

Contactor



Cat. No.	Ref. No.	Description	Pack./MOQ
CB4A310T3	101719	Contactora 4 kW -400V + 1aux NO Coil110V 50/60Hz	5
CB4A310T5	101720	Contactora 4 kW- 400V + 1aux NO Coil230V 50/60Hz	5
CB4A310T13	101721	Contactora 4 kW- 400V + 1aux NO Coil380V 50/60Hz	5
CB4A301T3	101722	Contactora 4 kW- 400V + 1aux NC Coil110V 50/60Hz	5
CB4A301T5	101723	Contactora 4 kW -400V + 1aux NC Coil230V 50/60Hz	5
CB4A301T13	101724	Contactora 4 kW -400V + 1aux NC Coil380V 50/60Hz	5
CB4A310T2	101816	Contactora 4 kW -400V + 1aux NO Coil42V 50/60Hz	5
CB4A301T2	101817	Contactora 4 kW- 400V + 1aux NC Coil42V 50/60Hz	5
CB4A310T9	101802	Contactora 4 kW -400V + 1aux NO Coil48V 50/60Hz	5
CB4A301T9	101803	Contactora 4 kW- 400V + 1aux NC Coil48V 50/60Hz	5
CB4A310T1	101880	Contactora 4 kW -400V + 1aux NO Coil24V 50/60Hz	5
CB4A301T1	101881	Contactora 4 kW- 400V + 1aux NC Coil24V 50/60Hz	5
CB5A310T3	101725	Contactora 5.5 kW- 400V + 1aux NO Coil110V 50/60Hz	5
CB5A310T5	101726	Contactora 5.5 kW- 400V + 1aux NO Coil230V 50/60Hz	5
CB5A310T13	101727	Contactora 5.5 kW- 400V + 1aux NO Coil380V 50/60Hz	5
CB5A301T3	101728	Contactora 5.5 kW -400V + 1aux NC Coil110V 50/60Hz	5
CB5A301T5	101729	Contactora 5.5 kW -400V + 1aux NC Coil230V 50/60Hz	5
CB5A301T13	101730	Contactora 5.5 kW- 400V + 1aux NC Coil380V 50/60Hz	5
CB5A310T2	101818	Contactora 5.5 kW- 400V + 1aux NO Coil42V 50/60Hz	5
CB5A301T2	101819	Contactora 5.5 kW -400V + 1aux NC Coil42V 50/60Hz	5
CB5A310T9	101804	Contactora 5.5 kW- 400V + 1aux NO Coil48V 50/60Hz	5
CB5A301T9	101805	Contactora 5.5 kW -400V + 1aux NC Coil48V 50/60Hz	5
CB5A310T1	101882	Contactora 5.5 kW- 400V + 1aux NO Coil24V 50/60Hz	5
CB5A301T1	101883	Contactora 5.5 kW -400V + 1aux NC Coil24V 50/60Hz	5
CB7A310T3	101731	Contactora 7.5 kW -400V+ 1aux NO Coil 110V 50/60Hz	5
CB7A310T5	101732	Contactora 7.5 kW -400V + 1aux NO Coil 230V 50/60Hz	5
CB7A310T13	101733	Contactora 7.5 kW- 400V + 1aux NO Coil380V 50/60Hz	5
CB7A301T3	101787	Contactora 7.5 kW -400V+ 1aux NC Coil 110V 50/60Hz	5
CB7A301T5	101788	Contactora 7.5 kW -400V + 1aux NC Coil 230V 50/60Hz	5
CB7A301T13	101789	Contactora 7.5 kW- 400V + 1aux NC Coil 380V 50/60Hz	5
CB7A310T2	101820	Contactora 7.5 kW -400V+ 1aux NO Coil 42V 50/60Hz	5
CB7A301T2	101821	Contactora 7.5 kW -400V+ 1aux NC Coil 42V 50/60Hz	5
CB7A310T9	101806	Contactora 7.5 kW -400V+ 1aux NO Coil 48V 50/60Hz	5
