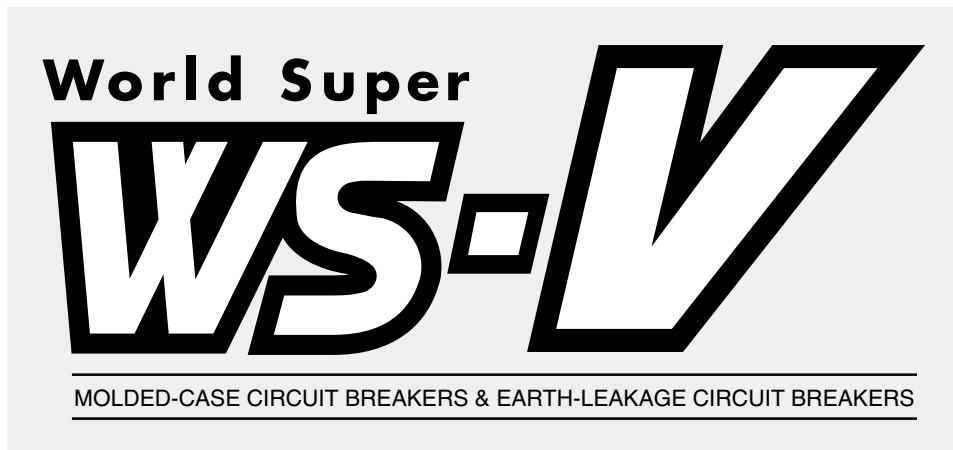


MOLDED-CASE CIRCUIT BREAKERS &
EARTH-LEAKAGE CIRCUIT BREAKERS



(30 to 250A Frame)

Comparison of Previous and New Models

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1. Product Lineup

Frame A		30 32	63	125	160	250	400	630	800	1000	1250	1600
Series												
Molded-case circuit breakers	NF-C Commercial product	NF30-CS	NF63-CV	NF125-CV		NF250-CV	400-CW	630-CW	800-CEW			
	NF-S General-purpose product	NF32-SV	NF63-SV	NF125-SV		NF250-SV	400-SW	630-SW	800-SDW	NF 1000-SEW	NF 1250-SEW	NF 1600-SEW
				NF125-SGV NF125-SEV	NF160-SGV	NF250-SGV NF250-SEV	400-SEW	630-SEW	800-SEW			
	NF-H High-performance product		NF63-HV	NF125-LGV NF125-HV NF125-HGV NF125-HEV	NF160-LGV NF160-HGV	NF250-LGV NF250-HV NF250-HGV NF250-HEV	400-HEW	630-HEW	800-HEW			
	NF-U Ultra current-limiting breaker			NF125-RGV		NF250-RGV	400-REW	630-REW	800-REW			
			NF125-UGV		NF250-UGV	400-UEW		800-UEW				
Frame A		30 32	63	125	160	250	400	630	800	1000	1250	
Series												
Earth-leakage circuit breakers	NV-C Commercial product		NV63-CV	NV125-CV		NV250-CV	400-CW	630-CW	800-SEW			
	NV-S General-purpose product	NV32-SV	NV63-SV	NV125-SV		NV250-SV	400-SW	630-SW				
				NV125-SEV		NV250-SEV	400-SEW	630-SEW				
	NV-H High-performance product		NV63-HV	NV125-HV		NV250-HV	400-HEW	630-HEW	800-HEW			
			NV125-HEV		NV250-HEV	400-REW						
Frame A		30 32	63	125		250						
Series												
For motor protection	MB Motor breaker	MB30-CS	NF63-CV MB	NF125-SV MB		NF250-SV MB						
		NF32-SV MB	NF63-SV MB									

 New models

2. Comparison of Previous and New Models

Series	Previous W & WS Series	New WS-V Series	Differences in dimensions and performance between previous and new models
NF-C	NF63-CW	NF63-CV	Same dimension Change of tripping method (from hydraulicmagnetic to thermal magnetic) Changes in operating characteristics Change to running on both AC/DC Increase in breaking capacity
	NF125-CW	NF125-CV	No changes in dimensions and performance
	NF250-CW	NF250-CV	Same dimension Change in instantaneous value of 250 A rated model (from 10 times to 12 times \pm 20%) Increase in breaking capacity
NF-S	NF32-SW	NF32-SV	Same dimension Change of tripping method (from hydraulicmagnetic to thermal magnetic) Changes in operating characteristics Change to running on both AC/DC Increase in breaking capacity
	NF63-SW	NF63-SV	Same dimension Change of tripping method (from hydraulicmagnetic to thermal magnetic) Changes in operating characteristics Change to running on both AC/DC Increase in breaking capacity
	NF125-SW	NF125-SV	Same dimension Increase in breaking capacity Capable of breaking 690 V AC
	NF125-SGW RT	NF125-SGV	Change in depth (from 86 mm to 68 mm) Change in rated current adjustable range Adjustable instantaneous value \rightarrow Unadjustable
	NF125-SGW RE	NF125-SEV	Change in depth (from 86 mm to 68 mm)
	NF160-SW	NF250-SV 125 150 160A	Addition of 160 A model
	NF160-SGW RT	NF160-SGV	Change in depth (from 86 mm to 68 mm) Adjustable instantaneous value \rightarrow Unadjustable
	NF160-SGW RE	NF250-SEV 80-160A	Change in depth (from 86 mm to 68 mm) Addition of 80-160 A model
	NF250-SW	NF250-SV	Same dimension Change in instantaneous value of 250 A rated model (from 10 times to 12 times \pm 20%) Increase in breaking capacity Capable of breaking 690 V AC
	NF250-SGW RT	NF250-SGV	Change in depth (from 86 mm to 68 mm) Adjustable instantaneous value \rightarrow Unadjustable
	NF250-SGW RE	NF250-SEV	Change in depth (from 86 mm to 68 mm)

Series	Previous W & WS Series	New WS-V Series	Differences in dimensions and performance between previous and new models
NF-H	NF63-HW	NF63-HV	Same dimension Change of tripping method (from hydraulicmagnetic to thermal magnetic) Changes in operating characteristics Change to running on both AC/DC Increase in breaking capacity
	NF125-HW	NF125-HV	Same dimension Applicable to rated current of 125 A Increase in breaking capacity
	NF125-HGW RT	NF125-HGV	Change in depth (from 86 mm to 68 mm) Change in rated current adjustable range Adjustable instantaneous value → Unadjustable Decrease in breaking capacity at 690 V AC
	NF125-HGW RE	NF125-HEV	Change in depth (from 86 mm to 68 mm) Decrease in breaking capacity at 690 V AC
	NF160-HW	NF250-HV 125 150 160A	Addition of 160 A model
	NF160-HGW RT	NF160-HGV	Change in depth (from 86 mm to 68 mm) Adjustable instantaneous value → Unadjustable Decrease in breaking capacity at 690 V AC
	NF160-HGW RE	NF250-HEV 80-160A	Addition of 80-160 A model Change in depth (from 86 mm to 68 mm) Decrease in breaking capacity at 690 V AC
	NF250-HW	NF250-HV	Same dimension Applicable to rated current of 250 A (instantaneous value = 12 times ± 20%) Increase in breaking capacity
	NF250-HGW RT	NF250-HGV	Change in depth (from 86 mm to 68 mm) Adjustable instantaneous value → Unadjustable Decrease in breaking capacity at 690 V AC
	NF250-HGW RE	NF250-HEV	Change in depth (from 86 mm to 68 mm) Decrease in breaking capacity at 690 V AC
NF-U	NF125-RGW RT	NF125-RGV	Changes in dimensions (height: from 240 mm to 165 mm, depth: from 86 mm to 68 mm) Change in rated current adjustable range Applicable to rated current of 125 A Increase in breaking capacity at 415 V AC or less Rated working voltage of below 500 V AC
	NF125-UGW RT	NF125-UGV	Change in depth (from 86 mm to 68 mm) Change in rated current adjustable range Applicable to rated current of 125 A Decrease in breaking capacity at 690 V AC
	NF250-RGW RT	NF250-RGV	Changes in dimensions (height: from 240 mm to 165 mm, depth: from 86 mm to 68 mm) Applicable to rated current of 250 A Increase in breaking capacity at 415 V AC or less Rated working voltage of below 500 V AC
	NF250-UGW RT	NF250-UGV	Change in depth (from 86 mm to 68 mm) Applicable to rated current of 250 A Decrease in breaking capacity at 690 V AC
NV-C	NV63-CW	NV63-CV	Same dimension Change of tripping method (from hydraulicmagnetic to thermal magnetic) Changes in operating characteristics Increase in breaking capacity
	NV125-CW	NV125-CV	No changes in dimensions and performance
	NV250-CW	NV250-CV	Same dimension Increase in breaking capacity

Series	Previous W & WS Series	New WS-V Series	Differences in dimensions and performance between previous and new models
NV-S	NV32-SW	NV32-SV	Same dimension Change of tripping method (from hydraulicmagnetic to thermal magnetic) Changes in operating characteristics Increase in breaking capacity
	NV63-SW	NV63-SV	Same dimension Change of tripping method (from hydraulicmagnetic to thermal magnetic) Changes in operating characteristics Increase in breaking capacity
	NV125-SW	NV125-SV	Same dimension Increase in breaking capacity
	NV250-SW	NV250-SV	Same dimension Increase in breaking capacity
	NV250-SEW	NV250-SEV	Same dimension Applicable to rated current of 250 A Increase in breaking capacity
NV-H	NV63-HW	NV63-HV	Same dimension Change of tripping method (from hydraulicmagnetic to thermal magnetic) Changes in operating characteristics Increase in breaking capacity
	NV125-HW	NV125-HV	Same dimension Applicable to rated current of 125 A Increase in breaking capacity
	NV250-HW	NV250-HV	Same dimension Applicable to rated current of 250 A Increase in breaking capacity
	NV250-HEW	NV250-HEV	Same dimension Applicable to rated current of 250 A Increase in breaking capacity
MB	MB50-CW	NF63-CV (Note)	Same dimension Change of tripping method (from hydraulicmagnetic to thermal magnetic) Changes in operating characteristics Increase in breaking capacity
	MB30-SW	NF32-SV (Note)	Same dimension Change of tripping method (from hydraulicmagnetic to thermal magnetic) Changes in operating characteristics Increase in breaking capacity
	MB50-SW	NF63-SV (Note)	Same dimension Change of tripping method (from hydraulicmagnetic to thermal magnetic) Changes in operating characteristics Increase in breaking capacity
	MB100-SW	NF125-SV (Note)	Same dimension Increase in breaking capacity
	MB225-SW	NF250-SV (Note)	Same dimensions and characteristics Increase in breaking capacity

Note: The circuit breakers for motor protection have the same basic model names as NF/NV.

● New models

Model name	Remarks
NF125-LGV, NF160-LGV, NF250-LGV	Thermally adjustable models having breaking capacity of 50 kA at 440 V AC are newly introduced.
NV125-SEV, NV125-HEV	Electronic breakers

3. Replacement of Previous Models with New Models

(1) Circuit breaker body (front connection, with 3 poles)

Previous W & WS Series	NF32-SW NF63-CW/SW/HW MB30-SW MB50-CW/SW	NF125-CW/SW/HW MB100-SW	NF160-SW/HW NF250-CW/SW/HW MB225-SW	NF125-SGW/HGW NF160-SGW/HGW NF250-SGW/HGW	NF125-RGW/UGW NF250-RGW/UGW	
New WS-V Series	NF32-SV NF63-CV/SV/HV	NF125-CV/SV/HV	NF250-CV/SV/HV	NF125-SGV/LGV/HGV NF125-SEV/HEV NF160-SGV/LGV/HGV NF250-SGV/LGV/HGV NF250-SEV/HEV	NF125-RGV NF250-RGV	NF125-UGV NF250-UGV
Drilling dimension	 No change	 No change	 No change	 No change	 change	 No change
Front plate cutout plan	 No change	 No change	 No change	 No change	 change	 No change

Previous W & WS Series	NV32-SW NV63-CW/SW/HW	NV125-CW/SW/HW	NV250-CW/SW/HW NV250-SEW/HEW
New WS-V Series	NV32-SV NV63-CV/SV/HV	NV125-CV/SV/HV	NV250-CV/SV/HV NV250-SEV/HEV
Drilling dimension	 No change	 No change	 No change
Front plate cutout plan	 No change	 No change	 No change

(2) Circuit breaker and operating handle (front connection, 3P)

Circuit breaker body	Previous W & WS Series	NF32-SW NF63-CW/SW/HW MB30-SW MB50-CW/SW	NV32-SW NV63-CW/SW/HW	NF125-CW/SW/HW MB100-SW	NV125-CW/SW/HW
	New WS-V Series	NF32-SV NF63-CV/SV/HV	NV32-SV NV63-CV/SV/HV	NF125-CV/SV/HV	NV125-CV/SV/HV
F type	Previous models	F-05S2, F-05S, F-05SE	F-05S, F-05SE	F-1S2, F-1S, F-1SE	F-1S, F-1SE
	New models	F-05SV2, F-05SV, F-05SVE	F-05SV, F-05SVE	F-1SV2, F-1SV, F-1SVE	F-1SV, F-1SVE
S type	Previous models	S-05SW		S-1SW	
	New models	S-05SV		S-05SV	
V type	Previous models	V-05S, V-05SE		V-1S, V-1SE	
	New models	V-05SV, V-05SVE		V-1SV, V-1SVE	
Drilling dimensions for mounting of circuit breaker	F type	No change		No change	
	S type	No change		No change	
	V type	No change		No change	
Front plate cutout dimensions	No change				
Distance between circuit breaker bottom and front plate	F type	105 mm No change			
	S type	102 mm No change			
	V type	125 mm (stationary type) No change		125 mm (stationary type) No change	

Circuit breaker body		Previous W & WS Series	NF160-SW/HW NF250-CW/SW/HW NF250-SEW/HEW MB225-SW	NV250-CW/SW/HW NV250-SEW/HEW	NF125-SGW/HGW NF160-SGW/HGW NF250-SGW/HGW	NF125-RGW/UGW NF250-RGW/UGW		NF125-UGV NF250-UGV			
		New WS-V Series	NF250-CV/SV/HV NF250-SEV/HEV	NV250-CV/SV/HV NV250-SEV/HEV	NF125-SGV/LGV/HGV NF125-SEV/HEV NF160-SGV/LGV/HGV NF250-SGV/LGV/HGV NF250-SEV/HEV	NF125-RGV NF250-RGV			NF125-UGV NF250-UGV		
F type	Previous models	F-2S, F-2SE			F-2SG, F-2SGE		F-2UG, F-2UGE				
	New models	F-2SV, F-2SVE			F-2SV, F-2SVE		F-2SV, F-2SVE		F-2UV, F-2UVE		
S type	Previous models	S-2SW			S-2GSW		-				
	New models	S-2SV			S-2SV		S-2SV		-		
V type	Previous models	V-2S, V-2SE			V-2SG, V-2SGE		V-2UG, V-2UGE				
	New models	V-2SV, V-2SVE			V-2SV, V-2SVE		V-2SV, V-2SVE		V-2UV, V-2UVE		
Drilling dimensions for mounting of circuit breaker		F type	No change		No change				No change		
			S type	No change		No change				No change	
				V type	No change		No change				No change
Front plate cutout dimensions		No change			No change		No change		No change		
		Distance between circuit breaker bottom and front plate	F type	No change		Previous models 125 mm	New models 107 mm	Previous models 125 mm	New models 107 mm	Previous models 125 mm	New models 107 mm
			S type	No change		Previous models 128 mm	New models 110 mm	Previous models 128 mm	New models 110 mm	Previous models 128 mm	New models 110 mm
V type	125 mm (stationary type)	Previous models 143 mm	New models 125 mm (stationary type)	Previous models 143 mm (stationary type)	New models 125 mm (stationary type)	Previous models 143 mm (stationary type)	New models 125 mm (stationary type)	Previous models 143 mm (stationary type)	New models 125 mm (stationary type)		

4. Compatibility of Optional Accessories

Products	Models			Compatibility	
	Accessories		Applicable models (New models)	New breakers with previous accessories	Previous breakers with new accessories
	Previous models	New models			
Cassette-type accessories (Note)	AL-05SW* AX-05SW* ALAX-05SW*	AL-05SV* AX-05SV* ALAX-05SV*	NF/NV32-SV, NF/NV63-CV/SV/HV	×	×
	AL-1SW AX-1SW ALAX-1SW		NF/NV125-CV/SV/HV	×	×
	AL-2SW* AX-2SW* ALAX-2SW*		NF/NV250-CV/SV/HV	×	×
	AL-2GSW* AX-2GSW* ALAX-2GSW*		NF125-SGV/LGV/HGV/RGV/UGV/SEV/HEV, NF250-SGV/LGV/HGV/RGV/UGV/SEV/HEV, etc.	×	×
	SHT□□□□-05SWR	SHT□□□□-05SVR	NF/NV32-SV, NF/NV63-CV/SV/HV	×	×
	SHT□□□□-1SWR		NF/NV125-CV/SV/HV	×	×
	SHT□□□□-2SWR		NF/NV250-CV/SV/HV	×	×
	SHT□□□□-2GSWR		NF125-SGV/LGV/HGV/RGV/UGV/SEV/HEV, NF250-SGV/LGV/HGV/RGV/UGV/SEV/HEV, etc.	×	×
	UVTN□□□□-05SW*	UVTN□□□□-05SV* UVTS□□□□-05SV*	NF/NV32-SV, NF/NV63-CV/SV/HV	×	×
	UVTN□□□□-1SW*		NF/NV125-CV/SV/HV	×	×
	UVTN□□□□-2SW*		NF/NV250-CV/SV/HV	×	×
	UVTS□□□□-2GSW*		NF125-SGV/LGV/HGV/RGV/UGV/SEV/HEV, NF250-SGV/LGV/HGV/RGV/UGV/SEV/HEV, etc.	×	×
Rear stud (B-ST)	ST-05SW2, 3, 4	ST-05SV2, 3, 4	NF/NV32-SV, NF/NV63-CV/SV/HV	×	×
	ST-1SW2, 3, 4	ST-1SV2, 3, 4	NF/NV125-CV/SV/HV(3, 4P)	×	×
	ST-1HW2	ST-1HV2	NF125-HV(2P)	×	×
	ST-2SW2, 3, 4	ST-2SV2, 3, 4	NF/NV250-CV/SV/HV	×	×
	ST-2GSW2, 3, 4		NF125-SGV/LGV/HGV/SEV/HEV, NF250-SGV/LGV/HGV/SEV/HEV, etc.	×	×
Plug-in terminal (PM)	PM-05SW2, 3, 4	PMDN-05SV2, 3, 4	NF/NV32-SV, NF/NV63-CV/SV/HV	×	×
	PM-NV05SW2	PMDN-NV05SV2	NV63-CV/SV(2P)	×	×
	PM-1SW2, 3, 4	PMDN-1SV2, 3, 4	NF/NV125-CV/SV/HV	×	×
	PM-1HW2	PMDN-1HV2	NF125-HV(2P)	×	×
	PM-2SW2, 3, 4	PMDN-2SV2, 3, 4	NF/NV250-CV/SV/HV	×	×
	PM-2GSWIP2, 3, 4		NF125-SGV/LGV/HGV/SEV/HEV, NF250-SGV/LGV/HGV/SEV/HEV, etc.	×	×
	PM-2GUW2, 3		PMDN-2SV2, 3	NF125-RGV, NF250-RGV	×
PMDN-2UV2, 3		NF125-UGV, NF250-UGV	×	×	
Conductor (FB)	FB-05SW	FB-05SV	NF/NV32-SV, NF/NV63-CV/SV/HV (50A or less)	○	○
	FB-1SW	FB-1SV	NF/NV125-CV/SV/HV	○	○
	FB-2SW	FB-2SV	NF/NV250-CV/SV/HV	○	○
Barrier	BAF-05SW	BAF-05SV	NF/NV32-SV, NF/NV63-CV/SV/HV, NF/NV125-CV/SV/HV, etc.	○	○
	BAF-2SW	BAF-2SV	NF/NV250-CV/SV/HV, etc.	○	×
	BAG-05SW3	BAG-05SV3	NF/NV32-SV, NF/NV63-CV/SV/HV	○	○
	BAG-1SW3	BAG-1SV3	NF/NV125-CV/SV/HV	○	○
	BAG-2SW3	BAG-2SV3	NF/NV250-CV/SV/HV, etc.	○	○
	BAG-2GSW3		NF125-SGV/LGV/HGV/RGV/SEV/HEV, NF250-SGV/LGV/HGV/RGV/SEV/HEV, etc.	×	×

Note: In *, a symbol indicating the mounting pole is shown. In □, the voltage is shown.

