G240702-E-001

GRL ELECTRIC

FUSE SWITCH DISCONNECT

Product Selection Guide

Visionaries win the future GRL

Mission

Industrial mission

Committed to improving the safety, reliability and efficiency of electrical industry, adhere to the concept of green development and assuming social responsibility.

Social mission

Employee satisfaction | Customer satisfaction | Supplier satisfaction | Shareholder satisfaction Society satisfaction

Vision

To be a respectable famous electrical brand all over the world.

Value

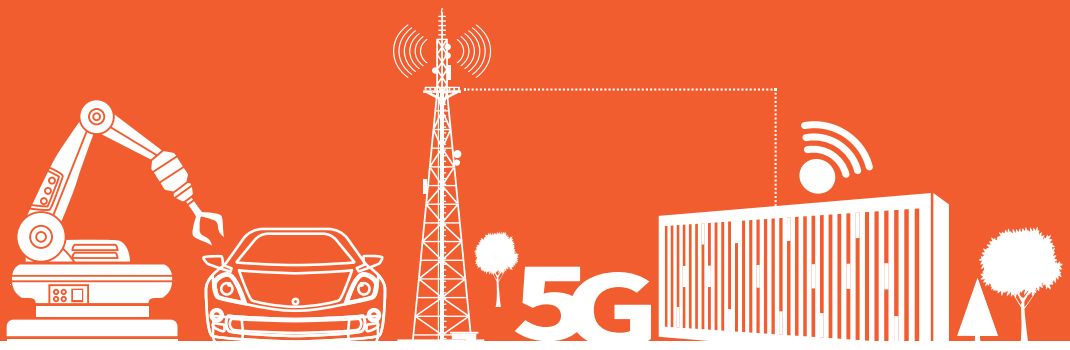
Customer first | Hard work

Embrace responsibility with courage

Pioneering | Integrity | Self-reflection | Teamwork

ISO9001 ISO14001 ISO45001 CCC CE CB TÜV RoHS

- Fuse Switch Disconnector
- Switch Disconnector
- Busbar System
- Fuse
- High Voltage
- Copper Busbar
- Combiner Box



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About Us

Zhejiang GRL Electric Co.,Ltd. established in 2003, who specializes in low-voltage switch disconnector, fuse switch, fuse link and busbar system. The products are mainly used in power distribution system , industrial power control system and solar photovoltaic systems. GRL focuses on meeting customer's requirement,enhancing customer value, aiming to provide customers with safe and reliable low-voltage electrical components,and GRL is committed to solving customer's pain points, meeting customer's demands, GRL helps customer win competitive advantages and has a vision to be a respectable world famous electric brand.

* With a modern factory building of 43000 square meters
* Existing over 400 employees
* Having 1 research and development center
* Products sold in over 60 countries and regions

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CONTENTS

Switch

DNH1G
FUSE SWITCH DISCONNECT

Application scope

DNH1 series fuse-switch-disconnector (chere inafter refered to switch) is designed for the distribution circuit and electromot of circuit with high short circuit current, with rated AC voltage 400V and 690V, conventional thermal current up to 630A. It is used as power switch, switch disconnector and emergent switch, and with the function of circuit protection, but not used as a direct open or close single electromotor popularly.

This product is in conformity with standard GB14048.3(idt IEC60947-3).

Model & Meaning

DN H 1G - □ / □ □ □

- "0" denotes fixed type; "1" denotes hang type;
- "0" without auxiliary contacts, "1" with auxiliary contacts
- Poles
- Conerntional thermal current
- Design code
- Fuse Switch Disconnector
- Code of company

Normal work conditions and Installation conditions

※ Ambient temperatue: -5°C~40°C .

※ Altitude: shall not exceed 2000m.

※ The atmosphere condition: The relative humidity shall not exceed 50% when the environmental temperatue is +40°C in installing place; And the relative humidity may be higher at the lowertemperature condition. Such as when the humidity is 90% when the temperature is +20°C .It shall take some special management to avoid the dew occurs on the product surface due to temperature change.

※ Pollution grade: III

※ The product shall be installed in the place without remarkable shake, strike and quiver, rain and snow, in the medium without danger of exploding, and in the places without gas and conductive dust, which can make the metal go rust and affect insulation performances.

Other

Structure Characteritic:

The switch is composed of base、cover and arc chute, all these parts are made of arc-resisting plastics, it is whole plastic structure. The static contact is directly installed on thebase, the arc chute is rasily mounted and dismounted, each arc chute has two parts: inner room and outer room, it adopts multi-pieces of metal arc-blowout grid which increase the arc-blowout capacity and prolong the service life of the contact.

NT type fusing unit is fixed inside the cover, the cover can be rotated along the supporting unit in fan shape, it has a relative big electric isolation distance which can meet the demands of the isolating seitch; The cover can be dismounted from the base easily chich make the installation and replacement of the fusing unit easy There are three group of installation hote on the base, which and meet the installation requirements of various switchgear cubicle and panel. Auxiliary contact can be mounted at the two side of the switch on demands, it can give out the signal of opening and closing the switch.

DNH1G
FUSE SWITCH DISCONNECT

Technical parameters

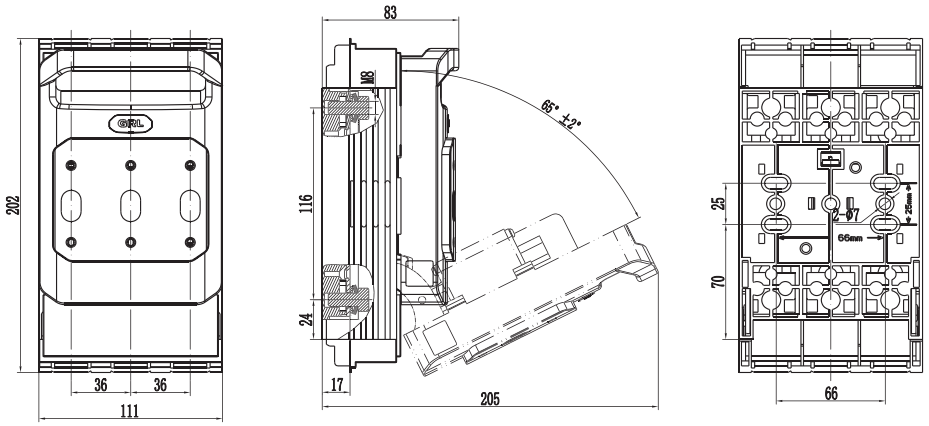
					DNH1-160		DNH1-250		DNH1-400		DNH1-630	
Electrical parameter	Fuse	Rated Voltage	Ue	V	AC400	AC690	AC400	AC690	AC400	AC690	AC400	AC690
		Rate Current	Ie	A	160	160	250	250	400	400	630	630
		Rated insulation voltage	Ui	V	1000	1000	1000	1000	1000	1000	1000	1000
		Agreed heating current	Ith	A	160	100	250	200	400	315	630	500
		Rated impulse withstand voltage	Uimp	kV	12	12	12	12	12	12	12	12
		Rated limiting short-circuit current	Iq	kA	100	50	50	100	100	50	100	50
		Usage category			AC-23B(AC400)/AC-21B(AC690)							
		Electrical endurance Times		Second	200		200		200		200	
	Copper link	Rated Voltage	Ue	V	AC380		AC380		AC400		AC400	
		Rated Current	Ie	A	160		250		630		630	
		Rated insulation voltage	Ui	V	690		690		1000		1000	
		Agreed heating current	Ith	A	160		250		630		630	
		Rated impulse withstand voltage	Uimp	kV	8		8		12		12	
		Rated limiting short-circuit current	Icw	kA/1s	8		10		15		15	
		Usage category			AC-21B		AC-21B		AC-23B		AC-23B	
		Electrical endurance Times		Second	200		200		200		200	
		Rated frequency		Hz	50\60		50\60		50\60		50\60	
		Poles			3		3		3		3	
Fuse		Size(RT16/NT/NH) IEC 60269-2 GB/T 13539.2			00		1		2		3	
		Working Current	In	A	160	160	250	250	400	400	630	630
		Power Dissipation	P	W	12	12	18	32	28	45	40	50
Mechanism		Mechanical endurance		Second	1400		1400		800		800	
Protection		Frontal			On：IP20 \ Off：IP30							
Other		Signal feedback for opening and closing the switch (micro switch)			Can be added		Can be added		Can be added		Can be added	

Working Conditions	Surrounding air temperature	℃	-5 ～ +40
	Rated working hours		Uninterrupted working system
	Operation method		Handle operation
	Installation method		Vertical installation
	Altitude	m	⩽ 2000
	Installation category		III、IV
	Pollution level		3
	Transportation and storage	℃	-25 ～ +55

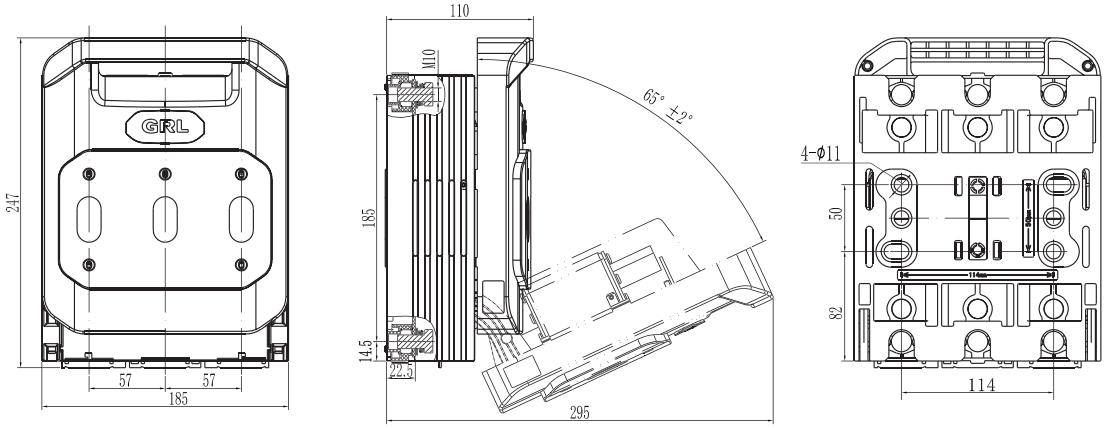
DNH1G
FUSE SWITCH DISCONNECT

Appearance and installation dimensions (mm)