CB7A301T9	101807	Contactora 7.5 kW -400V+ 1aux NC Coil 48V 50/60Hz	5
CB7A310T1	101884	Contactora 7.5 kW -400V+ 1aux NO Coil 24V 50/60Hz	5
CB7A301T1	101885	Contactora 7.5 kW -400V+ 1aux NC Coil 24V 50/60Hz	5
CB11A310T3	101734	Contactora 11 kW -400V + 1aux NO Coil 110V 50/60Hz	5
CB11A301T3	101790	Contactora 11 kW -400V + 1aux NC Coil 110V 50/60Hz	5
CB11A310T5	101735	Contactora 11 kW -400V + 1aux NO Coil 230V 50/60Hz	5
CB11A301T5	101791	Contactora 11 kW -400V + 1aux NC Coil 230V 50/60Hz	5
CB11A310T13	101736	Contactora 11 kW -400V + 1aux NO Coil 380V 50/60Hz	5
CB11A301T13	101792	Contactora 11 kW -400V + 1aux NC Coil 380V 50/60Hz	5
CB11A310T2	101822	Contactora 11 kW -400V + 1aux NO Coil 42V 50/60Hz	5
CB11A301T2	101823	Contactora 11 kW -400V + 1aux NC Coil 42V 50/60Hz	5
CB11A310T9	101808	Contactora 11 kW -400V + 1aux NO Coil 48V 50/60Hz	5
CB11A301T9	101809	Contactora 11 kW -400V + 1aux NC Coil 48V 50/60Hz	5
CB11A310T1	101886	Contactora 11 kW -400V + 1aux NO Coil 24V 50/60Hz	5
CB11A301T1	101887	Contactora 11 kW -400V + 1aux NC Coil 24V 50/60Hz	5
CB15A310T3	101793	Contactora 15 kW -400V + 1aux NO Coil 110V 50/60Hz	5
CB15A301T3	101794	Contactora 15 kW -400V + 1aux NC Coil 110V 50/60Hz	5
CB15A310T5	101795	Contactora 15 kW -400V + 1aux NO Coil 230V 50/60Hz	5
CB15A301T5	101796	Contactora 15 kW -400V + 1aux NC Coil 230V 50/60Hz	5
CB15A310T13	101797	Contactora 15 kW -400V + 1aux NO Coil 380V 50/60Hz	5
CB15A301T13	101798	Contactora 15 kW -400V + 1aux NC Coil 380V 50/60Hz	5
CB15A310T2	101824	Contactora 15 kW -400V + 1aux NO Coil 42V 50/60Hz	5
CB15A301T2	101825	Contactora 15 kW -400V + 1aux NC Coil 42V 50/60Hz	5
CB15A310T9	101810	Contactora 15 kW -400V + 1aux NO Coil 48V 50/60Hz	5
CB15A301T9	101811	Contactora 15 kW -400V + 1aux NC Coil 48V 50/60Hz	5
CB15A310T1	101888	Contactora 15 kW -400V + 1aux NO Coil 24V 50/60Hz	5
CB15A301T1	101889	Contactora 15 kW -400V + 1aux NC Coil 24V 50/60Hz	5
CB18A310T3	101737	Contactora 18.5 kW -400V + 1aux NO Coil 110V 50/60Hz	5
CB18A301T3	101856	Contactora 18.5 kW -400V + 1aux NC Coil 110V 50/60Hz	5
CB18A310T5	101738	Contactora 18.5 kW -400V+ 1aux NO Coil 230V 50/60Hz	5
CB18A301T5	101857	Contactora 18.5 kW -400V+ 1aux NC Coil 230V 50/60Hz	5
CB18A310T13	101739	Contactora 18.5 kW- 400V+ 1aux NO Coil 380V 50/60Hz	5