Products	Models			Compatibility	
	Accessories		Applicable models (New models)	New breakers with previous accessories	Previous breakers with new accessories
	Previous models	New models			
Operating handle	F-05S2	F-05SV2	NF32-SV(2P), NF63-CV/SV/HV(2P)	×	×
	F-05S	F-05SV	NF/NV32-SV, NF/NV63-CV/SV/HV	×	×
	F-1S2	F-1SV2	NF125-CV/SV(2P)	×	×
	F-1S	F-1SV	NF/NV125-CV/SV/HV	×	×
	F-2S	F-2SV	NF/NV250-CV/SV/HV	×	×
	F-2SG		NF125-SGV/LGV/HGV/RGV/SEV/HEV, NF250-SGV/LGV/HGV/RGV/SEV/HEV, etc.	×	×
	F-2UG	F-2UV	NF125-UGV, NF250-UGV	×	×
	F-RCS (release protection)	F-RCS (release protection)	F type operating handle is applicable to all models.	○	○
	S-05SW	S-05SV	NF/NV32-SV, NF/NV63-CV/SV/HV	×	×
	S-1SW	S-1SV	NF/NV125-CV/SV/HV	×	×
	S-2SW	S-2SV	NF/NV250-CV/SV/HV	×	×
	S-2GSW		NF125-SGV/LGV/HGV/RGV/SEV/HEV, NF250-SGV/LGV/HGV/RGV/SEV/HEV, etc.	×	×
	V-05S2	V-05SV2	NF32-SV(2P), NF63-CV/SV/HV(2P)	×	×
	V-05S	V-05SV	NF/NV32-SV, NF/NV63-CV/SV/HV	×	×
	V-1S2	V-1SV2	NF125-CV/SV(2P)	×	×
	V-1S	V-1SV	NF/NV125-CV/SV/HV	×	×
	V-2S	V-2SV	NF/NV250-CV/SV/HV	×	×
	V-2SG		NF125-SGV/LGV/HGV/RGV/SEV/HEV, NF250-SGV/LGV/HGV/RGV/SEV/HEV, etc.	×	×
	V-2UG	V-2UV	NF125-UGV, NF250-UGV	×	×
	V-AD3S (adjusting unit)	V-AD3S (adjusting unit)	V type operating handle is applicable to all models.	○	○
Clamp	TG-S05SW	TG-S05SV	NF/NV32-SV, NF/NV63-CV/SV/HV, etc.	○	○
	TG-S2SW	TG-S2SV	NF/NV250-CV/SV/HV, etc.	○	○
TC-S	TCS-05SW2W, 3W, 4W	TCS-05SV2, 3, 4	NF/NV32-SV, NF/NV63-CV/SV/HV	○	○
	TCS-1SW2W, 3W, 4W	TCS-1SV2, 3, 4	NF/NV125-CV/SV/HV	○	○
	TCS-2SW3W, 4W	TCS-2SV3, 4	NF/NV250-CV/SV/HV	○	○
	TCS-2GSW3W, 4W		NF125-SGV/LGV/HGV/RGV/UGV/SEV/HEV, NF250-SGV/LGV/HGV/RGV/UGV/SEV/HEV, etc.	×	×
TC-L	TCL-05SW2W, 3W, 4W	TCL-05SV2, 3, 4	NF/NV32-SV, NF/NV63-CV/SV/HV	○	○
	TCL-1SW2W, 3W, 4W	TCL-1SV2, 3, 4	NF/NV125-CV/SV/HV	○	○
	TCL-2SW3W, 4W	TCL-2SV3, 4	NF/NV250-CV/SV/HV	○	○
	TCL-2GSW3W, 4W	TCL-2SV3L	NF125-SGV/LGV/HGV/RGV/UGV/SEV/HEV, NF250-SGV/LGV/HGV/RGV/UGV/SEV/HEV, etc.	×	×
TTC	TTC-05SW2, 3	TTC-05SV2, 3	NF/NV32-SV, NF/NV63-CV/SV/HV	○	○
	TTC-1SW2, 3	TTC-1SV2, 3	NF/NV125-CV/SV/HV	○	○
	TTC-2SW3	TTC-2SV3	NF/NV250-CV/SV/HV	○	○
	TTC-2GSW3		NF125-SGV/LGV/HGV/RGV/UGV/SEV/HEV, NF250-SGV/LGV/HGV/RGV/UGV/SEV/HEV, etc.	×	×
BTC	BTC-05SW2W, 3W	BTC-05SV2, 3	NF/NV32-SV, NF/NV63-CV/SV/HV	○	○
	BTC-1SW2W, 3W	BTC-1SV2, 3	NF/NV125-CV/SV/HV	○	○
	BTC-2SW3W	BTC-2SV3	NF/NV250-CV/SV/HV	○	○
	BTC-2GSW3W		NF125-SGV/LGV/HGV/RGV/UGV/SEV/HEV, NF250-SGV/LGV/HGV/RGV/UGV/SEV/HEV, etc.	×	×
PTC	PTC-05SW2W, 3W	PTC-05SV2, 3	NF/NV32-SV, NF/NV63-CV/SV/HV	×	×
	PTC-1SW2W, 3W	PTC-1SV2, 3	NF/NV125-CV/SV/HV	×	×
	PTC-2SW3W	PTC-2SV3	NF/NV250-CV/SV/HV	×	×
	PTC-2GSW3W		NF125-SGV/LGV/HGV/RGV/UGV/SEV/HEV, NF250-SGV/LGV/HGV/RGV/UGV/SEV/HEV, etc.	×	×

Products	Models			Compatibility	
	Accessories		Applicable models (New models)	New breakers with previous accessories	Previous breakers with new accessories
	Previous models	New models			
Lock cover	LC-05SW	LC-05SV	NF/NV32-SV, NF/NV63-CV/SV/HV	×	×
	LC-1SW	LC-1SV	NF/NV125-CV/SV/HV	×	×
	LC-2SW	LC-2SV	NF/NV250-CV/SV/HV	×	×
	LC-2GSW		NF125-SGV/LGV/HGV/RGV/UGV/SEV/HEV, NF250-SGV/LGV/HGV/RGV/UGV/SEV/HEV, etc.	×	×
Handle lock	HLF-05SW, HLN-05SW	HLF-05SV, HLN-05SV	NF/NV32-SV, NF/NV63-CV/SV/HV	×	×
	HLF-1SW, HLN-1SW	HLF-1SV, HLN-1SV	NF/NV125-CV/SV/HV	×	×
	HLF-2SW, HLN-2SW	HLF-2SV, HLN-2SV	NF/NV250-CV/SV/HV	×	×
	HLF-2GSW, HLN-2GSW		NF125-SGV/LGV/HGV/RGV/UGV/SEV/HEV, NF250-SGV/LGV/HGV/RGV/UGV/SEV/HEV, etc.	×	×
	HLS-05SW, HLS-05SW2P	HLS-05SV, HLS-05SV2P	NF/NV32-SV, NF/NV63-CV/SV/HV	×	×
	HLS-1SW, HLS-1SW2P	HLS-1SV, HLS-1SV2P	NF/NV125-CV/SV/HV	×	×
	HLS-2SW	HLS-2SV	NF/NV250-CV/SV/HV	×	×
	HLS-2GSW		NF125-SGV/LGV/HGV/RGV/UGV/SEV/HEV, NF250-SGV/LGV/HGV/RGV/UGV/SEV/HEV, etc.	×	×
SBOX	NFS-05SW2P	NFS-05SV2P	NF32-SV(2P), NF63-CV/SV/HV(2P), etc.	○	○
	NFS-05SW	NFS-05SV	NF/NV32-SV, NF/NV63-CV/SV/HV	○	○
	NFS-1SW2P	NFS-1SV2P	NF125-CV/SV	○	○
	NFS-1SW	NFS-1SV	NF/NV125-CV/SV/HV	○	○
	NFS-2SW	NFS-2SV	NF/NV250-CV/SV, etc.	○	○
IBOX	NFI-05SW	NFI-05SV	NF/NV32-SV, NF/NV63-CV/SV/HV	×	×
	NFI-1SW	NFI-1SV	NF/NV125-CV/SV/HV	×	×
	NFI-2SW	NFI-2SV	NF/NV250-CV/SV/HV, etc.	×	×
WBOX	NFW-05SW	NFW-05SV	NF/NV32-SV, NF/NV63-CV/SV/HV	×	×
	NFW-1SW	NFW-1SV	NF/NV125-CV/SV	×	×
	NFW-1HW	NFW-1HV	NF/NV125-HV	×	×
	NFW-2SW	NFW-2SV	NF/NV250-CV/SV/HV, etc.	×	×
Electric operation unit (Note)	MDS□□□□-NF1SWE	MDS□□□□-NF1SVE	NF125-CV/SV/HV	×	×
	MDS□□□□-NV1SWE	MDS□□□□-NV1SVE	NV125-CV/SV/HV	×	×
	MDS□□□□-NF2SWE	MDS□□□□-NF2SVE	NF250-CV/SV/HV	×	×
	MDS□□□□-NF2GSWE	MDS□□□□-NF2SVE	NF125-SGV/LGV/HGV/RGV/SEV/HEV, NF250-SGV/LGV/HGV/RGV/SEV/HEV, etc.	×	×
	MDS□□□□-NV2SWE	MDS□□□□-NV2SVE	NV250-CV/SV/HV	×	×
Mechanical interlock	MI-05SW3	MI-05SV3	NF/NV32-SV, NF/NV63-CV/SV/HV, NF/NV125-CV/SV/HV, NF/NV250-CV/SV/HV, NF125-SGV/LGV/HGV/RGV/UGV/SEV/HEV, NF250-SGV/LGV/HGV/RGV/UGV/SEV/HEV, etc.	○	○
IEC 35 mm rail mounting adapter	DIN-05SW	DIN-05SV	NF/NV32-SV, NF/NV63-CV/SV/HV, etc.	×	×
	DIN-1SW2	—	No new models	×	—
	DIN-1SW3	—	No new models	×	—
Card holder	CH-P NO.5	CH-P NO.5	NF/NV250-SV or lower	○	○

Note: In *, a symbol indicating the mounting pole is shown. In □, the voltage is shown.

5. Outline Dimensions of Previous and New Models

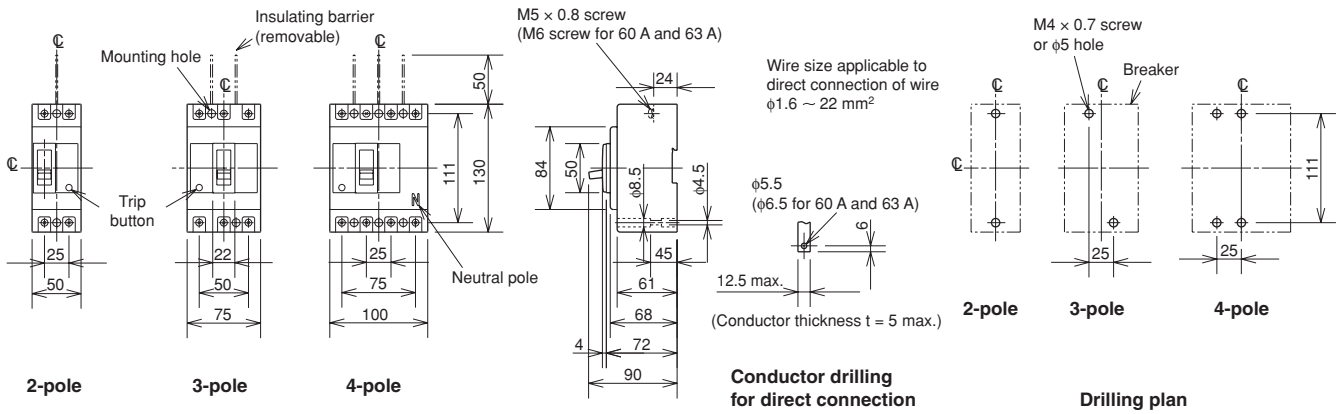
Previous W & WS Series		New WS-V Series	
Models	Reference page	Models	Reference page
NF32-SW, NF63-CW, NF63-SW, NF63-HW	13	NF32-SV, NF63-CV, NF63-SV, NF63-HV	14
NV32-SW, NV63-CW, NV63-SW, NV63-HW	15	NV32-SV, NV63-CV, NV63-SV, NV63-HV	16
NF125-CW, NF125-SW, NF125-HW	17	NF125-CV, NF125-SV, NF125-HV	18
NV125-CW, NV125-SW, NV125-HW	19	NV125-CV, NV125-SV, NV125-HV	20
NF250-CW, NF250-SW, NF250-HW, MB225-SW	21	NF250-CV, NF250-SV, NF250-HV	22
NV250-CW, NV250-SW, NV250-HW	23	NV250-CV, NV250-SV, NV250-HV	24
NV250-SEW, NV250-HEW	25	NV250-SEV, NV250-HEV	26
NF125-SGW, NF125-HGW, NF160-SGW, NF160-HGW, NF250-SGW, NF250-HGW	27	NF125-SGV, NF125-LGV, NF125-HGV, NF125-SEV, NF125-HEV, NF160-SGV, NF160-LGV, NF160-HGV, NF250-SGV, NF250-LGV, NF250-HGV, NF250-SEV, NF250-HEV	28
NF125-RGW, NF250-RGW	29	NF125-RGV, NF250-RGV	30
NF125-UGW, NF250-UGW	31	NF125-UGV, NF250-UGV	32
MB30-SW, MB50-CW, MB50-SW	13	NF32-SV, NF63-CV, NF63-SV (Note)	14
MB100-SW	17	NF125-SV (Note)	18

Note: The circuit breakers for motor protection have the same basic model names as NF.

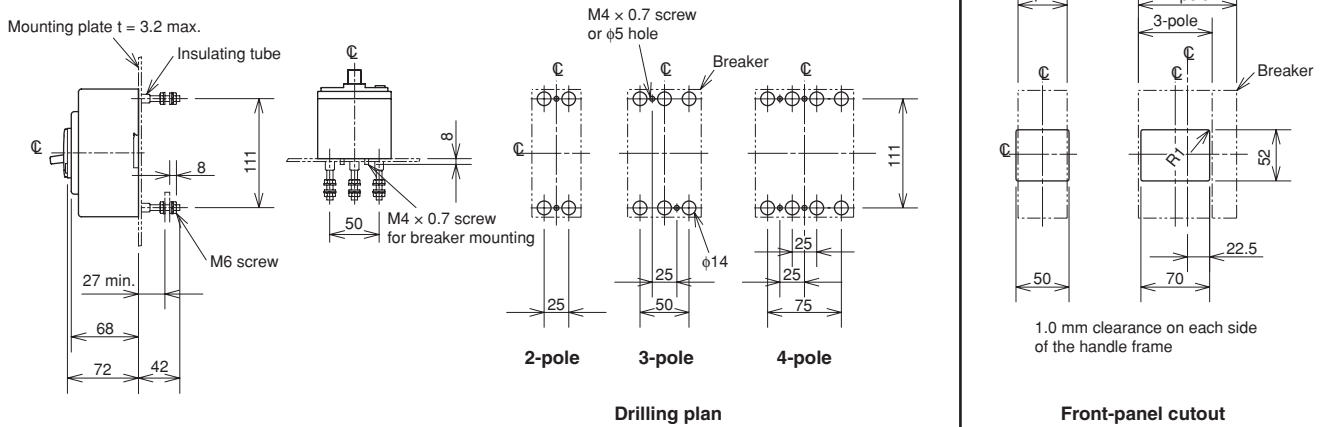
Molded-case circuit breakers
Previous W & WS Series

