

DNH1G FUSE SWITCH DISCONNECT

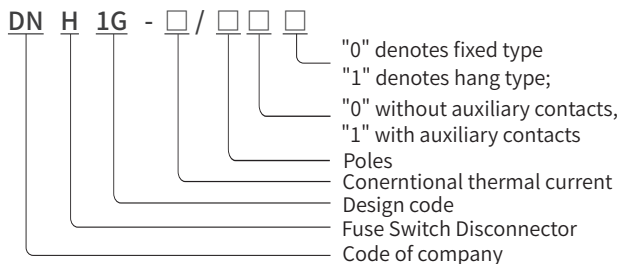


Application scope

DNH1 series fuse-switch-disconnector (hereinafter referred to as switch) is designed for the distribution circuit and electromotor 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



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 dismantled, 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 dismantled 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

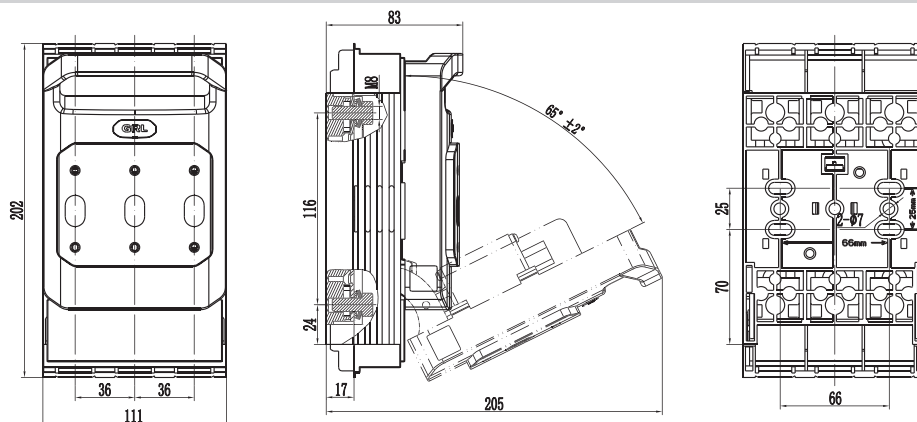
Technical parameters

				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	°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									

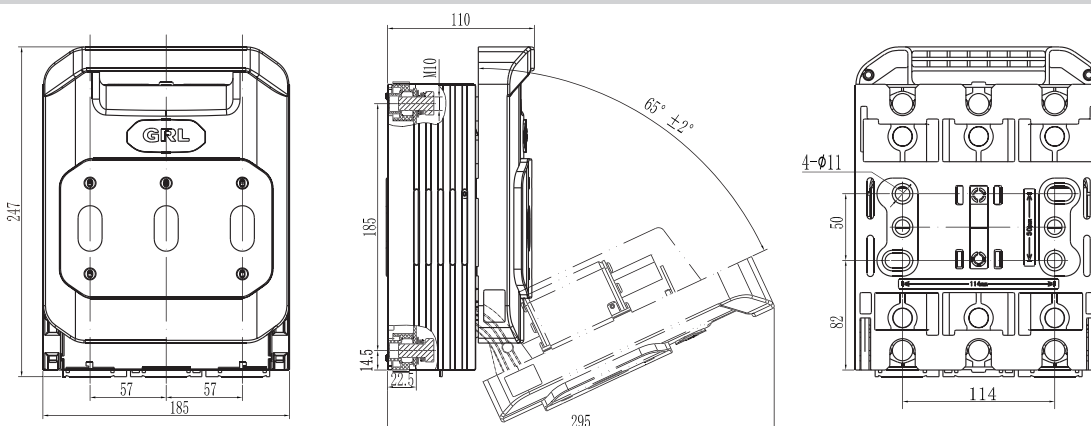
DNH1G FUSE SWITCH DISCONNECT

Appearance and installation dimensions (mm)

