



ISOLATORS SERIES

Enclosed switches



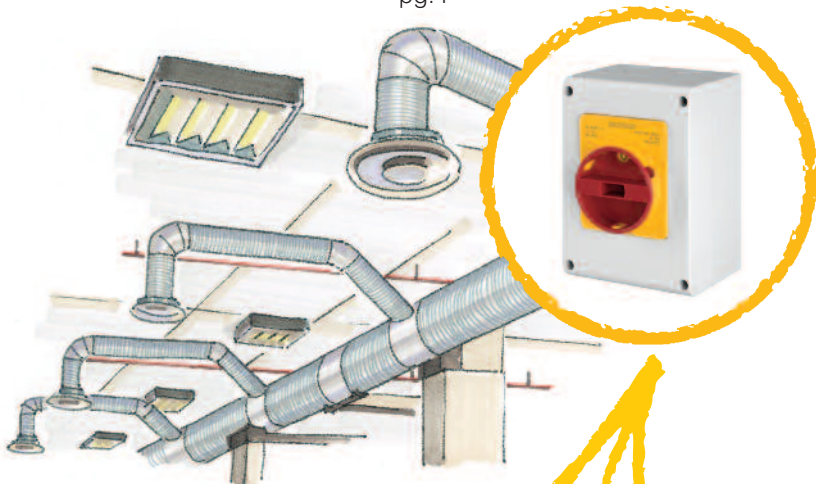
ISOLATORS Series

■ ENCLOSED SWITCHES

- Thermoplastic material
- Aluminium
- Stainless steel
- Sheet steel

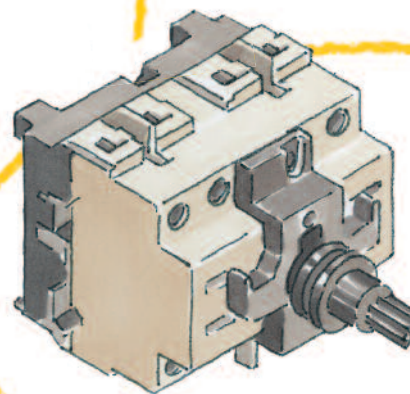
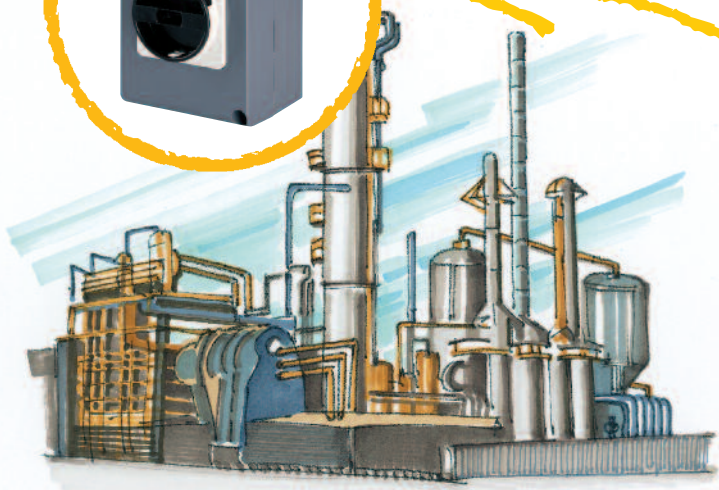
ISOLATORS-TP Series

Thermoplastic insulated enclosure
pg.4



ISOLATORS-AL Series

Aluminium enclosure
pg.14



ISOLATORS-INOX Series

Stainless steel enclosure
pg.20

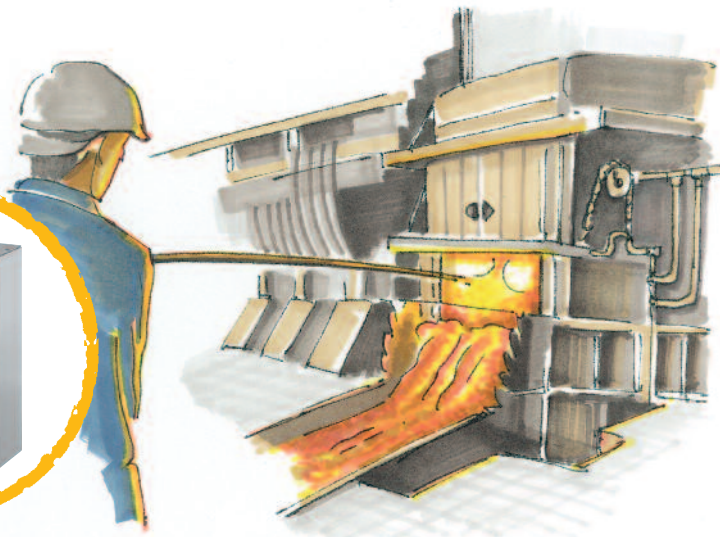


ISOLATORS-EX Series

for application in potentially
explosive atmosphere.
see ISOLATORS-EX
Catalogue



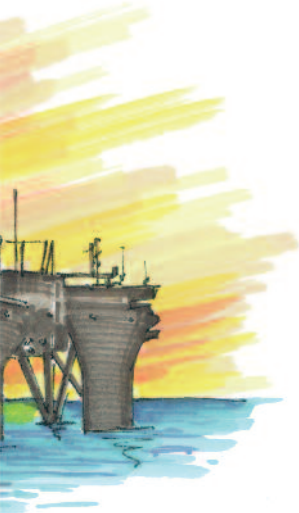
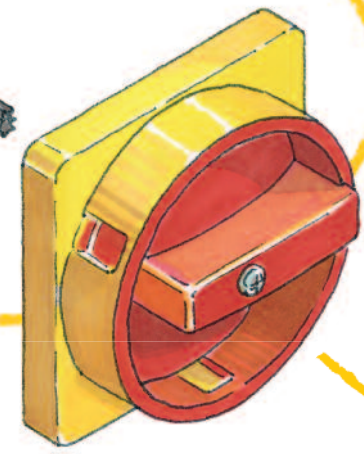
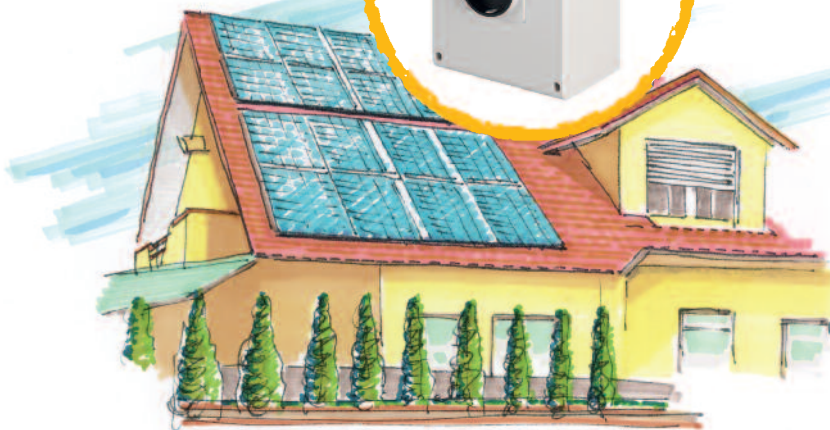
ISOLATORS-HR Series
High rating hinged
sheet steel enclosure
pg.26



ISOLATORS-HD Series
Heavy duty engineering
thermoplastic insulated enclosure
pg.38



ISOLATORS-PH Series
Photovoltaic/DC
switch disconnectors
pg.32



ISOLATORS-TP Series

THERMOPLASTIC INSULATED ENCLOSURE 16A-160A



REFERENCE STANDARDS

EN 60947-3

Low voltage switchgear and controlgear.
Part 3: switches, disconnectors, switch-disconnectors
and fuse-combination unit.

EN 60529

Degrees of protection provided by enclosure.

VERSIONS



Flush mounting



Surface mounting

TECHNICAL CHARACTERISTICS

Polarity:	1P-2P-3P-3P+N-4P-6P-8P
Rated current:	16A*-20A-25A*-32A-40A-63A 80A-100A-125A-160A
Protection degree:	IP55 flush mounting version IP65 surface mounting version
Operating temperature according to the reference standard:	-5°C +40°C
Min-Max. operating temperature:	-25°C +60°C
Material:	Engineering plastic
IK degree:	IK08
Glow wire test:	650°C
Colour:	Grey RAL7035

3P+N with late break early make neutral pole.

Equipped with door locking.

Padlockable handle.

* Only for 6 and 8 poles.

BEHAVIOUR WITH CHEMICAL AND ATMOSPHERIC AGENTS

Saline solution	Acids		Bases		Solvents				Mineral oil	UV rays
	Concentrated	Diluted	Concentrated	Diluted	Hexane	Benzol	Acetone	Alcohol		
Resistant	Limited Resistance	Resistant	Resistant	Resistant	Not Resistant	Not Resistant	Not Resistant	Limited Resistance	Resistant	Resistant

For specific substances please contact our technical service.

CABLE INLETS

Thermoplastic insulated enclosure 1, 2, 3, 4 poles

Size	Rated current (A)	Nr of poles	Enclosure dimensions	Cable entries		
1	16	1	120x82x69	Top	1xM20+1xM25	Knock-outs
				Bottom	1xM20+1xM25	Knock-outs
				Rear	2xM20	Knock-outs
2	20-32-40	2-3-4	125x136x84(*)	Top	3xM20/M25	Knock-outs
				Bottom	3xM20/M25	Knock-outs
				Right	2xM20	Knock-outs
				Left	2xM20	Knock-outs
				Rear	2xM20/M25	Knock-outs
3	20-32-40	2-3-4	150x105x82	Top	1xM20+1xM25	Knock-outs
				Bottom	1xM20+1xM25	Knock-outs
				Rear	1xM20+1xM25	Knock-outs
4	63-80-100	2-3-4	210x155x107	Top	2xM32	Knock-outs
				Bottom	2xM32	Knock-outs
				Rear	-	Blank side (°)
5	125	3-4	308x228x128	Top	-	Blank side (°)
				Bottom	-	Blank side (°)
				Rear	-	Blank side (°)
6	160	3-4	338x308x128	Top	-	Blank side (°)
				Bottom	-	Blank side (°)
				Rear	-	Blank side (°)

(*) Omnia enclosure.

(°) Perforated or threaded entries on request.

CABLE INLETS

Thermoplastic insulated enclosure 6 and 8 poles

Size	Rated current (A)	Nr of poles	Enclosure dimensions	Cable entries		
4	16-25-32-40	6-8	210x155x107	Top	2xM32	Knock-outs
				Bottom	2xM32	Knock-outs
				Rear		Blank side (°)
5	63-80-100	6-8	308x228x128	Top		Blank side (°)
				Bottom		Blank side (°)
				Rear		Blank side (°)
6	125-160	6-8	338x308x128	Top		Blank side (°)
				Bottom		Blank side (°)
				Rear		Blank side (°)

(°) Perforated or threaded entries on request.

