

Contactors, Overloads and Manual Motor Starters

Mini-Contactors and Overloads

- Up to 20 Amps or 7.5HP

Midi-Contactors and Overloads

- Up to 140 Amps or 75HP
- With CSA Elevator Ratings

Power-Contactors and Overloads

- Up to 900 Amps or 600HP

Manual Motor Starters

- 32, 63 and 100 Amp Frame Sizes



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 95 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 starters, 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)

GC Midi-Contactors for use with Overloads or Manual Motor Starters (Up to 140 Amps or 75HP)

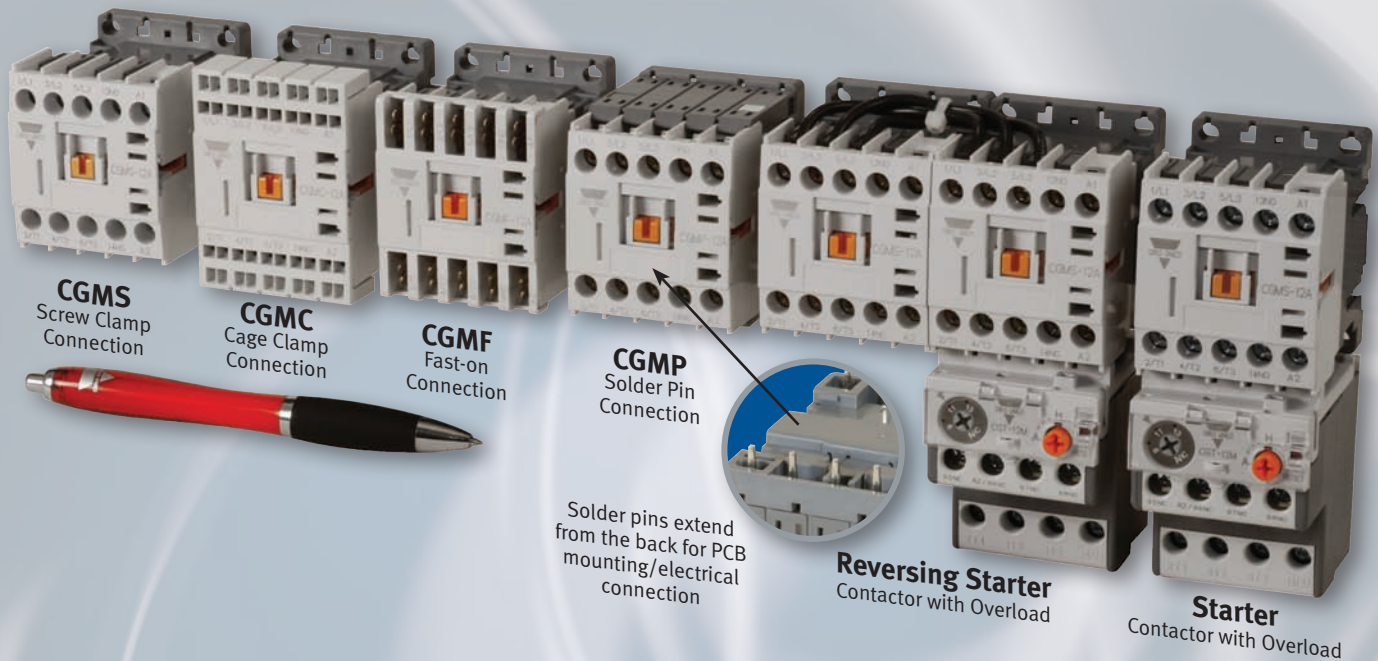
CGC Power-Contactors for use with Overloads (Up to 900 Amps or 600HP)

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

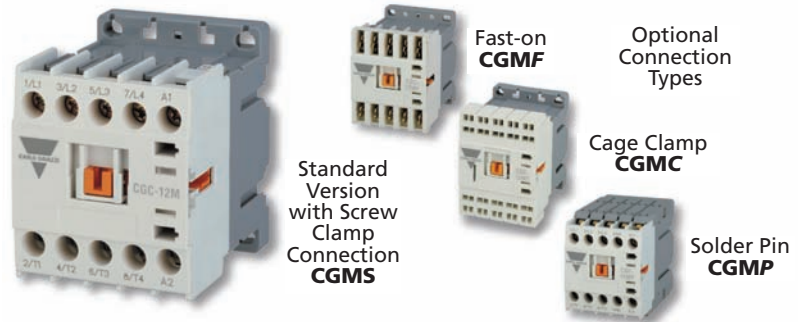
Mini-Contactor

CGM	S	9	A	120	10
Magnetic 3-Pole Mini-Contactor	Application and Terminal Style	Amperage Size	Coil Type	Coil Voltage	Built-in Auxiliary Contact Combination
	Non-Reversing	6 - 6A	A - AC Coil	24 - 24V	10 - 1 NO
	S - Screw (std.)	9 - 9A	D - DC Coil	120 - 120V	01 - 1 NC
	F - Fast On	12 - 12A		480 - 480V	
	C - Cage Clamp			See data sheet for full offering	
	P - Solder Pin				
	Reversing Type				
	U - Screw (standard)				
	CU - Cage Clamp				
	FU - Fast On				
	PU - Solder Pin				

Overload

CGT	12	M	0.16A
Bimetallic Mini-Overload	Amperage Size	Type	Setting Ranges (Use upper limit in part number)
	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

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	
Motor AC	AC1
	AC3
	200~240V
	380~440V
	690V

