



Zones 1, 2, 21 and 22

PROVIDE SAFETY ATEX & IECEX
FOR THE ELECTRICAL SYSTEM

ATEX ENCLOSED SAFETY SWITCHES



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iHATHOR EX ENCLOSED SAFETY SWITCH ATEX & IECEX SERIES

Robust and Easy to Install



Example 25A with standard selector



Example 180A with emergency selector

➔ [FOR MORE INFORMATION CLICK HERE](#)

ADVANTAGES

- It is impossible to start the machine when working on it thanks to the mechanical blocking of the disconnecter.
- It gives a total block.
- It's a necessary device in order to carry out maintaining, cleaning or overhauling.
- Enclosure is made in AISI 316L stainless steel for marine or highly corrosive places.

Atex e IECEx enclosed isolation switch with lid secured quickly by quarter turn of captive screw, available in currents 25A, 40A, 80A and 180A. Allows work with a machine to safely maintain, clean and overhaul it as long as the switch is in the OFF position. It's made up of two components:

It's made up of two components:

- The control component is a selector, which allows the current to go through the circuit or not. The ON position (1) allows the current, so blocks access to the machine through the mechanical blocker. The OFF position (0) blocks the current, to allow any work on the machine to be carried out.
- The isolation module allows the current to go through the circuit when the selector is in the ON position, and keep the current when the selector is in the OFF one.

This kind of switch is commonly used in any industry which uses machines, because the electrical circuits and tri-phase asynchronous motors need the energy supply and the installation kept separate in places considered as potentially explosive, such as zones I, 2, 21 and 22.

The switch is protected by a stainless steel AISI 316L enclosure, specifically designed, waterproof, antirust and with IP66 protection degree. It has a protection "Ex e" and "Ex d", which allows use in zones with a high explosion risk.

iHATHOR EX ENCLOSED SAFETY SWITCH ATEX & IECEX SERIES

FEATURES

The Ex switch rated current is between 25 and 180A.

It can work between two temperature ranges, which give it a higher use capacity.

- $-20^{\circ}\text{C} \leq T_a \leq 60^{\circ}\text{C}$
- $-20^{\circ}\text{C} \leq T_a \leq 40^{\circ}\text{C}$

The Ex enclosure has:

- The joint between the cover and body, is designed to secure an IP66 degree protection.
- The selector has an IP65 degree protection.
- It's designed with stainless steel AISI 304L.
- It includes two cable glands with "Ex e" protection in either M25 nickel plated brass or in stainless steel.
- It has four wall brackets.
- It has "Ex e" and "Ex d" protection, for use it in zones 1, 2, 21 and 22 with explosive atmospheres with dust and gas.



PROTECTION MODE

This equipment is certified for use in potentially explosive atmospheres in 1, 2, 21 and 22 zones and it has "Ex e" and "Ex d" (protection).

Atex mark:

- II2G Ex d e IICT6/T5 Gb
- II2D Ex tb IIIC T85°C / T I 100°C Db
- Certificate number: LOM14ATEX2082

IECEX mark:

- IECEX LOM 18.0001X
- Ex d e IICT6/T5 Gb
- Ex tb IIIC T85°C / T I 100°C Db

OPTIONS

- There are two kinds of Ex selector, one normal and the other an emergency selector, in red and yellow.
- Choice of poles between 3 poles, 3 poles + neutral, 4 poles and 6 poles.
- Possibility of including auxiliary contacts.
- Enclosure is made in AISI 316L stainless steel for marine or highly corrosive places.
- Ex cable glands available in any size and thread.

NORMATIVE

Atex directive and regulation:

- Atex directive 2014/34/EU
- EN 60079-0:2012
- EN 60079-1:2007
- EN 60079-7:2015
- EN 60079-31:2010

IECEX regulation:

- IEC 60079-0:2011
- IEC 60079-1:2006
- IEC 60079-7:2015
- IEC 60079-31:2013

Enclosure regulation:

