

Table of Specifications

Midi-Contactors



Frame size				
Type	Terminal type			
Number of poles				
Rated operational voltage, Ue				
Rated insulation voltage, Ui				
Rated frequency				
Rated impulse withstand voltage, Uimp				
Maximum operating rate in operating cycles per hour(AC3)				
Durability	Mechanical			
	Electrical			
Current and power	AC-1, Thermal current	A		
	AC-3	200/240V	kW	
			A	
		380/440V	kW	
			A	
		500/550V	kW	
			A	
	690V	kW		
		A		
UL rating (50/60Hz)	Continuous current		A	
	Single phase	110~120V	HP	
		220~240V	HP	
		200~208V	HP	
	Three phase	220~240V	HP	
		440~480V	HP	
		550~600V	HP	
	NEMA size			
Size and weight		AC control	Weight	kg
			Size(W × H × D)	mm
		DC control	Weight	kg
			Size(W × H × D)	mm
Auxiliary(standard)				
Auxiliary	Side mount			
	Front mount			



Note) Minimum conduct current of Auxiliary contactor is DC 17V 5mA.

22AF			
CC9	CC12	CC18	CC22
Screw Only			
3pole			
690V			
690V			
50/60Hz			
6kV			
1800 operations per hour			
15 mil. operations			
2.5 mil. operations			
25	25	32	40
2.5	3.5	4.5	5.5
11	13	18	22
4	5.5	7.5	11
9	12	18	22
4	7.5	7.5	15
7	12	13	20
4	7.5	7.5	15
6	9	9	18
25	25	40	40
0.5	0.75	1	2
1.5	2	3	3
2	3	5	7.5
3	5	7.5	10
5	7.5	10	15
7.5	10	15	20
00	00	0	1
0.34			
45 × 73.5 × 86			
0.51			
45 × 73.5 × 117.7			
GUA1, GUA2, GUA4			
GUA-1			
GUA-2, GUA-4			

40AF	
CC32	CC40
Screw Only	
3pole	
690V	
1000V	
50/60Hz	
8kV	
1800 operations per hour	
12 mil. operations	
2 mil. operations	
50	60
7.5	11
32	40
15	18.5
32	40
18.5	22
28	32
18.5	22
20	23
50	60
2	3
5	7.5
7.5	15
10	15
20	30
25	30
1	1
0.55	
69 × 83 × 93	
0.77	
69 × 83 × 120	
GUA-1	
GUA-2, GUA-4	

GT Type Thermal Overload Relays

Type	Screws clamp terminals		
Rated operational voltage, Ue			
Rated insulation voltage, Ui			
Rated impulse withstand voltage, Uimp			
Trip class			
Setting range			
Size and weight	Weight	kg	
		Size(W × H × D) mm	



GT32	
●	
690V	
690V	
6kV	
10A, 20	
0.1~40A	
0.17	
45 × 75 × 90	

GT32	
●	
690V	
690V	
6kV	
10A, 20	
0.1~40A	
0.17	
45 × 75 × 90	



Table of Specifications

CARLO GAVAZZI



65AF	
CC50	CC65
Screw or Lug	
3pole	
690V	
1000V	
50/60Hz	
8kV	
1800 operations per hour	
12 mil. operations	
2 mil. operations	
70	100
15	18.5
55	65
22	30
50	65
30	33
43	60
30	33
28	35
70	100
3	5
10	15
20	25
25	30
40	50
50	60
2	2
1.05	
79 × 106 × 122	
1.3	
79 × 106 × 149	
GUA-1	
GUA-2, GUA-4	



GT63
•
690V
690V
6kV
10A, 20
4~65A
0.31/0.33
55 × 81 × 100



100AF		
CC75	CC85	CC100
Screw or Lug		
3pole		
690V		
1000V		
50/60Hz		
8kV		
1800 operations per hour		
12 mil. operations		
2 mil. operations		
110	135	160
22	25	30
75	85	105
37	45	55
75	85	105
37	45	55
64	75	85
37	45	45
42	45	65
110	135	160
5	7.5	10
15	15	20
25	30	30
30	40	40
50	60	75
60	75	75
2	3	3
1.93		
94 × 140 × 137		
2.8		
94 × 140 × 174		
GUA-1		
GUA-2, GUA-4		