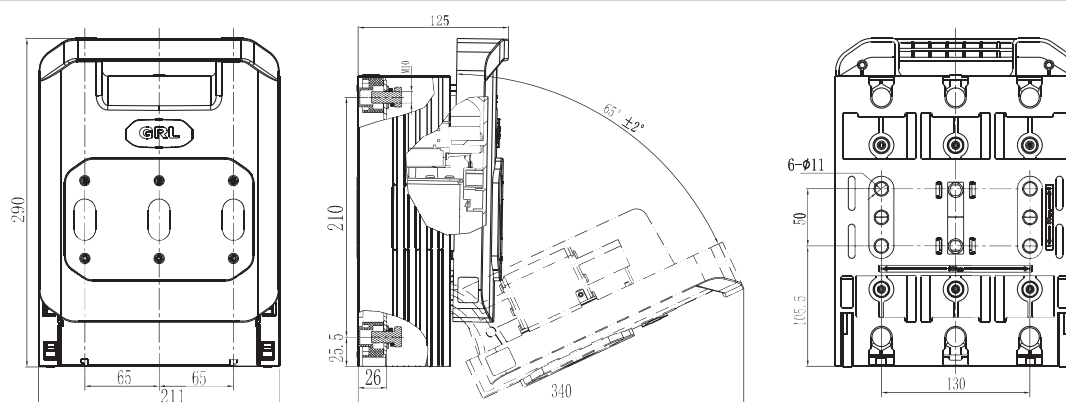
DNH1-160/30G Fixed



DNH1-250/30G Fixed

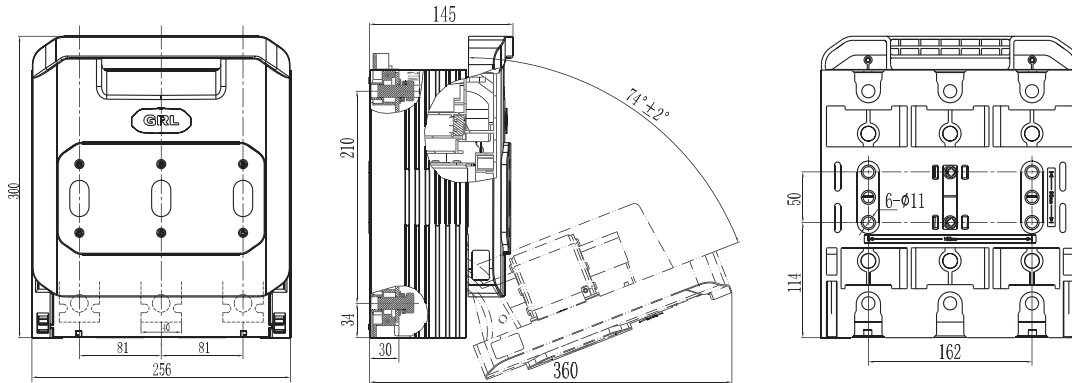


DNH1-400/30G Fixed

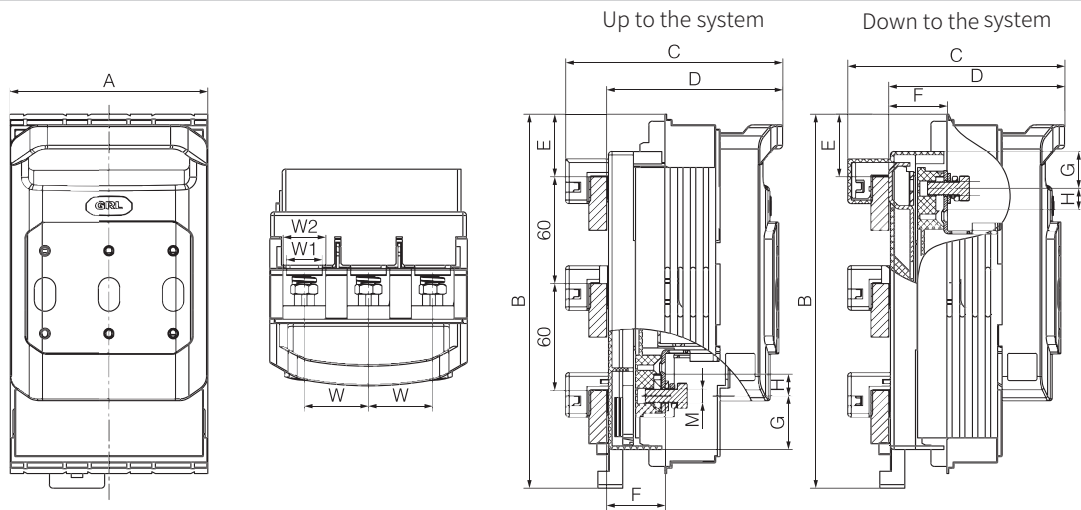


DNH1G FUSE SWITCH DISCONNECT

DNH1-630/30G Fixed

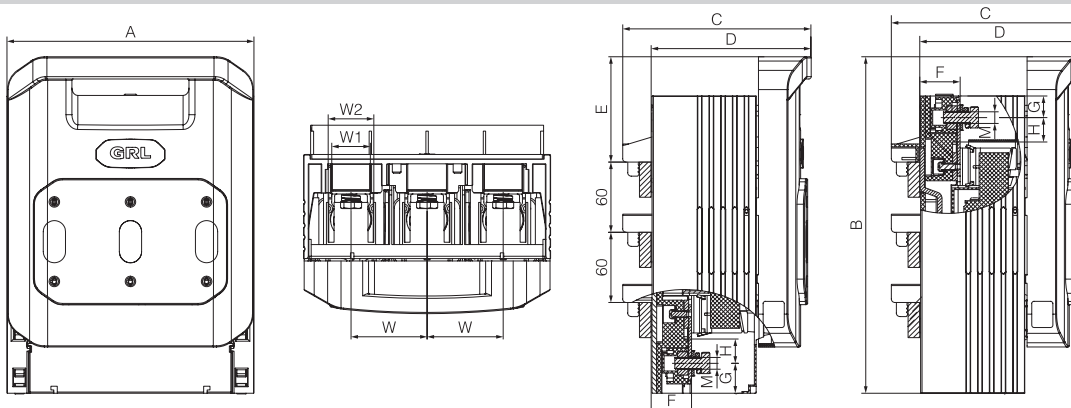


DNH1-160/31G Busbar



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

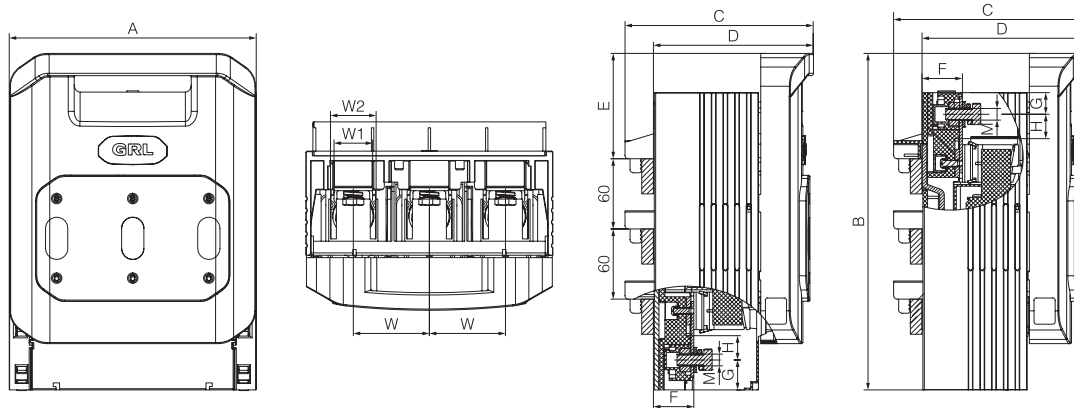
DNH1-250/31G Busbar



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