- IP regulation (IP65): IEC 60529
- IK regulation (IK10): IEC 62262

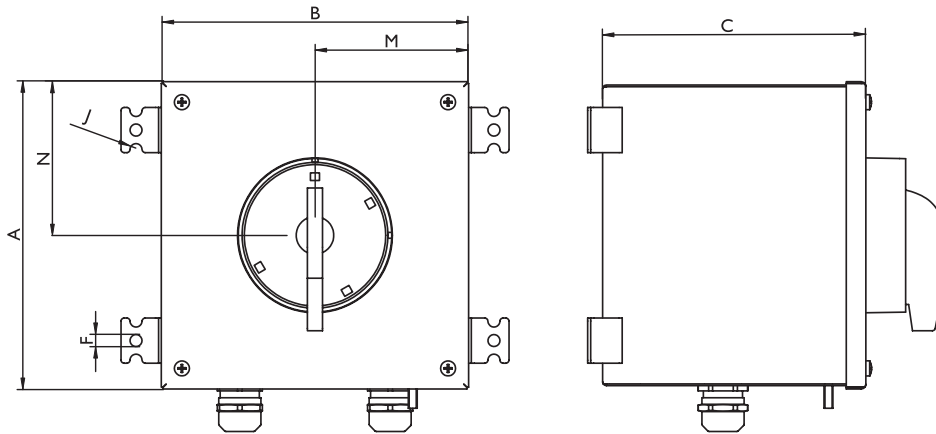
Low voltage directive and regulation:

- Directive 2014/35/EU
- EN 61439-1:2011
- EN 61439-2:2011

iHATHOR EX ENCLOSED SAFETY SWITCH ATEX & IECEX SERIES

BLUEPRINT AND DIMENSIONS

The planes are the same for all models, even if the measurements change.



10
YEARS

GUARANTEE
FOR STAINLESS
ANTICORROSIVE

5
YEARS

GUARANTEE
FOR MECHANICAL
PARTS

ATEX E IECEX iHATOR SAFETY AND ISOLATION SWITCH IN BOX - DIMENSIONS (mm)

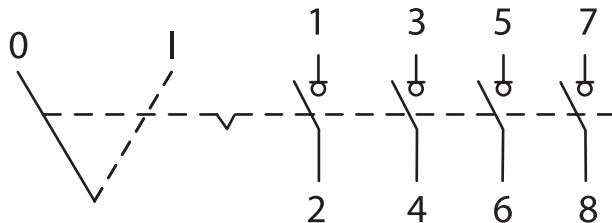
25A							
	A	B	C	F	J	N	M
3P	175	150	110	D10	R5	87,5	75
4P	175	150	110	D10	R5	87,5	75
3P+N	175	150	110	D10	R5	87,5	75
6P	175	150	150	D10	R5	87,5	75
40A							
	A	B	C	F	J	N	M
3P	200	200	175	D10	R5	100	100
4P	200	200	175	D10	R5	100	100
3P+N	200	200	175	D10	R5	100	100
6P	200	200	210	D10	R5	100	100
80A							
	A	B	C	F	J	N	M
3P	250	250	200	D10	R5	125	125
4P	250	250	200	D10	R5	125	125
3P+N	250	250	200	D10	R5	125	125
6P	250	250	240	D10	R5	125	125
180A							
	A	B	C	F	J	N	M
3P	350	275	250	D10	R5	175	137,5
4P	350	275	250	D10	R5	175	137,5
3P+N	350	275	250	D10	R5	175	137,5
6P	350	275	300	D10	R5	175	137,5



iHATHOR EX ENCLOSED SAFETY SWITCH ATEX & IECEX SERIES

ELECTRICAL DIAGRAM

The electrical diagram is the following in case you have chosen four poles.



REFERENCES

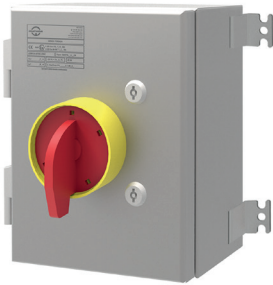
This motor protection includes some different and as consequence of this we have created the next table to know the equipment's code.

Example safety switch in box with 25A rated current, handle in red colour, with 4 poles and one auxiliary contact normally open and another normally closed: SSIS/25-R-4P-NONC-EX

TYPE	RATED CURRENT (A)	HANDLE'S COLOUR SWITCH	NUMBER OF POLES	AUXILIARY CONTACTS	EX
SSIS	To choose one	To choose between the black and red one	To choose between 3 poles, 3 poles + neutral, 4 poles and 6 poles	To choose one. In case of want nothing, not write	EX
	25 40 80 180	R N	3P 3PN 4P 6P	NONC 2NC 2NO NC NO	

IHATHOR EX ENCLOSED SWITCH DISCONNECTOR ATEX & IECEX SERIES

Robust and Easy to Install



Example 25A with emergency selector



Example 180A with standard selector

➔ [FOR MORE INFORMATION CLICK HERE](#)

ADVANTAGES

- It is impossible to start the machine when working on it thanks to the mechanical blocking of the disconnecter.
- It gives a total block.
- It's a necessary device in order to carry out maintaining, cleaning or overhauling.
- Enclosure is made in AISI 316L stainless steel for marine or highly corrosive places.