GT95
•
690V
690V
6kV
10A, 20
7~100A
0.48/0.5
70 × 97 × 110

Table of Specifications

CARLO GAVAZZI



400AF

CC265*

CC330*

CC400*

Screw Only

3pole

690V

1000V

50/60Hz

8kV

1200 operations per hour

5 mil. operations

2.5 mil. operations

1 mil. operations

0.5 mil. operations

300

350

450

80

90

125

265

330

400

147

160

200

265

330

400

147

160

225

225

280

350

160

200

250

185

225

300

300

350

450

-

-

-

-

-

-

75

100

125

100

125

150

200

250

300

200

250

300

5

5

5

9.2

163 × 243 × 198

2a2b

-

-



GT400

•

690V

690V

6kV

10A, 20

85~400A

2.6

151 × 171 × 198



800AF

CC500*

CC630*

CC800*

Screw Only

3pole

690V

1000V

50/60Hz

8kV

1200 operations per hour

2.5 mil. operations

0.5 mil. operations

580

660

900

147

190

220

500

630

800

265

330

440

500

630

800

265

330

500

400

500

720

300

400

500

380

420

630

580

660

900

-

-

-

-

-

-

150

200

200

200

250

300

400

500

600

400

500

600

6

6

7

22.4

285 × 312 × 242

2a2b

-

-



GT800

•

690V

690V

6kV

10A, 20

200~800A

11.5

360 × 530 × 212

Type Numbering System

Midi-Contactor

CC	9		S	A	120		
Magnetic 3-pole Midi-Contactor	Amperage Size	Type	Terminal Type	Coil Type	Coil Voltage	AC Coil Frequency	Auxiliary Contact s
	9 - 9A 12 - 12A 18 - 18A 22 - 22A 32 - 32A 40 - 40A 50 - 50A 65 - 65A 75 - 75A 85 - 85A 100 - 100A	BLANK - 3-pole /4 - 4-pole	S - Screw L - Lug (>50A)	A - AC type D - DC type	24 - 24V 120 - 120V & 600 - 600V	BLANK - 50/60 Hz 50Hz - 50Hz only 60Hz - 60Hz only	BLANK - standard arrangement NOAUX - no aux. contact (>=32A)

Overload

GT	32		S	0.16A
Bimetallic Midi-Overload	Frame Size	Class	Terminal Type (Must match contactor number)	Setting Ranges (Use upper limit in part.)
	32 - 9, 12, 18A 22, 32, 40A 65 - 50, 65A 75 - 75, 85, 100A	BLANK class 10 L - class 20	S - Screw L - Lug (>35A)	0.1 ~ 0.16A 0.16 ~ 0.25A 0.25 ~ 0.4A 0.4 ~ 0.63A 0.63 ~ 1A 1 ~ 1.6A 1.6 ~ 2.5A 2.5 ~ 4A 4 ~ 6A 6 ~ 8A 8 ~ 9A 9 ~ 13A 12 ~ 18A 16 ~ 22A 18 ~ 25A 22 ~ 32A 24 ~ 36A 28 ~ 40A 34 ~ 50A 45 ~ 65A 54 ~ 75A 63 ~ 85A 70 ~ 95A 80 ~ 100A

CGE	22	3P	22A
Electronic Midi Overload	Frame Size	Protection	Setting Range (Use upper limit in part.)
	22 - 9, 12, 18, 22A 40 - 32, 40A 80 - 50, 65, 75, 85A	Direct Mount 22 and 40AF 2P - 2-Pole 3P - 3-Pole 3PR - 3-pole Separate Mount All CGE sizes 2S - 2-Pole 3S - 3-Pole 3SR - 3-Pole	CGE22 0.3 ~ 1.5A 1 ~ 5A 4.4 ~ 22A CGE40 4 ~ 20A 8 ~ 40A CGE80 16 ~ 80A

Tunnel Type 22 and 40AF 2T - 2-Pole 3T - 3-Pole 3TR - 3-Pole	(Setting Range Guide) GT32 GT65 GT95
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Optional Accessories

Auxiliary contact unit

Version	Contact composition
GUA1 - 11	11 1NO+1NC
GUA2	20 2NO
GUA4	02 2NC
	40 4NO
	31 3NO+1NC
	22 2NO+2NC
	13 1NO+3NC
	04 4NC

Surge absorber

Composition and voltage
1 Varistor+RC AC/DC 24~48V
2 Varistor+RC AC/DC 100~125V
3 Varistor+RC AC/DC 200~240V
4 Varistor+RC AC 380~440V
5 Varistor+RC AC 24~48V
6 Varistor+RC AC 100~125V
11 Varistor AC 200~240V
12 Varistor DC 24~48V
13 Varistor DC 100~125V
14 Varistor DC 200~220V
22 RC AC 100~125V

(Note) See page 52 for details.

Interlock unit

GUR02

Contact composition

02	2NC
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Wire kit for Interlocking

GUW32

Frame size

22	22AF
32	32AF
63	63AF
95	95AF

Separate mounting unit (For relay)

GUZ32

Frame size

32	32AF
63	63AF
95	95AF
150	150AF

Remote reset unit (For relay)

GTTRR-16

Cable length

16	400
20	500
24	600



Environment

Standards	IEC/EN 60947-1, IEC/EN 60947-4-1, UL508, K60947
Certifications	CE, UL
Rated insulation voltage (Ui)	1000V
Rated impulse withstand voltage (Uimp)	8kV
Degree of protection	IP20 (Conforming to IEC60529)
Ambient air temperature	Storage: -50° C ~ +80° C Operation: -5° C ~ +60° C
Operating altitude	3000m (8900ft)
Operating positions	
Shock resistance (1/2 sine wave =11ms)	Opened: 8G Closed: 10G
Vibration resistance (Conforming to IEC68-2-6) (5...300 Hz)	Opened: 2G Closed: 4G
Flame resistance	Conforming to UL 94: V0 Conforming to IEC 695-2-1: 960° C

