



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.

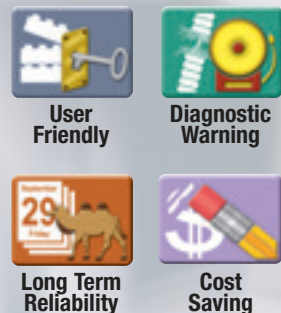
The product offering starts with Mini-Contactors in a compact 12 amp frame size, followed by Midi-Contactors in up to 100 amp frame sizes, and topped off with the Power-Contactors which offer up to 800 amp frame sizes.

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)

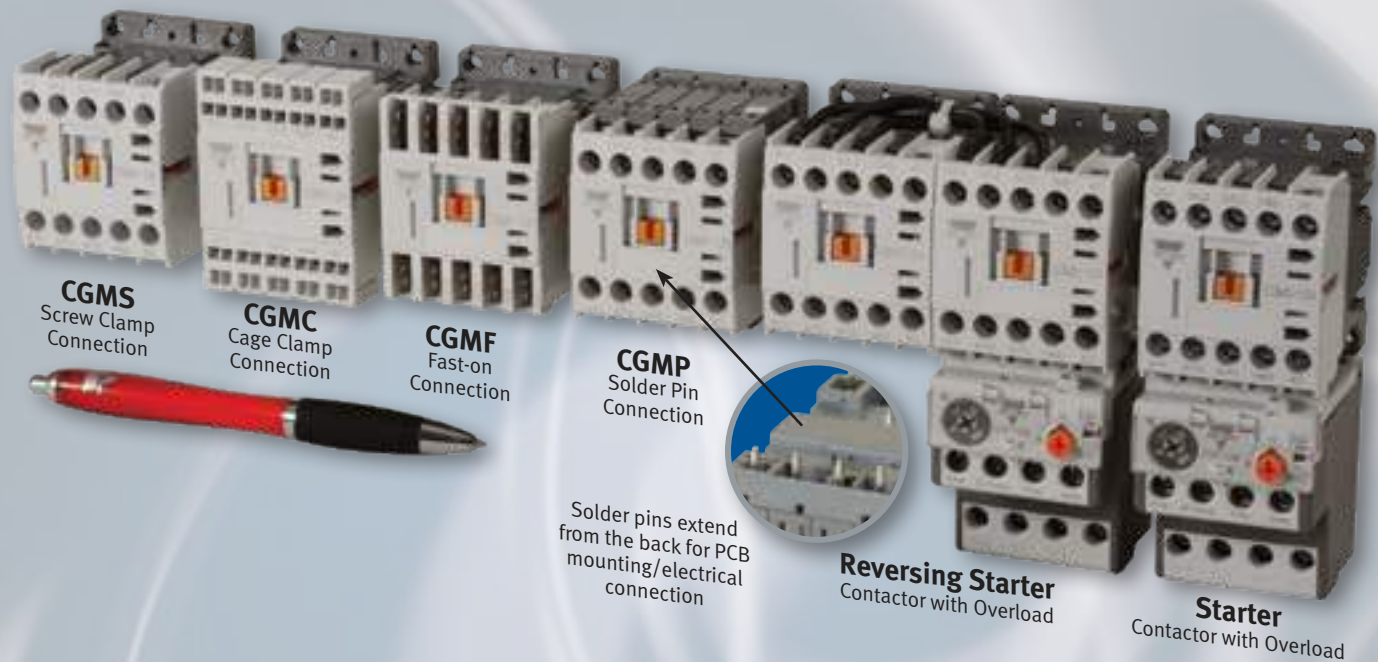
Mini-Contactors and Overloads



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	12	M	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	Amperage Size	Type	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	M - Mini	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					

