

# Molded Case Circuit Breakers

NF125-SGV NF160-SGV  
 NF250-SGV NF125-LGV  
 NF160-LGV NF250-LGV  
 NF125-HGV NF160-HGV  
 NF250-HGV NF125-RGV  
 NF250-RGV



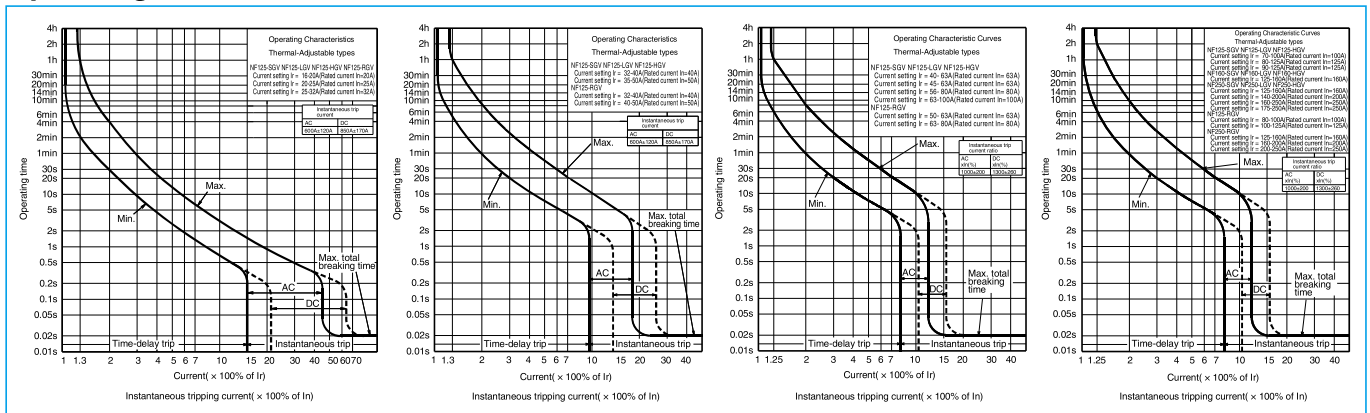
NF250-SGV

Model	NF125-SGV	NF160-SGV	NF250-SGV	NF125-LGV	NF160-LGV	NF250-LGV	
Rated current I <sub>n</sub> (A)	16-20 20-25 25-32 32-40 35-50 45-63 56-80 70-100 90-125	125-160	125-160 140-200 175-250	16-20 20-25 25-32 32-40 35-50 45-63 56-80 70-100 90-125	125-160	125-160 140-200 175-250	
Reference ambient temperature 40°C							
Number of poles	2 3 4	2 3 4	2 3 4	2 3 4	2 3 4	2 3 4	
Rated insulation voltage U <sub>i</sub> (V)	690	690	690	690	690	690	
Rated short-circuit breaking capacity (kA)	IEC 60947-2 EN 60947-2 (Icu/Ics)	AC	690V	8/8	8/8	8/8	8/8
			500V	30/30	30/30	36/36	36/36
			440V	36/36	36/36	36/36	50/50
			415V	36/36	36/36	36/36	50/50
			400V	36/36	36/36	36/36	50/50
			380V	36/36	36/36	36/36	50/50
			230V	85/85	85/85	85/85	90/90
			200V	85/85	85/85	85/85	90/90
			200V	20/20	20/20	20/20	20/20
			300V	20/20	20/20	20/20	20/20
Standard attached parts (front connection)	Mounting screw: M4×0.7×55 (2 and 3P: 2pcs, 4P: 4pcs) Insulation barrier: (2P: 2pcs, 3P: 4pcs, 4P: 6pcs)						