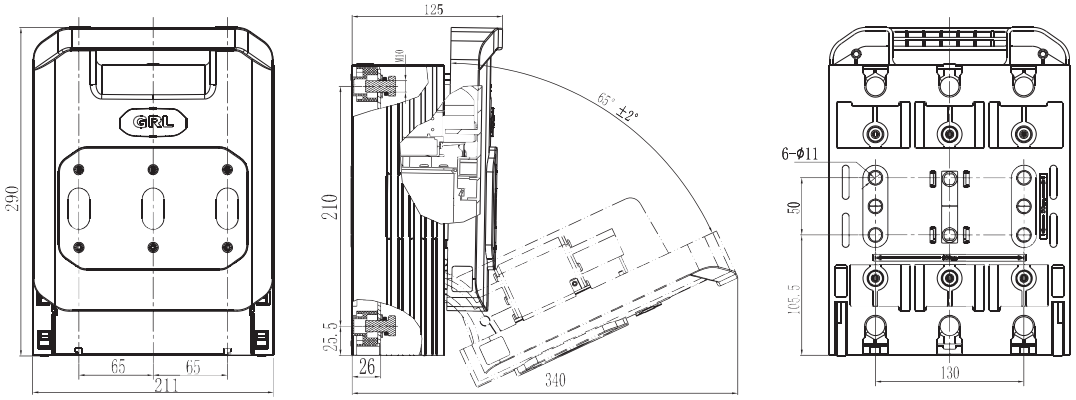
DNH1-160/30G Fixed



DNH1-250/30G Fixed

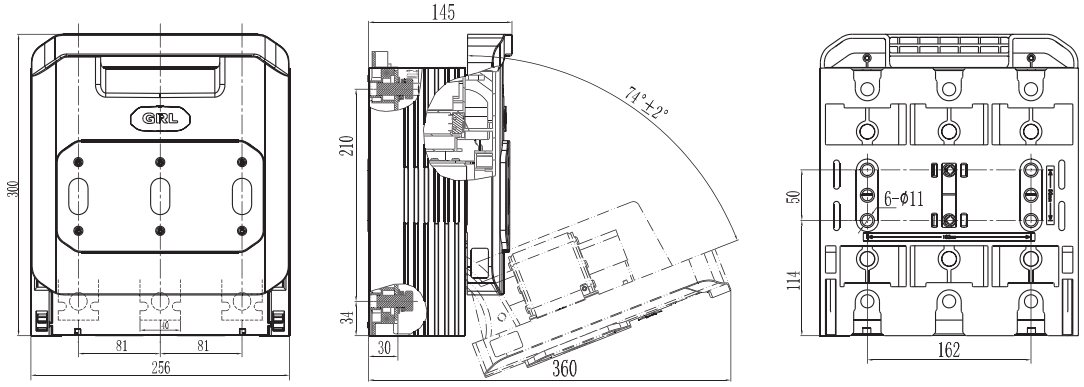


DNH1-400/30G Fixed

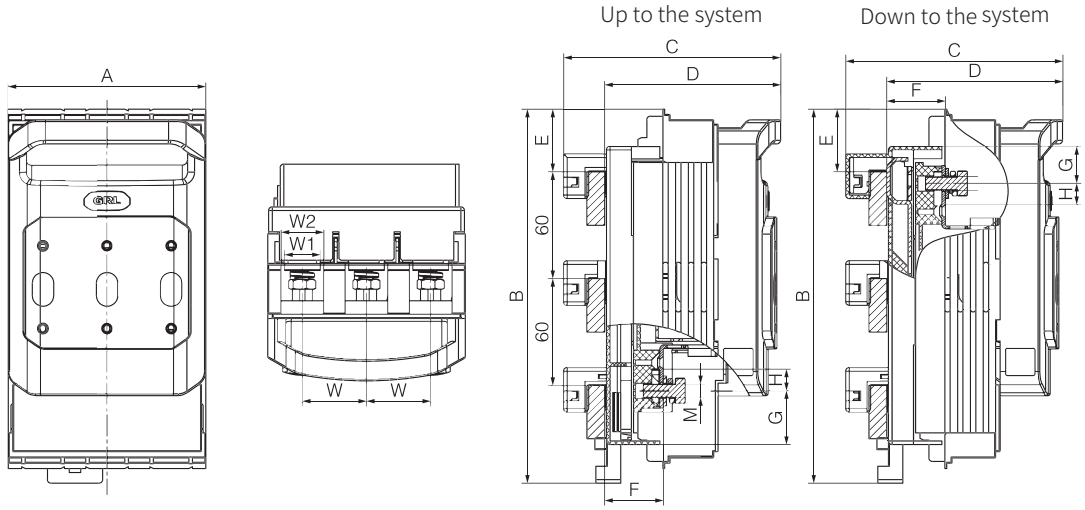


DNH1G
FUSE SWITCH DISCONNECT

DNH1-630/30G Fixed

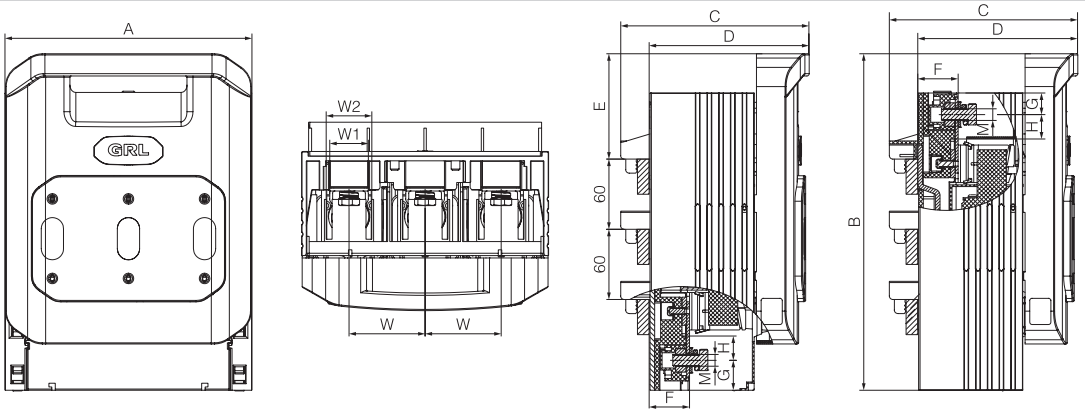


DNH1-160/31G Busbar



A	B	C	D	E	F	G	H	M	W	W1	W2
111	210	122	99	35	33	30 21	12	M8	36	20	24

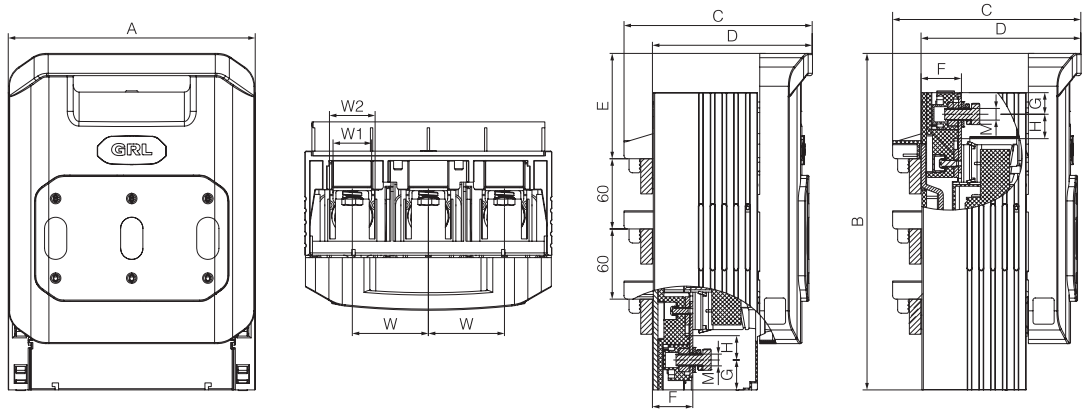
DNH1-250/31G Busbar



A	B	C	D	E	F	G	H	M	W	W1	W2
185	241	145	120	68	32.5	14.5	16	M10	57	30	40

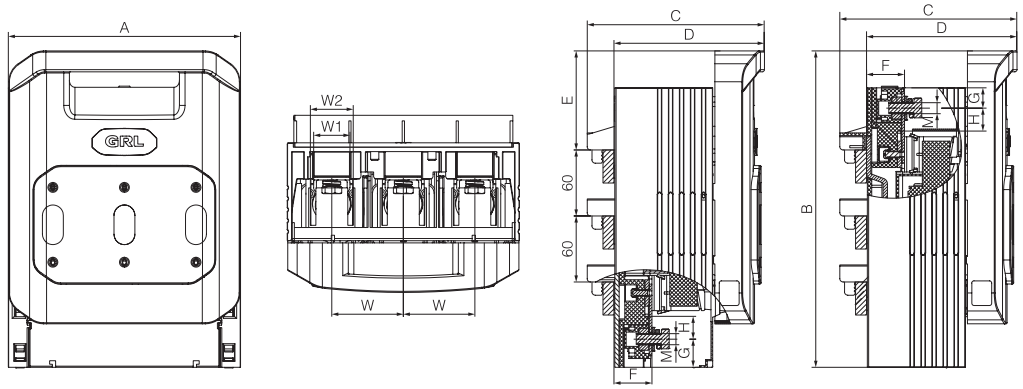
DNH1G
FUSE SWITCH DISCONNECT

DNH1-400/31G Busbar



A	B	C	D	E	F	G	H	M	W	W1	W2
211	288	161	137	73	34.5	25.5 18.5	19	M10	65	33	50

DNH1-630/31G Busbar



A	B	C	D	E	F	G	H	M	W	W1	W2
256	313	178	154	90	41.5	37.5	21	M12	81	45	59

DNH1-□/3S
FUSE SWITCH DISCONNECT

Model & Meaning

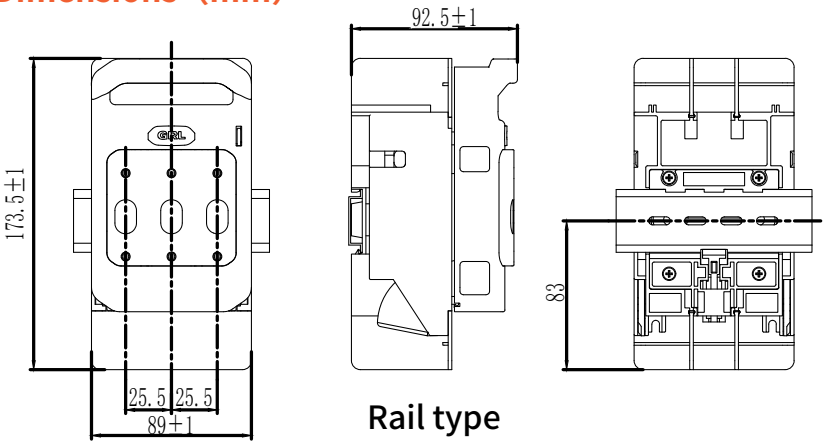
DN H 1 - □ / 3 S □

- Normal does not display; "M" : AC 800V ; "P": AC 1140V ;
- Mini type
- Poles:3 poles
- Conerntional thermal current
- Design code
- Fuse Switch Disconnect
- Code of company

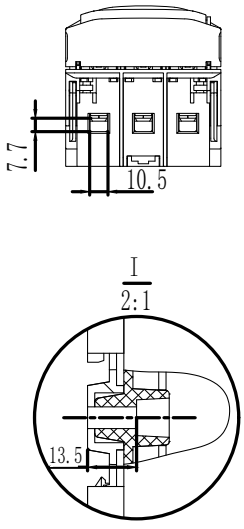
Technical Parameter

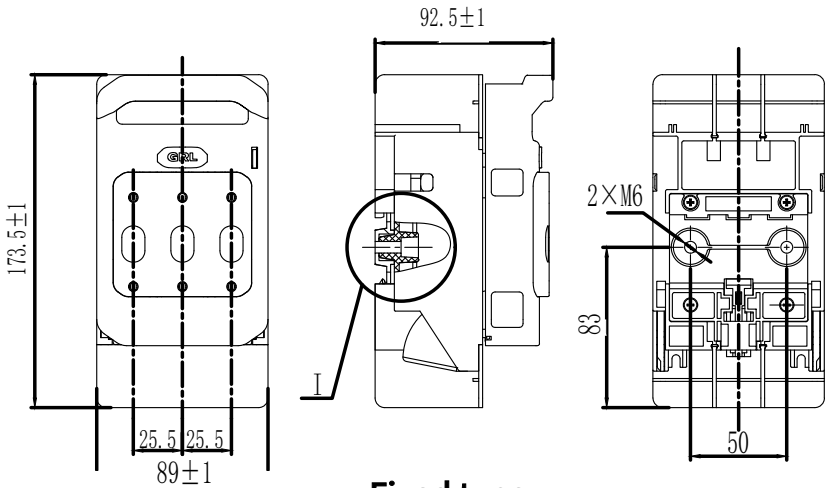
Model No.	Size	Rated Voltage (V)	Rated Current (A)	Rated insulation voltage (V)	Rated impulse withstand voltage (kV)
DNH1-160/3S	000	AC 400/690	100	AC 1000	12
DNH1-160/3SM	000	AC 800	100	AC 1500	12
DNH1-160/3SP	000	AC 1140	100	AC 1500	12

Dimensions（mm）



Rail type





Fixed type

DNH1GM
FUSE SWITCH DISCONNECT

Model & Meaning

DN H 1 - □/□□ GM

- G:new type;M:AC 800V
- "1" denotes hang type; "0" denotes fixed type
- Poles
- Conerntional thermal current
- Design code
- Fuse Switch Disconnector
- Code of company

Working Conditions

1.Working temperature range (Tj): -40 ° C～60°C

2. Altitude: ⩽ 5000m.

Dimensions(mm)

The installation size is the same as the DNH1 series

Technical parameter

Model	Size	Ue(V)	Ie (A)	Ui(V)	Uimp (kV)
DNH1-160/30GM	00	AC 800	63	AC 1250	12
DNH1-250/30GM	1	AC 800	160	AC 1250	12
DNH1-630/30GM	3	AC 800	315	AC 1250	12

DNH1GP
FUSE SWITCH DISCONNECT

Model&Meaning

DN H 1 - □/□□ GP

- G:new type;P:1140VAC
- "1" denotes hang type; "0" denotes fixed type
- Poles
- Conerntional thermal current
- Design code
- Fuse Switch Disconnector
- Code of company

Working Conditions

1.Working temperature range (Tj): -40 ° C～60°C

2. Altitude: ⩽ 5000m.

Dimensions(mm)

The installation size is the same as the DNH1 series

Technical parameter

Model	Size	Ue(V)	Ie (A)	Ui(V)	Uimp (kV)
DNH1-160/30GP	00	AC 1140	63	AC 1250	12
DNH1-250/30GP	1	AC 1140	160	AC 1250	12
DNH1-630/30GP	3	AC 1140	315	AC 1250	12

DNH1G
FUSE SWITCH DISCONNECT
Electronic melt core monitoring

IEC 60947-3、IEC 60269-2

Model&Meaning

DN H 1 - □/ □ □ GR

- GR — G:new type;R:Fuse monitoringv
- □ — "1" denotes hang type; "0" denotes fixed type
- □ — Poles
- □ — Conerntional thermal current
- 1 — Design code
- H — Fuse Switch Disconnector
- DN — Code of company

					DNH1-160		DNH1-250		DNH1-400		DNH1-630	
Electrical parameter	Fuse	Rated Voltage	Ue	V	AC400	AC690	AC400	AC690	AC400	AC690	AC400	AC690
		Rate Current	Ie	A	160	160	250	250	400	400	630	630
		Rated insulation voltage	Ui	V	1000	1000	1000	1000	1000	1000	1000	1000
		Agreed heating current	Ith	A	160	100	250	200	400	315	630	500
		Rated impulse withstand voltage	Uimp	kV	12	12	12	12	12	12	12	12
		Rated limiting short-circuit current	Iq	kA	100	50	50	100	100	50	100	50
		Usage category			AC-23B(AC400)/AC-21B(AC690)							
		Electrical endurance Times		Second	200		200		200		200	
	Copper link	Rated Voltage	Ue	V	AC380		AC380		AC400		AC400	
		Rated Current	Ie	A	160		250		630		630	
		Rated insulation voltage	Ui	V	690		690		1000		1000	
		Agreed heating current	Ith	A	160		250		630		630	
		Rated impulse withstand voltage	Uimp	kV	8		8		12		12	
		Rated limiting short-circuit current	Icw	kA/1s	8		10		15		15	
		Usage category			AC-21B		AC-21B		AC-23B		AC-23B	
		Electrical endurance Times		Second	200		200		200		200	
		Rated frequency		Hz	50\60		50\60		50\60		50\60	
		Poles			3		3		3		3	
Fuse		Size(RT16/NT/NH) IEC 60269-2 GB/T 13539.2			00		1		2		3	
		Working Current	In	A	160	160	250	250	400	400	630	630
		Power Dissipation	P	W	12	12	18	32	28	45	40	50
Mechanism		Mechanical endurance		Second	1400		1400		800		800	
Protection		Frontal			On：IP20 \ Off：IP30							
Other		Signal feedback for opening and closing the switch (micro switch)			Can be added		Can be added		Can be added		Can be added	

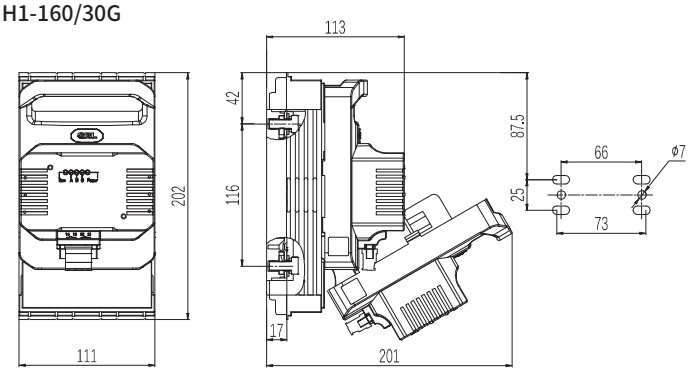
Working Conditions	Surrounding air temperature	℃	-5 ～ +40
	Rated working hours		Uninterrupted working system
	Operation method		Handle operation
	Installation method		Vertical installation
	Altitude	m	⩽ 2000
	Installation category		III、IV
	Pollution level		3
	Transportation and storage	℃	-25 ～ +55

DNH1G
FUSE SWITCH DISCONNECT
Electronic melt core monitoring

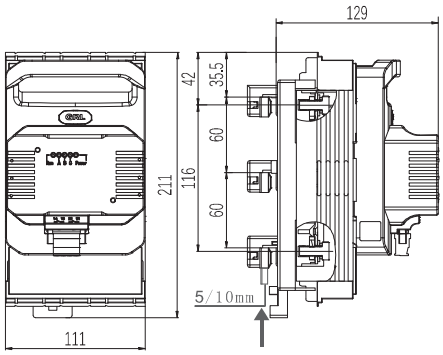
Dimensions(mm)

Fixed installation dimensions

DNH1-160/30G

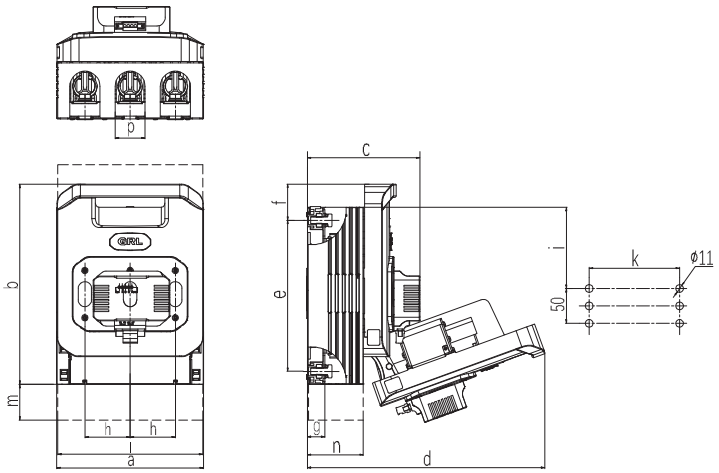


Busbar installation dimensions



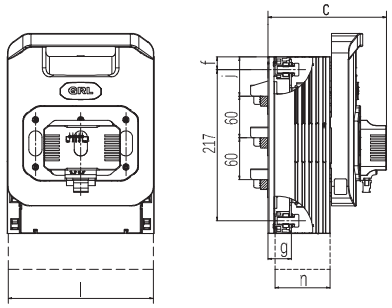
Fixed installation dimensions

DNH1-250~630/30G



Busbar installation dimensions

DNH1-250~630/31G



型号	a	b	c	d	e	f	g	h	i	j	k
DNH1-250/30G	185	247	145	295	185	42.5	22.5	57	110	/	114
DNH1-250/31G	185	247	155	305	185	42.5	32.5	57	/	67.5	/
DNH1-400/30G	210	288	163	344	210	52	26	65	132	/	130
DNH1-400/31G	210	288	171	353	210	52	34.5	65	/	90	/
DNH1-630/30G	256	304	180	361	211	54	30	81	135	/	162
DNH1-630/31G	256	304	189	370	211	54	39	81	/	90	/

DNH1G
FUSE SWITCH DISCONNECT
Motor fuse monitoring

Application

The DNH1-160/30 motor is a protector developed on the original DNH1-160/30 fuse type isolation switch, which combines automatic and manual motor protection functions, with strong breaking ability and fast protection response time.

