

PE101050\_33



Compact NS250H

PB101044\_42



Compact NS630N

### Compact circuit breakers

Number of poles		
Control	manual	toggle
	electric	direct or extended rotary handle
Connections	fixed	front connection
		rear connection
	plug-in (on base)	front connection
		rear connection
	withdrawable (on chassis)	front connection
		rear connection

#### Electrical characteristics as per IEC 60947-2 and EN 60947-2

Rated current (A)	<b>In</b>	40 °C
		65 °C
Rated insulation voltage (V)	<b>Ui</b>	
Rated impulse withstand voltage (kV)	<b>Uimp</b>	
Rated operational voltage (V)	<b>Ue</b>	AC 50/60 Hz
		DC

#### Type of circuit breaker

Ultimate breaking capacity (kA rms)	<b>Icu</b>	AC	220/240 V
		50/60 Hz	380/415 V
			440 V
			500 V
			525 V
		660/690 V	

Service breaking capacity (kA rms)	<b>Ics</b>	% Icu
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Suitability for isolation

Utilisation category

Durability (C-O cycles)	mechanical		
	electrical	440 V	In/2 In

#### Electrical characteristics as per NEMA AB1 (H.I.C.)

Breaking capacity (kA)	240 V
	480 V
	600 V

#### Electrical characteristics as per UL508

Breaking capacity (kA)	240 V
	480 V
	600 V

#### Protection

Trip units		
Overload protection	long time	<b>Ir</b> (In x ...)
Short-circuit protection	short time	<b>I<sub>sd</sub></b> (Ir x ...)
	instantaneous	<b>Ii</b> (In x ...)
Earth-fault protection		<b>Ig</b> (In x ...)
Zone selective interlocking		<b>ZSI</b>
Add-on earth-leakage protection		add-on Vigirex module combination with Vigirex relay

Current measurements

#### Additional measurement, indication and control auxiliaries

Indication contacts

MX shunt and MN undervoltage releases

Voltage-presence indicator

Current-transformer module and ammeter module

Insulation-monitoring module

#### Remote communication by bus

Device-status indication

Device remote operation

Transmission of settings

Indication and identification of protection devices and alarms

Transmission of measured current values

#### Installation

Accessories	terminal extensions and spreaders
	terminal shields and interphase barriers
	escutcheons

Dimensions (mm) W x H x D	fixed, front connections	2-3P / 4P
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Weight (kg)	fixed, front connections	3P / 4P
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#### Source changeover system (see section on source changeover systems)