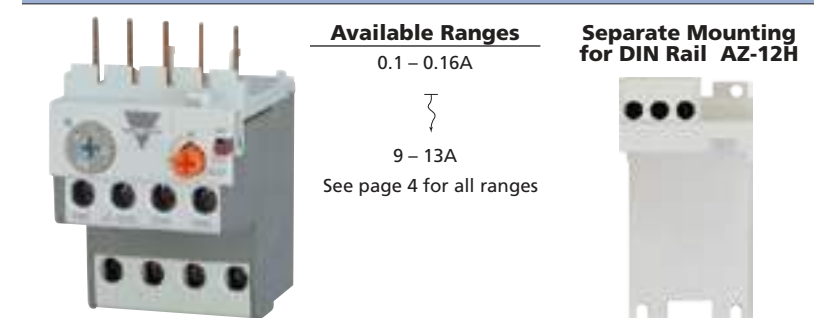
Mini-Contactors and Overloads



Frame Size Type		
UL Ratings cUL US LISTED	Continuous Current Ith	
	Motor AC Single Phase	115V 230V
	Three Phase	230V 460V 575V
	NEMA Size	AC1 AC3
	Motor AC	200~240V 380~440V 690V
IEC Ratings CE		
Coil Voltages	AC Coil VAC 50/60Hz DC Coil (std. consumption) VDC (low consumption) VDC	
Basic Dimensions (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		

Thermal Overload Relays



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

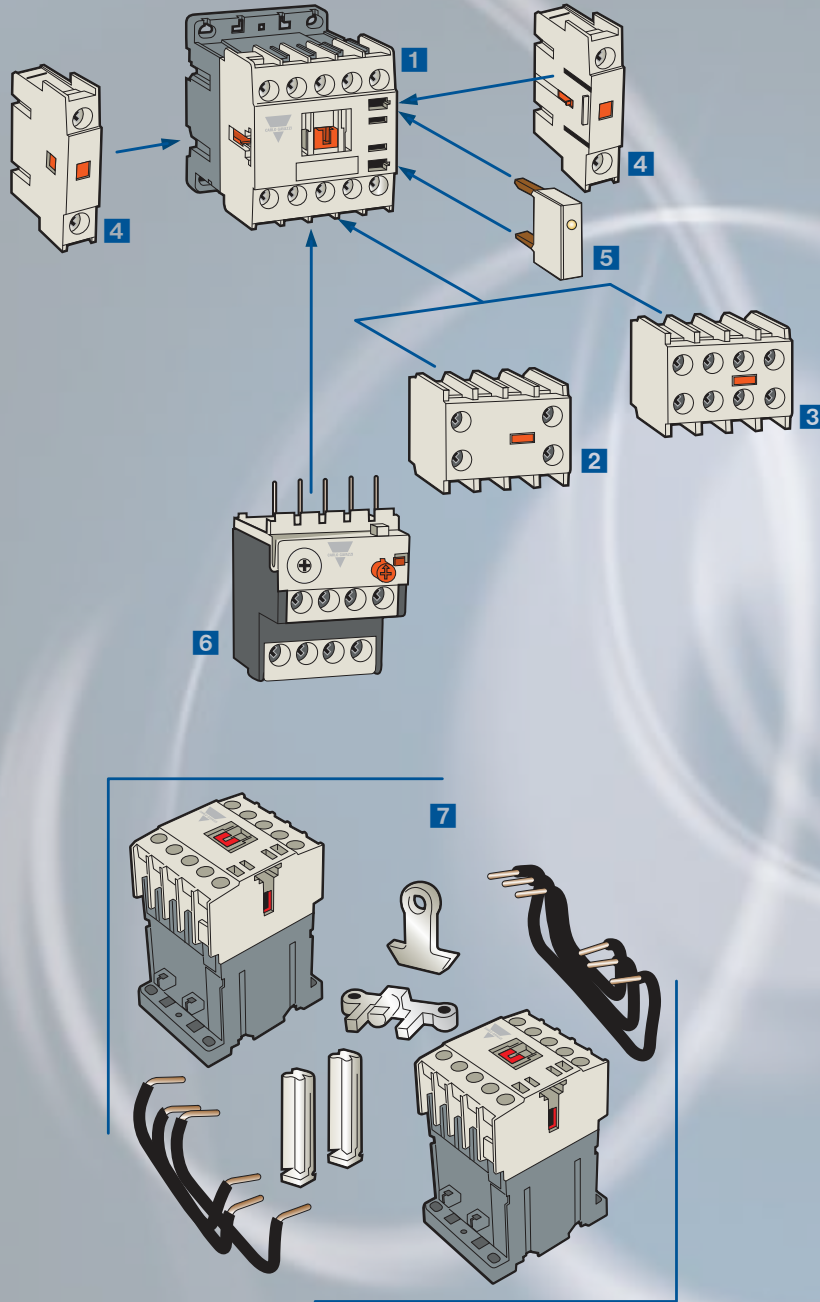
GMS-32S and GMS-32H
0.1 ~ 32A
Max. 100kA
GDA16HA
GDA16HD
GDA16SA
GDA16SD

