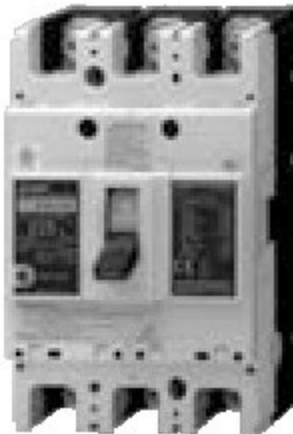
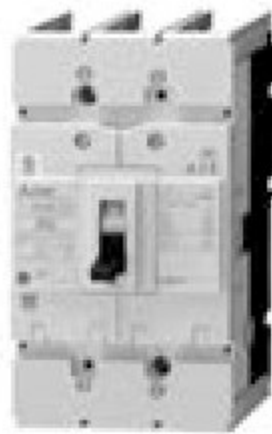
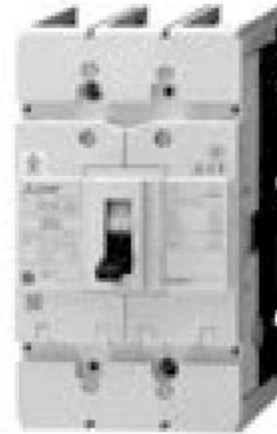
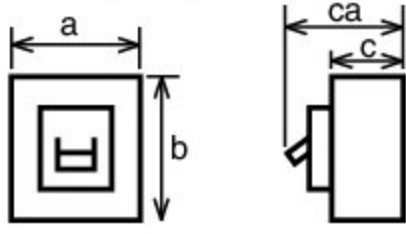
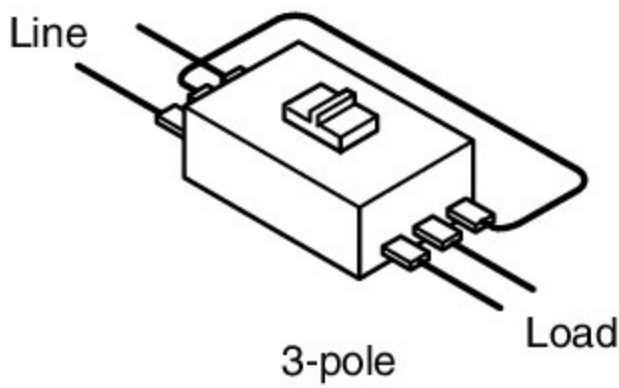


●UL 489 Listed Molded Case Circuit Breakers

Frame (A) Model				225 NF225-CWU	250 NF250-SVU			250 NF250-HVU		
Image										
Rated current In (A) (*5) Rated ambient temperture 40°C (IEC 30°C)				125 150 175 200 225	125 150 175 200 225	250	125 150 175 200 225	250		
Number of poles				3	3	3	3	3		
Rated short-circuit breaking capacities (kA)	UL 489 CSA C22.2 No.5-02	Rated voltage	AC (V)	240	480	480	600Y/347	600Y/347		
			DC (V)	-	-	-	-	-		
		AC	600Y/347V	-	-	-	18	18		
			480V	-	35	35	50	50		
			480Y/277V	-	-	-	-	-		
			240V	35	65	65	100	100		
			120V	-	-	-	-	-		
		DC	60V	-	-	-	-	-		
	IEC 60947-2 EN 60947-2 (Icu/Ics)	Rated insulation voltage Ui (V)		600	690	690	690	690		
		AC	690V	-	8/4	8/4	10/5	10/5		
			500V	10/5	25/13	25/13	36/18	36/18		
			440V	15/8	36/18	36/18	50/25	50/25		
			415V	18/9	36/18	36/18	50/25	50/25		
			400V	18/9	36/18	36/18	50/25	50/25		
			380V	18/9	36/18	36/18	50/25	50/25		
			230V	35/18	65/33	65/33	100/50	100/50		
		DC	250V (*3) 60V	10/5 -	- -	- -	- -	- -		
		Rated impulse withstand voltage Uimp (kV)				6	8	8	8	8
Current (*1)				AC/DC compatible	AC	AC	AC	AC		
Suitability for isolation				Compatible	Compatible	Compatible	Compatible	Compatible		
Reverse connection				Possible	Possible	Possible	Possible	Possible		
Utilization category				A	A	A	A	A		
Pollution degree				3	3	3	3	3		
EMC environment condition (environment A or B)				N/A	N/A	N/A	N/A	N/A		
Overall dimensions (mm)				a	105	105	105	105		
				b	165	185	185	185		
				c	68	68	68	68		
				ca	92	92	92	92		
				cb	92	92	92	92		
Mass of front-face type (kg)				1.5	1.6	1.6	1.6	1.6		
Installation and connections	Front (F)	Screw terminal (AMP-N)	Page	●	●	●	●	●		
		Solderless terminal (SL)		-	●	●	●	●		
		Bar (BAR)	716	●	●	●	●	●		
		Power supply solderless load bar (SL/BAR)		-	●(*8)	●(*8)	●(*8)	●(*8)		
Cassette-type accessories (*2)	Alarm switch (AL)		725	●	●(*7)	●(*7)	●(*7)	●(*7)		
	Auxiliary switch (AX)			●	●(*7)	●(*7)	●(*7)	●(*7)		
	Shunt trip (SHT)			●	●(*7)	●(*7)	●(*7)	●(*7)		
	Undervoltage trip (UVT)			●	●(*7)	●(*7)	●(*7)	●(*7)		
External accessories (*2)	With lead-wire terminal block (SLT)		737	●	●	●	●	●		
	Mechanical interlock (MI)		752	●(*6)	-	-	-	-		
	Handle lock device	(HL)	750	●	●	●	●	●		
		(HL-S)		●	●	●	●	●		
	External operating handle	(F)	740	●	●	●	●	●		
		(V)		●	●	●	●	●		
	Terminal cover	Large terminal cover (TC-L)	744	●	●	●	●	●		
		Small terminal cover (TC-S)	745	- (*4)	- (*4)	- (*4)	- (*4)	- (*4)		
IEC 35mm rail mounting adapters				759	-	-	-	-		
CE marking				TÜV approval	TÜV approval	TÜV approval	TÜV approval	TÜV approval		
CCC recognition				Recognition in process	Recognition in process	Recognition in process	Recognition in process	Recognition in process		
Automatic tripping device				Thermal-magnetic	Thermal-magnetic	Thermal-magnetic	Thermal-magnetic	Thermal-magnetic		
Trip button				Equipped	Equipped	Equipped	Equipped	Equipped		
Page of Characteristics and dimensions				824	826			826		