APPLICATION EXAMPLES



ISOLATORS-TP Series

■ TECHNICAL DATA SWITCH DISCONNECTORS 1 POLES

			20A	32A	40A
Rated insulation voltage	Ui	VAC	250	250	250
Rated impulse withstand voltage	Uimp	kV	4	4	4
Thermal current	Ith/Ithe	A	20	32	40
IEC rating – Ie	AC22A	250V	A	20	32
	Mixed resistive and inductive loads, including moderate overloads				
	AC23A	250V	A	16	20
	Switching of motor loads or other highly inductive loads (3 phase / 3 pole)				
Rated short time withstand current	Icw (1s)	A	480	480	480
Conditional short circuit current	Ip	kAeff	10	10	10
Associate fuse size for conditional short circuit current - Type gG		A	20	32	40
Flexible wire		mm ²	6	6	6
Rigid wire		mm ²	6	6	6

■ TECHNICAL DATA SWITCH DISCONNECTORS 2P, 3P, 3P+N, 4P

			20A	32A	40A	63A	80A	100A	125A	160A
Rated insulation voltage	Ui	VAC	690	690	690	690	690	800	800	800
Rated impulse withstand voltage	Uimp	kV	4	4	4	4	4	8	8	8
Thermal current	Ith/Ithe	A	30	40	40	63	86	100	125	160
IEC rating – Ie	AC21A	415V	A	20	32	40	63	80	100	125
		500V	A	20	32	32	63	80	100	125
		690V	A	20	32	32	63	80	100	125
	AC22A	415V	A	20	32	40	63	80	100	125
		500V	A	20	32	32	63	80	100	125
		690V	A	20	32	32	63	80	-	125
	AC23A	415V	A	20	32	35	63	67	100	125
		500V	A	20	25	25	40	67	-	125
		690V	A	20	25	25	30	38	-	100
	AC3	415V	A	-	28.5	28.5	40	55	-	-
		690V	A	12	20	20	25	32	-	-
	DC22A	250V	A	25(*)	32(*)	32(*)	-	-	-	-
		600V	A	10(*)	10(*)	10(*)	-	-	-	-
Rated short time withstand current	Icw (1s)	A	400	400	400	1500	1500	1500	3000	3000
Conditional short circuit current	Ip	KAeff	10	10	10	10	10	30	50	50
Associate fuse size for conditional short circuit current - Type gG		A	20	32	40	63	80	100	125	125
Flexible wire		mm ²	1.5-10	1.5-10	1.5-10	10-35	10-35	10-50	10-70	10-70
Rigid wire		mm ²	1.5-16	1.5-16	1.5-16	10-35	10-35	10-50	10-70	10-70

(*) Only 4P with 2+2 poles in series

■ TECHNICAL DATA SWITCH DISCONNECTORS 6 AND 8 POLES

				16A	25A	32A	40A	63A	80A	100A	125A	160A	
Rated insulation voltage Ui				VAC	800	800	800	800	800	800	800	800	
Rated impulse withstand voltage Uimp				kV	8	8	8	8	8	8	8	8	
Thermal current Ith/Ithe				A	16	25	32	40	63	80	100	125	160
IEC rating – Ie	AC21A Resistive loads, including moderate overloads	415V	A	16	25	32	40	63	80	100	125	160	
		500V	A	16	25	32	40	63	160	80	125	160	
		690V	A	16	25	32	40	63	160	80	125	160	
	AC22A Mixed resistive and inductive loads, including moderate overloads	415V	A	16	25	32	40	63	160	80	125	160	
		500V	A	16	25	32	40	63	160	80	125	160	
		690V	A	16	25	32	40	40	40	40	125	160	
	AC23A Switching of motor loads or other highly inductive loads (3 phase / 3 pole)	415V	A	16	25	32	40	63	80	100	125	160	
		500V	A	16	25	32	40	63	63	63	125	125	
		690V	A	16	25	25	25	32	32	32	100	100	
Rated short time withstand current Icw (1s)				A	1100	1100	1100	1100	1500	1500	1500	3000	3000
Conditional short circuit current Ip				KAeff	50	50	50	50	50	50	30	50	50
Associate fuse size for conditional short circuit current - Type gG				A	16	25	32	40	63	80	100	125	125
Flexible wire				mm²	4-25	4-25	4-25	4-25	10-50	10-50	10-50	10-70	10-70
Rigid wire				mm²	4-25	4-25	4-25	4-25	10-50	10-50	10-50	10-70	10-70

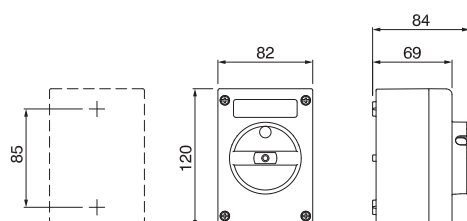
4P SWITCH LINKING FOR DC APPLICATION



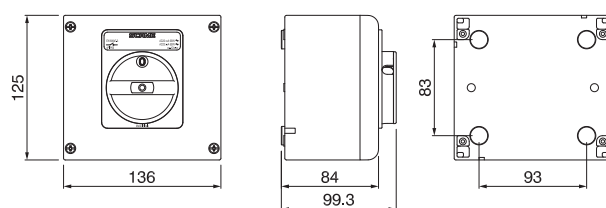
ISOLATORS-TP Series

DIMENSIONS - THERMOPLASTIC INSULATED ENCLOSURE

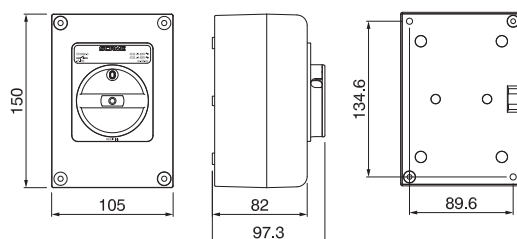
1 POLE 16A



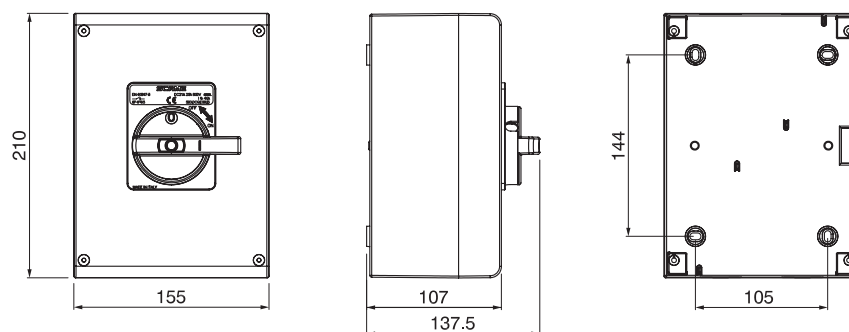
2, 3, 4 POLES 20A, 32A, 40A



2, 3, 4 POLES 20A, 32A, 40A

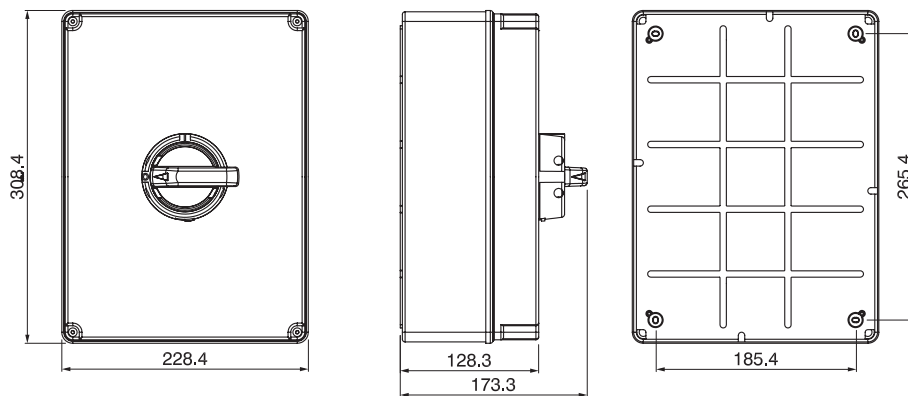


2, 3, 4 POLES 63A, 80A, 100A 6-8 POLES 16A, 25A, 32A, 40A

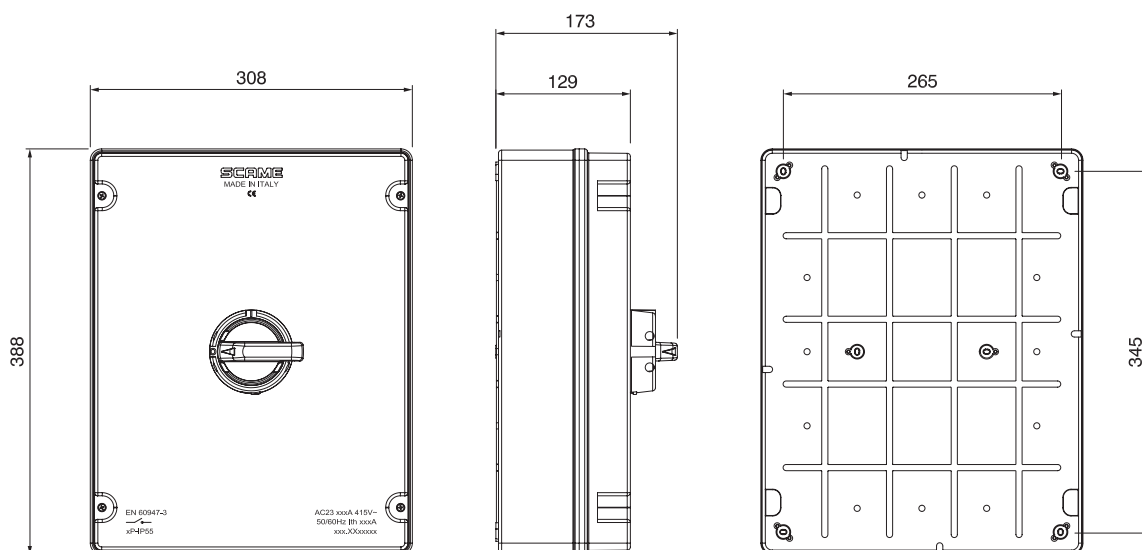


(Dimensions in mm)

4 POLES 125A
6-8 POLES 63A, 80A, 100A



3, 4 POLES 160A
6-8 POLES 125A, 160A



ISOLATORS-TP Series

THERMOPLASTIC INSULATED ENCLOSURE SWITCH DISCONNECTORS 2, 3, 3P+N AND 4 POLES - SURFACE MOUNTING 20A ÷ 40A

				125x136x84 mm (*)	150x105x82 mm	210x155x107 mm
						
				 	 	 
	Poles	IP degree		EMERGENCY SWITCHING  GENERAL USE 	EMERGENCY SWITCHING  GENERAL USE 	EMERGENCY SWITCHING  GENERAL USE 
16A	6	IP65	1/5			590.EM1606 590.GE1606
	8					590.EM1608 590.GE1608
20A	2	IP65	1/12	590.EM2002	590.GE2002	
	3			590.EM2003	590.GE2003	
	3P+N			590.EM2005	590.GE2005	
	4			590.EM2004	590.GE2004	
	2	IP65	1/12		590.EM2012 590.GE2012	
	3				590.EM2013 590.GE2013	
	3P+N				590.EM2015 590.GE2015	
	4				590.EM2014 590.GE2014	
25A	6	IP65	1/5			590.EM2506 590.GE2506
	8					590.EM2508 590.GE2508
32A	2	IP65	1/12	590.EM3202	590.GE3202	
	3			590.EM3203	590.GE3203	
	3P+N			590.EM3205	590.GE3205	
	4			590.EM3204	590.GE3204	
	2	IP65	1/12		590.EM3212 590.GE3212	
	3				590.EM3213 590.GE3213	
	3P+N				590.EM3215 590.GE3215	
	4				590.EM3214 590.GE3214	
32A	6	IP65	1/5			590.EM3206 590.GE3206
	8					590.EM3208 590.GE3208
40A	2	IP65	1/12	590.EM4002	590.GE4002	
	3			590.EM4003	590.GE4003	
	3P+N			590.EM4005	590.GE4005	
	4			590.EM4004	590.GE4004	
	2	IP65	1/12		590.EM4012 590.GE4012	
	3				590.EM4013 590.GE4013	
	3P+N				590.EM4015 590.GE4015	
	4				590.EM4014 590.GE4014	
40A	6	IP65	1/12			590.EM4006 590.GE4006
	8					590.EM4008 590.GE4008

 Package/Bulk Pack
 - 3P+N version with late break and early make neutral pole.
 - 8 poles with late break and early make neutral poles.
 - Equipped with door locking.

- (*) Omnia series enclosure.
 - Switch disconnectors units suitable as spare parts available in the general catalogue.
 For 6 and 8 pole contact technical support.

■ THERMOPLASTIC INSULATED ENCLOSURE SWITCH DISCONNECTORS 2, 3, 3P+N AND 4 POLES - SURFACE MOUNTING 63A ÷ 160A

				210x155x107 mm		308x228x128 mm		338x308x128 mm	
									
									
				EMERGENCY SWITCHING 		EMERGENCY SWITCHING 		EMERGENCY SWITCHING 	
				GENERAL USE 		GENERAL USE 		GENERAL USE 	
Poles	IP degree								
63A	2	1/5	IP65	590.EM6302	590.GE6302				
	3			590.EM6303	590.GE6303				
	3P+N			590.EM6305	590.GE6305				
	4			590.EM6304	590.GE6304				
	6	1/5	IP55			590.EM6306	590.GE6306		
	8					590.EM6308	590.GE6308		
80A	2	1/5	IP65	590.EM8002	590.GE8002				
	3			590.EM8003	590.GE8003				
	3P+N			590.EM8005	590.GE8005				
	4			590.EM8004	590.GE8004				
	6	1/5	IP55			590.EM8006	590.GE8006		
	8					590.EM8008	590.GE8008		
100A	3	1/5	IP65	590.EM10003	590.GE10003				
	3P+N			590.EM10005	590.GE10005				
	6	1/5	IP55			590.EM10006	590.GE10006		
	8					590.EM10008	590.GE10008		
125A	3	1/5	IP55			590.EM12503	590.GE12503		
	3P+N					590.EM12505	590.GE12505		
	6	1/5	IP55					590.EM12506	590.GE12506
	8							590.EM12508	590.GE12508
160A	3	1/5	IP55					590.EM16003	590.GE16003
	3P+N							590.EM16005	590.GE16005
	6	1/5	IP55					590.EM16006	590.GE16006
	8							590.EM16008	590.GE16008

 Package/Bulk Pack

- 3P+N version with late break and early make neutral pole.
- 8 poles with late break and early make neutral poles.