Coil Voltages

AC Coil	VAC 50/60Hz
DC Coil (std. consumption)	VDC
(low consumption)	VDC

Basic Dimensions

Accessories

(W x H x D) mm	
Auxiliary Contacts	Standard
	Optional

Mechanical Interlocks
Surge Units

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

* 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

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

Separate Mounting for DIN Rail AZ-12H



GMS-32S and GMS-32H

0.1 ~ 32A

Max. 100kA

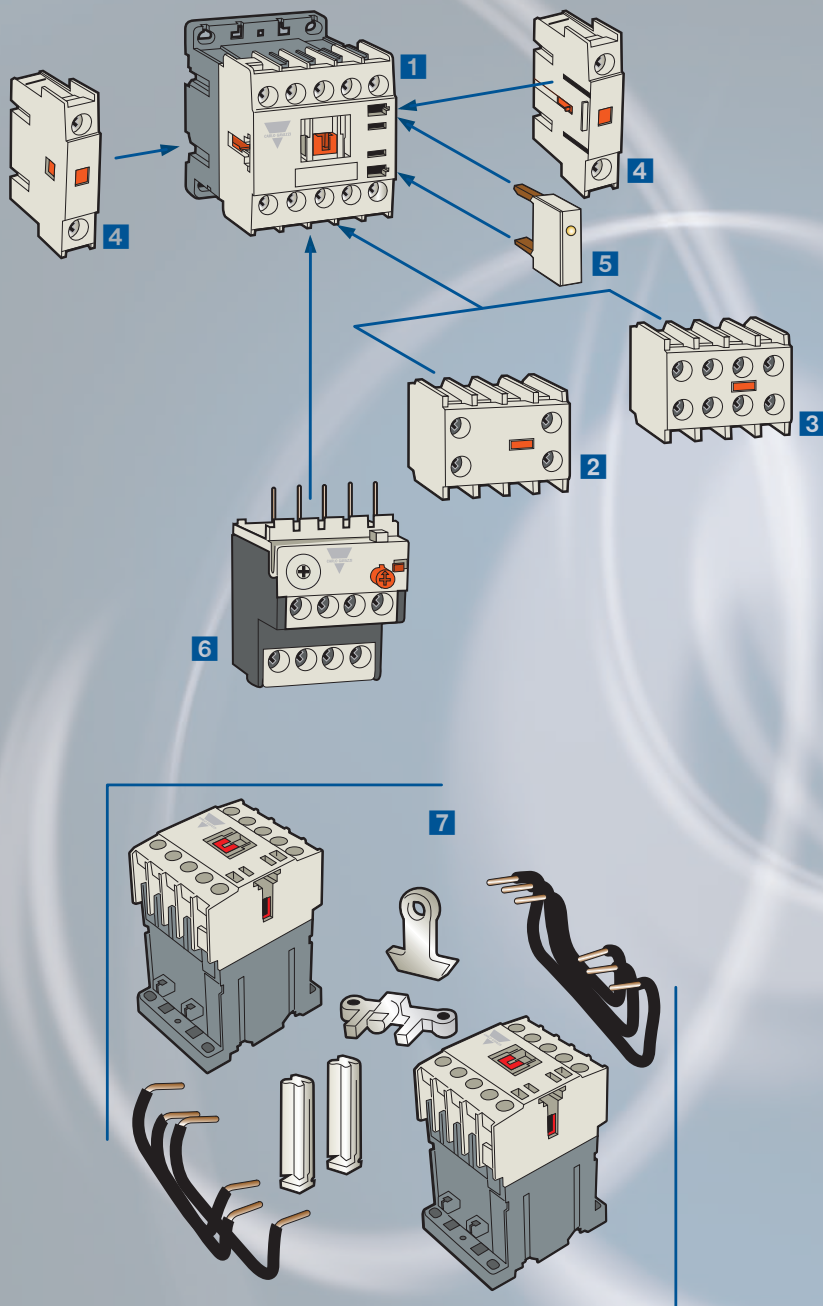
GDA16HA

GDA16HD

GDA16SA

GDA16SD

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

CARLO GAVAZZI

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



Midi-Contactors and Overloads



General

- Four frame sizes
- Motor ratings of each frame size:
Up to 10, 25, 50 or 75HP
- Resistive ratings of each frame size:
Up to 25, 50, 75 or 140A
- AC or DC coil voltage
- Two connection types:
Screw terminal connections are available on all frame sizes
Lug terminal connections (line/load) are available on 63 and 95 amp frame sizes

Standards

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

Convenience

- Captive screw terminals
- 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 NO or NC 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
- Manual motor starters
- Side or top mounted auxiliary contact(s)
- 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

GC	9		S	A	120		GT	12	S	0.16A
Magnetic 3-pole Midi-Contactor	Amperage Size	Application	Terminal Type	Coil Type	Coil Voltage	Built-in Auxiliary Contact Combination: Only on 9 & 12A Midi-Contactors	Bimetallic Midi-Overload	Frame Size	Terminal Type (Must match contactor terminal type)	Setting Ranges (Use upper limit in part number)
	9 - 9A 12 - 12A 18 - 18A 25 - 25A 32 - 32A 35 - 35A 40 - 40A 50 - 50A 63 - 63A 65 - 65A 75 - 75A 85 - 85A 95 - 95A	BLANK - Non-Reversing R - Reversing C - Capacitive	S - Screw L - Lug (≥35A)	A - AC D - DC	24 - 24V 120 - 120V } 480 - 480V See data sheet for more details	BLANK - 1NO 01 - 1NC The following sizes come standard with the auxiliary outputs listed below: <u>18, 25 & 32A:</u> 1NO & 1NC 35, 40, 50, 63, <u>65, 75, 85 & 95A:</u> 2NO & 2NC See pages 10 & 11 for more details		12 - 9 & 12A 32 - 18, 25 & 32A 63 - 35, 40, 50 & 63A 95 - 65, 75, 85 & 95A	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

