



Enclosed Isolator Switch SW IP65

Type: SW160-630IP65P



Enclosure

Construction	Polyester		
Degree of protection	IP55		
Impact resistance	IK10		
Temperature range	-25 °C / +40 °C		
Maximum voltage	1000 V AC / 1500 V DC		
Colour	RAL 7035.		
	Height (mm)	Width (mm)	Depth (mm)
160Amp	400	300	200
200A & 250A	400	400	200
400A & 500A	500	400	200
630A	600	400	230

Thermal current I_{th} at 40°C	125 A	160 A	200 A	250 A	315 A	400 A	500 A	630 A
Rated insulation voltage U_i (V)	800	800	800	800	1000	1000	1000	1000
Rated impulse withstand voltage U_{imp} (kV)	8	8	8	8	12	12	12	12

Rated operational currents I_e (A)

Rated voltage	Utilisation category	A/B ⁽¹⁾	A/B ⁽¹⁾	A/B ⁽¹⁾	A/B ⁽¹⁾	A/B ⁽¹⁾	A/B ⁽¹⁾	A/B ⁽¹⁾	A/B ⁽¹⁾
415 VAC	AC-20 A / AC-20 B	125/125	160/160	200/200	250/250	315/315	400/400	500/500	630/630
415 VAC	AC-21 A / AC-21 B	125/125	160/160	200/200	250/250	315/315	400/400	500/500	630/630
415 VAC	AC-22 A / AC-22 B	125/125	160/160	200/200	250/250	315/315	400/400	500/500	630/630
415 VAC	AC-23 A / AC-23 B	125/125	160/160	200/200	250/250	315/315	400/400	500/500	500/500
220 VDC	DC-20 A / DC-20 B	125/125	160/160	200/200	250/250	315/315	400/400	500/500	630/630
220 VDC	DC-21 A / DC-21 B	125/125	160/160	160/200	250/250	315/315	400/400	500/500	630/630
220 VDC	DC-22 A / DC-22 B	125/125	160/160	160/200	250/250	315/315	400/400	400/500	500/500
220 VDC	DC-23 A / DC-23 B	125/125	125/125	160/160	200/200	315/315	400/400	400/400	500/500
440 VDC	DC-20 A / DC-20 B	125/125	160/160	200/200	250/250	315/315	400/400	500/500	630/630
440 VDC	DC-21 A / DC-21 B	125 ⁽³⁾ /125 ⁽³⁾	160 ⁽³⁾ /160 ⁽³⁾	160 ⁽³⁾ /200 ⁽³⁾	200 ⁽³⁾ /200 ⁽³⁾	315 ⁽³⁾ /315 ⁽³⁾	400 ⁽³⁾ /400 ⁽³⁾	400 ⁽³⁾ /400 ⁽³⁾	500 ⁽³⁾ /500 ⁽³⁾
440 VDC	DC-22 A / DC-22 B	125 ⁽³⁾ /125 ⁽³⁾	125 ⁽³⁾ /125 ⁽³⁾	160 ⁽³⁾ /160 ⁽³⁾	200 ⁽³⁾ /200 ⁽³⁾	315 ⁽³⁾ /315 ⁽³⁾	400 ⁽³⁾ /400 ⁽³⁾	400 ⁽³⁾ /400 ⁽³⁾	500 ⁽³⁾ /500 ⁽³⁾
440 VDC	DC-23 A / DC-23 B	125 ⁽⁴⁾ /125 ⁽⁴⁾	125 ⁽⁴⁾ /125 ⁽⁴⁾	160 ⁽⁴⁾ /160 ⁽⁴⁾	200 ⁽⁴⁾ /200 ⁽⁴⁾	315 ⁽⁴⁾ /315 ⁽⁴⁾	400 ⁽⁴⁾ /400 ⁽⁴⁾	400 ⁽⁴⁾ /400 ⁽⁴⁾	500/500
500 VDC	DC-20 A / DC-20 B	125/125	160/160	200/200	250/250	315/315	400/400	500/500	630/630
500 VDC	DC-21 A / DC-21 B	125 ⁽³⁾ /125 ⁽³⁾	125 ⁽³⁾ /125 ⁽³⁾	160 ⁽³⁾ /200 ⁽³⁾	200 ⁽³⁾ /200 ⁽³⁾	315 ⁽³⁾ /315 ⁽³⁾	400 ⁽³⁾ /400 ⁽³⁾	400 ⁽³⁾ /400 ⁽³⁾	500 ⁽³⁾ /500 ⁽³⁾
500 VDC	DC-22 A / DC-22 B	125 ⁽⁴⁾ /125 ⁽⁴⁾	125 ⁽⁴⁾ /125 ⁽⁴⁾	160 ⁽⁴⁾ /160 ⁽⁴⁾	200 ⁽⁴⁾ /200 ⁽⁴⁾	315 ⁽⁴⁾ /315 ⁽⁴⁾	315 ⁽⁴⁾ /400 ⁽⁴⁾	315 ⁽⁴⁾ /400 ⁽⁴⁾	500 ⁽⁴⁾ /500 ⁽⁴⁾
500 VDC	DC-23 A / DC-23 B	125 ⁽⁴⁾ /125 ⁽⁴⁾	125 ⁽⁴⁾ /125 ⁽⁴⁾	160 ⁽⁴⁾ /160 ⁽⁴⁾	200 ⁽⁴⁾ /200 ⁽⁴⁾	315 ⁽⁴⁾ /315 ⁽⁴⁾	315 ⁽⁴⁾ /400 ⁽⁴⁾	315 ⁽⁴⁾ /400 ⁽⁴⁾	500 ⁽⁴⁾ /500 ⁽⁴⁾