Contactor (continued)



Cat. No.	Ref. No.	Description	Pack./MOQ
CB18A301T13	101849	Contactora 18.5 kW- 400V+ 1aux NC Coil 380V 50/60Hz	5
CB18A310T2	101850	Contactora 18.5 kW -400V + 1aux NO Coil 42V 50/60Hz	5
CB18A301T2	101851	Contactora 18.5 kW -400V + 1aux NC Coil 42V 50/60Hz	5
CB18A310T9	101852	Contactora 18.5 kW -400V + 1aux NO Coil 48V 50/60Hz	5
CB18A301T9	101853	Contactora 18.5 kW -400V + 1aux NC Coil 48V 50/60Hz	5
CB18A310T1	101890	Contactora 18.5 kW -400V + 1aux NO Coil 24V 50/60Hz	5
CB18A301T1	101891	Contactora 18.5 kW -400V + 1aux NC Coil 24V 50/60Hz	5
CB22A311M3	101799	Contactora 22 kW -400V + 1aux NO + 1aux NC Coil 110V 50/60Hz	1
CB22A311M5	101854	Contactora 22 kW -400V + 1aux NO + 1aux NC Coil 230V 50/60Hz	1
CB22A311M13	101800	Contactora 22 kW- 400V + 1aux NO+ 1aux NC Coil 380V 50/60Hz	1
CB22A311M2	101855	Contactora 22 kW -400V + 1aux NO+ 1aux NC Coil 42V 50/60Hz	1
CB22A311M9	101801	Contactora 22 kW -400V + 1aux NO+ 1aux NC Coil 48V 50/60Hz	1
CB22A311M1	101892	Contactora 22 kW -400V + 1aux NO + 1aux NC Coil 24V 50/60Hz	1
CB30A311M3	101740	Contactora 30 kW -400V + 1aux NO + 1aux NC Coil 110V 50/60Hz	1
CB30A311M5	101741	Contactora 30 kW -400V + 1aux NO + 1aux NC Coil 230V 50/60Hz	1
CB30A311M13	101742	Contactora 30 kW- 400V + 1aux NO+ 1aux NC Coil 380V 50/60Hz	1
CB30A311M2	101828	Contactora 30 kW -400V + 1aux NO+ 1aux NC Coil 42V 50/60Hz	1
CB30A311M9	101814	Contactora 30 kW -400V + 1aux NO+ 1aux NC Coil 48V 50/60Hz	1
CB30A311M1	101893	Contactora 30 kW -400V + 1aux NO+ 1aux NC Coil 24V 50/60Hz	1
CB37A311M3	101861	Contactora 37 kW -400V + 1aux NO+ 1aux NC Coil 110V 50/60Hz	1
CB37A311M5	101862	Contactora 37 kW -400V + 1aux NO+ 1aux NC Coil 230V 50/60Hz	1
CB37A311M13	101863	Contactora 37 kW- 400V + 1aux NO+ 1aux NC Coil 380V 50/60Hz	1
CB37A311M2	101864	Contactora 37 kW -400V + 1aux NO+ 1aux NC Coil 42V 50/60Hz	1
CB37A311M9	101865	Contactora 37 kW -400V + 1aux NO+ 1aux NC Coil 48V 50/60Hz	1
CB37A311M1	101894	Contactora 37 kW -400V + 1aux NO+ 1aux NC Coil 24V 50/60Hz	1
CB45A311M3	101743	Contactora 45 kW -400V+ 1aux NO+ 1aux NC Coil 110V 50/60Hz	1
CB45A311M5	101744	Contactora 45kW -400V + 1aux NO+ 1aux NC Coil 230V 50/60Hz	1
CB45A311M13	101745	Contactora 45 kW- 400V + 1aux NO+ 1aux NC Coil 380V 50/60Hz	1
CB45A311M2	101829	Contactora 45 kW -400V+ 1aux NO+ 1aux NC Coil 42V 50/60Hz	1
CB45A311M9	101815	Contactora 45 kW -400V+ 1aux NO+ 1aux NC Coil 48V 50/60Hz	1
CB45A311M1	101895	Contactora 45 kW -400V+ 1aux NO+ 1aux NC Coil 24V 50/60Hz	1

