

DATA SHEET: TEMBREAK 2 GS250-GE MCCB

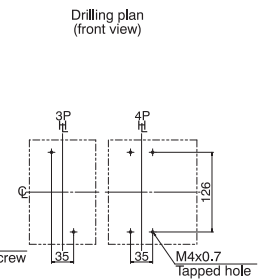
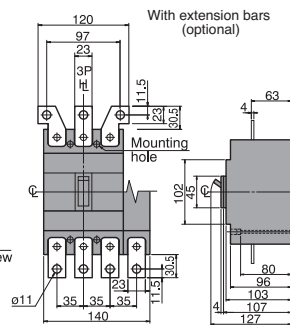
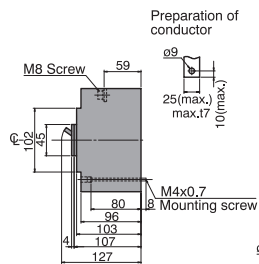
MCCB Electrical Characteristics to IEC 60947-2, EN 60947-2, JIS C 8201-2-1 ANN.1, AS/NZS 3947-2, NEMA AB-1

Frame Reference	Quantity	Unit	Condition	TB2 S/H/L 250
Max In (A) of Frame				250
Model				S250
Number of Poles				3,4
Type				GE
Nominal current ratings				
	I_n	(A)	50°C	40 125 160 250
Electrical characteristics				
Rated operational voltage	U_e	(A)	AC 50/60 Hz DC	690 -
Rated insulation voltage	U_i	(V)		800
Rated impulse withstand voltage	U_{imp}	(kV)		8
Ultimate breaking capacity (IEC, JIS, AS/NZS)	I_{cu}	(kA)	690V AC 525V AC 440V AC 400/415V AC 220/240V AC 250V DC	7.5 25 50 65 85 -
Service breaking capacity (IEC, JIS, AS/NZS)	I_{cs}	(kA)	690V AC 525V AC 440V AC 400/415V AC 220/240V AC 250V DC	7.5 25 25 36 85 -
Rated breaking capacity (NEMA)		(kA)	480V AC 240V AC	25 65
Protection				
Adjustable thermal, adjustable magnetic Fixed thermal, fixed magnetic Microprocessor Utilisation category				■ A
Installation				
Front connection (FC) Extension bar (FB) Cable clamp (FW) Rear connector (RC) Plug-in (PM) Din rail mounting (DA) Dimensions	height width	(mm) (mm)	3 pole, (1 pole) 4 pole	■ ● ● ● ● ● * * -
Weight	depth weight	(mm) (kg)	3 pole, (1 pole) 4 pole	165 105 140 103 2.3 3.1
Operation				
Direct Opening Action Toggle operation Door mounted (HS) / breaker mounted handle (HB) Motor operation (MC)				■ ■ ● ●
Endurance	Electrical Mechanical	cycles cycles	415V AC	30,000 30,000

■ Standard ● Optional - Not Available

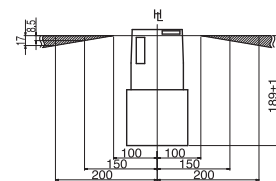
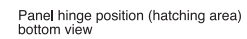
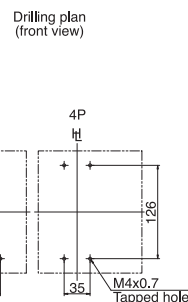
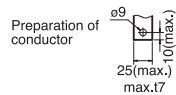
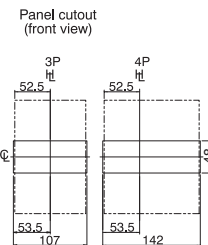
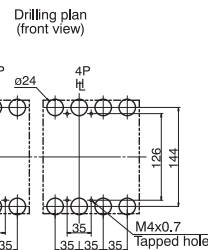
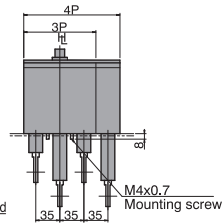
* * Max. rating 200A for Plug-in

ASL: Arrangement Standard Line H_L: Handle Frame Centre Line



This technical drawing shows the rear view of the cable gland assembly. Key dimensions include:

- Mounting plate**: max. 13.2
- Conductor overlap**: max.
- Stud can be turned**: 45° or 90°
- Dimensions**: 102, 45, 144, 96, 103, 107, 127, 71, 106, 81, 13, 15, 9, 4.



