)	Cat No	Code No
2	G61C02	403674598
4	G61C04	403674600
6	G61C06	403674601
10	G61C10	403674603
16	G61C16	403674605
20	G61C20	403674606
25	G61C25	403674607
32	G61C32	403674608
40	G61C40	403674609
50	G61C50	403674610
63	G61C63	403674611



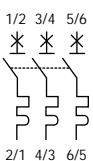
2P
2 mod



In (A)	Cat No	Code No
2	G62C02	403674630
4	G62C04	403674632
6	G62C06	403674633
10	G62C10	403674635
16	G62C16	403674637
20	G62C20	403674638
25	G62C25	403674639
32	G62C32	403674640
40	G62C40	403674641
50	G62C50	403674642
63	G62C63	403674643



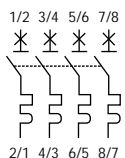
3P
3 mod



In (A)	Cat. No.	Code No.
2	G63C02	403674646
4	G63C04	403674648
6	G63C06	403674649
10	G63C10	403674651
16	G63C16	403674653
20	G63C20	403674654
25	G63C25	403674655
32	G63C32	403674656
40	G63C40	403674657
50	G63C50	403674658
63	G63C63	403674659



4P
4 mod



In (A)	Cat. No.	Code No.
2	G64C02	403674662
4	G64C04	403674664
6	G64C06	403674665
10	G64C10	403674667
16	G64C16	403674669
20	G64C20	403674670
25	G64C25	403674671
32	G64C32	403674672
40	G64C40	403674673
50	G64C50	403674674
63	G64C63	403674675

Miniature Circuit Breakers

G100



IEC 60898	10000
	3
IEC 60947-2	15kA

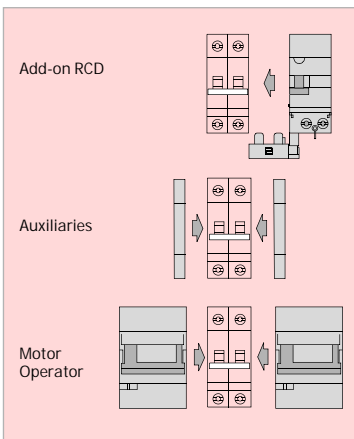
Applications



Approval / Marking



Add-on Devices



Performances

Thermal Setting In	(A)	0.5-63
Rated voltage AC Un	(V)	240/415
Minimum operated voltage UB min	(V)	12
Tripping Characteristics		C
Selectivity Class		3
Mechanical/electrical endurance		20000/10000
Tropicalisation acc.to IEC 60068-2		95%RH at 55°C
Terminal Capacity flexible/rigid cable	(mm ²)	25-35
Poles		1,2,3,4
Weight	(g/Pole)	120

Short-circuit capacity

AC acc. to IEC 60898

Poles	V	Icn/Ics (kA)
1-4	230/400	10
*Ics = 75% Icu		

AC cc. to IEC 60947-2

Poles	V	Icu (kA)
1	240	15
2	127	40
	240	30
	415	15
3,4	240	30
	415	15
*Ics = 50% Icu		