**New**  
**CB-Line**  
Contactors up to 45 kW

Thermal overload relays

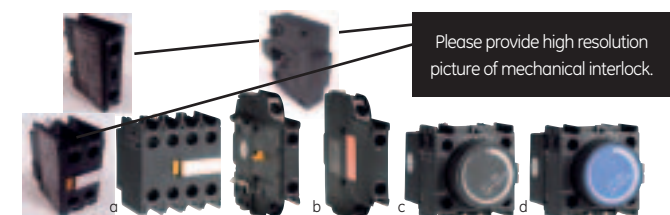
Cat. No.	Ref. No.	Range	Pack./MOQ
CBR1 0.16	101760	0.1-0.16	5
CBR1 0.25	101761	0.16-0.25	5
CBR1 0.40	101762	0.25-0.40	5
CBR1 0.63	101763	0.4-0.63	5
CBR1 1.00	101764	0.63 - 1.0	5
CBR1 1.6	101765	1.0 -1.6	5
CBR1 2.0	101766	1.25 - 2.0	5
CBR1 2.5	101767	1.60 - 2.50	5
CBR1 4.0	101768	2.5 - 4.0	5
CBR1 6.0	101769	4.0-6.0	5
CBR1 8.0	101770	5.5 - 8.0	5
CBR1 10.0	101771	7.0 - 10.0	5
CBR1 13.0	101772	9.0 - 13.0	5
CBR1 18.0	101773	12.0 - 18.0	5
CBR1 25.0	101774	17.0 - 25.0	5
CBR2 32.0	101775	23 - 32	5
CBR2 36.0	101776	28 - 36	5
CBR3 32.0	101777	23 - 32	1
CBR3 40.0	101778	30 - 40	1
CBR3 50.0	101779	37 - 50	1
CBR3 65.0	101780	48 - 65	1
CBR3 70.0	101781	55 - 70	1
CBR3 80.0	101782	63 - 80	1
CBPR1	101784	Relay bracket for 9A contactor	5
CBPR2	101785	Relay bracket for 32A contactor	5



Thermal overload relay (TOR)



TOR mounting bracket



Accessories

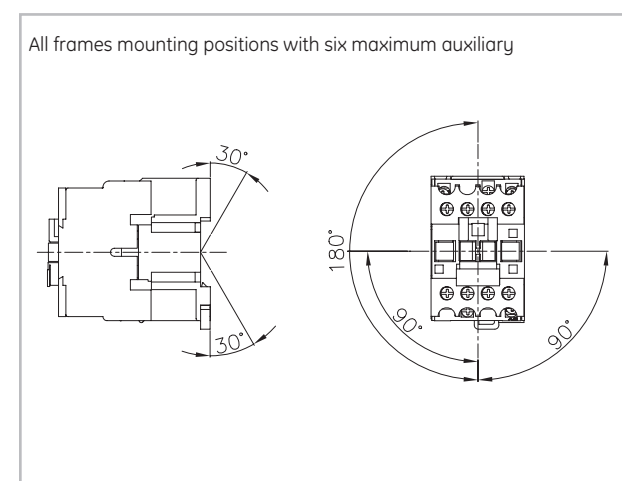
	Cat. No.	Ref. No.	Range	Pack./MOQ
	CBF101	101878	1 NC	20
	CBF110	101879	1 NO	20
	CBF211	101748	1 NO + 1NC	10
	CBF422	101752	2 NO+ 2 NC	5
Front mounted block	CBF431	101751	3 NO +1 NC	5
	CBF413	101753	3 NC + 1 NO	5
	CBF404	101844	4NC	5
	CBF440	101750	4NO	5
	CBF220	101747	2 NO	10
	CBF202	101749	2 NC	10
Lateral block	CBL11	101746	1 NO+1NC	10
	CBL20	101845	2NO	10
Mechanical interlock	CBM-A	101754	For 9 to 32A cont.	5
	CBM-B	101755	For 40 to 65A cont.	1
	CBM-C	101846	For 80 to 95A cont.	1
On delay pneumatic timer	CBT-30C	101756	0.1 - 30	5
Off delay pneumatic timer	CBT-180C	101757	10 - 180	5
	CBT-30D	101758	0.1 - 30	5
	CBT-180D	101759	10 - 180	5