* 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 Contacts	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 5 - 8A 6 - 9A 7 - 10A 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 24 - 36A 28 - 40A 34 - 50A 45 - 65A 54 - 75A 63 - 85A 70 - 95A 80 - 100A							
			Separate Mount All CGE sizes 25 - 2-Pole 35 - 3-Pole 35R - 3-Pole	CGE40 4 - 20AN 8 - 40AN	CGE80 16 - 80AN							
			Through-Hole 22 and 40AF 2T - 2-Pole 3T - 3-Pole 3TR - 3-Pole									
<p>(Setting Range Guide)</p> <p>GT32</p> <p>GT65</p> <p>GT95</p>												

Midi-Contactors and Overloads



Frame Size Type	Available Output Terminal	
	Continuous Current	
UL Rating 50/60Hz	Motor AC Single Phase	110~120VAC
		220~240VAC
	Motor AC Three Phase	220~240VAC
		440~480VAC
		550~600VAC
NEMA Size		
CSA Elevator Rating		
IEC Rating	Resistive AC1	690VAC max
	Motor AC3	200~240VAC
		380~440VAC
		500~550VAC
		690VAC max
Coil Voltages	AC Coil	VAC 50/60Hz
		VAC 60Hz
		VAC 50Hz
	DC Coil	VDC
Basic Dimensions	W x H x D mm	AC Coil
	(with standard set of aux. contacts)	DC Coil
Accessories	Auxiliary Contacts	Standard
		Optional
		Mechanical Interlock
	Power Connector for Reversing Contactors	
	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		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)											



