

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	
	500/550V	A	
		kW	
UL rating (50/60Hz)	Continuous current	A	
		Single	110~120V HP
		phase	220~240V HP
	Three phase		200~208V HP
			220~240V HP
			440~480V HP
Size and weight	NEMA size		
Size and weight	AC control	Weight	kg
	DC control	Size(W × H × D)	mm
Size and weight	AC control	Weight	kg
	DC control	Size(W × H × D)	mm
Auxiliary(standard)			
Auxiliary	Side mount		
	Front mount		



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	

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

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

Optional Accessories

Auxiliary contact unit

Version	Contact composition
GUA1 - Side mount	11 1NO+1NC
GUA2 - Front mount(2P)	20 2NO
GUA4 - Front mount(4P)	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

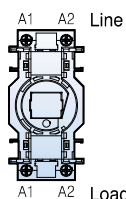
Wire type		Main Terminal Size								Torque	
			(AWG / mm²)						mm(max)		
Frame										[lb-in]	[Nm]
CC9		M4	18~10 / 1~6	18~10 / 1~6	18~10 / 1~6				9.6	20	2.25
CC12			18~10 / 1~6	16~10 / 1~6	16~10 / 1~6						
CC18			18~10 / 1~6	16~8 / 1.5~10	16~8 / 1.5~10						
CC22			18~10 / 1~6	14~8 / 2.5~10	14~8 / 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						
CC9~150		M4	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.

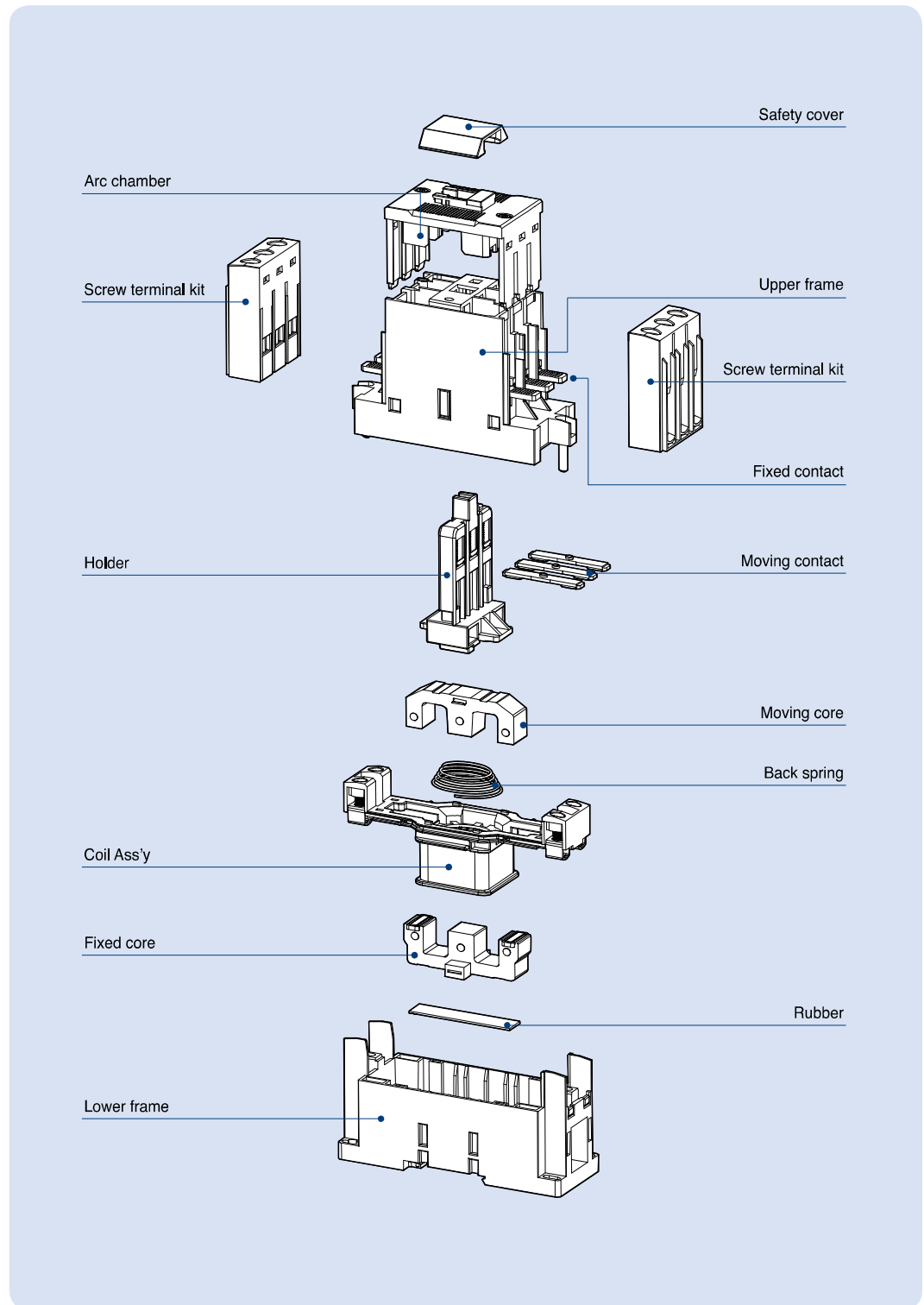
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Control Coil Characteristics

