

Characteristics and performance of Compact NSX circuit breakers from 100 to 630 A

PB103354-40.eps



Compact NSX100/160/250.

PB103279_44.eps



Compact NSX400/630.

Common characteristics

Rated voltages			
Insulation voltage (V)	Ui		800
Impulse withstand voltage (kV)	Uimp		8
Operational voltage (V)	Ue	AC 50/60 Hz	690
Suitability for isolation		IEC/EN 60947-2	yes
Utilisation category			A
Pollution degree		IEC 60664-1	3

Circuit breakers

Breaking capacity levels

Electrical characteristics as per IEC 60947-2

Rated current (A)	In	40 °C		
Number of poles				
Breaking capacity (kA rms)				
	Icu	AC 50/60 Hz	220/240 V	
			380/415 V	
			440 V	
			500 V	
			525 V	
			660/690 V	

Service breaking capacity (kA rms)

	Ics	AC 50/60 Hz	220/240 V	
			380/415 V	
			440 V	
			500 V	
			525 V	
			660/690 V	

Durability (C-O cycles)	Mechanical		
		Electrical	440 V
		690 V	In/2
			In

Characteristics as per Nema AB1

Breaking capacity (kA rms)	AC 50/60 Hz	240 V	
		480 V	
		600 V	

Characteristics as per UL 508

Breaking capacity (kA rms)	AC 50/60 Hz	240 V	
		480 V	
		600 V	

Protection and measurements

Short-circuit protection	Magnetic only
Overload / short-circuit protection	Thermal magnetic
	Electronic
	with neutral protection (Off-0.5-1-OSN) ⁽¹⁾
	with ground-fault protection
	with zone selective interlocking (ZSI) ⁽²⁾

Display / I, U, f, P, E, THD measurements / interrupted-current measurement	
Options	Power Meter display on door
	Operating assistance
	Counters
	Histories and alarms
	Metering Com
	Device status/control Com
	Earth-leakage protection
	By Vigirex relay

Installation / connections

Dimensions and weights

Dimensions (mm)	Fixed, front connections	2/3P
W x H x D		4P
Weight (kg)	Fixed, front connections	2/3P
		4P

Connections

Connection terminals	Pitch	With/without spreaders
Large Cu or Al cables	Cross-section	mm ²

⁽¹⁾ OSN: Over Sized Neutral protection for neutrals carrying high currents (e.g. 3rd harmonics).

⁽²⁾ ZSI: Zone Selective Interlocking using pilot wires.

⁽³⁾ 2P circuit breaker in 3P case for B and F types, only with thermal-magnetic trip unit.

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Common characteristics

Control			
Manual	With toggle		■
	With direct or extended rotary handle		■
Electrical	With remote control		■
Versions			
Fixed			■
Withdrawable	Plug-in base		■
	Chassis		■

NSX100						NSX160						NSX250						NSX400						NSX630					
B	F	N	H	S	L	B	F	N	H	S	L	B	F	N	H	S	L	F	N	H	S	L	F	N	H	S	L		
100						160						250						400						630					
2 ⁽³⁾ , 3, 4						2 ⁽³⁾ , 3, 4						2 ⁽³⁾ , 3, 4						3, 4						3, 4					
40	85	90	100	120	150	40	85	90	100	120	150	40	85	90	100	120	150	40	85	100	120	150	40	85	100	120	150		
25	36	50	70	100	150	25	36	50	70	100	150	25	36	50	70	100	150	36	50	70	100	150	36	50	70	100	150		
20	35	50	65	90	130	20	35	50	65	90	130	20	35	50	65	90	130	30	42	65	90	130	30	42	65	90	130		
15	25	36	50	65	70	15	30	36	50	65	70	15	30	36	50	65	70	25	30	50	65	70	25	30	50	65	70		
-	22	35	35	40	50	-	22	35	35	40	50	-	22	35	35	40	50	20	22	35	40	50	20	22	35	40	50		
-	8	10	10	15	20	-	8	10	10	15	20	-	8	10	10	15	20	10	10	20	25	35	10	10	20	25	35		
40	85	90	100	120	150	40	85	90	100	120	150	40	85	90	100	120	150	40	85	100	120	150	40	85	100	120	150		
25	36	50	70	100	150	25	36	50	70	100	150	25	36	50	70	100	150	36	50	70	100	150	36	50	70	100	150		
20	35	50	65	90	130	20	35	50	65	90	130	20	35	50	65	90	130	30	42	65	90	130	30	42	65	90	130		
7.5	12.5	36	50	65	70	15	30	36	50	65	70	15	30	36	50	65	70	25	30	50	65	70	25	30	50	65	70		
-	11	35	35	40	50	-	22	35	35	40	50	-	22	35	35	40	50	10	11	11	12	12	10	11	11	12	12		
-	4	10	10	15	20	-	8	10	10	15	20	-	8	10	10	15	20	10	10	10	12	12	10	10	10	12	12		
50000						40000						20000						15000						15000					
50000						40000						20000						12000						8000					
30000						20000						10000						6000						4000					
20000						15000						10000						6000						6000					
10000						7500						5000						3000						2000					
40	85	90	100	120	150	40	85	90	100	120	150	40	85	90	100	120	150	40	85	100	120	150	40	85	100	120	150		
20	35	50	65	90	130	20	35	50	65	90	130	20	35	50	65	90	130	30	42	65	90	130	30	42	65	90	130		
-	8	20	35	40	50	-	20	20	35	40	50	-	20	20	35	40	50	-	20	35	40	50	-	20	35	40	50		
-	85	85	85	-	-	-	85	85	85	-	-	-	85	85	85	-	-	85	85	85	-	-	85	85	85	-	-		
-	25	50	65	-	-	-	35	50	65	-	-	-	35	50	65	-	-	35	50	65	-	-	35	50	65	-	-		
-	10	10	10	-	-	-	10	10	10	-	-	-	15	15	15	-	-	20	20	20	-	-	20	20	20	-	-		
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