Manual, remote-operated and automatic source changeover systems

(1) 2P in 3P case for type N only

(2) specific trip units are available for operational voltages &gt; 525 V

(3) NS100N et U ≥ 500 V: Ics = 50 % Icu

(4) operational voltage ≤ 500 V

# Compact NS

NS100				NS160				NS250				NS400			NS630		
2 <sup>(1)</sup> , 3, 4				2 <sup>(1)</sup> , 3, 4				2 <sup>(1)</sup> , 3, 4				3, 4			3, 4		
■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
100				160				250				400			630		
100				150				220				320			500		
750				750				750				750			750		
8				8				8				8			8		
690				690				690				690			690		
500				500				500				500			500		
N	SX	H	L	N	SX	H	L	N	SX	H	L	N	H	L	N	H	L
85	90	100	150	85	90	100	150	85	90	100	150	85	100	150	85	100	150
36	50	70	150	36	50	70	150	36	50	70	150	50	70	150	50	70	150
35	50	65	130	35	50	65	130	35	50	65	130	42	65	130	42	65	130
25	36	50	100	30	36	50	70	30	36	50	70	30	50	100	30	50	70
22	35	35	100	22	35	35	50	22	35	35	50	22	35	100	22	35	50
8	10	10	75	8	10	10	20	8	10	10	20	10 <sup>(2)</sup>	20 <sup>(2)</sup>	75 <sup>(2)</sup>	10 <sup>(2)</sup>	20 <sup>(2)</sup>	35 <sup>(2)</sup>
100 % <sup>(3)</sup>				100 %				100 %				100 %			100 % <sup>(4)</sup>		
■				■				■				■			■		
A				A				A				A			A		
50000				40000				20000				15000			15000		
50000				40000				20000				12000			8000		
30000				20000				10000				6000			4000		
N	SX	H	L	N	SX	H	L	N	SX	H	L	N	H	L	N	H	L
85	90	100	200	85	90	100	200	85	90	100	200	85	100	200	85	100	200
35	50	65	130	35	50	65	130	35	50	65	130	42	65	130	42	65	130
8	20	35	50	20	20	35	50	20	20	35	50	20	35	50	20	35	50
N	SX	H	L	N	SX	H	L	N	SX	H	L	N	H	L	N	H	L
85	85	85	-	85	85	85	-	85	85	85	-	-	-	-	-	-	-
25	50	65	-	35	50	65	-	35	50	65	-	-	-	-	-	-	-
10	10	10	-	10	10	10	-	18	18	18	-	-	-	-	-	-	-
TM (thermal-magnetic)				STR22 (electronic)								STR23 (electronic)			STR53 (electronic)		
■				■								■			■		
-				■								■			■		
■				■								■			■		
-				-								-			■		
-				-								-			■		
■				■								■			■		
■				■								■			■		
-				-								-			■		
-				-								-			■		
-				-								-			■		
■				■								■			■		
■				■								■			■		
■				■								■			■		
■				■								■			■		
■				■								■			■		
■				■								■			■		
■				■								■			■		
105 x 161 x 86 / 140 x 161 x 86												140 x 255 x 110 / 185 x 255 x 110					
2.0 to 2.2 / 2.6 to 2.8												6.2 to 8.1					
■																	

# Compact NS AC circuit breakers from 630 to 3200 A

PB101669R\_38



Compact NS800L

E45178R\_68



Compact NS2000H

## Compact circuit breakers

<b>Compact circuit breakers</b>				
Number of poles				
Control	manual	toggle		
	electric	direct or extended rotary handle		
<b>Type of circuit breaker</b>				
Connections	fixed	front connection		
		rear connection		
	withdrawable (on chassis)	front connection with bare cables		
<b>Electrical characteristics as per IEC 60947-2 and EN 60947-2</b>				
Rated current (A)	<b>In</b>	50 °C		
		65 °C (1)		
Rated insulation voltage (V)	<b>Ui</b>			
Rated impulse withstand voltage (kV)	<b>Uimp</b>			
Rated operational voltage (V)	<b>Ue</b>	AC 50/60 Hz		
<b>Type of circuit breaker</b>				
Ultimate breaking capacity (kA rms)	<b>Icu</b>	AC	220/240 V	
		50/60 Hz	380/415 V 440 V 500/525 V 660/690 V	
Service breaking capacity (kA rms)	<b>Ics</b>	Value or % Icu		
		manual operation	electrical operation	
Short-time withstand current (kA rms)	<b>Icw</b>	AC 50/60 Hz	1 s 3 s	
		Integrated instantaneous protection		
		kA peak ±10 %		
Suitability for isolation				
Utilisation category				
Durability (C-O cycles)	mechanical			
		electrical	440 V In/2 690 V In/2 In	
Pollution degree				
<b>Electrical characteristics as per Nema AB1</b>				
Breaking capacity at 60 Hz (kA)			240 V 480 V 600 V	
	<b>Protection and measurements</b>			
	Interchangeable control units			
Overload protection	long time	<b>Ir</b> (In x ...)		
Short-circuit protection	short time	<b>I<sub>sd</sub></b> (Ir x ...)		
	instantaneous	<b>Ii</b> (In x ...)		
Earth-fault protection	<b>I<sub>g</sub></b> (In x ...)			
Residual earth-leakage protection	<b>I<sub>Δn</sub></b>			
Zone selective interlocking	<b>ZSI</b>			
Protection of the fourth pole				
Current measurements				
<b>Remote communication by bus</b>				
Device-status indication				
Device remote operation				
Transmission of settings				
Indication and identification of protection devices and alarms				
Transmission of measured current values				
<b>Additional indication and control auxiliaries</b>				
Indication contacts				
Voltage releases	MX shunt release/MN undervoltage release			
<b>Installation</b>				
Accessories	terminal extensions and spreaders			
	terminal shields and interphase barriers			
	escutcheons			
Dimensions fixed devices, front connections (mm)	3P 4P			
H x W x D	3P 4P			
Weight fixed devices, front connections (kg)	3P 4P			
<b>Source changeover system (see section on "source changeover systems")</b>				
Manual, remote-operated and automatic source changeover systems				

(1) 65 °C with vertical connections. See the temperature derating tables for other types of connections.

