

TWOMASTER

Fuse Switch Disconnecter



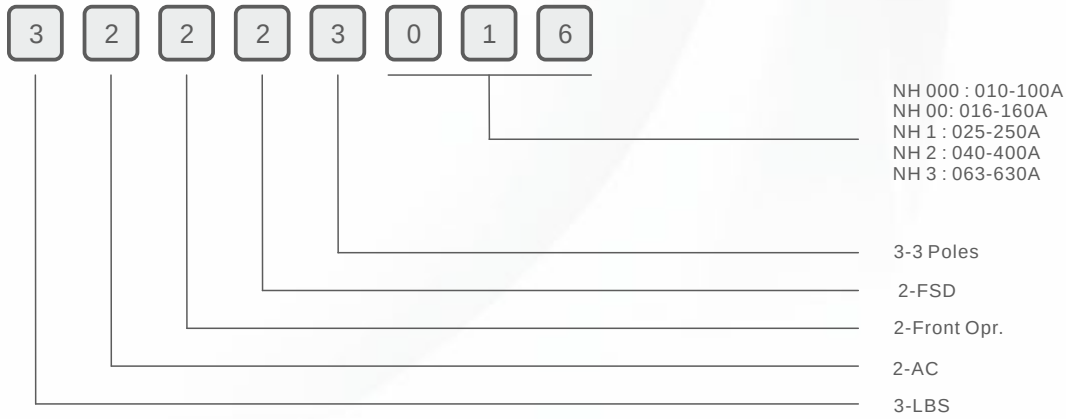
TWOMASTER FSD Series

Fuse Switch Disconnecter

Introduction

FSD series integrate control, isolation, and fuse base function in one device. These functions can also be realized by using of different

Product Code



Function

Fuse switch disconnecter has following functions:

- ◆ The load change over. The work speed and breaking capacity of the fuse is associated with the specific operation situation of the operator
- ◆ Fuse brake piece form the dynamic contact of the fuse.
- ◆ Fuse is installed in the fuse base.
- ◆ By manipulating the handle , the fuse base can operate the main active contact.
- ◆ When the fuse base is in the OFF position(OFF), contacts can indicate information.
- ◆ With DIN type blade industry fuse (NH), it can provide power distribution circuit with short circuit or overload protection.



Fuse switch disconnecter

The solution of different combined components

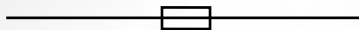
By using isolating switch and the fuse installed on different fuse base, it can protect the power distribution circuit and the motor.

- ◆ The function of each component can provide.
- ◇ The load switch (opening and closing) and isolation (isolating switch). Short circuit or overload protection (fuse).

With the aid of these components, it has Interpact INS isolating switch function between 40A~ 800A .



Control



Protection

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In accordance with the protection degree

FSD fuse can prevent direct contact. Its protection degree conform to the IEC 60529 standard IP (20).

Conform to the standard

FSD fuses accessories meet the following international standards and national standards GB14048.3 and specifications:

- ◆ IEC 60947-1 general rule.
- ◆ IEC 60947-1; Switch, isolator, isolation switch and fuse composition unit.
- ◆ IEC 60947-5.1 and below: control circuit devices and switching components, control components.

Class of pollution

FSD fuse is certified. It can work in level III pollution environment. The pollution level is in accordance with industrial environment IEC 60947 standard.

Environment temperature

FSD fuse operating temperature range from 25 °C to + 70 °C. When the temperature is higher than 40 °C, squad coefficient must be used.

As long as no more than a certain duration, it can operate under the condition of ambient temperature below -35 °C.