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 different physical size
- Front/side mountable accessories available
- Direct mountable overload relay available Rating
- 2NO2NC Auxiliary contacts built-in as standard

Rating



CC100

Contactor type			CC75		CC85		CC100		
			kW	A	kW	A	kW	A	
AC duty	AC3	200/240V	22	75	25	85	30	105	
		380/440V	37	75	45	85	55	105	
		500/550 V	37	64	45	75	55	85	
		690V	37	42	45	45	45	65	
	AC4	200/240V	13	55	15	65	19	80	
		380/440V	25	52	30	62	37	75	
	AC1		-	110	-	135	-	160	
DC1 duty (L/R=1ms)	2-pole	24V	-	90	-	100	-	100	
		in series	48V	-	90	-	100	-	100
		110V	-	75	-	80	-	80	
	3-pole	24V	-	90	-	100	-	100	
		in series	48V	-	90	-	100	-	100
		110V	-	80	-	85	-	85	
DC2, 4 duty (L/R=15ms)	2-pole	24V	-	55	-	60	-	60	
		in series	48V	-	45	-	50	-	50
		110V	-	38	-	40	-	40	
	3-pole	24V	-	75	-	80	-	80	
		in series	48V	-	65	-	70	-	70
		110V	-	55	-	60	-	60	
Directly mountable Overload relay			GT95						
Conductor size (solid, stranded)		AWG	8~2		8~00		8~0		
(the max. number of conducts: 2)		mm ²	10~35		10~50		10~70		
Conductor type			65/75℃ Cu-wire only						



