





SPECIALLY DESIGNED FOR THE FOOD PROCESSING INDUSTRY

# ENCLOSED HYGIENIC SAFETY ISOLATORS



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#### WE PUT AT YOUR DISPOSAL

We offer over 50 years providing solutions to demanding customers who require very specific characteristics and behaviour according to the sector and their needs.

#### HIGH STANDARD OF **QUALITY AND SERVICES**

We only use materials provided by companies who offer the very **highest quality**, suitable and certified products. Our success is due to top quality assurance: ISO 9001, SGS, UL, TÜV, ISO 14000 and ISO45001.



#### **WHEREVER** YOU GO

We are committed to working closely with our customers, providing them with **exceptional service** and offering an advanced and extensive range of products with very competitive prices.

#### **CUSTOMIZE TOTALLY** YOUR SAFETY SWITCH

Our production systems can give custom-made solutions on demand. Every colour from RAL chart is available to be personalized. A variety of protection standards thanks to our own painting facilities.













#### **CONTACT US**

Confidentiality, reliability & quality

www.ihathor.com comercial@ihathor.com +34 945 601 381

ALSO ONLINE

#### Please contact our technical sales department

A team of professionals with high experience and ability to solve all your queries



#### *IHATHOR ENCLOSED HYGIENIC SAFETY ISOLATORS*



Examples



# Integral Sloping Roof Offers Additional Protection and Leads to Self-Draining of Liquids, Specially Designed for Food Industry

iHATHOR Hygienic Series is a full line of safety and isolation switches with integral sloping roof offers additional protection and leads to self-draining of liquids, specially designed for food industry. No openings, hinges where bacteria could lie, moreover the inclination of the roof prevents objects being placed on the surface and our vertical electro polished finish helps repel liquids and prevent virus and bacteria building up on the surface.

iHATHOR enclosed hygienic safety isolators on-load, are available from 20A to 1800A, a large range for solving the different necessity of market. Achieving an optimal design for facility it's installation and operation. Key on hand.

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#### *iHATHOR ENCLOSED HYGIENIC SAFETY ISOLATORS*



Hygienic safety switches installation where require special vigilance in compliance with their demanding regulations in places that require a high level of hygiene such as medical machinery, food industry, clean rooms, pharmaceutical industry,... iHATHOR hygienic safety switches are reliable and provide safety to your property and your personnel in addition to providing:

- Protection against overcurrent.
- Protection against circuit overloads.
- Protection against short circuiting.
- Protection against heat-generated damage.

Safety switches are designed to interrupt the power in the event of a single fault in the circuit. Custom solutions projects for small and large series. iHATHOR is certified UL. Nema 4x.

#### OPTIONS

- The most standard products are presented, options are available upon request.
- Option multiple of switch, n° of poles, current, aux. contacts,...
- Drills in base your needs.
- Option of different supports.
- Option of manufactured in different materials: stainless steel AISI 316L (enclosure maritime grade) or painted galvanized steel finish in RAL 7035 or another color.
- Design on IP67 or IP68 box.
- Possibility of Atex load switch.



- With electro-polished finish that helps dispel liquids and waterproof seal that prevents dirt and bacteria deposits.
- The monobloc manufacture gives total sealing and maximum resistance.
- No openings where bacteria could lie.
- Ready for installation
- Compact design.
- Possibilities in custom housing design.
- Versatility.
- Fast delivery time.
- Custom designs available.
- Quantity discount.



- Machinery Directive 2006/42/EC (previously 89/37/EC) Food machinery and cosmetic or pharmaceutic production.
- EHEDG Guideline Hygienic Design doc.13 machinery for open processes.
- DIN EN 1672-2:2006 for food industry machinery.
- IEC/EN 60947-3.
- IP66 Norm IEC EN 62208 and EN 60529.
- Maximum IK10 resistance Norm IEC62208 and IEC 62262.
- UE Directive of low voltage 2014/35/UE.
- Materials intended to come into contact with food, CE 1935/2004.
- Offhore, maritime grade IP66.
- UL Standard(s) Safety: UL508A- Industrial Control Panels, CSA C22.2 No.14-Industrial Control Equipment.