DC acc. to IEC 60947-2

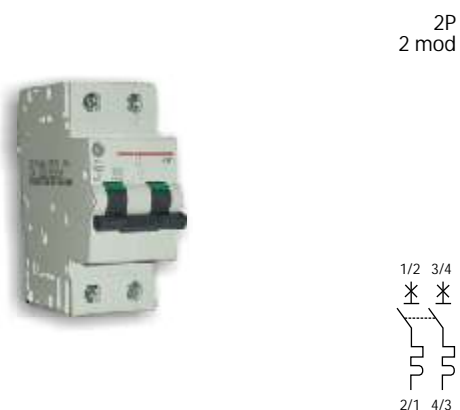
Poles	V	Icu/Ics (kA)
1	60	25
2	125	30



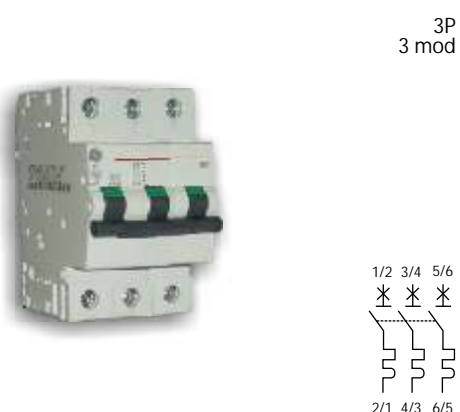
Series G100 - Characteristics - C



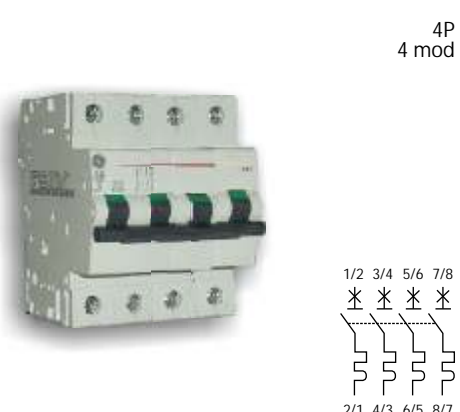
In (A)	Cat. No.	Code No
0.5	G101C0.5	403674854
1	G101C01	403674855
2	G101C02	403674856
3	G101C03	403674857
4	G101C04	403674858
6	G101C06	403674859
10	G101C10	403674861
16	G101C16	403674863
20	G101C20	403674864
25	G101C25	403674865
32	G101C32	403674866
40	G101C40	403674867
50	G101C50	403674868
63	G101C63	403674869



In (A)	Cat. No.	Code No
0.5	G102C0.5	403674886
1	G102C01	403674887
2	G102C02	403674888
3	G102C03	403674889
4	G102C04	403674890
6	G102C06	403674891
10	G102C10	403674893
16	G102C16	403674895
20	G102C20	403674896
25	G102C25	403674897
32	G102C32	403674898
40	G102C40	403674899
50	G102C50	403674900
63	G102C63	403674901



In (A)	Cat. No.	Code No.
0.5	G103C0.5	403674902
1	G103C01	403674903
2	G103C02	403674904
3	G103C03	403674905
4	G103C04	403674906
6	G103C06	403674907
10	G103C10	403674909
16	G103C16	403674911
20	G103C20	403674912
25	G103C25	403674913
32	G103C32	403674914
40	G103C40	403674915
50	G103C50	403674916
63	G103C63	403674917



In (A)	Cat. No.	Code No.
0.5	G104C0.5	403674918
1	G104C01	403674919
2	G104C02	403674920
3	G104C03	403674921
4	G104C04	403674922
6	G104C06	403674923
10	G104C10	403674925
16	G104C16	403674927
20	G104C20	403674928
25	G104C25	403674929
32	G104C32	403674930
40	G104C40	403674931
50	G104C50	403674932
63	G104C63	403674933

Miniature Circuit Breakers

GT25



IEC 60947-2 50kA
 25kA
 20kA
 15kA

Applications



Approval / Marking



Performances

Thermal Setting I_n	(A)	0.5-63
Rated voltage AC U_n	(V)	240/415
Minimum operated voltage U_B min	(V)	12
Tripping Characteristics		5-10 I_n (C)
Mechanical/electrical endurance		20000/10000
Tropicalisation acc.to IEC 60068-2		95%RH at 55°C
Terminal Capacity flexible/rigid cable	(mm ²)	25-35
Poles		1,2,3,4
Weight	(g/Pole)	120

Short-circuit capacity

AC cc. to IEC 60947-2

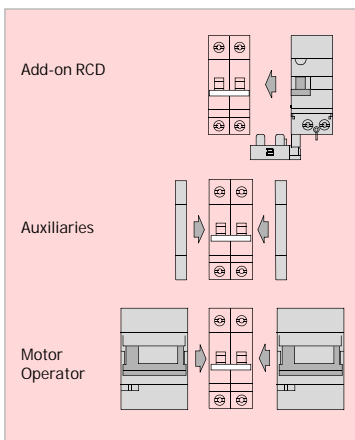
I_n (A)	Poles	V	I_{cu} (kA)
0.5 - 4	1	240	50
	2-4	415	50
6-25	1	240	25
		415	25
	2-4	240	50
		415	20
32-40	1	240	20
		415	20
	2-4	240	40
		415	15
50-63	1	240	15
		415	15
	2-4	240	30
		415	15