Connections

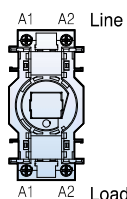
Wire type		Main Terminal Size								Torque	
			(AWG / mm²)						mm(max)		
Frame										[lb-in]	[Nm]
CC9		M4	18~10 / 1~6	18~10 / 1~6	18~10 / 1~6				9.6	20	2.25
CC12			18~10 / 1~6	16~10 / 1~6	16~10 / 1~6						
CC18			18~10 / 1~6	16~8 / 1.5~10	16~8 / 1.5~10						
CC22			18~10 / 1~6	14~8 / 2.5~10	14~8 / 2.5~10						
CC32		M5	18~10 / 1~6	12~8 / 2.5~10	12~8 / 2.5~10				12.8	20	2.25
CC40			18~10 / 1~6	8~6 / 10~16	8~6 / 10~16					35	4
CC50		M6	-	10~4 / 6~25	10~4 / 6~25				14	35	4
CC65			-	8~3 / 10~35	8~3 / 10~35						
CC75		M8	-	8~2 / 10~35	8~2 / 10~35				17	45	5.1
CC85			-	8~1/0 / 10~50	8~1/0 / 10~50						
CC100		M8	-	8~2/0 / 10~70	8~2/0 / 10~70				24.5	80	9.1
CC130			-	3~2/0 / 35~70	3~2/0 / 35~70						
CC150		M8	-	3~4/0 / 35~95	3~4/0 / 35~95				24.5	80	9.1
CC9~150			20~14 / 0.5~2.5	18~12 / 0.75~2.5	18~12 / 0.75~2.5				7.6	15	1.75
CC185		M10	-	1~4/0 / 50~95	1~4/0 / 50~95				25	130	14.7
CC225			-	1/0~300 / 50~150	1/0~300 / 50~150						
CC265		M12	-	3/0~500 / 95~240	3/0~500 / 95~240				30	200	22.6
CC330			-	4/0~500 / 95~240	4/0~500 / 95~240						
CC400		M16	-	350~700 / 185~185x2	350~700 / 185~185x2				40	500	26.5
CC500			-	350~800 / 185~240x2	350~800 / 185~240x2						
CC630		M16	-	600~2000	-				40	500	26.5
CC800			-	1700~Busbar	-						
CC185~800		M16	16~10 / 1~6	18~12 / 0.75~2.5	18~12 / 0.75~2.5				7.6	15	1.75

Control Coil Characteristics

CARLO GAVAZZI



Frame size		22AF	40AF	65AF	100AF	150AF
Type		CC9	CC32	CC50	CC75	CC130
		CC12	CC40	CC65	CC85	CC150
		CC12			CC100	
		CC22				
AC coil						
Control voltage	[Uc]					
	50Hz [V]	24, 32, 36, 42, 48, 80, 100, 110, 220, 230, 240, 380, 400, 415, 440, 500, 550V				
	60Hz [V]	24, 48, 100, 110, 120, 200, 208, 220, 230, 240, 277, 380, 440, 480, 600V				
	50/60Hz [V]	24, 48, 100, 110, 120, 200, 220, 230, 240, 380, 415, 440, 500, 550V				
Voltage limit	[Uc]					
	Pick-up	85 ~ 110% (50Hz)				
	Drop-out	85 ~ 110% (60Hz)				
Coil consumption at 20°C						
AC 220V	Inrush [VA]	58/56	53/50	110/104	229/216	108/104
	Holding [VA]	9.0/6.0	12.0/9.0	13.0/10.0	17.0/13.0	18.0/21.0
Heat dissipation [W]		2.1/1.5	2.7/2.2	2.8/2.4	5.4/4.7	2.7/3.6
Operating time						
	Closing [ms]	12 ... 22	12 ... 22	12 ... 22	15 ... 30	20 ... 40
	Opening [ms]	4 ... 19	4 ... 19	4 ... 19	10 ... 30	60 ... 70
DC coil						
Control voltage [Uc]		12, 20, 24, 48, 60, 80, 100, 110, 125, 200, 220, 250				
Voltage limit	[Uc]					
	Pick-up	70 ~ 110%				
	Drop-out	10 ~ 30%				
Coil consumption at 20°C						
DC 110V	Inrush [W]	9	7	9	18	213
	Holding [W]	9	7	9	18	7.5
Time constant (L/R) [ms]		28	28	65	75	
Operating time						
	Closing [ms]	35 ... 50	50 ... 65	50 ... 65	100 ... 120	70 ... 80
	Opening [ms]	4 ... 19	4 ... 19	4 ... 19	10 ... 25	60 ... 70



Note) A1(A2) in line side is internally connected to A1(A2) in load side.