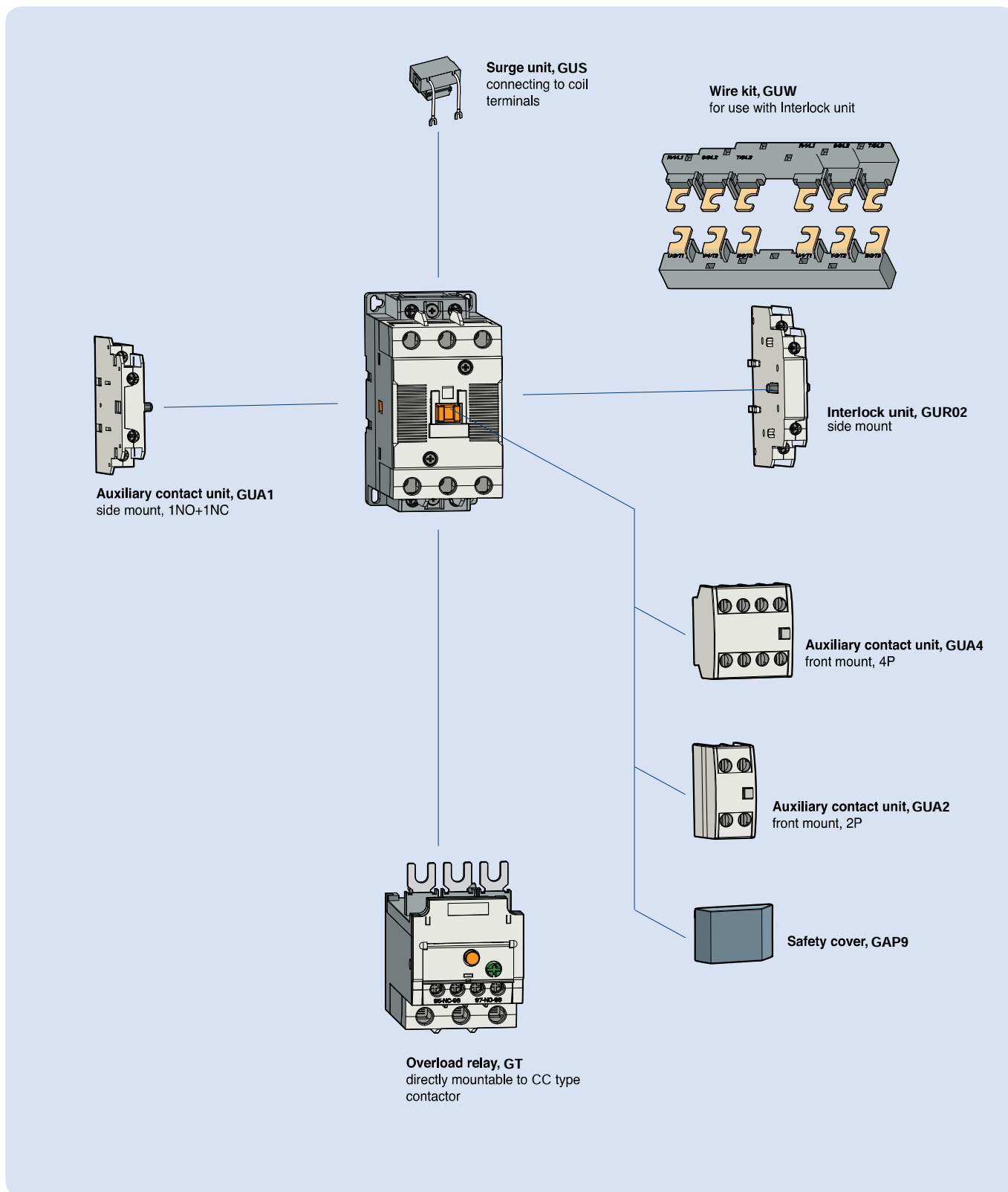
Coil Voltage

AC	50Hz	24, 32, 42, 48, 80, 100, 110, 220, 230, 240, 380, 400, 500, 550V
	60Hz	24, 48, 110, 110, 12, 200, 208, 220, 230, 240, 277, 380, 480, 600V
	50/60Hz	24, 48, 100, 110, 120, 200, 220, 230, 240, 380, 415, 440, 500, 550V
DC	DC	12, 20, 24, 48, 60, 80, 100, 110, 125, 200, 220, 250V

Certification

- CE(IEC)
- UL508

Accessories



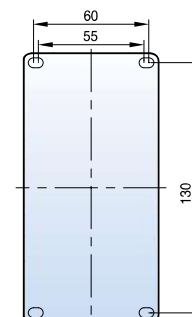
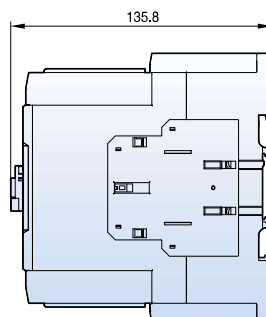
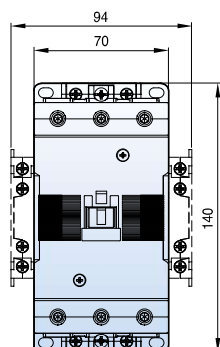
Rated Short Breaking Capacity of Installation

