

Enclosed switch
disconnectors



Disconnecter switches



«A complete range of enclosed switch-disconnector solutions adapted to every particular application environment»

Electrical engineering design

Design of machines, production lines and ventilation systems are an essential part of industrial installations. Many accidents directly related to the use of machines can be avoided with adequate engineering, installation and maintenance procedures. European standard EN 60204 concerns machines electrical safety

and harmonizes legislation across Europe. A good electrical design should ensure that is possible to operate the control system, perform switching maneuvers and carry maintenance activities without endangering operator safety. Visibility and easy recognition of the safety elements is essential for this purpose. Industrial facilities must have

devices to disconnect power supply and they must offer the ability to padlock the handle in the off position to avoid the risks associated with unforeseen energy restoration. This feature is particularly necessary when the operator intervention point is distant from the power disconnection point.

Product overview

IS Series

Standard range for industry
Safety switch application.



16-63A
Plastic enclosure



100-250A
Sheet steel enclosure

Stainless-steel Series

Dedicated range for hygienic and
highly corrosive environments.



16-125A
Stainless-steel
enclosure

Aluminium Series

Heavy duty industrial and
infrastructure environments.



16-250A
Aluminium enclosure



F-Protec Series

Complete range of Fire rated
switch disconnectors.



25-250A
F-300 and F-400
Aluminium enclosure

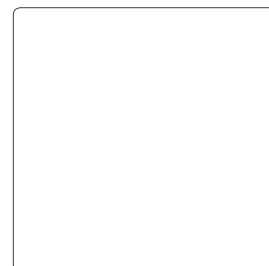


25-250A
F-600
Steel enclosure

Enduring safety

Switch-disconnectors in industrial installations must withstand loads with peak inrush currents during Start up operations. In the course of Stop operations on load breaking also entails a great dynamic effort on the switch contacts. Facing short circuit conditions does require high thermal resistance to guarantee

that circuit isolation characteristics are safeguarded. Compliance with IEC 60947-3 standard means that switch-disconnectors can cope with the application demanding requirements as they have successfully passed the test sequence required by the standard.



Enclosed safety switches IS Series



*«Innovative design that guarantees safety
on your industrial installations»*

On-Off safety switches from the IS series are multipole manual operated enclosed switches with padlockable handle. To ensure maximum safety on machinery equipment it is a good practice to install a command running standard start-stop operations detached from the safety switch-disconnector used during service and maintenance operations.

Disconnectors range covers from 12 up to 250A mounted in four different enclosure sizes.

According to standards

- IEC 60947-3
- EN 60529

General characteristics

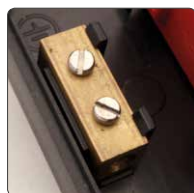
- IP65 protection
- Safety padlockable handle
- Interlock system prevents enclosure opening when the switch is not in "0" position.
- Earth terminal
- Switch easy base mounting system.
- Possibility to include up to 4 auxiliary contacts
- Gold plated auxiliary contacts for harsh environments upon request



General characteristics

Plastic enclosure

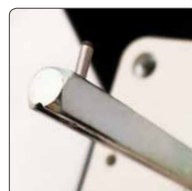
Switches up to 63A use plastic boxes that are lightweight and easy to install. They are suitable for indoor and outdoor use being appropriate for humid environments.



Earthing terminal



Large wiring space



Interlock in position I



Lateral access to terminals



Padlockable handle



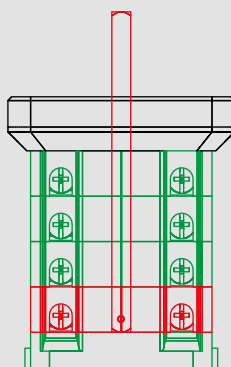
Easy opening knockouts



Integrated joint

Modularity

We can increase number of contact blocks and auxiliaries by stacking them upwards in such a way that wiring space and terminal access is not compromised. No need to increase enclosure width on 6/8P switches.