Operational power in AC-23 A (kW) ⁽¹⁾⁽⁵⁾

At 415 VAC without pre-break in AC ⁽¹⁾	63/63	80/80	100/100	132/132	160/160	220/220	280/280	280/280
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Reactive power (kvar)

At 400 VAC (kvar) ⁽⁵⁾	55	75	90	115	145	185	230	290
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Fuse protected short-circuit withstand (kA rms prospective)⁽⁶⁾

Prospective short-circuit current (kA rms)	100	100	80	50	100	100	100	70
Associated fuse rating (A)	125	160	200	250	315	400	500	630

Circuit breaker protected short-circuit withstand with any circuit breaker that ensures tripping in less than 0.3s at 690 VAC

Rated short-time withstand current 0.3s. I_{cw} (kA rms)	15	15	17	17	25	25	25	25
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Short-circuit capacity (without protection)

Rated short-time withstand current 1s. I_{cw} (kA rms)	7	7	9	9	13	13	13	13
Rated short-circuit making capacity without fuses I_{cm} (kA peak)	11.9	11.9	15.3	15.3	26	26	26	26

Connection

Maximum Cu cable cross-section (mm ²)	35	50	70	95	150	185	240	1 x 150
Minimum Cu busbar cross-section (mm ²)								2 x 30 x 5
Maximum Cu cable cross-section (mm ²)	50	95	95	150	240	240	240	x 300
Maximum Cu busbar width (mm)	25	25	32	32	40	40	40	50
Tightening torque min/max (Nm)	9/-	9/-	20/-	20/-	20/-	20/-	20/-	20/-



Dokument/document		Utgava datum/edition date
Försäkran om överensstämmelse/ Declaration of conformity		29/06/2016
Avdelning/department Kvalite/Quality		
Ansvarig/prepared Magnus Arvidsson	Version 5	Sida/page 1 av/of 1

Supplier/Tillverkare: **GARO AB**
Box 203
S-335 25 GNOSJO Telephone: +46 (0)370 33 28 00
Sweden Telefax: +46 (0)370 33 28 50

Supplier established within EU/Ombud etablerad inom EG

Supplier of equipment /Materielslag : Enclosed Switchgear

Trade Mark/ Varumärke: GARO

Type Designation / Typbeteckning: GSW..., GFS..., GCO...,SW...

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) 2004/108/EU / Elektromagnetisk kompatibilitet (EMC) 2004/108/EG.
- RoHS Directive (RoHS) 2011/65/EU / RoHS direktivet (RoHS) 2011/65/EG.
- No electromagnetic compatibility (EMC) immunity or emission tests are required on the assembly/
Produkten innehåller inte elektroniska apparater som påverkas enligt förbehållen enligt direktivet
(EMC) 2004/108/EG.

The following harmonised standards (latest edition) or technical specifications which comply with good engineering practice in safety matters in force within the EU 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 62; 69-1.'GP '82; 69/5

- The equipment conforms 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 EU. /
Materielen överensstämmer endast delvis med ovan angivna harmoniserade standarder eller tekniska specifikationer, men uppfyller god säkerhetsteknik praxis inom EG.

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

Garo AB
Company/Företag

2016-06-29
Date/Datum

Sign/Underskrift

Environmental- and Quality Manager/Kvalitets- och Miljöchef
Position/Befattning

Magnus Arvidsson
Name / Namnförtydligande