NF32-SW, NF63-CW, NF63-SW, NF63-HW,
 MB30-SW, MB50-CW, MB50-SW

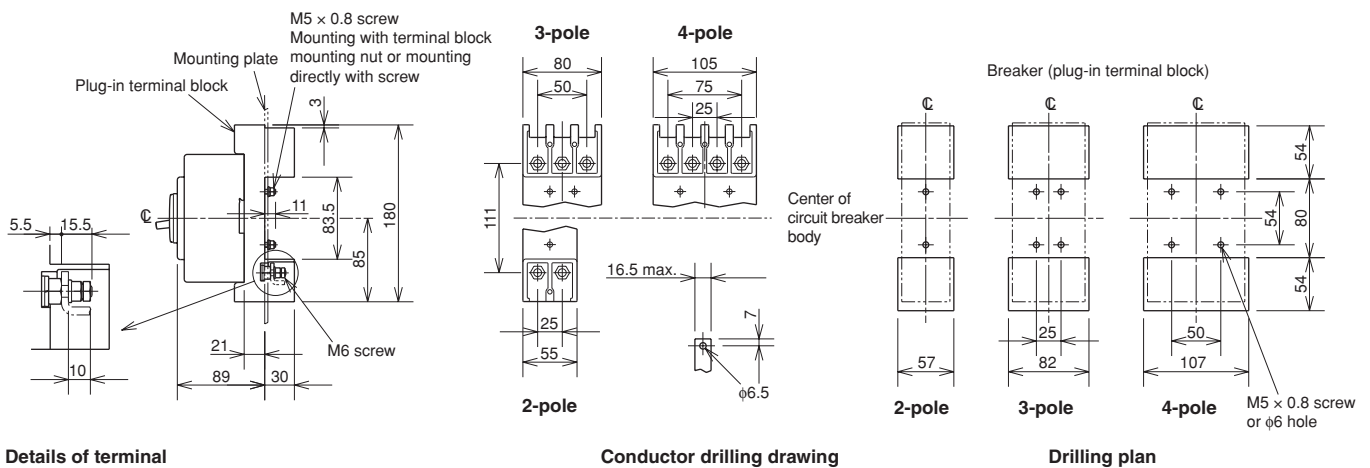
Front connection



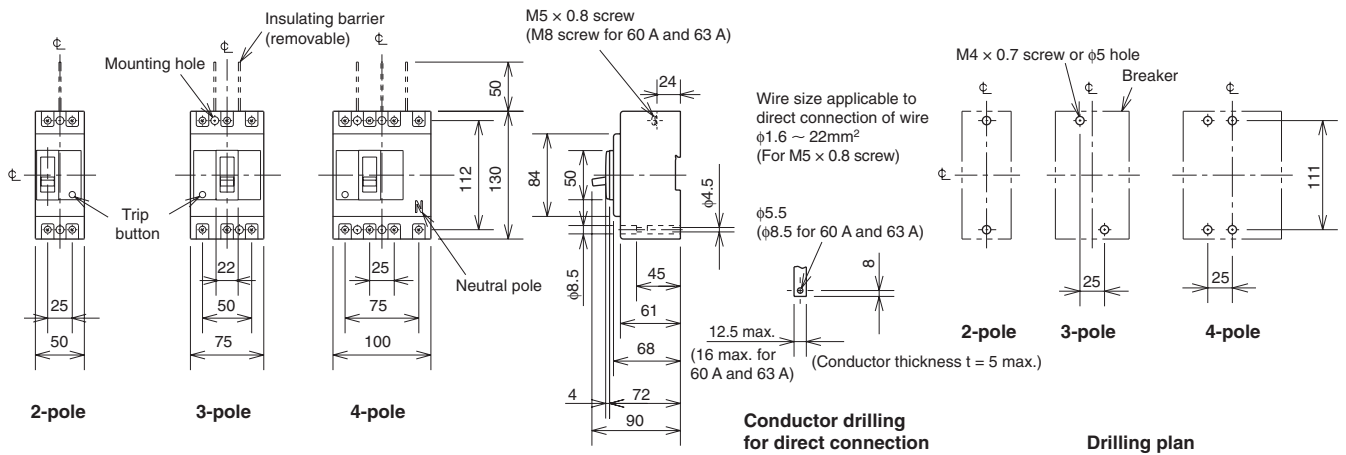
Rear connection



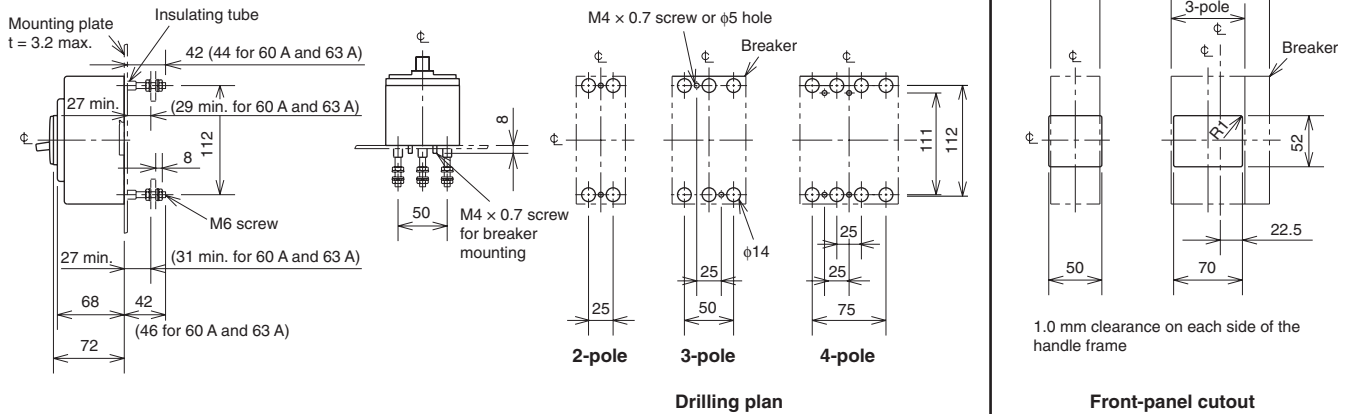
Plug-in



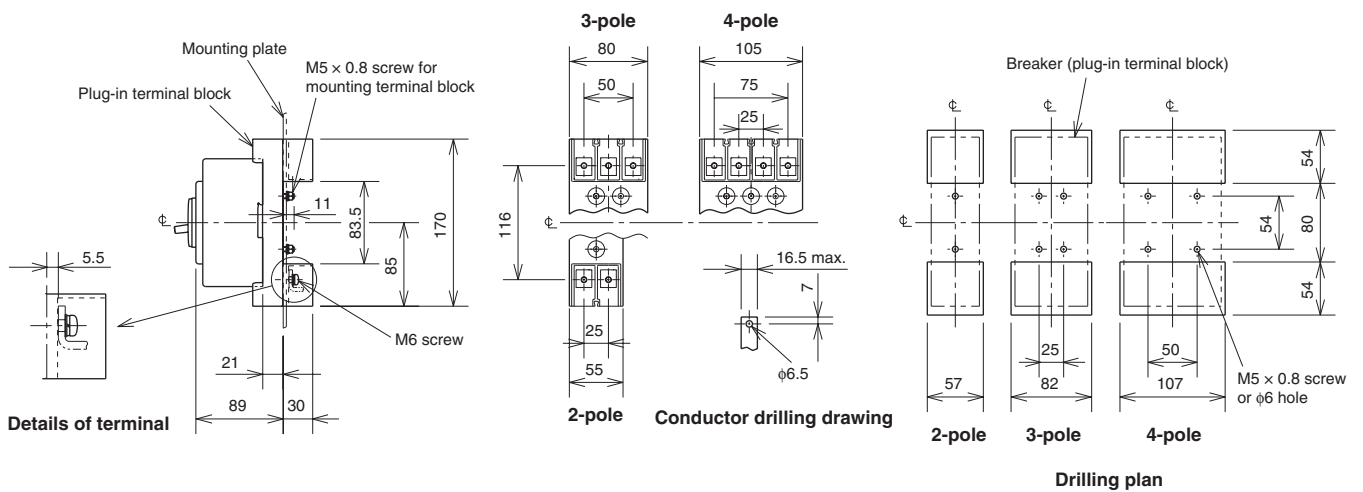
Front connection



Rear connection



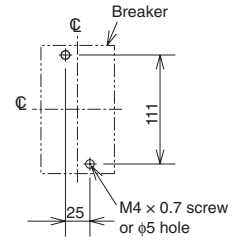
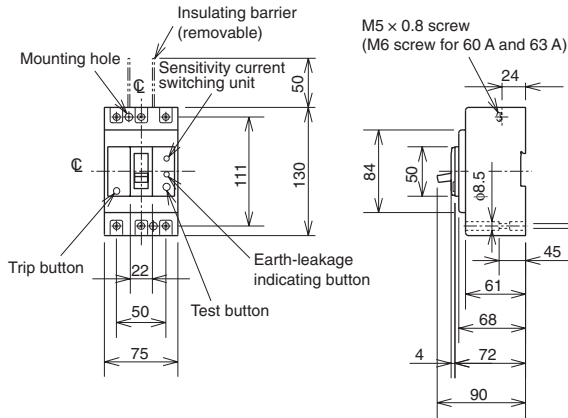
Plug-in



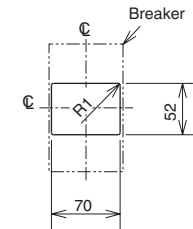
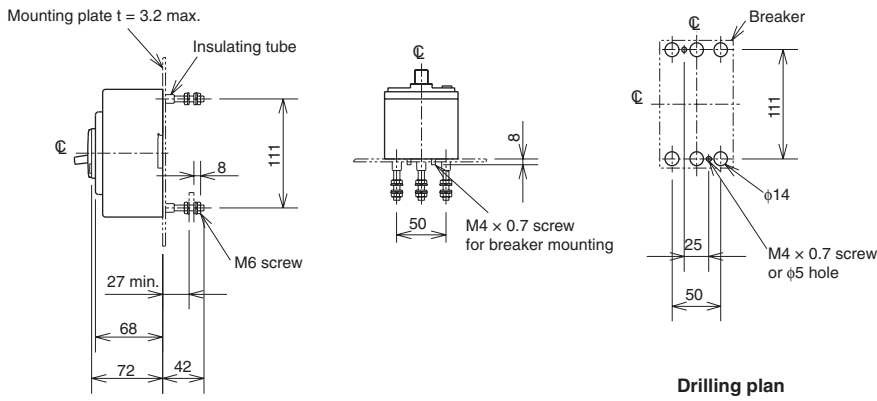
Earth-leakage circuit breakers
Previous W & WS Series

NV32-SW, NV63-CW, NV63-SW, NV63-HW

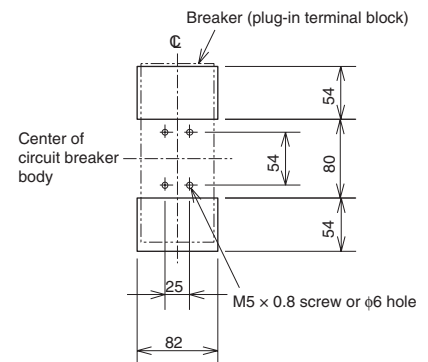
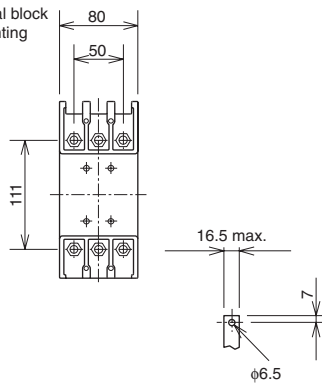
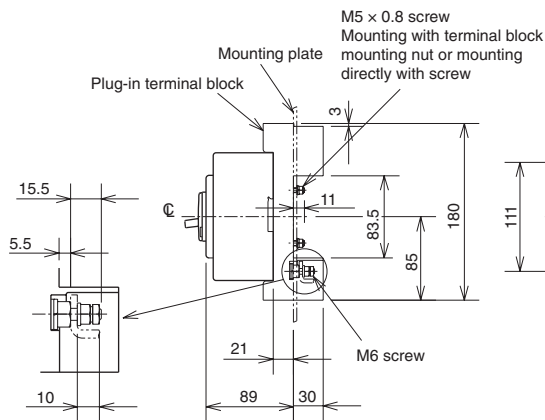
Front connection



Rear connection



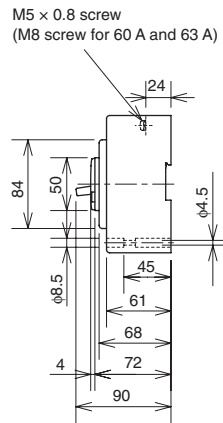
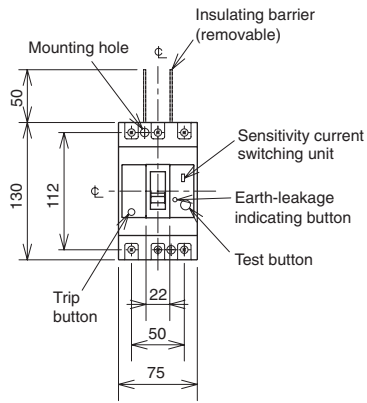
Plug-in



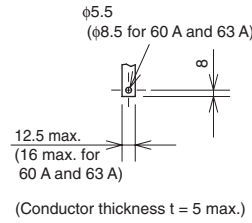
Earth-leakage circuit breakers
New WS-V Series

NV32-SV, NV63-CV, NV63-SV, NV63-HV

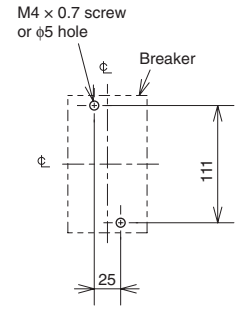
Front connection



Wire size applicable to direct connection of wire $\phi 1.6 \sim 22 \text{ mm}^2$ (For M5 x 0.8 screw)

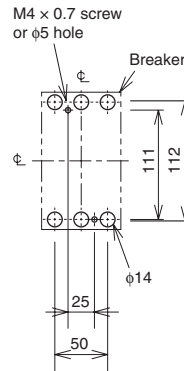
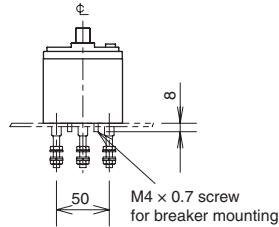
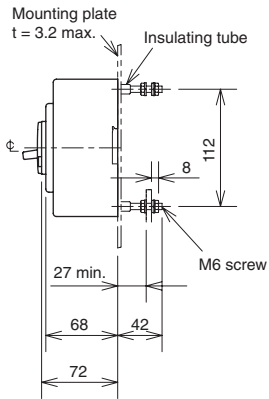


Conductor drilling for direct connection

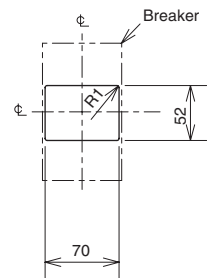


Drilling plan

Rear connection



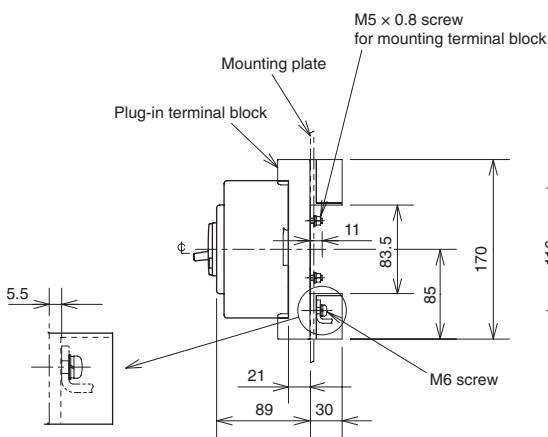
Drilling plan



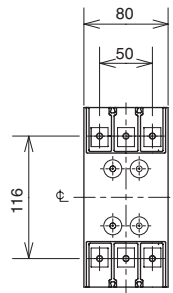
1.0 mm clearance on each side of the handle frame

Front-panel cutout

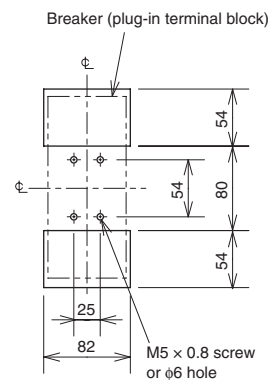
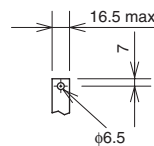
Plug-in



Details of terminal



Conductor drilling drawing

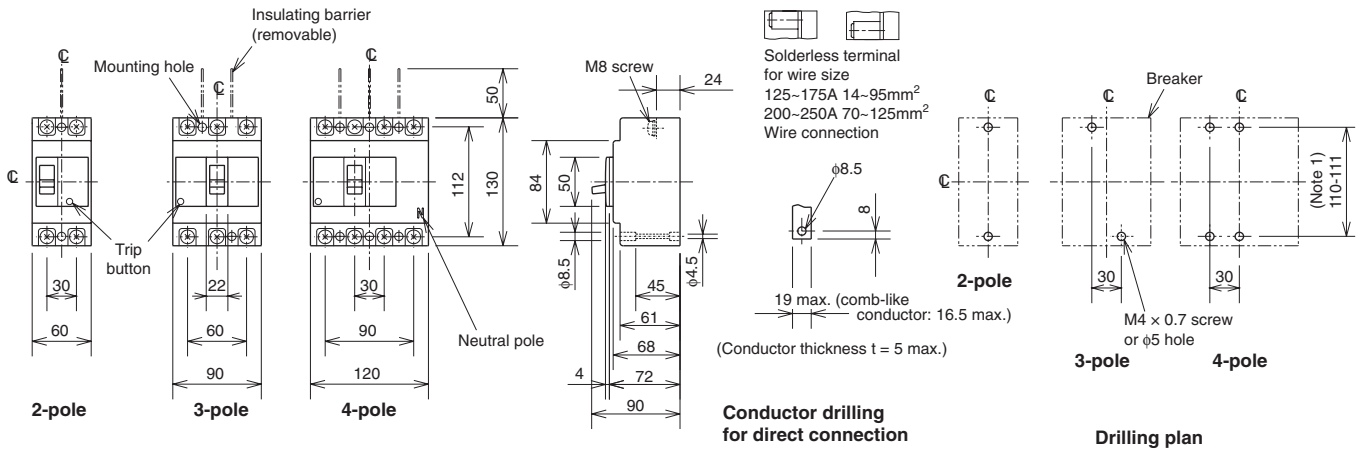


Drilling plan

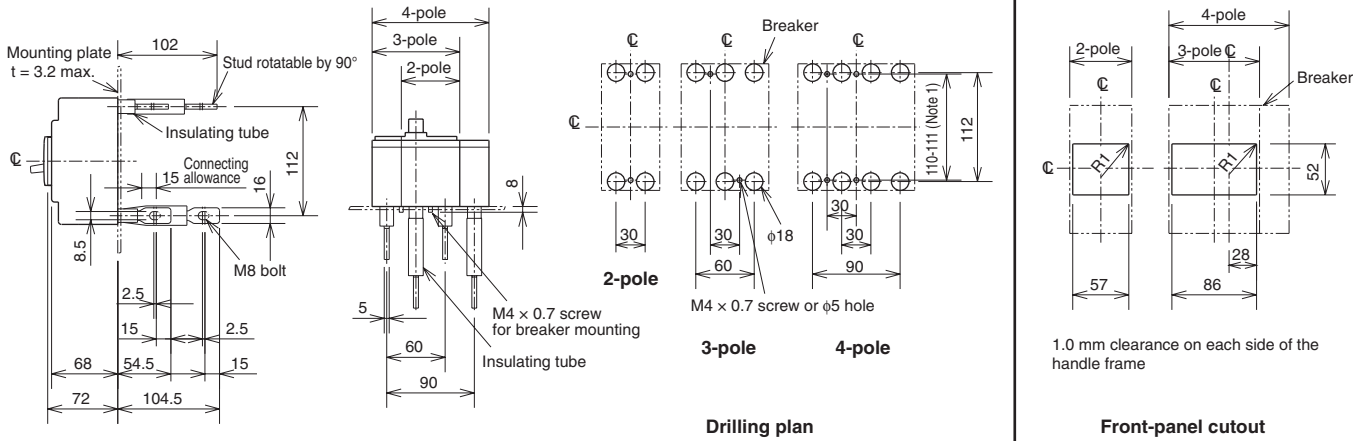
Molded-case circuit breakers
Previous W & WS Series