- Equipped with door locking.

- Switch disconnectors units suitable as spare parts available in the general catalogue.

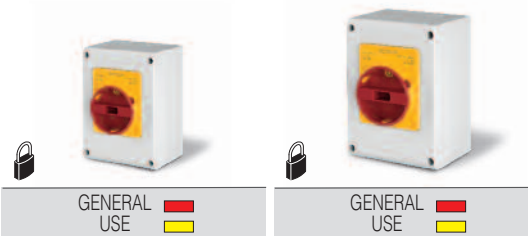
	Padlockable handle in one position (OFF).
	Padlockable handle in two positions (ON/OFF).
OFF position = 3 padlocks	
ON position = 1 padlock	

ISOLATORS-TP Series

■ THERMOPLASTIC INSULATED ENCLOSURE SWITCH DISCONNECTORS PADLOCKABLE IN OFF AND ON POSITION WITH RED HANDLE - 2, 3, 3P+N AND 4 POLES - SURFACE MOUNTING 16A ÷ 100A

150x105x82 mm

210x155x107mm



	Poles	IP degree		
16A	6	IP65	1/5	590.EL1606
	8			590.EL1608
20A	2	IP65	1/5	590.EL2012
	3			590.EL2013
	3P+N			590.EL2015
25A	6	IP65	1/5	590.EL2506
	8			590.EL2508
32A	2	IP65	1/5	590.EL3212
	3			590.EL3213
	3P+N			590.EL3215
	6			590.EL3206
	8			590.EL3208
40A	2	IP65	1/5	590.EL4012
	3			590.EL4013
	3P+N			590.EL4015
	6			590.EL4006
	8			590.EL4008
63A	2	IP65	1/5	590.EL6302
	3			590.EL6303
	3P+N			590.EL6305
80A	2	IP65	1/5	590.EL8002
	3			590.EL8003
	3P+N			590.EL8005
100A	3	IP65	1/5	590.EL10003
	3P+N			590.EL10005

□ Package/Bulk Pack

- 3P+N version with late break and early make neutral pole
- 8 poles with late break and early make neutral poles.
- Equipped with door locking

- Switch disconnectors units suitable as spare parts available in the general catalogue.
For 6 and 8 poles contact technical support.

	Padlockable handle in one position (OFF).
	Padlockable handle in two positions (ON/OFF).
OFF position = 3 padlocks	
ON position = 1 padlock	

■ THERMOPLASTIC INSULATED ENCLOSURE SWITCH DISCONNECTORS 1 POLE - SURFACE MOUNTING 20A ÷ 40A

120x82x69 mm


GENERAL
USE


	Poles	IP degree	□	
20A	1	IP65	1/12	590.GE2021
32A	1	IP65	1/12	590.GE3221
40A	1	IP65	1/12	590.GE4021

Suitable to switch single phase motor loads or other highly inductive loads (up to 40A 250V in AC 22A and 25A 250V in AC23A).

■ THERMOPLASTIC INSULATED ENCLOSURE SWITCH DISCONNECTORS 2, 3, 3P+N AND 4 POLES - FLUSH MOUNTING 20A ÷ 40A

125x136x107 mm


EMERGENCY
SWITCHING

GENERAL
USE


	Poles	IP degree	□		
20A	2	IP65	1/12	590.ER2002	590.GR2002
	3			590.ER2003	590.GR2003
	3P+N			590.ER2005	590.GR2005
	4			590.ER2004	590.GR2004
32A	2	IP65	1/12	590.ER3202	590.GR3202
	3			590.ER3203	590.GR3203
	3P+N			590.ER3205	590.GR3205
	4			590.ER3204	590.GR3204
40A	2	IP65	1/12	590.ER4002	590.GR4002
	3			590.ER4003	590.GR4003
	3P+N			590.ER4005	590.GR4005
	4			590.ER4004	590.GR4004

■ FLUSH MOUNTING BOXES AND FRAME



Description	IP degree	Dimensions (mm)	□	
Flush mounting box	-	160x148x72	1/6	572.0200
Flush mounting box for plasterboard walls	-	150x139x75	1/6	572.0205
Flame complete with gasket	IP55	174x163x19	1/6	572.0220
Coupling insert	-	-	1/6	572.0210

□ Package/Bulk Pack
- 3P+N version with late break and early make neutral pole.

- Switch disconnectors units suitable as spare parts available in the general catalogue.

ISOLATORS-AL Series

ALUMINIUM ENCLOSURE - 16A-160A



REFERENCE STANDARDS

EN 60947-3

Low voltage switchgear and controlgear.
Part 3: switches, disconnectors, switch-disconnectors
and fuse-combination unit.

EN 60529

Degrees of protection provided by enclosure.

VERSIONS



Surface mounting

TECHNICAL CHARACTERISTICS

Polarity:	2P-3P-3P+N-4P-6P-8P
Rated current:	16A*-20A-25A*-32A-40A-63A 80A-100A-125A-160A
Protection degree:	IP65
Operating temperature according to the reference standard:	-5°C +40°C
Min-Max. operating temperature:	-25°C +60°C
Material:	Die-cast aluminium
IK degree:	IK10
Colour:	Grey RAL7015

3P+N with late break early make neutral pole.

Equipped with door locking.

Padlockable handle.

* Only for 6 and 8 poles.

BEHAVIOUR WITH CHEMICAL AND ATMOSPHERIC AGENTS

Saline solution	Acids		Bases		Solvents				Mineral oil	UV rays
	Concentrated	Diluted	Concentrated	Diluted	Hexane	Benzol	Acetone	Alcohol		
Resistant	Limited Resistance	Resistant	Limited Resistance	Limited Resistance	Resistant	Limited Resistance	Limited Resistance	Resistant	Limited Resistance	Resistant

For specific substances please contact our technical service.

CABLE INLETS

Aluminium enclosure 2, 3, 4 poles

Size	Rated current (A)	Nr of poles	Enclosure dimensions	Cable entries		
1	20-32-40	2-3-4	150x105x82	Top	1xM20+ 1xM25	Threaded entries
				Bottom	1xM20+ 1xM25	Threaded entries
				Rear	1xM20+ 1xM25	Blank side (°)
2	63-80-100	2-3-4	210x155x107	Top	2xM32	Threaded entries
				Bottom	2xM32	Threaded entries
				Rear	-	Blank side (°)
3	125	3-4	315x264x122	Top	-	Blank side (°)
				Bottom	-	Blank side (°)
				Rear	-	Blank side (°)
4	160	3-4	410x315x128	Top	-	Blank side (°)
				Bottom	-	Blank side (°)
				Rear	-	Blank side (°)

(°) Perforated or threaded entries on request.

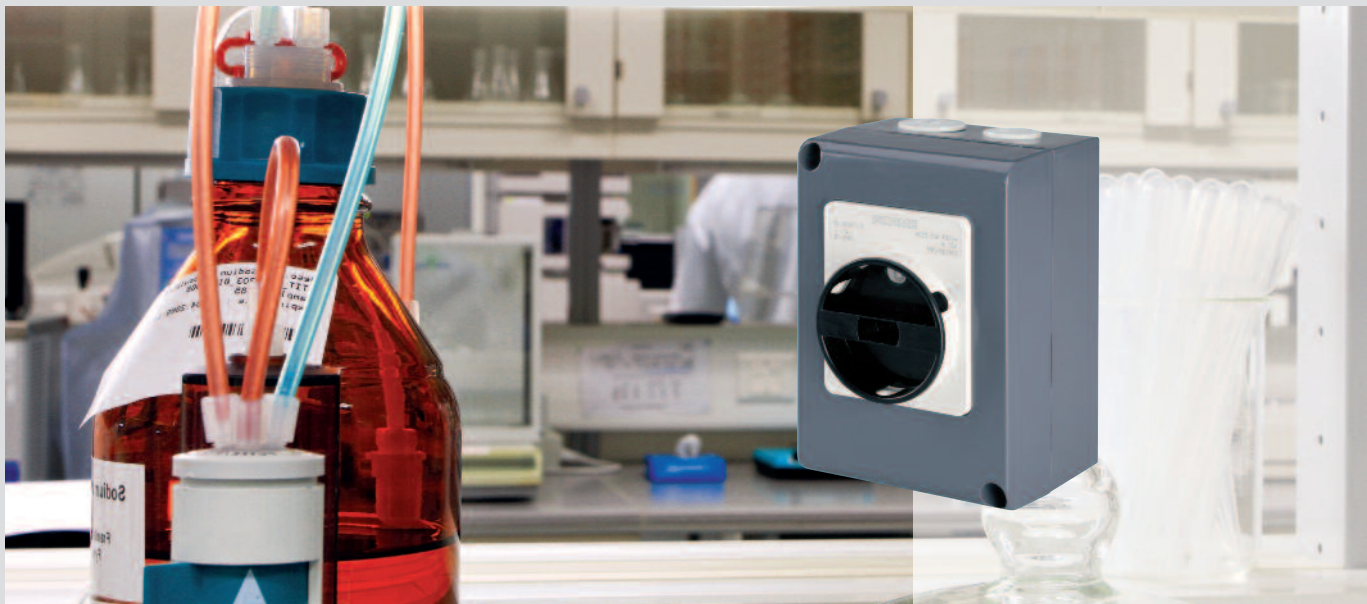
CABLE INLETS

Aluminium enclosure 6 and 8 poles

Size	Rated current (A)	Nr of poles	Enclosure dimensions	Cable entries		
2	16-25-32-40	6-8	210x155x107	Top	2xM32	Threaded entries
				Bottom	2xM32	Threaded entries
				Rear	-	Blank side (°)
3	63-80-100	6-8	315x264x122	Top	-	Blank side (°)
				Bottom	-	Blank side (°)
				Rear	-	Blank side (°)
4	125-160	6-8	410x315x128	Top	-	Blank side (°)
				Bottom	-	Blank side (°)
				Rear	-	Blank side (°)

(°) Perforated or threaded entries on request.

APPLICATION EXAMPLES



ISOLATORS-AL Series

■ TECHNICAL DATA SWITCH DISCONNECTORS 2, 3, 3P+N, 4 POLES

			20A	32A	40A	63A	80A	100A	125A	160A	
Rated insulation voltage Ui			VAC	690	690	690	690	690	800	800	800
Rated impulse withstand voltage Uimp			kV	4	4	4	4	4	8	8	8
Thermal current Ith/Ithe			A	30	40	40	63	86	100	125	160
IEC rating – Ie	AC21A	415V	A	20	32	40	63	80	100	125	160
	Resistive loads, including moderate overloads	500V	A	20	32	32	63	80	100	125	160
		690V	A	20	32	32	63	80	100	125	160
		AC22A	415V	A	20	32	40	63	80	100	125
	Mixed resistive and inductive loads, including moderate overloads	500V	A	20	32	32	63	80	100	125	160
		690V	A	20	32	32	63	80	-	125	160
		AC23A	415V	A	20	32	35	63	67	100	125
	Switching of motor loads or other highly inductive loads (3 phase / 3 pole)	500V	A	20	25	25	40	67	-	125	125
		690V	A	20	25	25	30	38	-	100	100
		AC3	400V	A	-	28.5	28.5	40	55	-	-
	Squirrel-cage motor: starting, switching off motor during running (3 phase / 3 pole)	690V	A	12	20	20	25	32	-	-	-
		DC22A	250V	A	25(*)	32(*)	32(*)	-	-	-	-
		Mixed resistive and inductive loads, including moderate overloads	600V	A	10(*)	10(*)	10(*)	-	-	-	-
Rated short time withstand current Icw (1s)			A	400	400	400	1500	1500	1500	3000	3000
Conditional short circuit current Ip			KAeff	10	10	10	10	10	30	50	50
Associate fuse size for conditional short circuit current - Type gG			A	20	32	40	63	80	100	125	125
Flexible wire			mm²	1.5-10	1.5-10	1.5-10	10-35	10-35	10-50	10-70	10-70
Rigid wire			mm²	1.5-16	1.5-16	1.5-16	10-35	10-35	10-50	10-70	10-70

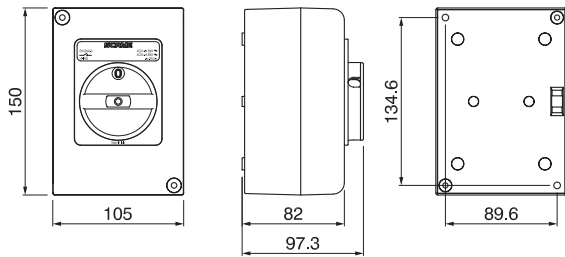
(*) Only 4P with 2+2 poles in series (for switch linking see electrical diagram page 7).