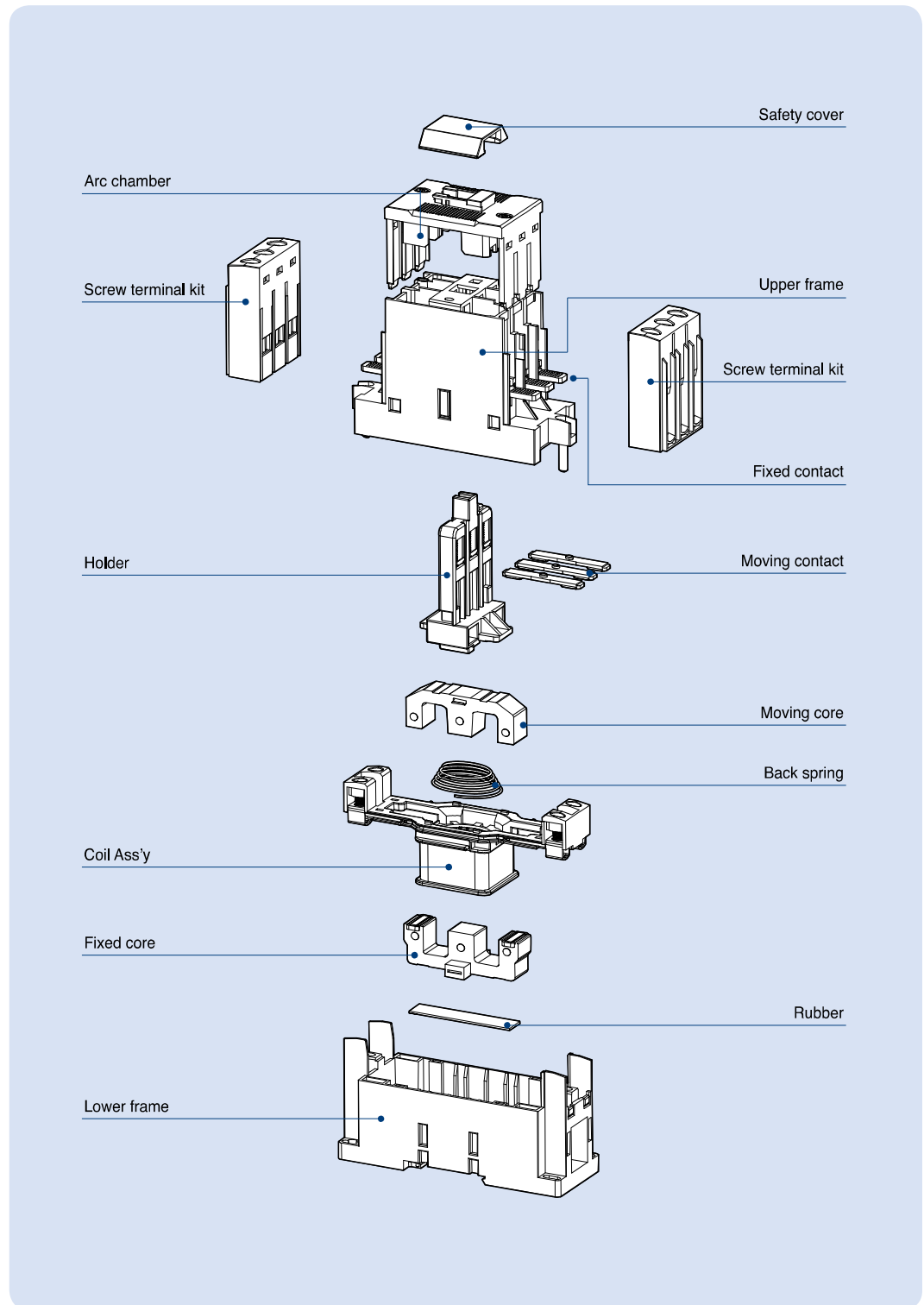
To instantly view a data sheet and specify products, visit www.GavazziOnline.com

Control Coil Characteristics

CARLO GAVAZZI



Frame size			225AF	400AF	800AF
Type			CC185	CC265	CC500
			CC225	CC330	CC630
				CC400	CC800
AC/DC common coil					
Control voltage		[Uc]			
	AC/DC		24/24	-	-
	AC/DC		48/48	-	100/100
	AC/DC		100~240/100~220	100~240/100~220	200/200
	AC		300	300	300
	AC		400	400	400
	AC		500	500	500
Voltage limit		[Uc]			
	Pick-up		86~110%		
	Drop-out		30~60%		
Coil consumption at 20°C					
AC 220V	Inrush	[VA]	380	571	1000
50/60Hz	Holding	[VA]	11.6	14	29
Heat dissipation		[W]	4.7	5	7.8
Operating time					
	Closing	[ms]	70	55	75
	Opening	[ms]	70	55	75



Description

- 3-pole(NO) main contact
- Finger proof design
- DIN rail or screw mountable
- AC or DC control in the same physical size
- Front/side mountable accessories available
- Direct mountable overload relay available
- 2NO2NC Auxiliary contacts built-in as standard

Rating



CC150

Contactor type			CC130		CC150		
			kW	A	kW	A	
AC duty	AC3	200/240V	37	130	45	150	
		380/440V	60	130	75	150	
		500/550V	60	90	70	100	
		690V	55	60	55	60	
	AC4	200/240V	22	93	30	120	
		380/440V	45	90	55	110	
	AC1	-	160	-	210		
DC1 duty (L/R=1ms)	2-pole	24V	-	120	-	150	
		in series	48V	-	100	-	120
		110V	-	80	-	100	
	3-pole	24V	-	120	-	150	
		in series	48V	-	120	-	150
		110V	-	100	-	150	
DC2, 4 duty (L/R=15ms)	2-pole	24V	-	120	-	150	
		in series	48V	-	60	-	100
		110V	-	40	-	80	
	3-pole	24V	-	120	-	150	
		in series	48V	-	90	-	130
		110V	-	80	-	120	
Directly mountable Overload relay			GT150				
Conductor size (solid, stranded) (the max. number of conducts: 2)		AWG	3~00		3~00		
		mm ²	35~70		35~95		
Conductor type			65/75℃ Cu-wire only				