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Features

FSD isolating switch fuse			
Electrode number/Fuse model		IEC60 2692-1 standard, clause 1	
Electric property in accordance with IEC 60947-1 GB14048.3			
The rated load current (A)	ventilation	lth	At 40°C
	The maximum loss power of the fuse(W)		
	inner of shell	lthe	At 40°C
	The maximum loss power of the fuse (W)		
rated insulation voltage (V)	Ui	AC 50/60 Hz / DC	
Rated impulse withstand voltage	Uimp		
The rated operating voltage (V)	Ue	AC 50/60 Hz	
		DC	
The rated operating voltage (AC20 and DC20) (V)Ue			
Rated current (A)	Ie	AC 50/60 Hz	
		220/240 V	
		380/415 V	
		440/480 V	
		500 V	
		660/690 V	
		DC/Tandem electrode	
		125 V /Electrode number	
		220 V /Electrode number	
		440 V /Electrode number	
		working mode	
rated short circuit breaking capacity (kA rms) / Icn/Icm/In fuse	415 V		
rated short-circuit	500 V		
closing capacity (Peak value kA) fuse (A) ⁽³⁾	690 V		
Service life (class B) (CO cycle)	Machinery		
	AC	AC22B 415 V	
	electricity	AC21B 690 V	
Suitable for isolation			
Visible breakpoint			
class of pollution			
Control			
The lock of rotation handle on direct front panel Padlock			
Seal retainer			
Auxiliary indicator			
Auxiliary contact			
Fuse monitor			
Fuse failure indicator contact			
Installation and connection accessories			
Installation site	Horizontal		
	Vertical		
Bare cable connector			
Other connector	For bare copper/aluminum cable		
	Used for bus		
Power connector			
Copper cable lug			
Comb bus			
The comb bus insulation cover			
Comb bus input connector			
Terminal cover			
Dimensions and Weight			
Overall dimension H x W x D (mm)		3poles	
No fuse reference weight (kg)		3poles	

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FSD-100		FSD-160		FSD-250		FSD-400		FSD-630	
3P/DIN (NH)		3P/DIN (NH)		3P/DIN (NH)		3P/DIN (NH)		3P/DIN (NH)	
100 ⁽³⁾		160		250		400		630	
9		12		23		34		48	
100 ⁽³⁾		160		250		400		630	
9		12		23		34		48	
690		800		800		800		800	
6		8		8		8		8	
690		690		690		690		690	
440		440		440		440		440	
690		800		800		800		800	
AC21B	AC22B	AC21B	AC22B	AC21B	AC22B	AC21B	AC22B	AC21B	AC22B
100	100	160	160	250	250	400	400	630	630
100	100	160	160	250	250	400	400	630	630
100	-	160	-	250	-	400	-	630	-
100	-	100	-	250	-	400	-	630	-
100	-	100	-	250	-	400	-	630	-
DC21B	DC22B	DC21B	DC22B	DC21B	DC22B	DC21B	DC22B	DC21B	DC22B
100/1	-	160/1	-	250/1	-	400/1	-	630/1	-
100/1	-	160/1	-	250/1	-	400/1	-	630/1	-
100/1	-	160/2	-	250/2	-	400/2	-	630/2	-
■		■		■		■		■	
80 / 176 / 100		50 / 105 / 160		50 / 105 / 250		50 / 105 / 400		50 / 105 / 630	
50 / 105 / 100		50 / 105 / 160		50 / 105 / 250		50 / 105 / 400		50 / 105 / 630	
50 / 105 / 100		50 / 105 / 100		50 / 105 / 200		50 / 105 / 315		50 / 105 / 500	
2000		1600		1600		1000		1000	
300		200		200		200		200	
300		200		200		200		200	
■		■		■		■		■	
■		■		■		■		■	
3		3		3		3		3	
-		-		-		-		-	
■		■		■		■		■	
■		■		■		■		■	
-		■		■		■		■	
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■		■		■		■		■	
■		-		-		-		-	
■		-		-		-		-	
-		■		■		■		■	
141 x 89 x 71		163 x 107 x 80		246 x 186 x 110		271 x 210 x 127		271 x 250 x 132	
0.46		0.64		2.06		2.96		4.00	