■ TECHNICAL DATA SWITCH DISCONNECTORS 6 AND 8 POLES

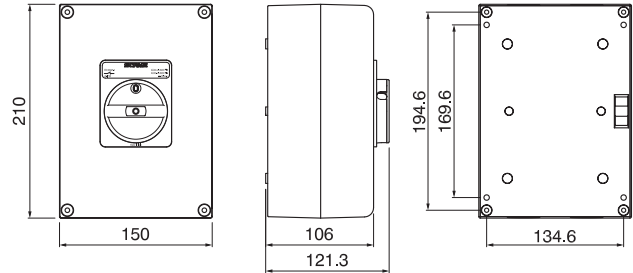
			16A	25A	32A	40A	63A	80A	100A	125A	160A
Rated insulation voltage Ui			VAC	800	800	800	800	800	800	800	800
Rated impulse withstand voltage Uimp			kV	8	8	8	8	8	8	8	8
Thermal current Ith/Ithe			A	16	25	32	40	63	80	100	125
IEC rating – Ie	AC21A Resistive loads, including moderate overloads	415V	A	16	25	32	40	63	80	100	125
		500V	A	16	25	32	40	63	160	80	125
		690V	A	16	25	32	40	63	160	80	125
	AC22A Mixed resistive and inductive loads, including moderate overloads	415V	A	16	25	32	40	63	160	80	125
		500V	A	16	25	32	40	63	160	80	125
		690V	A	16	25	32	40	40	40	40	125
	AC23A Switching of motor loads or other highly inductive loads (3 phase / 3 pole)	415V	A	16	25	32	40	63	80	100	125
		500V	A	16	25	32	40	63	63	63	125
		690V	A	16	25	25	25	32	32	32	100
Rated short time withstand current Icw (1s)			A	1100	1100	1100	1100	1500	1500	1500	3000
Conditional short circuit current Ip			KAeff	50	50	50	50	50	30	50	50
Associate fuse size for conditional short circuit current - Type gG			A	16	25	32	40	63	80	100	125
Flexible wire			mm²	4-25	4-25	4-25	4-25	10-50	10-50	10-50	10-70
Rigid wire			mm²	4-25	4-25	4-25	4-25	10-50	10-50	10-50	10-70

■ DIMENSIONS - ALLUMINIUM ENCLOSURE

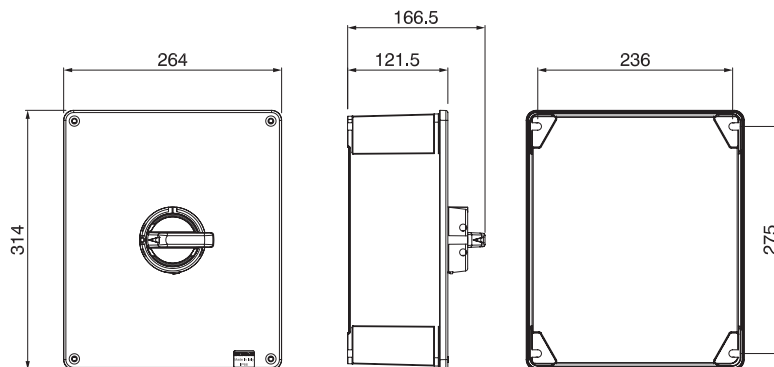
2, 3, 4 POLES 20A, 32A, 40A



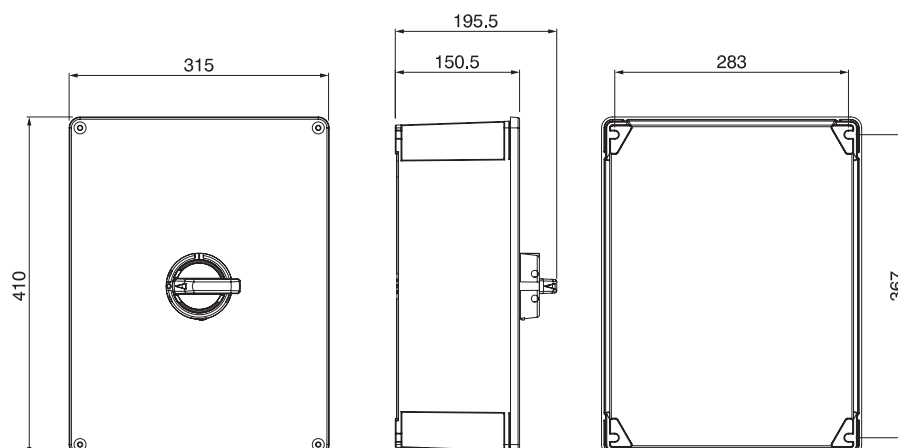
2, 3, 4 POLES 63A, 80A, 100A
6-8 POLES 16A, 25A, 32A, 40A



4 POLES 125A / 6-8 POLES 63A, 80A, 100A



3, 4 POLES 160A / 6-8 POLES 125A, 160A



ISOLATORS-AL Series

■ ALLUMINIUM ENCLOSED SWITCH DISCONNECTORS 2, 3, 3P+N, 6 AND 8 POLES - SURFACE MOUNTING 16A ÷ 100A

				150x105x82 mm			210x150x107 mm			315x264x122 mm		
												
												
				EMERGENCY SWITCHING  GENERAL USE 			EMERGENCY SWITCHING  GENERAL USE 			EMERGENCY SWITCHING  GENERAL USE 		
Poles	IP degree											
16A	6	IP65	1/5				590.HEM1606 590.HGE1606					
	8						590.HEM1608 590.HGE1608					
20A	2	IP65	1/12	590.HEM2002 590.HGE2002								
	3			590.HEM2003 590.HGE2003								
	3P+N			590.HEM2005 590.HGE2005								
	4			590.HEM2004 590.HGE2004								
25A	6	IP65	1/5				590.HEM2506 590.HGE2506					
	8						590.HEM2508 590.HGE2508					
32A	2	IP65	1/12	590.HEM3202 590.HGE3202								
	3			590.HEM3203 590.HGE3203								
	3P+N			590.HEM3205 590.HGE3205								
	4			590.HEM3204 590.HGE3204								
40A	6	IP65	1/5				590.HEM3206 590.HGE3206					
	8						590.HEM3208 590.HGE3208					
40A	2	IP65	1/12	590.HEM4002 590.HGE4002								
	3			590.HEM4003 590.HGE4003								
	3P+N			590.HEM4005 590.HGE4005								
	4			590.HEM4004 590.HGE4004								
63A	6	IP65	1/5				590.HEM4006 590.HGE4006					
	8						590.HEM4008 590.HGE4008					
63A	2	IP65	1/5				590.HEM6302 590.HGE6302					
	3						590.HEM6303 590.HGE6303					
	3P+N						590.HEM6305 590.HGE6305					
	4						590.HEM6304 590.HGE6304					
80A	6	IP65	1/5							590.HEM6306 590.HGE6306		
	8									590.HEM6308 590.HGE6308		
80A	2	IP65	1/5				590.HEM8002 590.HGE8002					
	3						590.HEM8003 590.HGE8003					
	3P+N						590.HEM8005 590.HGE8005					
	4						590.HEM8004 590.HGE8004					
100A	6	IP65	1/5							590.HEM8006 590.HGE8006		
	8									590.HEM8008 590.HGE8008		
100A	3	IP65	1/5				590.HEM10003 590.HGE10003					
	3P+N						590.HEM10005 590.HGE10005					
	6									590.HEM10006 590.HGE10006		
	8									590.HEM10008 590.HGE10008		

 Package/Bulk Pack
 - 3P+N version with late break and early make neutral pole.
 - 8 poles with late break and early make neutral poles.
 - Equipped with door locking.

- Switch disconnectors units suitable as spare parts available in the general catalogue.
 For 6 and 8 pole from 20 up to 40A contact technical support.

■ **ALLUMINIUM ENCLOSURE SWITCH DISCONNECTORS - PADLOCKABLE IN OFF AND ON POSITION WITH RED HANDLE - 2P, 3P, 3P+N, 6P AND 8 POLES - SURFACE MOUNTING 20A ÷ 100A**

150x105x82 mm

210x150x107 mm



	Poles	IP degree		GENERAL USE
	2			590.HE2002
20A	3	IP65	1/5	590.HE2003
	3P+N			590.HE2005
	2			590.HE3202
32A	3	IP65	1/5	590.HE3203
	3P+N			590.HE3205
	2			590.HE4002
40A	3	IP65	1/5	590.HE4003
	3P+N			590.HE4005

	Poles	IP degree		GENERAL USE
16A	6	IP65	1/5	590.HE1606
	8			590.HE1608
25A	6	IP65	1/5	590.HE2506
	8			590.HE2508
32A	6	IP65	1/5	590.HE3206
	8			590.HE3208
40A	6	IP65	1/5	590.HE4006
	8			590.HE4008
63A	2	IP65	1/5	590.HE6302
	3			590.HE6303
	3P+N			590.HE6305
80A	2	IP65	1/5	590.HE8002
	3			590.HE8003
	3P+N			590.HE8005
100A	3	IP65	1/5	590.HE10003
	3P+N			590.HE10005

■ **ALLUMINIUM ENCLOSED SWITCH DISCONNECTORS 3,3P+N,6 AND 8 POLES - SURFACE MOUNTING 125A ÷ 160A**

315x264x122 mm

410x315x128 mm



	Poles	IP degree		EMERGENCY SWITCHING	GENERAL USE
125A	3	IP65	1/5	590.HEM12503	590.HGE12503
	3P+N			590.HEM12505	590.HGE12505

	Poles	IP degree		EMERGENCY SWITCHING	GENERAL USE
125A	6	IP65	1	590.HEM12506	590.HGE12506
	8			590.HEM12508	590.HGE12508
160A	3	IP65	1	590.HEM16003	590.HGE16003
	3P+N			590.HEM16005	590.HGE16005
	6			590.HEM16006	590.HGE16006
	8			590.HEM16008	590.HGE16008

□ Package/Bulk Pack

- 3P+N version with late break and early make neutral pole.
- 8 poles with late break and early make neutral poles.
- Equipped with door locking.

- Switch disconnectors suitable as spare part available in the general catalogue.
For 6 and 8 poles contact technical support.

	Padlockable handle in one position (OFF).
	Padlockable handle in two positions (ON/OFF).
OFF position = 3 padlocks	
ON position = 1 padlock	

ISOLATORS-INOX Series

■ STAINLESS STEEL ENCLOSURE - 16A-160A



■ REFERENCE STANDARDS

EN 60947-3

Low voltage switchgear and controlgear.
Part 3: switches, disconnectors, switch-disconnectors
and fuse-combination unit.

EN 60529

Degrees of protection provided by enclosure.

■ VERSIONS



Surface mounting

■ TECHNICAL CHARACTERISTICS

Polarity:	2P-3P-3P+N-6P-8P
Rated current:	16A*-20A-25A*-32A-40A-63A 80A-100A-125A-160A
Protection degree:	IP65
Operating temperature according to the reference standard:	-5°C +40°C
Min-Max. operating temperature:	-25°C +60°C
IK degree:	IK10
Material:	Stainless steel 304L (316L stainless steel on request)

3P+N with late break early make neutral pole.

Equipped with door locking.

Padlockable handle.

* Only for 6 and 8 poles.

■ BEHAVIOUR WITH CHEMICAL AND ATMOSPHERIC AGENTS

Saline solution	Acids		Bases		Solvents				Mineral oil	UV rays
	Concentrated	Diluted	Concentrated	Diluted	Hexane	Benzol	Acetone	Alcohol		
Resistant	Limited Resistance	Resistant	Resistant	Resistant	Resistant	Resistant	Resistant	Resistant	Resistant	Resistant

For specific substances please contact our technical service.

■ CABLE INLETS

Stainless steel enclosure 3 and 4 poles

Size	Rated current (A)	Nr of poles	Enclosure dimensions	Cable entries		
1	20-32-40	3-4	176x136x85	Top	-	Blank side
				Bottom	-	Blank side
				Rear	-	Blank side
2	63-80-100	3-4	226x176x90	Top	-	Blank side
				Bottom	-	Blank side
				Rear	-	Blank side
3	125-160	3-4	306x226x115	Top	-	Blank side
				Bottom	-	Blank side
				Rear	-	Blank side

Perforated or threaded entries on request.

■ CABLE INLETS

Stainless steel enclosure 6 and 8 poles

Size	Rated current (A)	Nr of poles	Enclosure dimensions	Cable entries		
3	16-25-32-40-63-80-100-125-160	6-8	306x226x115	Top	-	Blank side
				Bottom	-	Blank side
				Rear	-	Blank side

Perforated or threaded entries on request.

