

Compact NS

LV circuit breakers from 630 to 3200 A



Network
protection



Compact



Supervision

Schneider
Electric

Compact NS range

More than **10 years** of techniques and technologies...

Inventor of the unique system-block concept, Schneider Electric proposes a range of circuit experience in the field of electrical distribution, the Compact NS range is still today the

> Consistency

The Compact NS range is available in 2 sizes only in order to homogenise installation dimensions, thus reducing switchboard dimensions and facilitating their installation: volume, depth, pole pitch and fastening points are the same for each size.

> Efficiency

The Compact NS technology satisfies all your needs from 630 to 3200 A, with a breaking capacity from 50 to 200 kA.

Equipped with electronic control units, the Compact NS circuit breakers guarantee protection and measurement of your electrical installation.

> Flexibility

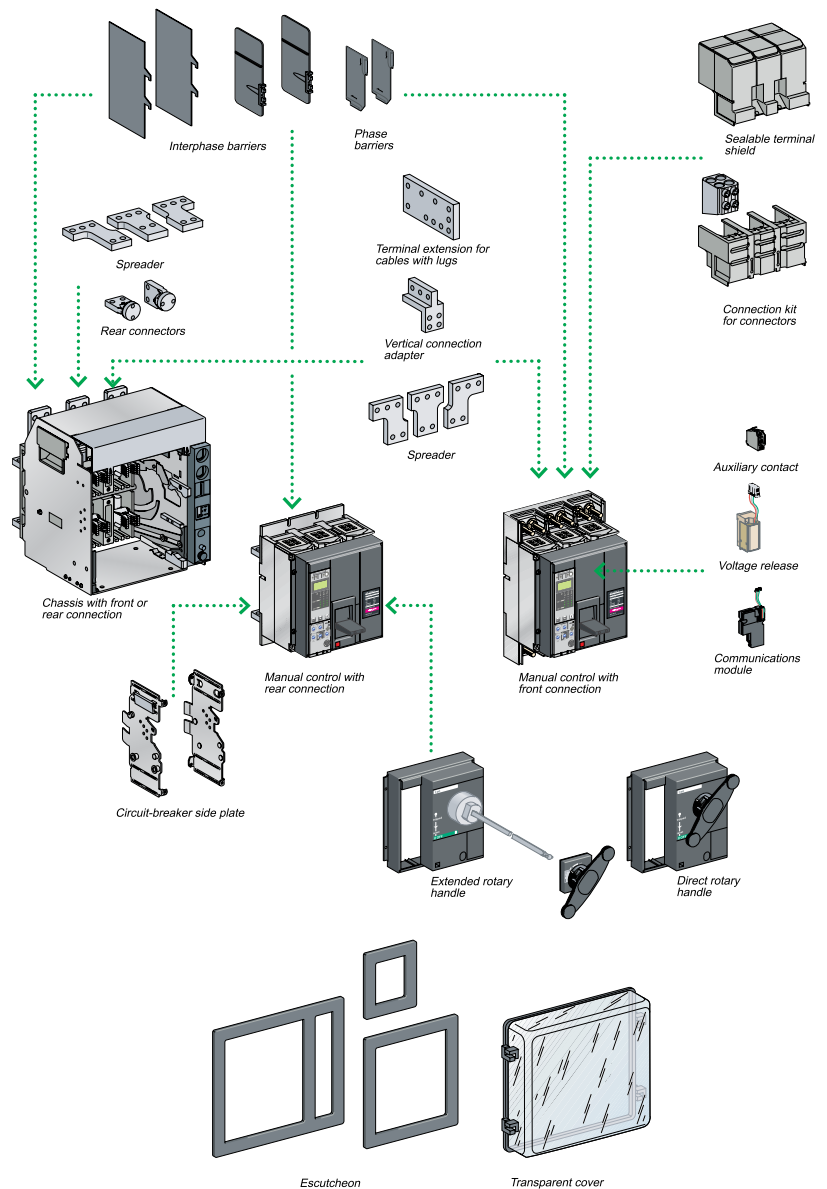
Compact NS adapts to all your applications: protection of AC installations, generator protection, motor protection, applications in 1000 V, switch-disconnectors, source changeover switches.

With Compact NS you have the choice.