## iHATHOR ENCLOSED SAFETY ISOLATORS HYGIENIC BKP SERIES



Example safety switch standard



Example safety switch emergency

#### Available in a Wide Range of Currents from 20A Up 125A

iHATHOR enclosed hygienic safety isolators available in a wide range of currents from 20A up 125A. Is ideal for food handling facilities (clean rooms) or manufacturing processes which requires a high degree of hygiene. The European Hygienic Engineering & Design Group (EHEDG) has certified the compatibility of the safety switches with food processing systems.



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#### TECHNICAL INFORMATION

	IHATHOR EN	NCLOSED HYGIEN	IIC SAFETY	ISOLATOR	S - HYGIENI	C BKP SERIES	5		
ACCORDING TO VDE 0660, IEC/EN 609	47-3, IEC/EN 6094	17-5-I		20	25	40	63	80	125
Rated thermal current	lth		А	20	25	40	63	80	125
Rated thermal current enclosed	Ithe		А	20	25	40	63	80	110
Rated insulation voltage	Ui	Ui		690	690	690	690	690	1000
Rated impulse withstands voltage	Uimp	Uimp		6	6	6	6	6	8
Rated operational current AC	le	AC21A	А	20	25	40	63	80	125
Making capacity	leff	3×380-440V	А	160	190	300	370	440	850
Breaking capacity		3×220-240V	А	160	180	250	330	380	680
Breaking capacity	Breaking capacity 3x380-440V		А	160	180	250	330	380	680
Breaking capacity 3x660-690V		3×660-690V	А	80	110	170	190	220	420
Direct switching motors	AC3	3×400V	А	12	16	30	37	37	72
Direct switching motors	AC3	3×220-240V	kW	3	4	7,5	11	11	22
Direct switching motors		3×380-440V	kW	5,5	7,5	15	18,5	18,5	37
Direct switching motors		3×660-690V	kW	5,5	7,5	15	18,5	18,5	30
Main & safety switch	AC23	3×400V	А	16	20	32	45	45	85
Main & safety switch	AC23A	3×220-240V	kW	4	5,5	9	15	15	30
Main & safety switch	AC23B	3×380-440V	kW	7,5	10	16	22	22	45
Main & safety switch		3×660-690V	kW	5,5	7,5	15	18,5	18,5	37
Rated conditional short- circuit current			kAeff	10	10	10	10	10	10
Max. fuse size	gL (gG)		А	25	35	50	63	80	125
Rated short-time withstand current 1s.	lcw		А	250	300	500	600	850	1500
Mechanical life			×10 <sup>3</sup>	200	200	200	100	100	100
CONNECTING CAPACITY					·				
Solid or stranded cable			mm²	0,5	5-10	1-	25	4-	-50
Solid or stranded cable			AWG	20	0-8	16	5-4	10-0	(10)
Flexible cable			mm²	0,	5-6	4-16		10	-35
Flexible cable			AWG	20-10		16-6		8	-2
Size of terminal screw				M	13,5	P	15	P	16
Tightening torque			Nm	0,8	3-1,7	2-4		3,5-4,5	



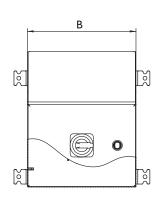
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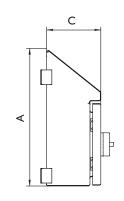
#### **ENCLOSED SAFETY ISOLATORS HYGIENIC BKP SERIES**



#### PLANS AND REFERENCES









#### HYGIENIC BKP SERIES | 20A-25A-40A

HYGIENIC BKP SERIES (20A - 25A - 40A)		DIMENSIONS (mm)								
REFERENCES	HEIGHT (A)	WIDTH (B)	DEPTH (C)	CURRENT	N° POLES					
BKP20A3PH	380	300	150	20	3					
BKP20A4PH	380	300	150	20	4					
BKP25A3PH	380	300	150	25	3					
BKP25A4PH	380	300	150	25	4					
BKP40A3PH	380	300	150	40	3					
BKP40A4PH	380	300	150	40	4					