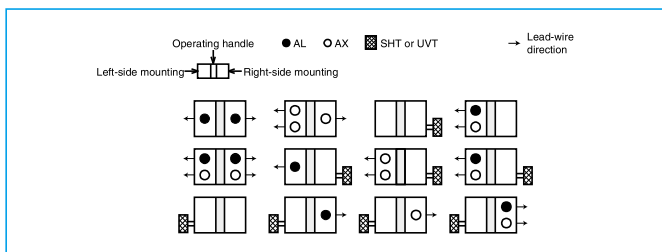
Model	NF125-HGV	NF160-HGV	NF250-HGV	NF125-RGV	NF250-RGV	
Rated current I <sub>n</sub> (A)	16-20 20-25 25-32 32-40 35-50 45-63 56-80 70-100 90-125	125-160	125-160 140-200 175-250	16-20 20-25 25-32 32-40 40-50 50-63 63-80 80-100 100-125	125-160 160-200 200-250	
Reference ambient temperature 40°C						
Number of poles	2 3 4	2 3 4	2 3 4	2 3	2 3	
Rated insulation voltage U <sub>i</sub> (V)	690	690	690	690	690	
Rated short-circuit breaking capacity (kA)	IEC 60947-2 EN 60947-2 (Icu/Ics)	AC	690V	10/8	10/8	—
			500V	50/38	50/38	—
			440V	65/65	65/65	125/125
			415V	70/70	70/70	150/150
			400V	75/75	75/75	150/150
			380V	75/75	75/75	150/150
			230V	100/100	100/100	150/150
			200V	100/100	100/100	150/150
			200V	40/40	40/40	—
			300V	40/40	40/40	—
Standard attached parts (front connection)	Mounting screw: M4×0.7×55 (2 and 3P: 2pcs, 4P: 4pcs) Insulation barrier: (2P: 2pcs, 3P: 4pcs, 4P: 6pcs)					

Note \*1 When wired as shown at the bottom of page 18, 3-pole models can be used for up to 500VDC, and 4-pole models for up to 600VDC.

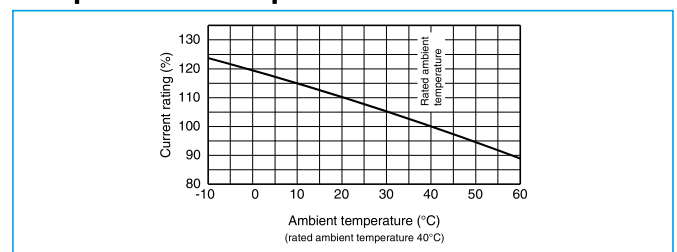
## Operating Characteristics



## Internal Accessories



## Temperature Compensation Curve



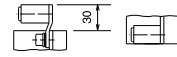
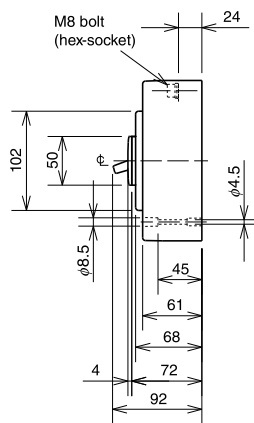
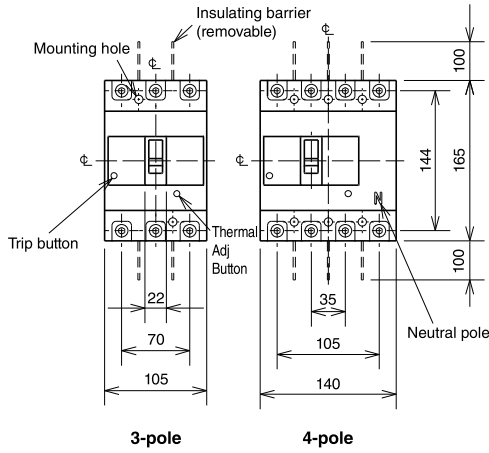
## External Accessories

Accessories	Type name	Reference page	Accessories	Type name	Reference page
Operating handle	F	F-2SV	Mechanical interlock	MI	2, 3P MI-05SV3
	V	V-2SV		4P MI-2SV4	136
Lock cover	LC	LC-05SV	Terminal cover	Small	2, 3P TCS-2SV3
Handle lock device	HL(*1)	HLF-05SV			4P TCS-2SV4
	HL-S	HLN-05SV		2, 3P TCL-2SV3	
		HLS-2SV		4P TCL-2SV3L	
TTC	2, 3P TTC-2SV3	128			
	4P TTC-2SV4				
Rear	2, 3P BTC-2SV3				
	4P BTC-2SV4				
Plug-in	2, 3P PTC-2SV3				
	4P PTC-2SV4				
Electrical operation device (*2)					140

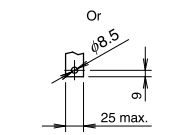
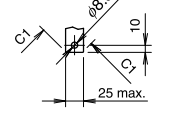
Notes \*1 HLF types are used for OFF lock and HLN types for ON lock.  
 \*2 Specify the working voltage. Refer to the reference page for type name.

