

Contactors, Overloads and Manual Motor Starters

Mini-Contactors and Overloads

- Up to 20 Amps or 7.5HP

Midi-Contactors and Overloads

- Up to 160 Amps or 75HP

Power-Contactors and Overloads

- Up to 900 Amps or 600HP

Manual Motor Starters

- 32, 63 and 100 Amp Frame Sizes



Switch

Introduction

CARLO GAVAZZI is proud to present our expanded range of contactors and overloads, as well as our comprehensive offering of manual motor starters.

The product offering starts with Mini-Contactors in a compact 12 amp frame size, followed by Midi-Contactors in up to 100 amp frame sizes, and topped off with the Power-Contactors which offer up to 800 amp frame sizes.

To complement the contactors, Thermal Overloads are offered for each frame size, available in several setting ranges. Additionally, the Manual Motor Starters are available in 32, 63 and 100 amp frame sizes.

Definite purpose contactors, electronic overloads, enclosed manual motor starters and other contactor accessories are also available. For these and more of our motor control products, such as push buttons, soft starts, variable frequency drives, see the back cover. Please contact us or visit our website for more details.

To specify our contactor products, we have also set up an easy-to-use **Product Selection Guide** at:

www.GavazziOnline.com/Contactors



CGM Mini-Contactors for use with Overloads or Manual Motor Starters (Up to 20 Amps or 7.5HP)

CC Midi-Contactors for use with Overloads or Manual Motor Starters (Up to 160 Amps 75HP)

CC Power-Contactors for use with Overloads (Up to 900 Amps or 600HP)

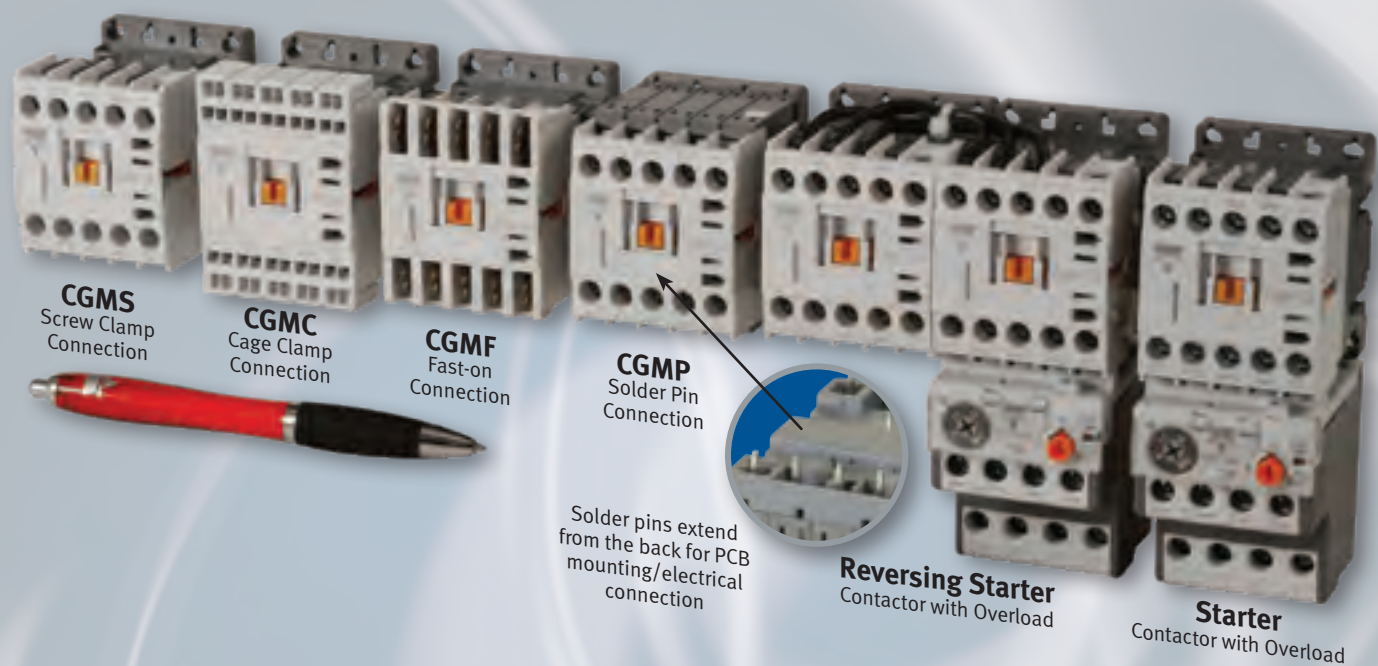
Mini-Contactors and Overloads



**Compact in size,
yet powerful in
performance...**



Mini-Contactors and Overloads



General

- Compact size with powerful performance
- Approx. 2 ¼ cubic inches (55 cubic mm)
- One frame size for three current ratings
- Up to 7.5HP motor rating
- Up to 20A resistive rating
- AC or DC control voltage
- Four connection types (shown in the picture above)

Standards

- cUL, CE and RoHS

Convenience

- Cost effective solution
- One NO or NC auxiliary contact (standard)
- DIN rail, back panel or PCB mounting
- Light in weight and requires minimal panel space
- Captive screw clamp terminals (on CGMS type)

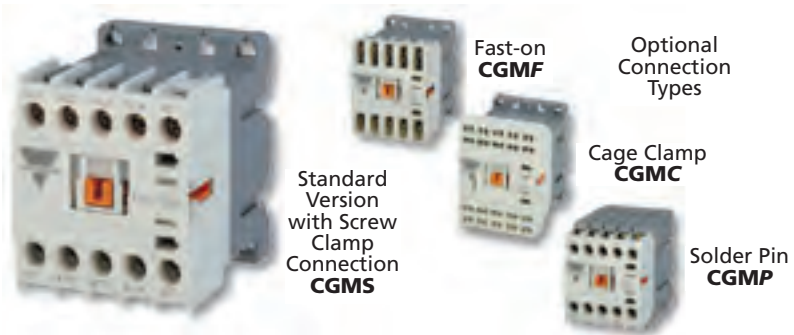
Accessories

- Bimetallic overloads
- Manual motor starters
- Side or top mounted auxiliary contact(s)
- Reversing interlock kit (with wires)
- Surge absorber unit
- Separate mounting unit for overloads
- Direct adaptor bridge for manual motor starter and mini-contactor
- Mounting unit for manual motor starter, direct adaptor bridge and mini-contactor

