

1-4 Molded Cage Circuit Breakers – Japan Series

NF-C(Economy class)

Frame(A)		50	60	63	100	125								
Model		NF63-CVF			NF125-CVF									
Image														
Rated current In(A) Rated ambient temperature 40°C		(3) (5) 10 15 20 30 40 50			60	(63) 60 75 100 125								
Number of poles		2	3	2	3	2								
Rated insulation voltage Uimp(kV)		440			600	800								
Rated short-circuit Breaking Capacities(kA)	JIS C 8201-2-1 Ann.1 JIS C 8201-2-1 Ann.2 IEC 60847-2 EN 60847-2 (coulcs)	AC	650V	-	-	7.54	7.54							
			500V	-	-	10/5	10/5							
			415V	5/5	5/5	10/5	10/5							
			400V	5/5	5/5	10/5	10/5							
			380V	5/5	5/5	10/5	10/5							
			230V	7.5/7.5	7.5/7.5	30/15	30/15							
	GB 14048.2 (coulcs)	DC(2*)	250V	7.5/7.5	7.5/7.5	7.5/4	7.5/4							
			125V	-	-	7.5/4	7.5/4							
			415V	5/5	5/5	10/5	10/5							
			400V	5/5	5/5	10/5	10/5							
			380V	5/5	5/5	10/5	10/5							
			230V	7.5/7.5	7.5/7.5	10/5	10/5							
Rated impulse withstand voltage Uimp(kV)		6			8	6								
Current(I ² t)		AC			AC/DC compatible	AC/DC compatible								
Suitability for isolation		compatible			compatible	compatible								
Reverse connection		Possible			Possible	Possible								
Number of operating cycles		10,000			10,000	10,000								
Utilization category		A			A	A								
Pollution degree		3			3	3								
EMC environment condition(environment A or B)		NA			NA	NA								
Overall dimensions(mm)			a	36	54	36	54	36	54	50	75	50	75	
	b	100	100	100	130	130	130	130	130	130	130	130		
	c	68	68	68	68	68	68	68	68	68	68	68		
	ca	90	90	90	90	90	90	90	90	90	90	90		
	Mass of front-face type kg	0.3	0.4	0.3	0.4	0.3	0.4	0.55	0.8	0.55	0.8	0.55	0.8	
Installation and connection	Front connection(F)	●			●			●			●			
	Solderless(BOX) terminal(SL)	-			-			-			-			
	Rear(B)	-			-			-			-			
cassette type- accessories	Plug-in(PM)	-			-			-			-			
	Alarm switch(AL)	●(*)			●(*)			●(*)			●(*)			
	Auxiliary switch(AX)	●(*)			●(*)			●(*)			●(*)			
	Shunt trip(SHT)	●(*)			●(*)			●(*)			●(*)			
	Undervoltage trip(UVT)	●(*)			●(*)			●(*)			●(*)			
	With lead-wire terminal block(SLT)	●			●			●			●			
	Enclosure	Closed(S)	-			-			-			-		
	Dustproof(D)	-			-			-			-			
	Waterproof(W)	-			-			-			-			
	Electrical operation device(NFM)	-			-			-			-			
External accessories	Mechanical interlock(M)	Panel mounting breaker mounting	-			-			-			-		
	Handle lock device	LC	●			●			●			●		
	HL	●			●			●			●			
	HL-S	●			●			●			●			
	Terminal cover(TC-L,TC-S,TT,CTC,PTC)	●			●			●			●			
	Rear stud(B-ST)	-			-			-			-			
	Plug-in (PM)	-			-			-			-			
	IEC 35mm rail mounting adapters	standard equipped			standard equipped			standard equipped			standard equipped			
	CE marking	TUV approval			TUV approval			TUV approval			TUV approval			
	CCC recognition	Recognized			Recognized			Recognized			Recognized			
Marine use approval(NK, LR, ABS, GL)	-			-			-			-				
Automatic tripping device	Terminal-magnetic equipped			Terminal-magnetic equipped			Terminal-magnetic equipped			Terminal-magnetic equipped				
Trip button	equipped			equipped			equipped			equipped				

Notes: *1 The trip action characteristics differ between AC and DC for products that are compatible with both AC and DC
*2 Use two poles for three-pole product.
*3 The cassette type design makes it easy for customer to install.