Coil Voltage

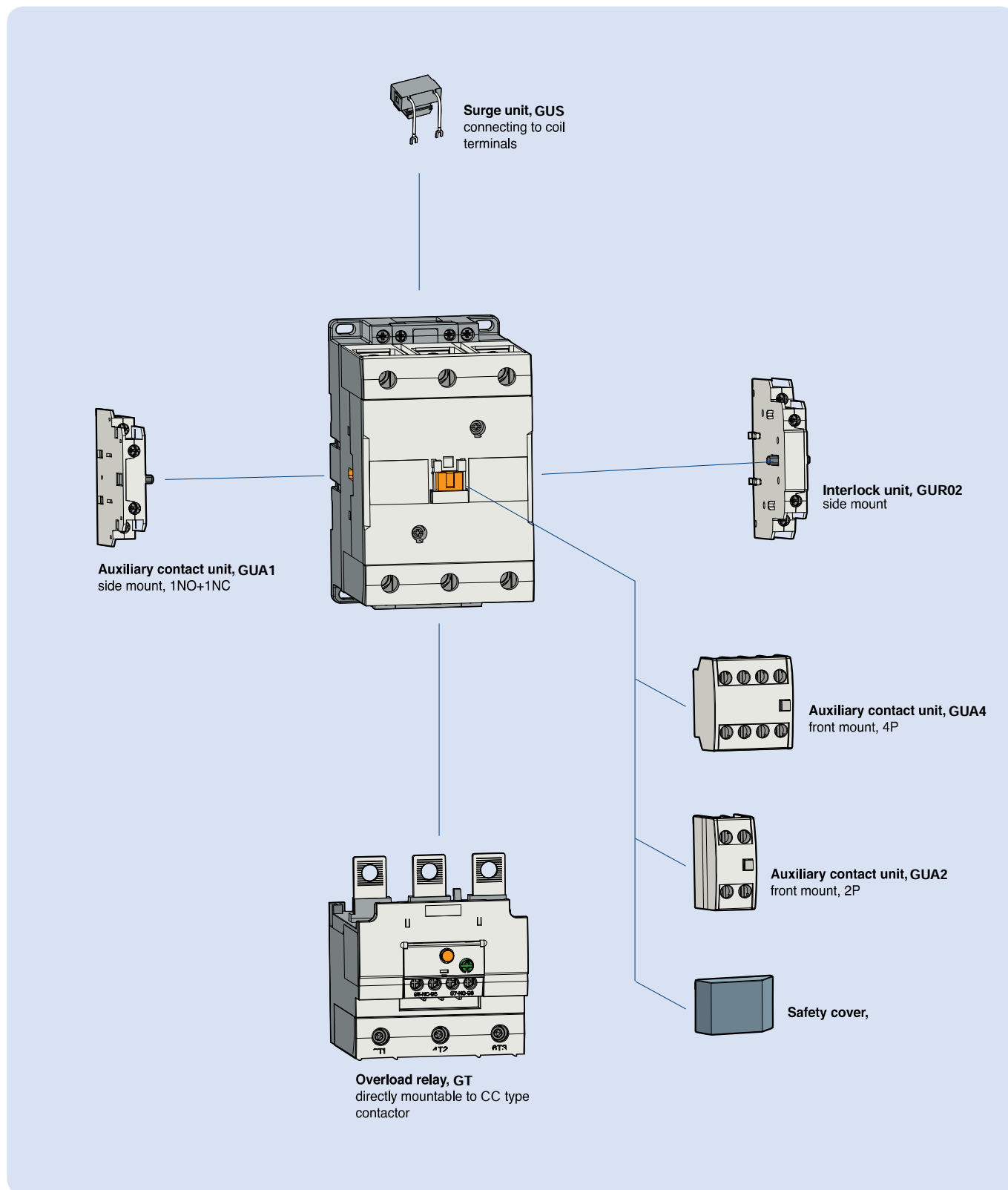
AC	50/60Hz	24, 48, 110, 220, 300, 400, 500V
DC	DC	24, 48, 110, 220V

Certification

- CE(IEC)
- UL508

Contactors (150AF)

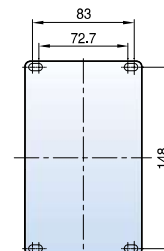
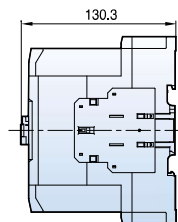
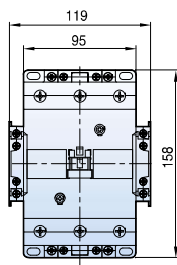
Accessories



Contactors (150AF ~ 800AF)

CARLO GAVAZZI

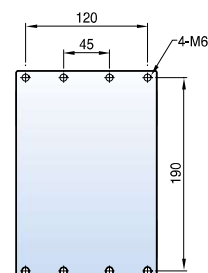
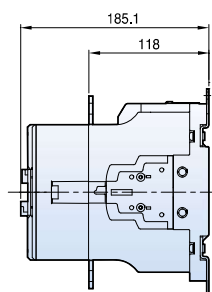
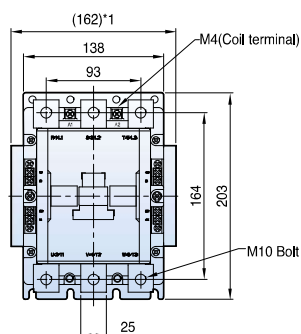
CC130 ~ CC150
2NO2NC aux



[mm]