Ordering Guide

Mini-Contactor					Overload		
CGM	S	9	A	120	10	CGT	0.16A
Magnetic 3-Pole Mini-Contactor	Application and Terminal Style	Amperage Size	Coil Type	Coil Voltage	Built-in Auxiliary Contact Combination	Bimetallic Mini-Overload	Setting Ranges (Use upper limit in part number)
	Non-Reversing S - Screw (std.) F - Fast On C - Cage Clamp P - Solder Pin Reversing Type U - Screw (standard) CU - Cage Clamp FU - Fast On PU - Solder Pin	6 - 6A 9 - 9A 12 - 12A	A - AC Coil D - DC Coil	24 - 24V 120 - 120V 480 - 480V	10 - 1 NO 01 - 1 NC	12 - Up to 12A	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 5 ~ 8A 6 ~ 9A 7 ~ 10A 9 ~ 13A
				See data sheet for full offering			

Mini-Contactors and Overloads



Frame Size Type		
UL Ratings 	Continuous Current Ith	
	Motor AC Single Phase	115V
		230V
	Three Phase	230V
		460V
575V		
IEC Ratings 	NEMA Size	
	AC1	
	Motor AC AC3	200~240V
		380~440V
		690V
Coil Voltages	AC Coil	VAC 50/60Hz
	DC Coil (std. consumption) VDC	
Basic Dimensions	(low consumption) VDC	
	(W x H x D) mm	
Accessories	Auxiliary Contacts	Standard
		Optional
Mechanical Interlocks		
Surge Units		

CGMS-6	CGMS-9 3-Pole	CGMS-12
20A	20A	20A *
0.5HP	0.5HP	1HP *
1HP	1.5HP	2HP *
1.5HP	3HP	3HP
3HP	5HP	7.5HP *
3HP	5HP	7.5HP
00	00	00
20A	20A	20A
1.5 kW 7A	2.2 kW 9A	3 kW 12A
2.5 kW 6A	4 kW 9A	5.5 kW 12A
3 kW 4A	4 kW 5A	4 kW 5A
24, 36, 42, 48, 110, 115, 120, 127, 200/208, 220, 220/230		
230/240, 256, 277, 380/400, 400, 440, 480, 500, 550		
12, 20, 24, 36, 42, 48, 60, 72, 110, 120, 125, 200, 240, 250		
12, 20, 24, 48, 72, 100, 110		
AC coil version: 45 x 58 x 57, DC coil version: 45 x 58 x 69		
1NO or 1NC		
Side Mount AX-1M (1NO or 1NC), Top Mount AX-2M (2NO, 1NC/1NO or 2NC) or Top Mount AX-4M (4NO, 3NO/1NC, 2NO/2NC, 1NO/3NC or 4NC)		
AR-12MW		
AS-12M		



Available Ranges
0.1 - 0.16A
9 - 13A
See page 4 for all ranges

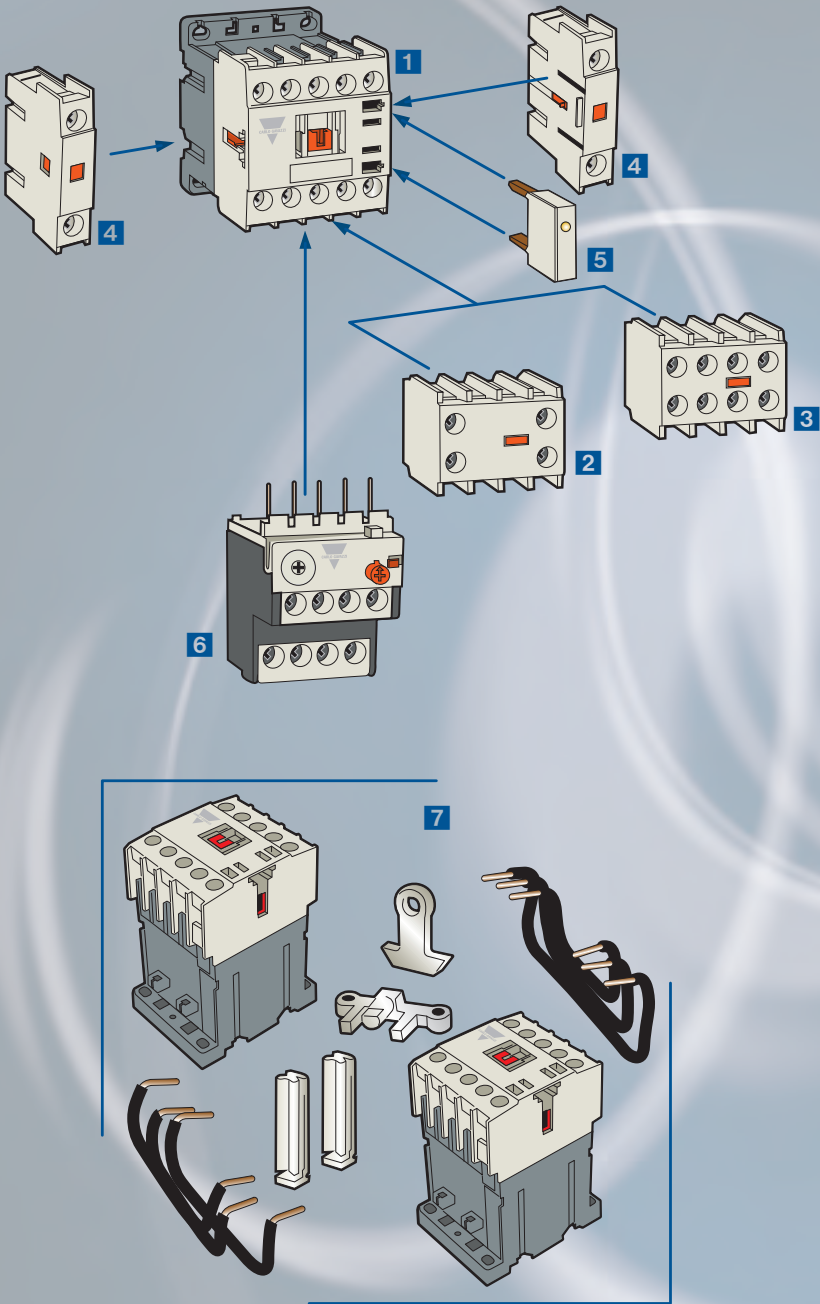


Manual Motor Starters	Type
	Rated Operational current, Ie Rated Breaking Capacity, Icu
Connecting Module	GMS-32H to CGMS w/ AC coil GMS-32H to CGMS w/ DC coil GMS-32S to CGMS w/ AC coil GMS-32S to CGMS w/ DC coil