(2) Ics: 100 % Icu for breaking capacity 440V/500V/660V  
Ics: 75 % Icu for breaking capacity 220V/380V.

# Compact NS

NS630b NS800				NS1000			NS1250		NS1600		NS1600b		NS2000	NS2500	NS3200
3, 4				3, 4			3, 4		3, 4		3, 4				
■				■			■		■		■				
■ (except LB)				■			■		■		■				
N	H	L	LB	N	H	L	N	H	N	H	N	H			
■	■	■	■	■	■	■	■	■	■	■	■	■			
■	■	■	■	■	■	■	■	■	■	■	■	■	-	-	
■	■	-	-	■	■	-	■	■	-	-	-	-	-	-	
■	■	■	■	■	■	■	■	■	■	■	■	■	-	-	
■	■	■	■	■	■	■	■	■	■	■	■	■	-	-	
630	800			1000			1250		1600						
630	800			1000			1250		1510			1600	2000	2500	
800				800			800		800			1550	1900	2500	
8				8			8		8			8			
690				690			690		690			690			
N	H	L	LB	N	H	L	N	H	N	H	N	H			
50	70	150	200	50	70	150	50	70	50	70	85	125			
50	70	150	200	50	70	150	50	70	50	70	70	85			
50	65	130	200	50	65	130	50	65	50	65	65	85			
40	50	100	100	40	50	100	40	50	40	50	65	-			
30	42	25	75	30	42	25	30	42	30	42	65	-			
100 %	75 %	100 %	100 %	100 %	75 %	100 %	100 %	75 %	75 %	50 %	100 % <sup>(2)</sup>	75 %			
75 %	50 %	100 %	-	75 %	50 %	100 %	75 %	50 %	75 %	50 %	100 % <sup>(2)</sup>	75 %			
19.2	19.2	7	5	19.2	19.2	7	19.2	19.2	19.2	19.2	-	-			
-	-	-	-	-	-	-	-	-	-	-	32	32			
40	40	-	-	40	40	-	40	40	40	40	130	130			
■				■			■		■		■				
B	B	A	A	B	B	A	B	B	B	B	B	B			
10000				10000			10000		10000		5000				
6000	6000	4000	4000	6000	6000	4000	5000		5000		3000				
5000	5000	3000	3000	5000	5000	3000	4000		2000		2000				
4000	4000	3000	3000	4000	4000	3000	3000		2000		2000				
2000	2000	2000	2000	2000	2000	2000	2000		1000		1000				
III				III			III		III		III				
N	H	L	LB	N	H	L	N	H	N	H	N	H			
50	65	125	200	50	65	125	50	65	50	65	85	125			
35	50	100	200	35	50	100	35	50	35	50	65	85			
25	50	-	100	25	50	-	25	50	25	50	50	-			
Micrologic 2.0				Micrologic 5.0			Micrologic 2.0 A		Micrologic 5.0 A		Micrologic 6.0 A		Micrologic 7.0 A		
■				■			■		■		■		■		
-				■			-		■		■		■		
■				■			■		■		■		■		
-				-			-		-		■		-		
-				-			-		-		-		■		
■				■			■		■		■		■		
-				-			■		■		■		■		
-				-			■		■		■		■		
-				-			■		■		■		■		
■				■			■		■		■		■		
■				■			■		■		-		-		
-				-			■		■		■		■		
-				-			■		■		■		■		
-				-			■		■		■		■		
■				■			■		■		-		-		
■				■			■		■		-		-		
■				■			■		■		-		-		
327 x 210 x 147											350 x 420 x 160				
327 x 280 x 147											350 x 535 x 160				
14											24				
18											36				
■				■			■		■		-		-		