Manual Motor Starter	Adjustment Range (A)	Manual Motor Controller Group Installation			Applied Contactor (GC Series)	Applied Contactor (CC Series)
		Short Circuit Rating(KAIC)				
		240V	480Y/277V	600Y/347V		
32AF Rotary operation, standard interruption						
GMS-32H-0.16	0.1~0.16	100	65	25	GC9	CC9
GMS-32H-0.25	0.16~0.25	100	65	25	GC9	CC9
GMS-32H-0.4	0.25~0.4	100	65	25	GC9	CC9
GMS-32H-0.63	0.4~0.63	100	65	25	GC9	CC9
GMS-32H-1	0.63~1	100	65	25	GC9	CC9
GMS-32H-1.6	1~1.6	100	65	25	GC9	CC9
GMS-32H-2.5	1.6~2.5	100	65	25	GC12	CC12
GMS-32H-4	2.5~4	100	65	25	GC12	CC12
GMS-32H-6	4~6	100	65	25	GC18	CC18
GMS-32H-8	5~8	100	65	10	GC18	CC18
GMS-32H-10	6~10	100	65	10	GC18	CC18
GMS-32H-13	9~13	100	65	10	GC25	CC22
GMS-32H-17	11~17	100	30	10	GC25	CC22
GMS-32H-22	14~22	100	30	10	GC25	CC22
GMS-32H-26	18~26	100	30	10	GC32	CC32
GMS-32H-32	22~32	100	30	10	GC32	CC32
63AF Rotary operation, standard interruption						
GMS-63S-10	6~10	100	50	10	GC35	CC50
GMS-63S-13	9~13	100	50	10	GC35	CC50
GMS-63S-17	11~17	100	40	10	GC35	CC50
GMS-63S-22	14~22	100	40	10	GC35	CC50
GMS-63S-26	18~26	100	40	10	GC35	CC50
GMS-63S-32	22~32	100	40	10	GC35	CC50
GMS-63S-40	28~40	100	40	10	GC40	CC50
GMS-63S-50	34~50	100	40	10	GC50	CC50
GMS-63S-63	45~63	100	40	10	GC63	CC65
GMS-63S-65	47~65	100	40	10	—	CC65
63AF Rotary operation, High interruption						
GMS-63H-10	6~10	100	65	25	GC35	CC50
GMS-63H-13	9~13	100	65	25	GC35	CC50
GMS-63H-17	11~17	100	50	10	GC35	CC50
GMS-63H-22	14~22	100	50	10	GC35	CC50
GMS-63H-26	18~26	100	50	10	GC35	CC50
GMS-63H-32	22~32	100	50	10	GC35	CC50
GMS-63H-40	28~40	100	50	10	GC40	CC50
GMS-63H-50	34~50	100	50	10	GC50	CC50
GMS-63H-63	45~63	100	50	10	GC63	CC65
GMS-63H-65	47~65	100	40	10	—	CC65
100AF Rotary operation, Standard interruption						
GMS-100S-17	11~17	100	50	10	GC65	CC75
GMS-100S-22	14~22	100	50	10	GC65	CC75
GMS-100S-26	18~26	100	50	10	GC65	CC75
GMS-100S-32	22~32	100	50	10	GC65	CC75
GMS-100S-40	28~40	100	50	10	GC65	CC75
GMS-100S-50	34~50	100	50	10	GC65	CC75
GMS-100S-63	45~63	100	40	10	GC65	CC75
GMS-100S-75	55~75	100	40	10	GC75	CC75
GMS-100S-90	70~90	100	40	10	GC85	CC85
GMS-100S-100	80~100	100	40	10	GC95	CC100
100AF Rotary operation, High interruption						
GMS-100H-17	11~17	100	65	25	GC65	CC75
GMS-100H-22	14~22	100	65	20	GC65	CC75
GMS-100H-26	18~26	100	65	20	GC65	CC75
GMS-100H-32	22~32	100	65	20	GC65	CC75
GMS-100H-40	28~40	100	65	20	GC65	CC75
GMS-100H-50	34~50	100	65	20	GC65	CC75
GMS-100H-63	45~63	100	50	10	GC65	CC75
GMS-100H-75	55~75	100	50	10	GC75	CC75
GMS-100H-90	70~90	100	50	10	GC85	CC85
GMS-100H-100	80~100	100	50	10	GC95	CC100

Contactors (100AF)