NF125-CW, NF125-SW, NF125-HW,
 MB100-SW

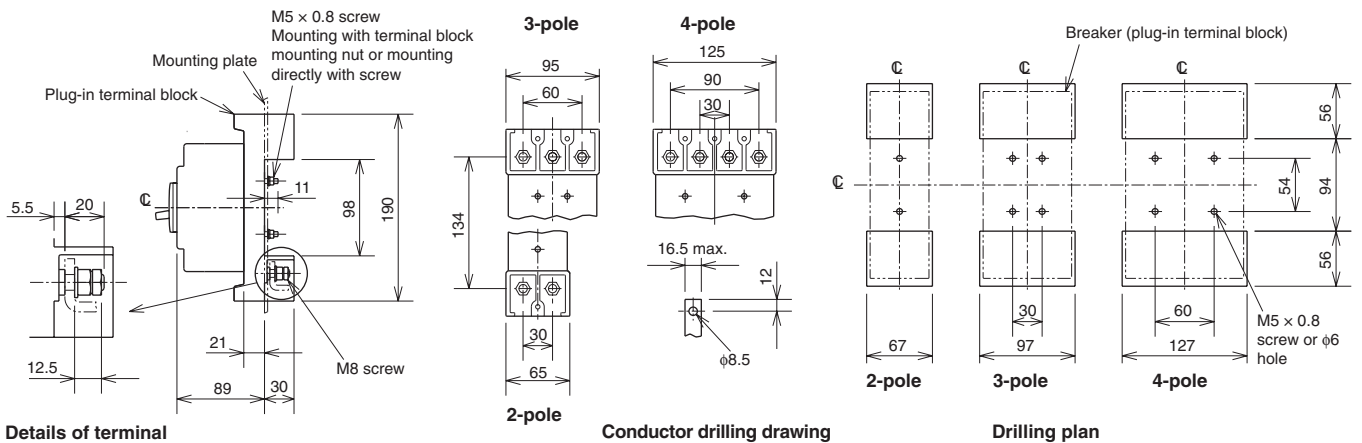
Front connection



Rear connection



Plug-in

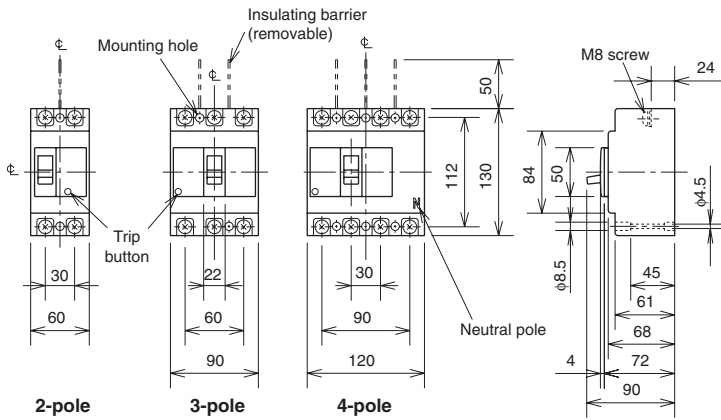


Note (1) Applicable to both mounting sizes 110 and 111

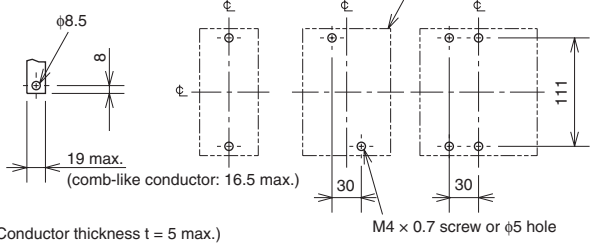
Remarks: 1. 2-pole model of NF125-HW are 3-pole model with the central pole removed.

2. Only 2- and 3-pole models are available for the model of NF125- CW and only 3-pole models are available for the model of MB100-SW.

Front connection



Solderless terminal for wire size
125-175A 14-95mm²
200-250A 70-125mm²
Wire connection

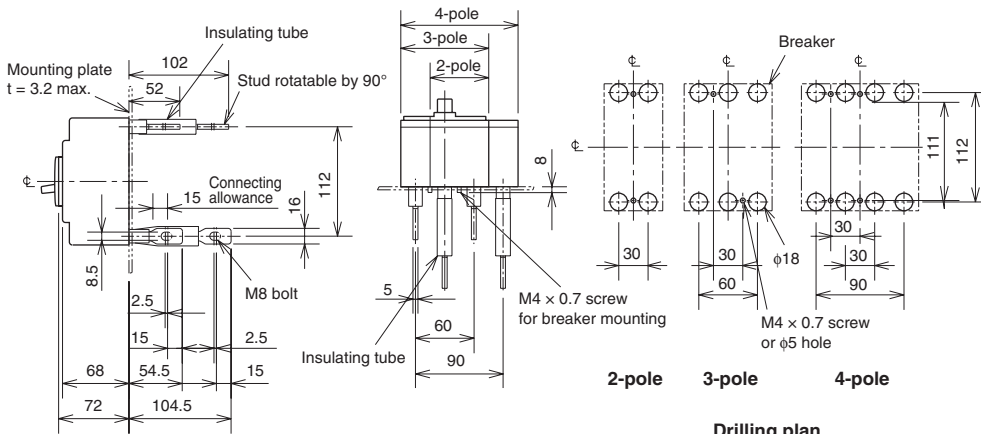


(Conductor thickness t = 5 max.)

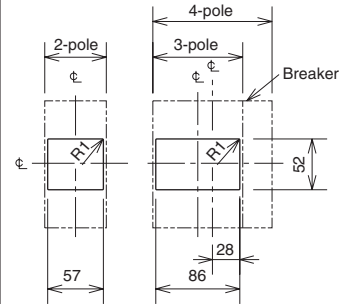
Conductor drilling for direct connection

Drilling plan

Rear connection



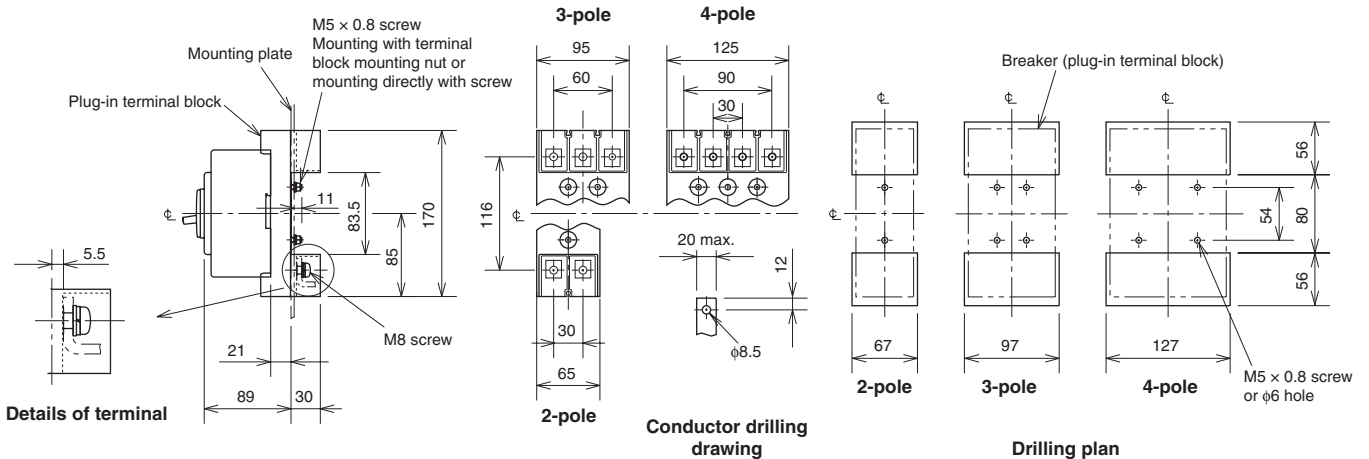
Drilling plan



1.0 mm clearance on each side of the handle frame

Front-panel cutout

Plug-in



Details of terminal

Conductor drilling drawing

Drilling plan

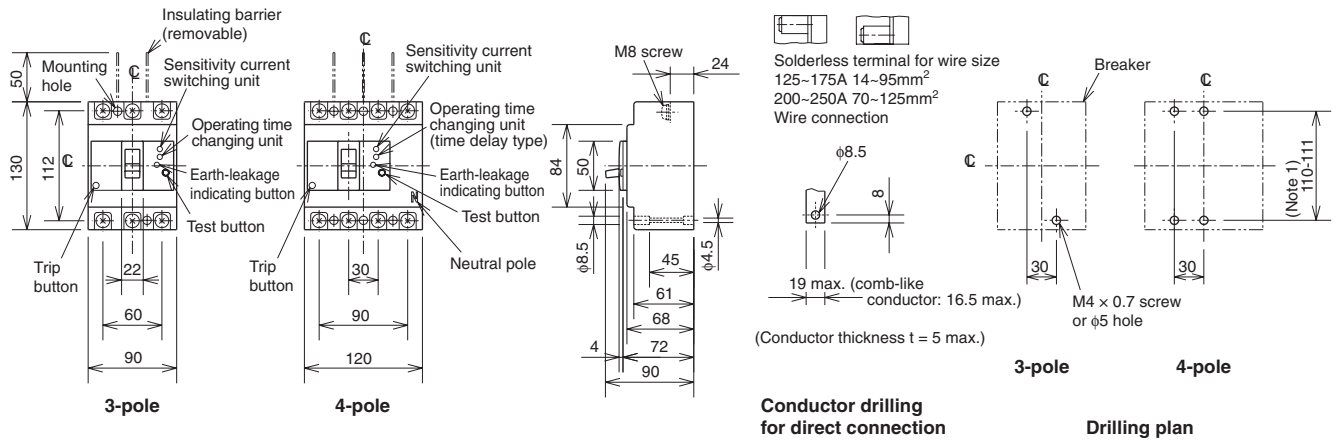
Remarks: 1. 2-pole model of NF125-SV are 3-pole models with the central pole removed.
2. Only 2- and 3-pole models are available for the model of NF125-CV.

Earth-leakage circuit breakers

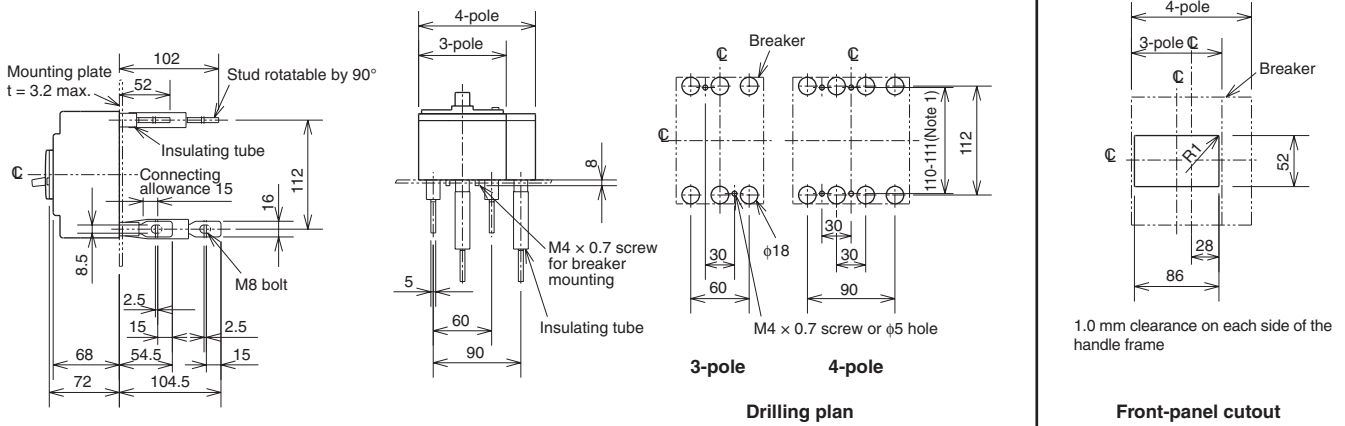
Previous W & WS Series

NV125-CW, NV125-SW, NV125-HW

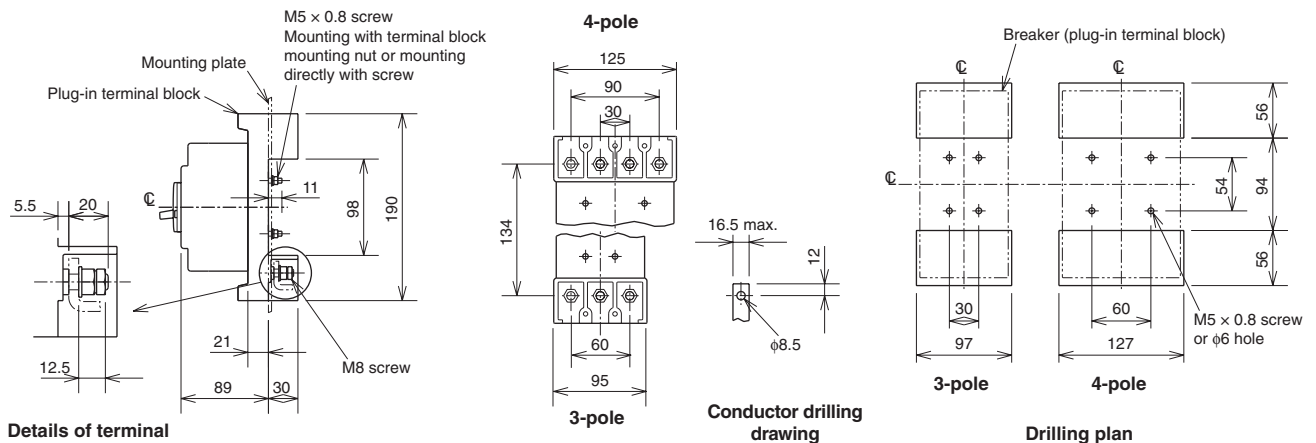
Front connection



Rear connection



Plug-in



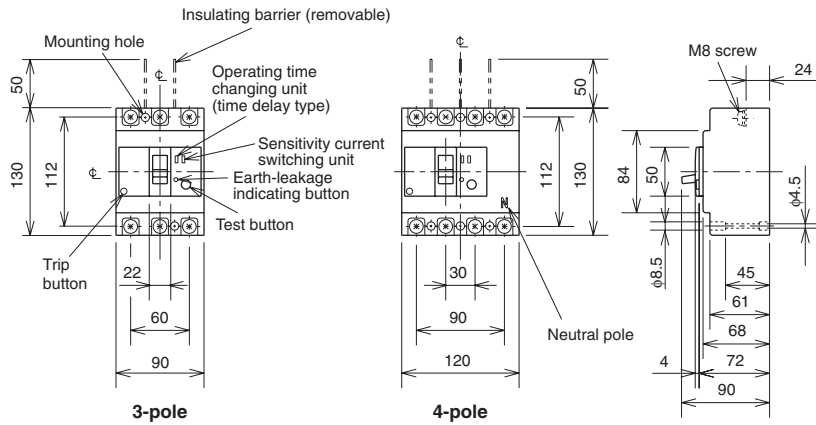
Note (1) Applicable to both mounting sizes 110 and 111
 Remark: NV125-CW is available in 3-pole only.