Atex e IECEX enclosed switch disconnecter the enclosure has a hinged door, with door lock, made in stainless steel grade AISI 304L available in currents 25A, 40A, 80A and 180A. The cover is interlocked and can not be opened when switch is on. Suitable for outdoor and indoor use.

Allows work with a machine to safely maintain, clean and overhaul it as long as the switch is in the OFF position. It's made up of two components:

- The control component is a selector, which allows the current to go through the circuit or not. The ON position (I) allows the current, so blocks access to the machine through the mechanical blocker. The OFF position (0) blocks the current, to allow any work on the machine to be carried out.
- The isolation module allows the current to go through the circuit when the selector is in the ON position, and keep the current when the selector is in the OFF one.

This kind of switch is commonly used in any industry which uses machines, because the electrical circuits and tri-phase asynchronous motors need the energy supply and the installation kept separate, in places considered as potentially explosive, such as zones I, 2, 21 and 22. The switch is protected by a stainless steel AISI 316L enclosure, specifically designed, waterproof, antirust and with IP66 protection degree. It has a protection "Ex e" and "Ex d", which allows use in zones with a high explosion risk.

IHATHOR EX ENCLOSED SWITCH DISCONNECTOR ATEX & IECEX SERIES

FEATURES

The Ex switch rated current is between 25 and 180A.

It can work between two temperature ranges, which give it a higher use capacity.

- $-20^{\circ}\text{C} \leq T_a \leq 60^{\circ}\text{C}$
- $-20^{\circ}\text{C} \leq T_a \leq 40^{\circ}\text{C}$

The Ex enclosure has:

- The joint between the cover and body, is designed to secure an IP66 degree protection.
- The selector has an IP65 degree protection.
- It's designed with stainless steel AISI 304L.
- It includes two cable glands with "Ex e" protection in either M25 nickel plated brass or in stainless steel.
- It has four wall brackets.
- It has "Ex e" and "Ex d" protection, for use it in zones 1, 2, 21 and 22 with explosive atmospheres with dust and gas.



PROTECTION MODE

This equipment is certified for use in potentially explosive atmospheres in 1, 2, 21 and 22 zones and it has "Ex e" and "Ex d" (protection).

Atex mark:

- II2G Ex d e IICT6/T5 Gb
- II2D Ex tb IIIC T85°C /T100°C Db
- Certificate number: LOM I7ATEX1011

IECEX mark:

- Ex d e IICT6/T5 Gb
- Ex tb IIIC T85°C/T100°C Db

OPTIONS

- There are two kinds of Ex selector, one normal and the other an emergency selector, in red and yellow.
- Choice of poles between 3 poles, 3 poles + neutral, 4 poles and 6 poles.
- Possibility of including auxiliary contacts.
- Enclosure is made in AISI 316L stainless steel for marine or highly corrosive places.
- Ex cable glands available in any size and thread.

NORMATIVE

Atex directive and regulation:

- Atex directive 2014/34/EU
- EN 60079-0:2012
- EN 60079-1:2007
- EN 60079-7:2015
- EN 60079-31:2010

IECEX regulation:

- IEC 60079-0:2011
- IEC 60079-1:2006
- IEC 60079-7:2015
- IEC 60079-31:2013

Enclosure regulation:

