

Mini contactors providing various connections and Accessories

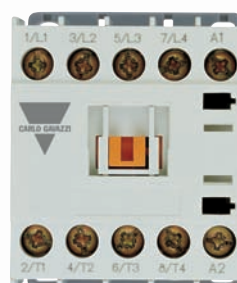
Ratings

Frame size	AC3 ratings (IEC60947-4)				AC1 rating lth
	220 ~ 240V	380 ~ 440V	500 ~ 550V	690V	
6A	1.5kW 7A	2.2kW 6A	3kW 5A	3kW 4A	20A
9A	2.2kW 9A	4kW 9A	3.7kW 6A	4kW 5A	20A
12A	3kW 12A	5.5kW 12A	4kW 7A	4kW 5A	20A

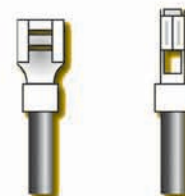
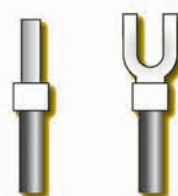
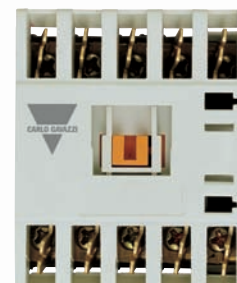
Environmental conditions

- Ambient temperature: -5 ~ 40°C (standard 20°C)
- Max. temp. inside a panel: 55°C
- Relative humidity: 45 ~ 85% RH Altitude: max. 2,000m
- Vibration: 10 ~ 55Hz, 2g
- Shock resistance: 5g
- Storage temperature: -30 ~ 65°C