GMS-32S and GMS-32H
0.1 ~ 32A
Max. 100kA
GDA16HA
GDA16HD
GDA16SA
GDA16SD

* Maximum Ratings for CGMC-12 Cage Clamp Type: 10A Continuous Ith, 0.5HP 1-Phase 115VAC, 1.5HP 1-Phase 230VAC, and 5HP 3-Phase 460VAC

Mini-Contactors and Overloads



Accessories

- 1 CGMS Mini-Contactor
- 2 AX-2MS 2-pole Front Mount Auxiliary Contact Unit
- 3 AX-4MS 4-pole Front Mount Auxiliary Contact Unit
- 4 AX-1MS 1-pole Side Mount Auxiliary Contact Unit
- 5 AS-12M Surge Absorber Unit
- 6 CGT-12M Overload Relay
- 7 AR-12MW Reversing Interlock Kit (Contactors not included)

Midi-Contactors and Overloads



The Complete Solution
for Applications
up to 140 Amps...





General

- Four frame sizes
- Motor ratings of each frame size:
Up to 20, 30, 60 or 75HP
- Resistive rating
Up to 40, 60, 100, 160A
- AC or DC coil voltage
- Two connection types:
Screw terminal connections are available on all frame sizes
Lug terminals connections are available on 63 and 100 amp sizes

Standards

- cUL, CSA with special elevator ratings, CE and RoHS

Convenience

- Four terminals for coil connection
- Easily interchangeable coils (in the event another coil voltage is required)
- Each contactor comes standard with a minimum of one auxiliary contact. (See pages 10 and 11 for more details, as some of the larger contactors come standard with more auxiliary contacts)
- DIN rail or back panel mounting

Accessories

- Bimetallic overloads
- Electronic overloads
- Manual motor starters
- Side or top mounted auxiliary contact(s)
- Auxiliary safety cover
- Interlock unit
- Reversing interlock kit
- Surge absorber unit
- Separate mounting unit for overloads
- Remote reset unit for overloads
- Direct adaptor bridge for manual motor starter and midi-contactor
- Mounting unit for manual motor starter, direct adaptor bridge and midi-contactor
- Capacitor unit

Ordering Guide

Midi-Contactor								Overload				
CC	9		S	A	120	-		GT	32		S	0.16A
Magnetic 3-pole Midi-Contactor	Amperage Size	Type	Terminal Type	Coil Type	Coil Voltage	AC Coil Frequency	Auxiliary Contact s	Bimetallic Midi-Overload	Frame Size	Class	Terminal Type (Must match contactor number)	Setting Ranges (Use upper limit in part)
	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 U - Reversing	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)		32 - 9, 12, 18A 22, 32, 40A 63 - 50, 65A 95 - 75, 85, 100A	BLANK - 10 L - 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 ~ 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
Preliminary Data												
CGE	22	3P	22AN									
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	CGE22 0.3 ~ 1.5AN 1 ~ 5AN 4.4 ~ 22AN									
		Separate Mount All CGE sizes 2S - 2-Pole 3S - 3-Pole 3SR - 3-Pole	CGE40 4 ~ 20AN 8 ~ 40AN CGE80 16 ~ 80AN									
		Through-Hole 22 and 40AF 2T - 2-Pole 3T - 3-Pole 3TR - 3-Pole										
Setting Range Guide												
GT32												
GT65												
GT95												

Midi-Contactors and Overloads



Frame Size Type Available Output Terminal		
UL Rating 50/60Hz	Motor AC Single Phase	Continuous Current
		110~120VAC
		220~240VAC
		220~240VAC
		440~480VAC
NEMA Size CSA Elevator Rating	Motor AC Three Phase	550~600VAC
IEC Rating	Resistive AC1	690VAC max
Coil Voltages	AC Coil	VAC 50/60Hz
Basic Dimensions	DC Coil	VDC
Accessories	Auxiliary Contacts	Standard
		Optional
	Power Connector for Reversing Contactors	Mechanical Interlock
	Coil Surge Unit	Varistor
	RC+Varistor	
	RC	

22AF				32AF		65AF		100AF		
CC9	CC12	CC18	CC22	CC32	CC40	CC50	CC65	CC75	CC85	CC100
Screw Clamp Only				Screw Clamp Only		Screw Clamp or Lug		Screw Clamp or Lug		
25A	25A	40A	40A	50A	60A	70A	100A	110A	135A	160A
0.5HP	0.75HP	1HP	2HP	2HP	3HP	3HP	5HP	5HP	7.5HP	10HP
1.5HP	2HP	3HP	3HP	5HP	7.5HP	10HP	15HP	15HP	15HP	20HP
3HP	5HP	7.5HP	10HP	10HP	15HP	25HP	30HP	30HP	40HP	40HP
5HP	7.5HP	10HP	15HP	20HP	30HP	40HP	50HP	50HP	60HP	75HP
7.5HP	10HP	15HP	20HP	25HP	30HP	50HP	60HP	60HP	75HP	75HP
00	00	0	1	1	1	2	2	2	3	3
Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending	Pending
25A	25A	32A	40A	50A	60A	70A	100A	110A	135A	160A
2.5 kW 11A	3.5 kW 13A	4.5kW 18A	5.5 kW 22A	7.5kW 32A	11 kW 40A	15 kW 55A	18.5 kW 65A	22 kW 75A	25 kW 75A	30kW 105A
4kW 9A	5.5kW 12A	7.5kW 18A	11kW 22A	15kW 32A	18.5kW 40A	22kW 50A	30kW 65A	37kW 75A	45kW 85A	55kW 105A
4kW 7A	7.5kW 12A	7.5kW 12A	15kW 20A	18.5kW 28A	22kW 32A	30kW 43A	33kW 60A	37kW 64A	45kW 75A	55kW 85A
4kW 6A	7.5kW 9A	7.5kW 9A	15kW 18A	18.5kW 20A	22kW 23A	30kW 28A	33kW 35A	37kW 42A	45kW 45A	45kW 65A
24, 48, 100, 110, 120, 200, 220, 230, 240, 380, 415, 440, 500, 550 VAC						24, 48, 100, 110, 120, 200, 220, 230, 240, 380, 415, 440, 500, 550 VAC				
24, 48, 100, 110, 120, 200, 208, 220, 230, 240, 277, 380, 440, 480, 600 VAC						24, 48, 100, 110, 120, 200, 208, 220, 230, 240, 277, 380, 440, 480, 600 VAC				
24, 32, 36, 42, 48, 80, 100, 110, 220, 230, 240, 380, 400, 415, 440, 500, 550 VAC						24, 32, 36, 42, 48, 80, 100, 110, 220, 230, 240, 380, 400, 415, 440, 500, 550 VAC				
12, 20, 24, 48, 60, 80, 100, 110, 125, 200, 220, 250 VDC						12, 20, 24, 48, 60, 80, 100, 110, 125, 200, 220, 250 VDC				
45 x 73.5 x 86				69 x 83 x 90		79 x 106 x 119		94 x 140 x 136		
45 x 73.5 x 118				69 x 83 x 118		79 x 106 x 147		94 x 140 x 173		
1NO1NC				2NO2NC		2NO2NC		2NO2NC		
Side mount GUA1 or Top Mount				Top Mount		Top Mount		Top Mount		
GUR02				GUR02		GUR02		GUR02		
GUW22				GUW32		GUW63		GUW95		
GUS11 (for 24~48 VAC or VDC), GUS12 (for 100~125VAC or VDC), GUS13 (for 200~240VAC or VDC coils), GUS14 (for 380~440VAC or VDC coils)										
GUS1 (for 24~48VAC coils), GUS2 (for 100~125VAC coils), GUS3 (for 200~240VAC coils), GUS4 (for 24~48VDC coils), GUS5 (for 100~125VDC coils), GUS6 (for 200~220VDC coils)										
GUS22 (for 100~125VAC coils)										