(Setting Range Guide)

GT12
GT32
GT63
GT95

Midi-Contactors and Overloads



Frame Size Type

Available Output Terminal Type

UL & CSA Ratings		Continuous Current Ith
	Motor AC Single Phase	115V
		230V
	Three Phase	230V
		460V
		575V

Rated Operational Current 440VAC Motor Load

CSA Elevator Ratings		Three Phase	200~600V
	Motor AC AC1	690 VAC max	
	AC3	200~240V	
		380~440V	

Coil Voltages		AC Coil	VAC 60 Hz
			VAC 50 Hz
			VAC 50/60 Hz

Basic Dimensions		(W x H x D) mm	AC coil
			DC Coil

Accessories		Auxiliary Contacts	Standard
			Optional
		Mechanical/Electrical Interlock	

Power Connectors for Reversing Contactors

Coil Surge Units		Varistor
		RC+Varistor
		RC

12AF		32AF		
GC9	GC12	GC18	GC25	GC32
3-Pole		3-Pole		
Screw Clamp Only		Screw Clamp Only		
25A	25A	40A	40A	50A
0.5HP	0.75HP	1HP	2HP	2HP
1.5HP	2HP	3HP	3HP	5HP
3HP	5HP	7.5HP	10HP	10HP
5HP	7.5HP	10HP	15HP	20HP
7.5HP	10HP	15HP	20HP	25HP
9A	12A	18A	25A	32A
Available in 2009		20A	20A	25A
25A	25A	40A	40A	50A
2.5 kW 11A	3.5 kW 13A	4.5 kW 18A	5.5 kW 25A	7.5 kW 32A
4 kW 9A	5.5 kW 12A	7.5 kW 18A	11 kW 25A	15 kW 32A
4 kW 5A	7.5 kW 9A	7.5 kW 9A	15 kW 18A	18.5 kW 20A
24, 48, 110, 120, 208, 220, 240, 277, 380, 440, 480, 600				
24, 42, 48, 100, 110, 220, 240, 380, 400, 415, 440, 500, 550				
24, 48, 120, 220, 230, 240, 380, 400, 415, 440, 500, 560				
12, 24, 48, 60, 80, 100, 110, 125, 200, 220, 250				
45 x 74 x 82		45 x 83 x 93		
45 x 74 x 114		45 x 83 x 118		
1NO or 1NC		One Side Mount GUA1 (1NO and 1NC)		
Side Mount GUA1 (1NO/1NC) or Top Mount AX2 OR AX4				
GUR02*		GUR02*		
GUW12**		GUW32		
GUS11 (for 24~48 VAC or VDC coils),				
GUS1 (for 24~48 VAC coils), GUS2 (for 100~125 VAC coils),				



Thermal Overloads

Matching Manual Motor Starters

Type	Rated Operational Current, Ie	Rated Breaking Capacity, Icu
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Connecting Module

AC Coil Contactor
DC Coil Contactor

GT12		GT32	
Range		Range	
0.1~0.16A		0.1~0.16A	
9~13A		22~32A	
See page 9 for all ranges		See page 9 for all ranges	
GMS-32S	GMS-32H	GMS-32S	GMS-32H
0.1 ~ 32A	0.1 ~ 32A	0.1 ~ 32A	0.1 ~ 32A
8~100kA	20~100kA	8~100kA	20~100kA
GDA12SA**	GDA12HA**	GDA32SA	GDA32HA
GDA12SD**	GDA12HD**	GDA32SD	GDA32HD

* This is the interlock only, wiring kits are to be ordered separately

** Available in 2009



63AF				95AF			
GG35	GC40	GC50	GC63	GC65	GC75	GC85	GC95
3-Pole				3-Pole			
Screw Clamp or Lug				Screw Clamp or Lug			
55A	60A	70A	75A	100A	110A	135A	140A
2HP	3HP	3HP	5HP	5HP	5HP	7.5HP	10HP
5HP	7.5HP	10HP	10HP	15HP	15HP	15HP	20HP
15HP	20HP	25HP	25HP	30HP	30HP	40HP	40HP
25HP	30HP	40HP	40HP	50HP	50HP	60HP	75HP
30HP	40HP	50HP	50HP	60HP	60HP	75HP	75HP
35A	40A	50A	63A	65A	75A	85A	95A
30A	32.5A	37.5A	42A	55A	60A	70A	75A
55A	60A	70A	75A	100A	110A	135A	140A
11 kW 35A	11 kW 40A	15 kW 55A	15 kW 63A	18.5 kW 65A	22 kW 75A	25 kW 85A	25 kW 95A
18.5 kW 35A	18.5 kW 40A	22 kW 50A	25kW 63A	30 kW 65A	37 kW 75A	45 kW 85A	45 kW 95A
22 kW 21A	22 kW 23A	30 kW 28A	30 kW 30A	33 kW 35A	37 kW 42A	45 kW 45A	45 kW 50A
24, 48, 110, 120, 208, 220, 240, 277, 380, 440, 480, 600							
24, 42, 48, 100, 110, 220, 240, 380, 400, 415, 440, 500, 550							
24, 48, 120, 220, 230, 240, 380, 400, 415, 440, 500, 560							
12, 24, 48, 60, 80, 100, 110, 125, 200, 220, 250							
55 x 106 x 122				70 x 140 x 137			
55 x 106 x 161				70 x 140 x 173			
Two Side Mount GUA1 (2NO and 2NC)							
Top Mount AX2 (2NO, 1NC/1NO or 2NC) or Top Mount AX4 (4NO, 3NO/1NC, 2NO/2NC, 1NO/3NC or 4NC)							
GUR02*							
GUW63				GUW95			
GUS12 (for 100~125 VAC or VDC coils), GUS13 (for 200~240 VAC or VDC coils), GUS14 (for 380~440 VAC coils)							
GUS3 (for 200~240 VAC coils), GUS4 (for 24~48 VDC coils), GUS5 (for 100~125 VDC coils), GUS6 (for 200~220 VDC coils)							
GUS22 (for 100~125 VAC coils)							