* I_{cs} = 50% I_{cu}

DC acc. to IEC 60947-2

Poles	V	I_{cu}/I_{cs} (kA)
1	60	25
2	125	30

Add-on Devices





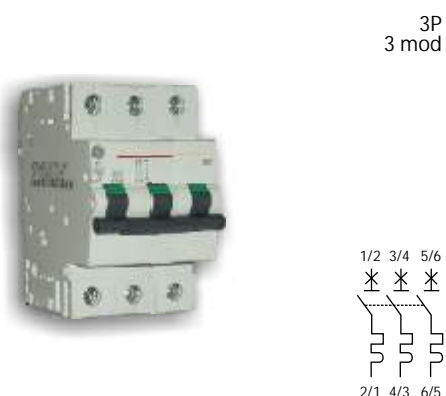
Series GT25 - Characteristics - C



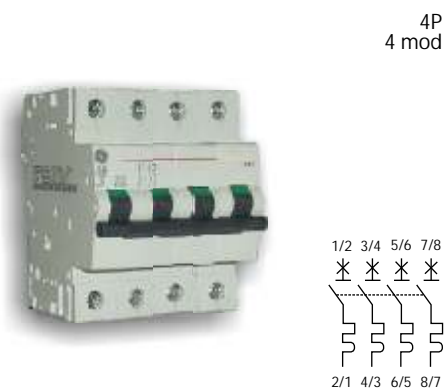
In (A)	Cat. No.	Code No.
0.5	GT251C0.5	403675284
1	GT251C01	403675285
2	GT251C02	403675286
4	GT251C04	403675288
6	GT251C06	403675289
10	GT251C10	403675291
16	GT251C16	403675293
20	GT251C20	403675294
25	GT251C25	403675295
32	GT251C32	403675296
40	GT251C40	403675297
50	GT251C50	403675298
63	GT251C63	403675299



In (A)	Cat. No.	Code No.
0.5	GT252C0.5	403675300
1	GT252C01	403675301
2	GT252C02	403675302
4	GT252C04	403675304
6	GT252C06	403675305
10	GT252C10	403675307
16	GT252C16	403675309
20	GT252C20	403675310
25	GT252C25	403675311
32	GT252C32	403675312
40	GT252C40	403675313
50	GT252C50	403675314
63	GT252C63	403675315



In (A)	Cat. No.	Code No.
0.5	GT253C0.5	403675316
1	GT253C01	403675317
2	GT253C02	403675318
4	GT253C04	403675320
6	GT253C06	403675321
10	GT253C10	403675323
16	GT253C16	403675325
20	GT253C20	403675326
25	GT253C25	403675327
32	GT253C32	403675328
40	GT253C40	403675329
50	GT253C50	403675330
63	GT253C63	403675331



In (A)	Cat. No.	Code No.
0.5	GT254C0.5	403675332
1	GT254C01	403675333
2	GT254C02	403675334
4	GT254C04	403675336
6	GT254C06	403675337
10	GT254C10	403675339
16	GT254C16	403675341
20	GT254C20	403675342
25	GT254C25	403675343
32	GT254C32	403675344
40	GT254C40	403675345
50	GT254C50	403675346
63	GT254C63	403675347