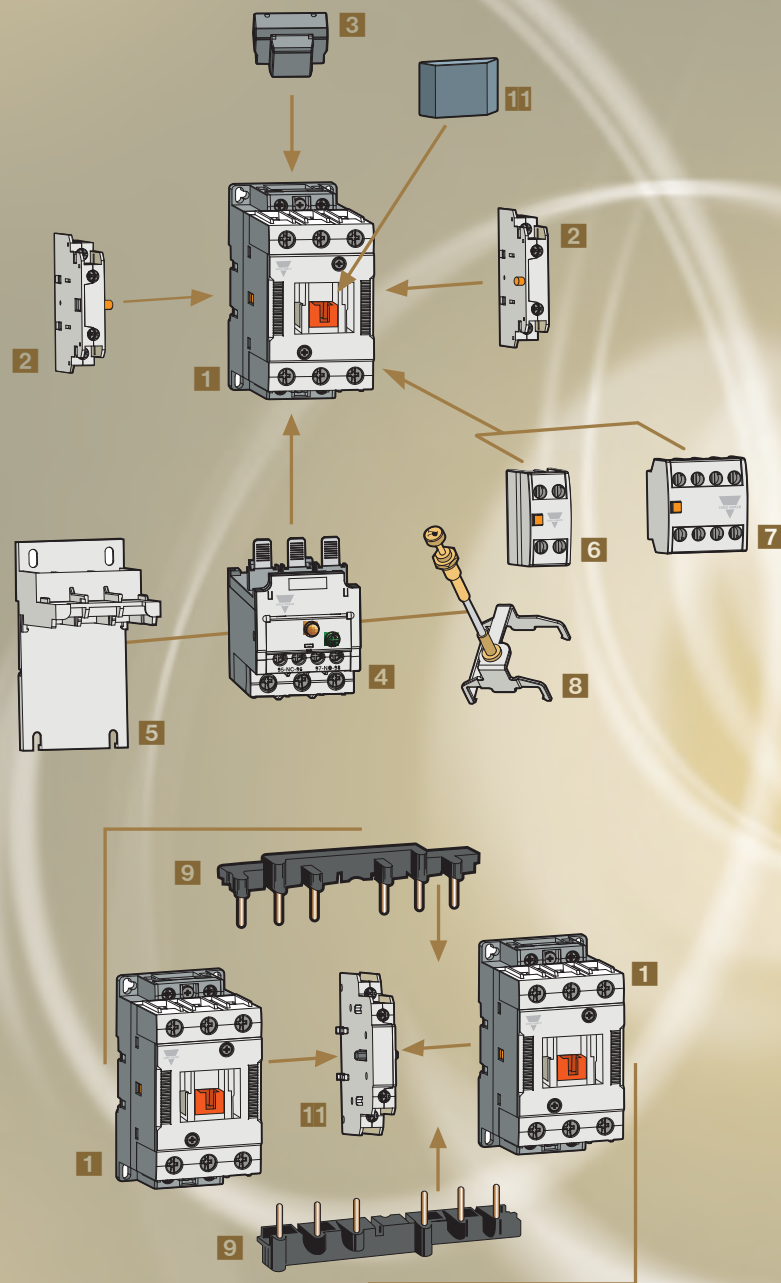
Thermal Overloads	Bimetallic, 3-Pole Differential	
		Range
	Electronic	
Matching Manual Motor Starter		
		Range
		Available Mounting
Connecting Module		
	AC Coil Contactor	Type
	DC Coil Contactor	

GT32			GT32			GT63			GT95		
0.1 ~ 0.16 to 28 ~ 40A			0.1 ~ 0.16A to 28 ~ 40A			4 ~ 6A to 45 ~ 65A			7 ~ 10A to 80 ~ 100A		
CGE22			CGE40			CGE80			CGE80		
0.3 ~ 1.5A to 4.4 ~22A			4 ~ 20A to 8 ~ 40A			16 ~ 80A			16 ~ 80A		
Direct and Separate			Direct and Separate			Separate			Separate		
GMS-32S	or	GMS-32H	GMS-32S	or	GMS-32H	GMS63S	or	GMS63H	GMS100S	or	GMS100H
GDA22SA		GDA22HA	GDA32SA		GDA32HA	GDA63A		GDA63H	GDA95A		GDA95H
GDA22SD		GDA22HD	GDA32SD		GDA32HD	GDA63D		GDA63D	GDA95D		GDA95D