■ APPLICATION EXAMPLES



ISOLATORS-INOX Series

■ TECHNICAL DATA SWITCH DISCONNECTORS 2P,3P, 3P+N

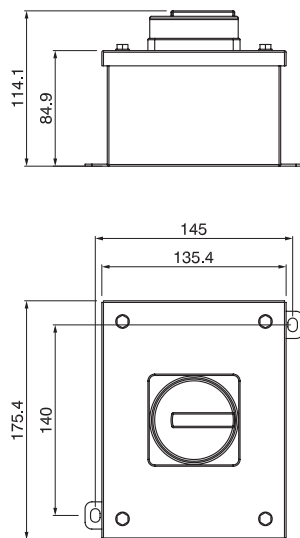
			20A	32A	40A	63A	80A	100A	125A	160A
Rated insulation voltage Ui			VAC	690	690	690	800	690	800	800
Rated impulse withstand voltage Uimp			kV	4	4	4	8	4	8	8
Thermal current Ith/Ithe			A	30	40	40	63	80	100	125
IEC rating – Ie	AC21A Resistive loads, including moderate overloads	415V	A	20	32	40	63	80	100	125
		500V	A	20	32	32	63	80	100	125
		690V	A	20	32	32	63	80	100	125
	AC22A Mixed resistive and inductive loads, including moderate overloads	415V	A	20	32	40	63	80	100	125
		500V	A	20	32	32	63	80	100	125
		690V	A	20	32	32	40	40	-	125
	AC23A Switching of motor loads or other highly inductive loads (3 phase / 3 pole)	415V	A	20	32	35	63	80	100	125
		500V	A	20	25	25	63	63	-	125
		690V	A	20	25	25	32	32	-	100
	AC3 Squirrel-cage motor: starting, switching off motor during running (3 phase / 3 pole)	400V	A	-	28.5	28.5	-	-	-	-
		690V	A	12	20	20	25	32	-	-
Rated short time withstand current Icw (1s)			A	400	400	400	1500	1500	1500	3000
Conditional short circuit current Ip			KAeff	10	10	10	50	50	30	50
Associate fuse size for conditional short circuit current - Type gG			A	20	32	40	63	80	100	125
Flexible wire			mm²	1.5-10	1.5-10	1.5-10	10-50	10-50	10-50	10-70
Rigid wire			mm²	1.5-16	1.5-16	1.5-16	10-50	16-50	10-50	10-70

■ TECHNICAL DATA SWITCH DISCONNECTORS 6 AND 8 POLES

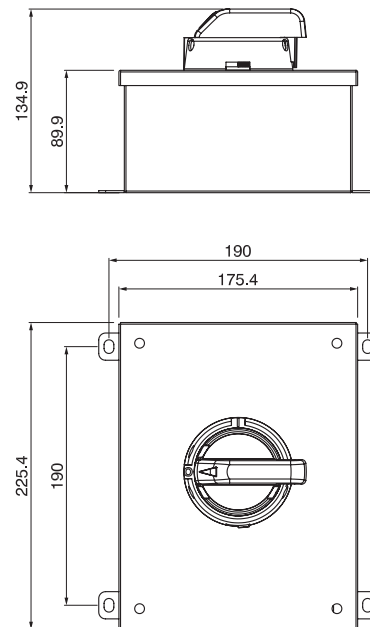
			16A	25A	32A	40A	63A	80A	100A	125A	160A
Rated insulation voltage Ui			VAC	800	800	800	800	800	800	800	800
Rated impulse withstand voltage Uimp			kV	8	8	8	8	8	8	8	8
Thermal current Ith/Ithe			A	16	25	32	40	63	80	100	125
IEC rating – Ie	AC21A Resistive loads, including moderate overloads	415V	A	16	25	32	40	63	80	100	125
		500V	A	16	25	32	40	63	160	80	125
		690V	A	16	25	32	40	63	160	80	125
	AC22A Mixed resistive and inductive loads, including moderate overloads	415V	A	16	25	32	40	63	160	80	125
		500V	A	16	25	32	40	63	160	80	125
		690V	A	16	25	32	40	40	40	40	125
	AC23A Switching of motor loads or other highly inductive loads (3 phase / 3 pole)	415V	A	16	25	32	40	63	80	100	125
		500V	A	16	25	32	40	63	63	63	125
		690V	A	16	25	25	25	32	32	32	100
Rated short time withstand current Icw (1s)			A	1100	1100	1100	1100	1500	1500	1500	3000
Conditional short circuit current Ip			KAeff	50	50	50	50	50	30	50	50
Associate fuse size for conditional short circuit current - Type gG			A	16	25	32	40	63	80	100	125
Flexible wire			mm²	4-25	4-25	4-25	4-25	10-50	10-50	10-50	10-70
Rigid wire			mm²	4-25	4-25	4-25	4-25	10-50	10-50	10-50	10-70

■ DIMENSIONS - STAINLESS STEEL ENCLOSURE

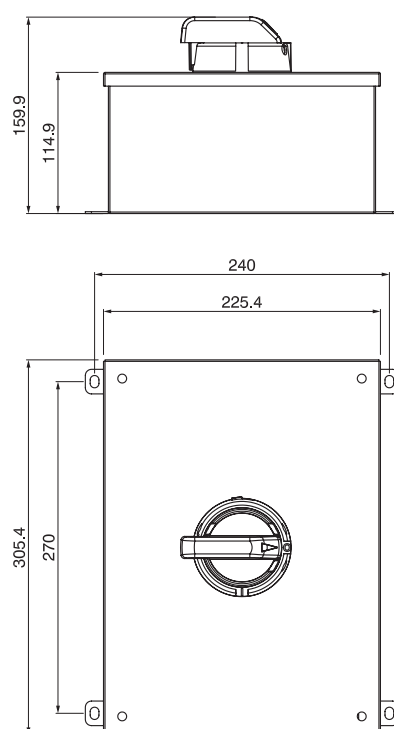
3-4 POLES 20A, 32A, 40A



3-4 POLES 63A, 80A, 100A



3, 4 POLES 125A, 160A / 6-8 POLES 16A, 160A



ISOLATORS-INOX Series

■ STAINLESS STEEL ENCLOSURE 2P, 3P, 3P+N, 6P AND 8P SURFACE MOUNTING - 16A ÷ 40A

176x136x85 mm

306x226x115 mm



	Poles	IP degree	□	176x136x85 mm		306x226x115 mm	
				EMERGENCY SWITCHING 	GENERAL USE 	EMERGENCY SWITCHING 	GENERAL USE 
16A	6	IP65	1/5			590.SEM1606	590.SGE1606
	8					590.SEM1608	590.SGE1608
20A	2	IP65	1/5	590.SEM2002	590.SGE2002		
	3			590.SEM2003	590.SGE2003		
	3P+N			590.SEM2005	590.SGE2005		
25A	6	IP65	1/5			590.SEM2506	590.SGE2506
	8					590.SEM2508	590.SGE2508
32A	2	IP65	1/5	590.SEM3202	590.SGE3202		
	3			590.SEM3203	590.SGE3203		
	3P+N			590.SEM3205	590.SGE3205		
	6					590.SEM3206	590.SGE3206
	8					590.SEM3208	590.SGE3208
40A	2	IP65	1/5	590.SEM4002	590.SGE4002		
	3			590.SEM4003	590.SGE4003		
	3P+N			590.SEM4005	590.SGE4005		
	6					590.SEM4006	590.SGE4006
	8					590.SEM4008	590.SGE4008

□ Package/Bulk Pack

- 3P+N version with late break and early make neutral pole.
- 8 poles with late break and early make neutral poles.

- Equipped with door locking.

- Switch disconnectors units suitable as spare parts available in the general catalogue.

■ STAINLESS STEEL ENCLOSURE 2P, 3P, 3P+N, 6P AND 8P SURFACE MOUNTING - 63A ÷ 160A

226x176x90 mm

306x226x115 mm



	Poles	IP degree			EMERGENCY SWITCHING 	GENERAL USE 		EMERGENCY SWITCHING 	GENERAL USE 
63A	3	IP65	1/5		590.SEM6303	590.SGE6303			
	3P+N				590.SEM6305	590.SGE6305			
	6								
	8								
80A	3	IP65	1/5		590.SEM8003	590.SGE8003			
	3P+N				590.SEM8005	590.SGE8005			
	6								
	8								
100A	3	IP65	1/5		590.SEM10003	590.SGE10003			
	3P+N				590.SEM10005	590.SGE10005			
	6								
	8								
125A	3	IP65	1						
	3P+N								
	6								
	8								
160A	3	IP65	1						
	3P+N								
	6								
	8								

 Package/Bulk Pack

- 3P+N version with late break and early make neutral pole.
- 8 poles with late break and early make neutral poles.

- Equipped with door locking.

- Switch disconnectors units suitable as spare parts available in the general catalogue.

	Padlockable handle in one position (OFF).
	Padlockable handle in two positions (ON/OFF).
OFF position = 3 padlocks	
ON position = 1 padlock	

ISOLATORS-HR Series

HIGH RATING HINGED SHEET STEEL ENCLOSURE - 200A-1600A



REFERENCE STANDARDS

EN 60947-3

Low voltage switchgear and controlgear.
Part 3: switches, disconnectors, switch-disconnectors
and fuse-combination unit.

EN 60529

Degrees of protection provided by enclosure.

VERSIONS



Surface mounting

TECHNICAL CHARACTERISTICS

Polarity:	3P-3P+N
Rated current:	200A-250A-315A-400A 500A-630A-800A-1000A 1250A-1600A (*)
Protection degree:	IP65
Operating temperature according to the reference standard:	-5°C +40°C
Min-Max. operating temperature:	-25°C +60°C
Material:	Sheet steel
IK degree:	IK10
Finishing/colour:	Polyester powder grey RAL7032

3P+N with late break early make neutral pole.
Padlockable handle.
Equipped with door locking.
Full current neutral pole up to 1250A.
(*) Neutral pole 1250A
Full current neutral pole available on request.

BEHAVIOUR WITH CHEMICAL AND ATMOSPHERIC AGENTS

Saline solution	Acids		Bases		Solvents				Mineral oil	UV rays
	Concentrated	Diluted	Concentrated	Diluted	Hexane	Benzol	Acetone	Alcohol		
Resistant	Limited Resistance	Resistant	Resistant	Resistant	Resistant	Resistant	Resistant	Resistant	Resistant	Resistant

For specific substances please contact our technical service.

CABLE INLETS

Hinged sheet steel enclosure 3,4 poles top/bottom entries

Size	Rated current (A)	Nr of poles	Enclosure dimensions	Cable entries	
				Top	Gland plate
1	200-250	3-4	500x300x150	Bottom	Gland plate
2	315-400-500-630	3-4	600x400x200	Top	Gland plate
				Bottom	Gland plate
3	800-1000-1250	3-4	700x500x250	Top	Gland plate
				Bottom	Gland plate
4	1600	3-4	1000x600x300	Top	Gland plate
				Bottom	Gland plate

Hinged sheet steel enclosure 3,4 poles bottom/bottom entries

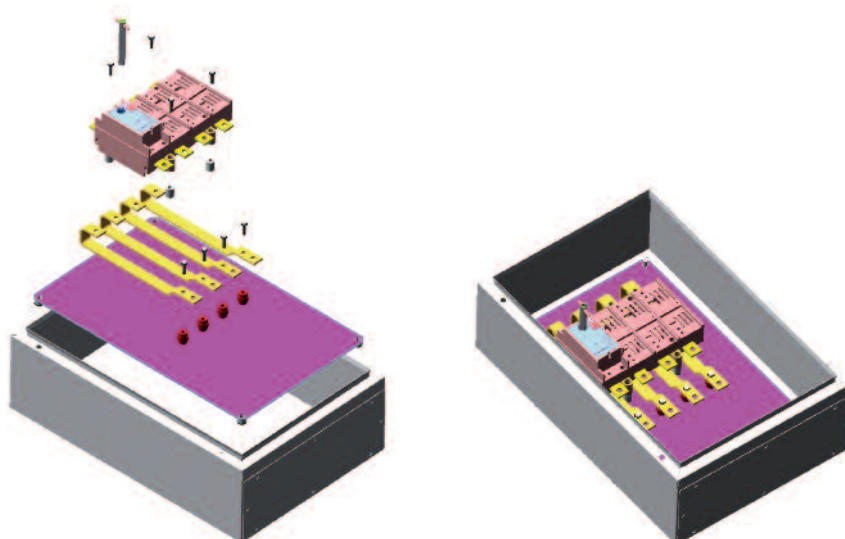
Size	Rated current (A)	Nr of poles	Enclosure dimensions	Cable entries	
				Top	Gland plate
1	200-250	3-4	500x300x150	Bottom	Gland plate
2	315-400	3-4	600x400x200	Top	Gland plate
				Bottom	Gland plate
3	500	3-4	700x500x250	Top	Gland plate
				Bottom	Gland plate
4	630-800	3-4	800x800x300	Top	Gland plate
				Bottom	Gland plate
5	1000-1250-1600	3-4	1000x1000x800	Top	Gland plate
				Bottom	Gland plate

Perforated or threaded entries on request.