Miniature Circuit Breakers

Serie Hti

IEC 60947-2 10kA



Applications



Approval / Marking

IEC 60947-2



Performances

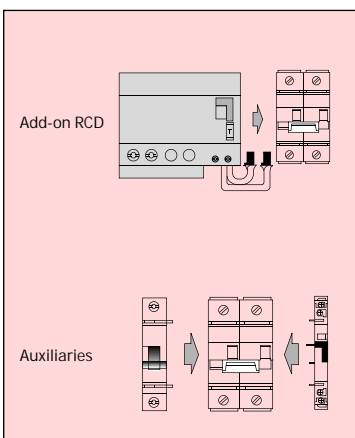
Thermal Setting In	(A)	80-100-125
Rated voltage AC Un	(V)	240/415
Tripping Characteristics		5-10 In (C)
Mechanical/electrical endurance		10000/4000
Operating Temperature	(°C)	-25°C up to 55°C
Terminal Capacity flexible/rigid cable	(mm ²)	70
Poles		1,2,3,4
Weight	(g/Pole)	210

Short-circuit capacity

Acc. to IEC 60947-2 (B, C)

Poles	V	Icu/Ics (kA)
1	230/240	10
2	230	15
3,4	230	15
3,4	400	10

Add-on Devices



Add-on RCD - technical performances

Standard		IEC 61009
Nominal current In	(A)	80-125
Residual current IΔn	(mA)	30, 300
Rated voltage AC Un	(V)	2P: 230/400 3P-4P: 400
Resistance against unwanted tripping		Type A, AC: 250A 8/20 μs Type S: 3000A 8/20 μs
Terminal capacity flexible/rigid cable		70
Poles	(mm ²)	2,3,4



Series Hti - Characteristics - C



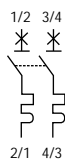
1P
1 mod

In (A)	Cat. No.	Code No.
80	Hti 101 C080	403671528
100	Hti 101 C100	403671529
125	Hti 101 C125	403671530



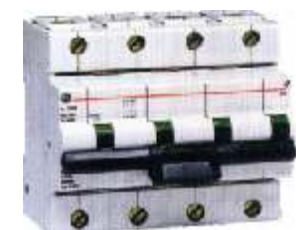
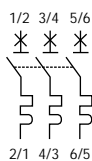
2P
2 mod

In (A)	Cat. No.	Code No.
80	Hti 102 C080	403671534
100	Hti 102 C100	403671535
125	Hti 102 C125	403671536



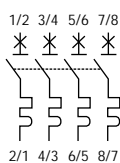
3P
3 mod

In (A)	Cat. No.	Code No.
80	Hti 103 C080	403671540
100	Hti 103 C100	403671541
125	Hti 103 C125	403671542



4P
4 mod

In (A)	Cat. No.	Code No.
80	Hti 104 C080	403671546
100	Hti 104 C100	403671547
125	Hti 104 C125	403671548



Residual Current Circuit Breakers



IEC 61008

Type AC



Performances

Thermal Setting I_n	(A)	16, 25, 40, 63, 80, 100
Residual Current $I_{\Delta n}$	(V)	30, 300
Rated Voltage AC U_n	(V)	2P:240 4P:240/415
Minimum operated voltage U_B min		2P:100 4P:190
Mechanical/electrical endurance		20000/10000
Tropicalisation acc.to IEC 60068-2		
IEC 60068-2-28/2-30 and DIN 40046		95% RH at 55°C
Terminal Capacity flexible/rigid cable	(mm ²)	35-50 ⁽¹⁾
Poles	(g/Pole)	2.4
Nuisance Tripping Resistance		Type A, AC: 250A 8/20μs; 200A 0.5μs - 100kHz Type S: 3000A 8/20 μs Type Ai: 3000A 8/20 μs Type Si: 5000A 8/20 μs
Ambient Temperature	(°C)	Type AC: -5 upto 40 Type A: -25 upto 40
Weight	(g)	2P: 220 4P: 385

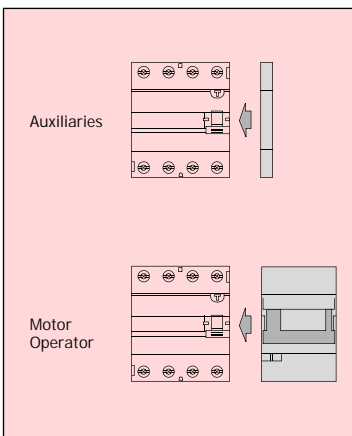
Applications



Approval / Marking



Add-on Devices



Short-circuit capacity

Acc. to IEC 61008

Making and Breaking Capacity	$I_m=500A$
Residual making and breaking capacity	$I_{\Delta m}$ 500A from 16 upto 40A $I_{\Delta m}=10I_n$ from 63 upto 100A
Short-circuit capacity	$I_{nc}=10000A$ at 240/415V fuse 80A gG