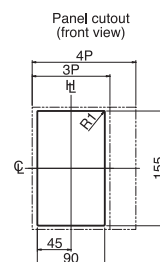
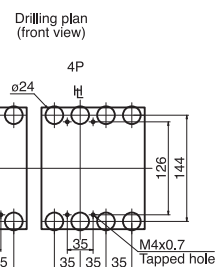
Technical drawing of the rear connected with Motor Operator, showing front and side views with dimensions and labels.

Front View Dimensions:

- Operating knob: 189
- Front panel 12
- Mounting plate (max. 13.2)
- Conductor 22 overlap max.
- Pad lock
- Connector plug
- 28(max.)
- 199.5
- 141
- 96
- 71
- 106
- 20
- 15
- 13
- 144
- 6
- 155
- 148
- 45
- 5.5

Side View Dimensions:

- 90
- 86
- 103.5
- 96
- 35
- 35
- 35
- M4x0.7 Mounting screw
- Stud can be turned 45° or 90°



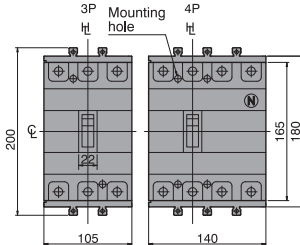
Page 2 of 4

DATA SHEET: TEMBREAK 2 GS250-GE MCCB

Outline Dimensions S250-GE Plug-in Version

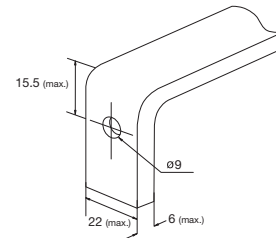
ASL: Arrangement Standard Line H_L : Handle Frame Centre Line

Outline Dimensions



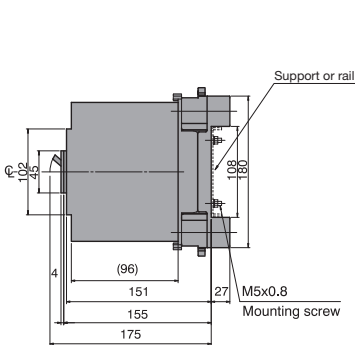
Termination of Busbar

Preparation of conductor



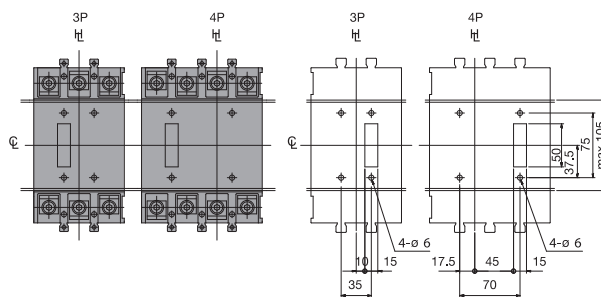
Mounting screw
M8x18 max.

Mounting on a support or rails (shown with optional connection bars oriented for rear access)

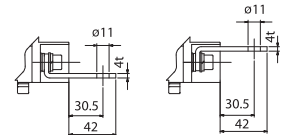


(rear view)

Drilling plan(front view)

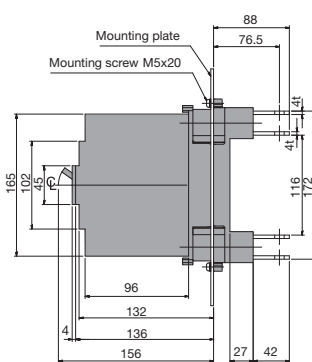


Detail of connecting part Oriented for rear access



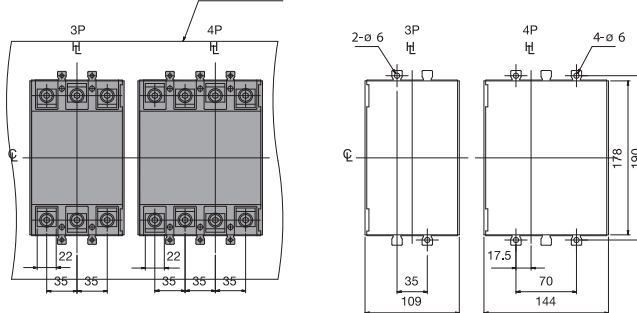
Terminal bars should be connected alternately
on adjacent poles.