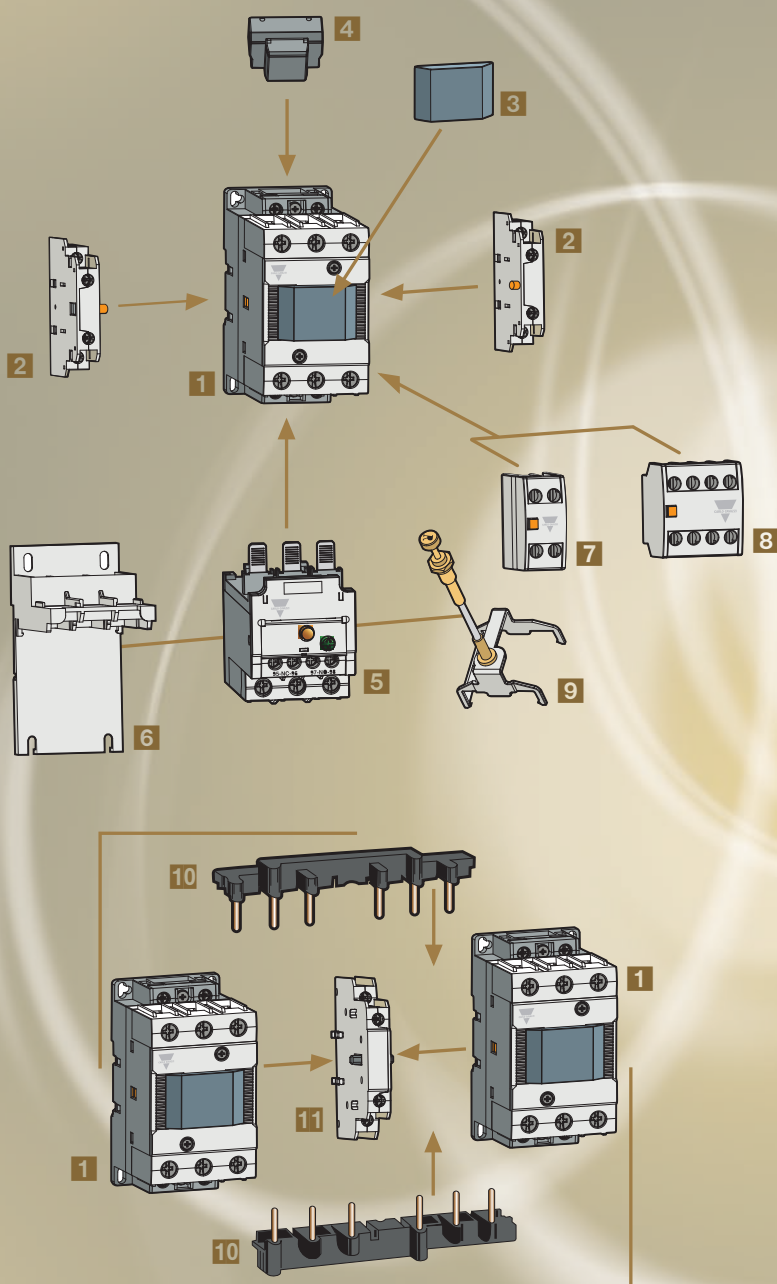


GT63	GT95
Range 4~6A	Range 4~10A
45~65A	70~95A
See page 9 for all ranges	See page 9 for all ranges
GMS-63S and GMS-63H	GMS-100S and GMS-100H
6~63A	11~100
Max. 100kA	Max. 100kA
GDA63A	GDA95A
GDA63D	GDA95D

Midi-Contactors and Overloads

Accessories

- 1 **GC** 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 **Safety Cover** (included)
- 4 **GUS** Surge Unit
- 5 **GT** Overload Relay
- 6 **GUZ** Separate Mounting Unit for Overload
- 7 **AX2** 2-pole Top Mount Auxiliary Contact Unit
- 8 **AX4** 4-pole Top Mount Auxiliary Contact Unit
- 9 **GUM** Remote Reset Unit
- 10 **GUW** Wire Kit for Reversing Contactor
- 11 **GUR** Interlock Unit



Power-Contactors and Overloads



*For Heavyweight
Applications
up to 900 Amps*



Power-Contactors and Overloads



Frame Size Type			
UL Ratings 	Motor AC	Continuous Current I _{th}	
		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	VDC	
Basic Dimensions		(W x H x D) mm	
Accessories	Auxiliary Contacts	Standard	
	Mechanical Interlock with Wires		
	Mechanical Latch Unit		
	Terminal Covers		
	Lug Terminals		
	Coil Surge Units	Varistor	
		RC+Varistor	
	Insulation Barrier		