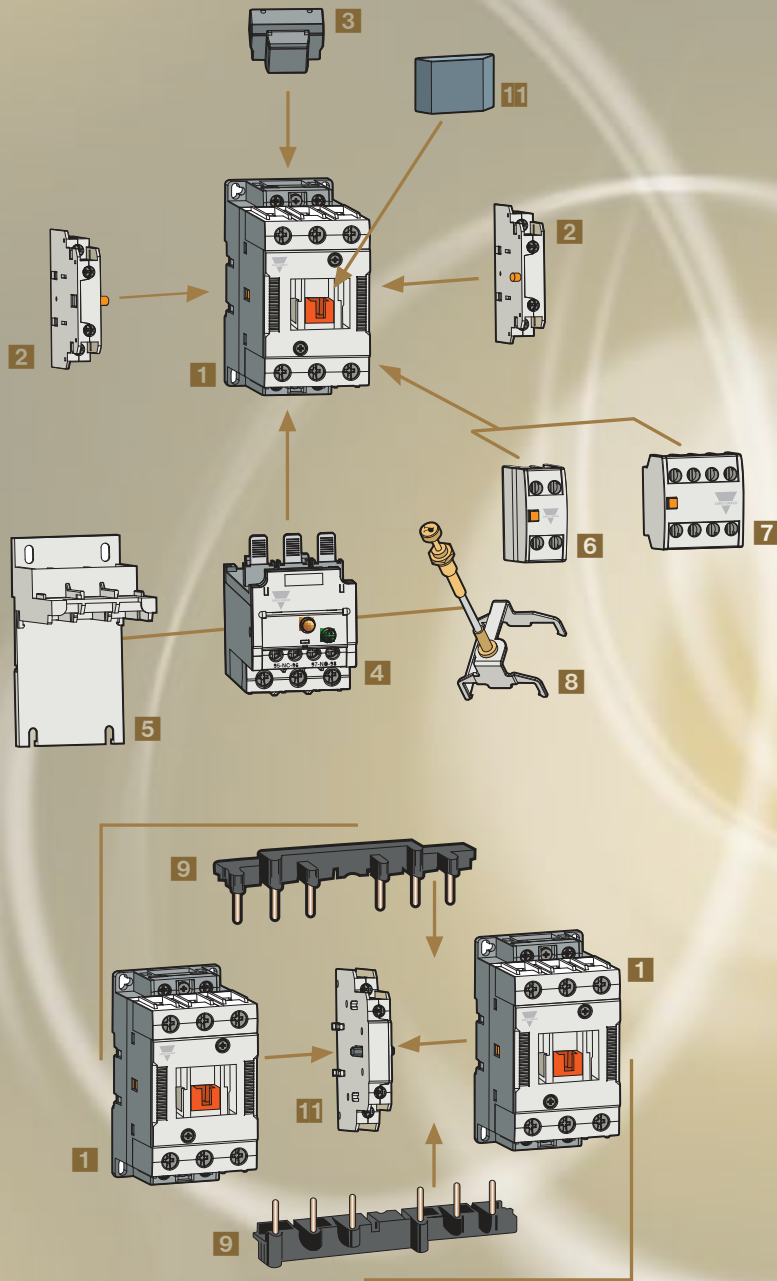
Thermal Overloads	Bimetallic, 3-Pole Differential	Range
	Electronic	Range
		Available Mounting
Matching Manual Motor Starter	Type	
	Connecting Module	AC Coil Contactor
		DC Coil Contactor

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	GDA63A	GDA95A	GDA95A
GDA22SD	GDA22HD	GDA32SD	GDA32HD	GDA63D	GDA63D	GDA95D	GDA95D