Mounting through the backplate (shown with optional connection bars oriented for rear access)

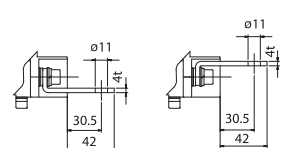


(rear view)

Drilling plan(front view)

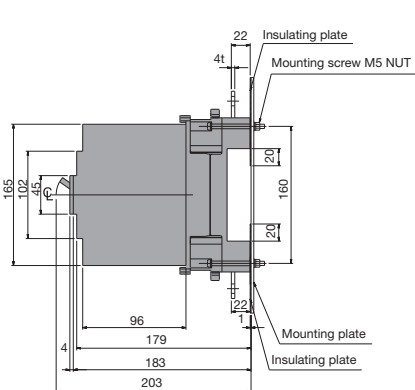


Detail of connecting part Oriented for rear access



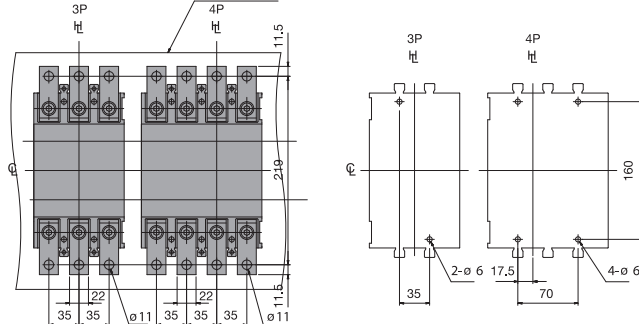
Terminal bars should be connected alternately
on adjacent poles.

Mounting on the backplate (optional connection bars must be oriented for front access)

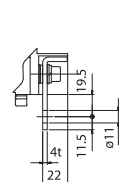


(rear view)

Drilling plan(front view)



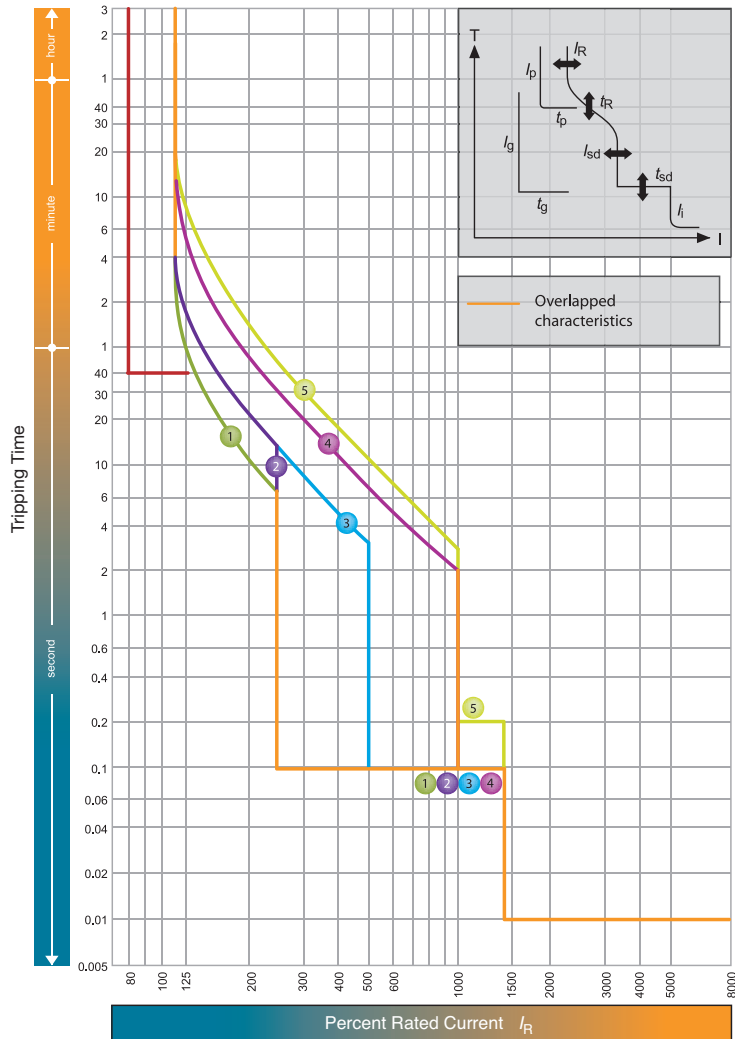
Detail of connecting part Oriented for front access