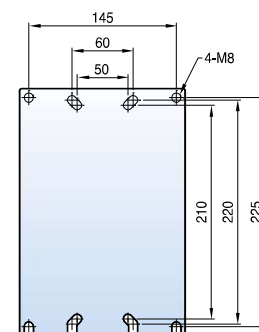
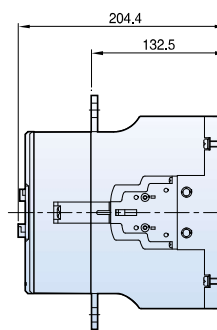
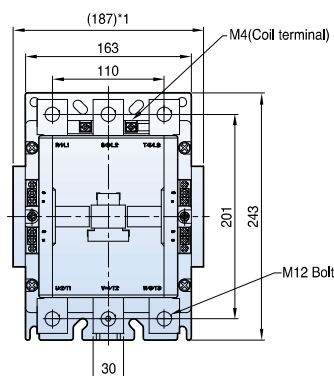
2.4kg

CC185 ~ CC225
2NO2NC aux



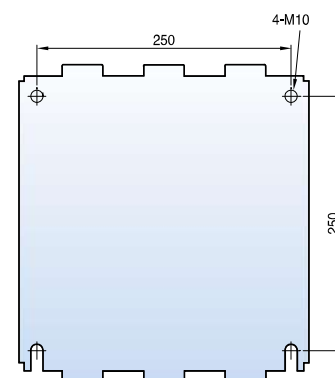
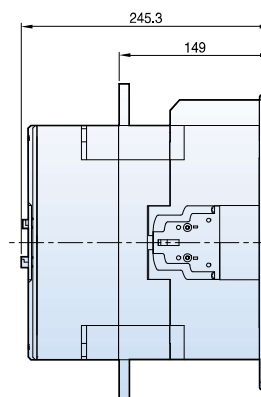
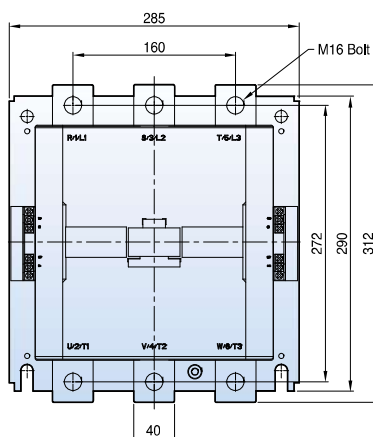
5.4kg

CC265 ~ CC400
2NO2NC aux



9.2kg

CC500 ~ CC800
2NO2NC aux

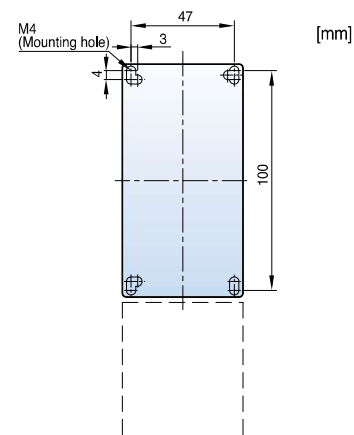
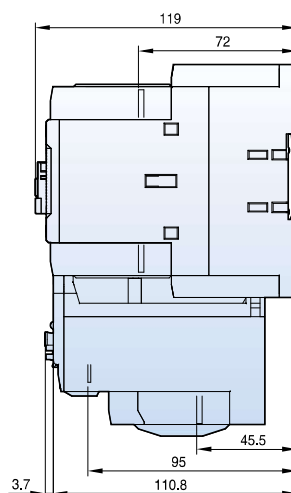
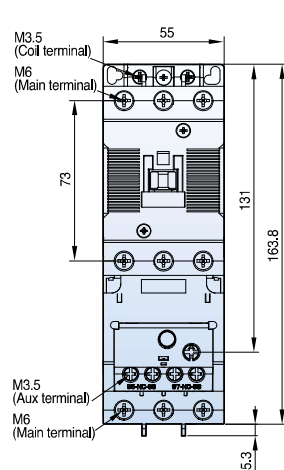


22.4kg

Motor Starters (65AF ~ 150AF)

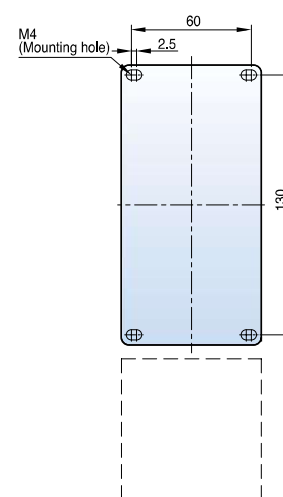
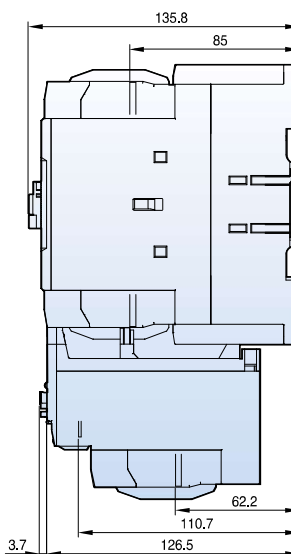
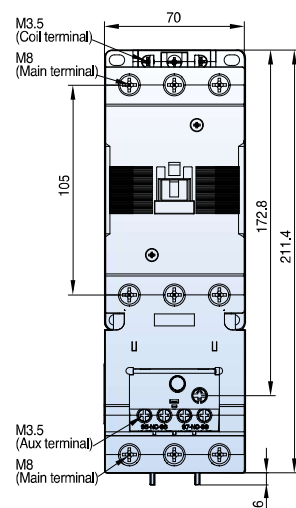
CARLO GAVAZZI