- Notes: *1 The trip action characteristics differ between AC and DC for products that are compatible with both AC and DC.
- *2 These accessories differ from the general products in specifications. Please consult us for details.
- *3 When using a 3-pole circuit breaker, use two poles. When wired as shown right, NF225-CWU can be used at up to 400 V DC.
- *4 Since NF225-CWU comes with a protective cover, it has an IP20 (finger protection) structure as standard. Other models have IP20 (finger protection) structures as standard.
- *5 The rated ambient temperature for NF250-SVU and NF250-HVU is specified at 40°C also by IEC.
- *6 Not isolation compatible.
- *7 These cassette type circuit breakers can be installed by the customer. They can be installed with their side faces in close contact (except UVT).
- *8 Circuit breakers for power supply solderless load screw terminal (SL/AMP-N) are available. In this case, a busbar terminal is not provided on the load side.

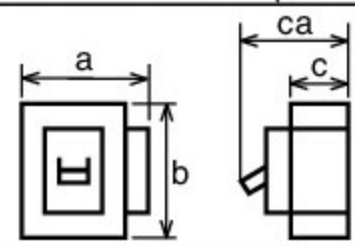
- Remarks: 1. Products with rated current parenthesized are produced when an order is placed.
2. The circuit breaker has the rated short-circuit breaking capacity specified in the shaded cells.
3. The 3-pole circuit breakers can be used on single-phase circuits.