Earth-leakage circuit breakers

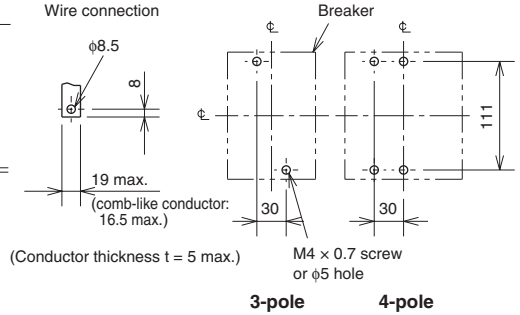
New WS-V Series

NV125-CV, NV125-SV, NV125-HV

Front connection



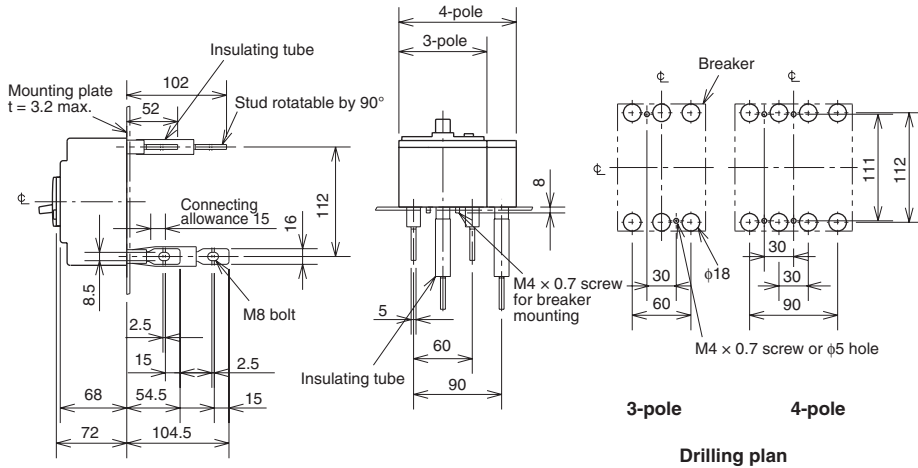
Solderless terminal for wire size
125-175A 14-95mm²
200-250A 70-125mm²
Wire connection



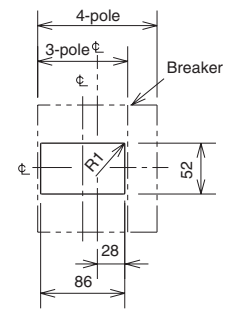
Conductor drilling for direct connection

Drilling plan

Rear connection



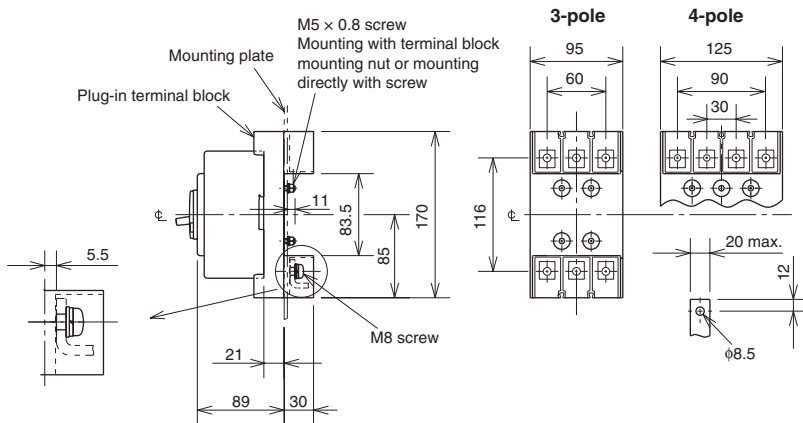
Drilling plan



1.0 mm clearance on each side of the handle frame

Front-panel cutout

Plug-in



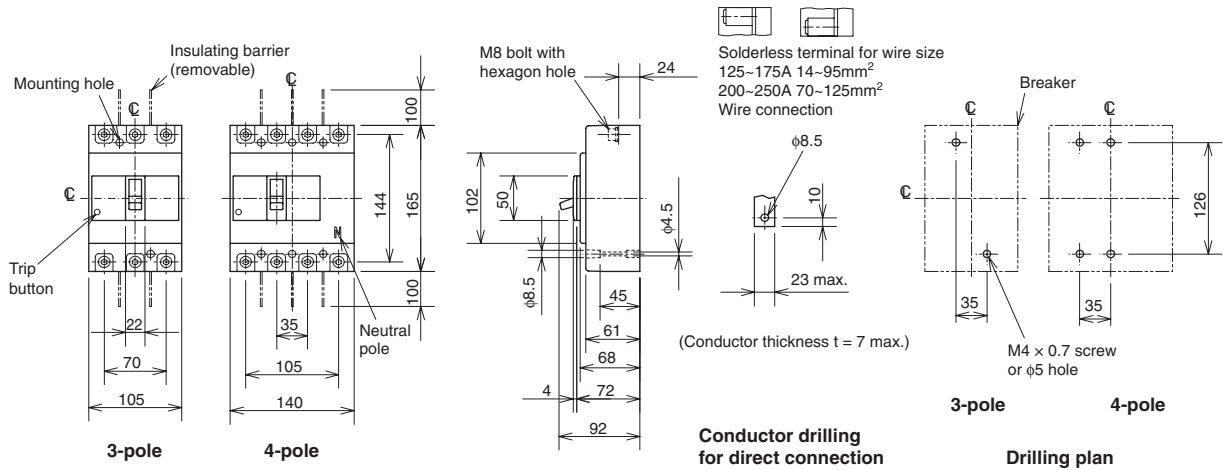
Details of terminal

Conductor drilling drawing

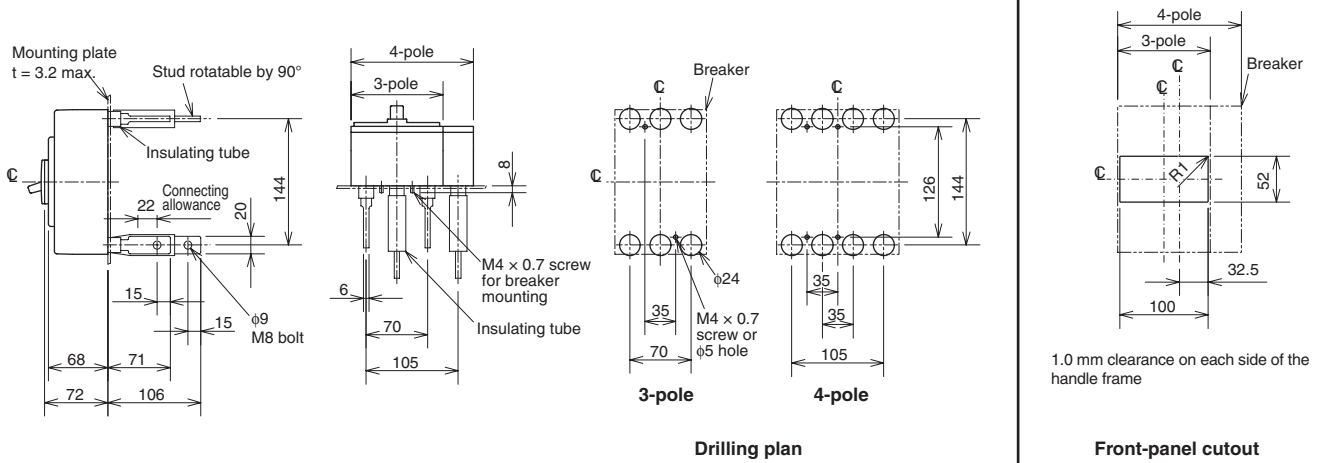
Drilling plan

Remark: NV125-CV is available in 3-pole only.

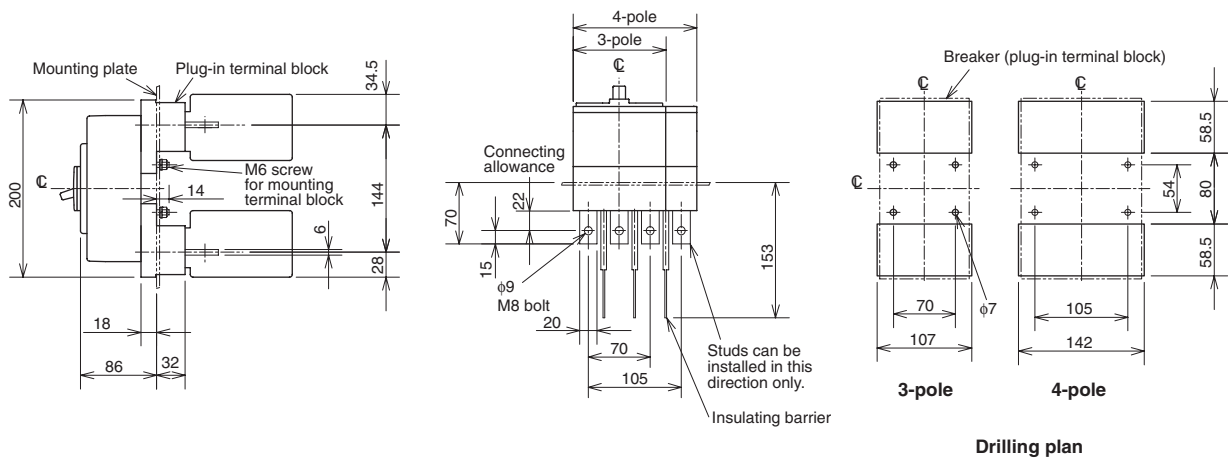
Front connection



Rear connection



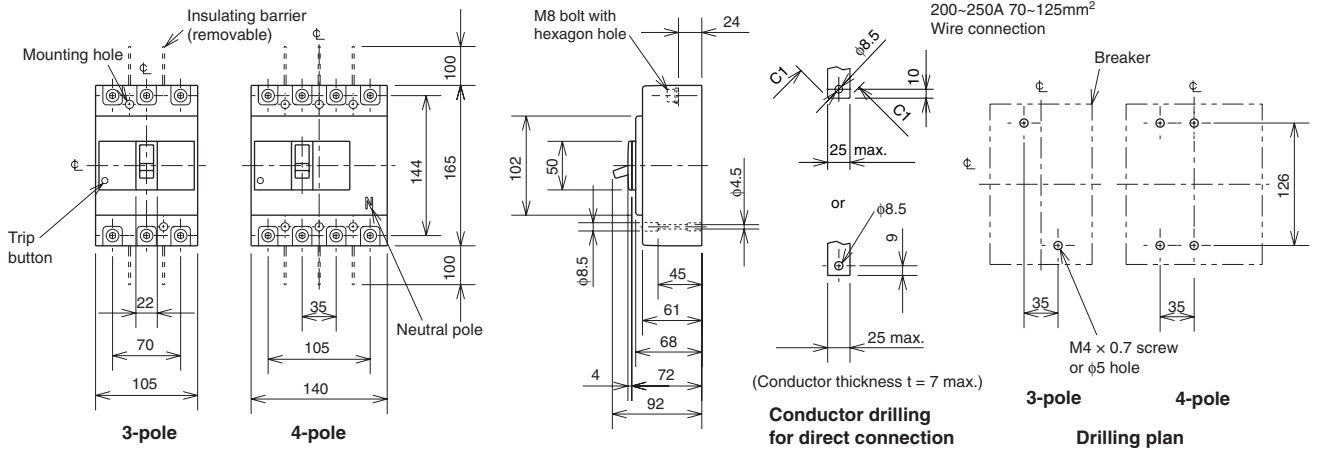
Plug-in



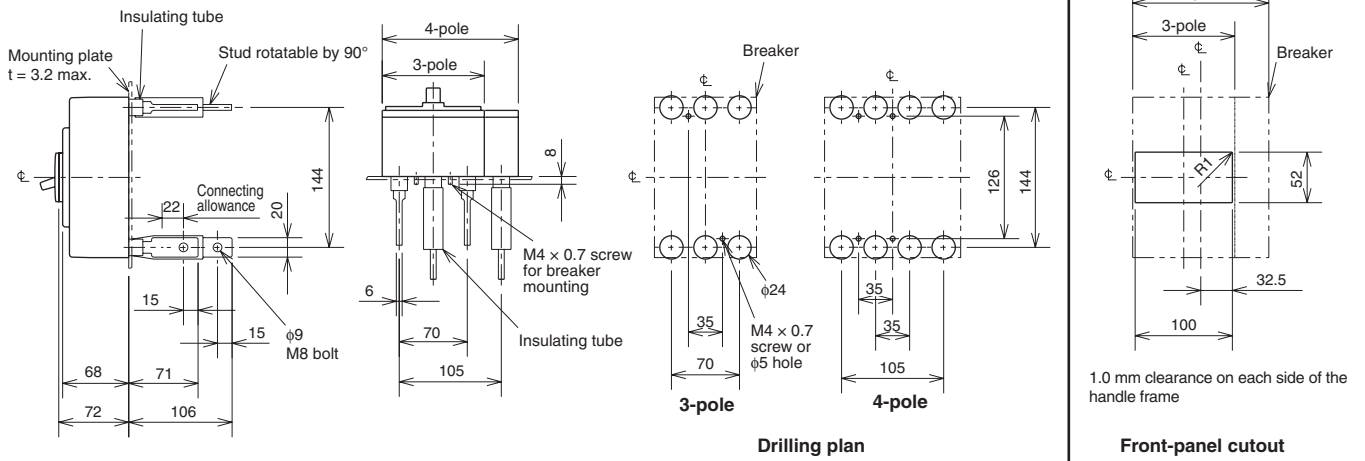
Remarks: 1. 2-pole models are 3-pole models with the central pole removed.

2. Only 2- and 3-pole models are available for the model of NF250-CW and only 3-pole models are available for the model of MB225-SW.

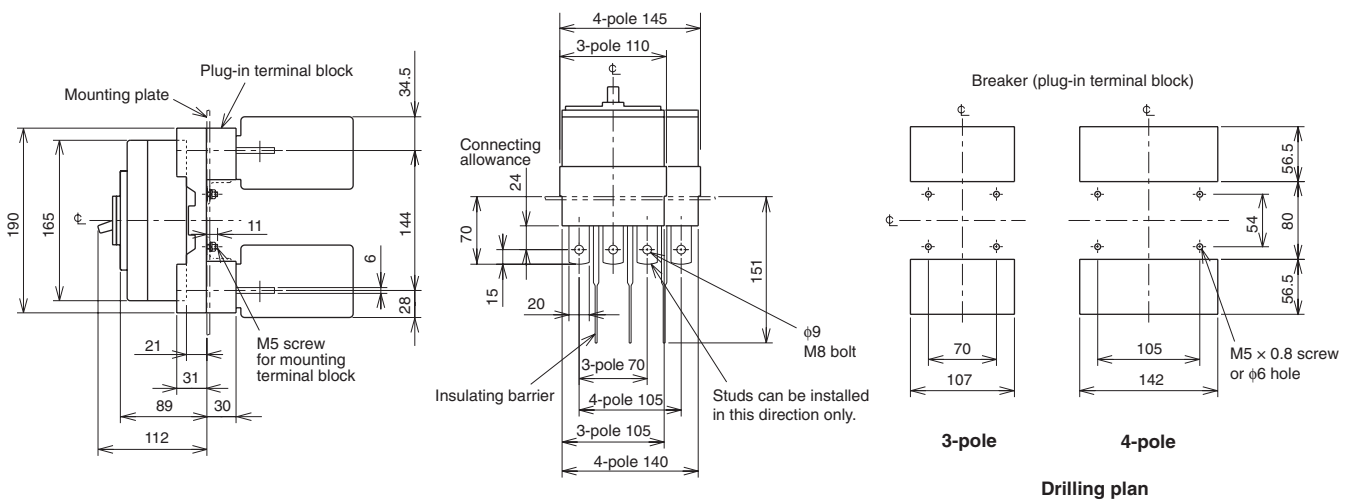
Front connection



Rear connection



Plug-in



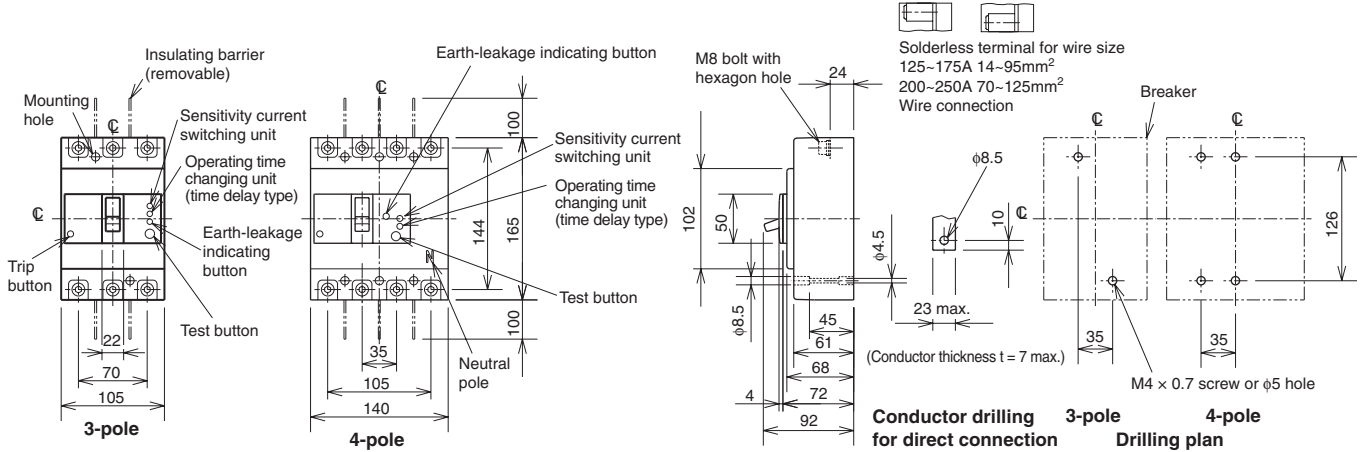
Remarks: 1. 2-pole models are 3-pole models with the central pole removed.
2. Only 2- and 3-pole models are available for the model of NF250-CV.