Midi-Contactors and Overloads

Accessories

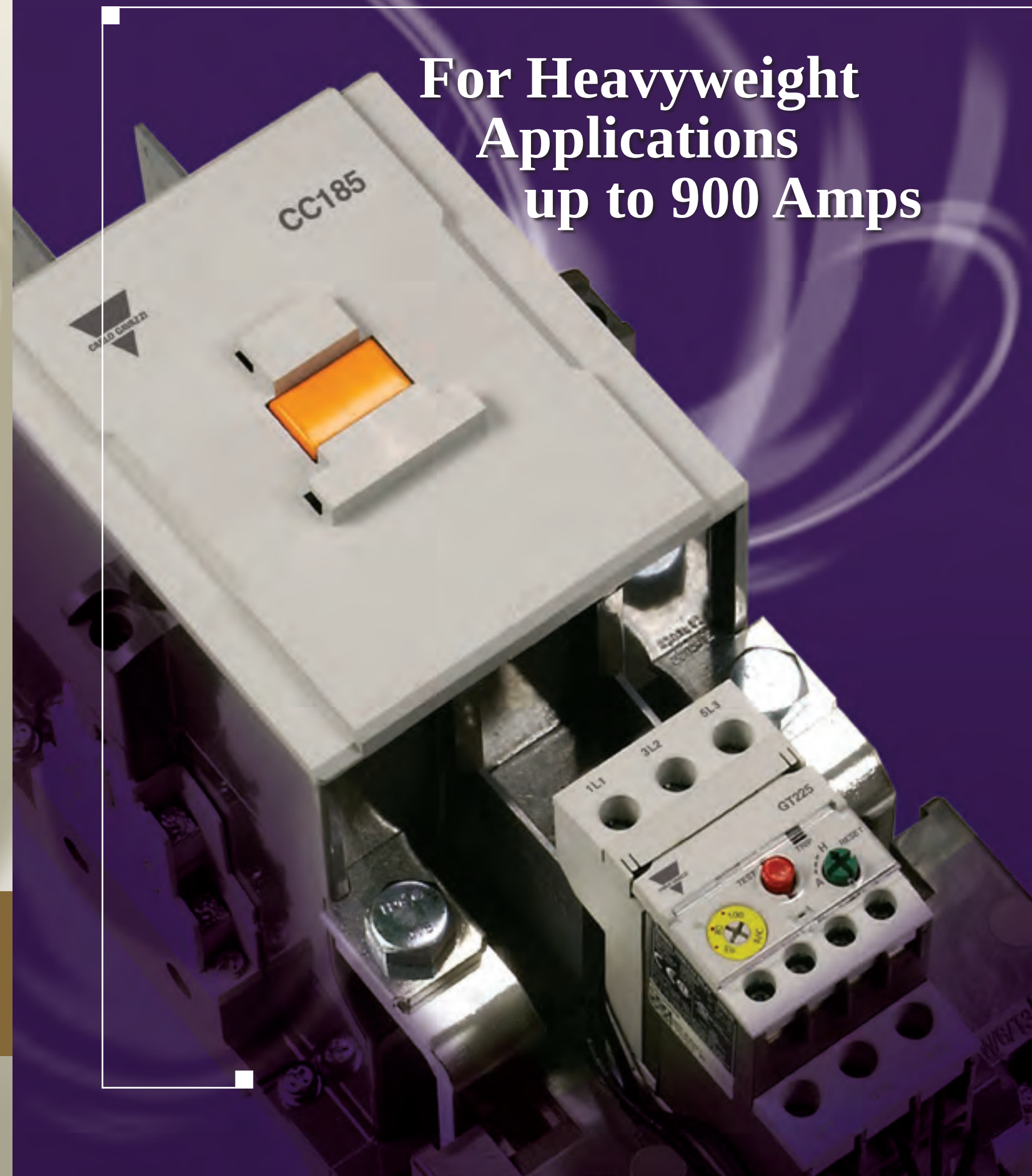
- 1 CC Contactor
- 2 GUA1 1-pole Side Mount Auxiliary Contact Unit
(All types come standard with at least one auxiliary contact, see pages 10 and 11 for more details)
- 3 GUS Surge Unit
- 4 GT Overload Relay
- 5 GUZ Separate Mounting Unit for Overload
- 6 GUA2 2-pole Top Mount Auxiliary Contact Unit
- 7 GUA4 4-pole Top Mount Auxiliary Contact Unit
- 8 GUM Remote Reset Unit
- 9 GUW Wire Kit for Reversing Contactor
- 10 GUR Interlock Unit
- 11 GAP9 Auxiliary Safety Cover



Power-Contactors and Overloads



**For Heavyweight
Applications
up to 900 Amps**



Power-Contactors and Overloads



Frame Size Type			
Available Output Terminal			
UL Rating 50/60Hz		Continuous Current	
		Motor AC Single Phase	110~120VAC
			220~240VAC
		Motor AC Three Phase	220~240VAC
			440~480VAC
		550~600VAC	
NEMA Size IEC Rating		Resistive AC1	690VAC max
		Motor AC3	200~240VAC
			380~440VAC
			500~550VAC
			690VAC max
Coil Voltages	AC Coil	VAC 50/60Hz	
	DC Coil	VDC	
	AC/DC Coil	VAC 50/60Hz / VDC	
Basic Dimensions		W x H x D mm	
Accessories	Auxiliary Contacts	Standard	
		Mechanical Interlock	