Midi-Contactors and Overloads

Accessories

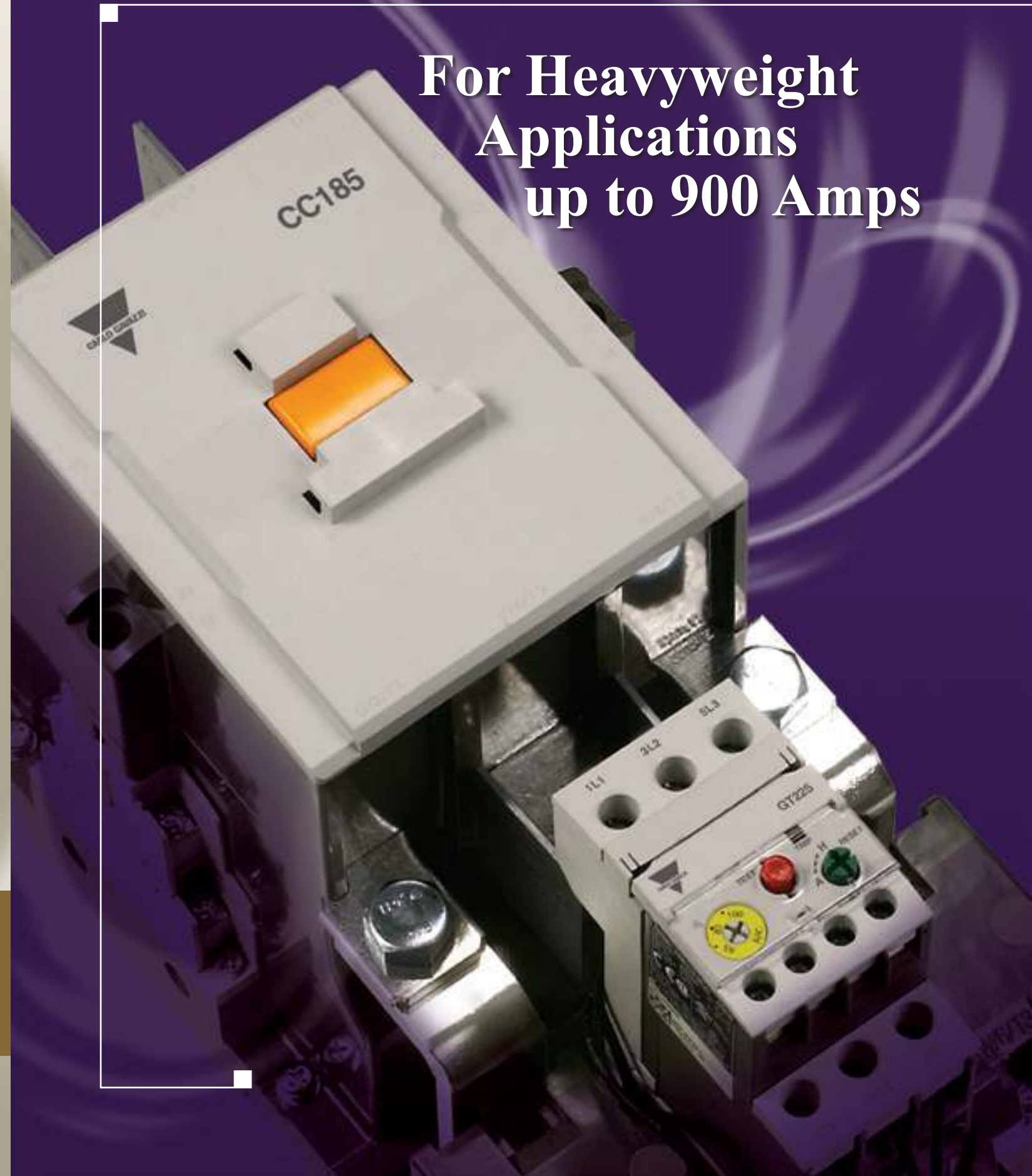
- 1 CC Contactor
- 2 GUA1 1-pole Side Mount Auxiliary Contact Unit
(All types come standard with at least one auxiliary contact, see pages 10 and 11 for more details)
- 3 GUS Surge Unit
- 4 GT Overload Relay
- 5 GUZ Separate Mounting Unit for Overload
- 6 GUA2 2-pole Top Mount Auxiliary Contact Unit
- 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