Earth-leakage circuit breakers

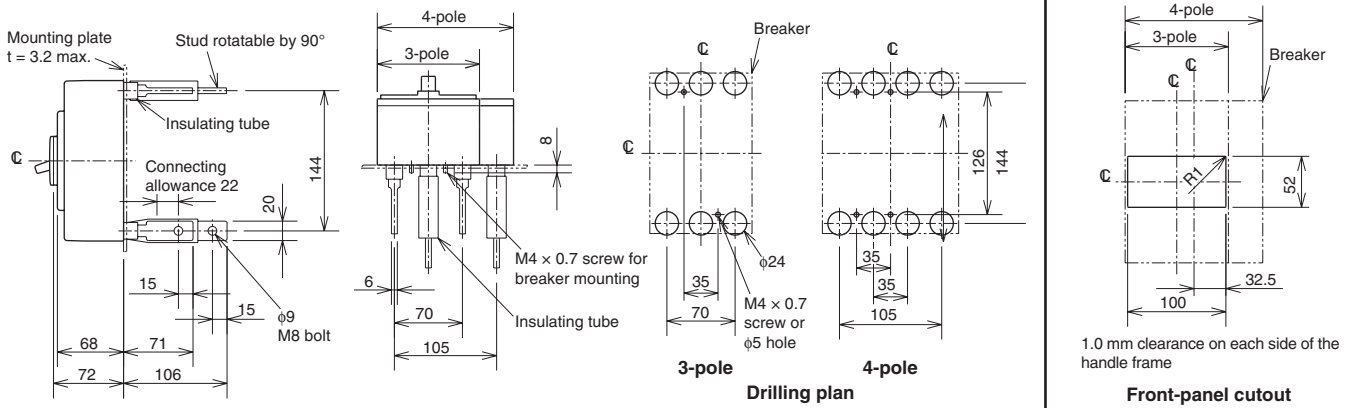
Previous W & WS Series

NV250-CW, NV250-SW, NV250-HW

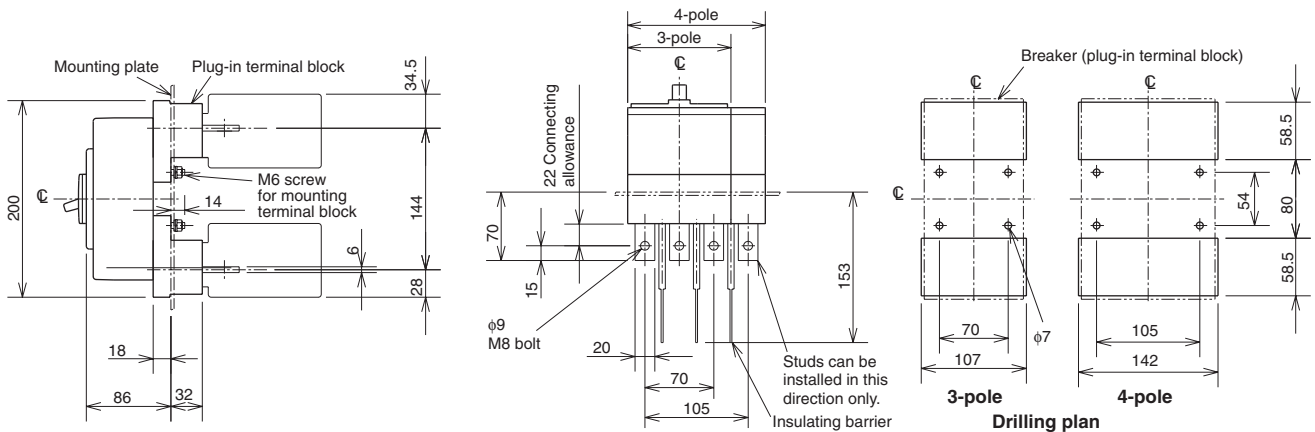
Front connection



Rear connection



Plug-in



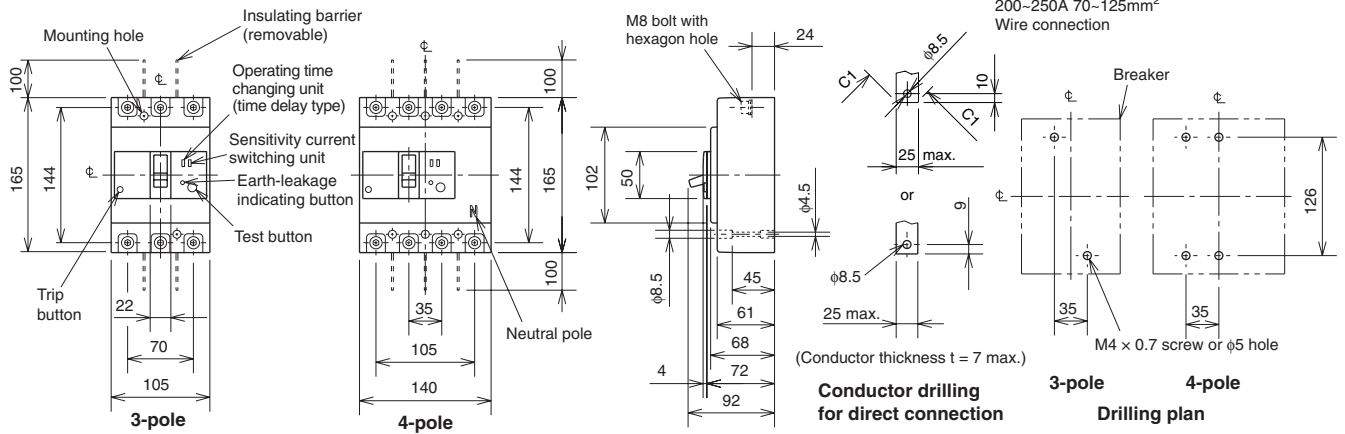
Remark: NV250-CW are available in 3-pole only.

Earth-leakage circuit breakers

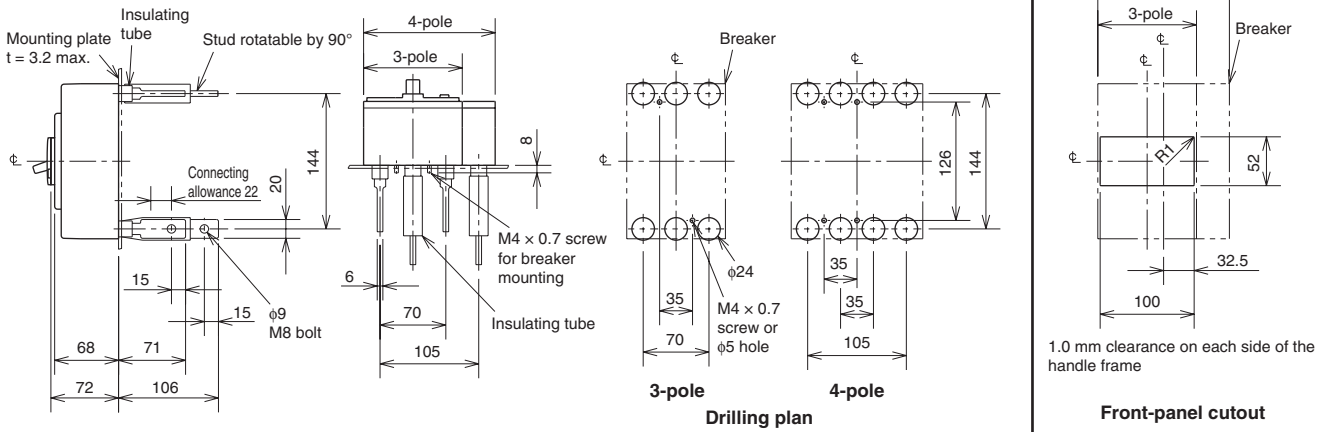
New WS-V Series

NV250-CV, NV250-SV, NV250-HV

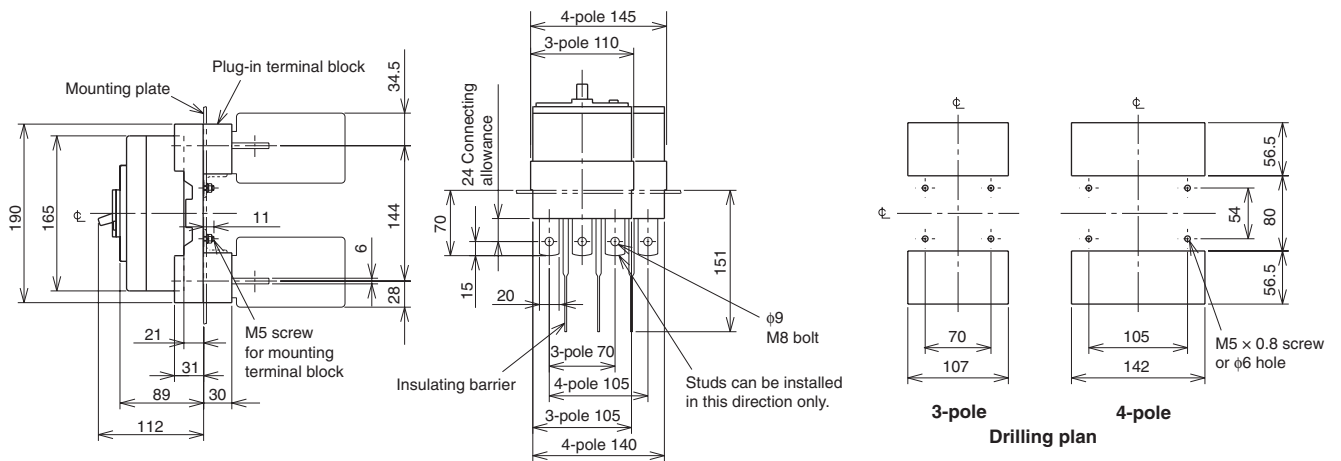
Front connection



Rear connection



Plug-in

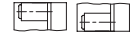


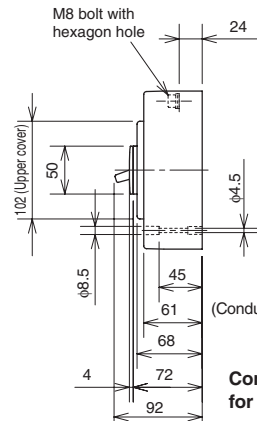
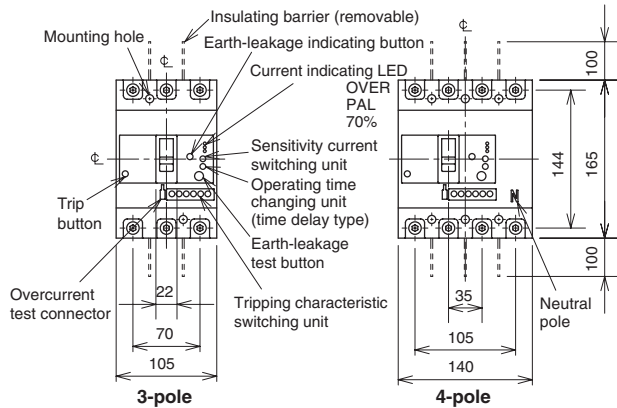
Remark: NV250-CV are available in 3-pole only.

Earth-leakage circuit breakers
Previous W & WS Series

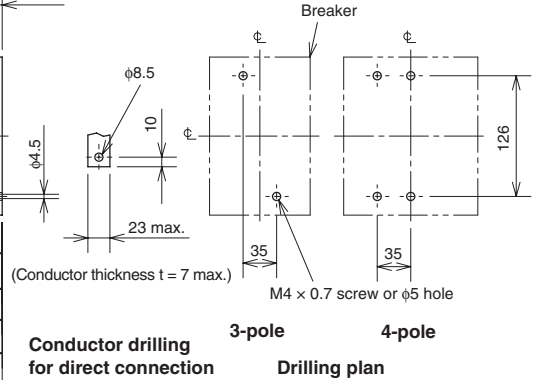
NV250-SEW, NV250-HEW

Front connection

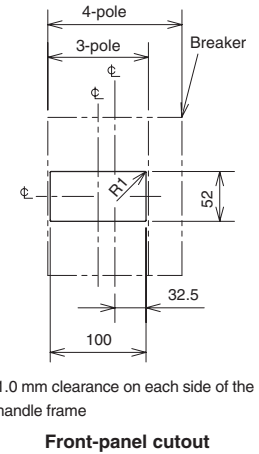
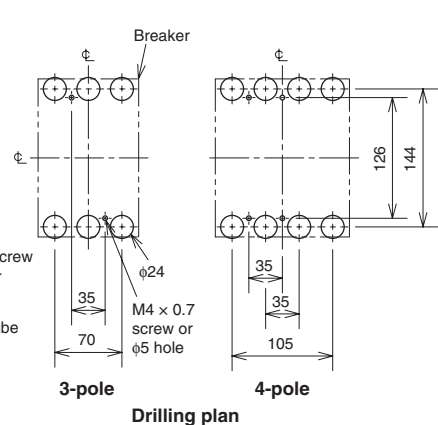
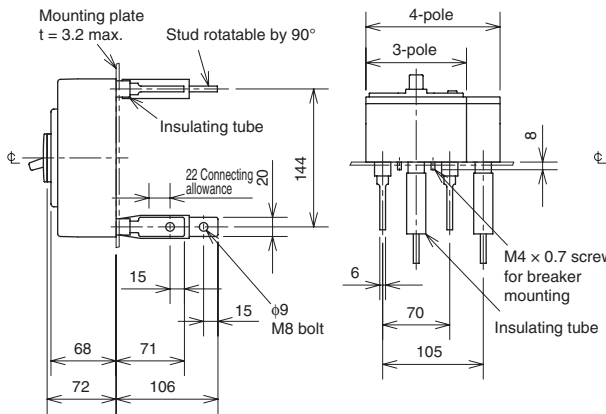
 Solderless terminal for wire size
125~175A 14~95mm²
200~250A 70~125mm²
Wire connection



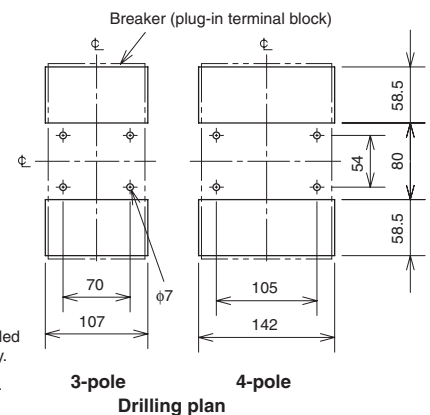
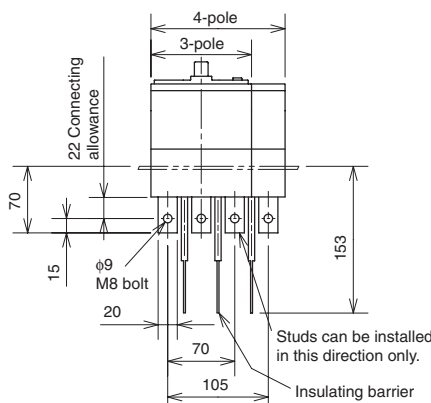
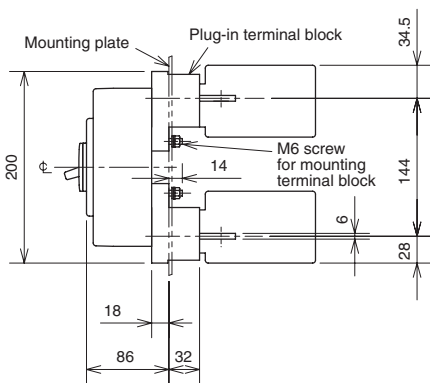
(Note) To change the settings, open the upper cover.



Rear connection



Plug-in

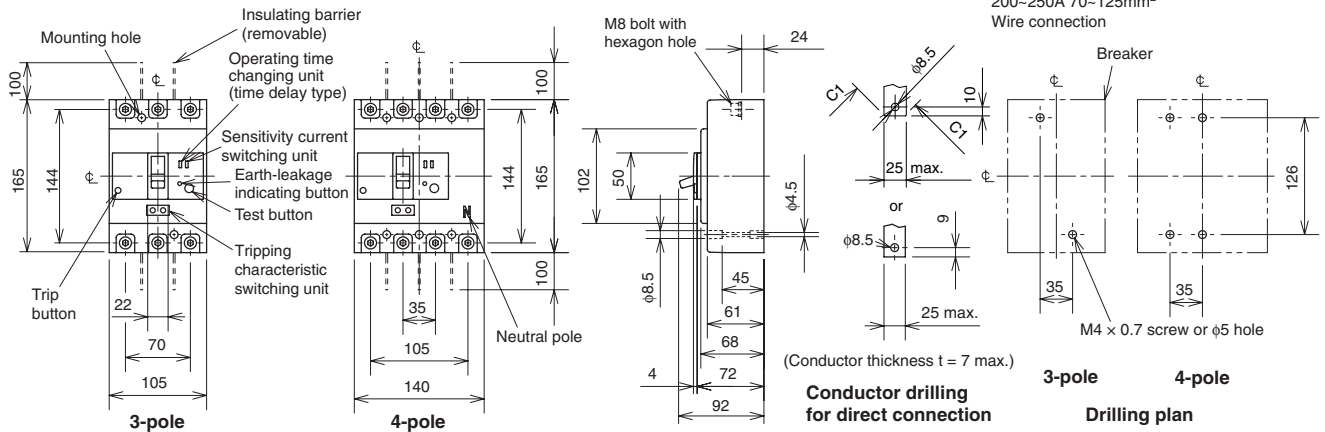


Earth-leakage circuit breakers

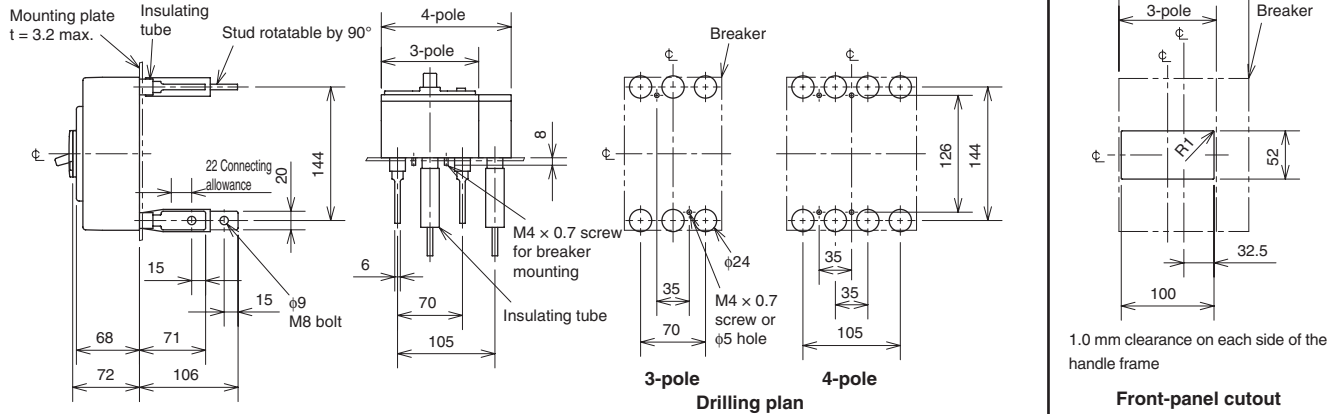
New WS-V Series

NV250-SEV, NV250-HEV

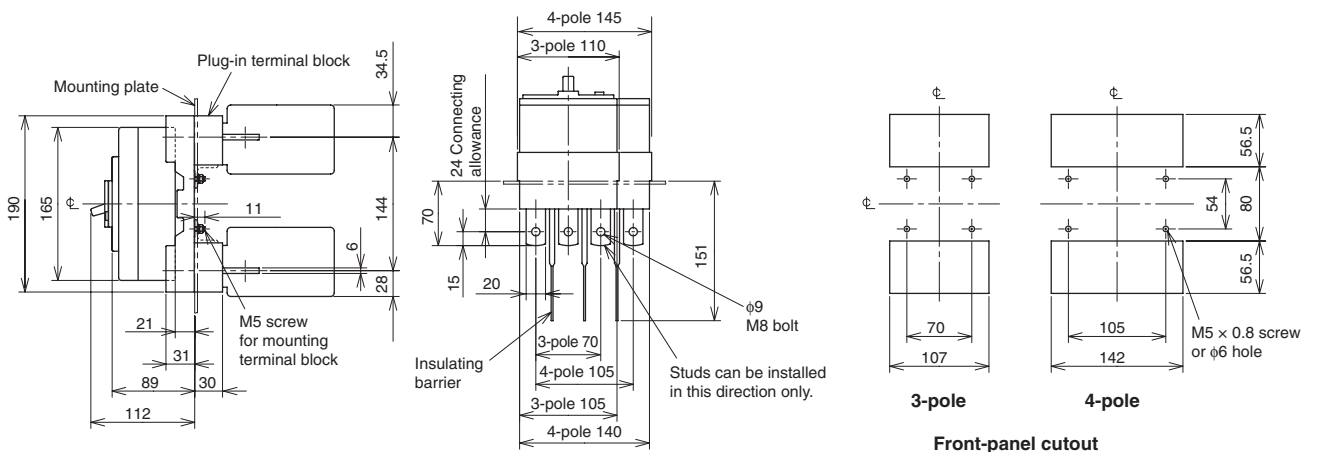
Front connection



Rear connection



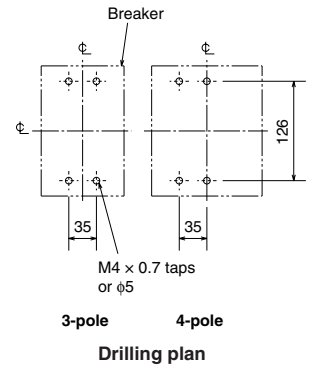
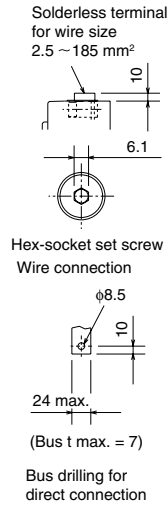
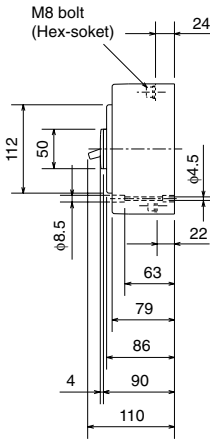
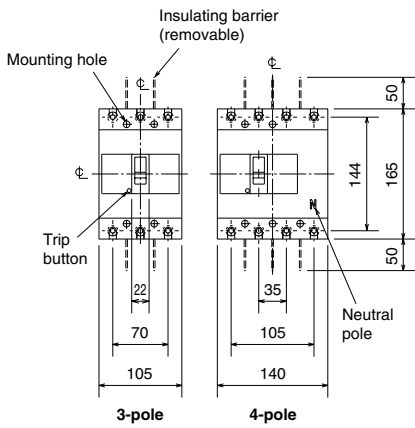
Plug-in