Screw clamps



Fast-on



For conventional
screw connections

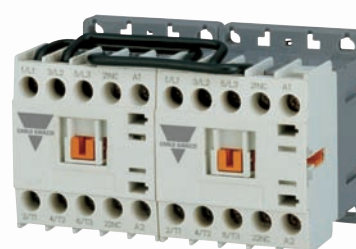
For fast-on
connections



Mini-overload relay



Overload relay
separately mounted



Reversing contactor

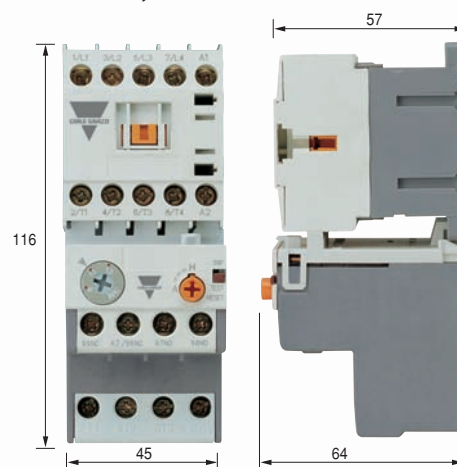
Cage clamps



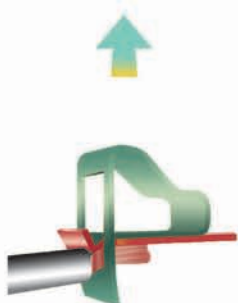
Solder pins



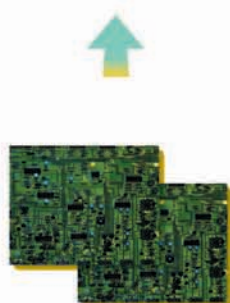
Dimensions, mm



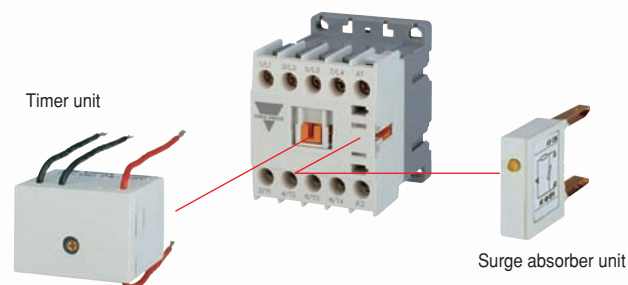
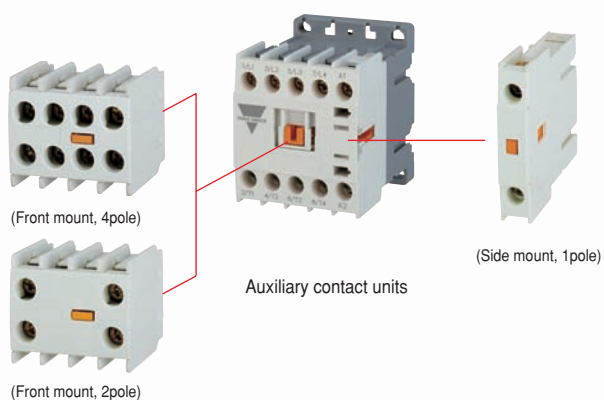
(Screw clamp type)



For screwless
connections



To mount on printed
circuit boards



Quick selection table

Mini contactors & overloads

Mini contactors

3NO main contacts
1 auxiliary contacts



Screw clamp type



Fast-on type



Cage clamp type



Solder pin type

Frame size		6A	9A	12A
Screw clamp type	AC coil	CGMS-6A	CGMS-9A	CGMS-12A
	DC coil	CGMS-6D	CGMS-9D	CGMS-12D
Fast-on type	AC coil	CGMF-6A	CGMF-9A	CGMF-12A
	DC coil	CGMF-6D	CGMF-9D	CGMF-12D
Cage clamp type	AC coil	CGMC-6A	CGMC-9A	CGMC-12A
	DC coil	CGMC-6D	CGMC-9D	CGMC-12D
Solder pin type	AC coil	CGMP-6A	CGMP-9A	CGMP-12A
	DC coil	CGMP-6D	CGMP-9D	CGMP-12D

Ratings / IEC60947-4		kW	A	kW	A	kW	A
AC1			20		20		20
	200/240V	1.5	7	2.2	9	3	12
AC3	380/440V	2.2	6	4	9	5.5	12
	690V	3	4	4	5	4	5

Ratings / UL508		hp	A	hp	A	hp	A
continuous current		lth = 20A (maximum for cage clamp type is 10A)					
single phase	115V	0.5		0.5		1*	
	230V	1		1.5		2**	
three phase	200V	*		*		*	
	230V	1.5		3		3	
	460V	3		5		7.5***	
	575V	3		5		7.5	
NEMA size		00		00		00	

Additional auxiliary contacts		Screw clamp type	Fast-on type	Cage clamp type	Solder pin type
2-pole, Front mount	AX-2M		AX-2MF	AX-2MC	
	4-pole, Front mount	AX-4M	AX-4MF	AX-4MC	
	2-pole, Side mount	AX-1M	AX-1MF	AX-1MC	

See page 30
for more details

Overload Relays

Bimetallic style

Type CGT

Class 10A



CGT-12M

Setting
ranges (A)

0.1 - 0.16
0.16 - 0.25
0.25 - 0.4
0.4 - 0.63
0.63 - 1
1 - 1.6
1.6 - 2.5
2.5 - 4

4 - 6
5 - 8
6 - 9
7 - 10
9 - 13
12 - 16



Base for
separate mount

See page 27
for more details

Differential

CGT-12M

Non-differential (3-heater)

CGTH-12M/3

Non-differential (2-heater)

CGTH-12M

Note: * = 1/2 for cage clamp type, ** = 1.5hp for cage clamp type, *** = 5hp for cage clamp type

Contactors

- For motor control
- 3 main plus 1 auxiliary contacts
- Coil voltage : A.C.