CONNECTIONS

BOTTOM/BOTTOM ENTRIES

Equipped with an insulated bar system which allows the wiring both incoming and outgoing cables from the bottom side without cable bending.



APPLICATION EXAMPLES



ISOLATORS-HR Series

■ TECHNICAL DATA HIGH RATING SWITCH DISCONNECTORS 3P AND 3P+N

Rated current			(A)	200	250	315	400	500	630	800	1000	1250	1600
Rated insulation voltage			(V)	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Impulse withstand voltage			(kV)	12	12	12	12	12	12	12	12	12	12
Rated thermal current			(A)	200	250	315	400	500	630	800	1000	1250	1600 (*)
Rated operational current	AC21A	415V	(A)	200	250	315	400	500	630	800	1000	1250	1600
		500V	(A)	200	250	315	400	500	630	800	1000	1250	1600
		690V	(A)	200	250	315	400	500	630	800	1000	1250	1250
	AC22A	415V	(A)	200	250	315	400	500	630	800	1000	1250	1600
		500V	(A)	200	250	315	400	400	630	800	1000	1250	1250
		690V	(A)	200	250	315	400	400	630	800	1000	1250	400
	AC23A	415V	(A)	200	250	315	400	500	630	800	1000	1250	1250
		500V	(A)	125	200	250	315	315	500	800	800	800	800
		690V	(A)	160	160	200	250	250	400	400	400	400	400
Rated making capacity		415V AC23	(A)	2000	2500	3150	4000	4000	6300	6300	6300	6300	6300
Rated breaking capacity		415V AC23	(A)	1600	2000	2520	3200	3200	5040	5040	5040	5040	5040
Short circuit withstand current 1sec			(kA)	8	8	13	13	13	26.5	26.5	26.5	26.5	26.5
Short circuit withstand current 0.25 sec			(kA)	16	16	26	26	26	53	53	53	53	53
Short circuit making capacity		415V	(kA)	13.5	13.5	26	26	26	30	30	30	30	30
Rated operational power		AC23A	(kW)	105	130	165	210	210	330	330	330	330	330
Rated fuse short-circuit current	Back up fuse		(A)	200	250	315	400	400	630	800	1000	1000	-
	R.M.S value		(kA)	50	50	50	50	50	50	100	100	100	-
	Peak value		(kA)	20	25	25	30	30	40	70	90	100	-
	Cable section		mm²	120	120	185	2x150	2x150	2x185	2x240	-	-	-
	Bars dimension		mm	20x5	20x5	2x (25x4)	2x (25x4)	2x (25x4)	2x (32x6)	2x (50x5)	2x (50x6)	2x (50x8)	2x (80x102)

(*) Neutral pole 1250A.

Full current neutral pole available on request.

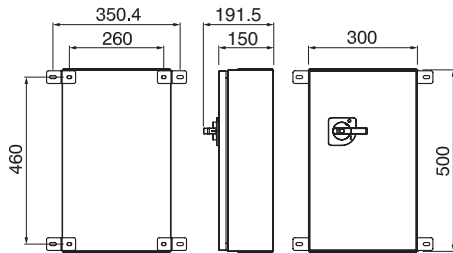
■ AUXILIARY CONTACTS

		590.PL00400x	590.PL005	590.PL0060xx
Rated thermal current	400V	16A	10A	10A
	250V	16A	16A	16A
Rated operational current AC15	400V	4.5A	-	-
	250V	6A	1A	1A

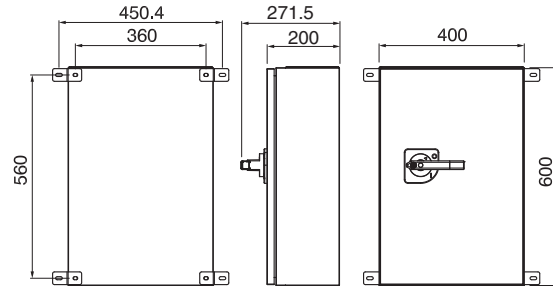
Break before main contacts.

■ DIMENSIONS - HIGH RATINGS HINGED SHEET STEEL ENCLOSURE

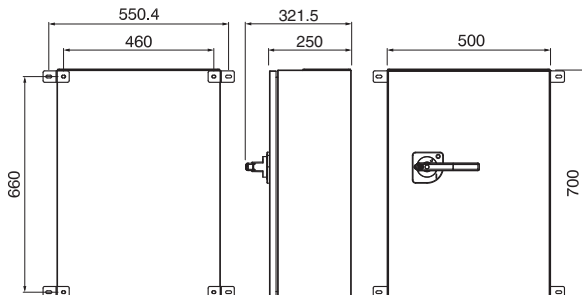
**3, 3P+N POLES 200A, 250A
TOP/BOTTOM AND BOTTOM/BOTTOM ENTRIES**



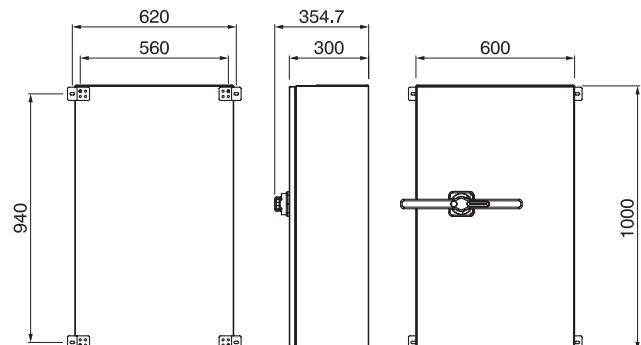
**3, 3P+N POLES 315A, 400A, 500A, 630A
TOP/BOTTOM ENTRIES
AND 315A, 400A BOTTOM/BOTTOM ENTRIES**



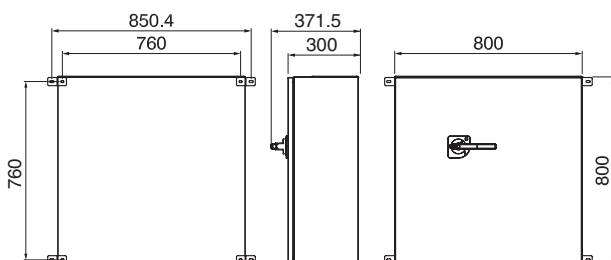
**3, 3P+N POLES 800A, 1000A, 1250A
TOP/BOTTOM ENTRIES
AND 500A BOTTOM/BOTTOM ENTRIES**



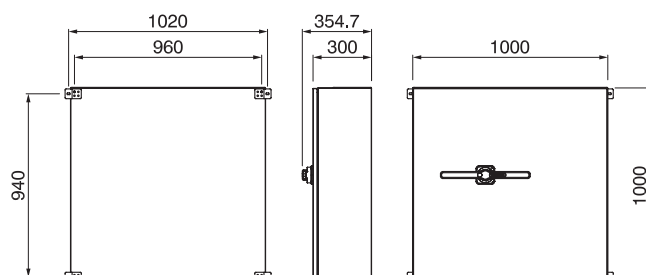
**3, 3P+N POLES 1600A
TOP/BOTTOM ENTRIES**



**3, 3P+N POLES 630A, 800A
BOTTOM/BOTTOM ENTRIES**



**3, 3P+N POLES 1000A, 1250A, 1600A
BOTTOM/BOTTOM ENTRIES**



ISOLATORS-HR Series

■ HIGH RATING HINGED SHEET STEEL ENCLOSURE 3P AND 3P+N SURFACE MOUNTING – TOP/BOTTOM CONNECTION - 200A ÷ 1600A

				500x300x150 mm		600x400x200 mm		700x500x250 mm		1000x600x300 mm	
											
				GENERAL USE 		GENERAL USE 		GENERAL USE 		GENERAL USE 	
200A	3	IP65	1	590.KGE20003							
	3P+N			590.KGE20005							
250A	3	IP65	1	590.KGE25003							
	3P+N			590.KGE25005							
315A	3	IP65	1			590.KGE31503					
	3P+N					590.KGE31505					
400A	3	IP65	1			590.KGE40003					
	3P+N					590.KGE40005					
500A	3	IP65	1			590.KGE50003					
	3P+N					590.KGE50005					
630A	3	IP65	1			590.KGE63003					
	3P+N					590.KGE63005					
800A	3	IP65	1					590.KGE80003			
	3P+N							590.KGE80005			
1000A	3	IP65	1					590.KGE100003			
	3P+N							590.KGE100005			
1250A	3	IP65	1					590.KGE125003			
	3P+N							590.KGE125005			
1600A(*)	3	IP65	1							590.KGE160003	
	3P+N									590.KGE160005	

 Package/Bulk Pack

- 3P+N version with late break and early make neutral pole.
- Equipped with door locking.
- Emergency switch on request.

- Full current neutral pole up to 1250A.

(*) Neutral pole 1250A.

Full current neutral pole available on request.

■ HIGH RATING HINGED SHEET STEEL ENCLOSURE 3P AND 3P+N SURFACE MOUNTING – BOTTOM/BOTTOM CONNECTION - 200A ÷ 1600A

500x300x150 mm 600x400x200 mm 700x500x250 mm 800x800x300 mm 1000x1000x300 mm

									
	Poles	IP degree			GENERAL USE 	GENERAL USE 	GENERAL USE 	GENERAL USE 	GENERAL USE 
200A	3	IP65	1	590.KGE20003B					
	3P+N			590.KGE20005B					
250A	3	IP65	1	590.KGE25003B					
	3P+N			590.KGE25005B					
315A	3	IP65	1	590.KGE31503B					
	3P+N			590.KGE31505B					
400A	3	IP65	1	590.KGE40003B					
	3P+N			590.KGE40005B					
500A	3	IP65	1	590.KGE50003B					
	3P+N			590.KGE50005B					
630A	3	IP65	1	590.KGE63003B					
	3P+N			590.KGE63005B					
800A	3	IP65	1	590.KGE80003B					
	3P+N			590.KGE80005B					
1000A	3	IP65	1	590.KGE100003B					
	3P+N			590.KGE100005B					
1250A	3	IP65	1	590.KGE125003B					
	3P+N			590.KGE125005B					
1600A (*)	3	IP65	1	590.KGE160003B					
	3P+N			590.KGE160005B					

 Package/Bulk Pack
 3P+N version with late break and early make neutral pole.
 Equipped with door locking.
 Emergency switch on request.

- Full current neutral pole up to 1250A.
 (*) Neutral pole 1250A.
 Full current neutral pole available on request.

	Padlockable handle in one position (OFF).
	Padlockable handle in two positions (ON/OFF).
OFF position = 3 padlocks	
ON position = 1 padlock	

ISOLATORS-PH Series

■ PHOTOVOLTAIC/DC SWITCH DISCONNECTORS THERMOPLASTIC INSULATED ENCLOSURE 10A-40A (800V DC)



■ VERSIONS



Surface mounting

Scame embraces completely the renewable energy sources philosophy and the respect for the environment. In our production plant and office building we have installed 250kWp of photovoltaic system.

We follow up this field in several countries with a wide range of products.

From our experience is born the new range of DC Isolators specific for photovoltaic systems.

In according to the IEC 60364-7-712, in every photovoltaic installation it is necessary to isolate the photovoltaic panel from the rest of the system, DC Isolators must have a higher performance than the traditional AC Isolators because breaking direct current is more difficult than breaking alternating current, and furthermore in a photovoltaic system the voltage can reach even 1000V.

The current and voltage values changes depending on the combination of the photovoltaic cells.

DC Isolator range has been set up focusing on all of the main photovoltaic installations in order to get a range as essential as

■ REFERENCE STANDARDS

EN 60947-3

Low voltage switchgear and controlgear.
Part 3: switches, disconnectors, switch-disconnectors
and fuse-combination unit.

IEC 60364-7-712

Requirements for special installations or locations
Solar photovoltaic (RV) power supply systems.

EN 60529

Degrees of protection provided by enclosure.

■ TECHNICAL CHARACTERISTICS

Poles in series:	3P-4P-5P-6P-8P
Rated current (800V):	10A-15A-20A-25A-30A-40A
Protection degree:	IP65
Operating temperature according to the reference standard:	-5°C +40°C
Min-Max. operating temperature:	-25°C +60°C
IK degree:	IK08
Material:	Engineering

possible, simplify the choice of the customer and for have the maximum quality and technical characteristics.