#### HYGIENIC BKP SERIES | 63A-80A

HYGIENIC BKP SERIES (63A - 80A)									
REFERENCES	HEIGHT (A)	WIDTH (B)	DEPTH (C)	CURRENT	N° POLES				
BKP63A3PH	380	300	150	63	3				
BKP63A4PH	380	300	150	63	4				
BKP80A3PH	380	300	150	80	3				
BKP80A4PH	380	300	150	80	4				

#### HYGIENIC BKP SERIES | 100A-125A

HYGIENIC BKP SERIES (100A - 125A)	DIMENSIONS (mm)								
REFERENCES	HEIGHT (A)	WIDTH (B)	DEPTH (C)	CURRENT	N° POLES				
BKP100A3PH	380	300	150	100	3				
BKP100A4PH	380	300	150	100	4				
BKP125A3PH	380	300	150	125	3				
BKP125A4PH	380	300	150	125	4				





## iHATHOR ENCLOSED SAFETY ISOLATORS HYGIENIC HO SERIES



Example

#### Rated Breaking Current of Up to 8 Times the Rated Operational Current

Enclosed hygienic safety isolators on-load Hygienic H0 Series, are available from 125A for 250A, versions under request on order. Rated breaking current of up to 8 times the rated operational current, with ability to establish and support short circuit currents up to 100kA. Is ideal for food handling facilities (clean rooms) or manufacturing processes which requires a high degree of hygiene. The European Hygienic Engineering & Design Group (EHEDG) has certified the compatibility of the safety switches with food processing systems.

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#### **TECHNICAL INFORMATION**

	ihathor <u>e</u> nd	CLOSED HYGIENIC SAFET	TY ISOLA	rors - i	HYGIENIC HO	SERIES		
ACCORDING TO IEC/EN 60947-3					125	160	200	250
Rated thermal current in ambient at	lth	40°C			125	160	200	250
Rated thermal current in ambient at	lth	50°C		А	125	160	200	250
Rated thermal current in ambient at	lth	60°C		А	125	160	200	250
Rated insulation voltage	Ui			V	1000	1000	1000	1000
Rated impulse withstands voltage	Uimp	Uimp k			8	8	8	8
AC rated operational current*(1)	le	Ue 400V	AC21A	А	125	160	200	250
AC rated operational current*(1)	le	Ue 400V	AC22A	А	125	160	200	250*(3)
AC rated operational current*(1)	le	Ue 400V	AC23A	А	125	160	160	160
Rated breaking capacity		400V	AC23	А	1000	1280	1280	1280
Rated making capacity		400V	AC23	А	1250	1600	1600	1600
SHORT - CIRCUIT BEHAVIOUR					125	160	200	250
Rated short-circuit making capacity*(2)		lcm	kA (beak	)	13	13	13	13
Rated short-time withstand current 1s.		lcw	kA rms		7	7	7	7
MECHANICAL FEATURES					125	160	200	250
Number of mechanical operations (accord	ling to the standars,	for other values please consult)	Cycles		8000	8000	8000	8000
Maximum weight 3P			Kg		0,85	0,85	0,9	0,9
Maximum weight 3P + N			Kg		ı	I	ı	I

<sup>\*(1)</sup> Other voltages and/or utilization categories. Please consult.







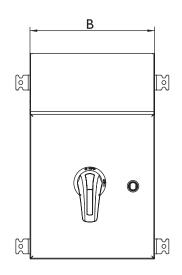
<sup>\*(2)</sup> Without limiting protective device (short-circuit maintained 50ms. - 100ms.)

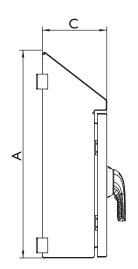
<sup>\*(3)</sup> Intensidad de empleo AC22B.