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FSD isolating switch fuse type	FSD-100	FSD-160	FSD-250	FSD-400	FSD-630
The model of fuse					
DIN NH000	■	■	-	-	-
DIN NH00	-	■	-	-	-
DIN NH1	-	-	■	-	-
DIN NH2	-	-	-	■	-
DIN NH3	-	-	-	-	■
Installation and connection					
Symmetric guide	■	-	-	-	-
Direct connection on the back	■	■	■	■	■
Hook connection with the spacing of 60 mm bus					
Temperature drop capacity (using the gG type fuse) (1) (2)	100/160 ⁽³⁾	160	250	400	630
40°C	100/160	160	250	400	630
45°C	95/152	152	238	380	599
50°C	90/144	144	225	360	567
55°C	85/136	136	213	340	536
60°C	80/128	128	200	320	504
65°C	75/120	120	188	300	473
70°C	70/112	112	175	280	441
"vertical installation"					
Vertical fuse	100/160	160	250	400	630
40°C	100/160	160	250	400	630
45°C	95/152	152	238	380	599
50°C	90/144	144	225	360	567
55°C	85/136	136	213	340	536
60°C	80/128	128	200	320	504
65°C	75/120	120	188	300	473
70°C	70/112	112	175	280	441
"horizontal installation"					
Horizontal fuse	100/160	160	250	400	630
40°C	100/160	160	250	400	630
45°C	95/152	152	238	380	599
50°C	90/144	144	225	360	567
55°C	85/136	136	213	340	536
60°C	80/128	128	200	320	504
65°C	75/120	120	188	300	473
70°C	70/112	112	175	280	441

(1) drop volume data based on:

- equipment fuse maximum rated value
- the maximum heat loss

(2) When install top mounted , it needs another 10% reduction

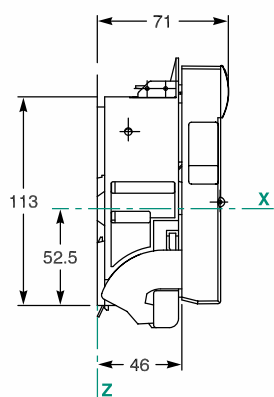
(3) Using 100/160 A f

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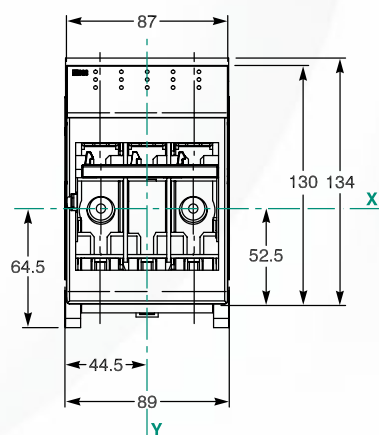
Fuse Switch Disconnecter