Model & Meaning

DN H 1 - □/□□ GR

- GR — G:new type;R:Fuse monitoring
- □ — "1" denotes hang type; "0" denotes fixed type
- □ — Poles
- □ — Conerntional thermal current
- 1 — Design code
- H — Fuse Switch Disconnector
- DN — Code of company

Technical parameter

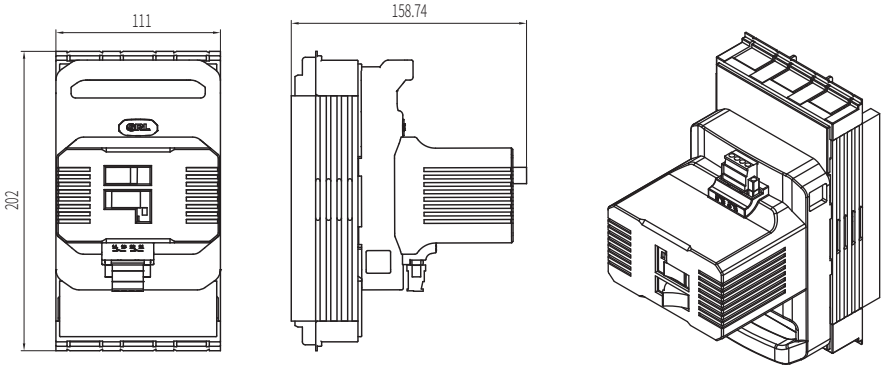
Specifications			DNH1-160	
Rated working voltage	Ue	V	AC 400	AC 690
Rated working current	Ie	A	160	100
Agreed heating current	Ith	A	160	100
Rated limited short-circuit current (with fused)		kA	100	50
Usage category (with fused)			AC-23B	AC-21B
Rated insulation voltage	Ui	V	AC 1000	AC 1000
Rated impulse withstand voltage	Uimp	kV	12	12
Rated frequency		Hz	50/60	50/60
Electrical lifespan		times	200	200
Max tightening torque		N.m	12	12

Fuse	Executive standard: IEC60269-2 GB/T 13539.2			00	00
	Rated working voltage	In	A	160	100
	Power dissipation	Pn	W	12	12
Working Conditions	Air temperature			-5°C ~+40°C	
	Altitude			⩽ 2000m	
	Installation category and pollution level			3	
	Transportation and storage			-25°C ~+55°C	

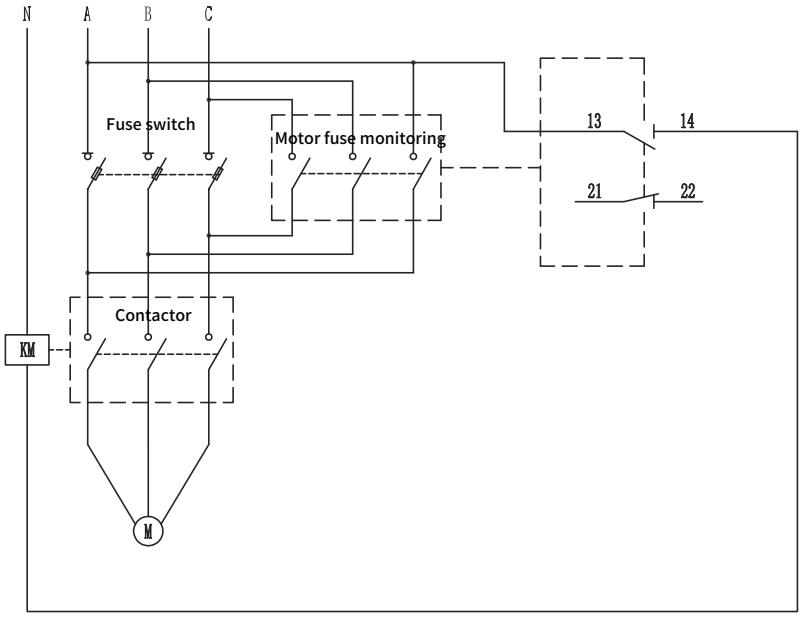
DNH1G
FUSE SWITCH DISCONNECT
Motor fuse monitoring

Dimensions(mm)

DNH1-160/30G



Example of DNH1 motor fuse monitoring application circuit



DNH1G
FUSE SWITCH DISCONNECT
Mechanical melt core monitoring

IEC 60947-3、IEC 60269-2

Model & Meaning

DN H 1 - □/ □ □ GR

- GR — G:new type;R:Fuse monitoring
- □ — "1" denotes hang type; "0" denotes fixed type
- □ — Poles
- □ — Conerntional thermal current
- 1 — Design code
- H — Fuse Switch Disconnector
- DN — Code of company

					DNH1-160		DNH1-250		DNH1-400		DNH1-630	
Electrical parameter	Fuse	Rated Voltage	Ue	V	AC400	AC690	AC400	AC690	AC400	AC690	AC400	AC690
		Rate Current	Ie	A	160	160	250	250	400	400	630	630
		Rated insulation voltage	Ui	V	1000	1000	1000	1000	1000	1000	1000	1000
		Agreed heating current	Ith	A	160	100	250	200	400	315	630	500
		Rated impulse withstand voltage	Uimp	kV	12	12	12	12	12	12	12	12
		Rated limiting short-circuit current	Iq	kA	100	50	50	100	100	50	100	50
		Usage category			AC-23B(AC400)/AC-21B(AC690)							
		Electrical endurance Times		Second	200		200		200		200	
	Copper link	Rated Voltage	Ue	V	AC380		AC380		AC400		AC400	
		Rated Current	Ie	A	160		250		630		630	
		Rated insulation voltage	Ui	V	690		690		1000		1000	
		Agreed heating current	Ith	A	160		250		630		630	
		Rated impulse withstand voltage	Uimp	kV	8		8		12		12	
		Rated limiting short-circuit current	Icw	kA/1s	8		10		15		15	
		Usage category			AC-21B		AC-21B		AC-23B		AC-23B	
		Electrical endurance Times		Second	200		200		200		200	
		Rated frequency		Hz	50\60		50\60		50\60		50\60	
		Poles			3		3		3		3	
Fuse		Size(RT16/NT/NH) IEC 60269-2 GB/T 13539.2			00		1		2		3	
		Working Current	In	A	160	160	250	250	400	400	630	630
		Power Dissipation	P	W	12	12	18	32	28	45	40	50
Mechanism		Mechanical endurance		Second	1400		1400		800		800	
Protection		Frontal			On：IP20 \ Off：IP30							
Other		Signal feedback for opening and closing the switch (micro switch)			Can be added		Can be added		Can be added		Can be added	

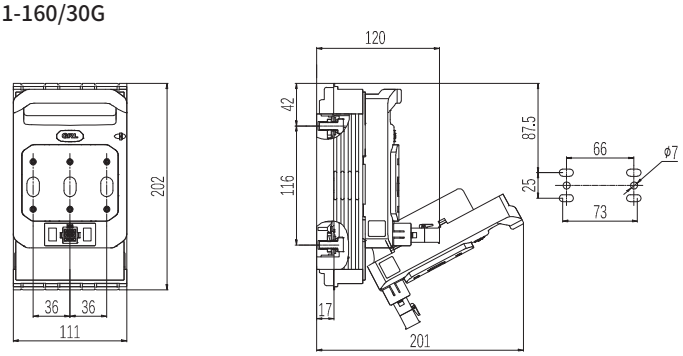
Working Conditions	Surrounding air temperature	°C	-5 ～ +40
	Rated working hours		Uninterrupted working system
	Operation method		Handle operation
	Installation method		Vertical installation
	Altitude	m	⩽ 2000
	Installation category		III、IV
	Pollution level		3
	Transportation and storage	°C	-25 ～ +55

DNH1G
FUSE SWITCH DISCONNECT
Mechanical melt core monitoring

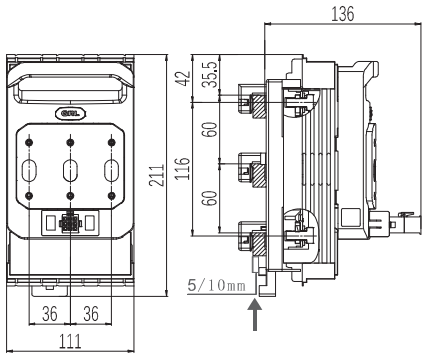
Dimensions(mm)

Fixed installation dimensions

DNH1-160/30G

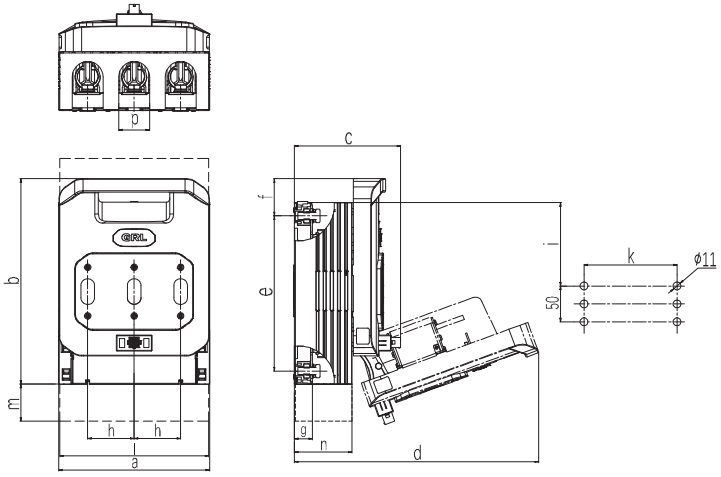


Busbar installation dimensions



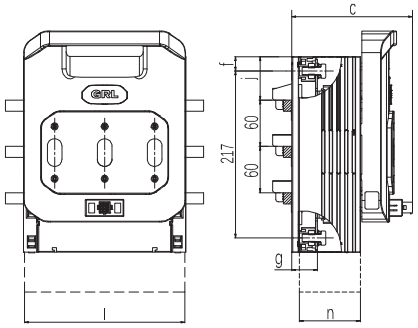
Fixed installation dimensions

DNH1-250~630/30G



Busbay installation dimensions

DNH1-250~630/31G



型号	a	b	c	d	e	f	g	h	i	j	k
DNH1-250/30G	185	247	131	295	185	42.5	22.5	57	110	/	114
DNH1-250/31G	185	247	141	305	185	42.5	32.5	57	/	67.5	/
DNH1-400/30G	210	288	149	344	210	52	26	65	132	/	130
DNH1-400/31G	210	288	157	353	210	52	34.5	65	/	90	/
DNH1-630/30G	256	304	166	361	211	54	30	81	135	/	162
DNH1-630/31G	256	304	175	370	211	54	39	81	/	90	/

DNH1-160/21G(21GR)
DNH1-250/21G(21GR)
FUSE SWITCH DISCONNECT

Model & Meaning

DN H 1 - □/ □ □ GR

- G:new type;R:Fuse monitoring
- "1" denotes hang type; "0" denotes fixed type
- Poles
- Conerntional thermal current
- Design code
- Fuse Switch Disconnector
- Code of company

Technicalparameter

Specifications		DNH1-250		DNH1-160	
Rated working voltage		400V ac	690V ac	400V ac	690V ac
Rated working current		250A	200A	160A	100A
Agreed heating current		250A	200A	160A	100A
Rated limited short-circuit current (with fused)		100kA	50kA	100kA	50kA
Usage category (with fused)		AC-23B	AC-23B	AC-23B	AC-23B
Rated insulation voltage		1000V ac	1000V ac	1000V ac	1000V ac
Rated impulse withstand voltage		12kV	12kV	12kV	12kV
Rated frequency		50/60Hz	50/60Hz	50/60Hz	50/60Hz
Electrical lifespan times		200	200	200	200
Max torque N.m		30N.m	30N.m	20N.m	20N.m
Fuse	standard: IEC60269-2/GB/T 13539.2	1	1	00	00
	Rated working current In	250A	200A	160A	100A
	Power dissipation Pn	23W	32W	12W	12W
Working Conditions	Air temperature	-5°C ~+ 40°C			
	Altitude	⩽ 2000m			
	Installation category and pollution level	III、IV		3	
	Transportation and storage	-25°C ~+ 55°C			

产品选型

DNH1-160/21G(21GR)

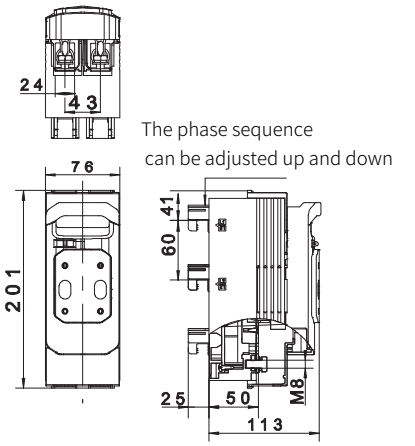
NO.	Model	Top	Down	Contact 1	Contact 2	Order number
1	DNH1-160/21G	▲				DN31026
2		▲		▲		DN31036
3		▲			▲	DN31038
4			▲			DN31046
5			▲	▲		DN31056
6			▲		▲	DN31058
7	DNH1-160/21GR	▲				DN31027
8		▲		▲		DN31037
9		▲			▲	DN31039
10			▲			DN31047
11			▲	▲		DN31057
12			▲		▲	DN31059

DNH1-250/21G(21GR)

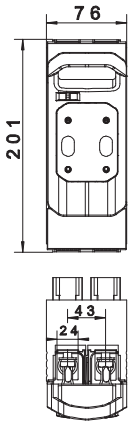
NO.	Model	Top	Down	Contact 1	Contact 2	Order number
1	DNH1-250/21G	▲				DN31136
2		▲		▲		DN31146
3		▲			▲	DN31158
4			▲			DN31166
5			▲	▲		DN31176
6			▲		▲	DN31186
7	DNH1-250/21GR	▲				DN31137
8		▲		▲		DN31147
9		▲			▲	DN31159
10			▲			DN31167
11			▲	▲		DN31177
12			▲		▲	DN31187

DNH1-160/21G(21GR)
DNH1-250/21G(21GR)
FUSE SWITCH DISCONNECT

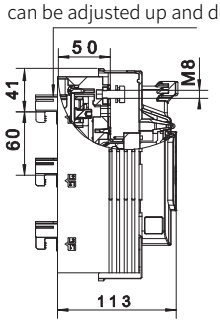
160A up to system



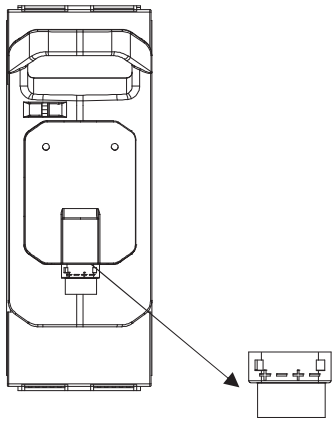
160A down to system



The phase sequence
can be adjusted up and down

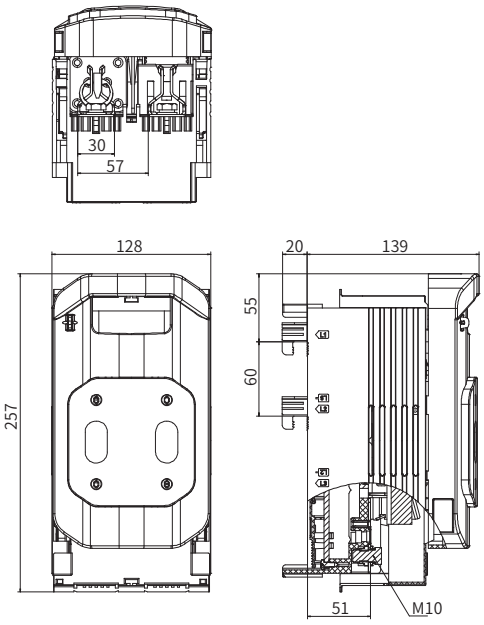


Fusing monitoring

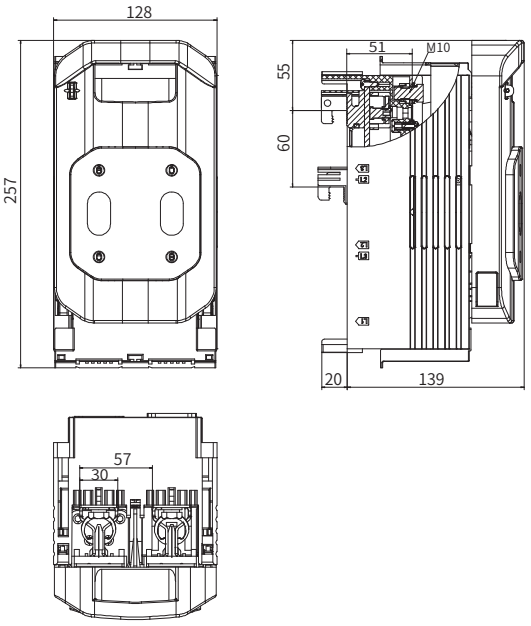


1.LED light does not light up in normal working state
2.LED lights up after melting of the fuse core
3.The positive pole on the product is connected to the PLC and powered by a DC24V power supply. When the fuse core melts, the positive and negative poles conduct