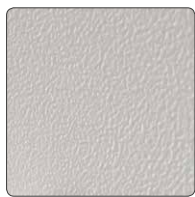


Reliability

Auxiliary contacts are operated by the same shaft as power contacts, no risk of clipping flange breakups between auxiliaries and main contacts. Even in the case of contact welding, auxiliary contacts will always indicate according to power contacts.

Sheet steel enclosure

Switches from 100A up to 250A are mounted in steel sheet enclosures with a surface treatment that provides corrosion resistance. Fixing cut outs for quick and easy installation in any type facility.



Texturised epoxy treatment



Protection degree IP65

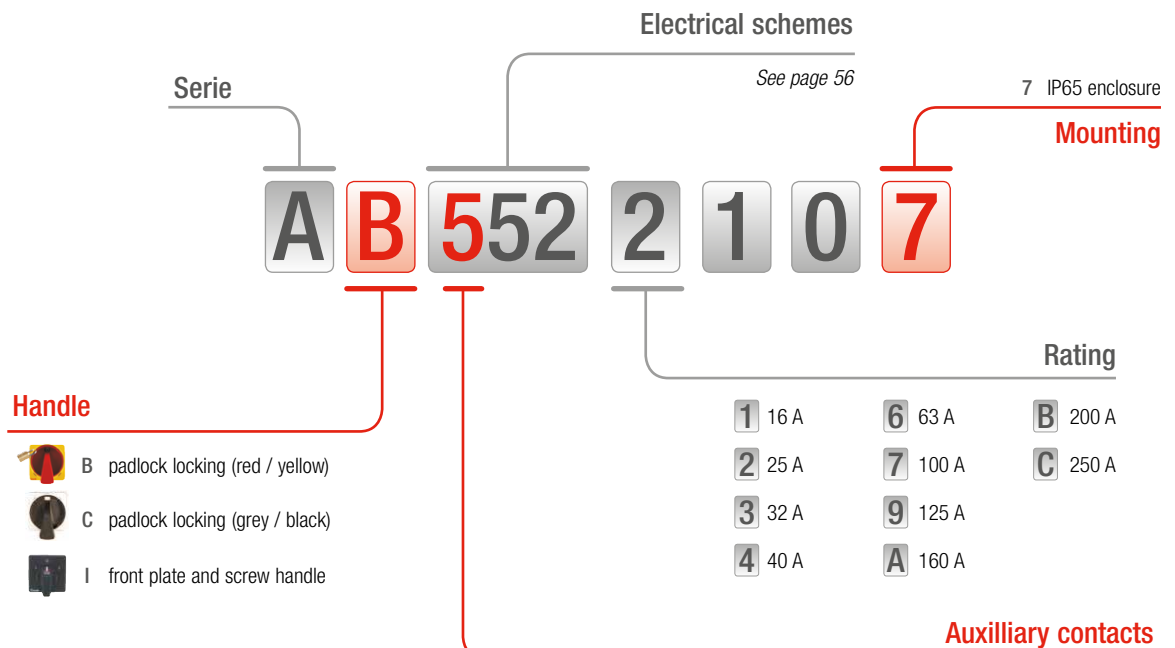


Cable gland plate



Door interlock

Reference system

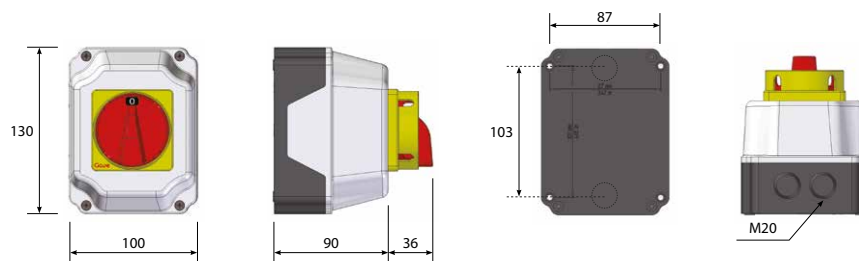


- A 1 simultaneous auxiliary contact (close at the same time with main contacts)
- D 2 simultaneous auxiliary contacts (close at the same time with main contacts)
- G 2 simultaneous auxiliary contacts 1NO+1NC (only on-off switches)