CARLO GAVAZZI

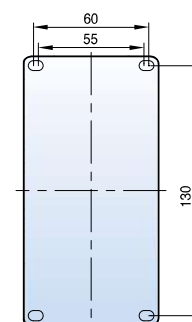
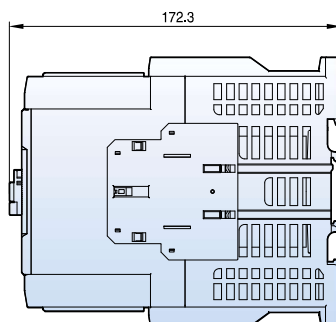
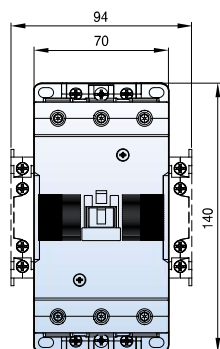
CC75 ~ CC100
AC coil
2NO2NC aux



[mm]

1.9kg

CC75 ~ CC100
DC coil
2NO2NC aux

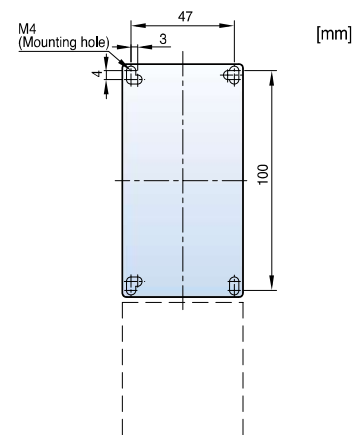
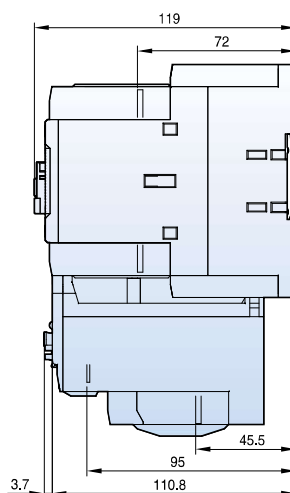
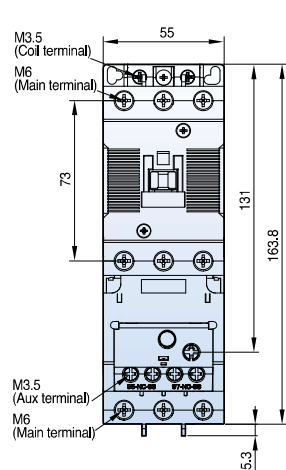


2.8kg

Motor Starters (65AF ~ 150AF)

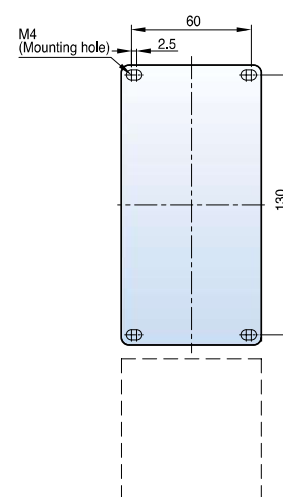
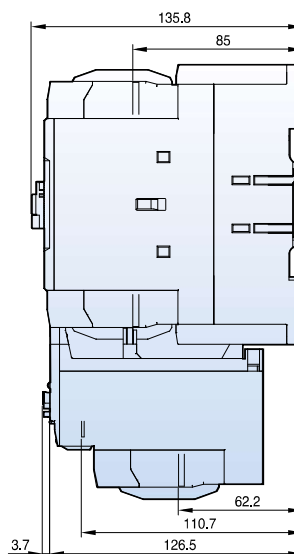
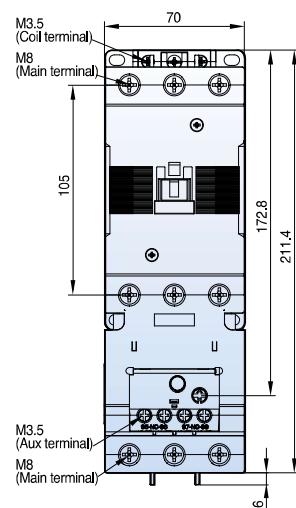
CARLO GAVAZZI