Cage clamp connection types

Frame size	AC3 ratings (IEC60947-4)				AC1 rating Ith	Auxiliary contact (standard)	Type
	220 ~ 240V	380 ~ 440V	500 ~ 550V	690V			
6A	1.5kW 7A	2.2kW 6A	3kW 5A	3kW 4A	20A	1NO or 1NC	CGMC-6A
9A	2.2kW 9A	4kW 9A	3.7kW 6A	4kW 5A	20A	1NO or 1NC	CGMC-9A
12A	3kW 12A	5.5kW 12A	4kW 7A	4kW 5A	20A	1NO or 1NC	CGMC-12A



Solder pin connection types

Frame size	AC3 ratings (IEC60947-4)				AC1 rating Ith	Auxiliary contact (standard)	Type
	220 ~ 240V	380 ~ 440V	500 ~ 550V	690V			
6A	1.5kW 7A	2.2kW 6A	3kW 5A	3kW 4A	20A	1NO or 1NC	CGMP-6A
9A	2.2kW 9A	4kW 9A	3.7kW 6A	4kW 5A	20A	1NO or 1NC	CGMP-9A
12A	3kW 12A	5.5kW 12A	4kW 7A	4kW 5A	20A	1NO or 1NC	CGMP-12A

Coil voltage, AC 50/60Hz

24, 36, 42, 48, 110, 115, 120, 127, 200 / 208, 220, 220 / 230, 230 / 240, 256, 277, 380 / 400
400, 440, 480, 500, 550V AC

Ordering information

Type, Auxiliary contact and Coil voltage

For more information

- Drawings → page 34
- Reversing contactors → page 23
- Overload relays → page 27
- Optional accessories → page 29~33

Certificate
CE, ULcUL

Contactors

- For motor control
- 3 main plus 1 auxiliary contacts
- Coil voltage : D.C.



Cage clamp connection types

Frame size	AC3 ratings (IEC60947-4)				AC1 rating Ith	Auxiliary contact (standard)	Type
	220 ~ 240V	380 ~ 440V	500 ~ 550V	690V			
6A	1.5kW 7A	2.2kW 6A	3kW 5A	3kW 4A	20A	1NO or 1NC	CGMC-6D
9A	2.2kW 9A	4kW 9A	3.7kW 6A	4kW 5A	20A	1NO or 1NC	CGMC-9D
12A	3kW 12A	5.5kW 12A	4kW 7A	4kW 5A	20A	1NO or 1NC	CGMC-12D



Solder pin connection types

Frame size	AC3 ratings (IEC60947-4)				AC1 rating Ith	Auxiliary contact (standard)	Type
	220 ~ 240V	380 ~ 440V	500 ~ 550V	690V			
6A	1.5kW 7A	2.2kW 6A	3kW 5A	3kW 4A	20A	1NO or 1NC	CGMP-6D
9A	2.2kW 9A	4kW 9A	3.7kW 6A	4kW 5A	20A	1NO or 1NC	CGMP-9D
12A	3kW 12A	5.5kW 12A	4kW 7A	4kW 5A	20A	1NO or 1NC	CGMP-12D

Coil voltage, DC

- ① Standard type : 12, 20, 24, 36, 42, 48, 60, 72, 110, 120, 125, 220, 240, 250V DC
- ② Low consumption type : 12, 20, 24, 48, 72, 110, 120V DC(Low)
- ③ Wide Voltage : 12, 20, 24, 48, 72, 110, 12V DC(Wide)