250A up to system

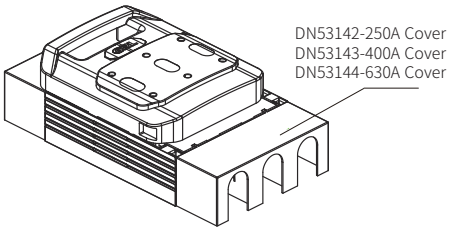


250A down to system



Accessories

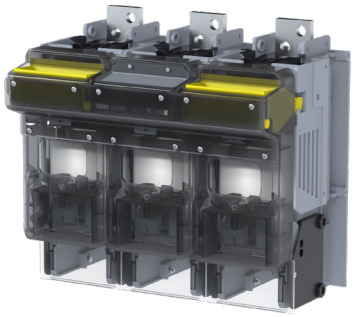
Termianl type	Torque N*m	Cable square mm^2	Optional switch type
M8 bolt (with cable lug)	12-15	16-70	**DNH1-160**
M10 bolt (with cable lug)	30-35	25-150	**DNH1-250 ～ 400**
M12 bolt (with cable lug)	35-40	25-240	**DNH1-630**
DN54224	3	16-70 s(r) 16-70 s(s) 16-70 f+AE	**DNH1-160**
DN54207	6	75-150 s(r) 75-150 s(s) 75-150 f,f+AE	**DNH1-250**
DN54208	8	50-240 s(r) 50-240 s(s) 50-240 f,f+AE	**DNH1-400 ～ 630**
DN54209	8	150-300 s(r) 150-300 s(s) 150-300 f,f+AE	**DNH1-630**



Protective cover

Order NO.	l	m	n	p	Adapted model
DN53142	183.5	68	65	33	DNH1-250
DN53143	208.5	51.5	79	43	DNH1-400
DN53144	254	48	93.5	43	DNH1-630

DNH1-1600/3
FUSE SWITCH DISCONNECT



Product Profile

The DNH1-1600/3 fuse type isolation switch can be operated with load and is suitable for circuits with a rated current of 800A~1600A;

The switch has a beautiful appearance and comes with a locking device;

Complies with IEC60947-3 and GB/T 14048.3 standards.

Model & Meaning

DN H 1 - □ / □

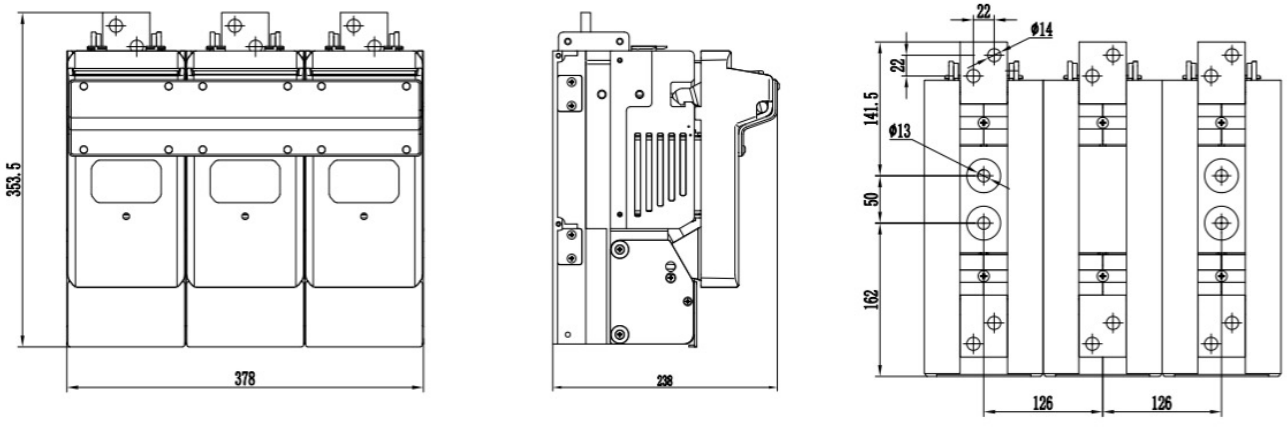
- Poles
- Conerntional thermal current 800:800A、1000:1000A、1250:1250A、1600:1600A
- Design code
- Fuse Switch Disconnector
- Code of company

Technical parameters

Rated current In(A)	800/1000/1250/1600
Agreed heating current Ith（A）	800/1000/1250/1600
Rated voltage Ue(V)	690
Rated insulation voltage Ui(V)	1000
额定冲击耐受电压 Uimp（kV）	12
Usage category	AC-21B(AC690V)/AC-22B(AC400V)/DC-21B(DC440V)
Mechanical lifespan (times)	600
Ambient temperature	-25° ~ +55°
Width（mm）	380
Height（mm）	355
Depth（mm）	240
Weight（kg）	13.5(without fuse) /22.5（with fuse）

Dimensions（mm）

DNH1-1600



DNH9
Fuse Switch Disconnenct

Application scope

Mainly used in distribution circuits and motor circuits with high short-circuit currents, as power switches, isolation switches, and application switches

Emergency switch and used for AC circuit protection. This switch is not suitable for directly opening and closing a single motor;

Complies with national standard GB/T 14048.3 and international standard IEC/EN60947-3.

Model & Meaning

DN H 9 - □ / □ □ □

- M:Mechanical melt core monitoring
- “0” ： Fexed type
- Poles
- Rated Current
- Design code
- Fuse Switch Disconnector
- Code of company

Working conditions

1.The ambient temperature range is -25 °C~+55 °C, and the average 24-hour value does not exceed+35 °C. If the ambient temperature is lower than-25 °C or higher than+55 °C, capacity reduction should be considered for use;

2. Altitude: The installation site has an altitude not exceeding 2000m;

3. When the maximum temperature is+40 °C, the relative humidity of the air does not exceed 50%. Higher relative humidity can be allowed at lower temperatures, such as up to 90% at+20 °C. Special measures should be taken for occasional condensation caused by temperature changes;

4. Pollution level: Level 3;

5. Installation category: III, IV;

6. It should be installed in a place without significant shaking, impact vibration, and invasion of rain and snow. At the same time, the installation location should be free of explosive hazardous media, and there should be no gas or dust in the media that is sufficient to corrode metals and damage insulation;

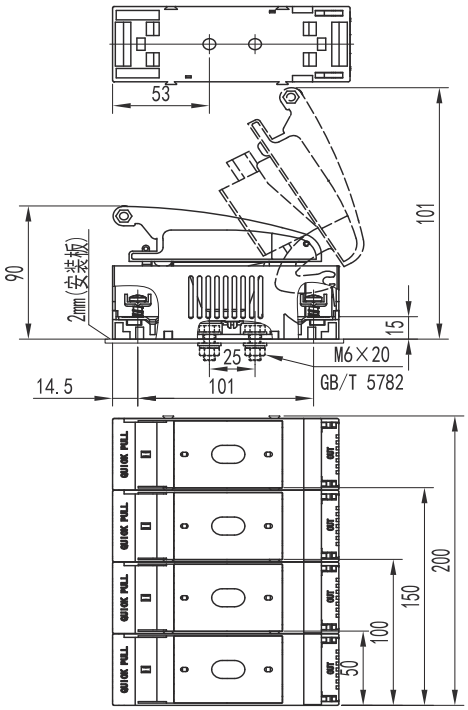
7. The switch should not bear additional mechanical stress, and external cables and busbars should be fixed through insulators, etc.

Note: For special usage environments, please consult with the manufacturer.

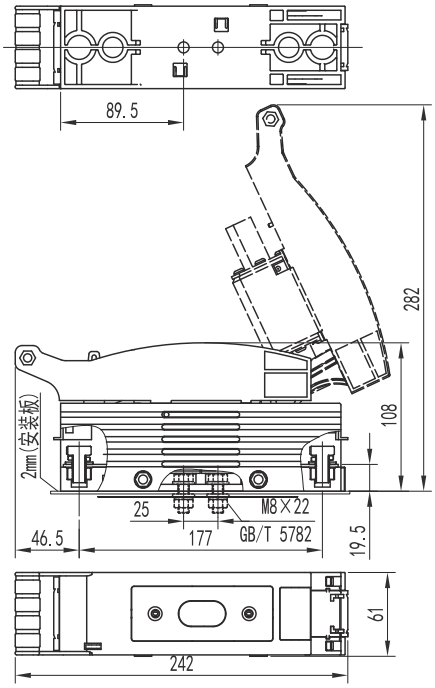
DNH9
Fuse Switch Disconnect

Dimensions (mm)

DNH9-160



DNH9-250/10



Parameters

Specifications			DNH9-160		DNH9-250	
Rated working voltage Ue		V	230V AC	415V AC	1000V DC	690V AC
Rated working current Ie		A	160	160	250	250
Agreed heating current Ith		V	160	160	250	250
Rated limited short-circuit current (with fused core)		kA	100	100	30	100
Usage category (with fused core)			AC-23B	AC-23B	DC-21B	AC-23B
Rated insulation voltage Ui		V	1000	1000	1000	1000
Rated impulse withstand voltage Uimp		kV	12	12	12	12
Rated frequency		Hz	50/60	50/60	50/60	50/60
Electrical lifespan (number of cycles of operation)		times	200	200	200	200
Maximum torque		N.m	30	30	30	30
Fuse	Executive standard: IEC60269-2/GB/T 13539.2		1	1	1	1
	Rated working current In	A	160	160	250	200
	Power consumption Pn	W	23	23	⩽ 32	
Usage conditions	Surrounding air temperature		-5°C ~+ 40°C			
	Altitude		⩽ 2000m			
	Installation category and pollution level		III、IV			
	Transportation and storage		-25°C ~+ 55°C			

DNH10
Fuse Switch Disconnect

Model & Meaning

DN H 10 - □ / □

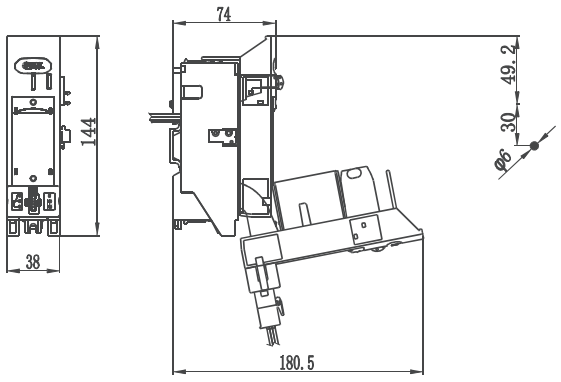
- DN — Code of company
- H — Fuse Switch Disconnector
- 10 — Design code
- □ — Current level
- □ — Poles

Technical Parameter

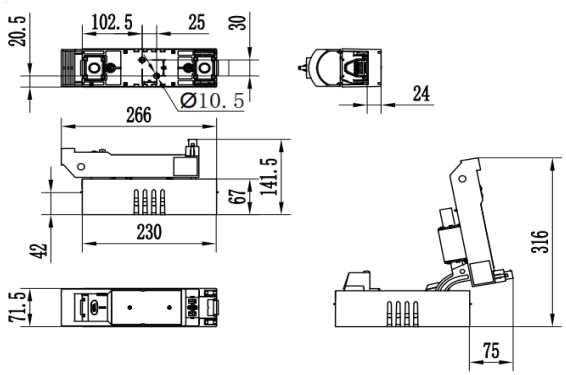
Specifications		DNH10-100	DNH10-250
Rated working voltage Ue	V	690	AC400/690/DC440
Rated working current Ie	A	160	250
Rated insulation voltage Ui	A	AC800	1000
Rated heating current Ith	V	160	250
Rated impulse withstand voltage Uimp	kV	8	12
Rated limiting short-circuit current AC 400V	kA	120	120
Rated frequency	Hz	40~60	50~60
Connection section	mm^2	15~50	
Usage category (with fused)		AC-23B(AV400) AC-21B(AV690)	AC-23B(AC400V) AC-21B(AC690V) DC-21B(DC440V)
Electrical lifespan	times	200	200
Mechanical lifespan	times	2000	2000
Working conditions	Air temperature	-5°C ~+ 40°C	
	Altitude	⩽ 2000m	
	Installation category and pollution level	No explosive hazardous media, no rain or snow invasion environment	
	Note: If expected to be used under conditions where the ambient air temperature is above+40 °C or below -5 °C, the user should explain to the manufacturer.		

Dimensions（mm）

DNH10-100



DNH10-250



DNH7
Fuse Switch Disconnect

Model & Meaning

DN H 7 - □ / □ □ □

① ② ③ ④ ⑤ ⑥ ⑦

① Code of company
② Fuse-Switch-Disconnector
③ Design code
④ Conerntional thermal cuurent
⑤ Poles
⑥ "0" means without auxiliary contacts;
"1" means with auxiliary contacts
⑦ "1" means denotes hang type;
"0" means denotes fixed type

Application scope

DNH7 series fuse type load isolating switch is applicable to high short circuit current circuit with AC 50(60)Hz, voltage up to 660V and rated working current up to 1600A. It possesses upper and lower end input and output structure. Lead in equipment with knife-edge and arc extinguishing equipment, and also can be operated with load. It is used as power switch, isolating switch and emergency switch, and for protecting current.