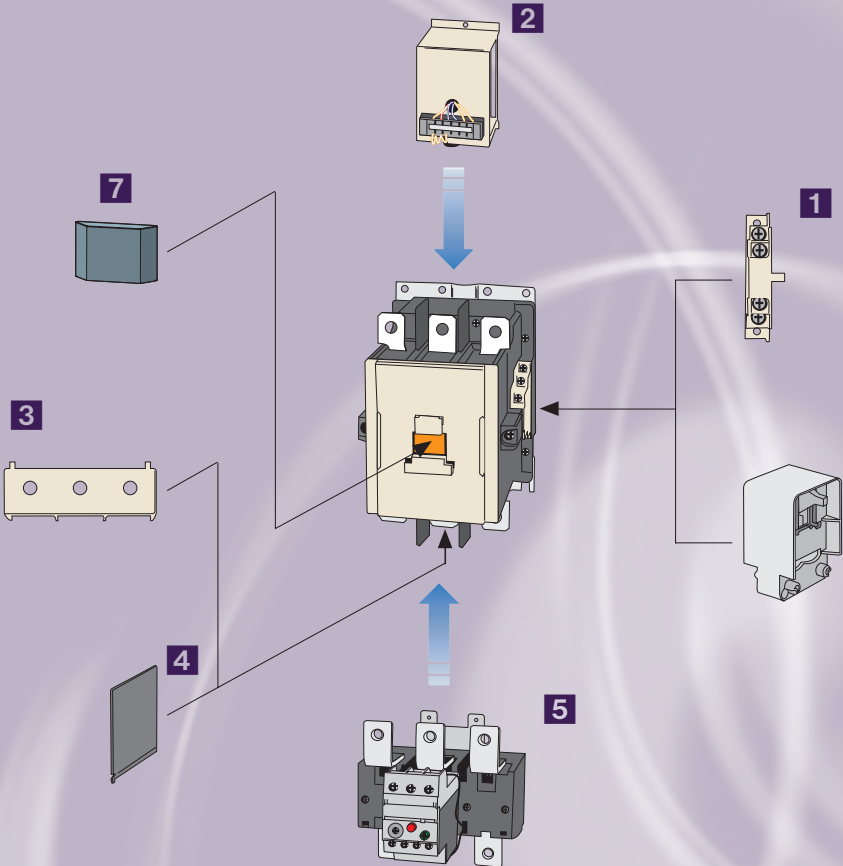
150AF		225AF		400AF		800AF			
CC130	CC150	CC185	CC225	CC265	CC330	CC400	CC630	CC800	
Screw Clamp or Lug		Screw Clamp Only		Screw Clamp Only		Screw Clamp Only			
160A	210A	230A	275A	300A	350A	450A	580A	660A	900A
10HP	15HP	15HP	15HP	-	-	-	-	-	-
20HP	25HP	30HP	40HP	-	-	-	-	-	-
40HP	50HP	60HP	75HP	100HP	125HP	150HP	200HP	250HP	300HP
75HP	100HP	125HP	150HP	200HP	250HP	300HP	400HP	500HP	600HP
75HP	75HP	125HP	150HP	200HP	250HP	300HP	400HP	500HP	600HP
3	4	4	4	5	5	5	6	6	7
160A	210A	230A	275A	300A	350A	450A	580A	660A	900A
37kW 130A	45kW 150A	55kW 185A	75kW 225A	80kW 265A	90kW 330A	125kW 400A	147kW 500A	190kW 630A	220kW 800A
60kW 130A	75kW 150A	90kW 185A	132kW 225A	147kW 265A	160kW 330A	200kW 400A	265kW 500A	330kW 630A	440kW 800A
60kW 90A	70kW 100A	110kW 180A	132kW 200A	147kW 225A	160kW 280A	225kW 350A	265kW 400A	330kW 500A	500kW 720A
55kW 60A	55kW 60A	110kW 120A	140kW 150A	160kW 185A	200kW 225A	250kW 300A	300kW 380A	400kW 420A	500kW 630A
24, 48, 110, 220, 300, 400, 500 VAC		300, 400, 500 VAC		300, 400, 500 VAC		300, 400, 500 VAC		300, 400, 500 VAC	
24, 48, 110, 220 VDC		-		-		-		-	
-		24, 48, 100/200 VAC/VDC		100/200 VAC/VDC		100, 200 VAC/VDC		100, 200 VAC/VDC	
119 x 158 x 131		162 x 203 x 185		187 x 243 x 205		285 x 312 x 246		285 x 312 x 246	
2NO2NC		2NO2NC		2NO2NC		2NO2NC		2NO2NC	
GUR02		AR-400		AR-400		AR-800W		AR-800W	



Thermal Overloads	Bimetallic, 3-Pole Differential
	Range

GT150	GT225	GT400	GT800
34 ~ 50A to 110 ~ 150A	65 ~ 100A to 160 ~ 240A	85 ~ 125A to 85 ~ 400A	200 ~ 300A to 520 ~ 800A

Power-Contactors and Overloads



Accessories

- 1 AX-100 2-pole Side Mount Auxiliary Contact Unit (two are included)
- 2 AD Delay Device
- 3 AP Terminal Cover for Contactors
- 4 AI Insulation Barrier
- 5 GT Thermal Overload
- 6 AR Interlock
- 7 GAP9 Auxiliary Safety Cover

Ordering Guide

Power Contactor						Overload				
CC	150		S	A	24	GT	150		S	50A
Magnetic Midi-Contactor	Amperage Size	Type	Terminal Type	Coil Type	Coil Voltage	Bimetallic Midi-Overload	Frame Size	Class	Terminal Type (Must match contactor number)	Setting Ranges (Use upper limit in part)
	130 - 130A 150 - 150A 185 - 185A 225 - 225A 265 - 265A 330 - 330A 400 - 400A 500 - 500A 630 - 630A 800 - 800A	BLANK - 3-pole / 4 - 4-pole	S - Screw L - Lug (130A) and 150 only	A - AC type D - DC type AD - AC/DC types	24 - 24V & 500 - 500V		150 - 130, 150A 225 - 185, 225A 400 - 265, 330, 400A 800 - 500, 630, 800A	BLANK - 10 L - 20	S - Screw L - Lug (150A only)	34 - 50A 45 - 65A 54 - 75A 63 - 85A 65 - 100A 80 - 105A 85 - 125A 95 - 130A 110 - 150A 100 - 160A 120 - 185A 160 - 240A 200 - 330A 260 - 400A 400 - 600A 520 - 800A
										GT150 GT225 GT400 GT800



Manual Motor Starters



The Ideal Complement
for the CGM Series
Mini- and CC Series
Midi-Contactors





High Performance
Manual Motor
Starters

This UL508 listed device features a maximum short circuit current rating of up to 50kA for all frame sizes, at 3-phase 480VAC.

“Type E Starters” (for group installations) offer short circuit current ratings up to 65kA for all three ‘High Breaking’ type manual motor starters.

Function

- Protection of group installation
- Protection of circuits
- Motor protection
- Starter protection
- Wide range of ambient temperature compensation
- Phase failure protection

Standards

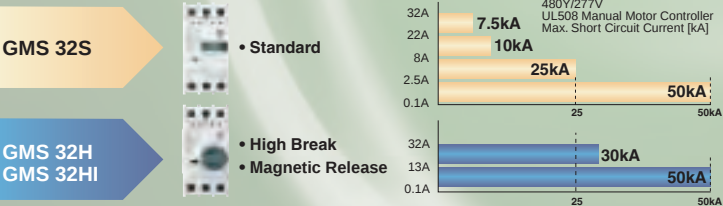
- cULus listed, CE and RoHS
- Complies with the specifications in accordance with IEC 60947-2 and IEC 60947-4-1, UL508 (Manual motor controller), UL508 (Combination motor controller Type E starter), CSA C22.2 NO.14, GB14048