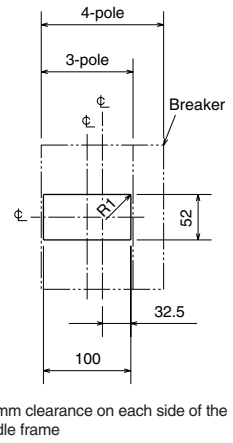
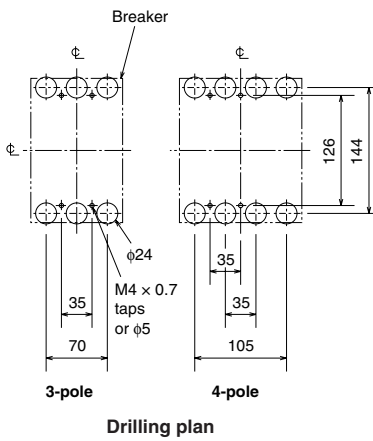
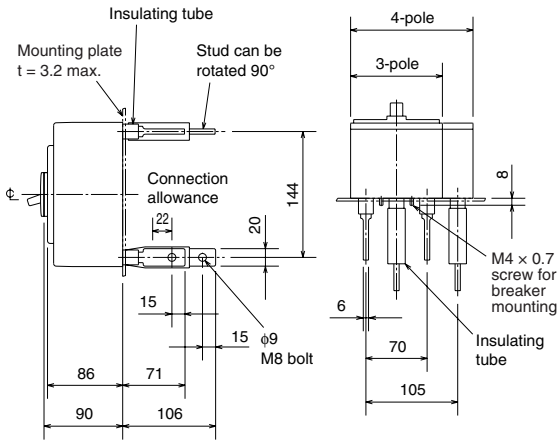
Molded-case circuit breakers
Previous W & WS Series

NF125-SGW, NF125-HGW, NF160-SGW, NF160-HGW,
 NF250-SGW, NF250-HGW

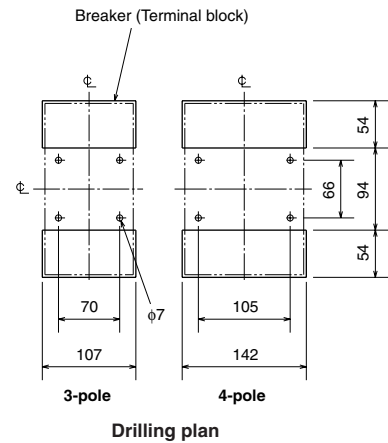
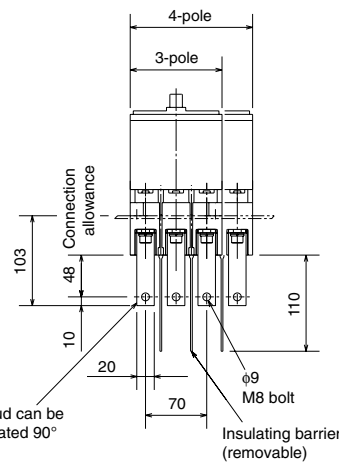
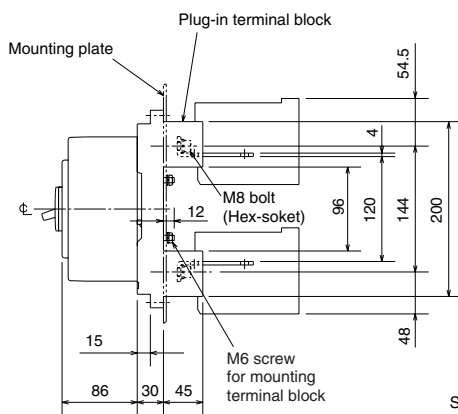
Front connection



Rear connection



Plug-in

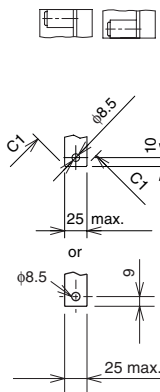
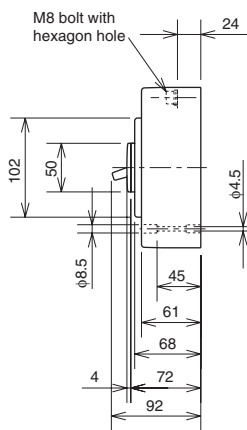
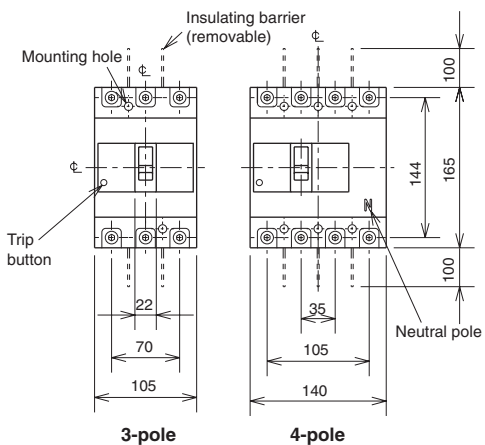


Remark: 1. 2-pole models are 3-pole models with the central pole removed.

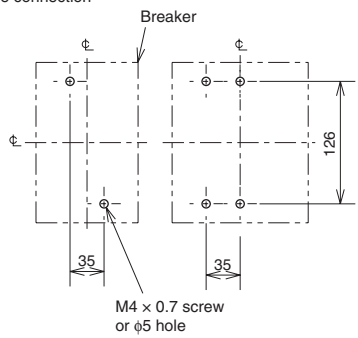
Molded-case circuit breakers
New WS-V Series

NF125-SGV, NF125-LGV, NF125-HGV, NF125-SEV, NF125-HEV,
NF160-SGV, NF160-LGV, NF160-HGV,
NF250-SGV, NF250-LGV, NF250-HGV, NF250-SEV, NF250-HEV

Front connection

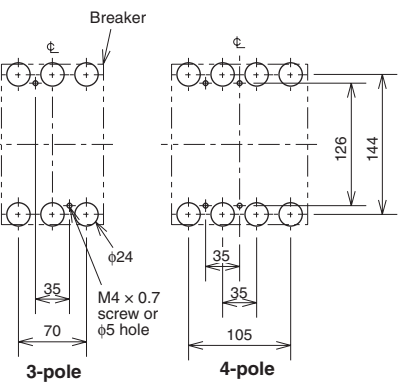
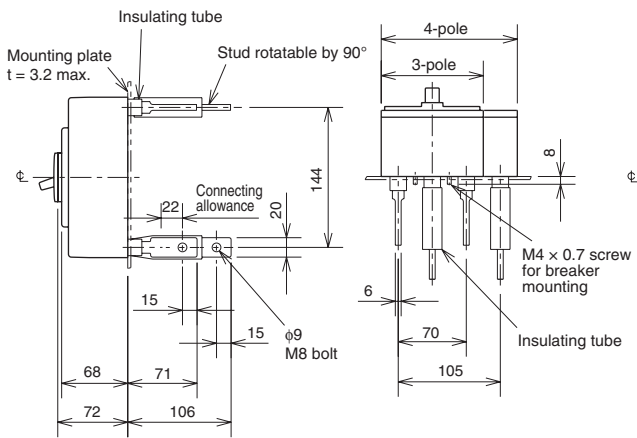


(Conductor thickness $t = 7$ max.)
Conductor drilling for direct connection

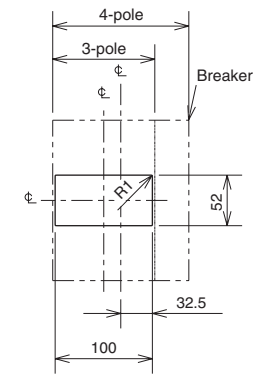


3-pole 4-pole Drilling plan

Rear connection

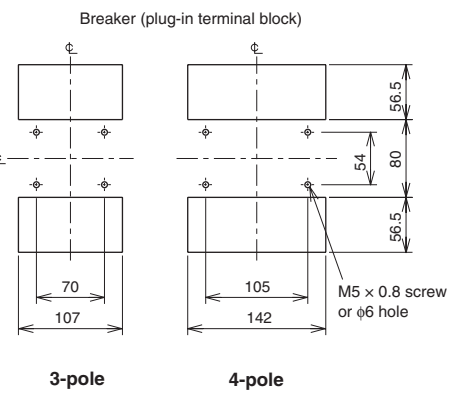
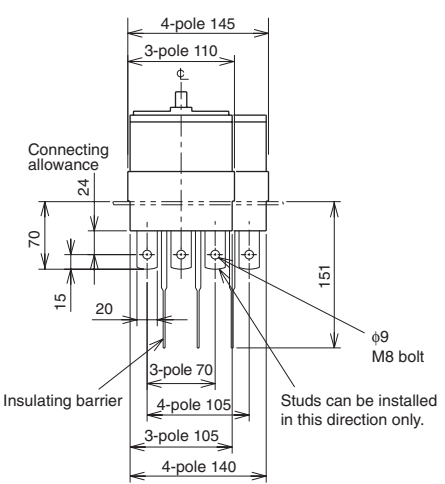
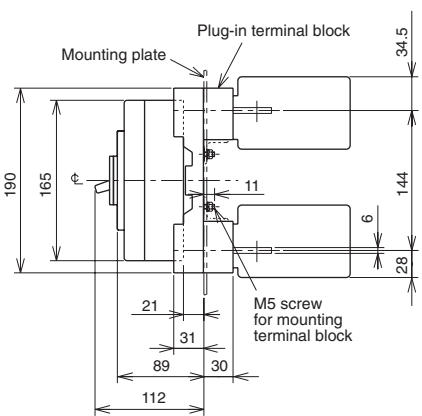


Drilling plan



1.0 mm clearance on each side of the handle frame
Front-panel cutout

Plug-in



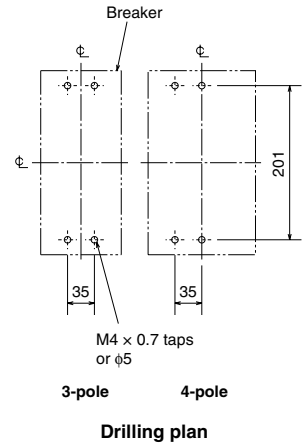
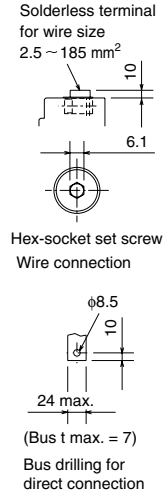
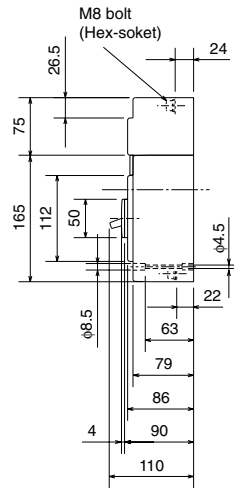
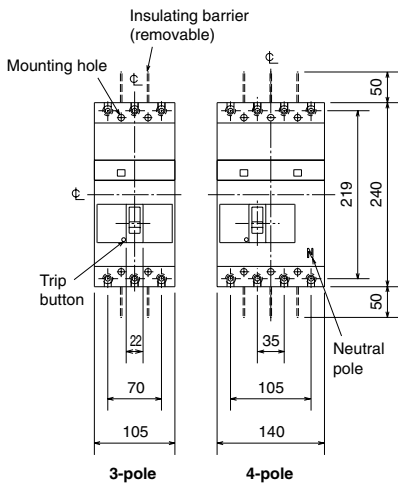
Drilling plan

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

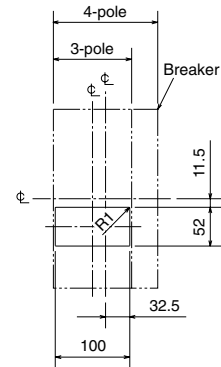
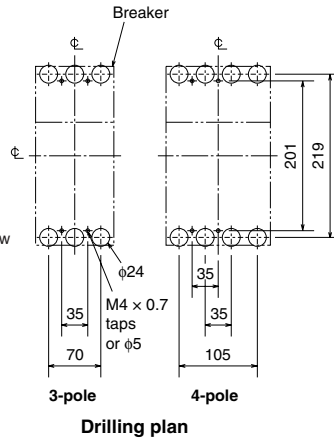
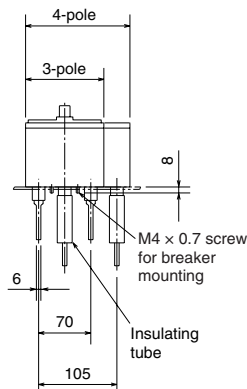
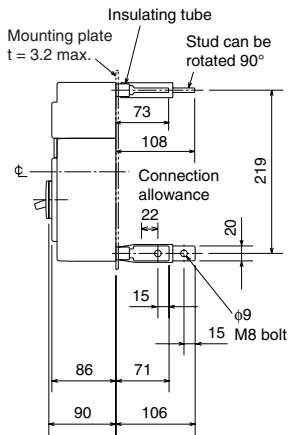
Molded-case circuit breakers
Previous W & WS Series

NF125-RGW, NF250-RGW

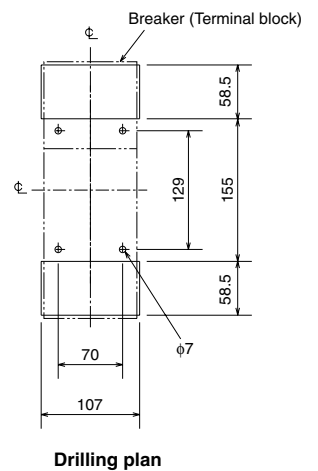
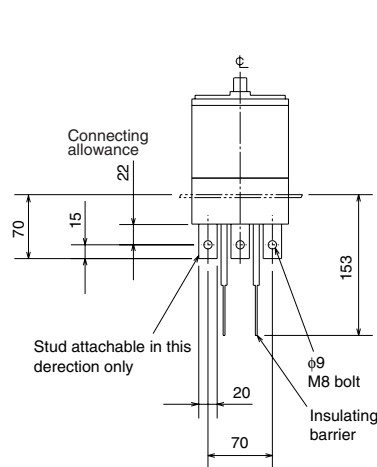
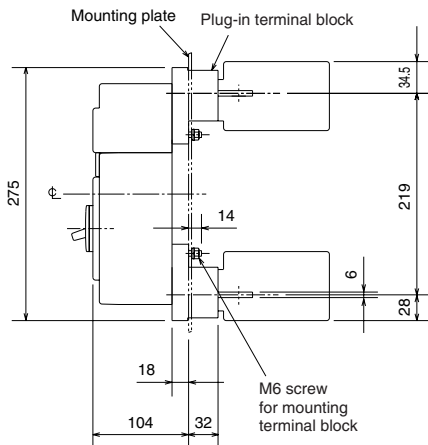
Front connection



Rear connection

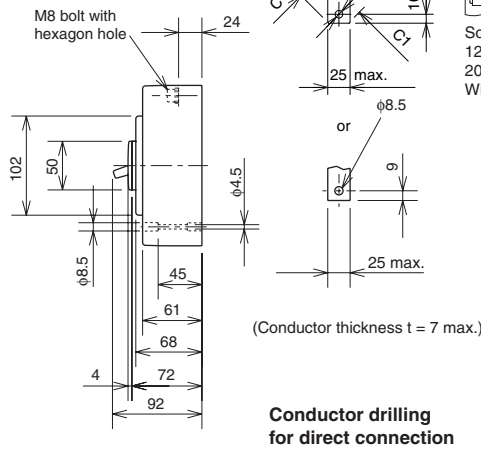
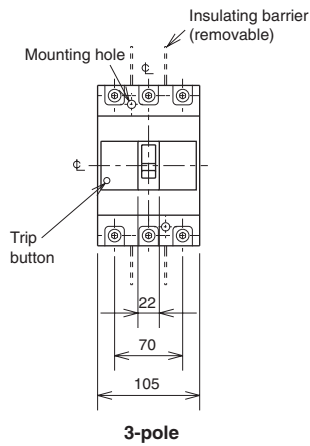


Plug-in

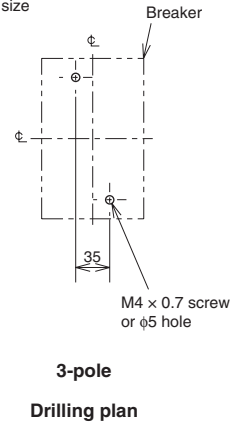


Remark: 2-pole models are 3-pole models with the central pole removed.