US UL Standard 489	
UL File No.E167691	Body
UL File No.E108284	Accessories

Canada CSA Standard
C22.2 No.5

●UL 489 Listed Molded Case Circuit Breakers

Frame (A)				400		630						
Model				NF400-SWU		NF400-HWU		NF630-SWU		NF630-HWU		
Image												
Rated current In (A) Rated ambient temperture 40°C				250 300 350 400		250 300 350 400		500 600 630		500 600 630		
Number of poles				3		3		3		3		
Rated short-circuit breaking capacities (kA)	UL 489 CSA C22.2 No.5-02	Rated voltage	AC (V)	600Y/347		600Y/347		600Y/347		600Y/347		
			DC (V)	—		—		—		—		
		AC	600Y/347V	20		25		20		25		
			480V	35		65		35		65		
			480Y/277V	—		—		—		—		
			240V	65		100		85		100		
			120V	—		—		—		—		
		DC	60V	—		—		—		—		
	IEC 60947-2 EN 60947-2 (Icu/Ics)	Rated insulation voltage Ui (V)		690		690		690		690		
		AC	690V	10/10(5/5)(*4)		15/10		10/10		15/10		
			500V	30/30(25/25)(*4)		42/42		30/30		42/42		
			440V	42/42(36/36)(*4)		65/65		42/42		65/65		
			415V	45/45(36/36)(*4)		70/70		45/45		70/70		
			400V	45/45(36/36)(*4)		70/70		45/45		70/70		
			380V	50/50(42/42)(*4)		70/70		50/50		70/70		
			230V	85/85(65/65)(*4)		100/100		85/85		100/100		
		DC	250V	—		—		—		—		
			60V	—		—		—		—		
Rated impulse withstand voltage Uimp (kV)				8		8		8		8		
Current				AC		AC		AC		AC		
Suitability for isolation				Compatible		Compatible		Compatible		Compatible		
Reverse connection				Possible		Possible		Possible		Possible		
Utilization category				A		A		A		A		
Pollution degree				3		3		3		3		
EMC environment condition (environment A or B)				N/A		N/A		N/A		N/A		
Overall dimensions (mm)				a	140		140		210		210	
				b	257		257		275		275	
				c	103		103		103		103	
				ca	155		155		155		155	
				Mass of front-face type (kg)				5.7		5.7		9.6
Installation and connections	Front (F)	Screw terminal	(AMP-N)	716	—		—		—		—	
		Solderless terminal	(SL)		●		—		●(*7)		—	
		Bar	(BAR)		●(*5)		●(*5)		●(*5)		●(*5)	
		Power supply solderless load bar	(SL.BAR)		●(*5)		—		●(*5)		—	
Cassette-type accessories	Alarm switch		(AL)	725	●(*3)		●(*3)		●(*3)		●(*3)	
	Auxiliary switch		(AX)		●(*3)		●(*3)		●(*3)		●(*3)	
	Shunt trip		(SHT)		●(*3)		●(*3)		●(*3)		●(*3)	
	Undervoltage trip		(UVT)		●		●		●		●	
	With lead-wire terminal block		(SLT)	737	●		●		●		●	
External accessories	Mechanical interlock		(MI)	752	●(*1)(*2)		●(*1)(*2)		●(*1)(*2)		●(*1)(*2)	
	Handle lock device	(HL)	750	●(*6)		●(*6)		●(*6)		●(*6)		
		(HL-S)		—		—		—		—		
	External operating handle	(F)	740	●		●		●		●		
		(V)		●		●		●		●		
	Terminal cover	Large terminal cover	(TC-L)	744	●		●		●		●	
		Small terminal cover	(TC-S)	745	—		—		—		—	
IEC 35mm rail mounting adapters			759	—		—		—		—		
CE marking				TÜV approval		TÜV approval		TÜV approval		TÜV approval		
CCC recognition				Recognition in process		Recognition in process		Recognition in process		Recognition in process		
Automatic tripping device				Thermal-magnetic		Thermal-magnetic		Thermal-magnetic		Thermal-magnetic		
Trip button				Equipped		Equipped		Equipped		Equipped		
Page of Characteristics and dimensions				828		828		830		830		

Notes: *1 Not isolation compatible.
*2 Not acquire the TÜV certification.
*3 Cassette type accessories are field mountable type. It can respond to adhesion attachment of a breaker as standard below 250A frame. (excluding UVT.)
*4 The values in parentheses apply to the circuit breakers with solderless terminals.
*5 The circuit breakers with busbar terminals have insulation barriers.
*6 Please consult us. (Models which are not UL or TUV certified but can be locked in the ON and OFF positions are available.)
*7 Not available for 630A.

Remarks: 1. The circuit breaker has the rated short-circuit breaking capacity specified in the shaded cells.
2. The 3-pole circuit breakers can be used on single-phase circuits.

US UL Standard 489

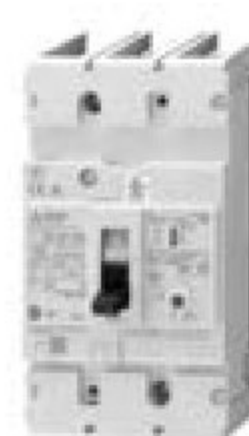
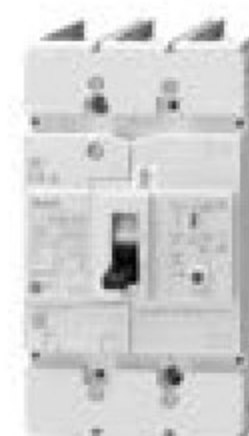
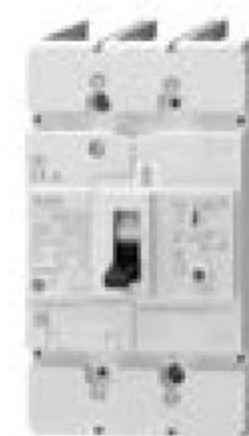
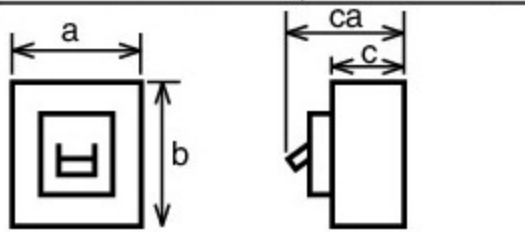
UL File No.E167691 Body