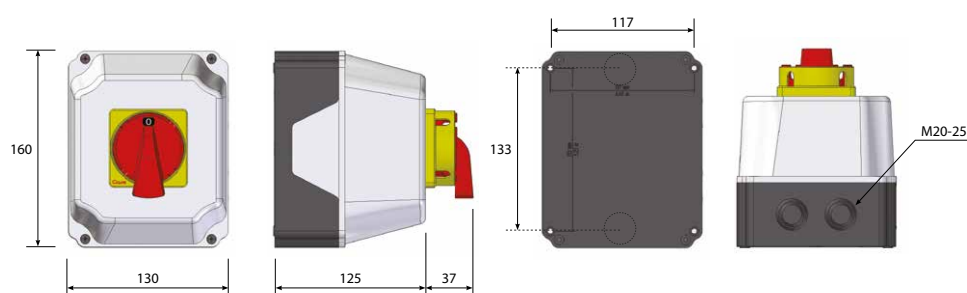
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Dimensions

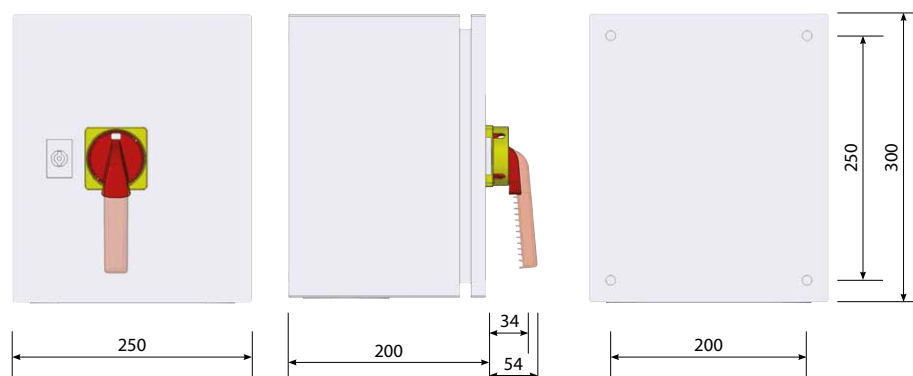
Enclosure size E0



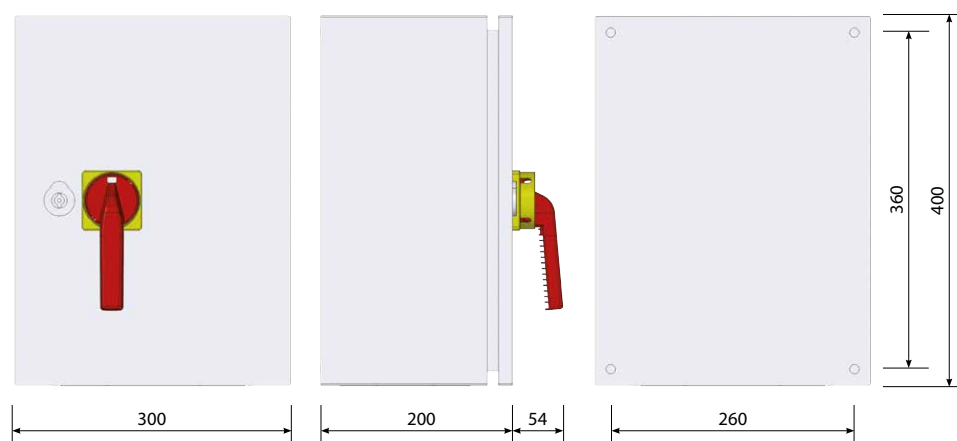
Enclosure size E1



Enclosure size E2







Enclosure size E3



Technical data

Characteristic			16A	25A	32A	40A	63A	100A	125A	160A	200A	250A
Thermal rating	Ith A		20	30	40	50	70	100	125	160	200	250
Max. fuse protection (gG-aM)	In A		25	25	40	40	80	125	125	160	200	250
Operating voltage	Ue V~		690	690	690	690	690	690	690	690	690	690
Operational rating	Ie A		16	25	32	40	63	100	125	160	200	250
Wire section	Flexible	mm ²	2,5 - 6	2,5 - 6	10 - 16	10 - 16	16 - 50	16 - 50	16 - 50	70	95	120
		AWG	10	10	6	6	6 - 1	6 - 1	6 - 1	-	-	-
Torque			Nm	1,6	1,6	2	2	3,5	3,5	3,5	-	-
Connection screws				M4	M4	M5	M5	M8	M8	M8	M8	M8
AC 22	kW	3 x 230V	4	7,5	7,5	11	22	30	30	37	45	55
	Mixed load kW	3 x 400V	7,5	11	15	22	30	45	55	75	90	110
	0,65 <cosØ <0,95 kW	3 x 500V	11	15	18,5	22	37	55	75	90	110	132
AC 23	kW	3 x 230V	3	4	5,5	7,5	15	18,5	18,5	30	38	-
	Motor load VA kW	3 x 400V	5,5	7,5	11	18,5	22	30	37	52	65	-
	0,45 <cosØ <0,65 kW	3 x 500V	7,5	11	15	22	30	37	45	65	80	-

Maximum cells number

																	
Switch size	Enclosure size	E0				E1				E2				E3			
	Aux. cont. Cells num.	0	1	2	3	0	1	2	3	0	1	2	3	0	1	2	3
Switch cells	D0	12-16-25A	5	-	-	-	8	-	-	-	11	-	-	-	-	-	-
	D1	25A	4	2	1	1	7	5	4	3	9	7	6	5	-	-	-
		32A	4	2	1	1	7	5	4	3	9	7	6	5	-	-	-
		40A	2	2	1	1	7	5	4	3	9	7	6	5	-	-	-
	D2	63A	-	-	-	-	4	3	2	2	6	5	4	4	6	5	4
		100-125A	-	-	-	-	-	-	-	-	6	5	4	4	6	5	4
	D3	160-250A	-	-	-	-	-	-	-	-	2	2	2	1	3	3	2