# Outline Drawing

## Front connection

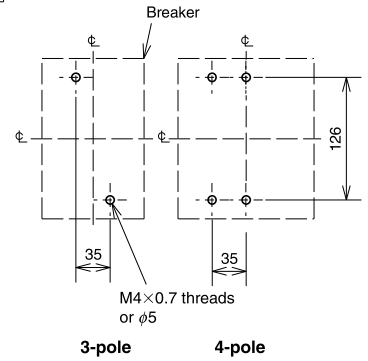


Solderless terminal for wire size  
125-175A 14-95mm<sup>2</sup>  
200-250A 70-125mm<sup>2</sup>  
Wire connection



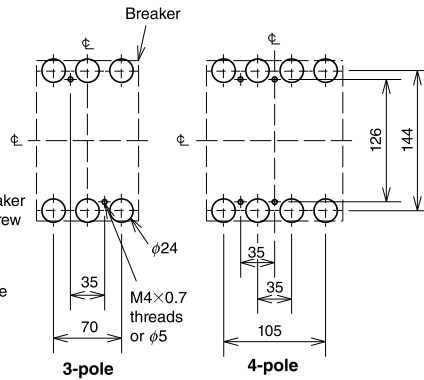
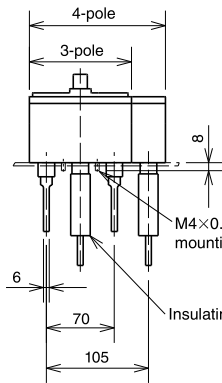
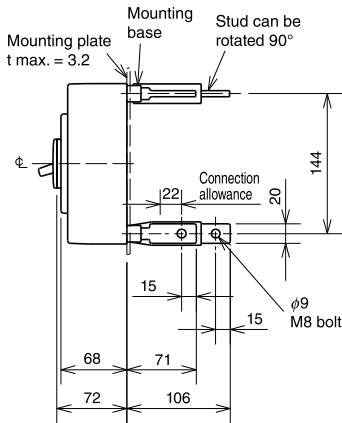
(Conductor thickness t=7 max.)

Conductor drilling for direct connection

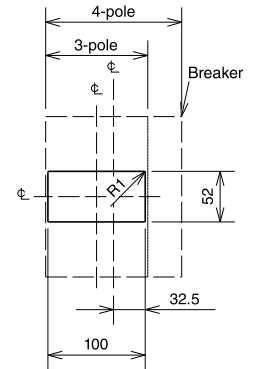


Drilling (Tapping)

## Rear connection



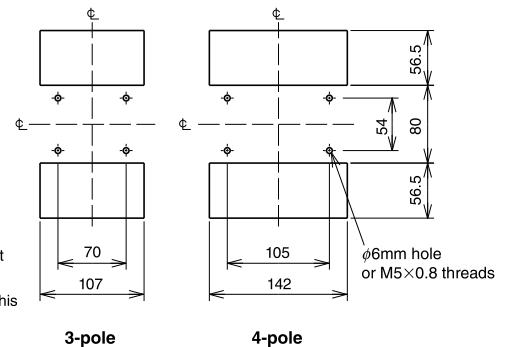
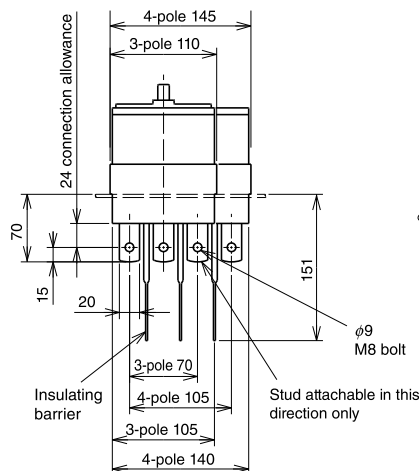
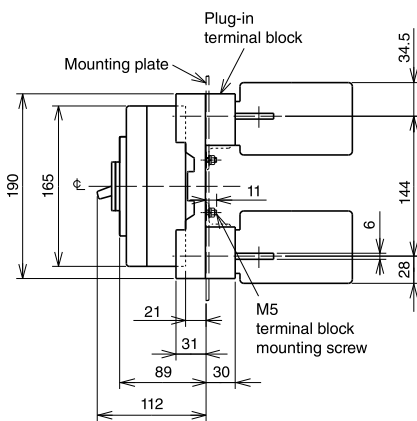
Drilling (Tapping)



1mm clearance on each side of the handle frame

Front-panel cutout

## Plug-in



Drilling (Tapping)

Remark: 1. 2-pole models are 3-pole models with the central pole removed.