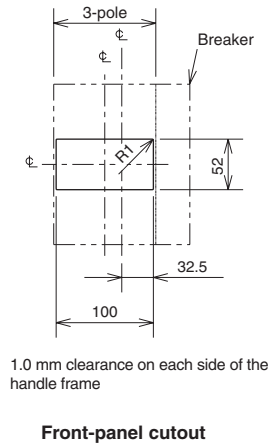
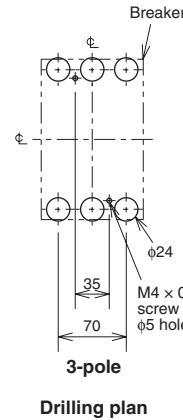
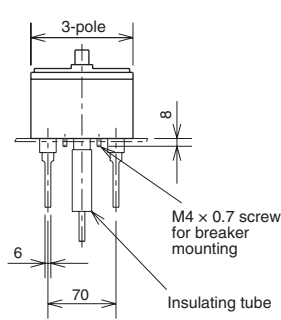
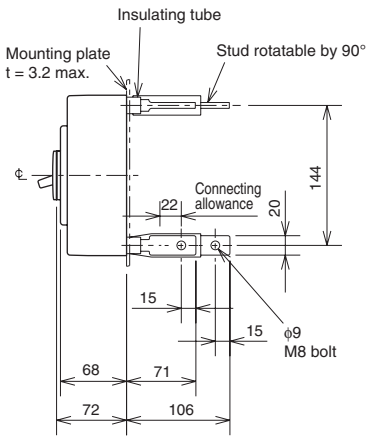
Front connection



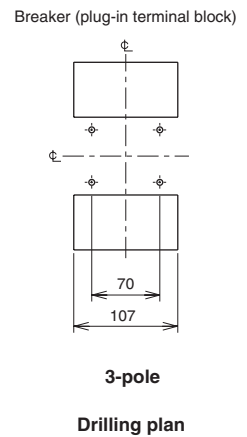
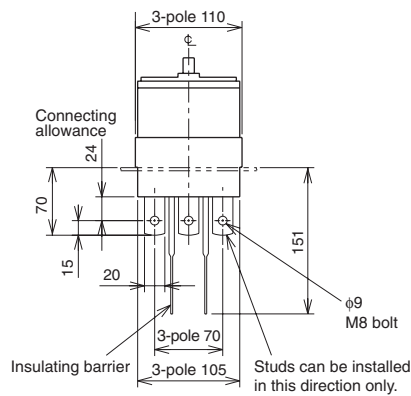
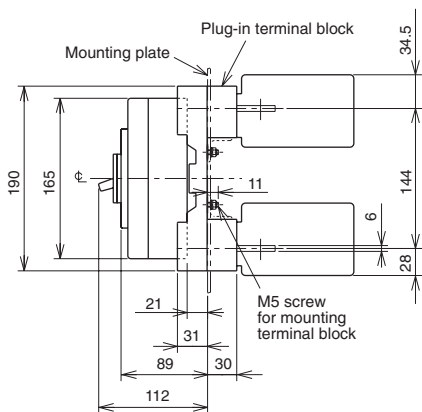
Solderless terminal for wire size
125-175A 14-95mm²
200-250A 70-125mm²
Wire connection



Rear connection



Plug-in

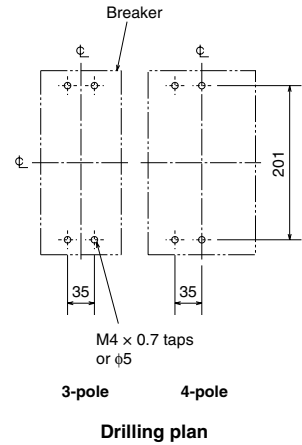
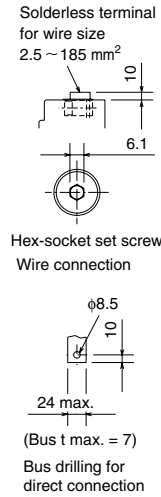
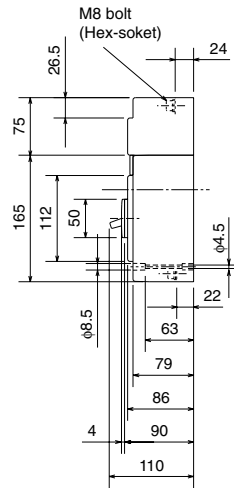
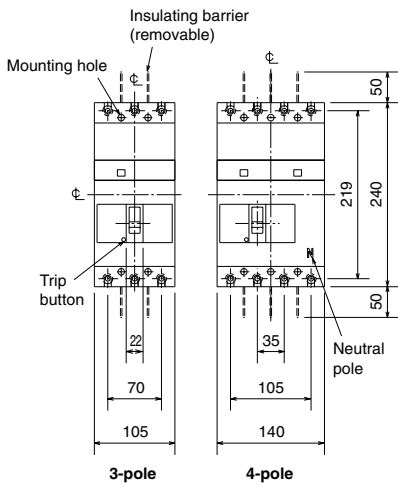


Remark: 2-pole models are 3-pole models with the central pole removed.

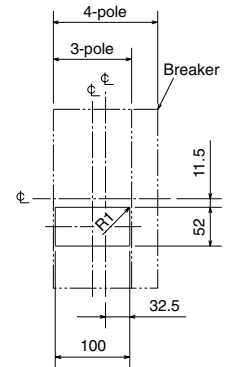
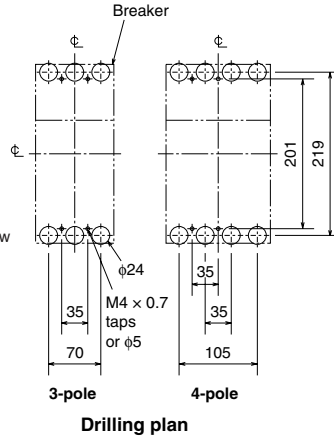
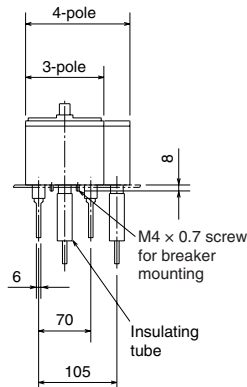
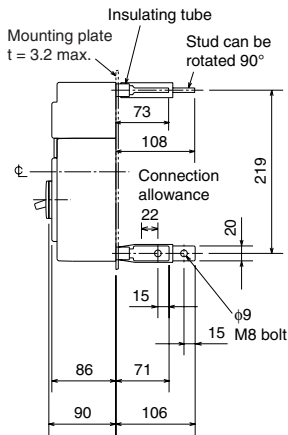
Molded-case circuit breakers
Previous W & WS Series

NF125-UGW, NF250-UGW

Front connection



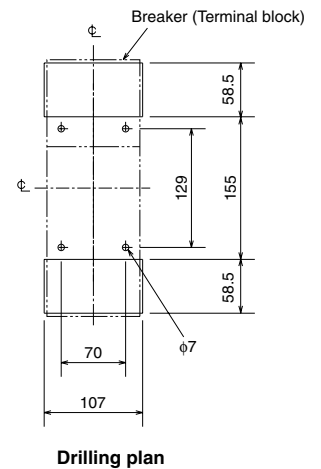
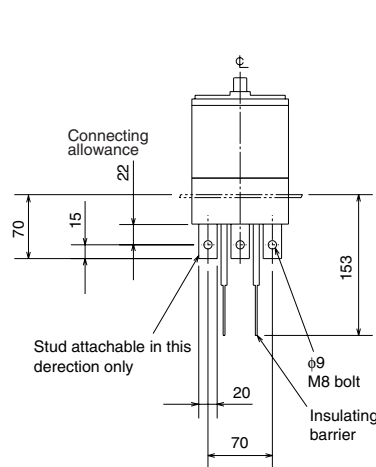
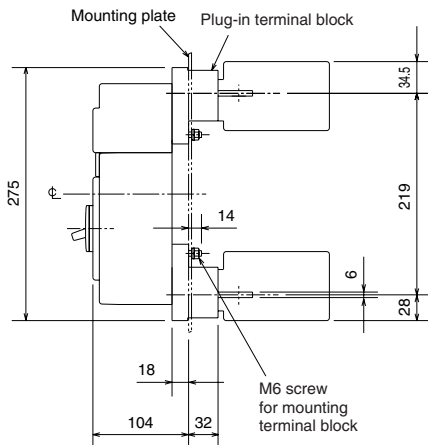
Rear connection



1.0 mm clearance on each side of the handle frame

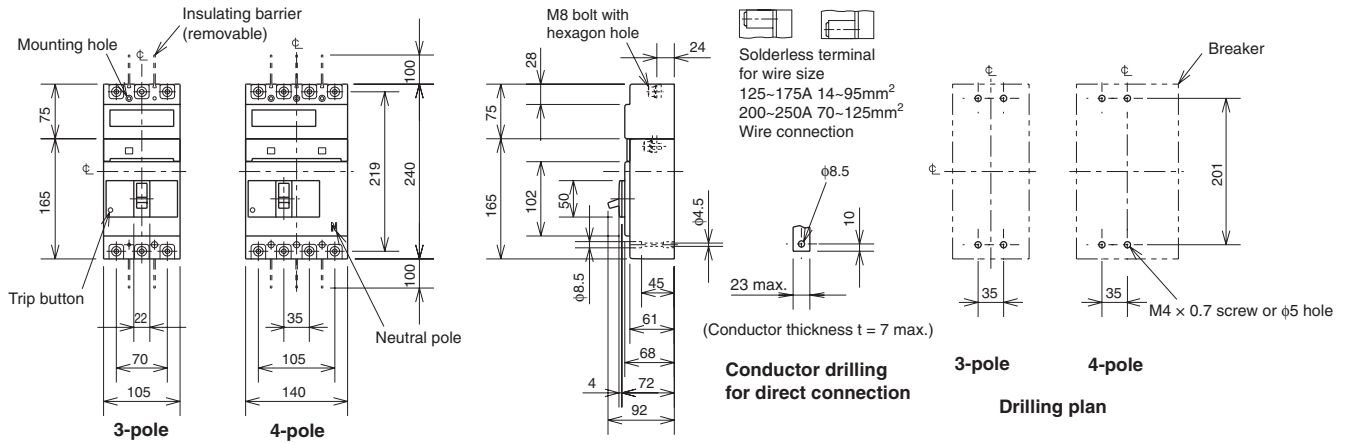
Front-panel cutout

Plug-in

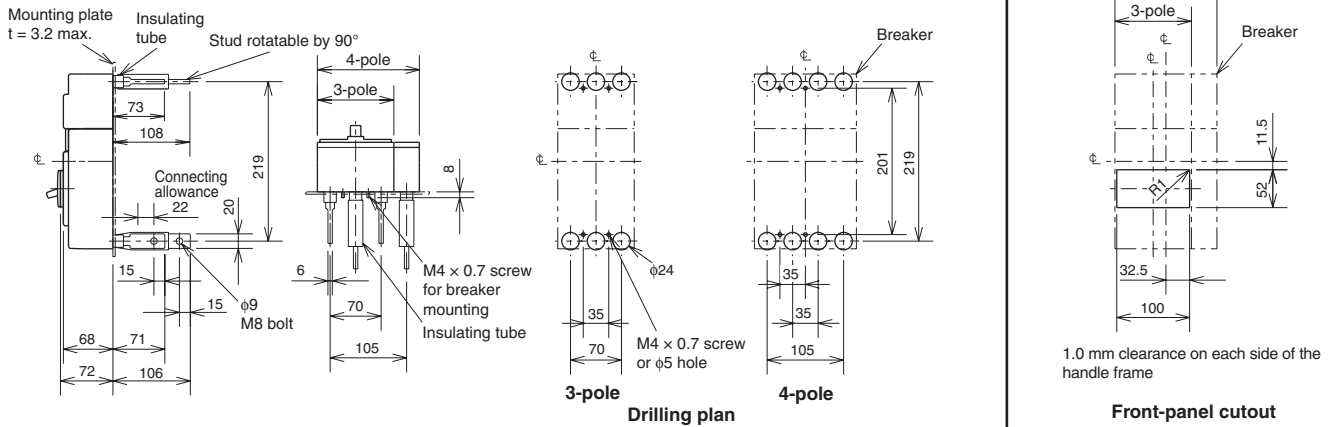


Remark: 2-pole models are 3-pole models with the central pole removed.

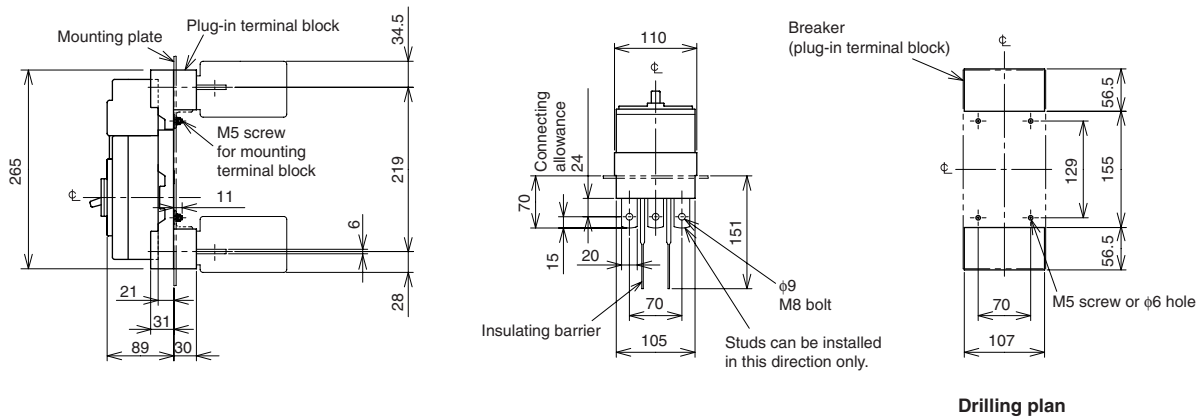
Front connection



Rear connection



Plug-in



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

MEMO

WS-V series Comparison of Previous and New Models

Service network

Country / Region	Company	Address	Telephone
Australia	Mitsubishi Electric Australia Pty. Ltd.	348 Victoria Road, Rydalmere, N.S.W. 2116, Australia	+61-2-9684-7777
Chile	Rhona S.A.	Agua Santa 4211 P.O. Box 30-D Vina del Mar, Chile	+56-32-2-320-600
China	Mitsubishi Electric Automation (CHINA) Ltd.	17/F., ChuangXing Financial Center, No.288 West Nanjing Road, Shanghai, 200003	+86-21-2322-3030
China	Mitsubishi Electric Automation (HongKong) Ltd.	10/F., Manulife Tower, 169 Electric Road, North Point, Hong Kong	+852-2887-8810
Colombia	Proelectrico Representaciones S.A.	Carrera 53 No 29C-73 - Medellin, Colombia	+57-4-235-30-38
Egypt	Cairo Electrical Group	9, Rostoum St. Garden City P.O. Box 165-11516 Maglis El-Shaab, Cairo - Egypt	+20-2-27961337
Europe	Mitsubishi Electric Europe B.V.	Gothaer Strasse 8, D-40880 Ratingen, Germany	+49-(0)2102-486-0
Indonesia	P. T. Sahabat Indonesia	P.O.Box 5045 Kawasan Industri Pergudangan, Jakarta, Indonesia	+62-(0)21-6610651-9
Korea	Mitsubishi Electric Automation Korea Co., Ltd	1480-6, Gayang-Dong, Gangseo-Gu, Seoul, Korea	+82-2-3660-9572
Laos	Societe Lao Import Co., Ltd.	43-47 Lane Xang Road P.O. BOX 2789 VT Vientiane Laos	+856-21-215043
Lebanon	Comptoir d'Electricite Generale-Liban	Cebaco Center - Block A Autostrade Dora, P.O. Box 11-2597 Beirut - Lebanon	+961-1-240445
Malaysia	Mitric Sdn Bhd	5 Jalan Pemberita U1/49, Temasya Industrial Park, Glenmarie 40150 Shah Alam, Selangor, Malaysia	+603-5569-3748
Myanmar	Peace Myanmar Electric Co.,Ltd.	NO137/139 Botataung Pagoda Road, Botataung Town Ship 11161, Yangon, Myanmar	+95-(0)1-202589
Nepal	Watt&Volt House	KHA 2-65, Volt House Dillibazar Post Box:2108, Kathmandu, Nepal	+977-1-4411330
Other Middle East Arab Countries & Cyprus	Comptoir d'Electricite Generale-International-S.A.L.	Cebaco Center - Block A Autostrade Dora P.O. Box 11-1314 Beirut - Lebanon	+961-1-240430
Pakistan	Prince Electric Co.	1&16 Brandreth Road, Lahore-54000, Pakistan	+92-(0)42-7654342
Philippines	Edison Electric Integrated, Inc.	24th Fl. Galleria Corporate Center, Edsa Cr. Ortigas Ave., Quezon City Metro Manila, Philippines	+63-(0)2-634-8691
Saudi Arabia	Center of Electrical Goods	Al-Shuwayer St. Side way of Salahuddin Al-Ayoubi St. P.O. Box 15955 Riyadh 11454 - Saudi Arabia	+966-1-4770149
Singapore	Mitsubishi Electric Asia Pte. Ltd.	307, Alexandra Road, #05-01/02 Mitsubishi Electric Building, Singapore 159943	+65-6473-2308
South Africa	CBI-electric: low voltage	Private Bag 2016, Isando, 1600, South Africa	+27-(0)11-9282000
Taiwan	Setsuyo Enterprise Co., Ltd	6th Fl., No.105, Wu Kung 3rd, Wu-Ku Hsiang, Taipei, Taiwan, R.O.C.	+886-(0)2-2298-8889
Thailand	United Trading & Import Co., Ltd.	77/12 Bamrungmuang Road, Klong Mahanak, Pomprab Bangkok Thailand	+66-223-4220-3
Uruguay	Fierro Vignoli S.A.	Avda. Uruguay 1274, Montevideo, Uruguay	+598-2-902-0808
Venezuela	Adesco S.A.	Calle 7 La Urbina Edificio Los Robles Locales C y D Planta Baja, Caracas - Venezuela	+58-212-241-9952
Vietnam	CTY TNHH-TM SA GIANG	10th Floor, Room1006-1007,225 Tran Hung Dao St., Co Giang Ward, Dist.1, Ho Chi Minh City. Viet Nam	+84-8-838-6727/28/29

Safety Tips : Be sure to read the instruction manual fully before using this product.



for a greener tomorrow

Eco Changes is the Mitsubishi Electric Group's environmental statement, and expresses the Group's stance on environmental management. Through a wide range of businesses, we are helping contribute to the realization of a sustainable society.



MITSUBISHI ELECTRIC CORPORATION
HEAD OFFICE: TOKYO BLDG., 2-7-3, MARUNOUCHI, CHIYODA-KU, TOKYO 100-8310, JAPAN