In the meantime we are improving and up grading constantly our products, following and anticipating the change that the market requires due to the incentives available.

Scame ISOLATORS Series includes also a complete range of AC Isolators, essential to make a photovoltaic system in compliance with IEC 60364-7-712.

Finally in the photovoltaic range it is available a huge range of water tight cabinets and consumer unit suitable for make distribution board & export control.

■ BEHAVIOUR WITH CHEMICAL AND ATMOSPHERIC AGENTS

Saline solution	Acids		Bases		Solvents				Mineral oil	UV rays
	Concentrated	Diluted	Concentrated	Diluted	Hexane	Benzol	Acetone	Alcohol		
Resistant	Limited Resistance	Resistant	Resistant	Resistant	Not Resistant	Not Resistant	Not Resistant	Limited Resistance	Resistant	Resistant

For specific substances please contact our technical service.

CABLE INLETS

Photovoltaic/DC switch disconnectors thermoplastic insulated enclosure 3 and 4 poles

Size	Rated current (A)	Rated voltage (V)	Nr of poles in series	Enclosure dimensions	Cable entries		
1	16	450V	4	150x105x82	Top	1xM20+1xM25	Knock-outs
					Bottom	1xM20+1xM25	Knock-outs
					Rear	1xM20+1xM25	Knock-outs
2	10-15-20	800V	3-4-5	150x105x100	Top	-	Blank side (°)
					Bottom	-	Blank side (°)
					Rear	-	Blank side (°)
					Right	M25	Knock-out
					Left	M25	Knock-out
3	25-30	800V	6-8	210x155x107	Top	2xM32	Knock-outs
					Bottom	2xM32	Knock-outs
					Rear	-	Blank side (°)
4	40	800V	8	308x228x128	Top	-	Blank side (°)
					Bottom	-	Blank side (°)

(°) Perforated or threaded entries on request.

APPLICATION EXAMPLES



ISOLATORS-PH Series

■ TECHNICAL DATA DC SWITCH DISCONNECTORS FOR PHOTOVOLTAIC DC APPLICATION

			16A	10A	15A	20A	25A	30A	40A	
Rated insulation voltage Ui			VAC	690	1500	1500	1500	1500	1500	
Rated impulse withstand voltage Uimp			kV	4	8	8	8	8	8	
Thermal current Ith/Ithe			A	30	63	63	63	63	125	
IEC rating – Ie	DC21A Resistive loads, including moderate overloads	300V	A	32	-	-	-	-	-	
		400V	A	-	25	30	35	40	60	
		450V	A	16	-	-	-	-	-	
		500V	A	-	25	30	35	40	45	
		600V	A	-	15	20	25	40	60	
		750V	A	-	10	15	20	25	30	
		800V	A	-	10	15	20	25	30	
Rated short time withstand current Icw (1s)			A	400	1100	1100	1100	1100	3000	
Flexible wire			mm²	1.5-10	16	16	16	16	70	
Rigid wire			mm²	1.5-10	16	16	16	35	16	70

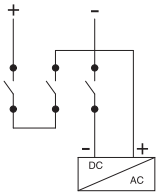
POSSIBLE CONTACT WIRINGS

SWITCH LINKING

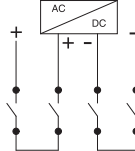
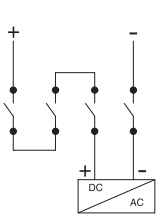
In order to make easier the work of the installer, it is possible to choose the manner of wiring of the poles in series. In this way the incoming and the outgoing can

be varied both on the top side and on the bottom side. In the packaging jumpers are supplied to cover the chosen configuration.

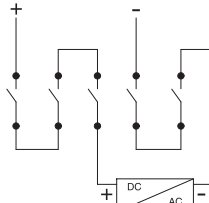
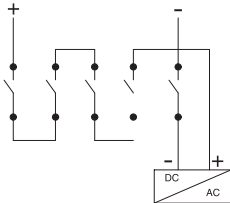
590.DCGE0810 - (3 POLES IN SERIES) - 2 JUMPERS SUPPLIED



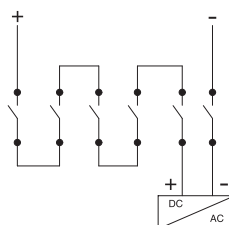
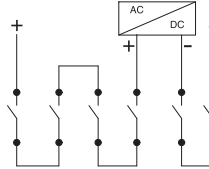
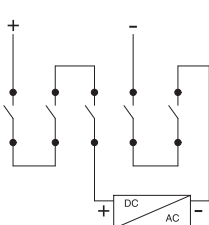
590.DCGE0815 - (4 POLES IN SERIES) - 3 JUMPERS SUPPLIED



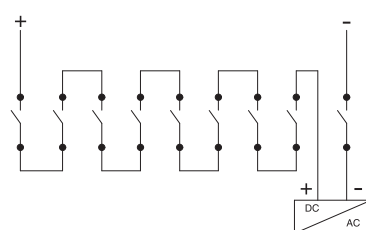
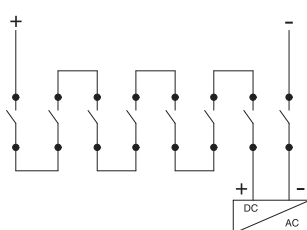
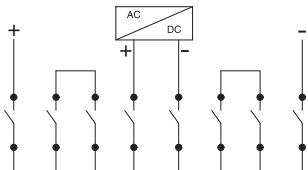
590.DCGE0820 - (5 POLES IN SERIES) - 4 JUMPERS SUPPLIED



590.DCGE0825 - (6 POLES IN SERIES) - 5 JUMPERS SUPPLIED



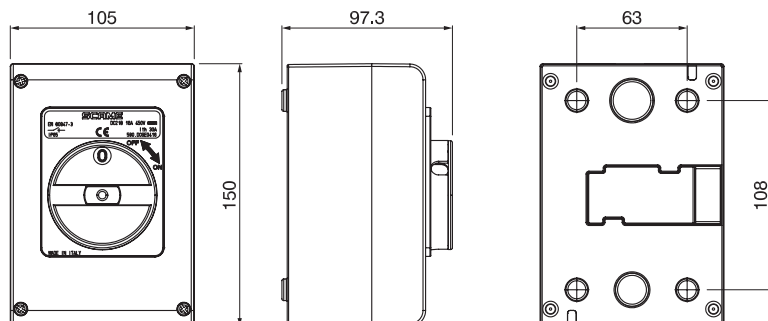
590.DCGE0830 - (8 POLES IN SERIES) - 8 JUMPERS SUPPLIED



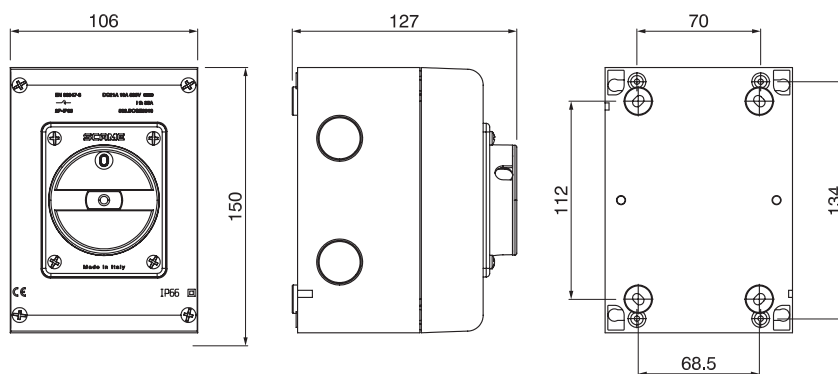
ISOLATORS-PH Series

DIMENSIONS PHOTOVOLTAIC/DC THERMOPLASTIC INSULATED ENCLOSURE

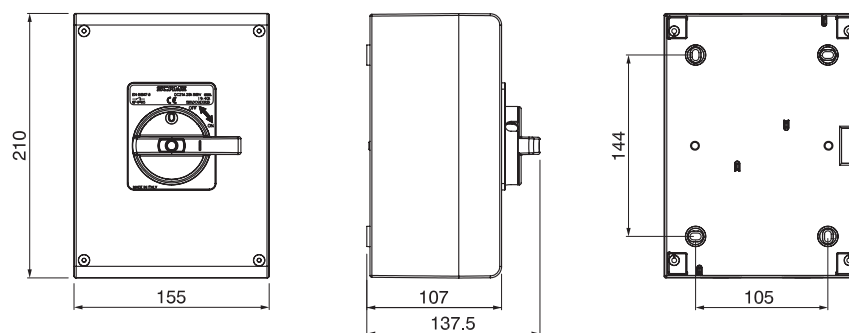
16A 450V



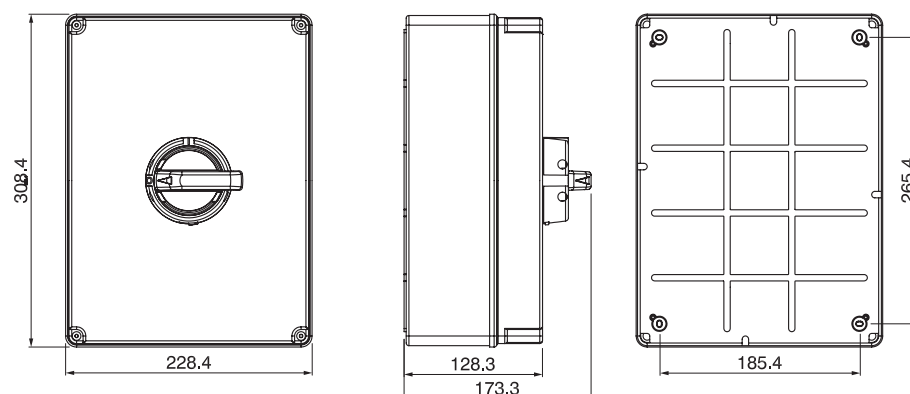
10A-15A-20A 800V



25A-30A 800V



40A 800V



(Dimensions in mm)

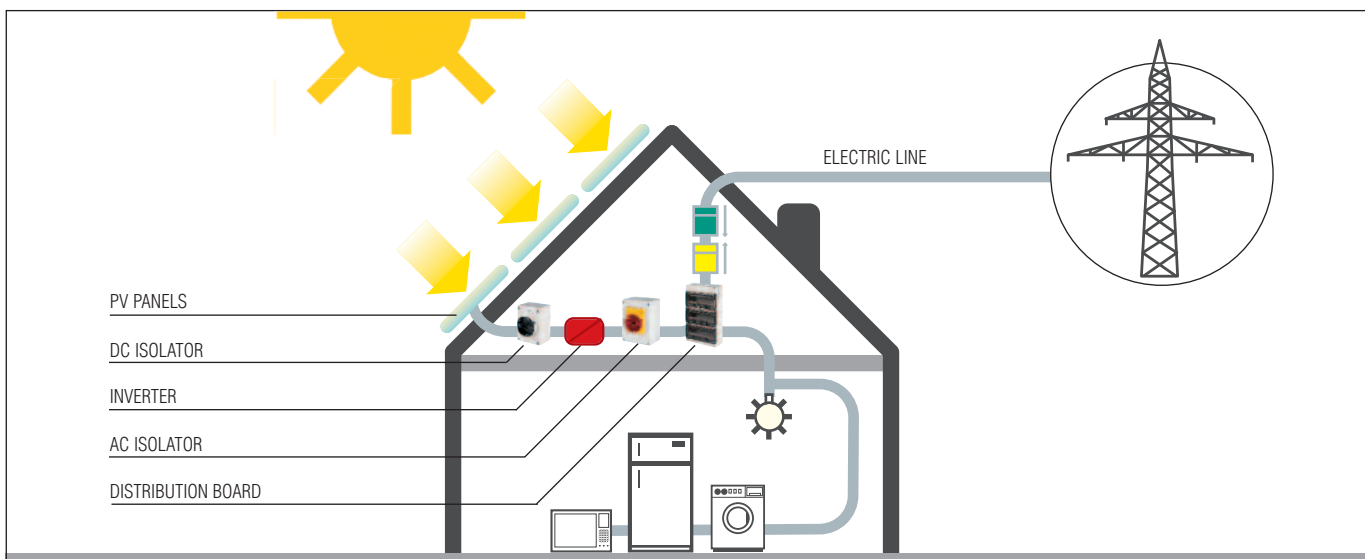
■ PHOTOVOLTAIC/DC SWITCH DISCONNECTORS THERMOPLASTIC INSULATED ENCLOSURE
SURFACE MOUNTING 10A-40A

					150x105x98mm	150x105x127 mm	210x155x122 mm	308x228x173 mm
								
	Rated voltage (V)	Poles in series	IP degree		GENERAL USE	GENERAL USE	GENERAL USE	GENERAL USE
16	450	4	IP65	1/12	590.DCGE0416			
10	800	3	IP65	1/12		590.DCGE0810		
15	800	4	IP65	1/12		590.DCGE0815		
20	800	5	IP65	1/12		590.DCGE0820		
25	800	4	IP65	1/12			590.DCGE0825	
30	800	4	IP65	1/12			590.DCGE0830	
40	800	4	IP55	1/12				590.DCGE0840

☐ Package/Bulk Pack

- Switch disconnectors units suitable as spare parts available in the general catalogue.