Ordering information

Type, Auxiliary contact and Coil voltage

For more information

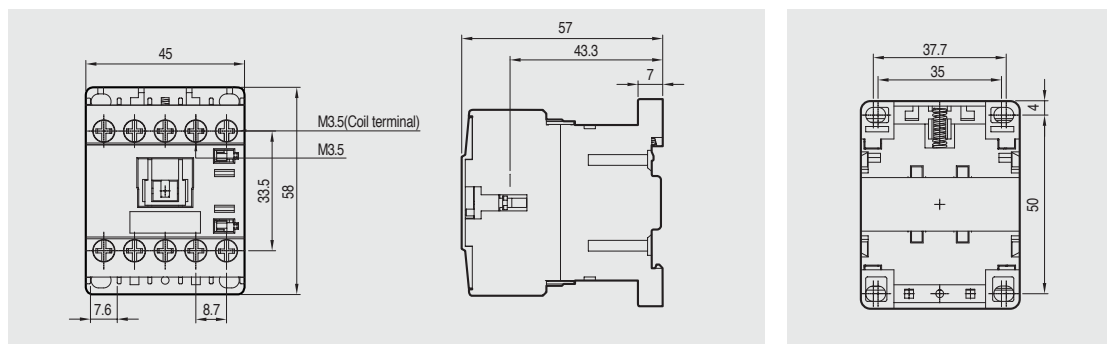
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|----------------------|--------------|
| Drawings | ➔ page 34 |
| Reversing contactors | ➔ page 25 |
| Overload relays | ➔ page 27 |
| Optional accessories | ➔ page 29~33 |

Certificate
CE, ULcUL

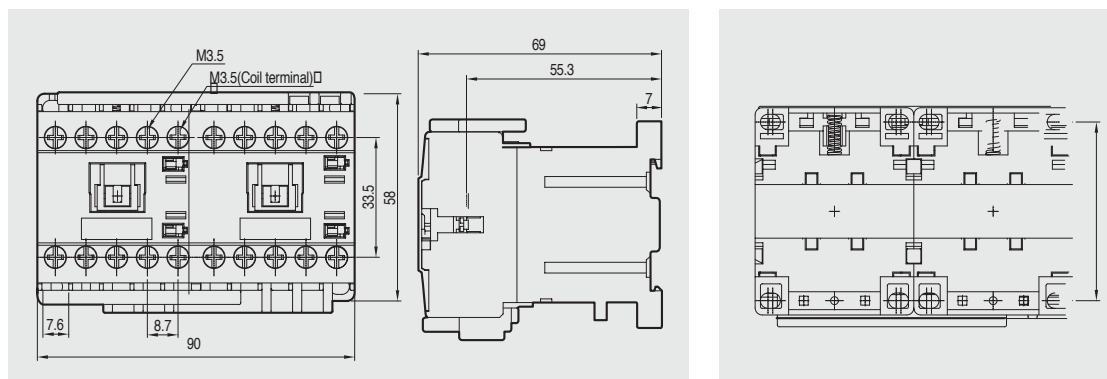
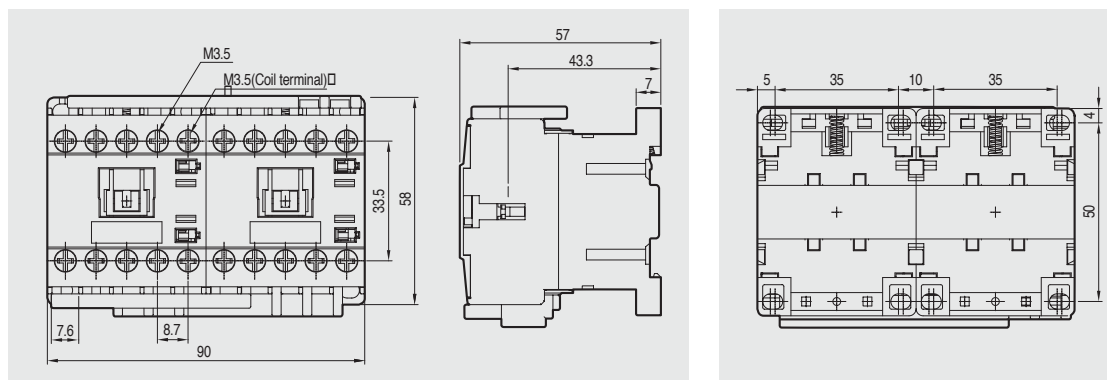
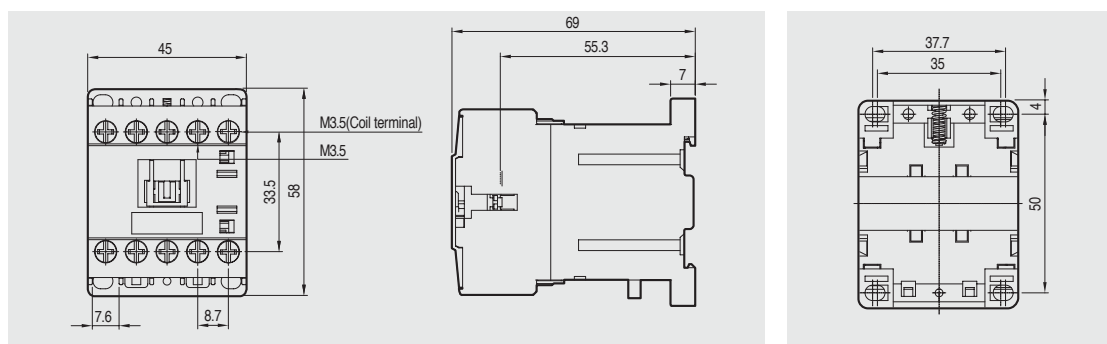
Mini contactors