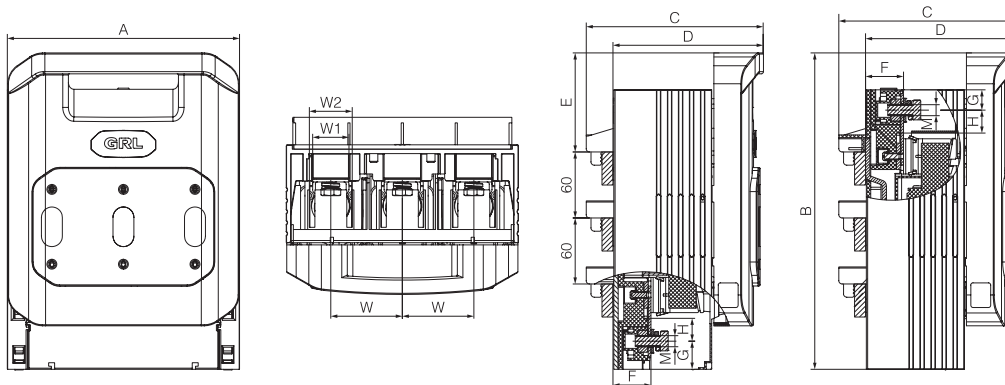
DNH1G FUSE SWITCH DISCONNECT

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	19	M10	65	33	50
						18.5					

DNH1-630/31G Busbar

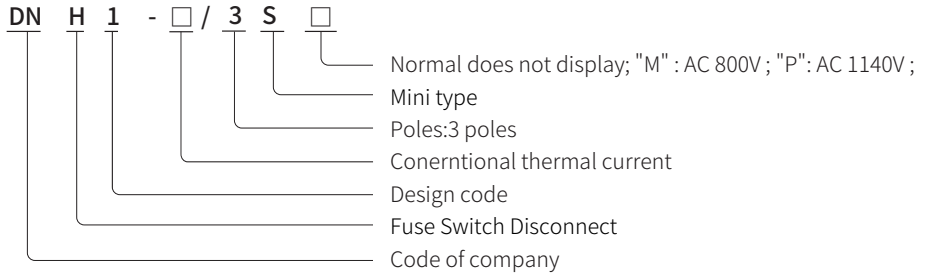


A	B	C	D	E	F	G	H	M	W	W1	W2
256	313	178	154	90	41.5	37.5	21	M12	81	45	59

DNH1-□/3S FUSE SWITCH DISCONNECT



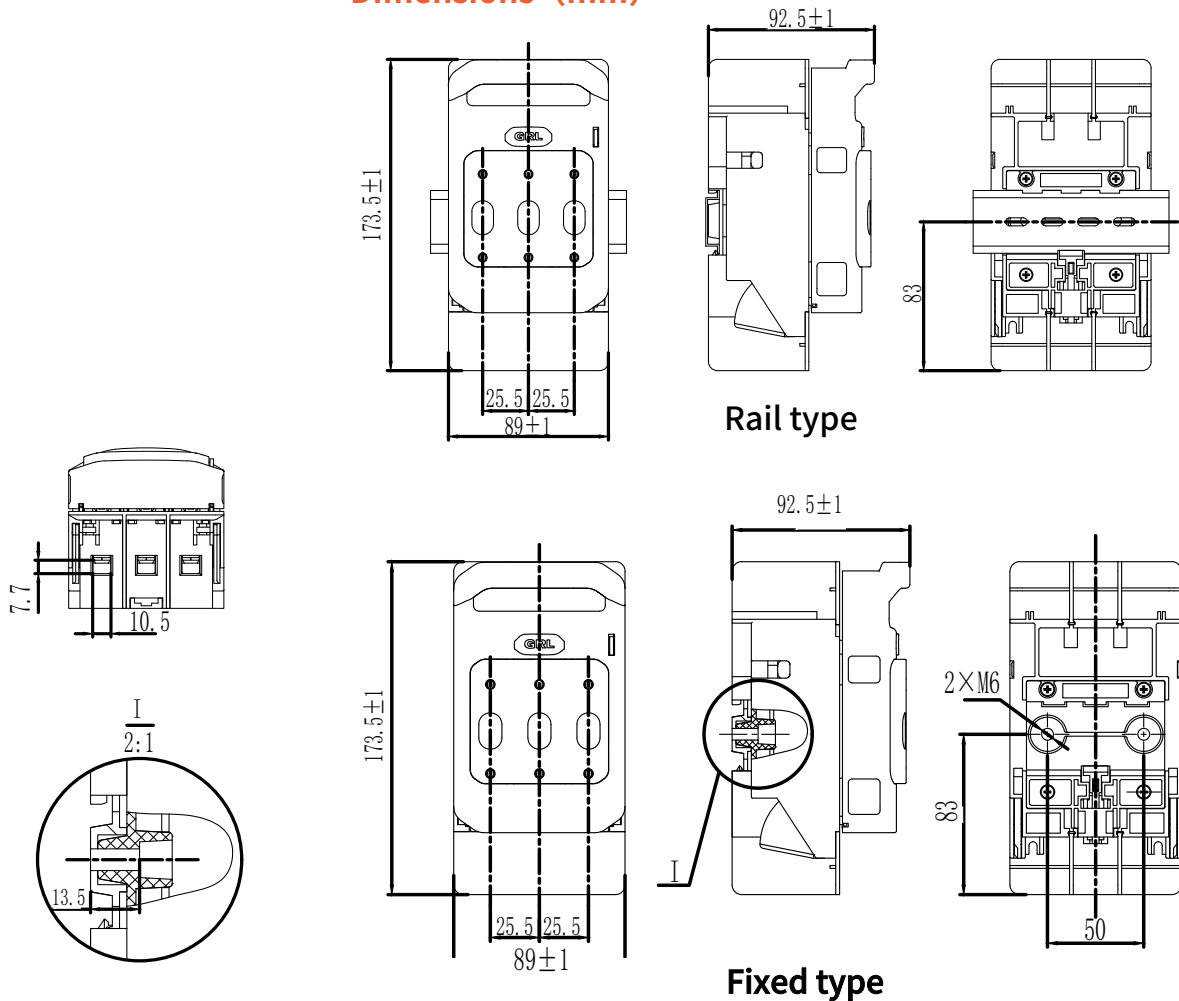
Model & Meaning



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