# Contactors

### Built-in auxiliary contacts

Rated thermal current (Ith at T < 55°C)	A	10A	
Rated insulation voltage (Ui) conforming to IEC 60947	V	690V	
Utilisation AC15 acc. IEC			
IEC	V-A	24V - 6A 48V - 6A 120V- 3A 230V- 2A 400V- 1.3A 440V- 1.1A 600V- 0.8A	
		A600	
	Utilisation acc. cUL/UL		
	Utilisation DC13 (No extra certification required)		
	IEC	V- A	24V - 5A 48V - 1.9A 125V - 0.6A 250V - 0.3A 440V- 0.1A
			A
Short-circuit protection (max fuse class gL/gG)			

### Installation capabilities



### Mounting fixations

	Frame 1	2	3
Fixing by clipping onto 35 +/- 0.3mm DIN rail (EN50022)	X	X	
Fixing by clipping onto 75 +/- 0.5 mm DIN rail (EN50022)			X

### Short-circuit

All starter combinations following short-circuit coordination type 1 must be done using the same contactor-relay and motor rate.

Short-circuit values, either for gL/gG fuse are:

- Ir according to the standard.
- Iq must be 50 kA at 400V

### Protection against short-circuit

Type 1 Coordination without TOR (gG type fuse)	4	5.5	7.5	11	15	18.5	22	30	37	45
Contactant rating (kW)										
Fuse rating (A)	20	25	25	32	40	50	63	80	80	110



### Electrical endurance

Frame	Contactors range (kW)	Electrical endurance*
1	4	0.75
	5.5	
	7.5	
	11	
2	15	
	18.5	
	22	
3	30	
	37	
	45	

### Max. operational ratings (no load)

Dual frequency coil Duty	Unit	Frame 1	Frame 2	Frame 3
No load	Cycles/h	3600	3600	3600
AC3 with rated power	Cycles/h	900	600	600
AC4 with rated power	Cycles/h	150	150	120

### Electrical endurance of built-in auxiliary contacts

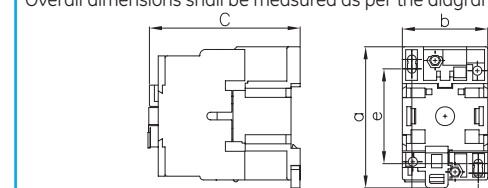
Electrical endurance test	Unit	Value	Max. Operational rate
(AC15 400V - 1.3A)	Million cycles	0.75	1200
(DC13 250V - 0.3A)	Million cycles	0.50	900

### Mechanical endurance

Frame	Contactors range (kW)	Mechanical endurance*	
1	4	6	
	5.5		
	7.5		
	11		
	15		
2	18.5		
	22		
	30		
3	37		4
	45		

### Dimensions

Overall dimensions shall be measured as per the diagram below



### Device dimensions (mm) within ± 2 mm tolerance

3 Phase devices	Frame 1	Frame 2	Frame 3
Contactant rating (kW)	4-7.5	11	15 18.5 22-37 45
Width (a)	46	46	56 56 76 85
Depth (b)	80	85	94 98 112 120
Height (c)	74	74	84 84 127 127

### Device fixation dimensions (mm)

Diameter (i)	4.5	4.5	4.5	4.5	6.5	6.5
(j)	34/35	34/35	40	40	40	40
(f)	50/60	50/60	50/60	50/60	100/110	100/110