**CC50 ~ CC65
with GT63
shown with no
aux contact**



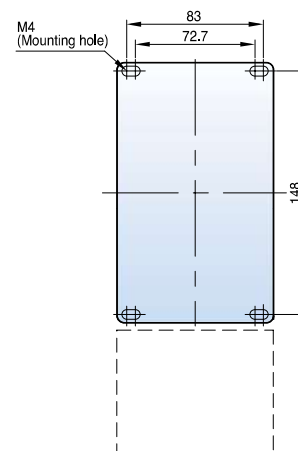
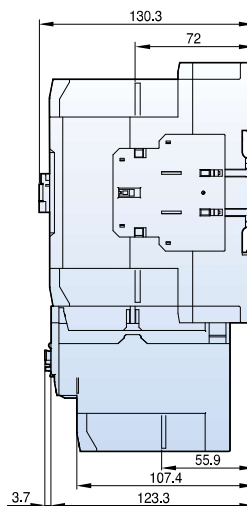
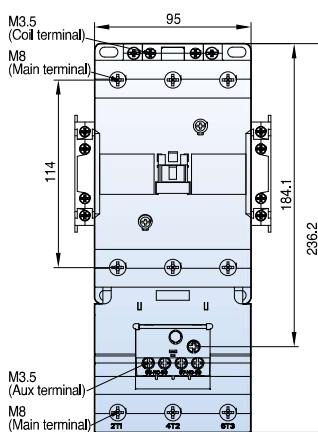
1.3kg

**CC75 ~ CC100
with GT95
shown with no
aux contact**



2.3kg

**CC130 ~ CC150
with GT150
shown with no
aux contact**



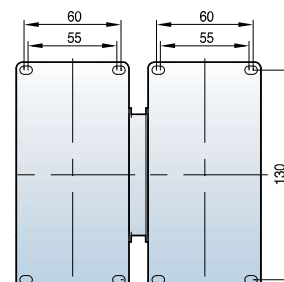
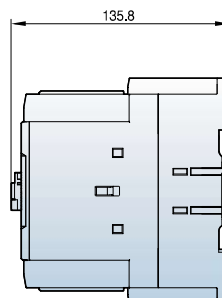
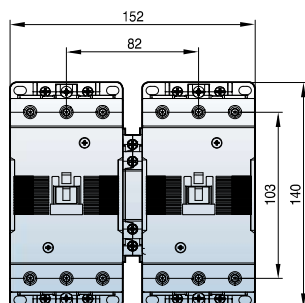
2.9kg

Reversing contactors and starters (100AF)

Reversing Contactors and Starters (100AF)

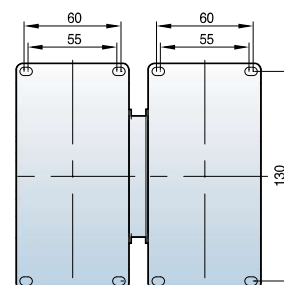
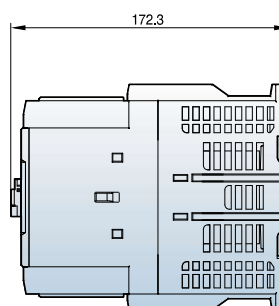
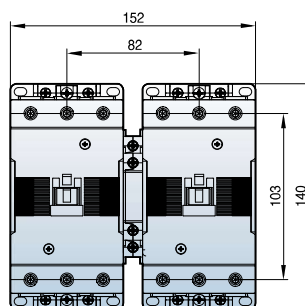
[mm]

CC75 ~ CC100
AC coil
reversing
combination
shown with 2NC
aux contacts



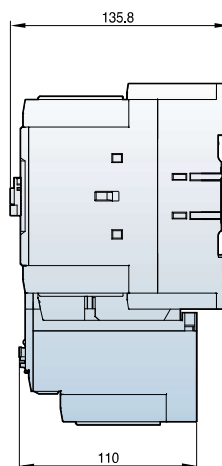
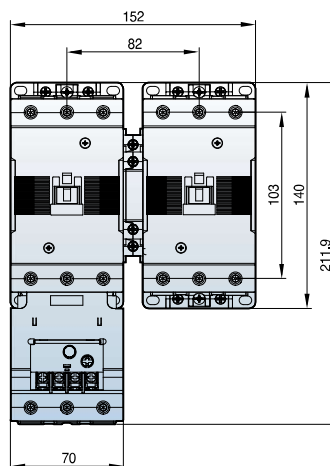
3.3kg

CC75 ~ CC100
DC coil
reversing
combination
shown with 2NC
aux contacts



5.2kg

CC72 ~ CC100
AC coil
reversing
combination
shown with GT95
and with 2NC
aux contacts



3.8kg