	Padlockable handle in one position (OFF).
	Padlockable handle in two positions (ON/OFF).
OFF position = 3 padlocks	
ON position = 1 padlock	



ISOLATORS-HD Series

HEAVY DUTY ENGINEERING PLASTIC INSULATED ENCLOSURE 20A-40A



REFERENCE STANDARDS

EN 60947-3

Low voltage switchgear and controlgear.
Part 3: switches, disconnectors, switch-disconnectors
and fuse-combination unit.

EN 60529

Degrees of protection provided by enclosure.

VERSION



Surface mounting

OUTSTANDING HEAT AND FIRE RESISTANCE

The technopolymer used for Heavy Duty Isolators guarantees an excellent heat and fire resistance: Glow Wire 960°C according to EN 60695-2-1; 5VA according to UL94.

OUTSTANDING IMPACT RESISTANCE

This material guarantees an excellent mechanical resistance to impacts. The impact resistance of the casings is higher than 20J (IK10) according to EN50102, even under limit temperature conditions (-40°C +60°C).

RESISTANCE TO ATMOSPHERIC AGENTS

The structure and materials used also make HD ISOLATOR a product suited for the most extreme environmental conditions. The special silicon gasket and the IP65 degree guarantees an excellent seal against the entry of solid objects or liquids into the casings even after a long term installation.

TECHNICAL CHARACTERISTICS

Polarity:	2P-3P-3P+N
Rated current:	20A-32A-40A
Protection degree:	IP65
Operating temperature according to the reference standard:	-5°C +40°C
Min-Max. operating temperature:	-40°C +60°C
Material:	High performance engineering plastic
IK degree:	IK10
Glow wire test:	960°C
Self extinguishing UL94:	5VA
Colour:	Grey RAL7004

3P+N with late break early make neutral pole.

Padlockable handle.

Equipped with door locking.

Outstanding resistance to UV radiation, exceptional reliability under environmental stress and use at both low and high ambient temperatures (-40°C +60°C).

BEHAVIOUR WITH CHEMICAL AND ATMOSPHERIC AGENTS

Saline solution	Acids		Bases		Solvents				Mineral oil	UV rays
	Concentrated	Diluted	Concentrated	Diluted	Hexane	Benzol	Acetone	Alcohol		
Resistant	Limited Resistance	Resistant	Resistant	Resistant	Not Resistant	Not Resistant	Not Resistant	Limited Resistance	Resistant	Resistant

For specific substances please contact our technical service.

■ CABLE INLETS

Heavy duty engineering plastic insulated enclosure 2, 3, 4 poles

Size	Rated current (A)	Nr of poles	Enclosure dimensions	Cable entries		
1	20	2-3-4	190x115x128	Top	-	Blank side (°)
				Bottom	2xM25+1xM20	Threaded entries 2xM32
				Rear	-	Blank side (°)
1	32-40	2-3-4	190x115x128	Top	-	Blank side (°)
				Bottom	2xM32+1xM20	Threaded entries 2xM32
				Rear	-	Blank side (°)

(°) Perforated or threaded entries on request.

■ APPLICATION EXAMPLES

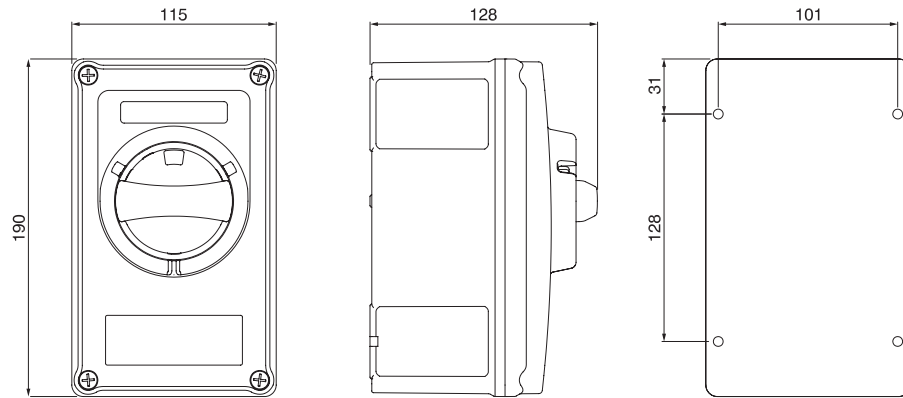


■ TECHNICAL DATA SWITCH-DISCONNECTORS 2P,3P,3P+N

				20A	32A	40A
Rated insulation voltage	Ui	VAC		690	690	690
Rated impulse withstand voltage	Uimp	kV		4	4	4
Thermal current	Ith/Ithe	A		30	40	40
IEC rating – Ie	AC21A Resistive loads, including moderate overloads	415V	A	20	32	40
		500V	A	20	32	32
		690V	A	20	32	32
	AC22A Mixed resistive and inductive loads, including moderate overloads	415V	A	20	32	40
		500V	A	20	32	32
		690V	A	20	32	32
	AC23A Switching of motor loads or other highly inductive loads (3 phase / 3 pole)	415V	A	20	32	35
		500V	A	20	25	25
		690V	A	20	25	25
	AC3 Squirrel-cage motor: starting, switching off motor during running (3 phase / 3 pole)	400V	A	-	28.5	28.5
		690V	A	12	20	20
Rated short time withstand current	Icw (1s)	A		400	400	400
Conditional short circuit current	Ip	KAeff		10	10	10
Associate fuse size for conditional short circuit current - Type gG		A		20	32	40
Flexible wire		mm ²		1.5-10	1.5-10	1.5-10
Rigid wire		mm ²		1.5-16	1.5-16	1.5-16

■ DIMENSIONS - HEAVY DUTY THERMOPLASTIC INSULATED ENCLOSURE

2, 3, 4 POLES 20A, 32A, 40A



(Dimensions in mm)

ISOLATORS-HD Series

■ HEAVY DUTY THERMOPLASTIC INSULATED ENCLOSURE 2, 3, 3P+N POLES - SURFACE MOUNTING 20A÷40A

306x226x115 mm



	Poles	IP degree		EMERGENCY SWITCHING 	GENERAL USE 
20A	2	IP66	1/12	590.JEM2002	590.JGE2002
	3			590.JEM2003	590.JGE2003
	3P+N			590.JEM2005	590.JGE2005
32A	2	IP66	1/12	590.JEM3202	590.JGE3202
	3			590.JEM3203	590.JGE3203
	3P+N			590.JEM3205	590.JGE3205
40A	2	IP66	1/12	590.JEM4002	590.JGE4002
	3			590.JEM4003	590.JGE4003
	3P+N			590.JEM4005	590.JGE4005

 Package/Bulk Pack

- 3P+N version with late break and early make neutral pole.
- Equipped with door locking.
- Switch disconnectors units suitable as spare parts available in the general catalogue.



Available also in EX versions. See ISOLATORS-EX catalogue.

	Padlockable handle in one position (OFF).
	Padlockable handle in two positions (ON/OFF).
OFF position = 3 padlocks	
ON position = 1 padlock	

AUXILIARY CONTACT - DISCONNECTORS 2P, 3P, 4P - 20A-40A



Description		
NC contact	10	590.PL004001
NO contact	10	590.PL004002

□ Package/Bulk Pack

- Max 1 auxiliary contact thermoplastic insulated enclosure.
- Max 2 auxiliary contacts alluminium enclosure.
- Break before main contacts.

AUXILIARY CONTACT - DISCONNECTORS 2P, 3P, 4P - 63A-80A



Description		
NC contact	10	590.PL004003
NO contact	10	590.PL004004

□ Package/Bulk Pack

- Max 2 auxiliary contacts.
- Break before main contacts.

AUXILIARY CONTACT - DISCONNECTORS 3, 4 POLES 100A-160A ISOLATORS 6P, 8P - 16A ÷ 160A - PHOTOVOLTAIC/DC DISCONNECTORS



Description		
1 NO/NC contact	1/10	590.PL005

□ Package/Bulk Pack

- Max 2 auxiliary contacts.
- Break before main contacts.

AUXILIARY CONTACT - DISCONNECTORS 3, 4 POLES - 200A-1600A

200A-250A

315A-400A-500A-800A-
1000A-1250A-1600A

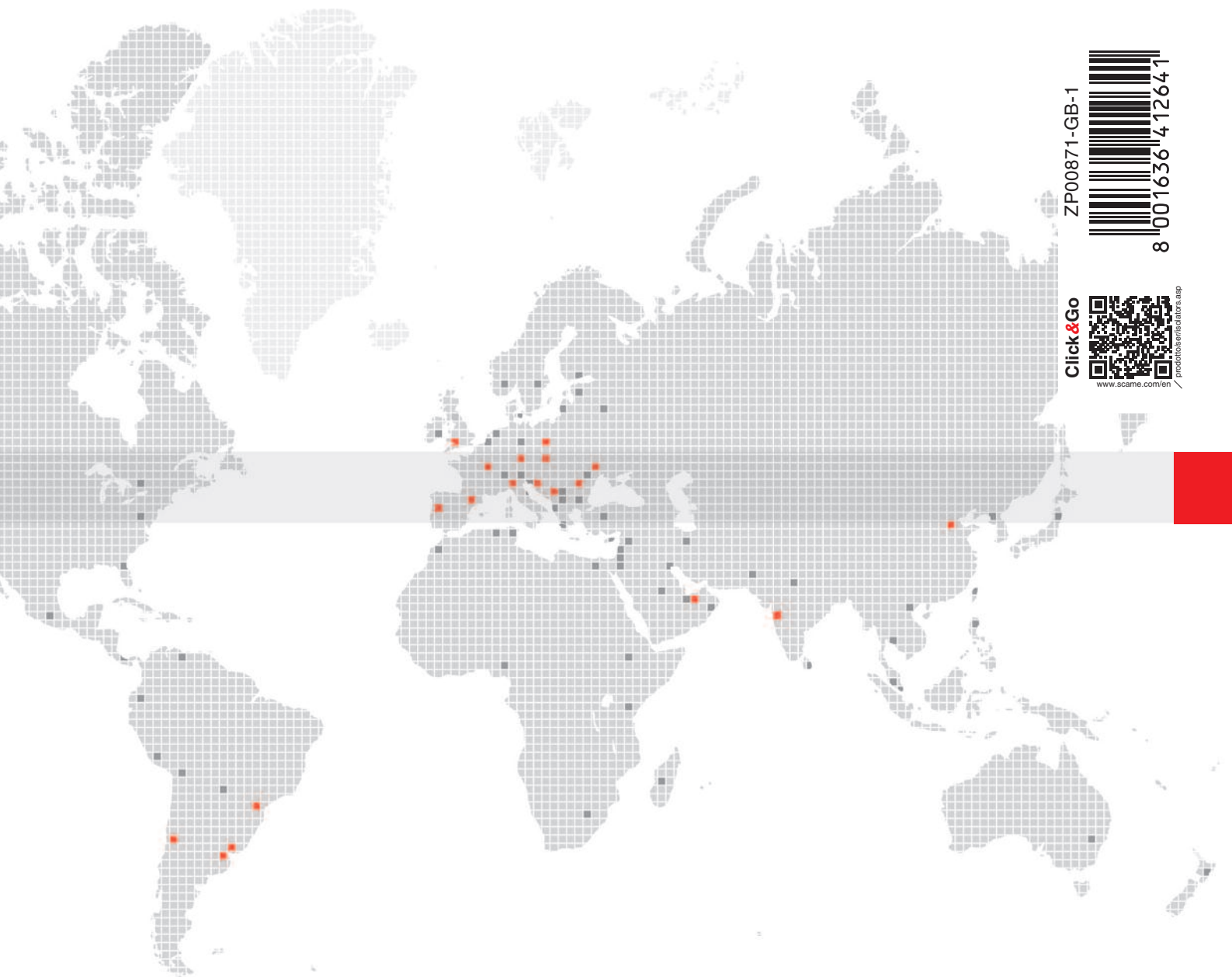
630A



Description				
1 NO/NC contact	1/10	590.PL006011	590.PL006012	590.PL006013
2 NO/2NC contact	1/10	590.PL006021	590.PL006022	590.PL006023

□ Package/Bulk Pack

- Max 2 auxiliary contacts (2NO/2NC code).
- Break before main contacts.



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