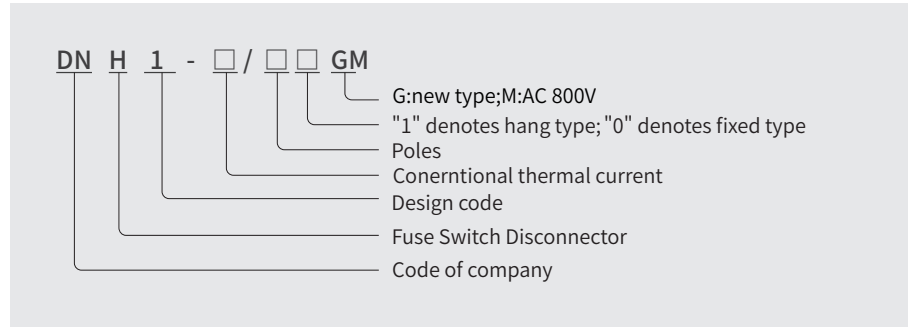
Dimensions (mm)



DNH1GM FUSE SWITCH DISCONNECT



Model & Meaning



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

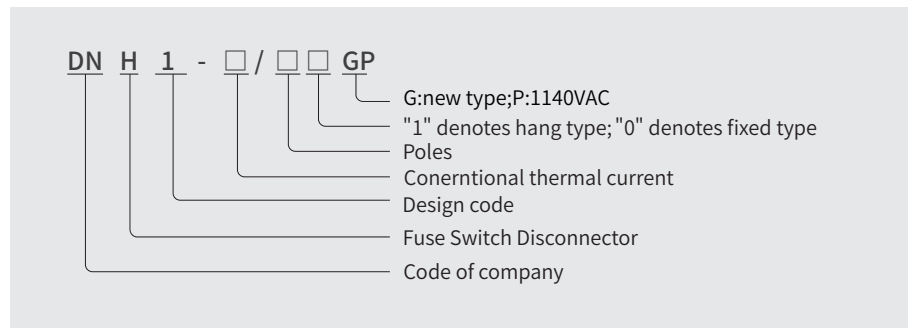
Technical parameter

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



Working Conditions

1. Working temperature range (Tj): -40 °C~60°C
2. Altitude: ≤ 5000m.

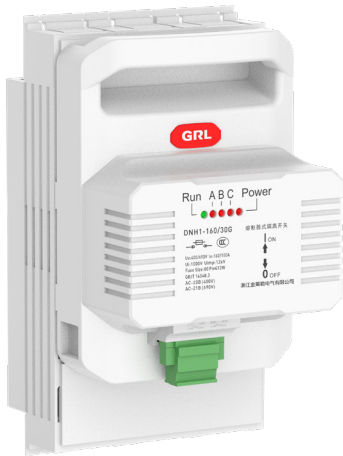
Dimensions(mm)