NV-S(standard class) Harmonic Surge Ready

Frame(A)		30	32	50	60	63	100	125						
Model		NV32-SVF			NV63-SVF			NV125-SVF						
Image														
Rated current In(A) Rated ambient temperature 40°C		(5) (10) 15 20 30			(32)			(5) (10) 15 20 30 40 50						
Number of poles		2	3	2	3	2	3	2	3					
Phase line(I ² t)		1q2W			1q2W			1q2W						
High-speed Type	Rated operational voltage Ue(V) (*)	AC	100-240	100-440	100-240	100-440	100-240	100-440	100-440					
		Rated current sensitivity (mA)	30	30	30	30	30	30	30	30				
			at IΔn	0.1	0.1	0.1	0.1	0.1	0.1	0.1				
			at 5Δn	0.04	0.04	0.04	0.04	0.04	0.04	0.04				
Free-flow Type	Rated current sensitivity (mA)	-	-	-	-	-	-	-	-					
		Max. operating time(s)	-	-	-	-	-	-	-					
			Internal non-operating(s) (or more)	-	-	-	-	-	-	-				
			Internal non-operating(s) (or more)	-	-	-	-	-	-	-				
Rated short-circuit Breaking Capacities(kA)	JIS C 8201-2-1 Ann.1 JIS C 8201-2-1 Ann.2 IEC 60847-2 2nd ed (coulcs) (*)	AC	440V	-	2.5/2.5	-	2.5/2.5	-	7.5/8	-	7.5/8	-	25/25	
			415V	-	5/5	-	5/5	-	10/8	-	10/8	-	10/8	25/25
			400V	-	5/5	-	5/5	-	10/8	-	10/8	-	10/8	25/25
			380V	-	5/5	-	5/5	-	10/8	-	10/8	-	10/8	25/25
			230V	7.5/7.5	7.5/7.5	7.5/7.5	15/15	15/15	15/15	15/15	15/15	50/50	50/50	
			100V	7.5/7.5	7.5/7.5	7.5/7.5	15/15	15/15	15/15	15/15	15/15	50/50	50/50	
	GB 14048.2 (coulcs) (*)	AC	415V	-	5/5	-	5/5	-	10/8	-	10/8	-	10/8	25/25
			400V	-	5/5	-	5/5	-	10/8	-	10/8	-	10/8	25/25
			380V	-	5/5	-	5/5	-	10/8	-	10/8	-	10/8	25/25
			230V	7.5/7.5	7.5/7.5	7.5/7.5	15/15	15/15	15/15	15/15	15/15	50/50	50/50	
			100V	7.5/7.5	7.5/7.5	7.5/7.5	15/15	15/15	15/15	15/15	15/15	50/50	50/50	
			230V	4	6	4	7.5/7.5	6	4	6	4	6	4	6
Rated impulse withstand voltage Uimp(kV)		6			6			6						
Current		AC			AC			AC						
Suitability for isolation		compatible			compatible			compatible						
Reverse connection(≤40VAC)		Possible			Possible			Possible						
Number of operating cycles		10,000			10,000			10,000						
Utilization category		A			A			A						
Pollution degree		2			2			2						
EMC environment condition(environment A or B)		A			A			A						
Overall dimensions(mm)			a	36	54	36	54	36	54	36	54	75	75	
	b	100	100	100	100	100	100	100	100	100	130	130		
	c	68	68	68	68	68	68	68	68	68	68	68		
	ca	90	90	90	90	90	90	90	90	90	90	90		
	Mass of front-face type kg	0.4	0.5	0.4	0.5	0.4	0.5	0.4	0.5	0.4	0.5	0.95	0.95	
Installation and connection	Front connection(F)	●			●			●						
	Solderless(BOX) terminal(SL)	-			-			-						
	Rear(B)	-			-			-						
	Plug-in(PM)	-			-			-						
	Alarm switch(AL)	-			-			-						
	Auxiliary switch(AX)	-			-			-						
	Shunt trip(SHT)	-			-			-						
	Undervoltage trip(UVT)	-			-			-						
	With lead-wire terminal block(SLT)	-			-			-						
	Test button module(TBM)	●(*)			●(*)			●(*)						
cassette type- accessories	Enclosure	Closed(S)	-			-			-					
	Dustproof(D)	-			-			-						
	Waterproof(W)	-			-			-						
	Electrical operation device(NFM)	-			-			-						
	Mechanical interlock(M)	Panel mounting breaker mounting	-			-			-					
	Handle lock device	LC	●			●			●					
	HL	●			●			●						
	HL-S	●			●			●						
	Terminal cover(TC-L,TC-S,TT,CTC,PTC)	●			●			●						
	Rear stud(B-ST)	-			-			-						
External accessories	Plug-in (PM)	-			-			-						
	IEC 35mm rail mounting adapters	standard equipped			standard equipped			standard equipped						
	CE marking	TUV approval			TUV approval			TUV approval						
	CCC recognition	Recognized			Recognized			Recognized						
	Marine use approval(NK, LR, ABS, GL)	-			-			-						
	Automatic tripping device	Terminal-magnetic equipped			Terminal-magnetic equipped			Terminal-magnetic equipped						
	Trip button	equipped			equipped			equipped						

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. When wiring to single-phase 3-wire, connect the neutral line to the central pole.
*2 In case of time delay type, rated voltage is 200-440V.
*3 In case of time delay type, products can be produced more than 20A of rated current.
*4 When the operating time are 0.45, 1.0 and 2.0 seconds, the Earth leakage circuit breaker operates between 0.15 and 0.45 seconds, between 0.6 and 1.0 seconds and between 1.2 and 2.0 seconds respectively.
*5 breaking capacity of 2P-AC240V is same as 230V.
*6 The cassette type design makes it easy for customer to install.
*7 Standard type is SLT equipped.