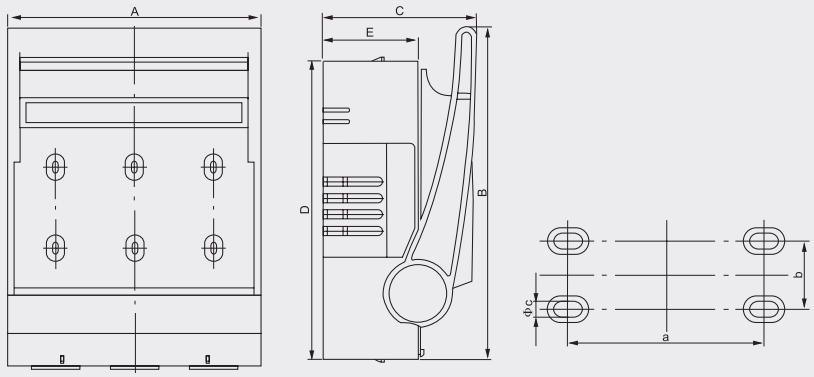
Principal technical parameter

Model	DNH7-160A			DNH7-250A			DNH7-400A			DNH7-630A		
Fuse size	00			1			2			3		
Rated operational voltage Ue V	400	500	690	400	500	690	400	500	690	400	500	690
Rated operational current Ie A	125	160	125		250	200		400	315		630	500
Thermal current w/fuse link Ith A	160			250			400			630		
Rated insulation voltage Ui V	1000			1000			1000			1000		
Rated impulse withstand voltage Uimp V	8000			8000			8000			8000		
Fuse protected short circuit making kA ms	50			50			50			50		
Rated making and breaking capacity	AC23B	AC22B	AC21B	AC23B	AC22B	AC21B	AC23B	AC22B	AC21B	AC23B	AC22B	AC21B
Rated frequency Hz	50 / 60			50 / 60			50 / 60			50 / 60		
Power loss at Im without fuse-link/phase W	12W			23W			34W			48W		

DNH7
Fuse Switch Disconnect

Model		DNH7-160A	DNH7-250A	DNH7-400A	DNH7-630A
Electrical durability		200	200	200	200
Mechanical durability		1400	1400	800	800
Degree of protection	Open	IP20	IP20	IP20	IP20
	Closed	IP30	IP30	IP30	IP30

Overall & Installation Dimension



Model	Overall (mm)					Installation (mm)			Fuse
	A	B	C	D	E	a	b	Φc	
DNH7-160	105	184	88	160	43	73	25	Φ7	NT00
DNH7-250	184	268	116	230	66	115	50	Φ11	NT1
DNH7-400	210	285	129	256	81	140	50	Φ11	NT2
DNH7-630	250	328	138	315	86	150	50	Φ9	NT3

DNH18
Fuse Switch Disconnect

Product Introduction

The DNH18 strip switch integrates the design concept of independent innovation,with a novel appearance and upgraded functions. It has 6 utility model patents and 4 appearance patents, providing a safer and more convenient installation and operation method for cable branch boxes, American style box transformers,etc.

> Set up installation positioning block
> Set up protective protrusions
> Easy installation of fuse links
> Set heat dissipation groove
> Set up rotating cover
> Integrated Transformer
> Multiple functional modules can be optionally selected

Model and meaning

DN H 18 - 630 / 3 0 1 L D

- D: 'D':With isolation knife;No 'D':With fuse
- L: "L":3 phase simultaneous, "S":3 phase separate
- 1: "0":No auxiliary contacts, "1":with auxiliary contacts
- 0: "0":Fixed type (optional), "1":Hanging type
- 3: Pole
- 630: Conventional thermal current
- 18: DesIgn Serial Number
- H: Disconnector
- DN: Enterprise code

Model List

No.	Order No	Current	Adapter
1	DNH18-160/3L	160A	Fixed installation (perforated), three-phase synchronous operation, with fuses
2	DNH18-160/311L	160A	Hanging installation, with auxiliary contacts, three-phase synchronous operation, with fuses
3	DNH18-250/3L	250A	Fixed installation (perforated), three-phase synchronous operation, with fuses
4	DNH18-250/3S	250A	Fixed installation (perforated), three-phase separate operation, with fuses
5	DNH18-250/3LD	250A	Fixed installation (drilling), three-phase synchronous operation, with isolation knife
6	DNH18-250/311L	250A	Hanging installation, with auxiliary contacts, three-phase synchronous operation, with fuses
7	DNH18-400/3L	400A	Fixed installation (perforated), three-phase synchronous operation, with fuses
8	DNH18-400/3S	400A	Fixed installation (perforated), three-phase separate operation, with fuses
9	DNH18-400/3LD	400A	Fixed installation (drilling), three-phase synchronous operation, with isolation knife
10	DNH18-400/311L	400A	Hanging installation, with auxiliary contacts, three-phase synchronous operation, with fuses
11	DNH18-630/3L	630A	Fixed installation (perforated), three-phase synchronous operation, with fuses
12	DNH18-630/3S	630A	Fixed installation (perforated), three-phase separate operation, with fuses
13	DNH18-630/3LD	630A	Fixed installation (drilling), three-phase synchronous operation, with isolation knife
14	DNH18-630/311L	630A	Hanging installation, with auxiliary contacts, three-phase synchronous operation, with fuses
Notes	1. For other specific ordering models, please refer to the explanation of the meaning of the bar fuse type isolating switch model		
	2. Other accessories such as wiring terminals are required. Please refer to the accessory table for strip fuse type isolating switches		

DNH18
Fuse Switch Disconnect

DNH18 Vertical Fuse Switch Disconnector Technical Parameters

					DNH18-160			DNH18-250			DNH18-400			DNH18-630		
Electrical parameter	With fuse link	Rated operating voltage	Ue	V	AC400	AC500	AC690	AC400	AC500	AC690	AC400	AC500	AC690	AC400	AC500	AC690
		Rated operating current	Ie	A	160	125	100	250	250	200	400	400	315	630	630	500
		Conventional thermal current	Ith	A	160	125	100	250	250	200	400	400	315	630	630	500
		Utilization Category			AC-23B	AC-23B	AC-22B	AC-23B	AC-22B	AC-21B	AC-23B	AC-22B	AC-21B	AC-23B	AC-22B	AC-21B
		Rated limited short-circuit current	Iq	kA	50			100	100	50	100	100	50	100	100	50
		Rated insulation voltage	Ui	V	1000			1000			1000			1000		
		Rated impulse withstand voltage	Uimp	kV	8			12			12			12		
		Rated frequency		Hz	50\60			50\60			50\60			50\60		
		Electrical endurance times		second	200			200			200			200		
	With copper link	Rated operating voltage	Ue	V	\			\	AC500	\	\	AC500	\	\	AC500	\
		Rated operating current	Ie	A	\			\	250	\	\	400	\	\	630	\
		Conventional thermal current	Ith	A	\			\	250	\	\	400	\	\	630	\
		Utilization Category			\			\	AC-23B	\	\	AC-23B	\	\	AC-23B	\
		Rated limited short-circuit current	Icw	kA	\			\	12	\	\	12	\	\	12	\
		Rated insulation voltage	Ui	V	\			1000			1000			1000		
		Rated impulse withstand voltage	Uimp	kV	\			12			12			12		
		Rated frequency		Hz	\			50\60			50\60			50\60		
		Electrical endurance Times		second	\			200			200			200		
Fuse		Fuse size (RT16NTNH) GB/T13539.2 IEC 60269-2			00			1			2			3		
		Operating current	In	A	160	125	100	250	250	200	400	400	315	630	630	500
		Power loss	P	W	12	12	12	18	23	32	28	34	45	40	48	60
Mechanism		Mechanical endurance times		second	1400			1400			800	800	1400	800		
		Busbar spacing		mm	185			185			185			185		
Protection		Frontal	On		IP20			IP20			IP20			IP20		
			Off		IP30			IP30			IP30			IP30		
Other		Electronic Fuse Monitor (EFM)			Can be added			Can be added			Can be added			Can be added		
		Signal feedback for opening and closing the switch (micro switch)			Can be added			Can be added			Can be added			Can be added		
Working conditions		Ambient temperature		℃	-5～+55											
		Working mode			Continuous operation											
		Operation			Handle											
		Installation form			Vertical											
		Sea level		Meter	≤2000											
		Pollution degree			3											
		Overvoltage category			III			IV								

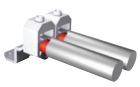
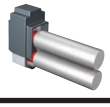
DNH18
Fuse Switch Disconnect

DNH18 Vertical Switch Disconnector Technical Parameters

					DNH18-1000	DNH18-630x2	DNH18-1000x2
Electrical parameter	With fuse link	Rated operating voltage	Ue	V	\	\	\
		Rated operating current	Ie	A	\	\	\
		Conventional thermal current	Ith	A	\	\	\
		Utilization Category			\	\	\
		Rated limited short-circuit current	Iq	kA	\	\	\
		Rated insulation voltage	Ui	V	\	\	\
		Rated impulse withstand voltage	Uimp	kV	\	\	\
		Rated frequency		Hz	\	\	\
		Electrical endurance times		second	\	\	\
	With copper link	Rated operating voltage	Ue	V	AC500	AC500	AC500
		Rated operating current	Ie	A	\ 1000 \	\ 1250 \	\ 2000 \
		Conventional thermal current	Ith	A	\ 1000 \	\ 1250 \	\ 2000 \
		Utilization Category			\ AC-21B \	\ AC-21B \	\ AC-21B \
		Rated limited short-circuit current	Icw	kA	\ 15, 25(special structure)	\ 15 \	\ 25 \
		Rated insulation voltage	Ui	V	1000	1000	1000
		Rated impulse withstand voltage	Uimp	kV	12	12	12
		Rated frequency		Hz	50\60	50\60	50\60
		Electrical endurance Times		second	100	100	100
Fuse		Fuse size (RT16NTNH) GB/T13539.2 IEC 60269-2			\	\	\
		Operating current	In	A	\	\	\
		Power loss	P	W	\	\	\
Mechanism		Mechanical endurance times		second	500	500	500
		Busbar spacing		mm	185	185	185
Protection		Frontal	On		IP20	IP20	IP20
			Off		IP30	IP30	IP30
Other		Electronic Fuse Monitor (EFM)			Can be added	Can be added	Can be added
		Signal feedback for opening and closing the switch (micro switch)			Can be added	Can be added	Can be added
Working conditions		Ambient temperature		℃	-5～+55		
		Working mode			Continuous operation		
		Operation			Handle		
		Installation form			Vertical		
		Sea level		Meter	≤2000		
		Pollution degree			3		
		Overvoltage category			IV		

DNH18
Fuse Switch Disconnect

DNH18 Vertical Fuse Switch Disconnector Accessories Table

	Type	Item No.	Appearance	Name	Part No.	Conductor cross section min.–max. (mm^2)	Torque (N · m)	Quantity (per unit)	Specifications for the matched vertical fuse switch disconnector	Standard	Optional
Accessories	Product accessories	1.1		Position block	——	——	——	4	DNH18–250~630	●	
		1.2		Insulation board	——	——	——	2		●	
		1.3		Multi–function meter	DN57020	——	——	1			●
		1.4		Current transformer (class 0.5)	Choose the switch model no. base on customer ' s ampere in demand.	——	——	3			●
		1.5		Electronic Fuse Monitor (EFM)	DN57001	——	——	1	DNH18–160~630		●
	Mounting terminal	2.1		Hanging terminal	DN54251	——	8	3	DNH18–160		●
		2.2		Hanging terminal	DN54253	——	30	3	DNH18–250~630		●
	Wiring terminal	3.1	Matching cable lug or busbar	M8 bolt	-----	16–70	12	3	DNH18–160		●
		3.2	Matching cable lug or busbar	M10 bolt	-----	35–240	30	3	DNH18–250		●
		3.3	Matching cable lug or busbar	M10 bolt	-----	35–240	30	3	DNH18–400		●
		3.4	Matching cable lug or busbar	M12 bolt	-----	70–240	35	3	DNH18–630		●
		3.5		Wiring terminal	DN54224	16–70 s(r) 16–70 s(s) 16–70 f+AE	3	3	DNH18–160		●
		3.6		Wiring terminal	DN54267	35–70 s(r) 16–150 s(s) 16–185sol(s)	25	3	DNH18–250		●
		3.7		Wiring terminal(V–shaped)	DN54275	50~300s(r) 50~240s(s) 50~300sol(s)	30	3	DNH18–250~630		●
		3.8		Horizontal double core wiring terminal	DN54276	2*185~240	30	1	DNH18–630		●
		3.9		Vertical double core wiring terminal		2*185~240	30	2	DNH18–630		●

DNH18
Fuse Switch Disconnect

DNH18 Vertical Fuse Switch Disconnector Selection Table

No.	Part No.	Pole	Current	System	Size	Adaptation	Remarks
1	DNH18-160/3L	3	160A	185	668 × 50	Fixed installation (drill hole), three-phase synchronous operation and with fuse	
2	DNH18-160/311L	3	160A	185		Hanging installation, with auxiliary contacts, three-phase synchronous operation and with fuse	
3	DNH18-250/3L	3	250A	185	666 × 100	Fixed installation (drill hole), three-phase synchronous operation and with fuse	
4	DNH18-250/3S	3	250A	185		Fixed installation (drill hole), three-phase separate operation and with fuse	
5	DNH18-250/3LD	3	250A	185		Fixed installation (drill hole), three-phase synchronous operation and with fuse isolation knife	
6	DNH18-250/311L	3	250A	185		Fixed installation (drill hole), three-phase synchronous operation and with fuse	
7	DNH18-400/3L	3	400A	185		Fixed installation (drill hole), three-phase synchronous operation and with fuse	
8	DNH18-400/3S	3	400A	185		Fixed installation (drill hole), three-phase separate operation and with fuse	
9	DNH18-400/3LD	3	400A	185		Fixed installation (drill hole), three-phase synchronous operation and with fuse isolation knife	
10	DNH18-400/311L	3	400A	185		Fixed installation (drill hole), three-phase synchronous operation and with fuse	
11	DNH18-630/3L	3	630A	185		Fixed installation (drill hole), three-phase synchronous operation and with fuse	
12	DNH18-630/3S	3	630A	185		Fixed installation (drill hole), three-phase separate operation and with fuse	
13	DNH18-630/3LD	3	630A	185		Fixed installation (drill hole), three-phase synchronous operation and with fuse isolation knife	
14	DNH18-630/311L	3	630A	185		Hanging installation, with auxiliary contacts, three-phase synchronous operation and with fuse.	
Remarks	1. Please refer to the model no. definition of the vertical fuse switch disconnector to choose the right items in demand.						
	2.Other accessories, such as wiring terminals, please refer to the vertical fuse switch disconnector accessories list.						

DNH18M
Fuse Switch Disconnect

Widely used in wind power, photovoltaic, energy storage, power grid, communications, high-end equipment manufacturing and other industries.