CC50 ~ CC65
with GT63
shown with no
aux contact



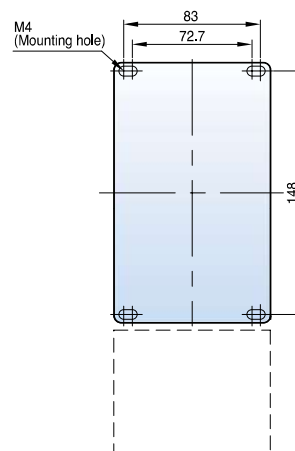
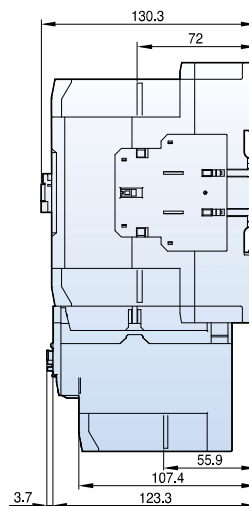
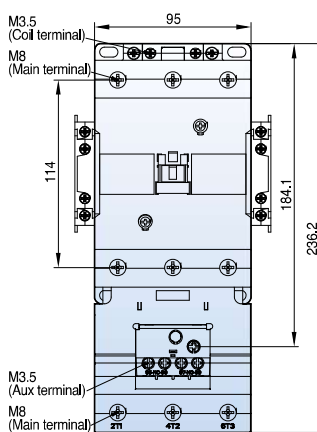
1.3kg

CC75 ~ CC100
with GT95
shown with no
aux contact



2.3kg

CC130 ~ CC150
with GT150
shown with no
aux contact



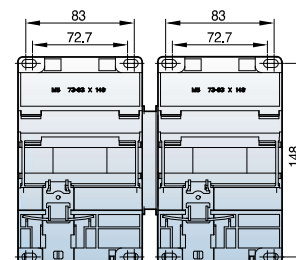
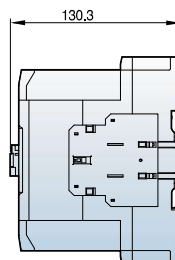
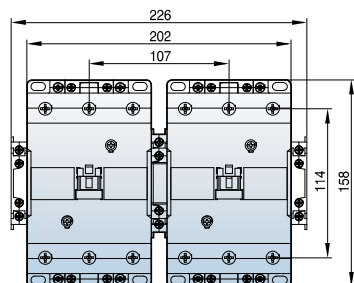
2.9kg

Reversing Contactors and Starters (150AF ~ 800AF)

CARLO GAVAZZI

CC130 ~ CC150
AC coil

reversing
combination
shown with aux
contacts

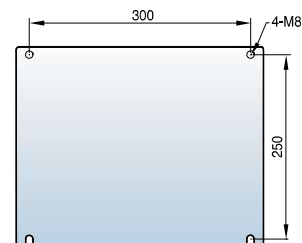
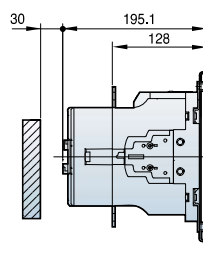
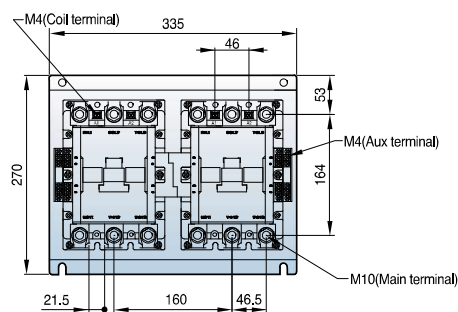


[mm]

4.3kg

CC185 ~ CC225

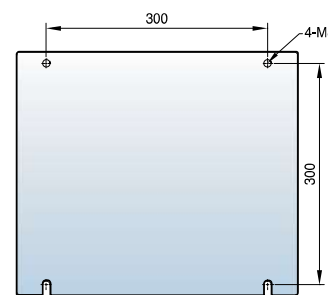
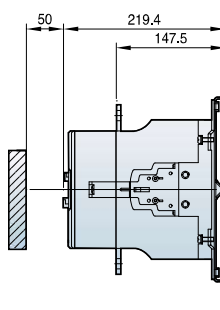
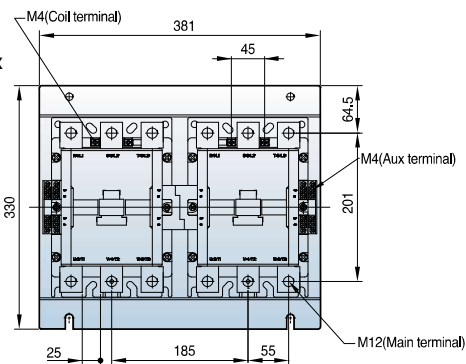
reversing
combination
shown with aux
contacts