> Open-endedness

Compact NS evolves together with your installation: interchangeable trip units, standardised accessories, changing of rating without disassembling the device and addition of indication and control functions make Compact NS the most flexible solution on the market.

> Compact NS field installable devices



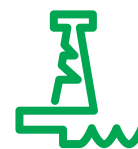
An answer for each type of solutions:



Marine



Airports



Oil and gas

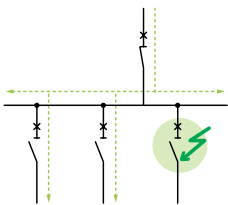


Wind turbines

for an installation with a longer service life



breakers to meet the concerns of panel builders and contractors. The result of 30 years of international reference on the moulded case circuit breaker market.



> Total control of discrimination for optimum continuity of supply

The result of a technology that has since inspired all major manufacturers, Compact NS offers an unparalleled discrimination level on the electrical distribution market.

Fully incorporated in product design, discrimination is available as standard on all the range devices, without addition of any extra accessories.

Should a fault occur, only the circuit-breaker placed immediately upstream from the fault trips.

Continuity of supply is thus guaranteed for the other feeders.



> Highly immune protection system insensitive to disturbances for more reliable operation

Insensitive to external disturbances, the Compact NS range complies with the strictest requirements defined by standard IEC 60947-2 (Appendix F).

Devices are able to operate in their electromagnetic environment without generating disturbances that could result in loss of quality, create a malfunction or a failure in the electrical installation.



> A comprehensive range of trip units and control units to combine measurement and protection

The trip unit becomes a genuine control unit for the Compact NS circuit breaker. It combines various types of measurement with various types of protection.

It measures accurately network parameters, immediately calculates values, memorises, logs, reports, communicates, acts, etc. It is both an extremely reliable protection device and an accurate measuring instrument.

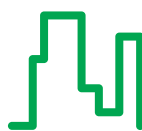
With the Micrologic E and P power measurement and advanced protection functions are now available in the Compact NS range.



Electrical Energy



Industry



Building, shopping malls



Data centres and networks



Hospitals

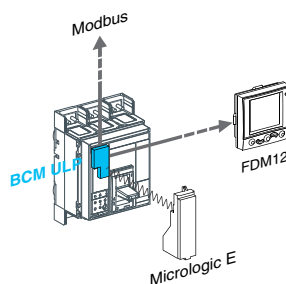
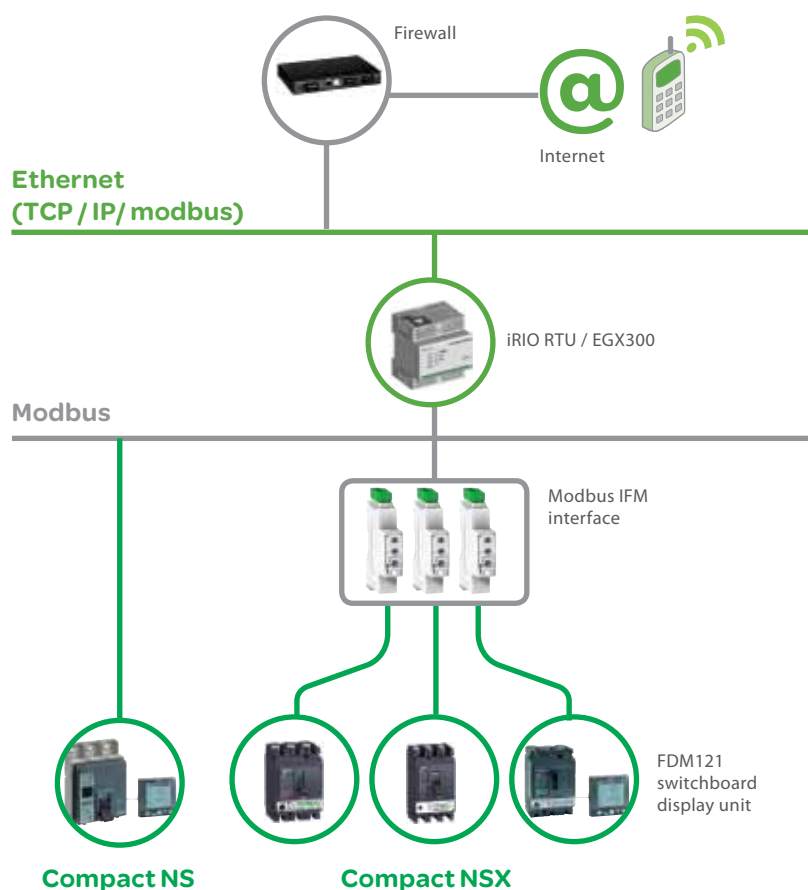