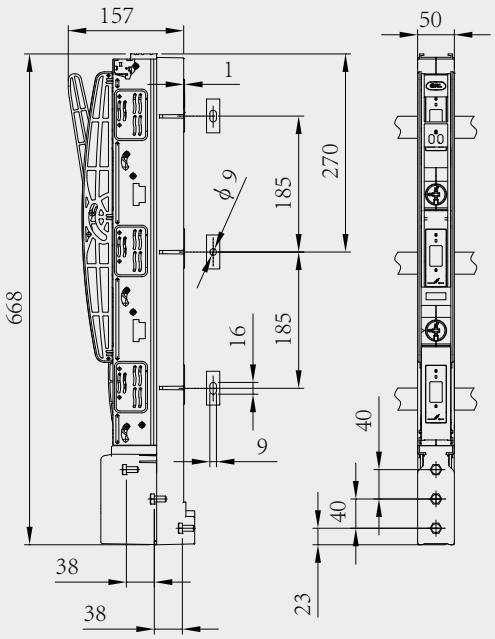
Technical Parameters

Model No.	Size	Rated Voltage(V)	Rated Current (A)	Rated insulation voltage	Rated impulse withstand voltage
DNH18-160/30M	00	AC800V	63A	AC1250V	12kV
DNH18-250/30M	1	AC800V	160A	AC1250V	12kV
DNH18-630/30M	3	AC800V	315A	AC1250V	12kV

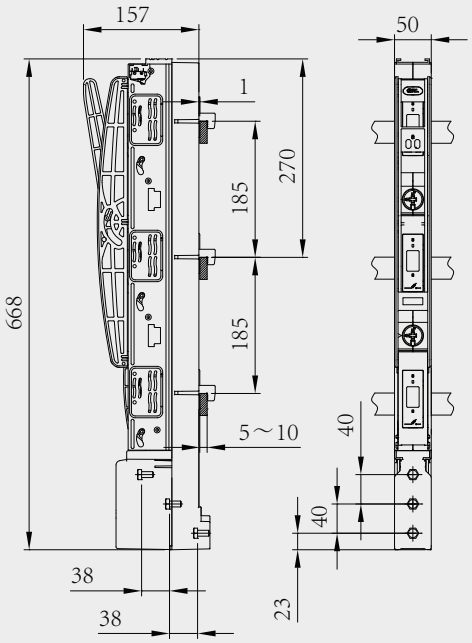
DNH18
Fuse Switch Disconnect

DNH18-160/3L

3L Fixed type installation diagram

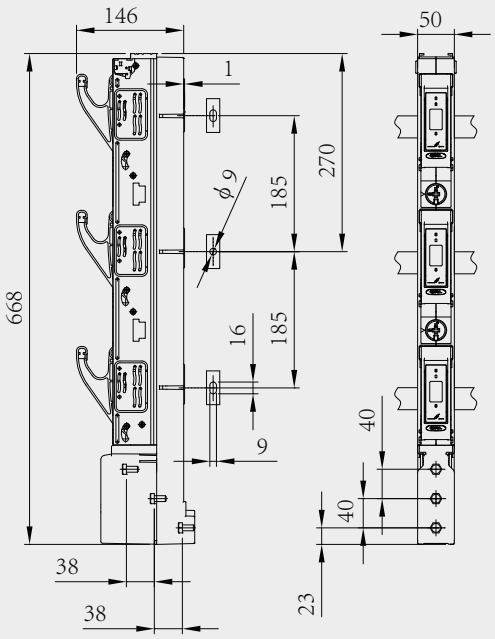


3L Hanging type installation diagram

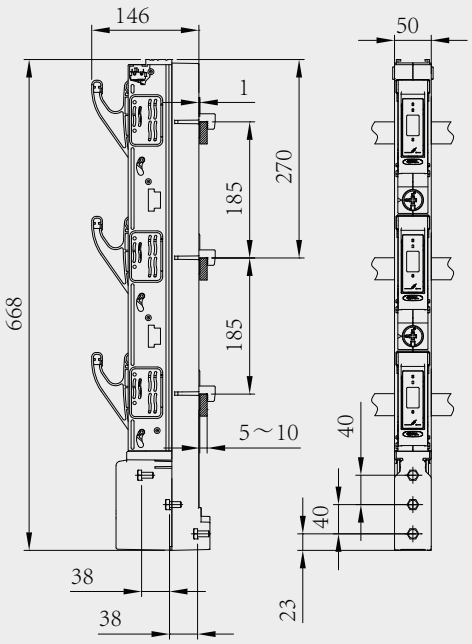


DNH18-160/3S

3S Fixed type installation diagram



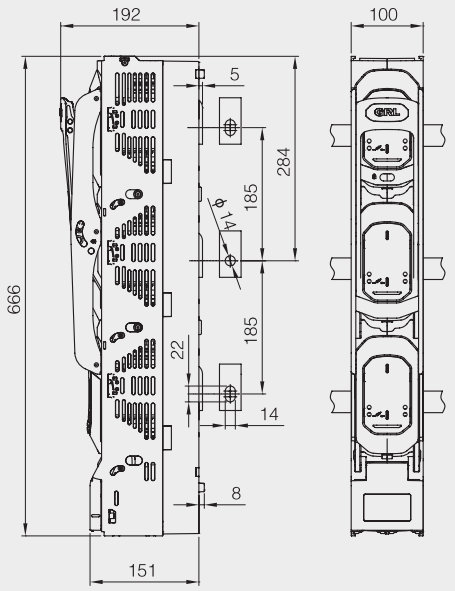
3S Hanging type installation diagram

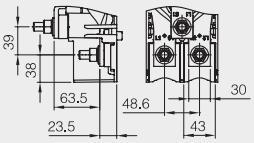


DNH18
Fuse Switch Disconnect

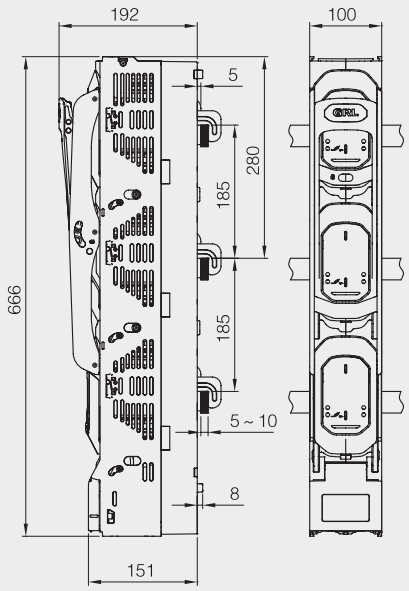
DNH18-250~630/3L

3L Fixed type installation diagram



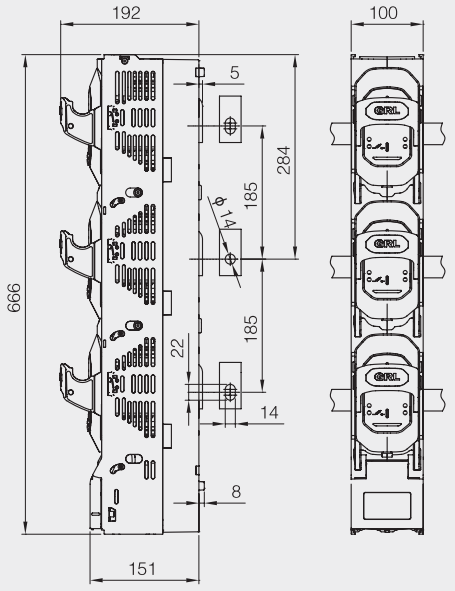


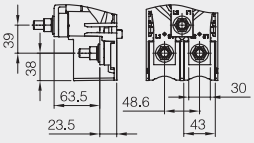
3L Hanging type installation diagram



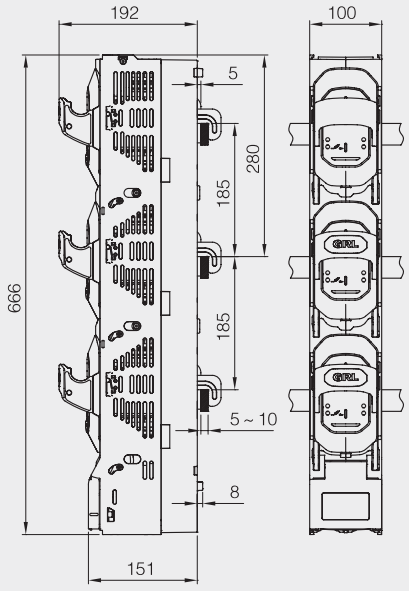
DNH18-250~630/3S

3L Fixed type installation diagram





3L Hanging type installation diagram



DNH11
FUSE SWITCH DISCONNECT

Application scope

The DNH11 fuse switch disconnect is independently designed and developed by our company, and it is a product that can be used simultaneously outdoor low-voltage fuse switch disconnect.

This product consists of a base, contacts, arc extinguishing cover, and other parts. Operation method and traditional high-voltage drop switch.

The operation method is the same, and it can be operated with an insulated rod when used outdoors.

Model & Meaning

DN H 11 - □ / □ □ □

- M:Mechanical melt core monitoring
- “0” ： Fexed type
- Poles
- Rated Current
- Design code
- Fuse Switch Disconnector
- Code of company

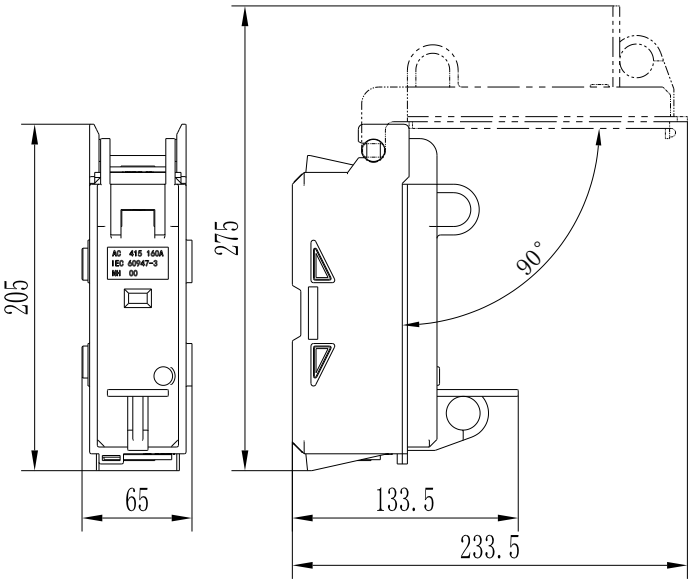
Technical Parameter

Specifications		DNH11-160	DNH11-400
Rated working voltage Ue	V	AC 415	AC 415
Rated working current Ie	A	160	400
Rated insulation voltage Ui	A	AC 1000	AC 1000
Fuse Size	V	NH00	NH1/NH2
Rated impulse withstand voltage Uimp	kV	12	12
Rated short-time withstand current	kA/1s	10	10
Rated frequency	Hz	50/60	50/60
Poles		1P/2P/3P/4P	1P/2P/3P/4P
Usage category (with fused)		AC-22B	AC-22B
Wiring size	mm^2	16~95	95~185
External dimensions	mm	IP23	IP23
Protection grade		315×92×150	205x65x133.5
Working conditions	Air temperature	-5°C ~+ 55°C	
	Altitude	⩽3000m	
	Installation category and pollution level	III	
	Note: If expected to be used under conditions where the ambient air temperature is above +55 °C or below -5 °C, the user should explain to the manufacturer.		

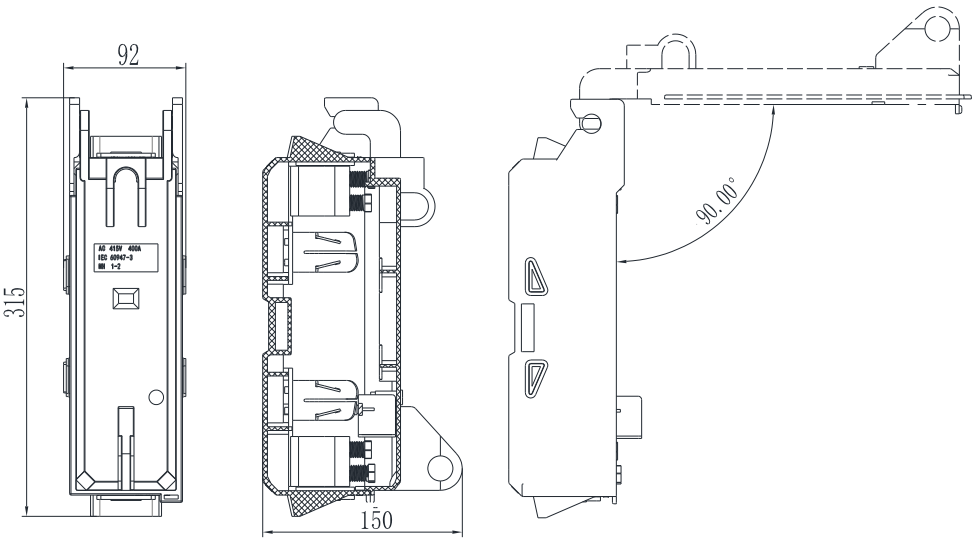
DNH11
FUSE SWITCH DISCONNECT

Dimensions (mm)

DNH11-160



DNH11-400



DNTRS
Bar Fuse Holder

Scope of application

※ DNTRS bar fuse holder used in AC 50(60) Hz 100mm or 185mm busbar system with rated voltage up to 690V and rated current up to 630A, it is mainly used for overload and short circuit protection of circuit.

※ DNTRS bar fuse holder has been widely used for box transformer and cable branch box.

※ DNTRS bar fuse holder complies with standard of GB13539.2、IEC60269.2 and IEC60947.3.

Structure Feature

DNTRS series bar fuse holder is mainly mounted in rail of bus, which intergrates three single-pole fuse holders in end-to-end arrangenment, A contact (feeding contact) of each phase is connected with one phase of bus, and other contacts (output contact) are equipped with conductor connection unit.

The DNTRS bar fuse holder carrying live part is made of fibre reinforced plastic (FRP), Ag-plated fuse contact with Tin-plated end block ensures low power loss, high accepting power and low work temperature.

DNTRS bar fuse holder can be fixed by screw or hook. When it is mounted with hook, the busbar does not need punching, which makes the installation easier, more flexible and more reliable.

Model & Meaning

DN ① TRS ② - □ ③ / □ ④

① Code of company
② bar fuse holder
③ Rated thermal current
④ 100mm busbar system; 180mm busbar system

Principal technical parameter

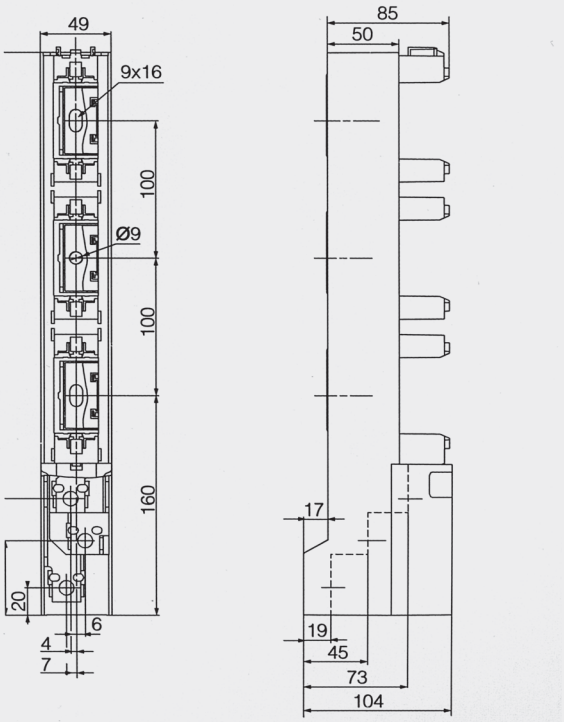
Model and specification	Busbar system (mm)	Equipped fuse link	Note
DNTRS-160/100	100 (Note)	NH00(RT16-00)	Single pole Breaking
DNTRS-160/185	185	NH00(RT16-00)	Single pole Breaking
DNTRS-250/185	185	NH1(RT16-1)	Single pole Breaking
DNTRS-400/185	185	NH2(RT16-2)	Single pole Breaking
DNTRS-630/185	185	NH3(RT16-3)	Single pole Breaking

Note: through transfer device or 185mm system.