(1) Series BD: 25-35 mm²



Series BP/BD - Type AC



In (A)	30mA		300mA	
	Cat. No.	Code No.	Cat. No.	Code No.
25	BDC225/030	403607125	BDC225/300	403607127
40	BDC240/030	403607126	BDC240/300	403607128
63	BPC263/030	403606134	BPC263/300	403606150
80	BPC280/030	403606135	BPC280/300	403606151
100	BPC2100/030	403606136	BPC2100/300	403606152

In (A)	Cat. No.	Code No.	Cat. No.	Code No.
25	BPC425/030	403606208	BPC425/300	403606224
40	BPC440/030	403606209	BPC440/300	403606225
63	BPC463/030	403606210	BPC463/300	403606226
80	BPC480/030	403606211	BPC480/300	403606227
100	BPC4100/030	403606212	BPC4100/300	403606228

Add-on Device for MCB's and RCD's

Auxiliary Series CA



Function	Cat. No.	Code No.
H	CA H	403672567
S/H	CAS/H	403672568

Auxiliary Series CB



Function	Cat. No.	Code No.
SH/HH	CB	403672570
SH/HH	SH/HH-R	403672571

Tele L - Shunt trip



Voltage	Cat. No.	Code No.
AC 24-60V DC 24 48V	TELE L-1	403672573
AC 110-415V DC 110-125V	TELE L-2	403672574

Tele U - Undervoltage release



Voltage	Cat. No.	Code No.
AC 230V	TELE U-230	403672575

Tele MP - Motor operator



Voltage	Cat. No.	Code No.
AC 230V	TELE MP	403672580



Redline



Contactor

Contax

Applications



Switching of lighting, heating-equipment, motors for pumps and fans, ... Day and night contactors are used mainly in combination with dual-tariff applications to allow high-energy-loads (i.e. electrical water heaters, accumulation heaters) only to consume energy during the low-tariff period. A forced-on, forced-off, auto-switch allows to overrule the normal operation of the DN-contactor at all times.

Features

Except for the 20A version, all contactors have DC coils, resulting in an absolutely noise-free, real silent operation: 50 or 60Hz noise generation by the contactor is impossible. As all DC coil contactors have an internal diode rectifier bridge, they all can be operated by both DC and AC power supplies. The built-in varistor protects the coil against an overvoltage of up to 5kV. The switch position of the contactor is visualised through an indicator flag. The loss-proof safety terminals are equipped with Pozidriv screws and have IP20 protection degree. Add-on auxiliary contacts as well as spacers and sealing pieces are available.

Standards

IEC 60947-4-1, BS EN 60947-4-1, IEC 61095, BS EN 61095. Approval VDE,

Function

Contactors are electromechanically controlled switches used to control single or multi-phase (high) power loads while the control itself can be (very) low power.