Features

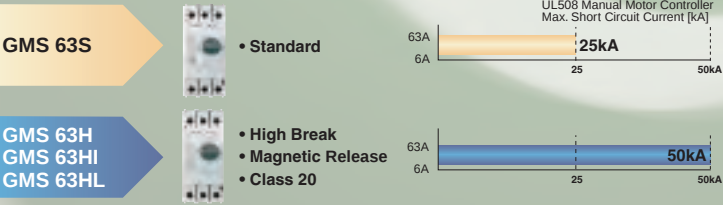
- 45mm width up to 32 amps, 55mm width up to 63 amps and 70mm width rated to 100 amps
- 100A version features a three position operator: ON-OFF-TRIP
- Handle lock in the OFF position
- Class 10 overload trip characteristics (Class 20 is optional)
- Trip test
- Finger safe terminals
- DIN rail or back panel mounting
- Complete range of common accessories

UL508 Short Circuit Ratings

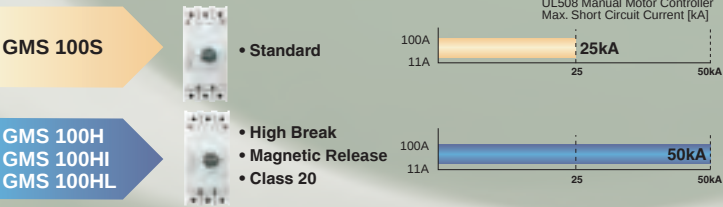
0.1~0.16...22~32A (16 steps)



6~10...45~63A (9 steps)



11~17...80~100A (10 steps)



Ordering Guide

Manual Motor Starter			
GMS	32	S	0.16A
Manual Motor Starter	Frame Size	Breaking Type	Setting Ranges (Use upper limit in part number)
	32 - 32AF	S - Standard Break	0.1 ~ 0.16A
		H - High Break	0.16 ~ 0.25A
		HI - High Break, no TOR	0.25 ~ 0.4A
		HL - High Break, with Class 20 TOR	0.63 ~ 1A
			1 ~ 1.6A
			2.5 ~ 4A
			4 ~ 6A
			5 ~ 8A
			6 ~ 10A
			9 ~ 13A
			11 ~ 17A
			14 ~ 22A
			18 ~ 26A
			22 ~ 32A
			28 ~ 40A
			34 ~ 50A
			45 ~ 63A
			55 ~ 75A
			70 ~ 90A
			80 ~ 100A

(Setting Range Guide)

GMS-32

GMS-63

GMS-100

Manual Motor Starters



Frame Size		
Type	Current Adjustable Type	
	Instantaneous Type	
Breaking Capacity		
Handle Type		
Number of Poles		
Rated Operational Voltage [Ue]		
Mechanical / Electrical Endurance		[operations]
Max Operating Frequency Per Hour		[operations]
Temperature Compensation		
Instantaneous Short Circuit Release		
Main Functions	Overload Protection**	
	Phase Failure Protection**	
	Short Circuit Protection	
Dimensions (W x H x D) [mm]		
UL Interrupting Rating [kA]  	Type of Installation	
	Thermal Current Setting Range [A]	Rated Current [A]
	0.1-0.16	0.16
	0.16-0.25	0.25
	0.25-0.4	0.4
	0.4-0.63	0.63
	0.63-1	1
	1-1.6	1.6
	1.6-2.5	2.5
	2.5-4	4
	4-6	6
	5-8	8
	6-10	10
	9-13	13
	11-17	17
	14-22	22
	18-26	26
	22-32	32
	28-40	40
	34-50	50
	45-63	63
	55-75	75
70-90	90	
80-100	100	

32AF														63AF														100AF																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
GMS-32S								GMS-32H								GMS-63S								GMS-63H								GMS-100S								GMS-100H																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
—								GMS-32HI								—								GMS-63HI								—								GMS-100HI																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
Standard								High Breaking								Standard								High Breaking								Standard								High Breaking																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
Toggle								Rotary								Rotary								Rotary								Rotary								Rotary																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
3								3								3								3								3								3																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
600V								600V								600V								600V								600V								600V																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
100,000 / 100,000								100,000 / 100,000								50,000 / 25,000								50,000 / 25,000								50,000 / 25,000								50,000 / 25,000																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
25								25								25								25								25								25																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
-20~+60C *								-20~+60C *								-20~+60C *								-20~+60C *								-20~+60C *								-20~+60C *																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
13 X Ie max								13 X Ie max								13 X Ie max								13 X Ie max								13 X Ie max								13 X Ie max																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
YES								YES								YES								YES								YES								YES																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
YES								YES								YES								YES								YES								YES																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
YES								YES								YES								YES								YES								YES																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
45 x 94 x 75								45 x 94 x 99.6								45 x 94 x 75								45 x 94 x 99.6								45 x 94 x 75								45 x 94 x 99.6																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
Manual (UL508) Motor Controller					Manual Motor Controller Group Installation					Manual (UL508) Motor Controller					Manual Motor Controller Group Installation					Manual (UL508) Motor Controller					Manual Motor Controller Group Installation					Manual (UL508) Motor Controller					Manual Motor Controller Group Installation					Manual (UL508) Motor Controller					Manual Motor Controller Group Installation																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
240V	480Y	600Y	Max Fuse Size [A]	Max Breaker Size [A]	240V	480Y	600Y	Max Fuse or Breaker Size [A]	240V	480Y	600Y	Max Fuse Size [A]	Max Breaker Size [A]	240V	480Y	600Y	Max Fuse Size [A]	Max Breaker Size [A]	240V	480Y	600Y	Max Fuse Size [A]	Max Breaker Size [A]	240V	480Y	600Y	Max Fuse Size [A]	Max Breaker Size [A]	240V	480Y	600Y	Max Fuse Size [A]	Max Breaker Size [A]	240V	480Y	600Y	Max Fuse Size [A]	Max Breaker Size [A]	240V	480Y	600Y	Max Fuse Size [A]	Max Breaker Size [A]	240V	480Y	600Y	Max Fuse Size [A]	Max Breaker Size [A]																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
100	50	10	1	15	—	—	—	—	100	50	10	1	15	100	65	25	500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—</

Manual Motor Starters

Accessories

- 1 GMS-32S Manual Motor Starter (GMS-32H with rotary handle is also available, but not shown. It works with all the accessories shown on this page.)
- 2 GMS-63 Manual Motor Starter
- 3 GMS-100 Manual Motor Starter
- 4 GFX Front Mounting Auxliary Switch
- 5 Dial Cover Included
- 6 GSX Side Mounting Switch
- 7 GSA Side Mounting Alarm Switch
- 8 GSR Side Mounting Shunt Release
- 9 GUR Side Mounting Undervoltage Release
- 10 GURX Side Mounting Undervoltage Release with Switch
- 11 GDA Direct Adaptor
- 12 CGM (9~12A) Mini-Contactor
- 13 CC (9~100A) Midi-Contactor
- 14 GMU Mounting Unit
- 15 GEH Extended Handle (for rotary handle types only)
- 16 GEP32 Plastic Enclosure (for GMS-32H only)