- IP regulation (IP65): IEC 60529
- IK regulation (IK10): IEC 62262

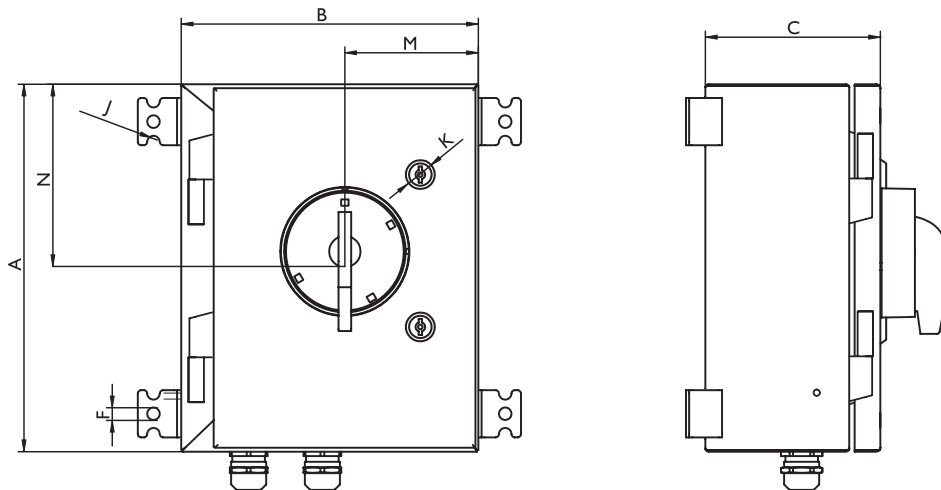
Low voltage directive and regulation:

- Directive 2014/35/EU
- EN 61439-1:2011
- EN 61439-2:2011

IHATHOR EX ENCLOSED SWITCH DISCONNECTOR ATEX & IECEX SERIES

BLUEPRINT AND DIMENSIONS

The planes are the same for all models, even if the measurements change.



10
YEARS

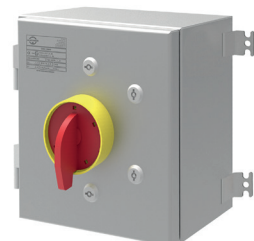
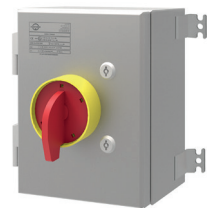
GUARANTEE
FOR STAINLESS
ANTICORROSIVE

5
YEARS

GUARANTEE
FOR MECHANICAL
PARTS

ATEX E IECEX IHATHOR SAFETY AND ISOLATION SWITCH IN CABINET - DIMENSIONS (mm)

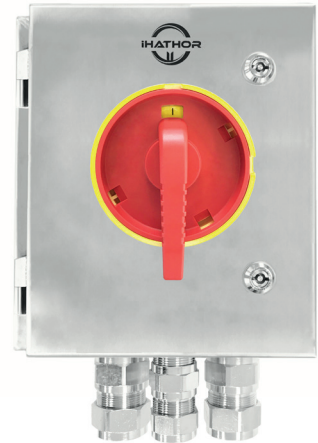
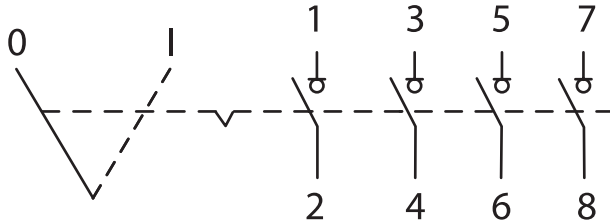
25A								
	A	B	C	F	J	K	N	M
3P	300	250	150	D10	R5	D27	150	125
4P	300	250	150	D10	R5	D27	150	125
3P+N	300	250	150	D10	R5	D27	150	125
6P	300	250	200	D10	R5	D27	150	125
40A								
	A	B	C	F	J	K	N	M
3P	270	270	200	D10	R5	D12	135	135
4P	270	270	200	D10	R5	D12	135	135
3P+N	270	270	200	D10	R5	D12	135	135
6P	270	270	250	D10	R5	D12	135	135
80A								
	A	B	C	F	J	K	N	M
3P	300	300	200	D10	R5	D12	150	150
4P	300	300	200	D10	R5	D12	150	150
3P+N	300	300	200	D10	R5	D12	150	150
6P	300	300	250	D10	R5	D12	150	150
180A								
	A	B	C	F	J	K	N	M
3P	350	320	250	D10	R5	D12	175	160
4P	350	320	250	D10	R5	D12	175	160
3P+N	350	320	250	D10	R5	D12	175	160
6P	350	320	300	D10	R5	D12	175	160



IHATHOR EX ENCLOSED SWITCH DISCONNECTOR ATEX & IECEX SERIES

ELECTRICAL DIAGRAM

The electrical diagram is the following in case you have chosen four poles.



REFERENCES

This motor protection includes some different and as consequence of this we have created the next table to know the equipment's code.