#### **ENCLOSED SAFETY ISOLATORS HYGIENIC HO SERIES**

#### PLANS AND REFERENCES







HYGIENIC HO SERIES			DIMENSIONS (mm)		
REFERENCES	HEIGHT (A)	WIDTH (B)	DEPTH (C)	CURRENT	N° POLES
H125A3PPH	500	300	155	125A	3
H160A3PPH	500	300	155	160A	3
H125A4PPH	500	300	155	125A	4
H160A4PPH	500	300	155	160A	4
H125A3PBH	500	300	155	125A	3
H160A3PBH	500	300	155	160A	3
H200A3PBH	500	300	155	200A	3
H125A4PBH	500	300	155	125A	4
H160A4PBH	500	300	155	160A	4
H200A4PBH	500	300	155	200A	4
H200A3PPH	500	300	155	200A	3
H250A3PPH	500	300	155	250A	3
H200A4PPH	500	300	155	200A	4
H250A4PPH	500	300	155	250A	4

PP: strip connection

PB: flange connection



## iHATHOR ENCLOSED SAFETY ISOLATORS HYGIENIC HI SERIES



Example

#### Rated Breaking Current of Up to 8 Times the Rated Operational Current

Enclosed hygienic safety isolators on-load Hygienic H1 Series, are available from 315A for 400A, versions under request on order. Rated breaking current of up to 8 times the rated operational current, with ability to establish and support short circuit currents up to 100kA. Is ideal for food handling facilities (clean rooms) or manufacturing processes which requires a high degree of hygiene. The European Hygienic Engineering & Design Group (EHEDG) has certified the compatibility of the safety switches with food processing systems.

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#### TECHNICAL INFORMATION

	ihathor enclosed	HYGIENIC SAFETY ISOL	ATORS - HY	GIENIC	HI SERIES	
ACCORDING TO IEC/EN 60947-3					315	400
Rated thermal current in ambient at	lth	40°C		А	315	400
Rated thermal current in ambient at	lth	50°C		А	315	400
Rated thermal current in ambient at	lth	60°C		А	315	400
Rated insulation voltage	Ui			V	1000	1000
Rated impulse withstands voltage	Uimp			kV	8	8
AC rated operational current*(1)	le	Ue 400V	AC21A	А	315	400
AC rated operational current*(1)	le	Ue 400V	AC22A	А	315	400
AC rated operational current*(1)	le	Ue 400V	AC23A	А	315	400
Rated breaking capacity		400V	AC23	А	2520	3200
Rated making capacity		400V	AC23	А	3150	4000
SHORT - CIRCUIT BEHAVIOUR					315	400
Rated short-circuit making capacity*(2)		lcm	kA (beak	)	20	20
Rated short-time withstand current 1s.		lcw	kA rms		12	12
MECHANICAL FEATURES					315	400
Number of mechanical operations (acco	rding to the standars, for ot	ner values please consult)	Cycles		8000	5000
Maximum weight 3P			Kg		1,7	1,9
Maximum weight 3P + N			Kg		1,9	2,1

<sup>\*(1)</sup> Other voltages and/or utilization categories. Please consult.







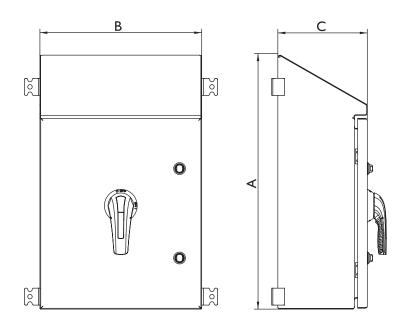
<sup>\*(2)</sup> Without limiting protective device (short-circuit maintained 50ms. - 100ms.)

#### **ENCLOSED SAFETY ISOLATORS HYGIENIC HI SERIES**



#### PLANS AND REFERENCES





HYGIENIC HI SERIES	DIMENSIONS (mm)								
REFERENCES	HEIGHT (A)	WIDTH (B)	DEPTH (C)	CURRENT	N° POLES				
H315A3PPH	600	380	210	315A	3				
H315A4PPH	600	380	210	315A	4				
H400A3PPH	600	380	210	400A	3				
H400A4PPH	600	380	210	400A	4				



### iHATHOR ENCLOSED SAFETY ISOLATORS HYGIENIC H2 SERIES



#### Example

#### Rated Breaking Current of Up to 8 Times the Rated Operational Current

Enclosed hygienic safety isolators on-load Hygienic H2 Series, are available from 500A for 800A, versions under request on order. Rated breaking current of up to 8 times the rated operational current, with ability to establish and support short circuit currents up to 100kA. Is ideal for food handling facilities (clean rooms) or manufacturing processes which requires a high degree of hygiene. The European Hygienic Engineering & Design Group (EHEDG) has certified the compatibility of the safety switches with food processing systems.