Optimising the management of your electrical installation

> When equipped with a Micrologic types E or P, Compact NS can be integrated in a general supervision system to optimise installation operation and maintenance.

Alarms may be programmed for remote indications. Used with PowerLogic ION Enterprise software, you can exploit the electrical data (current, voltage, energy, frequency, power, and power quality) to optimise continuity of service and energy management:

- reduce energy and operations costs;
- improve power quality, reliability and uptime;
- optimise equipment use.



BCM ULP module
Enables local and remote data access.



Local communication with FDM121
All Compact NS circuit breakers can be connected to a high-visibility FDM121 front display module. Maintenance personnel will have convenient access to all available data directly from the panel of the electrical cabinet.



EGX300 gateway-server or iRIO RTU
The EGX300 web-enabled gateway-server or the iRIO RTU (remote terminal unit) can both be used as Ethernet coupler for the PowerLogic System devices and for any other communicating devices operating under Modbus RS485 protocol. Data is viewable via a standard web browser.



PowerLogic ION Enterprise
PowerLogic ION Enterprise software is a complete power management solution for your facility or plant operations. It can be connected to Masterpact through a standard web browser.



Compact NS circuit breakers

from 630 A up to 3200 A

> Functions and characteristics



Compact NS800L



Compact NS2000H

Compact circuit breakers

Number of poles				
Control	manual	toggle		
	electric	direct or extended rotary handle		
Type of circuit breaker				
Connections	fixed	front connection		
		rear connection		
	withdrawable (on chassis)	front connection with bare cables		
		front connection		
		rear connection		
Electrical characteristics as per Nema AB1				
Breaking capacity at 60 Hz (kA)		240 V		
		480 V		
		600 V		
Electrical characteristics as per IEC 60947-2 and EN 60947-2				
Rated current (A)	In	50 °C		
		65 °C ⁽¹⁾		
Rated insulation voltage (V)	Ui			
Rated impulse withstand voltage (kV)	Uimp			
Rated operational voltage (V)	Ue AC 50/60 Hz			
Type of circuit breaker				
Ultimate breaking capacity (kA rms)	Manual	Icu	AC	220/240 V
			50/60 Hz	380/415 V
				440 V
		Ics	500/525 V	
			660/690 V	
	Electrical	Icu	AC	220/240 V
			50/60 Hz	380/415 V
				440 V
		Ics	500/525 V	
			660/690 V	
	Icu	AC	220/240 V	
		50/60 Hz	380/415 V	
			440 V	
	Ics	500/525 V		
		660/690 V		
Short-time withstand current (kA rms)	Icw	AC	1 s	
		50/60 Hz	3 s	
Integrated instantaneous protection		kA peak ± 10 %		
Suitability for isolation				
Utilisation category				
Durability (C-O cycles)	mechanical			
	electrical	440 V	In/2	
			In	
		690 V	In/2	
			In	
Pollution degree				

(1) 65 °C with vertical connections. See the temperature derating tables in Compact NS catalogue, for other types of connections.