Dimensions

CGMS-12A



CGMS-12D



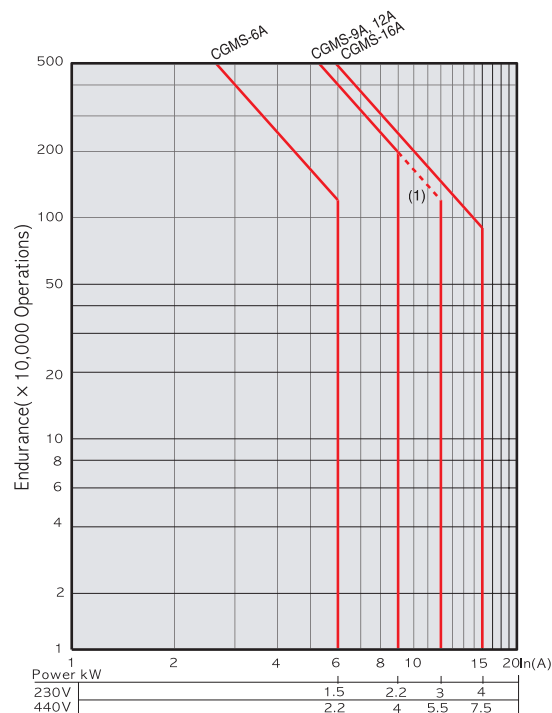
Mini contactors

Characteristic

Electrical lifespan of contactors

Use in category AC-3

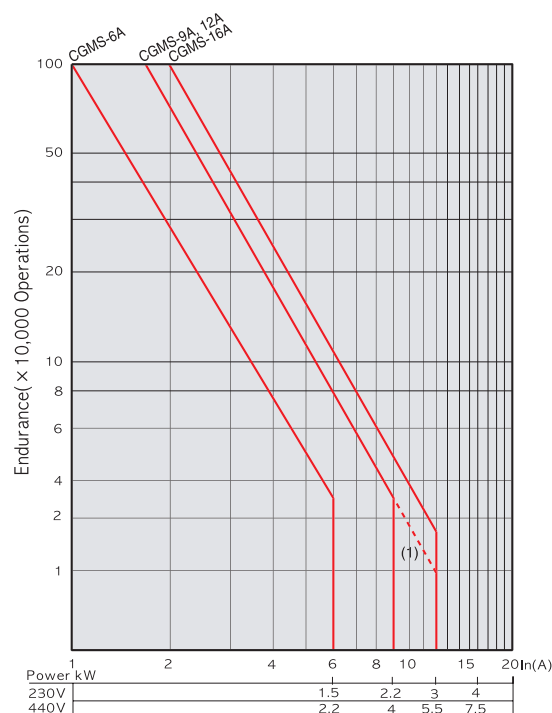
($U_e \geq 440V$)



(1) The dotted lines are only applicable to CGMS-12A contactors.

Use in category AC-4

($U_e \geq 440V$)



(1) The dotted lines are only applicable to CGMS-12A contactors.