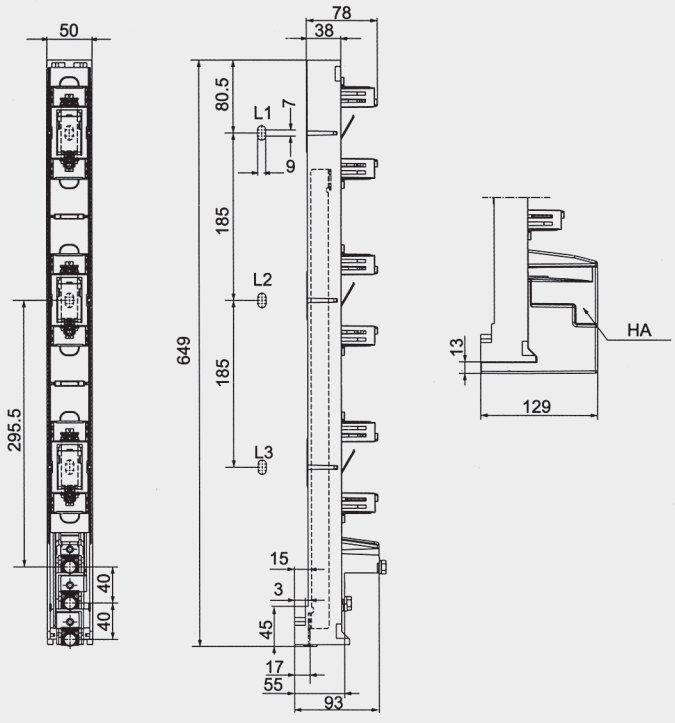
DNTRS
Bar Fuse Holder

Overall & Installation Dimension

DNTRS-160/100mm

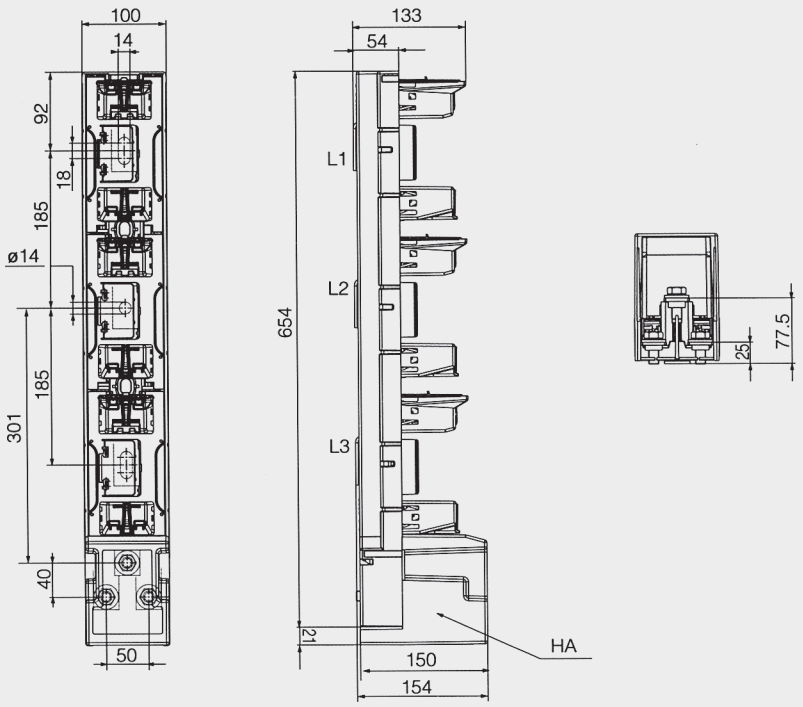


DNTRS-160/185mm



DNTRS
Bar Fuse Holder

DNTRS-250/185mm
DNTRS-400/185mm
DNTRS-630/185mm



HR6
Fuse Switch Disconnector

Application scope

HR6 series fuse-switch-disconnector (chere inafter refered to switch) is designed for the distribution circuit and electromot of circuit with high short circuit current, with rated AC voltage 380V and 660V (45~62Hz) , conventional thermal current up to 630A. It is used as power switch, switch disconnector and emergent switch, and with the function of circuit protection, but not used as a direct open or close single electromotor popularly.

This product is in conformity with standard GB14048.3(idt IEC60947-3).

Normal work conditions and Installation conditions

※ Ambient temperatue: -5°C~40°C .
※ Altitude: shall not exceed 2000m.
※ The atmosphere condition: The relative humidity shall not exceed 50% when the environmental temperatue is +40°C in installing place; And the relative humidity may be higher at the lowertemperature condition. Such as when the humidity is 90% when the temperature is +20°C .It shall take some special management to avoid the dew occurs on the product surface due to temperature change.
※ Pollution grade: III
※ The product shall be installed in the place without remarkable shake, strike and quiver, rain and snow, in the medium without danger of exploding, and in the places without gas and conductive dust, which can make the metal go rust and affect insulation performances.

Model & Meaning

HR 6 - □ / □ □
① ② ③ ④ ⑤

① Fuse-switch-disconnector
② Design code
③ Conventional thermal current (A)
④ Number of poles (2，3)
⑤ "0" means no opening and closing signal device
"1" means with opening and closing signal device
(Equipped with one micro-par switch)

Other

Structure Characteritic:

The switch is composed of base、cover and arc chute, all these parts are made of arc-resisting plastics, it is whole plastic structure. The static contact is directly installed on thebase, the arc chute is rasily mounted and dismounted, each arc chute has two parts: inner room and outer room, it adopts multi-pieces of metal arc-blowout grid which increase the arc-blowout capacity and prolong the service life of the contact.

NT type fusing unit is fixed inside the cover, the cover can be rotated along the supporting unit in fan shape, it has a relative big electric isolation distance which can meet the demands of the isolating seitch; The cover can be dismounted from the base easily chich make the installation and replacement of the fusing unit easy There are three group of installation hote on the base, which and meet the installation requirements of various switchgear cubicle and panel. Auxiliary contact can be mounted at the two side of the switch on demands, it can give out the signal of opening and closing the switch.

HR6
Fuse Switch Disconnect

Principal technical parameter

Switch and matched fuse link

Conventional thermal current (A)	Fuse body number	Rated operational voltage (V)	Current value of fuse body (A)
160	NT00、RT16-00	380	4、6、10、16、20、25、32、35、40、50、63、80、100、125、160
160	NT00、RT16-00	660	4、6、10、16、20、25、32、35、40、50、63、80、100
250	NT1、RT16-1	380	80、100、125、160、200、224、250
250	NT1、RT16-1	660	80、100、125、160、200
400	NT2、RT16-2	380	125、160、200、224、250、300、315、355、400
400	NT2、RT16-2	660	125、160、200、224、250、300、315
630	NT3、RT16-3	380	315、355、400、425、500、630
630	NT3、RT16-3	660	315、355、400、425

Technical parameter of the switch

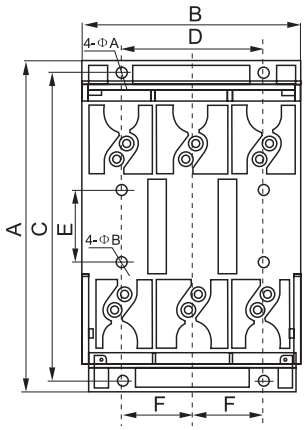
Model			HR6-160	HR6-250	HR6-400	HR6-630
Rated insulation voltage (V)			660	660	660	660
Conventional thermal current (A)			160	250	400	630
Rated operational current (A)	380V	Making	160	250	400	630
	660V	Breaking	100	200	315	425
Rated making & breaking capacity (A) (1.05Ue)	380V, COSΦ=0.35	Making	1600	2500	4000	6300
	AC23B	Breaking	1280	2000	3200	5040
	660V, COSΦ=0.65	Making	480	750	1200	1890
	AC22B	Breaking	480	750	1200	1890
Rated fuse short-circuit current (kA)			50	50	50	50
Max. Expected peak current (kA)			100	100	100	100
Size of the applied NT fuse			00	1	2	3
Pollution grade			3	3	3	3
Installation category			III	III	III	III

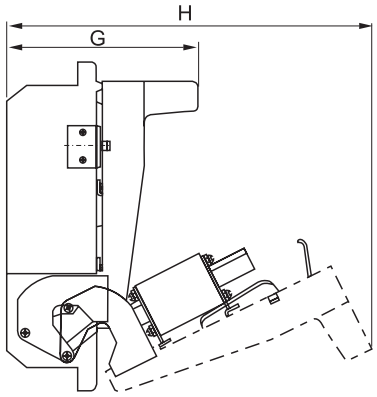
Rated voltage of the auxiliary switch is AC 380V, conventional thermal current is 5A,utilization category is AC-15 and the rated operational capacity is 300VA.

HR6
Fuse Switch Disconnector

Overall & Installation Dimension

Specification	Dimension									
	A (Max)	B (Max)	C	D	E	F	G (Max)	H (Max)	ΦA	ΦB
160A	215	138	200	80	40	40	142	252	Φ7	Φ7
250A	280	189	260	120	60	60	162	320	Φ9	Φ9
400A	300	220	280	142	60	80	195	360	Φ9	Φ9
630A	300	248	280	160	60	80	195	360	Φ9	Φ9





Ordering notice

When the company orders please note clealy product type, voltage grade, current grade, pole number, operating mode and quantity and so on. Please ask technical department when you orders specially.

Example: HR6-400/30 660V fuse body current 315A 10 sets

HGLR
Fuse Switch Disconnect



Model & Meaning

H GLR - □A / □ · □ C J □ B □

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩

① Code of company.

② Fuse combination switches.

③ Conventional thermal current.

④ Rated current A for fuse-link.

⑤ Number of poles:
3 poles, 4 poles (3 poles+on and off neutral pole)

⑥ Side operation, no note for front operation.

⑦ External operation standard extended shaft 330mm
If there is special requirements,mark after J, no note for internal operation.

⑧ Auxiliary contact.

⑨ The connection behind the board. Connection in front of board is not marked.

⑩ Form: I modular (160A~1400A)
II integrated (400A~630A)

Note: Function in brackets will not be noted if it is not needed.
I : S-NO+NC S type auxiliary contacts
II : F-NO+NC S type auxiliary contacts

Introduction

HGLR series fuse combination switches (hereinafter called as switch for short) is a kind of multi-poles hand-operated switch, adopting the shell made of unsaturated polyester resin reinforced with glass-fibres, having very high dielectric performance, protective capability and safe operation.

The operating device is an elastic-accumulating and accelerating instant-release device, which makes instant making and breaking of the double gap contact. It has no relation ship with the operation handle and thus greatly increase both the various electrical and mechanical performance. The fuse combination switches can assure the circuit to be turmed making and breaking under load, having reliable breaking protection against over-current or short-circuit apparent visible the off state.

Having strong humidity and heat resistant properties.

The switch has an artistic, novel, succinct, small-sized outline, but has various functions, being the best choice among the congeneric products.

Example of model selection

HGLR-160A/3C

Conventional thermal current 160A, 3 poles, side operation side the board.

HGLR
Fuse Switch Disconnector

Rated current A for fuse combination switches(A)	Rated current A for fuse-link(A)	Fuse-link dimension
63	2、4、6、10、16、20、25、32、40、50、63	00C
160	2、4、6、10、16、20、25、32、40、50、63、80、100、125、160	00
250	16、20、25、40、50、63、80、100、125、160、200、250	1
400	50、63、80、100、125、160、200、250、315、400	2
630	200、250、300、400、500、630	3
1250	800、1000、1250	4

Characteristies of products

※ The elastic-accumulation and instant-release mechanical realize the fast on and off (13.8m/s). Having no relation ship with the speed of the handle and thus increasing various electrical properties.
※ The shell made of unsaturated polyester resin reinforced with glass fibres has fine fire-resistant dielectric and safe-operational properties.
※ The parallel double gap contact has self-cleaming function.
※ It can assure the circuit to be turmed making and breaking under load, and has relicable over-current and short-circuit protection function.
※ when change fuse, it can be safety, facility, fast.

Normal work conditions and installation conditions

※ Ambient temperature:-5°C~40°C.
※ Altitude: shall not exceed 2000m.
※ The atmosphere condition: The relative humidity shall not exceed 50% when the environmental temperature is +40°C in installing place; And the relative humidity may be higher at the lowertemperature condition. Such as when the humidity is 90% when the temperature is +20°C. It shall take some special management to avoid the dew occurs on the product surface due to temperature change.
※ Pollution grade:III
※ The product shall be installed in the place without remarkable shake, strke and quiver, rain and snow, in the medium without danger of exploding, and in the places without gas and conductive dust, with can make the metal go rust and affect insulation performances.

HGLR-63~1250 type of fuse combination switches

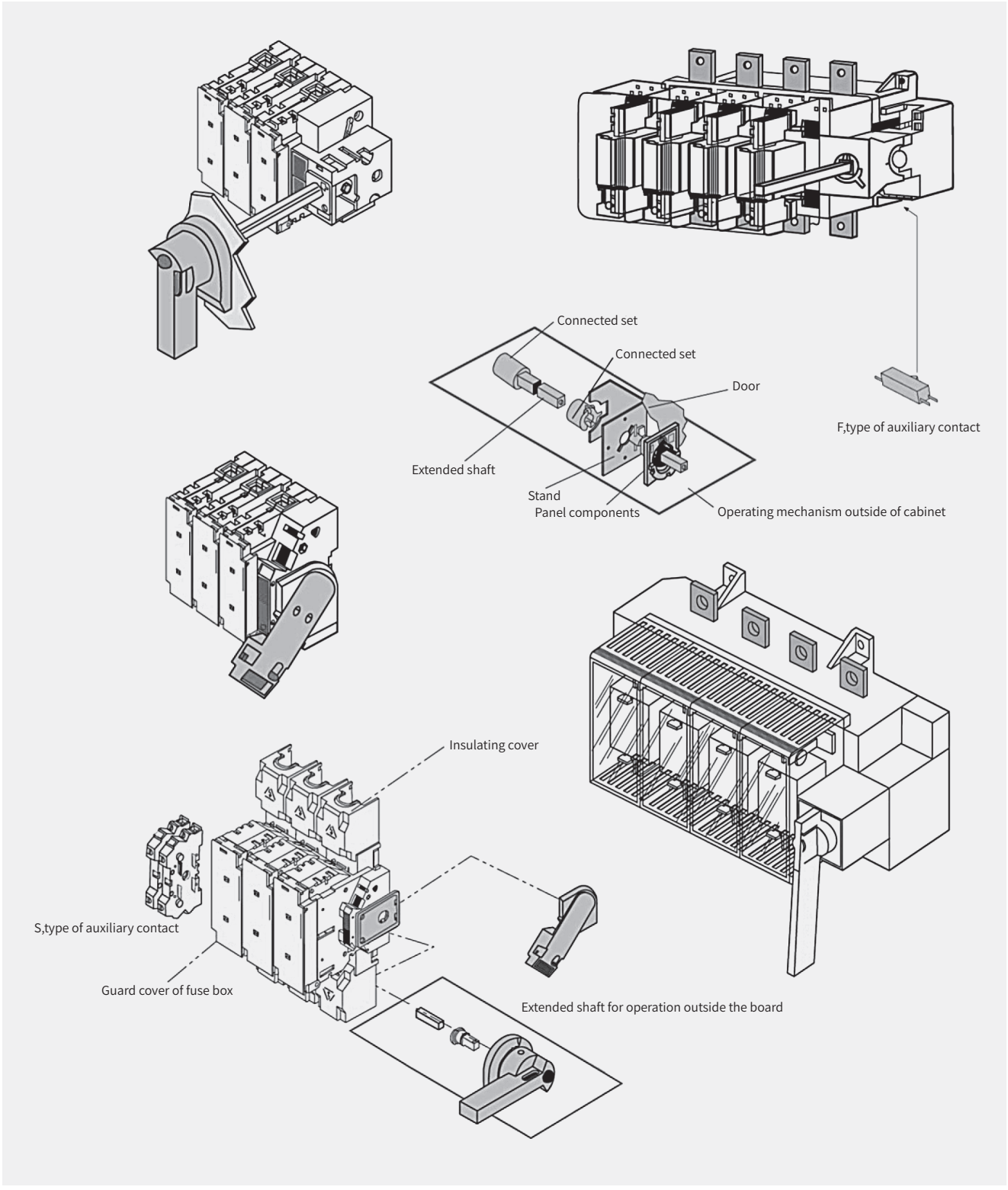
HGLR-63~400 is of modular design structure.
HGLR-63~1250 is Overall design structure.
Ensure making and break under load, reliable over-current and short-circuit off-protection.
Structures and operation forms:

F、S type of auxiliary contact can be provided.

※ Direct front operation: the handle is installed in front of the switch.
※ Direct side operation: the handle is installed at the right side of the switch.
※ Front operation outside the board: the handle is assembled at the front of the distributing board.
※ Side operation outside the board: the handle is assembled at the right side of the board .