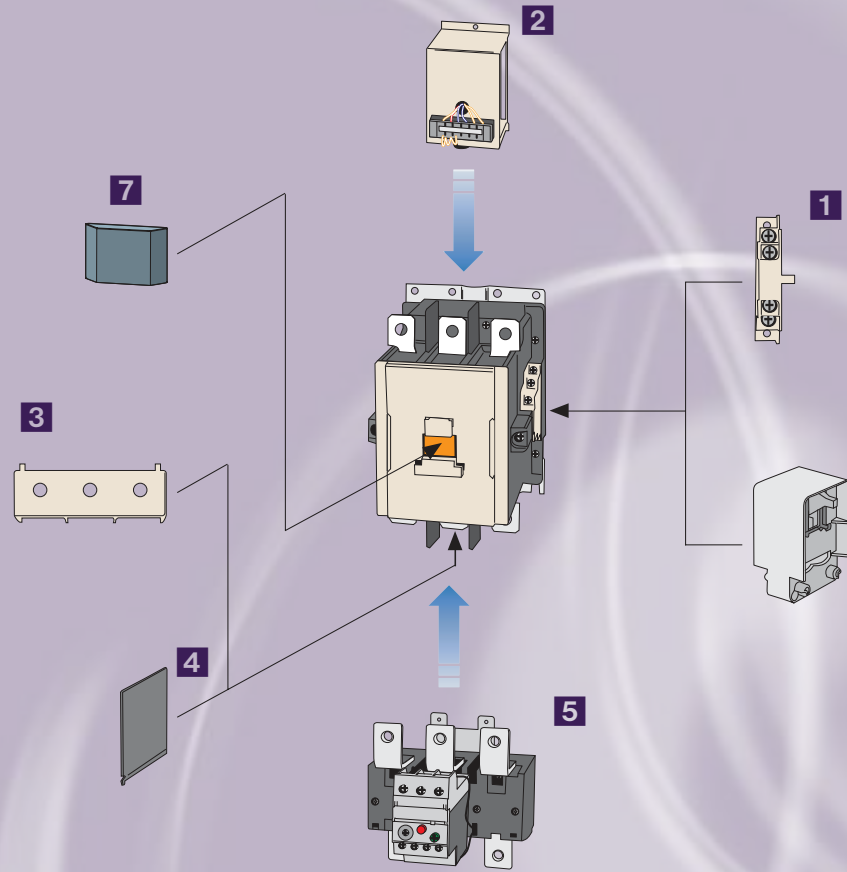


Frame Size Type	Available Output Terminal	150AF		225AF		CC265	400AF		CC400	CC500	800AF	
		CC130	CC150	CC185	CC225		CC330	CC630			CC800	
	Continuous Current	Screw Clamp or Lug		Screw Clamp Only			Screw Clamp Only				Screw Clamp Only	
UL Rating 50/60Hz 	Motor AC Single Phase	160A	210A	230A	275A	300A	350A	450A	580A	660A	900A	
		10HP	15HP	15HP	15HP	-	-	-	-	-	-	
	Motor AC Three Phase	20HP	25HP	30HP	40HP	-	-	-	-	-	-	
		40HP	50HP	60HP	75HP	100HP	125HP	150HP	200HP	250HP	300HP	
		75HP	100HP	125HP	150HP	200HP	250HP	300HP	400HP	500HP	600HP	
NEMA Size IEC Rating 	Resistive AC1	3	4	4	4	5	5	5	6	6	7	
	Motor AC3	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	
Coil Voltages	AC Coil	24, 48, 110, 220, 300, 400, 500 VAC		300, 400, 500 VAC		300, 400, 500 VAC		300, 400, 500 VAC		300, 400, 500 VAC		
	DC Coil	24, 48, 110, 220 VDC		-		-		-		-		
Basic Dimensions	W x H x D mm	119 x 158 x 131		162 x 203 x 185		187 x 243 x 205		100, 200 VAC/VDC		100, 200 VAC/VDC		
	Auxiliary Contacts	2NO2NC		2NO2NC		2NO2NC		2NO2NC		2NO2NC		
Accessories	Mechanical Interlock	GUR02		AR-400		AR-400		AR-400		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	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

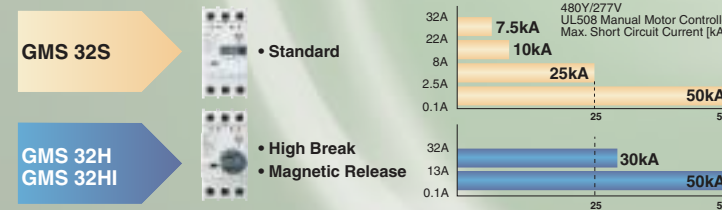
- cULus listed, CE and RoHS
- Complies with the specifications in accordance with IEC 60947-2 and IEC 60947-4-1, UL508 (Manual motor controller), UL508 (Combination motor controller Type E starter), CSA C22.2 NO.14, GB14048

Features

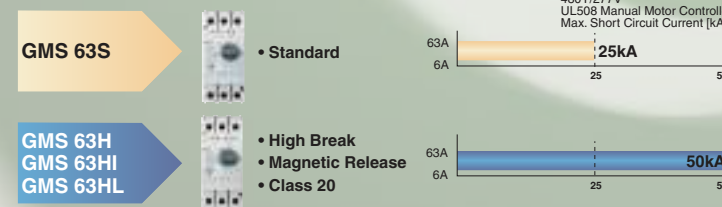
- 45mm width up to 32 amps, 55mm width up to 63 amps and 70mm width rated to 100 amps
- 100A version features a three position operator: ON-OFF-TRIP
- Handle lock in the OFF position
- Class 10 overload trip characteristics (Class 20 is optional)
- Trip test
- Finger safe terminals
- DIN rail or back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