DATA SHEET: TEMBREAK 2 GS250-GE MCCB

Time/Current Characteristic Curves

S250-GE



$I_n = 250A; 160A; 125A; 40A$ Note(1)

		I_R (A)									
		LTD Pick-up current	I_R	x/n	0.4	0.5	0.63	0.8	0.9	0.95	1.0
		Characteristics		No.	1	2	3	4	5		
Standard	LT	t_R	(s)		11	21	21	5	7.5		
	ST	I_{sd}	x/I_R		at 200% x I_R			at 600% x I_R			
		t_{sd}	(s)		2.5			5			10
		INST	I_i	x/I_R		0.1					
Option	PTA	I_p	x/I_R		14(Max: 13 x I_n) Note (2)						
		t_p	(s)		0.8						
	NP	I_N	x/I_R		40						
		t_N	(s)		1.0 Note (3)						
					$t_N = t_R$						

Note

(1) For Plug-in (PM), max. setting for I_R should be less than 225A. When $I_n=250A$, I_R should be $I_n \times 0.9$ or less.

(2) I_i max. = 13 x I_n . (3) Characteristic of neutral protection (t_N vs. I_N) is identical to characteristic of phase protection (t_R vs. I_R).



Dokument/document Försäkran om överensstämmelse/ Declaration of conformity		Utgåva datum/edition date 2018-08-22
Avdelning/department Produkt/Product		
Ansvarig/prepared Robert Nydén	Version 5	Sida/page 1 av/of 1

Manufacturer/Tillverkare: GARO AB
Box 203
S-335 25 GNOSJÖ
Sweden

Telephone: +46 (0)370 33 28 00
Internet: www.garo.se

Agent established within EC/Ombud etablerad inom EG

Telephone:
Internet:

Agent of equipment/Materielslag: Moulded Case Circuit Breaker, MCCB/Effektbrytare, MCCB

Trade Mark/Varumärke: GARO

Type Designation/Typbeteckning: GS160SCJ , SJ ,GS400-NE, 3- and 4-pole, GS250-NE, 3- and 4-pole

We hereby declare that our product fulfils the requirements of following EC directives/

Vi intygar härmed att vår produkt uppfyller krav enligt följande EU direktiv:

- ☒ **The Low Voltage Directive (LVD) 2014/35/EU / Lågspänningsdirektivet (LVD) 2014/35/EU.**
- ☒ **Electromagnetic compatibility (EMC) 2014/30/EU / Elektromagnetisk kompatibilitet (EMC) 2014/30/EU.**
- ☐ **Radio Equipment Directive 2014/53/EU (RED) 2014/30/EU / Radiodirektivet (RED) 2014/53/EU.**
- ☒ **RoHS Directive (RoHS) 2011/65/EU / RoHS direktivet (RoHS) 2011/65/EU.**
- ☐ **No electromagnetic compatibility (EMC 2014/30/EU) immunity or emission tests are required on the assembly / Produkten innehåller inte elektroniska apparater som påverkas enligt förbehållen enligt direktivet (EMC) 2014/30/EU.**

The following harmonised standards (latest edition) or technical specifications which comply with good engineering practice in safety matters in force within the EC have been used in the design:/

Följande harmoniserade standarder (senaste utgåva) eller tekniska specifikationer som uppfyller god säkerhetsteknik praxis inom EG har använts i konstruktionen: **EN 60947-1 and/och 60947-2**

- ☒ **The equipment confirms completely with the above stated harmonised standards or technical specifications./**
Materielen överensstämmer helt med ovan angivna harmoniserade standarder eller tekniska specifikationer.

Or/Eller

- ☐ **The equipment confirms only partially with the above stated harmonised standards or technical specifications but complies with good practice in safety matters in force within the EC./**
Materielen överensstämmer endast delvis med ovan angivna harmoniserade standarder eller tekniska specifikationer, men uppfyller god säkerhetsteknisk praxis inom EG.

We have product surveillance according to CENELEC's harmonised requirements, documents CCA-201.

GARO AB
Company/Företag

2018-08-22
Date/Datum

Sign/Underskrift

Product Manager/Produktchef
Position/Befattning

Robert Nydén
Sign in printed letters/Namnförtydligande