# Thermal overload relay

### Technical features

Relay settings and trip classes	Ranges (A)	Trip class	Contactant frame
Type CBR 1 - 25	0.10 - 0.16	Class 10	Frame 1
	0.16 - 0.25		
	0.25 - 0.40		
	0.40 - 0.63		
	0.63 - 1		
	1 - 1.6		
	1.25 - 2		
	1.6 - 2.5		
	2.5 - 4		
	4 - 6		
	5.5 - 8		
	7 - 10		
	9 - 13		
	12 - 18		
	17 - 25		
	23 - 32		
	Type CBR 2 - 36		
23 - 32			
30 - 40			
37 - 50			
Type CBR 3 - 80	48 - 65	Class 10	Frame 3
	55 - 70		
	63 - 80		
	63 - 80		

### Built-in auxiliary contacts

Rated thermal current (Ith at θ<55°C)	A	5A	
Rated insulation voltage (Ui)	V	690V	
Utilisation AC15			
IEC 60947-5-1	V - A	120V - 3A 230V - 1.5A 400V - 0.95A 440V-0.75A 500V-0.72A 600V - 0.6A	
		UL-CSA	B600
		Utilisation DC13	
		IEC 60947-5-1	120V -0.22A 240V - 0.1A
		UL / cUL	R 300
		Short-circuit protection (max fuse class gL/gG w/o welding)	A

### Short-circuit

All starter combinations following short-circuit coordination type 1 must be done using the same contactor-relay and motor rate.

Short-circuit values, either for gL/gG fuse are:

- Ir according to the standard. Iq must be 50 kA at 415V

	Frame 1												Frame 2												Frame 3											
Coord. type 1	TOR rate (A)	0.10-0.16	0.16-0.25	0.25-0.4	0.4-0.63	0.63-1	1-1.6	1.25-2	1.6-2.5	2.5-4	4-6	5.5-8	7-10	9-13	12-18	17-25	23-32	28-36	23-32	30-40	37-50	48-65	55-70	63-80												
Protection against short-circuit	Fuse to be used with selected relay (gI / Gg)	A	2	2	2	2	4	4	6	6	10	16	20	20	25	35	50	63	80	63	100	100	100	125	125											
	Fuse to be used with selected relay (aM)	A	0.25	0.5	1	1	2	2	4	4	6	8	12	12	16	20	25	40	40	40	40	63	63	80	80											
Coordinated with contactor	Tor ratings	0.10-0.16	0.16-0.25	0.25-0.4	0.4-0.63	0.63-1	1-1.6	1.25-2	1.6-2.5	2.5-4	4-6	5.5-8	7-10	9-13	12-18	17-25	23-32	28-36	23-32	30-40	37-50	48-65	55-70	63-80												
	Contactant ratings	KW	4	4	4	4	4	4	4	4	4	4	4	4	5.5	7.5	11	15	18.5	30	30	30	37	37	45											
TOR (gL/gG fuse)	A	2	2	2	2	4	4	6	6	10	16	20	20	25	32	40	63	80	63	80	80	80	100	125												

### Mechanical and Electrical endurance

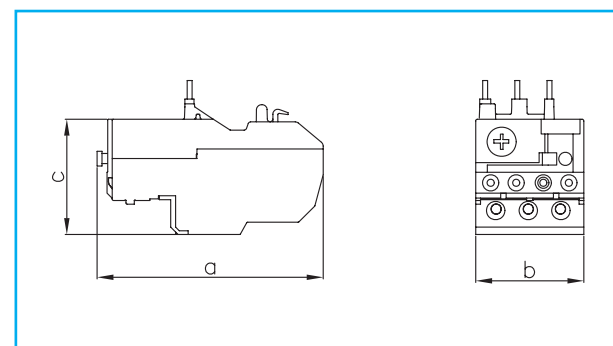
Parameters	Units	Thermal overload relay
Mechanical Durability Relay Auxiliary	Mops	0.5
Electrical Durability	Mops	0.2