Example safety switch in cabinet with 40A rated current, handle in red colour; with 4 poles and one auxiliary contact normally open and another normally closed: SSIS/40-R-4P-NONC-EX-P

TYPE	RATED CURRENT (A)	HANDLE'S COLOUR SWITCH	NUMBER OF POLES	AUXILIARY CONTACTS	EX-P
SSIS	To choose one	To choose between the black and red one	To choose between 3 poles, 3 poles + neutral, 4 poles and 6 poles	To choose one. In case of want nothing, not write	EX-P
	25 40 80 180	R N	3P 3PN 4P 6P	NONC 2NC 2NO NC NO	EX-P

iHATHOR GRP SAFETY AND ISOLATION SWITCH ATEX & IECEX SERIES

Robust and Easy to Install



Example 16A



Example 80A



Example 25A



Example 40A



Example 180A

The GRP Ex safety and isolation switch, allows work with a machine to safely maintain, clean and overhaul it as long as the switch is in the OFF position.

The GRP Ex safety and isolation switch are made of glass fibre reinforced polyester "Ex e". All the metal elements are anti-corrosive rust proof. Concave-convex joints between the covers and bodies are designed to mount an air-foam silicone bar, which secure an IP66 degree of protection. Terminal boxes are used for dividing and connecting wires for various electrical apparatus and instruments in the circuits. Installation is certified for zones 1, 2, 21 and 22; with features of high corrosion protection, water-proof and dustproof, they can meet the requirements in chemical, petrochemical and marine industries.

Separately certified Ex load isolation switch module is mounted inside. It can be used to disconnect the power when there is maintenance, clean and repair in the circuit with frequency AC50/60Hz, rated voltage 230V and 690V, rated current 16~180A.

This kind of switch is commonly used in any industry which uses machines, because the electrical circuits and tri-phase asynchronous motors need the energy supply and the installation kept separate, in places considered as potentially explosive, such as zones 1, 2, 21 and 22.

➔ [FOR MORE INFORMATION CLICK HERE](#)

iHATHOR GRP SAFETY AND ISOLATION SWITCH ATEX & IECEX SERIES

CHARACTERISTICS

- Explosion protection: Zones 1, 2, 21 and 22.
- Degree of protection IP66.
- IECEx and Atex international certification.
- Switch is with interlock which is in the state of lock in, the switch is not turn on.
- Operation handle with padlock device.
- Utilization category: AC-23, AC-3.
- Enclosure features:
 - The enclosures of black are made of glass fibre reinforced polyester and concave-convex joints between the covers and bodies are designed to mount an air-foam silicone bar.
 - The entry may have polyamide, nickel-plated or stainless steel Ex cable glands. The unused entries must be sealed with the stopping plugs.



OPTIONS

- The Ex switch rated current is between: 18A, 25A, 40A, 80A and 180A.
- The switch has two models of selectors:
 - black operation handle is standard type
 - red/yellow operation handle is emergency stop type
- Choice of poles between 3 poles, 3 poles + neutral, 4 poles and 6 poles.
- Possibility of including auxiliary contacts.
- Atex cableglands:
 - polyamide
 - nickel-plated brass
 - stainless steel AISI 303L, AISI 304L or AISI 316L

ADVANTAGES

- It can be used to disconnect the power when there is maintenance, clean and repair in the circuit.
- Get a total stoppage of the machinery so that the necessary activities can be carried out without any risk to the operator.
- It is impossible to start the machine when working on it thanks to the mechanical blocking of the disconnecter.
- Boxes reinforced polyester Atex boxes with high corrosion protection, water-proof and dustproof.

iHATHOR GRP SAFETY AND ISOLATION SWITCH ATEX & IECEX SERIES

PROTECTION MODE

This equipment is certified for use in potentially explosive atmospheres in 1, 2, 21 and 22 zones and it has "Ex e" and "Ex d" (protection).

Atex mark:

- CML I9ATEX3303X
- II 2GD Ex db eb II CT6/T5 Gb

- Ex tb III T80°C/T95°C Db

IECEX mark:

- IECEX CML I9.0088X
- Ex db eb II CT6/T5 Gb
- Ex tb III CT80°C/T95°C Db

NORMATIVE

Atex directive and regulations:

- Atex directive 2014/34/UE
- EN 60079-0:2018
- EN 60079-1:2014
- EN 60079-7:2015
- EN 60079-31:2014

IECEX regulations:

- IEC 60079-0:2018
- IEC 60079-1:2014
- IEC 60079-7:2015
- IEC 60079-31:2014

Enclosure regulations:

- Degree of protection IP66

- Certificate numbers:

- IECEX CML I9.0088X
- CML I9 ATEX 3303X

- Protection type:

- II 2GD Ex db eb ib mb IICT5 Gb
- Ex ib tb IIIC T95°C Db

- Normative:

- Directive 2014/34/EU

- Operating temperature (ambience):

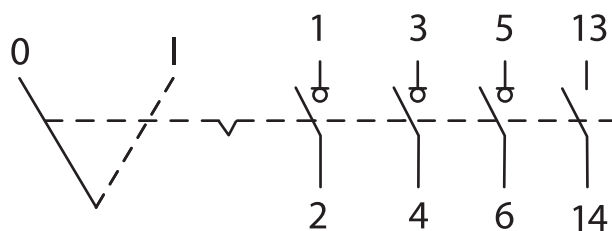
- $-40^{\circ}\text{C} < T_a < +40/55^{\circ}\text{C}$

Low voltage directive and regulation:

- Directive 2014/35/UE
- EN 61439-1:2011
- EN 61439-2:2011

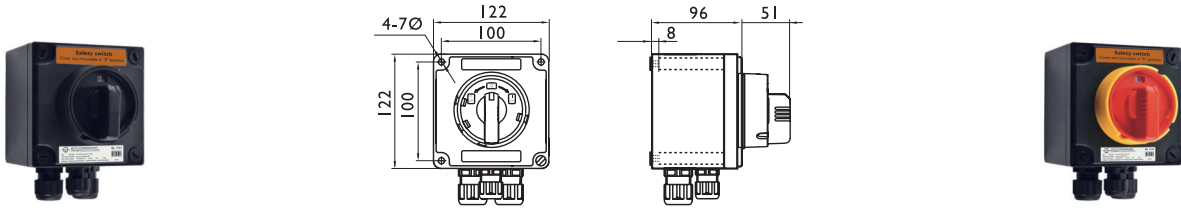
ELECTRICAL DIAGRAM

The electrical diagram is the following in case you have chosen four poles.



iHATHOR GRP SAFETY AND ISOLATION SWITCH ATEX & IECEX SERIES

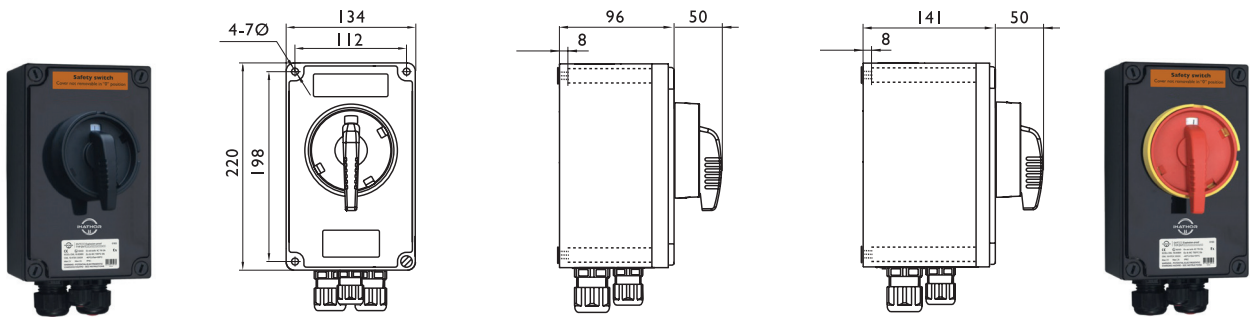
DIMENSIONS AND REFERENCES



Safety switch 16A - 3P

GRP SAFETY SWITCH - 16A

RATED CURRENT	VOLTAGE	TERMINAL	RATED INSULATION VOLTAGE	RATED IMPULSE WITHSTAND VOLTAGE	RATED SHORT-TIME WITHSTAND CURRENT (I _{cs})	RATED SHORT-TIME MARKING CAPACITY
Max. 16A	Max. 400V	2x2.5mm ²	690V	6KV	10KA	17KA