UL508 Short Circuit Ratings

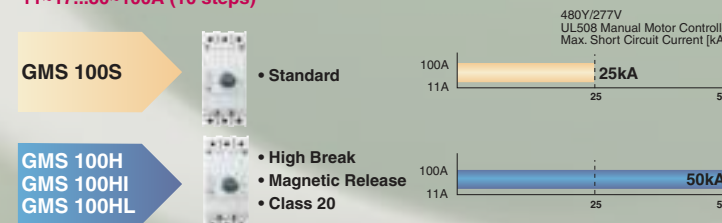
0.1~0.16...22-32A (16 steps)



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 H - High Break HI - High Break, no TOR HL - High Break, with Class 20 TOR	0.1 ~ 0.16A 0.16 ~ 0.25A 0.25 ~ 0.4A 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
	63 - 63AF		
	100 - 100AF		

(Setting Range Guide)
GMS-32
GMS-63
GMS-100

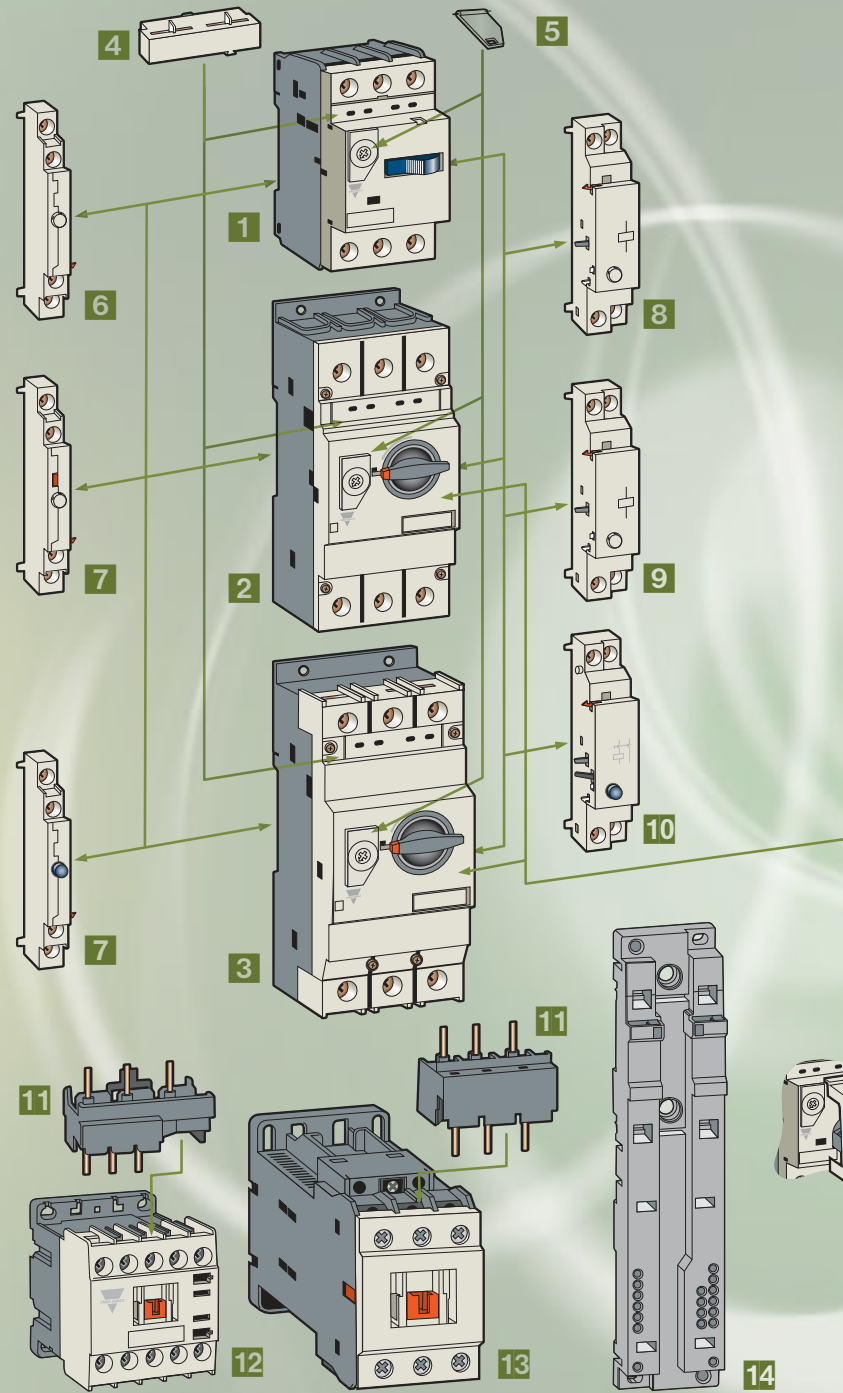


Frame Size		
Type	Current Adjustable Type	
Instantaneous Type		
Breaking Capacity	Standard	
Handle Type	Toggle	
Number of Poles	3	
Rated Operational Voltage [Ue]	600V	
Mechanical / Electrical Endurance [operations]	100,000 / 100,000	
Max Operating Frequency Per Hour [operations]	25	
Temperature Compensation	-20--+60C *	
Instantaneous Short Circuit Release	13 X Ie max	
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											
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 or Breaker Size [A]	240V	480Y	600Y	Max Fuse or Breaker Size [A]	240V	480Y	600Y	Max Fuse or Breaker Size [A]	240V	480Y	600Y	Max Fuse or Breaker Size [A]	240V	480Y	600Y	Max Fuse or Breaker Size [A]												
100	50	10	1	15	---	---	---	---		100	50	10	1	15	100	65	25	500	---	---	---	---	---	---	---	---	---	---	---												
100	50	10	1	15	---	---	---	---		100	50	10	1	15	100	65	25	500	---	---	---	---	---	---	---	---	---	---	---	---											
100	50	10	1	15	---	---	---	---		100	50	10	1	15	100	65	25	500	---	---	---	---	---	---	---	---	---	---	---	---											