UL File No.E108284 Accessories

Canada CSA Standard

C22.2 No.5

●UL 489 Listed Earth Leakage Circuit Breakers (Harmonic Surge Ready)

Frame (A)				50		100		125				250				
Model				NV50-SVFU		NV100-CVFU		NV125-SVU		NV125-HVU		NV250-SVU		NV250-HVU		
Image																
Rated current In (A) Rated ambient temperture 40°C				(5) (10) 15 20 30 40 50		60 (70) 75 (80) (90) 100		15 20 30 (40) 50 60 75 100	125	15 20 30 (40) 50 60 75 100	125	125 150 175 200 225	250	125 150 175 200 225	250	
Number of poles				2		3		3		3		3		3		
Phase line (*1)				1φ2W		3φ3W, 1φ2W		3φ3W, 1φ2W		3φ3W, 1φ2W		3φ3W, 1φ2W		3φ3W, 1φ2W		
Rated operational voltage AC V	UL 489			120-240		120-240		120-480		120-480		120-480		120-480		
	IEC 60947-2 EN 60947-2			100-240		100-440		100-440		100-440		100-440		100-440		
High-speed type	Rated current sensitivity IΔn mA			30 50		30 50 100		30, 50, 100/200/500 selectable		30, 50, 100/200/500 selectable		30, 50, 100/200/500 selectable		30, 50, 100/200/500 selectable		
	Pickup current, UL 1053			75% of IΔn		75% of IΔn		75% of IΔn		75% of IΔn		75% of IΔn		75% of IΔn		
	Max. operating time (s) at 5IΔn (*4)			0.04		0.04		0.04		0.04		0.04		0.04		
Earth leakage indication system				Display window		Mechanical type (button)		Mechanical type (button)	Mechanical type (button)	Mechanical type (button)	Mechanical type (button)	Mechanical type (button)	Mechanical type (button)	Mechanical type (button)	Mechanical type (button)	
Rated short-circuit breaking capacities (kA)	UL 489 CSA C22.2 No.5-02		AC	480V	—		—		30	30	50	50	35	35	50	50
				240V	14		14		50	50	100	100	65	65	100	100
				120V	14		14		50	50	100	100	65	65	100	100
	IEC 60947-2 EN 60947-2 (Icu/Ics)		AC	440V	—	7.5/4	10/5	30/15	30/15	50/25	50/25	36/18	36/18	50/25	50/25	
				400V	—	10/5	10/5	30/15	30/15	50/25	50/25	36/18	36/18	50/25	50/25	
				230V	15/8	15/8	15/8	50/25	50/25	100/50	100/50	65/33	65/33	100/50	100/50	
				100V	15/8	15/8	15/8	50/25	50/25	100/50	100/50	65/33	65/33	100/50	100/50	
Rated impulse withstand voltage Uimp (kV)				4		6		6		6		6		6		
Suitability for isolation				Compatible		Compatible		Compatible	Compatible	Compatible	Compatible	Compatible	Compatible	Compatible	Compatible	
Reverse connection (below 240VAC)				—		Possible		Possible	Possible	Possible	Possible	Possible	Possible	Possible	Possible	
Utilization category				A		A		A	A	A	A	A	A	A	A	
Pollution degree				2		2		2	2	2	2	2	2	2	2	
EMC environment condition (environment A or B)				A		A		A	A	A	A	A	A	A	A	
Overall dimensions (mm)				a	36	54	75	90	90	90	90	105	105	105	105	
				b	120		150	160	160	160	160	185	185	185	185	
				c	68		68	68	68	68	68	68	68	68	68	
				ca	90		90	90	90	90	90	92	92	92	92	
Mass of front-face type (kg)				0.4		0.5		0.9		1.2		1.2		1.8		
Installation and connections	Front (F)	Screw terminal (AMP-N)	Page	●		●		●	●	●	●	●	●	●	●	
		Solderless terminal (SL)		—		●		●	●	●	●	●	●	●		
		Bar (BAR)	716	—		●(*5)		●	●	●	●	●	●	●		
		Power supply solderless load bar (SL/BAR)		—		●(*5, *6)		●(*6)	●(*6)	●(*6)	●(*6)	●(*6)	●(*6)	●(*6)		
Cassette-type accessories (*2)	Alarm switch		(AL)	725	—	●(*8)	●(*8)	●(*8)	●(*8)	●(*8)	●(*8)	●(*8)	●(*8)	●(*8)	●(*8)	
	Auxiliary switch		(AX)		—	●(*8)	●(*8)	●(*8)	●(*8)	●(*8)	●(*8)	●(*8)	●(*8)	●(*8)		
	Shunt trip		(SHT)		—	●(*8)	●(*8)	●(*8)	●(*8)	●(*8)	●(*8)	●(*8)	●(*8)	●(*8)		
	Undervoltage trip		(UVT)		—	●	●(*8)	●(*8)	●(*8)	●(*8)	●(*8)	●(*8)	●(*8)	●(*8)		
	With lead-wire terminal block		(SLT)	737	—	●	●	●	●	●	●	●	●	●		
	Test button module		(TBM)	738	●(*9)		—	●(*9)	●(*9)	●(*9)	●(*9)	●(*9)	●(*9)	●(*9)		
External accessories (*2)	Mechanical interlock		(MI)	752	—		—	—	—	—	—	—	—	—	—	
	Handle lock device	(HL)	750	●	●		●	●	●	●	●	●	●	●		
		(HL-S)		●	●		●	●	●	●	●	●	●			
	External operating handle	(F)	740	●	●		●	●	●	●	●	●	●			
		(V)		●	●		●	●	●	●	●	●	●			
	Terminal cover	Large terminal cover	(TC-L)	744	●		●	●	●	●	●	●	●	●	●	
		Small terminal cover	(TC-S)	745	●(*3)		— (*3)	— (*3)	— (*3)	— (*3)	— (*3)	— (*3)	— (*3)	— (*3)	— (*3)	
IEC 35mm rail mounting adapters				759		Standard accessory		Standard accessory		—		—		—		
CE marking				TÜV approval		TÜV approval		TÜV approval	TÜV approval	TÜV approval	TÜV approval	TÜV approval	TÜV approval	TÜV approval	TÜV approval	
CCC recognition				Recognition in process		Recognition in process		Recognition in process	Recognition in process	Recognition in process	Recognition in process	Recognition in process	Recognition in process	Recognition in process	Recognition in process	
Automatic tripping device				Thermal-magnetic		Thermal-magnetic		Thermal-magnetic	Thermal-magnetic	Thermal-magnetic	Thermal-magnetic	Thermal-magnetic	Thermal-magnetic	Thermal-magnetic	Thermal-magnetic	
Trip button				Equipped		Equipped		Equipped	Equipped	Equipped	Equipped	Equipped	Equipped	Equipped	Equipped	
Page of Characteristics and dimensions				818		820		822		822		826		826		