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#### **TECHNICAL INFORMATION**

	iHATHOR ENCL	OSED HYGIENIC SAFETY I	SOLATOF	RS - HY	GIENIC H2 SERIES		
ACCORDING TO IEC/EN 60947-3					500	630	800
Rated thermal current in ambient at	lth	40°C		А	500	630	800
Rated thermal current in ambient at	lth	50°C		А	500	630	720
Rated thermal current in ambient at	lth	60°C		А	500	630	640
Rated insulation voltage	Ui			V	1000	1000	1000
Rated impulse withstands voltage	Uimp	Uimp			12	12	12
AC rated operational current*(I)	le	Ue 400V	AC21A	А	500	630	800
AC rated operational current*(I)	le	Ue 400V	AC22A	А	500	630	800
AC rated operational current*(I)	le	Ue 400V	AC23A	А	500	630	800
Rated breaking capacity		400V	AC23	А	4000	5000	6400
Rated making capacity		400V	AC23	А	5000	6300	8000
SHORT - CIRCUIT BEHAVIOUR					500	630	800
Rated short-circuit making capacity*(2)		Icm	kA (beak)	)	26	26	26
Rated short-time withstand current 1s.		lcw	kA rms		16	16	16
MECHANICAL FEATURES					500	630	800
Number of mechanical operations (accord	ding to the standars	for other values please consult)	Cycles		5000	5000	3000
Maximum weight 3P					4,2	4,2	4,2
Maximum weight 3P + N			Kg		4,5	4,5	4,5

<sup>\*(1)</sup> Other voltages and/or utilization categories. Please consult.







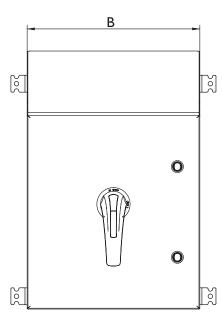
<sup>\*(2)</sup> Without limiting protective device (short-circuit maintained 50ms. - 100ms.)

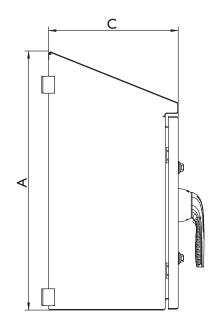
#### **ENCLOSED SAFETY ISOLATORS HYGIENIC H2 SERIES**

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#### PLANS AND REFERENCES







HYGIENIC H2 SERIES		DIMENSIONS (mm)								
REFERENCES	HEIGHT (A)	WIDTH (B)	DEPTH (C)	CURRENT	N° POLES					
H500A3PPH	600	400	300	500A	3					
H500A4PPH	600	400	300	500A	4					
H630A3PPH	600	400	300	630A	3					
H630A4PPH	600	400	300	630A	4					
H800A3PPH	600	400	300	800A	3					
H800A4PPH	600	400	300	800A	4					



## iHATHOR ENCLOSED SAFETY ISOLATORS HYGIENIC H3 SERIES



#### Rated Breaking Current of Up to 8 Times the Rated Operational Current

Enclosed hygienic safety isolators on-load Hygienic H3 Series, are available from 1000A for 1800A, versions under request on order. Rated breaking current of up to 8 times the rated operational current, with ability to establish and support short circuit currents up to 100kA. Is ideal for food handling facilities (clean rooms) or manufacturing processes which requires a high degree of hygiene. The European Hygienic Engineering & Design Group (EHEDG) has certified the compatibility of the safety switches with food processing systems.