### Product features

- Thermal protection against balanced overload.
- Three-pole differential (phase unbalance protection).
- Automatic ambient temperature compensation.
- Front mounted selector for choosing utilization current.
- Auto reset and manual reset
- Manual trip lever (tripping test).
- Tripping indicator (0-1).
- IP 2X Confirming to VDE 0106 protection against direct finger contact , IEC 60947-4-1 - IP10 for Terminal

### Dimensions

Sl. No	a	b	c
CBR 1-25	92	44	42
CBR 2-36	92	54	59
CBR 3-80	113	70	54



### Standards

Standards	General rules
IEC/EN 60947-1	Electromechanical contactors and starters
IEC/EN 60947-4-1	Electromechanical controls circuit devices
IEC/EN 60947-5-1	Terminal marking and distinctive number for auxiliary contacts of particular contactors.
EN50012	Terminal marking and distinctive number - General rules.
EN50005	Test FC and guidance: Vibration (sinusoidal)
IEC 60068-2-6	Test Db and guidance: Damp heat, cyclic (12+12 hour cycle)
IEC 60068-2-30	Test Ea: Shocks
VDE 0106	IP2X Protection against direct finger contact
IEC 60529	IP10
UL508	Industrial control equipment
UL486E	Equipment wiring terminal for use with aluminum or copper conductors
UL-94	Standard for safety test for flammability of plastic materials for parts in devices and appliances

# Accessories

### Mechanical and Electrical endurance

Parameters	Units	Lateral block	Frontal block	Pneumatic timer	Mechanical interlock
Mechanical durability	Million cycles	6.0	6.0	5.0	6
Electrical durability	Million cycles	0.2	0.2	0.2	

### Technical features

Parameters	Units	Lateral block	Frontal block	Pneumatic timer	Mechanical interlock
Contact configuration		1 NO + 1NC & 2 NO	1 NO+1NC 2NO,2NC 2 NO + 2NC 3 NO + 1NC 3 NC + 1NO 4NC, 4NO 1 NC, 1 NO	1 NO + 1 NC (for both On delay and Off delay timers )	Mechanical
Rated thermal current (Ith at θ<50°C)	A	10	10	10	
Rated insulation voltage (Ui)	V	690	690	690	
Utilisation AC15-IEC	V-A	24V - 6A, 48V - 6A, 120V - 3A, 230V - 2A, 400V - 1.3A, 440V - 1.1A, 600V - 0.8A			
UL & ( cUL us)	-	A600	A600	A600	
Utilisation DC13-IEC	V-A	24V - 5A, 48V - 1.9A, 125V - 0.6A, 250V - 0.3A, 440V - 0.1A			
Short-circuit protection (max fuse class gG )	A	10	10	10	
Type of terminal	-	Screw plate	Screw plate	Screw plate	
Timing range (Pneumatic timer)				0.1 - 30 s, 10 - 180 s (for each -On delay and Off delay)	
Repeat accuracy for (Pneumatic timer) for contact blocks	%	NA	NA	+ / - 5 %	
Accuracy valid for (Pneumatic timer) for setting range (drift upto 0.5 million operating cycles)	%			+ / - 15%	

### Approvals

CULus (USA & Canada)	CE Marking

### IP Protection

IP20	As per VDE0106
IP10	As per IEC60529 without enclosure

### Climatic conditions

	All frames
Ambient temperature	-5°C + +40°C
Damp heat, steady state	12+12 hrs cycle ,6 cycles upper +40°C
IEC60068-2-30	

### Dimensions

Product	A (width) mm	B (depth) mm	C (height) mm
Lateral block	17.5	72	73
Mechanical interlock	25.5	54	54
Pneumatic timer	45	61	45
Front / Top mounted block 4P	45	48	38.5
Front / Top mounted block 2P	25.5	48	38.5
Front / Top mounted block 1P	13	48	38.5

Overall dimensions shall be measured per diagram and there is not included the packaging dimensions.



GE imagination at work

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