125AF		150AF
CGC-100 3-pole	CGC-125	CGC-150 3-pole
160A	160A	210A
7.5HP	10HP	15HP
15HP	20HP	25HP
30HP	40HP	50HP
60HP	75HP	100HP
60HP	75HP	100HP
--	--	4
160A	160A	210A
30 kW 105A	37 kW 125A	45 kW 150A
55 kW 105A	60 kW 120A	75 kW 150A
55 kW 65A	60 kW 90A	90 kW 100A
24(VAC/DC), 48(VAC/DC)		
100~240(VAC/DC), 265~347, 380~450, 4		
24(VAC/DC), 48(VAC/DC), 100~220(VAC/DC)		
126 x 166 x 147		144 x 176 x 157
AR-150W-100/125		AR-150W-150
AL-125		AL-150
AP125		AP150
AJ125		AJ150
AI-150		



Thermal Overloads

CGT-125	CGT-150
Range 34~50A	Range 34~50A
85~125A	100~150A
See page 16 for all ranges	See page 16 for all ranges

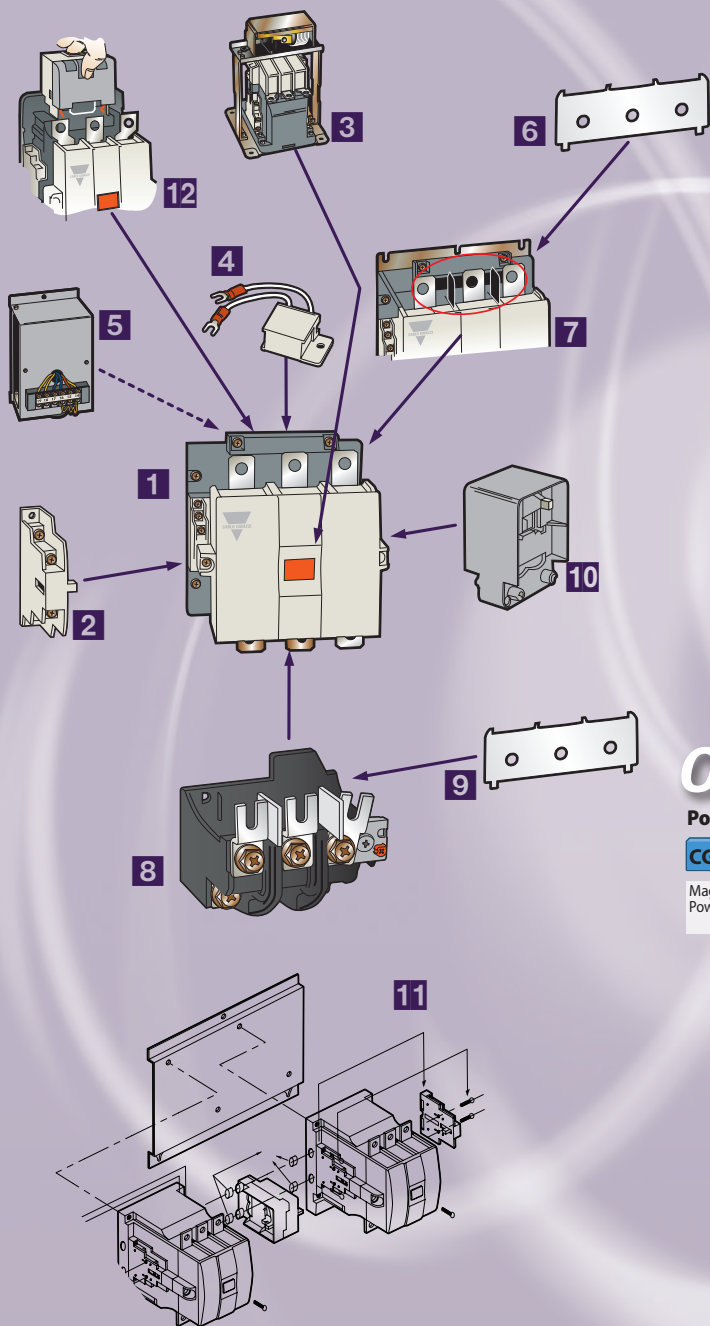


220AF		400AF		800AF	
CGC-180	CGC-220	CGC-300	CGC-400	CGC-600	CGC-800
3-pole			3-pole		3-pole
230A	275A	350A	450A	660A	900A
15HP	15HP	--	--	--	--
30HP	40HP	--	--	--	--
60HP	75HP	100HP	150HP	200HP	300HP
125HP	150HP	200HP	300HP	400HP	600HP
125HP	150HP	200HP	300HP	400HP	600HP
--	--	5	--	6	--
230A	275A	350A	450A	660A	900A
55 kW 180A	75 kW 250A	90 kW 300A	125 kW 400A	190 kW 630A	220 kW 800A
90 kW 180A	132 kW 250A	160 kW 300A	220 kW 400A	330 kW 630A	440 kW 800A
110 kW 120A	132 kW 150A	200 kW 220A	225 kW 300A	330 kW 420A	500 kW 630A
40~575 (VAC) VAC/DC)		100~240(VAC/DC) 265~347, 380~450, 440~575VAC		100~127(VAC/DC), 200~240(VAC/DC) 265~347, 380~450, 440~575VAC	
		100~220(VAC/DC)		100~220(VAC/DC)	
162 x 203 x 181		187 x 243 x 198		285 x 290 x 242	
Two Side Mount AX-100 (2NO and 2NC)					
AR-400W-180/220		AR-400W-300/400		AR-800W	
AL-220		AL-400		--	
AP220		AP400		AP800	
AJ220		AJ400		AJ800	
AS-11, AS-12, AS-13, AS-14					
AS-1, AS-2, AS-3, AS-4, AS-5, AS-6					
AI-400				AI-800	