The installation size is the same as the DNH1 series

Technical parameter

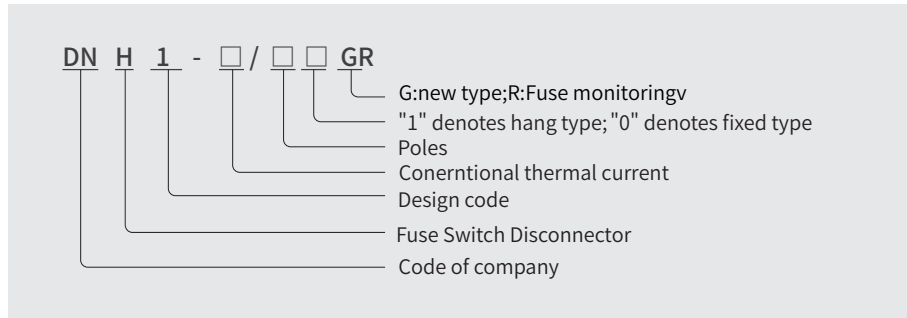
Model	Size	Ue(V)	Ie (A)	Ui(V)	Uimp (kV)
DNH1-160/30GP	00	AC 1140	63	AC 1250	12
DNH1-250/30GP	1	AC 1140	160	AC 1250	12
DNH1-630/30GP	3	AC 1140	315	AC 1250	12

DNH1G FUSE SWITCH DISCONNECT Electronic melt core monitoring



IEC 60947-3、IEC 60269-2

Model&Meaning



				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	Fuse	Rated Voltage	Ue	V	AC380	AC380	AC400	AC400	AC400	AC400	AC400	AC400	
		Rated Current	Ie	A	160	250	630	630	630	630	630	630	
		Rated insulation voltage	Ui	V	690	690	1000	1000	1000	1000	1000	1000	
		Agreed heating current	Ith	A	160	250	630	630	630	630	630	630	
		Rated impulse withstand voltage	Uimp	kV	8	8	12	12	12	12	12	12	
		Rated limiting short-circuit current	Icw	kA/1s	8	10	15	15	15	15	15	15	
		Usage category			AC-21B	AC-21B	AC-23B	AC-23B	AC-23B	AC-23B	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

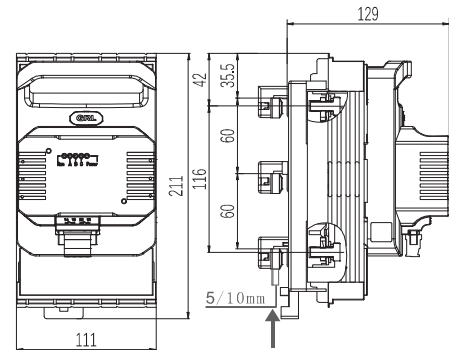
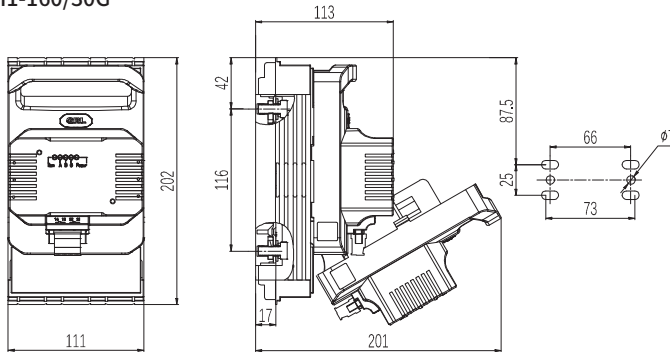
Electronic melt core monitoring

Dimensions(mm)

Fixed installation dimensions

Busbar installation dimensions

DNH1-160/30G

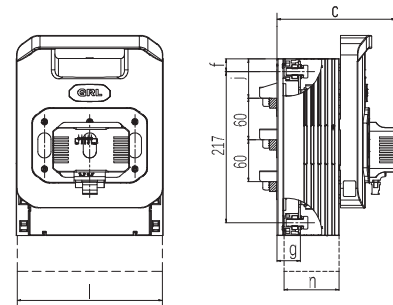
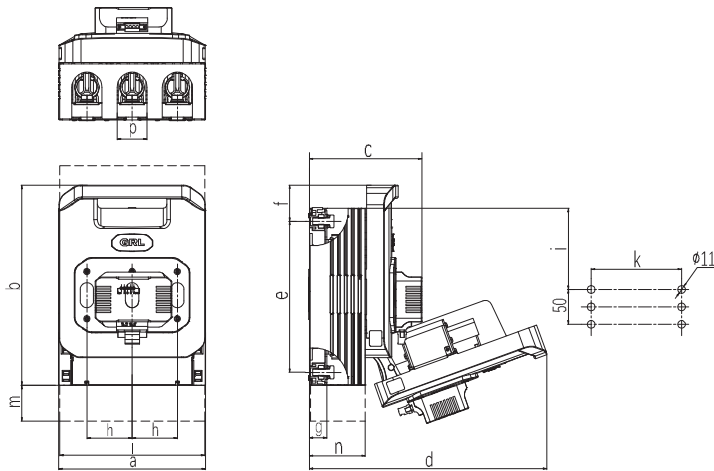