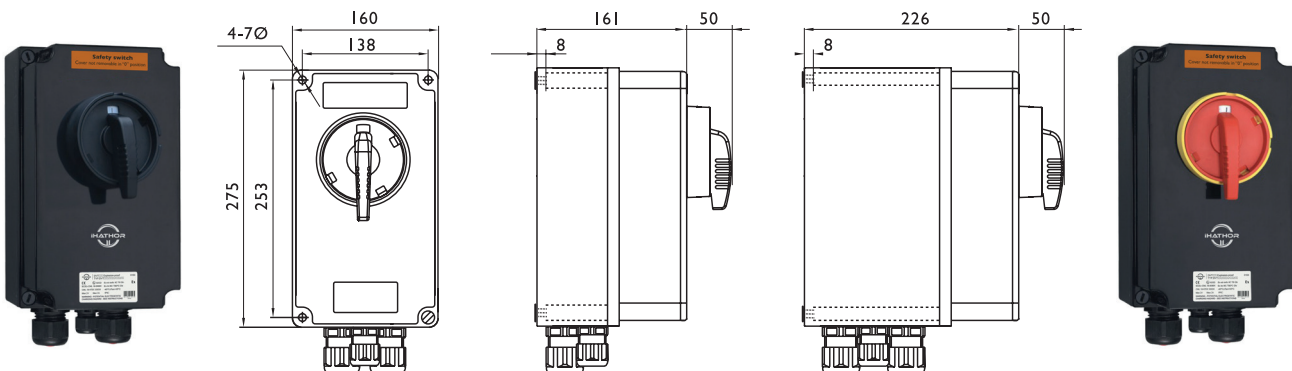


Safety switch 25A - 3P

Safety switch 25A - 6P

GRP SAFETY SWITCH - 25A

RATED CURRENT	TERMINAL	CAPACITY OF SWITCH	RATED INSULATION VOLTAGE	RATED IMPULSE WITHSTAND VOLTAGE	RATED SHORT-TIME WITHSTAND CURRENT (I _{cs})	RATED SHORT-TIME MARKING CAPACITY
Max. 25A	2x4mm ²	230V 25A 400V 25A 500V 20A 690V 16A	800V	6KV	3KA	10KA