HGLR
Fuse Switch Disconnect

HGLR-63~1250 sketch diagram of fuse combination switches



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Fuse Switch Disconnector

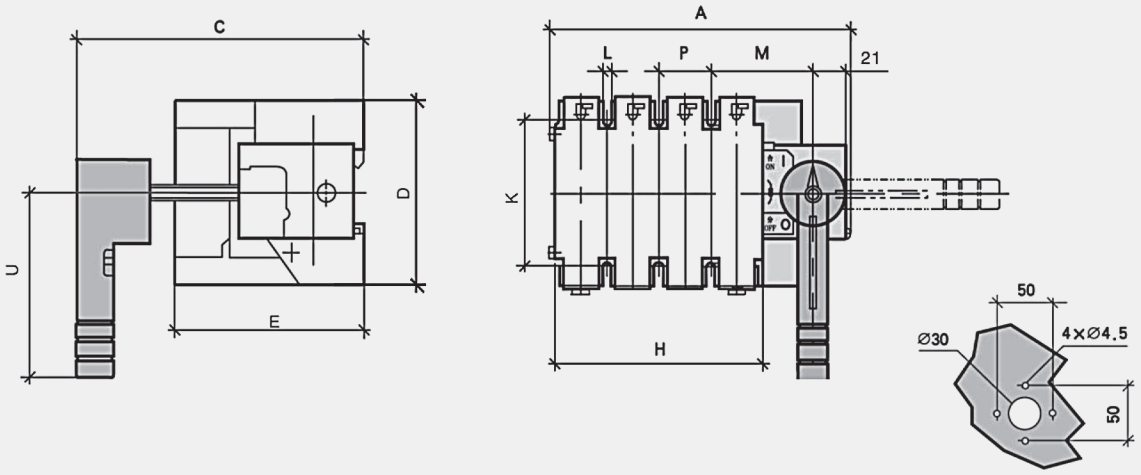
Electrical and mechanical properties of HGLR-63~1250 type of fuse combination switch

Conventional thermal current Ith (A)		63	160	250	400	630	1250
RT16 fuse-link dimension NT		00C	00C	1	2	3	4
Rated insulation voltage Ui (V)		750	750	750	750	750	750
Dielectric strength (V)							
Rated surge-resistant voltage (Uimp kV)		6	6	6	6	6	6
Rated working current le (A)							
380V	AC-23B	63	160	250	400	630	1250
660V	AC-21B		160	250	400	630	1250
short-circuit limiting current (Iq) (kA)		50	50	50	50	50	50
Connected with breaking capacity(A Rms)							
Rated making capability		630	1600	2500	4000	6300	10000
Rated breaking capability		504	1280	2000	3200	5040	10000
Operating performance							
Mechanical durability 380V		1700	1400	1400	800	800	500
Electrical curability 380V		300	200	200	200	200	100
Mechanical durability 660V		1700	1400	1400	800	800	500
Weight (kg)							
3 poles		1	1.8	3.2	4.8	16	28
4 poles		1.3	2.3	4.5	6.1	19	33

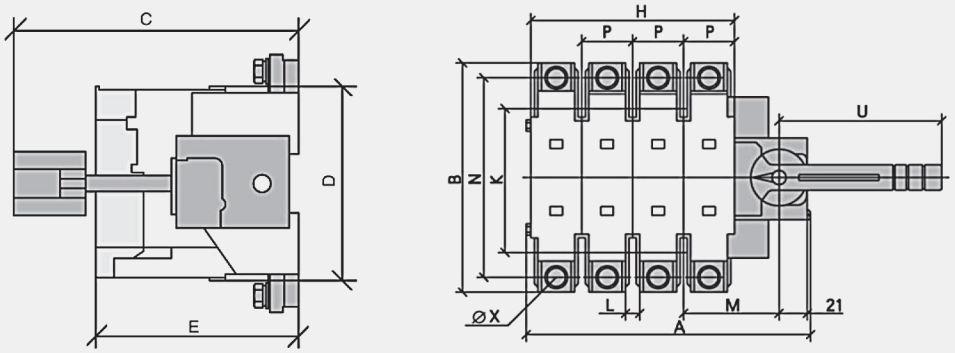
HGLR
Fuse Switch Disconnect

HGLR-63~400 Overall & Installation Dimension

Front operation 63



Front operation 160~400

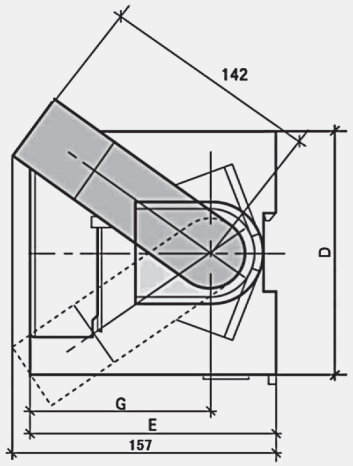


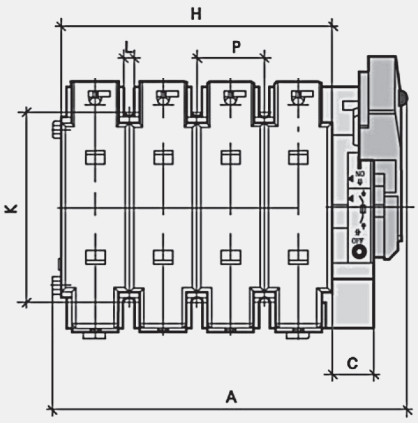
Specification	A	B	C	D	E	H	M	K	N	P	U	L	ΦX
HGLR-63A/3	154		191	121	117	96	63	90		32	115	5	
HGLR-63A/4	186		191	121	117	128	63	90		32	115	5	
HGLR-160A/3	167	162	192	121	127	108	67	90	141	36	115	5	9
HGLR-160A/4	203	162	192	121	127	144	67	90	141	36	115	5	9
HGLR-250A/3	239	195	200	165	146	180	93	137	165	60	145	6	11
HGLR-250A/4	323	195	200	165	146	240	117	137	165	60	145	6	11
HGLR-400A/3	281	205	200	170	149	198	122	137	175	66	145	6	11
HGLR-400A/4	347	205	200	170	149	264	122	137	175	66	145	6	11

HGLR
Fuse Switch Disconnector

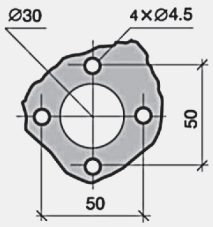
HGLR-630~1250 sketch diagram of fuse combination switches

Side drection operation of 63

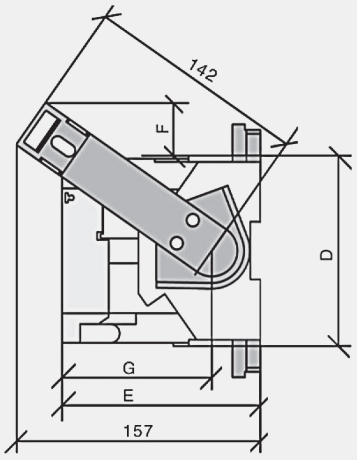


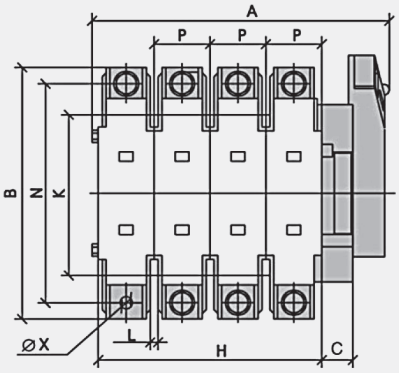


Front operation 160~400



Door hole



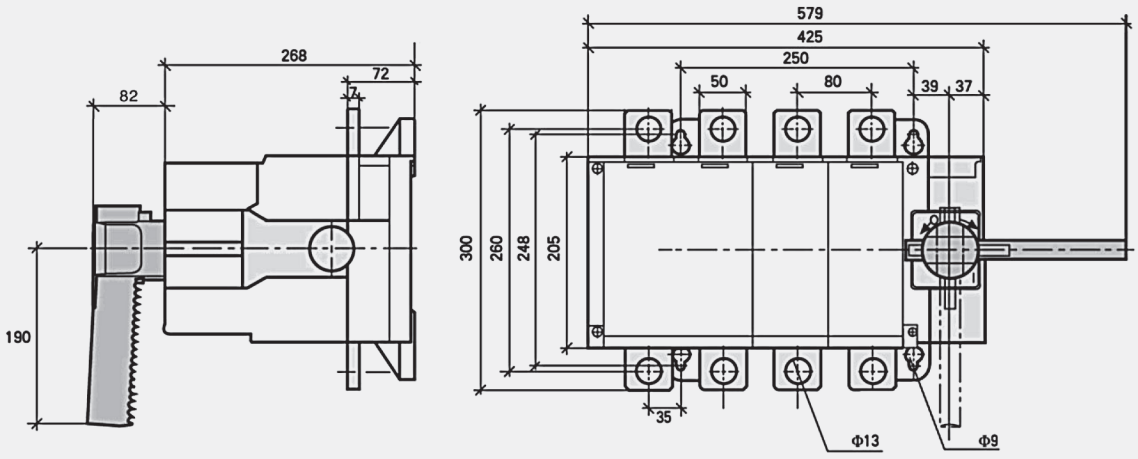


Specification	A	B	C	D	E	F	H	K	N	P	L	G	ΦX
HGLR-63A/3C	140		20	121	117	40	96	90		32	5	94	
HGLR-63A/4C	172		20	121	117	40	128	90		32	5	94	
HGLR-160A/3C	152	162	20	121	127	40	108	90	141	36	5	104	9
HGLR-160A/4C	188	162	20	121	127	40	144	90	141	36	5	104	9
HGLR-250A/3C	224	195	20	165	146	18	180	137	165	60	6	123	11
HGLR-250A/4C	314	195	50	165	146	18	240	137	165	60	6	123	11
HGLR-400A/3C	272	205	50	170	149	15	198	147	175	66	6	126	11
HGLR-400A/4C	338	205	50	170	149	15	264	147	175	66	6	126	11

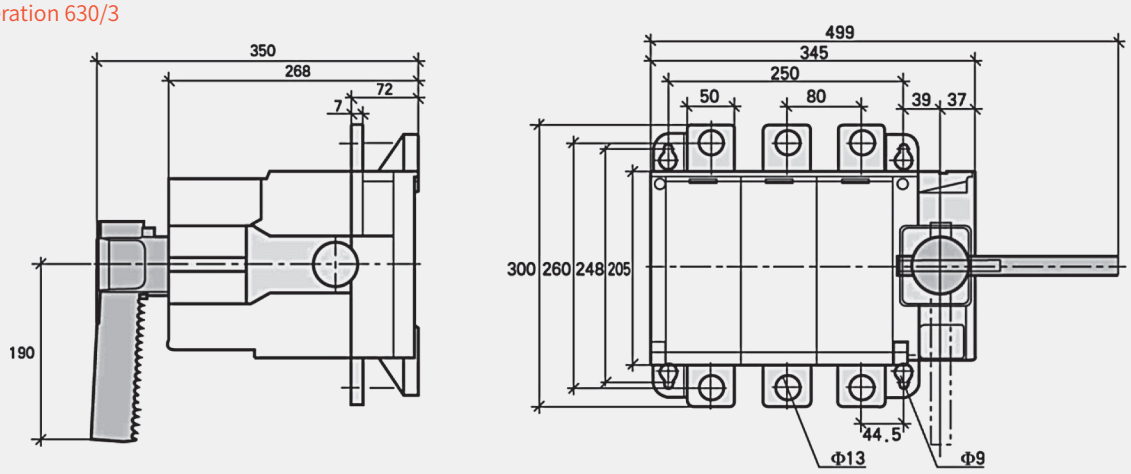
HGLR
Fuse Switch Disconnect

HGLR-630 Overall & Installation Dimension

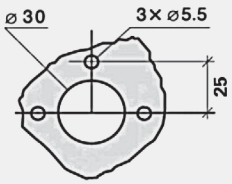
Front operation 630/4



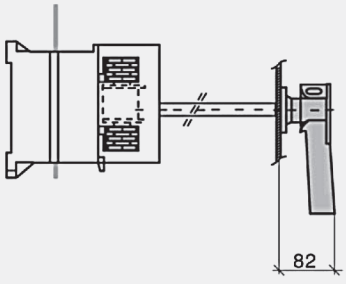
Front operation 630/3



Door hole



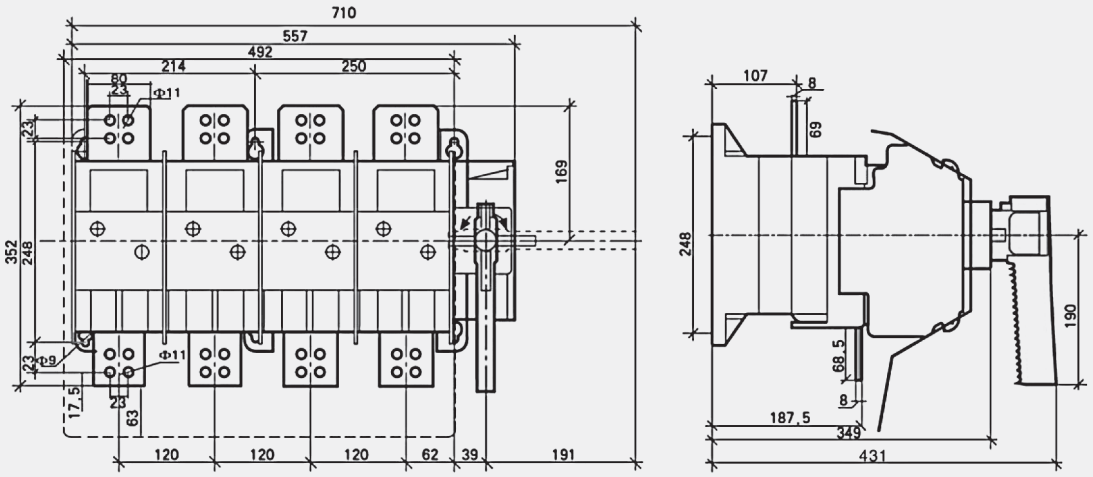
Front operation outside the borad 630



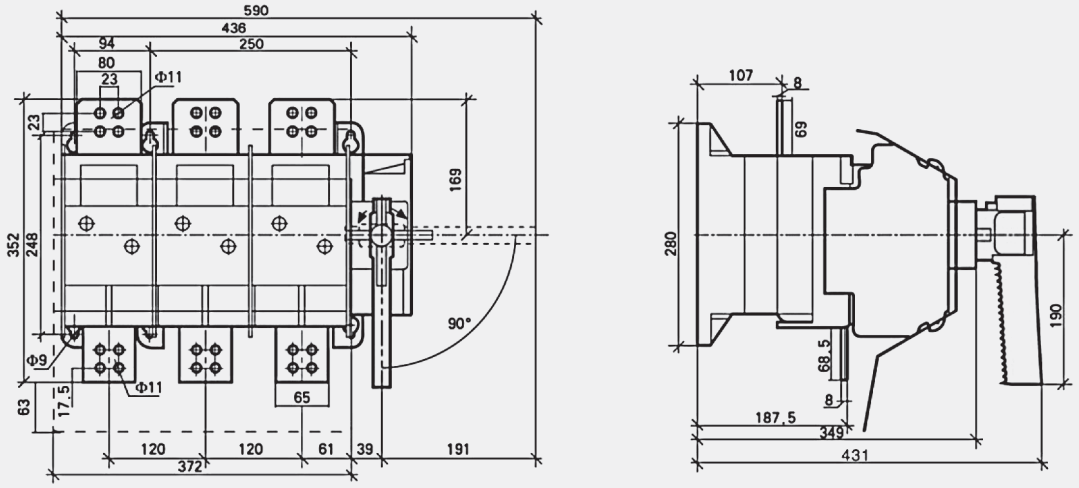
HGLR
Fuse Switch Disconnector

HGLR-1250 Overall & Installation Dimension

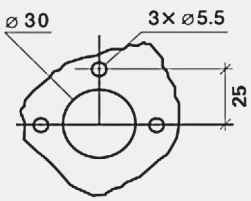
Front operation 1250/4



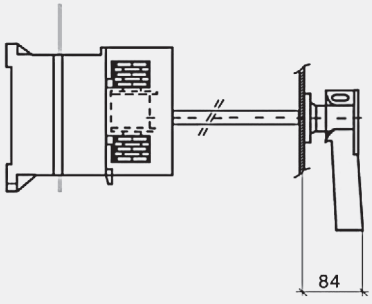
Front operation 1250/3



Door hole



Front operation outside the borad 1250



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