Fixed installation dimensions

Busbar installation dimensions

DNH1-250~630/30G

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

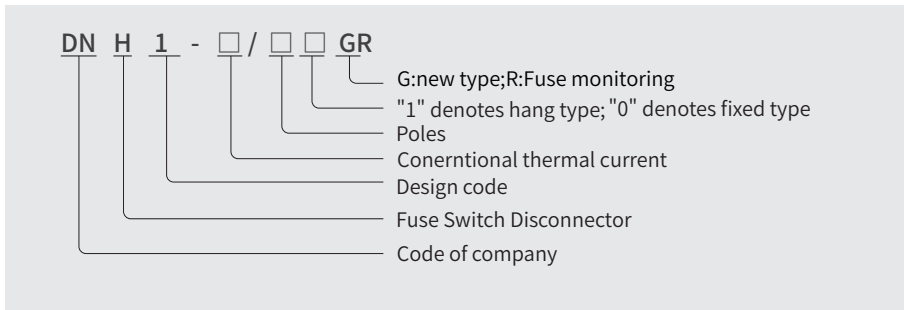
Motor fuse monitoring



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



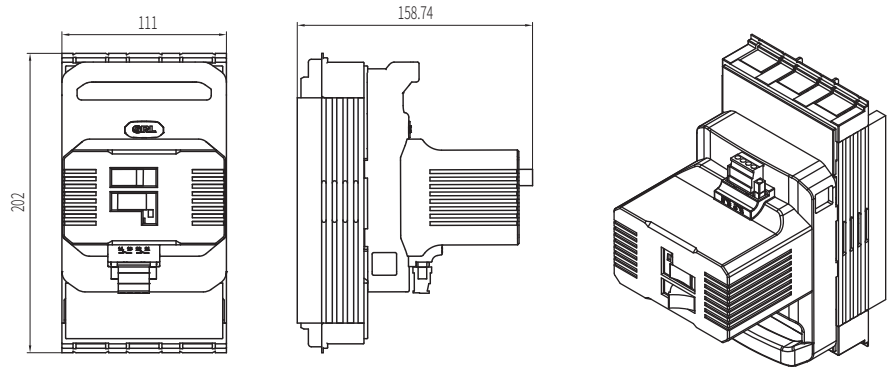
Technical parameter

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		

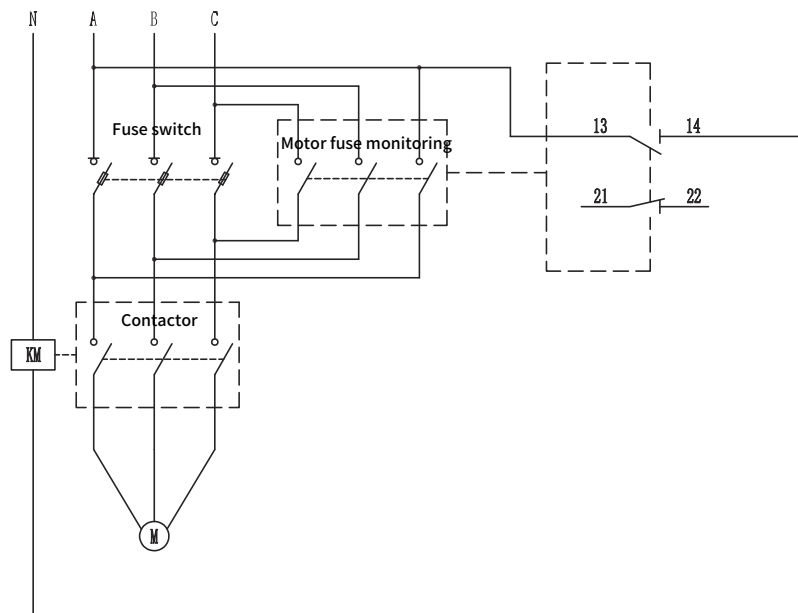
DNH1G FUSE SWITCH DISCONNECT Motor fuse monitoring

Dimensions(mm)

DNH1-160/30G



Example of DNH1 motor fuse monitoring application circuit

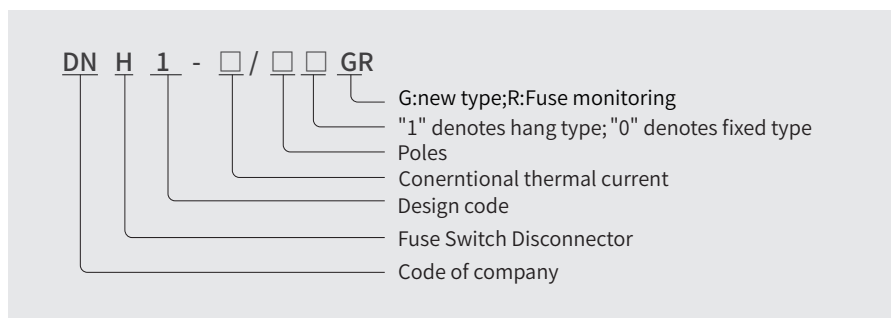


DNH1G FUSE SWITCH DISCONNECT Mechanical melt core monitoring

IEC 60947-3、IEC 60269-2



Model & Meaning



				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	Fuse	Rated Voltage	Ue	V	AC380	AC380	AC400	AC400	AC400	AC400	AC400	AC400	
		Rated Current	Ie	A	160	250	630	630	630	630	630	630	
		Rated insulation voltage	Ui	V	690	690	1000	1000	1000	1000	1000	1000	
		Agreed heating current	Ith	A	160	250	630	630	630	630	630	630	
		Rated impulse withstand voltage	Uimp	kV	8	8	12	12	12	12	12	12	
		Rated limiting short-circuit current	Icw	kA/1s	8	10	15	15	15	15	15	15	
		Usage category			AC-21B	AC-21B	AC-23B	AC-23B	AC-23B	AC-23B	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