12.9kg

CC265 ~ CC400

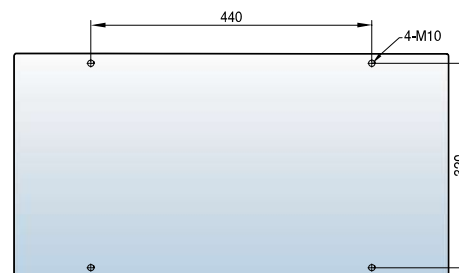
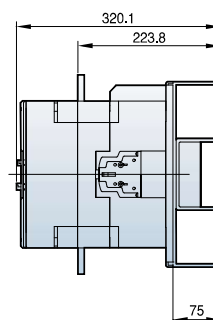
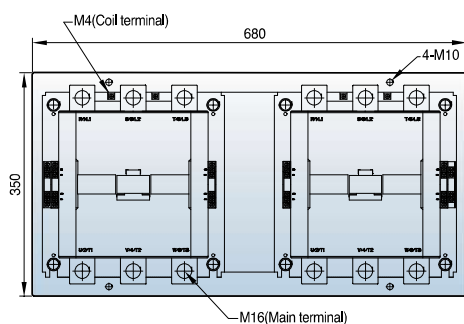
reversing
combination
shown with aux
contacts



21.4kg

CC500 ~ CC800

reversing
combination
shown with
aux contacts



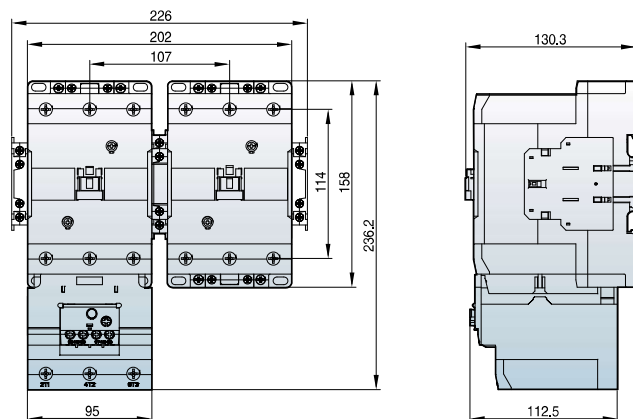
60kg

Reversing Contactors and Starters (150AF ~ 400AF)

CARLO GAVAZZI

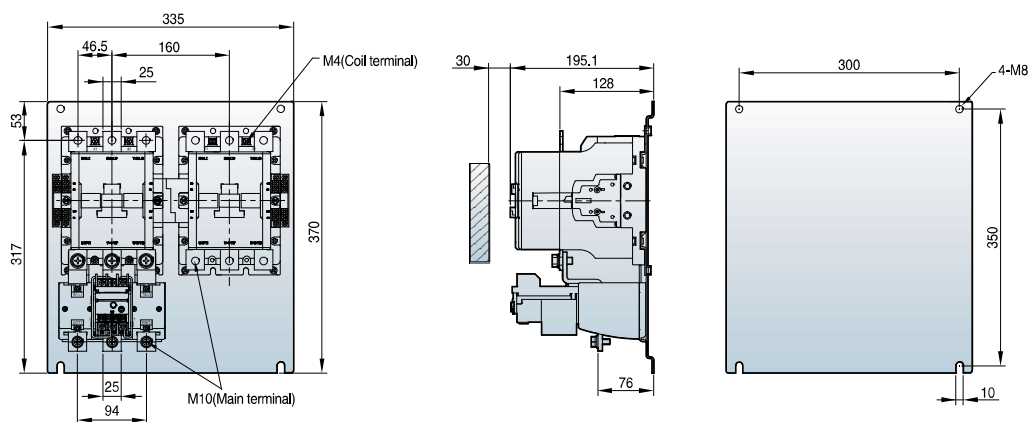
[mm]

CC130 ~ CC150
AC coil
reversing
combination
shown with GT150
and aux contacts



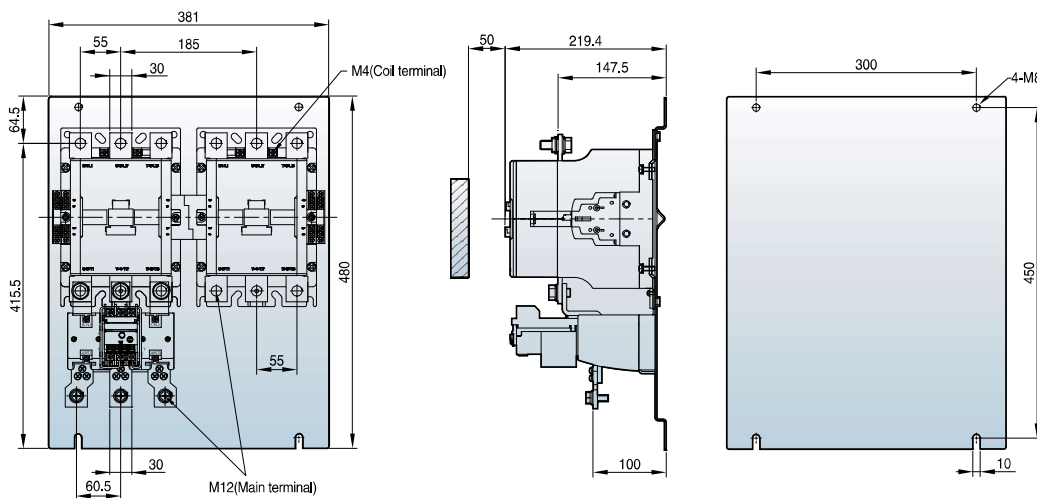
5kg

CC185 ~ CC225
AC coil
reversing
combination
shown with GT225
and aux contacts



15.5kg

CC265 ~ CC400
AC coil
reversing
combination
shown with GT400
and aux contacts



23kg