Dimension FSD-100

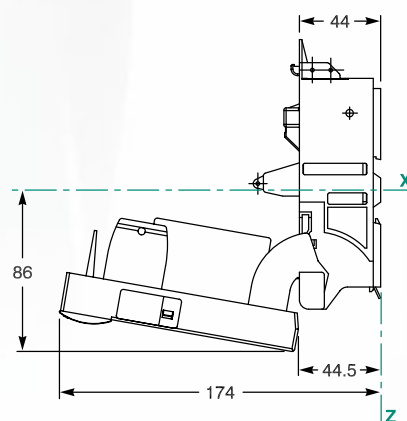
Fuse switch closure



Front side

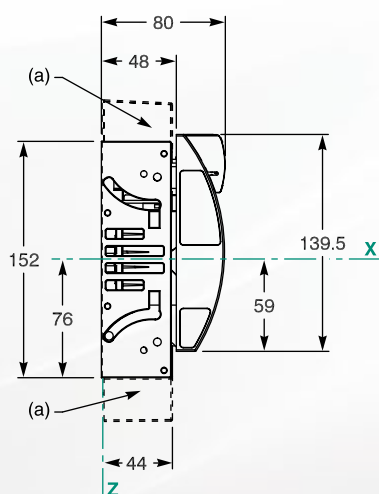


Fuse switch open

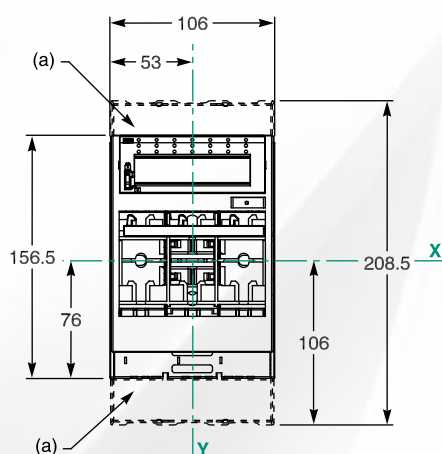


Dimension FSD-160

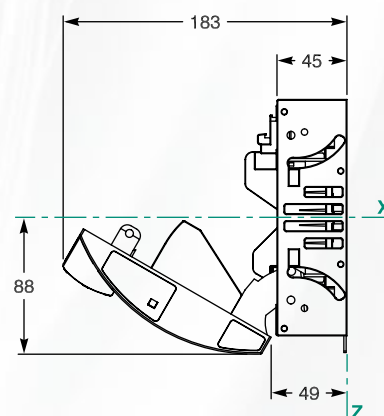
Fuse switch close



Front side



Fuse switch open



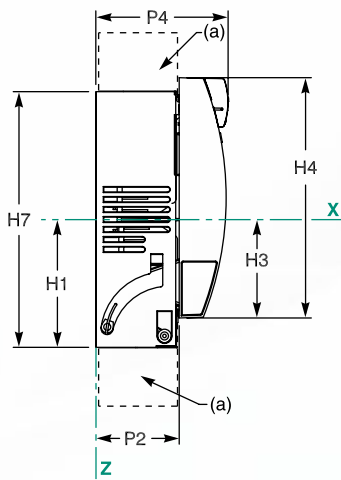
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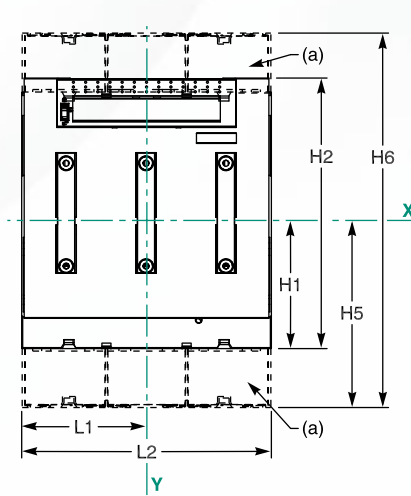
Fuse Switch Disconnect

Dimension FSD-250...630

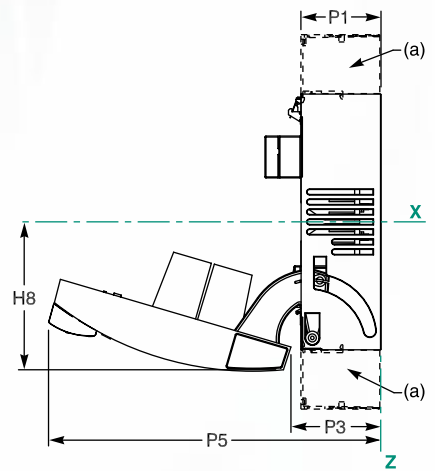
Fuse switch close



Front side



Fuse switch open



	H1	H2	H3	H4	H5	H6	H7	H8	L1	L2	P1	P2	P3	P4	P5	R1	R2	P6	P7
FSD-250	115	245	86	216	174	348	230	133	92	184	68	72	78	110	293	-	-	316	148
FSD-400	128	270	99	241	187	374	256	144	105	210	82	84	91	127	331	65	130	319	148
FSD-630	128	270	99	241	187	374	256	147	125	250	82	84	91	132	332	80	160	319	148

TWOMASTER

manages the energy



OSSA
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