Performance

Rated switching capacity	20A	24A	40A	63A
<i>Contacts</i>				
More technical information see T4				
Switching capacity for different loads				
Rated insulation voltage	400V	500V	500V	500V
Rated operational voltage	250V	440V	440V	440V
Switching-on capacity				
cosφ = 0.65 at 380-400V Sphase	-	90A	220A	300A
cosφ = 0.95 at 220-230V 1 phase	100A	-	-	-
Switching-off capacity				
cosφ = 0.65 at 380-400V 3phase	-	72A	176A	240A
cosφ = 0.95 at 220-230V 1 phase	80A	-	-	-
Fuse type GL for short-circuit protection	20A	35A	63A	80A
Ohmic loss per contact at I _n	1.0 W	1.5W	3.0W	6.0W
Maximum switching frequency AC1 / AC7a	300/h	300/h	300/h	300/h
Maximum switching frequency ACS / AC7b	600/h	600/h	600/h	600/h
Mechanical service life	10 ⁶	10 ⁶	10 ⁶	10 ⁶
Electrical service life AC1 / AC7a	150000	150000	1 50000	150000
Electrical service life ACS / AC7b	150000	500000	170000	240000
Screws	Pozidriv 1	Pozidriv 1	Pozidriv 2	Pozidriv 2
Terminal capacity: min	1x1 mm ²	1x1 mm ²	1x1.5 mm ²	1x1.5 mm ²
max	1x10mm ² or 2x4mm ²	1x10mm ² or 2x4 mm ²	1x25mm ² or 2x10mm ²	1x25mm ² or 2x10 mm ²
<i>Magnetic control system</i>				
Control voltage range	85 ... 110% <i>x</i> Un	85 ... 110% <i>x</i> Un	85 ... 110% <i>x</i> Un	85 ... 110% <i>x</i> Un
Rated operating frequency	50 or 60Hz	DC 40 450Hz	DC 40 450Hz	DC 40 450HZ
Operating temperature range	-25 ... +55°C	-25 ... +55°C	-25 ... +55°C	-25 ... +55°C
Maximum pull-in coil power loss	8.0VA / 5.0W	4VA / 4W	5VA / 5W	65VA / 65W
Maximum holding coil power loss	3.2VA / 1.2W	4VA / 4W	5VA / 5W	4.2VA / 4.2W
Switching-on delay	9 ... 12 ms	< 40 ms	< 40 ms	< 40 ms
Switching-off delay	10 ... 12 ms	< 40 ms	< 40 ms	< 40 ms
Screws	Pozidriv 1	Pozidriv 1	Pozidriv 1	Pozidriv 1
Terminal capacity: min	1x1 mm ²	1x1 mm ²	1x1 mm ²	1x1 mm ²
max	1x4mm ² or 2x2.5mm ²	1x4mm ² or 2x2.5mm ²	1x4mm ² or 2x2.5mm ²	1x4mm ² or 2x2.5mm ²



Redline



Relays Contax R Applications



Switching of lighting, heating, etc. Galvanic insulation of i.e. status signalisation lamps from a (high) power (high voltage) circuit. Galvanic insulation of PLC-inputs or outputs to avoid destruction through excessive voltage.

Features

Besides the normal operation through electrically energising the coil, manual operation is possible at all times. The switch position of the relay is visualised through an indicator flag. The safety terminals are equipped with captive Pozidriv screws and have IP20 protection degree. An add-on auxiliary contact as well as spacer are available.

Standards

BSEN 60669-1, BSEN 60669-2, VDE 0632, VDE 0660-107, NBN C61 -111, NF C61-810, VDE 0637, IEC 60669-1, IEC 60669-2-2, IEC 61095, BSEN 61095

Function

Relays are electromechanically controlled switches used to control low power loads.

Performance	
Rated switching capacity	16A
Contact	
Contact spacing / material	3 mm/AgSnO ₂
Spacing between control and load circuit	> 6 mm
Isolation voltage contact/contact	400V
Isolation voltage contact/magnetic system	400V
Switching capacity	16A/250V; 10A/400V
Incandescent lamp load	10A (2300W)
Fluorescent lamp load lead-lag circuit	16A (3500W)
Fluorescent lamp load, inductive or capacitive	10A (1300W)
Fluorescent lamp load parallel compensated	4A (500W)
Electronic ballast load	10A(2300W)
	I _{ON} < 140A/10ms
Inductive load, cos φ = 0.6 at 230V	10A (1300W)
DC switching capacity	100W
Minimum contact load	6V/50mA
Maximum switching frequency	1000/h
Mechanical service life	> 10 ⁶
Electrical service life, cos φ = 1 ⁽¹⁾	> 10 ⁵
Electrical service life, cos φ = 0.6 ⁽¹⁾	> 2x10 ⁴
Electrical service life, 1000W incandescent lamp ⁽¹⁾	> 10 ⁵
Contact closing time	10 ... 20 ms
Contact opening time	5 ... 15 ms
Screws	Pozidriv 1
Terminal capacity: min	1x0 5mm ²
max	1x6 mm ² or 2x2.5 mm ²
Magnetic control system	
Control voltage range	0.9 ... 1.1xUn
Relative duty/switching reliability	100%
Operating temperature range	-5 ... +50°C
Maximum coil power loss at Un and In	6W/module
Maximum control line capacitance	0.06uF (= ±200 m.)
Screws	Pozidriv 1
Terminal control capacity: min	1x0 5 mm ²
max	1x4 mm ² or 2x2.5 mm ²