CGT-220	CGT-400	CGT-800
Range	Range	Range
65~100A	85~125A	220~300A
160~240A	260~400A	520~800A
See page 16 for all ranges	See page 16 for all ranges	See page 16 for all ranges

Power-Contactors and Overloads



Accessories

- 1 **CGC** Power-Contactor
- 2 **AX-100** 2-pole Side Mount Auxiliary Contact Unit (two are included)
- 3 **AL** Mechanical Latch
- 4 **AS** Surge Absorber Unit
- 5 **AD** Delay Device
- 6 **AP** Terminal Cover for Contactors
- 7 **AI** Insulation Barrier
- 8 **CGT** Thermal Overload
- 9 **APT** Terminal Cover for Overloads
- 10 **AR-150/400W** Mechanical Interlock
- 11 **AR W** Reversing Interlock Kit, (wires not shown and contactors not included)
- 12 **Roll-out Cartridge Coil** (included)

Ordering Guide

Power Contactor

CGC
Magnetic 3-pole
Power Contactors

100

Amperage Size

100 - 100A
125 - 125A
150 - 150A
180 - 180A
220 - 220A
300 - 300A
400 - 400A
600 - 600A
800 - 800A

120

Coil Voltage

24 - 24V AC/DC
48 - 48V AC/DC
500 - 440~575VAC

See catalog for
full listing
Note:
Coil voltages 240V
and below are both
AC/DC. Those above
240V are AC only.
See data sheet
for full details.

Overload

CGT

Bimetallic
Overload

125

Frame Size

125 - 100 & 125A
150 - 150A
220 - 180 & 220A
400 - 300 & 400A
800 - 600 & 800A

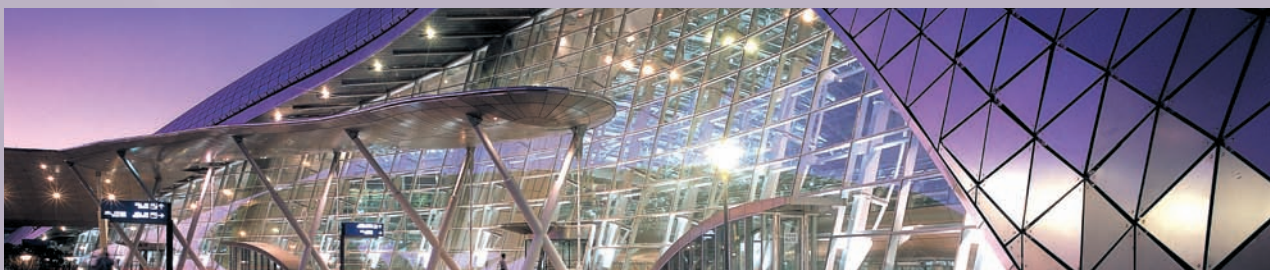
50A

Setting Ranges
(Use upper limit in
part number)

34 ~ 50A
39 ~ 57A
43 ~ 65A
54 ~ 80A
65 ~ 100A
85 ~ 125A
100 ~ 150A
100 ~ 160A
120 ~ 180A
160 ~ 240A
220 ~ 300A
260 ~ 400A
400 ~ 600A
520 ~ 800A

(Setting Range Guide)

GT-125
GT-150
GT-220
GT-400
GT-800



Manual Motor Starters



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



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

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.

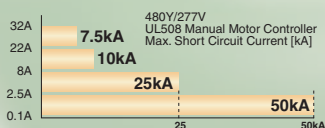
UL508 Short Circuit Ratings

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

GMS 32S



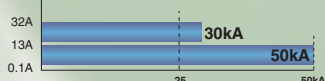
• Standard



**GMS 32H
GMS 32HI**



• High Break
• Magnetic Release

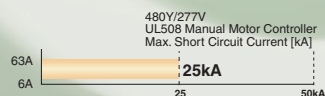


6~10...45~63A (9 steps)

GMS 63S



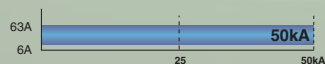
• Standard



**GMS 63H
GMS 63HI
GMS 63HL**



• High Break
• Magnetic Release
• Class 20

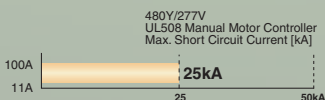


11~17...80~100A (10 steps)