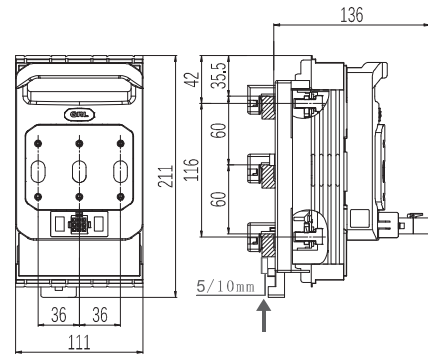
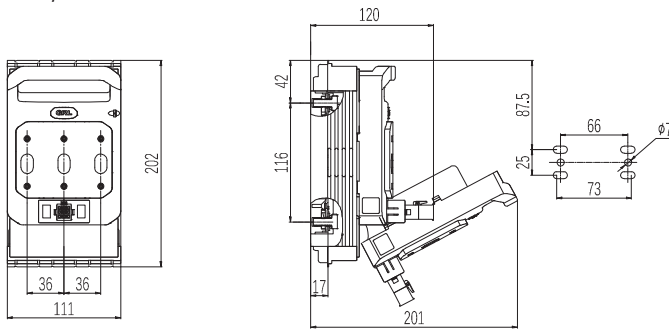
Mechanical melt core monitoring

Dimensions(mm)

Fixed installation dimensions

Busbar installation dimensions

DNH1-160/30G

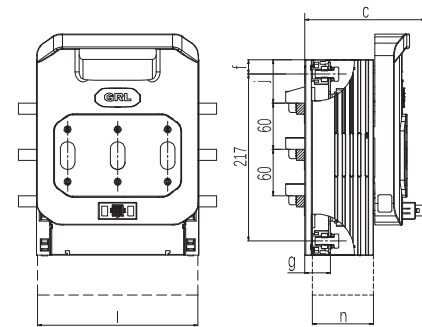
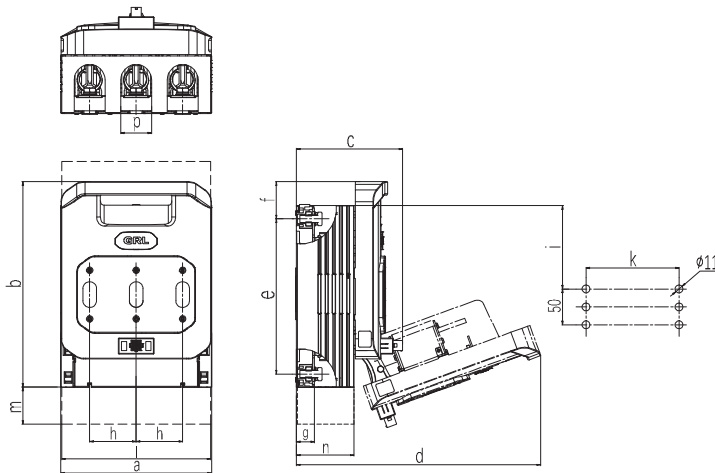


Fixed installation dimensions

Busbar installation dimensions

DNH1-250~630/30G

DNH1-250~630/31G

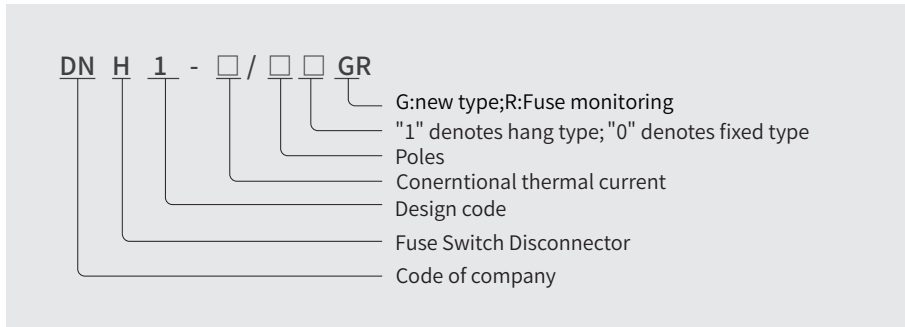


型号	a	b	c	d	e	f	g	h	i	j	k
DNH1-250/30G	185	247	131	295	185	42.5	22.5	57	110	/	114
DNH1-250/31G	185	247	141	305	185	42.5	32.5	57	/	67.5	/
DNH1-400/30G	210	288	149	344	210	52	26	65	132	/	130
DNH1-400/31G	210	288	157	353	210	52	34.5	65	/	90	/
DNH1-630/30G	256	304	166	361	211	54	30	81	135	/	162
DNH1-630/31G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

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



Model & Meaning



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			
Conditions	Installation category and pollution level	III、IV		3	
	Transportation and storage	-25°C ~+ 55°C			

产品选型

DNH1-160/21G(21GR)