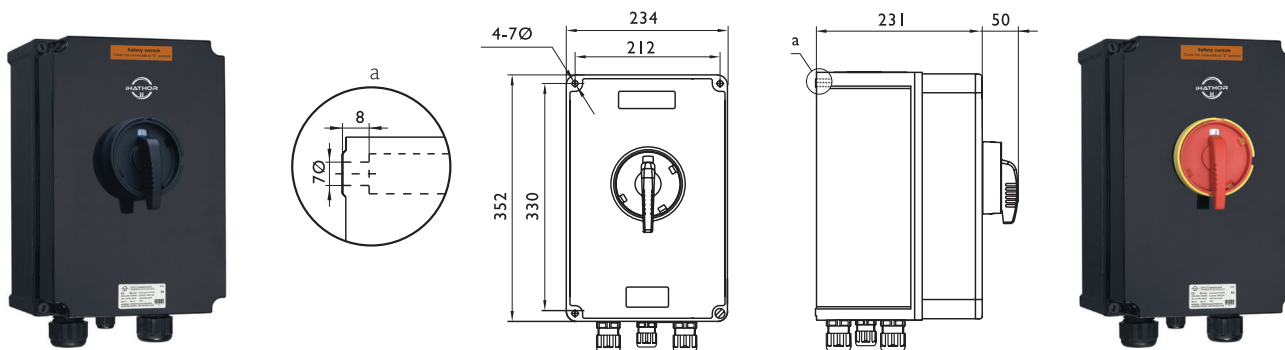
Safety switch 40A - 3P

Safety switch 40A - 6P

GRP SAFETY SWITCH - 40A

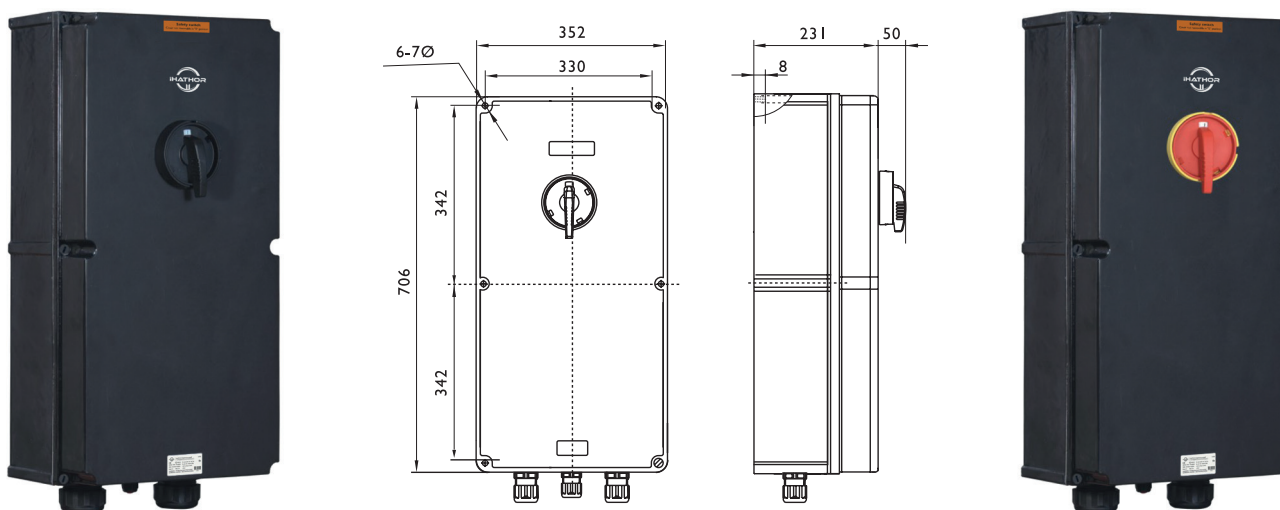
RATED CURRENT	TERMINAL	CAPACITY OF SWITCH	RATED INSULATION VOLTAGE	RATED IMPULSE WITHSTAND VOLTAGE	RATED SHORT-TIME WITHSTAND CURRENT (I _{cs})	RATED SHORT-TIME MARKING CAPACITY
Max. 40A	2x10mm ² 2x4mm ² (auxiliary)	230V 40A 400V 40A 500V 40A 690V 32A	800V	6KV	3KA	10KA

iHATHOR GRP SAFETY AND ISOLATION SWITCH ATEX & IECEX SERIES



Safety switch 80A - 3P | 6P

GRP SAFETY SWITCH - 80A						
RATED CURRENT	TERMINAL	CAPACITY OF SWITCH	RATED INSULATION VOLTAGE	RATED IMPULSE WITHSTAND VOLTAGE	RATED SHORT-TIME WITHSTAND CURRENT (Icw)	RATED SHORT-TIME MARKING CAPACITY
Max. 80A	1x35mm ² 2x4mm ² (auxiliary)	230V 80A 400V 80A 500V 80A 690V 63A	800V	6KV	10KA	17KA



Safety switch 180A - 3P

GRP SAFETY SWITCH - 180A						
RATED CURRENT	TERMINAL	CAPACITY OF SWITCH	RATED INSULATION VOLTAGE	RATED IMPULSE WITHSTAND VOLTAGE	RATED SHORT-TIME WITHSTAND CURRENT (Icw)	RATED SHORT-TIME MARKING CAPACITY
Max. 180A	1x50/70mm ² (125A) 1x120mm ² (180A) 2x4mm ² (auxiliary)	230V 180A 400V 180A 500V 150A 690V 125A	800V	6KV	10KA	17KA

Reference configuration, we have created the next table to know the equipment's code. Example: SSIS-GRP/25-R-4P-NONC-EX

TYPE	RATED CURRENT (A)	HANDLE'S COLOUR SWITCH	NUMBER OF POLES	AUXILIARY CONTACTS	EX
SSIS-GRP	To choose one	To choose between the black and red one	To choose between 3 poles, 3 poles + neutral, 4 poles and 6 poles	To choose one. In case of want nothing, not write	EX
	16 25 40 80 180	R N	3P 3PN 4P 6P	NONC 2NC 2NO NC NO	



The Atex safety and isolation switch, iHATHOR Series is installed in places considered as potentially explosive, such as zones I, 2, 2I and 22





➔ FOR MORE INFORMATION CLICK HERE

CUSTOMIZED SWITCHES SOLUTIONS iHATHOR

The customized manufacture of all safety and isolation switches iHATHOR is carry out with the most advanced technical methods and with the precision and consciousness of a craftsman. Therefore, it is not an accident that our company has been present in the market for many years: it is the result of hard work and effort by many people.

In iHATHOR we bear in mind that customers perceive the quality very clearly safety and useful solutions are what customers value most. Nowadays we have license to use the most exigents certifications. Our flexible manufacturing environment greatly reduces the costs associated with changeovers and small production lots.



ATEX SAFETY SWITCHES



UL 98 AND UL 508 SAFETY SWITCHES



SLOPED ROOF HYGIENIC SWITCHES



IECEX SAFETY SWITCHES





EMC SWITCHES
DISCONNECTORS

CORROSION RESISTANT
SWITCHES



WEATHERPROOF AND
DUST-TIGHT SWITCHES

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