GMS 100S



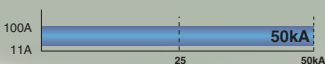
• Standard



**GMS 100H
GMS 100HI
GMS 100HL**



• High Break
• Magnetic Release
• Class 20



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

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		
Overload Protection**		
Main Functions	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															
GMS-32S								GMS-32H							
—								GMS-32HI							
Standard								High Breaking							
Toggle								Rotary							
3								3							
600V								600V							
100,000 / 100,000								100,000 / 100,000							
25								25							
-20~+60C *								-20~+60C *							
13 X Ie max								13 X Ie max							
YES								YES							
YES								YES							
YES								YES							
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			
240V	480Y	600Y	Max Fuse Size [A]	Max Breaker Size [A]	240V	480Y	600Y	240V	480Y	600Y	Max Fuse Size [A]	Max Breaker Size [A]	240V	480Y	600Y
277V	347V				277V	347V		277V	347V				277V	347V	
100	50	10	1	15	—	—	—	100	50	10	1	15	100	65	25
100	50	10	1	15	—	—	—	100	50	10	1	15	100	65	25
100	50	10	1	15	—	—	—	100	50	10	1	15	100	65	25
100	50	10	1	15	—	—	—	100	50	10	1	15	100	65	25
100	50	10	3	15	—	—	—	100	50	10	3	15	100	65	25
100	50	10	6	15	—	—	—	100	50	10	6	15	100	65	25
100	50	10	10	15	—	—	—	100	50	10	10	15	100	65	25
100	50	5	15	15	—	—	—	100	50	10	15	15	100	65	25
100	25	5	20	20	—	—	—	100	50	10	20	20	100	65	25
100	25	5	30	30	—	—	—	100	50	10	30	30	100	65	25
50	10	5	40	40	—	—	—	100	50	10	40	40	100	65	25
50	10	5	50	50	—	—	—	100	50	10	50	50	100	65	25
40	10	5	60	60	—	—	—	100	30	10	60	60	100	30	10
30	10	5	80	80	—	—	—	100	30	10	80	80	100	30	10
30	7.5	5	100	100	—	—	—	100	30	10	100	100	100	30	10
20	7.5	5	125	125	—	—	—	100	30	10	125	125	100	30	10
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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*Contact Carlo Gavazzi for further details.

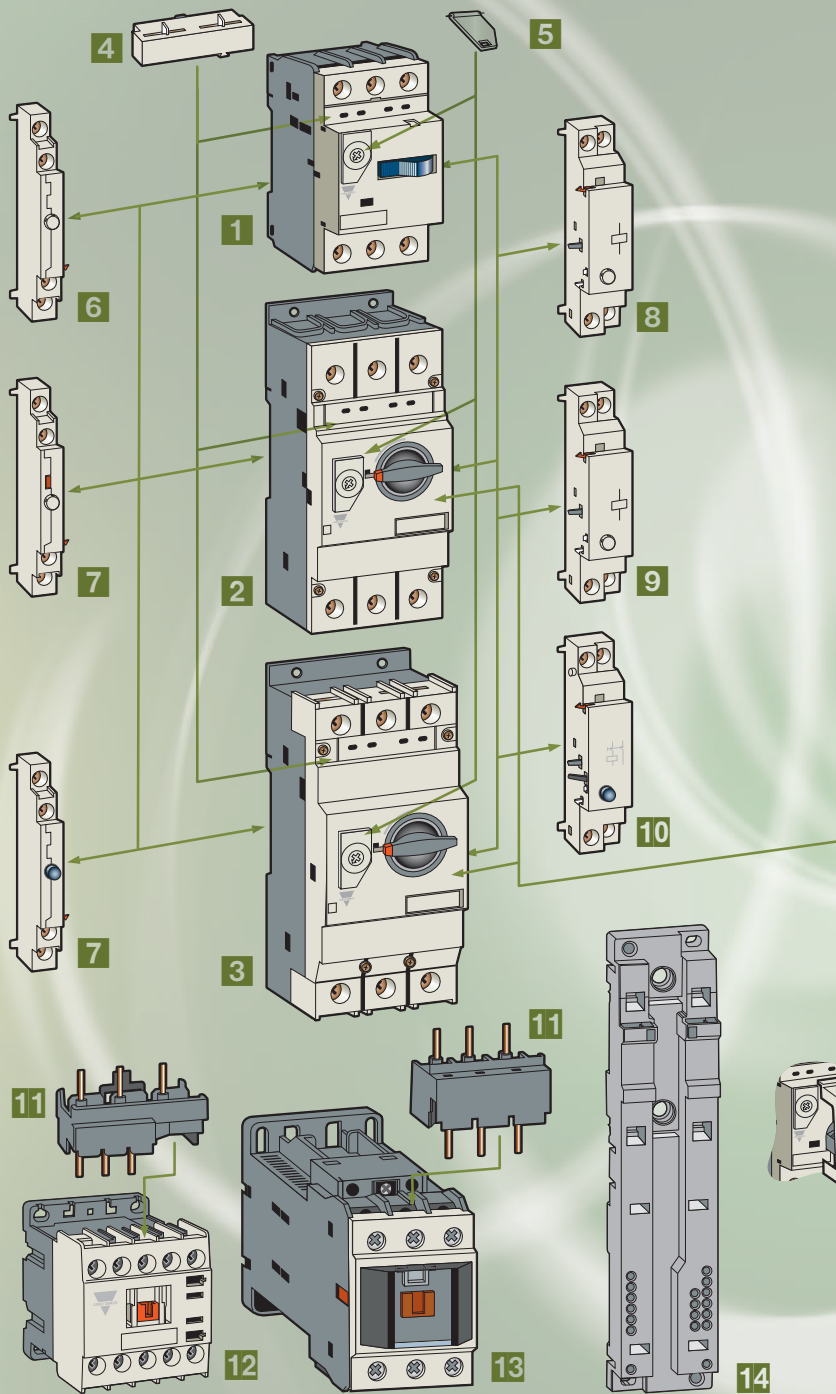
**Except with instantaneous (HI) types.