More technical data ● website
Dimensions ●

(1) Guaranteed at maximum switching frequency.



Contax R - Relays

Nominal current	Contact combination	Coil voltage	AC/DC	Number of modules	Cat. No.	Code. No.	Pack.
16A	1NO	8V	AC	1	CTX R 16 10 008 A	403666489	12
16A	1NO	12V	AC	1	CTX R 16 10 012 A	403666454	12
16A	1NO	24V	AC	1	CTX R 16 10 024 A	403666458	12
16A	1NO	48V	AC	1	CTX R 16 10 048 A	403666460	12
16A	1NO	230V	AC	1	CTX R 16 10 230 A	403666456	12
16A	1NO	12V	DC	1	CTX R 16 10 012 D	403666455	12
16A	1NO	24V	DC	1	CTX R 16 10 024 D	403666459	12
16A	1NO 1NC	8V	AC	1	CTX R 16 11 008 A	403666491	12
16A	1NO 1NC	12V	AC	1	CTX R 16 11 012 A	403666461	12
16A	1NO 1NC	24V	AC	1	CTX R 16 11 024 A	403666465	12
16A	1NO 1NC	48V	AC	1	CTX R 16 11 048 A	403666467	12
16A	1NO 1NC	230V	AC	1	CTX R 16 11 230 A	403666463	12
16A	1NO 1NC	12V	DC	1	CTX R 16 11 012 D	403666462	12
16A	1NO 1NC	24V	DC	1	CTX R 16 11 024 D	403666466	12
16A	2NO	8V	AC	1	CTX R 16 20 008 A	403666490	12
16A	2NO	12V	AC	1	CTX R 16 20 012 A	403666468	12
16A	2NO	24V	AC	1	CTX R 16 20 024 A	403666472	12
16A	2NO	48V	AC	1	CTX R 16 20 048 A	403666474	12
16A	2NO	230V	AC	1	CTX R 16 20 230 A	403666470	12
16A	2NO	12V	DC	1	CTX R 16 20 012 D	403666469	12
16A	2NO	24V	DC	1	CTX R 16 20 024 D	403666473	12
16A	2NO 2NC	8V	AC	2	CTX R 16 22 008 A	403666492	6
16A	2NO 2NC	12V	AC	2	CTX R 16 22 012 A	403666475	6
16A	2NO 2NC	24V	AC	2	CTX R 16 22 024 A	403666479	6
16A	2NO 2NC	48V	AC	2	CTX R 16 22 048 A	403666481	6
16A	2NO 2NC	230V	AC	2	CTX R 16 22 230 A	403666477	6
16A	2NO 2NC	12V	DC	2	CTX R 16 22 012 D	403666476	6
16A	2NO 2NC	24V	DC	2	CTX R 16 22 024 D	403666480	6
16A	4NO	8V	AC	2	CTX R 16 40 008 A	403666493	6
16A	4NO	12V	AC	2	CTX R 16 40 012 A	403666482	6
16A	4NO	24V	AC	2	CTX R 16 40 024 A	403666486	6
16A	4NO	48V	AC	2	CTX R 16 40 048 A	403666488	6
16A	4NO	230V	AC	2	CTX R 16 40 230 A	403666484	6
16A	4NO	12V	DC	2	CTX R 16 40 012 D	403666483	6



Auxiliary Contact

Nominal current	Number of modules	Cat. No.	Code. No.	Pack.
4A	0.5	PLS 04 11	403666207	12



Auxiliary Contact
(left mounting)