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100	25	5	20	20	---	---	---	---		100	50	10	20	20	100	65	25	500	---	---	---	---	---	---	---	---	---	---	---	---											
100	25	5	30	30	---	---	---	---		100	50	10	30	30	100	65	25	500	---	---	---	---	---	---	---	---	---	---	---	---											
50	10	5	40	40	---	---	---	---		100	50	10	40	40	100	65	25	500	100	25	10	40	40	100	50	10	600	100	50	10	40	40	100	65	25	600					
50	10	5	50	50	---	---	---	---		100	50	10	50	50	100	65	25	500	100	25	10	50	50	100	50	10	600	100	50	10	50	50	100	65	25	600					
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30	7.5	5	100	100	---	---	---	---		100	30	10	100	100	100	30	10	500	100	25	10	100	100	100	40	10	600	100	50	10	100	100	100	50	10	1000					
20	7.5	5	125	125	---	---	---	---		100	30	10	125	125	100	30	10	500	100	25	10	125	125	100	40	10	600	100	50	10	125	125	100	50	10	1000					
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*Contact Carlo Gavazzi for further details. **Except with instantaneous (HI) types.

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 Auxiliary 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)				

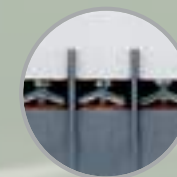
Handle Lock



Dial Cover



GMS-32



Terminals

GMS-63



GMS-100



The Complete Product Package

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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
PID Controllers
Surge Arresters
Safety Control Modules

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