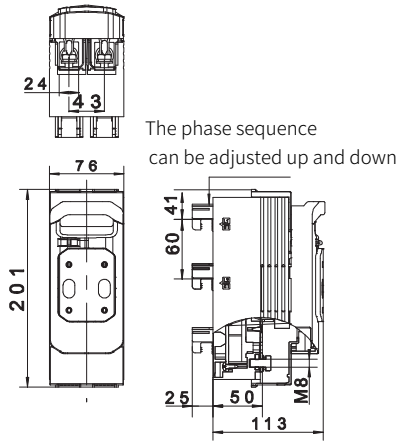
NO.	Model	Top	Down	Contact 1	Contact 2	Order number
1	DNH1-160/21G	▲				DN31026
2		▲		▲		DN31036
3		▲			▲	DN31038
4			▲			DN31046
5			▲	▲		DN31056
6			▲		▲	DN31058
7	DNH1-160/21GR	▲				DN31027
8		▲		▲		DN31037
9		▲			▲	DN31039
10			▲			DN31047
11			▲	▲		DN31057
12			▲		▲	DN31059

DNH1-250/21G(21GR)

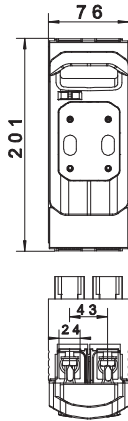
NO.	Model	Top	Down	Contact 1	Contact 2	Order number
1	DNH1-250/21G	▲				DN31136
2		▲		▲		DN31146
3		▲			▲	DN31158
4			▲			DN31166
5			▲	▲		DN31176
6			▲		▲	DN31186
7	DNH1-250/21GR	▲				DN31137
8		▲		▲		DN31147
9		▲			▲	DN31159
10			▲			DN31167
11			▲	▲		DN31177
12			▲		▲	DN31187

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

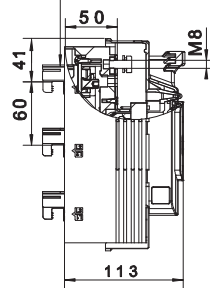
160A up to system



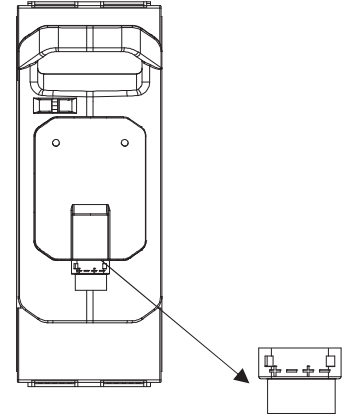
160A down to system



The phase sequence can be adjusted up and down

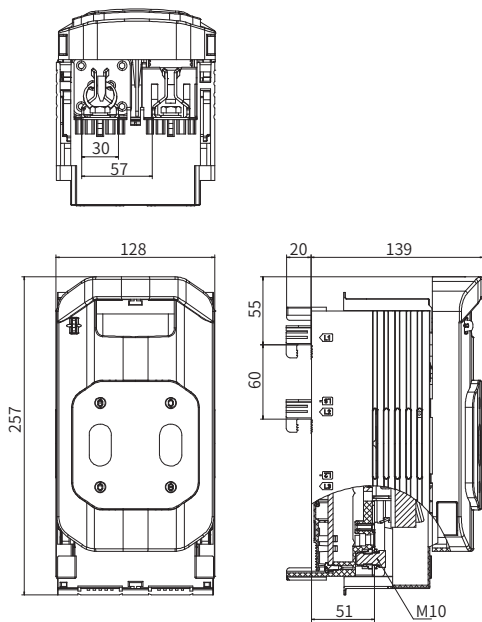


Fusing monitoring

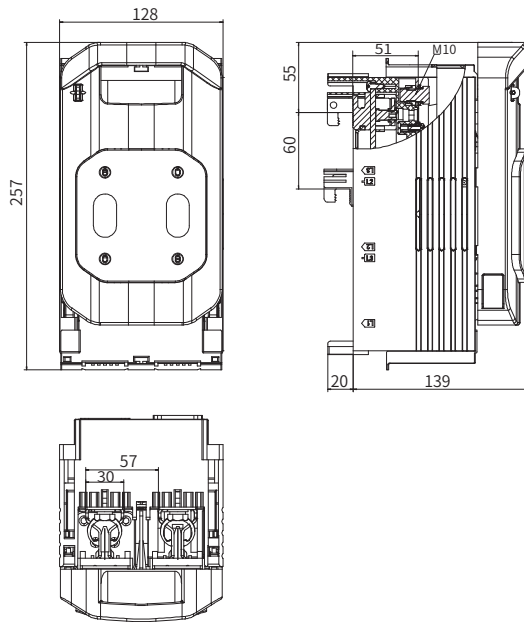


- 1.LED light does not light up in normal working state
- 2.LED lights up after melting of the fuse core
- 3.The positive pole on the product is connected to the PLC and powered by a DC24V power supply. When the fuse core melts, the positive and negative poles conduct

250A up to system



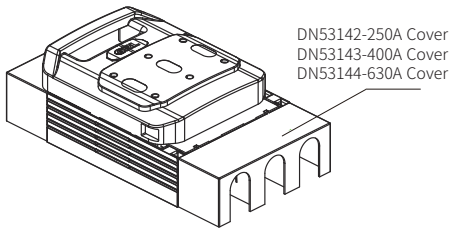
250A down to system



Accessories



Terminal 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