Manual Motor Starters



Accessories - Busbars



	45mm Spacing (rated 63A)	54mm Spacing (rated 63A)	63mm Spacing (rated 63A)	54mm Spacing (rated 120A)	63mm Spacing (rated 120A)	Terminal cover	Supply connector
Type	GAVG45-14-2ABK	GAVG54-14-2ABK	GAVG63-14-2ABK	GAVCPM25412	GAVCPM26312	GAVB54	GAVGE1-14-25BK
Description	For 2 GMS-32S/H	For 2 GMS-32S/H + accessories (side mnt aux sw)	For 2 GMS-32S/H + accessories (side mnt undervoltage or shunt trip)	For 2 GMS-63	For 2 GMS-63 + accessories (side mnt aux sw)	3 Pole protective cover for GAVG..	3 Phase input terminal 63A
Type	GAVG45-14-3ABK	GAVG54-14-3ABK	GAVG63-14-3ABK	GAVCPM35412	GAVCPM36312	GAVTA120	GAVBTC50E
Description	For 3 GMS-32S/H	For 3 GMS-32S/H + accessories (side mnt aux. sw)	For 3 GMS-32S/H + accessories (side mnt undervoltage or shunt trip)	For 3 GMS-63	For 3 GMS-63 + accessories (side mnt aux. sw)	3 Pole protective cover for GAVCPM..	3 Phase Input terminal 120A
Type	GAVG45-14-4ABK	GAVG54-14-4ABK	GAVG63-14-4ABK	GAVCPM45412	GAVCPM46312		
Description	For 4 GMS-32S/H	For 4 GMS-32S/H + accessories (side mnt aux. sw)	For 4 GMS-32S/H + accessories (side mnt undervoltage or shunt trip)	For 4 GMS-63	For 4 GMS-63 + accessories (side mnt aux. sw)		
Type	GAVG45-14-5ABK	GAVG54-14-5ABK	GAVG63-14-5ABK				
Description	For 5 GMS-32S/H	For 5 GMS-32S/H + accessories (side mnt aux. sw)	For 5 GMS-32S/H + accessories (side mnt undervoltage or shunt trip)				

Handle Lock

Dial Cover

Terminals



The Complete Product Package

Sense

Inductive and Capacitive Sensors
Photoelectric Sensors
Ultrasonic Sensors
Wind Sensors
Radar Sensors
Motion/Presence Vision Sensors
Conductive Level Sensors
Magnetic Switches
Safety Interlocks and Light Curtains

Switch

Solid State Relays
Contactors and Overloads
Manual Motor Starters/Protectors
Soft Starters
Variable Frequency Drives
Hybrid Relays
Electromechanical Relays
Limit Switches
Push Buttons and Pilot Lights

Control

Energy Management
Switching Power Supplies
Timers and Counters
Monitoring Controls
Current Transformers/Shunts
Digital Panel Meters
PLC Controllers
Surge Arresters
Safety Control Modules

Fieldbus

Dupline® Field and Installation Bus
Building Automation Systems
Parking Guidance Systems
Elevator Systems
DuplineSafe Mining Systems
Irrigation Systems

EcoEnergy equipment

Solar Monitoring and Control
Grid-Tied PV Inverters
PV Surge Arresters

A Global Force in Automation and Energy Solutions

CARLO GAVAZZI has a multitude of sales offices spanning North America (not to mention our hundreds of distributors). Therefore, we can be viewed as "your local automation resource" - assisting you every step of the way in finding the proper solution for your various application requirements. Naturally, our job is greatly simplified as we have such a vast range of solutions to offer you via our comprehensive product package.

Our worldwide sales offices make us an ideal business partner, especially for manufacturers of exported machinery, as our products are available locally and they are RoHS and CE marked.

USA

CARLO GAVAZZI INC.
750 Hastings Lane
Buffalo Grove, IL 60089
Tel: 847.465.6100
Fax: 800.222.2659
Sales@CarloGavazzi.com

CANADA

CARLO GAVAZZI (CANADA) INC.
2860 Meadowvale Boulevard
Mississauga, ON L6N 6M6
Tel: 888.575.2275
Fax: 905.542.2248
Gavazzi@CarloGavazzi.com

MEXICO

CARLO GAVAZZI MEXICO S.A. de C.V.
Calle La Montaña no. 28, Fracc. Los Pastores
Neuquén de Juárez, EDOMEX CP 53840
Tel & Fax: 52.55.5373.7042
MexicoSales@CarloGavazzi.com

Regional / Area Sales Office
District Sales Office

Argentina • Australia • Austria • Bahrain • Belgium • Bolivia • Botswana • Brazil • Brunei • Bulgaria • Canada
Chile • China • Colombia • Croatia • Cyprus • Czech • Denmark • Dominican Republic • Egypt • Estonia
Finland • France • Germany • Greece • Hungary • Hong Kong • Iceland • India • Indonesia • Iran • Ireland
Italy • Japan • Jordan • Kenya • Korea • Kuwait • Lebanon • Malaysia • Malta • Morocco • Mauritius • Mexico
Netherlands • New Zealand • Norway • Pakistan • Papua New Guinea • Paraguay • Peru • Philippines
Poland • Portugal • Qatar • Romania • Russia • Saudi Arabia • Serbia • Singapore • Slovakia • Slovenia
South Africa • Spain • Sultanate of Oman • Sweden • Switzerland • Taiwan • Thailand • Tunisia • Turkey
Ukraine • United Arab Emirates • United Kingdom • Uruguay • United States • Venezuela • Vietnam • and many more countries

Your Authorized Distributor:

CARLO GAVAZZI Automation Components

USA Tel: 847.465.6100 Fax: 800.222.2659

Canada Tel: 888.575.2275 Fax: 905.542.2248

Mexico Tel and Fax: 52.55.5373.7042

www.GavazziOnline.com • Info@CarloGavazzi.com

twitter.com/CarloGavazziNA facebook.com/CarloGavazziNA



Visit our website for downloadable data sheets,
brochures and pricing: www.GavazziOnline.com