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#### TECHNICAL INFORMATION

	iHATHOR ENG	CLOSED HYGIENIC SAFET	TY ISOLAT	ORS - H	HYGIENIC H3	SERIES		
ACCORDING TO IEC/EN 60947-3					1000	1250	1600	1800
Rated thermal current in ambient at	lth	40°C		А	1000	1250	1600	1800
Rated thermal current in ambient at	lth	50°C		А	1000	1250	1600	1800
Rated thermal current in ambient at	lth	60°C		А	1000	1250	1600	1600
Rated insulation voltage	Ui			V	1000	1000	1000	1000
Rated impulse withstands voltage	Uimp	Uimp kV			12	12	12	12
AC rated operational current*(I)	le	Ue 400V	AC21A	А	1000	1250	1600	1800
AC rated operational current*(I)	le	Ue 400V	AC22A	А	1000	1250	1600	1800
AC rated operational current*(I)	le	Ue 400V	AC23A	А	-	-	1600	1800
AC rated operational current*(1)	le	Ue 800V	AC21B	А	-	-	-	1250
Rated breaking capacity		400V	AC23	А	3000	3750	4800	5400
Rated making capacity		400V	AC23	А	3000	3750	4800	5400
SHORT - CIRCUIT BEHAVIOUR					1000	1250	1600	1800
Rated short-circuit making capacity*(2)		lcm	kA (beak)	)	60	60	75	75
Rated short-time withstand current 1s.		Icw	kA rms		25	25	50	50
MECHANICAL FEATURES					1000	1250	1600	1800
Number of mechanical operations (accord	ing to the standars,	for other values please consult)	Cycles		3000	3000	3000	3000
Maximum weight 3P			Kg		18,5	18,5	18,5	18,5
Maximum weight 3P + N			Kg		20,8	20,8	20,8	20,8

 $<sup>\</sup>ensuremath{^{*{\scriptscriptstyle{(1)}}}}\xspace$  Other voltages and/or utilization categories. Please consult.





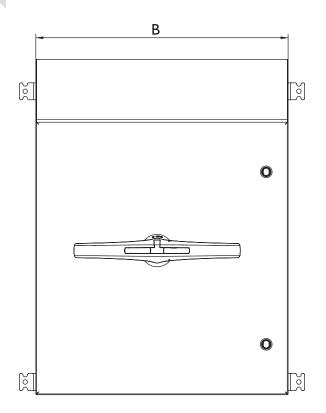


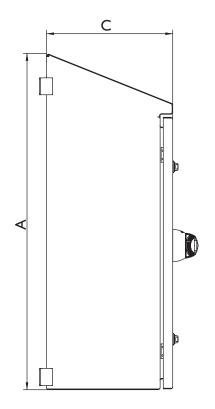
<sup>\*(2)</sup> Without limiting protective device (short-circuit maintained 50ms. - 100ms.)

#### **ENCLOSED SAFETY ISOLATORS HYGIENIC H3 SERIES**

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#### PLANS AND REFERENCES





HYGIENIC H3 SERIES	DIMENSIONS (mm)				
REFERENCES	HEIGHT (A)	WIDTH (B)	DEPTH (C)	CURRENT	N° POLES
H1000A3PPH	800	600	300	1000A	3
H1000A4PPH	800	600	300	1000A	4
H1250A3PPH	800	600	300	1250A	3
H1250A4PPH	800	600	300	1250A	4
H1600A3PPH	800	600	300	1600A	3
H1600A4PPH	800	600	300	1600A	4
H1800A3PPH	800	600	300	1800A	3
H1800A4PPH	800	600	300	1800A	4





#### CUSTOMIZED SWITCHES SOLUTIONS IHATHOR

The customized manufacture of all safety and isolation switches iHATOR 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



SLOPED ROOF HYGIENIC SWITCHES



UL 98 AND UL 508 SAFETY SWITCHES



**IECEX SAFETY SWITCHES** 







EMC SWITCHES
DISCONNECTORS

### CORROSION RESISTANT SWITCHES







CABLE GLANDS FOR SAFE AREAS

#### CABLE GLANDS FOR ATEX AREAS









#### **HEAVY DUTY SAFETY SWITCHES**



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