GRP enclosed switches



Glass reinforced polyester enclosures are an adequate option on those installations where we need high resistance to corrosion and chemical attack but not compromising insulation and impact resistance. Transparent polycarbonate cover can also be used on applications that require regular visual inspection.

Standard references



3 Poles

Reference		Enclosure		Rating
 Handle	 Handle	Size	Material	
AB5521007	AC5521007	E0	Plastic	16A
AB5522107	AC5522107	E0	Plastic	25A
AB5523107	AC5523107	E0	Plastic	32A
AB5524107	AC5524107	E0	Plastic	40A
AB5526107	AC5526107	E1	Plastic	63A
AB5527107	AC5527107	E2	Metal	100A
AB5529107	AC5529107	E2	Metal	125A
AB552A107	AC552A107	E2	Metal	160A
AB552B107	AC552B107	E2	Metal	200A
AB552C107	AC552C107	E2	Metal	250A

4 Poles

Reference		Enclosure		Rating
 Handle	 Handle	Size	Material	
AB5531007	AC5531007	E0	Plastic	16A
AB5532107	AC5532107	E0	Plastic	25A
AB5533107	AC5533107	E0	Plastic	32A
AB5534107	AC5534107	E0	Plastic	40A
AB5536107	AC5536107	E1	Plastic	63A
AB5537107	AC5537107	E2	Metal	100A
AB5539107	AC5539107	E2	Metal	125A
AB553A107	AC553A107	E2	Metal	160A
AB553B107	AC553B107	E2	Metal	200A
AB553C107	AC553C107	E2	Metal	250A

6 Poles

Reference		Enclosure		Rating
 Handle	 Handle	Size	Material	
AB5561007	AC5561007	E0	Plastic	16A
AB5562107	AC5562107	E0	Plastic	25A
AB5563107	AC5563107	E0	Plastic	32A
AB5564107	AC5564107	E1	Plastic	40A
AB5566107	AC5566107	E1	Plastic	63A
AB5567107	AC5567107	E2	Metal	100A
AB5569107	AC5569107	E2	Metal	125A
AB556A107	AC556A107	E3	Metal	160A
AB556B107	AC556B107	E3	Metal	200A
AB556C107	AC556C107	E3	Metal	250A