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



Specifications are subject to change without notice.

Manual Motor Starters



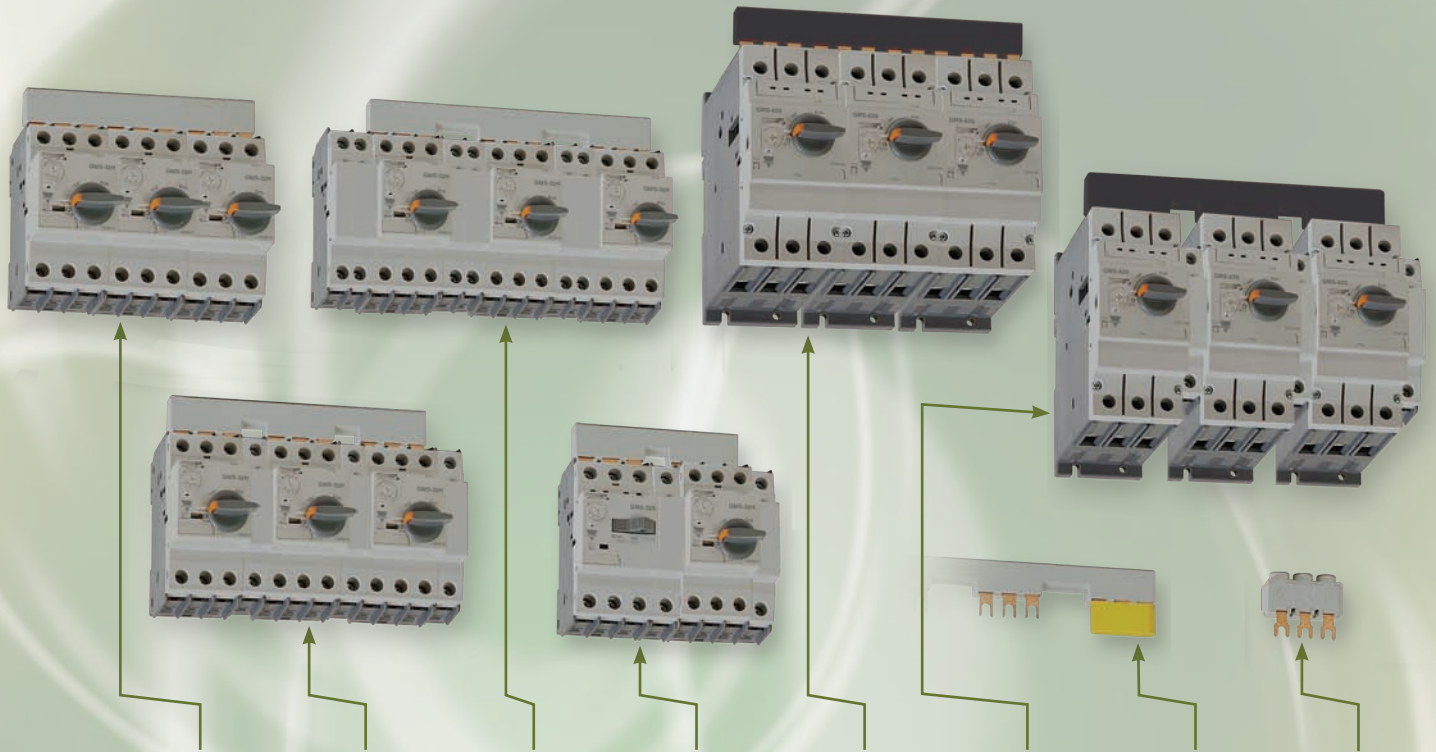
Accessories

- 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 GC** (9~95A) 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)

Jumper

54mm Spacing
(rated 120A)

63mm Spacing
(rated 120A)

Terminal cover

Supply connector

Type	MSVGW45-14-2	MSVGW54-14-2	MSVGW63-14-2	MSVGW45-SH	MSVCPM25412	MSVCP36312	MSVB54	MSVGWE1-14
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 connecting GMS-32S W/ GMS-32H	For 2 GMS-63	For 2 GMS-63 + accessories (side mnt aux sw)	3 Pole protective cover for MSVGW..	3 Phase input terminal 63A
Type	MSVGW45-14-3	MSVGW54-14-3	MSVGW63-14-3		MSVCPM35412	MSVCP36312	MSVTA120	MSVBTC50E
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 MSVCP..	3 Phase Input terminal 120A
Type	MSVGW45-14-4	MSVGW54-14-4	MSVGW63-14-4		MSVCPM45412	MSVCP46312		
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	MSVGW45-14-5	MSVGW54-14-5	MSVGW63-14-5					
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



Specifications are subject to change without notice.

The Complete Product Package



Sense
Inductive Proximity Sensors
Tripleshield™ Capacitive Sensors
Photoelectric Sensors
Inductive Loop Detectors
Ultrasonic Sensors
Radar Sensors
Level Sensors
Limit Switches
Magnetic Switches



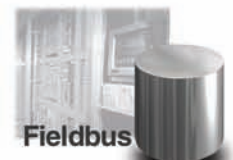
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Contactors and Overloads
Manual Motor Starters
Motor Controllers
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Electromechanical Relays
Pilot Devices
Cam Switches
Rotary Disconnects



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Digital Panel Meters
PID Controllers
Switching Power Supplies
Time Delay Relays
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Voltage Monitoring Relays
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Elevator Systems

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