- Notes: *1 If using a 3-pole earth leakage circuit breaker as a 1-pole 2-phase device, connect the left and right poles and not the central pole.
- *2 These are different from general models in specifications. Consult us for the details.
- *3 The standard structure conforms to IP20 (finger protection).
- *4 The maximum operating time is 0.1 according to UL 1053.
- *5 The circuit breakers with busbar terminals have insulation barriers.
- *6 Circuit breakers for power supply solderless load screw terminal (SL/ AMP-N) are available. In this case, a bar terminal is not provided on the load side.
- *7 Circuit breakers for 100 V AC do not have obtained CCC certificate.
- *8 These cassette type accessories can be installed by the customer. They can be installed with their side faces in close contact with circuit breakers (except NV50-SVFU and UVT).
- *9 Standard type is SLT equipped.

- Remarks: 1. Products with rated current parenthesized are produced when an order is placed.
2.

Rated operational voltage	Applicable circuit voltage	Available voltage range
120-240V (UL)	120/240V	66-264V
120-240-480V (UL)	120/240/480V	66-528V
240V (UL)	240V	132-264V
100-230V (IEC)	100/110/200/220/230V	85-253V
100-240V (IEC)	100/110/200/220/230/240V	85-264V
100-230-400-440V (IEC) 100-440V (IEC)	100/110/200/220/ 230/240/254/265/ 380/400/415/440V	85-484V
230-400-440V (IEC)	230/240/254/265/ 380/400/415/440V	195-484V

US UL Standard 489	
UL File No.E167691	Body
UL File No.E108284	Accessories

Canada CSA Standard	
C22.2 No.144	
C22.2 No.5	