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



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		
●	●	●	-	●	●	●	●	●	●	●	●	●	●	●
●	●	●	●	●	●	●	●	●	●	●	●	●	-	-
●	●	-	-	●	●	-	●	●	-	-	-	-	-	-
●	●	●	●	●	●	●	●	●	●	●	-	-	-	-
●	●	●	●	●	●	●	●	●	●	●	-	-	-	-
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	-		
630		800		1000			1250		1600		1600	2000	2500	3200
630		800		1000			1250		1510		1550	1900	2500	2970
800				800			800		800		800			
8				8			8		8		8			
690				690			690		690		690			
N	H	L	LB	N	H	L	N	H	N	H	N	H		
85	85	150	200	85	85	150	85	85	85	85	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	-	75	30	42	-	30	42	30	42	65	-		
50	52	150	200	50	52	150	50	52	37	37	65	94		
50	52	150	200	50	52	150	50	52	37	37	52	64		
50	48	130	200	50	48	130	50	48	25	32	65	64		
40	37	100	100	40	37	100	40	37	20	25	65	-		
30	31	-	75	30	31	-	30	31	15	21	65	-		
50	70	150	-	50	70	150	50	70	50	70	-	-		
50	70	150	-	50	70	150	50	70	50	70	-	-		
50	65	130	-	50	65	130	50	65	50	65	-	-		
40	50	100	-	40	50	100	40	50	40	50	-	-		
30	42	-	-	30	42	-	30	42	30	42	-	-		
37	35	150	-	37	35	150	37	35	37	35	-	-		
37	35	150	-	37	35	150	37	35	37	35	-	-		
37	32	130	-	37	32	130	37	32	37	32	-	-		
30	25	100	-	30	25	100	30	25	30	25	-	-		
22	21	-	-	22	21	-	22	21	22	21	-	-		
19.2	19.2	-	-	19.2	19.2	-	19.2	19.2	19.2	19.2	-	-		
-	-	-	-	-	-	-	-	-	-	-	-	-	32	
40	40	-	-	40	40	-	40	40	40	40	-	-	130	
●				●			●		●		●			
B	B	A	A	B	B	A	B	B	B	B	B			
10000				10000			10000		10000		5000			
6000	6000	4000	4000	6000	6000	4000	5000	5000	5000	5000	3000			
5000	5000	3000	3000	5000	5000	3000	4000	4000	2000	2000	2000			
4000	4000	3000	3000	4000	4000	3000	3000	3000	2000	2000	2000			
2000	2000	2000	2000	2000	2000	2000	2000	2000	1000	1000	1000			
3				3			3		3		3			

Compact NS circuit breakers

from 630 A up to 3200 A

> Functions and characteristics



Compact NS800L



Compact NS2000H

Compact circuit breakers

Protection and measurements

Interchangeable control units

Overload protection long time I_r ($I_n \times \dots$)

Short-circuit protection short time I_{sd} ($I_r \times \dots$)

instantaneous I_i ($I_n \times \dots$)

Earth-fault protection I_g ($I_n \times \dots$)

Residual earth-leakage protection $I_{\Delta n}$

Zone selective interlocking ZSI

Protection of the fourth pole

Current measurements

Power measurements

Advanced protection

Quick view

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

Additional indication and control auxiliaries

Indication contacts

Voltage releases MX shunt release/ MN undervoltage release

Installation

Accessories terminal extensions and spreaders

terminal shields and interphase barriers

escutcheons

Dimensions fixed devices, front connections (mm) 3P

H x W x D 4P

Weight fixed devices, front connections (kg) 3P

4P

Source changeover system

Manual, remote-operated and automatic source changeover systems

(1) Except 1600b-3200





	NS630b	NS800	NS1000	NS1250	NS1600	NS1600b	NS2000	NS2500	NS3200				
Micrologic													
	2.0	5.0	6.0	2.0A	5.0A	6.0A	7.0A	2.0E	5.0E	6.0E	5.0P ⁽¹⁾	6.0P ⁽¹⁾	7.0P ⁽¹⁾
•	•	•	•	•	•	•	•	•	•	•	•	•	•
-	•	•	-	•	•	•	•	-	•	•	•	•	•
•	•	•	•	•	•	•	•	•	•	•	•	•	•
-	-	•	-	-	•	-	-	-	•	-	•	-	-
-	-	-	-	-	-	•	-	-	•	-	•	•	•
-	-	-	•	•	•	•	•	•	•	•	•	•	•
•	•	•	•	•	•	•	•	•	•	•	•	•	•
-	-	-	•	•	•	•	•	•	•	•	•	•	•
-	-	-	-	-	-	-	•	•	•	•	•	•	•
-	-	-	-	-	-	-	-	-	-	-	•	•	•
-	-	-	-	-	-	-	•	•	•	-	-	-	-
•	•	•	•	•	•	•	•	•	•	•	•	•	•
•	•	•	•	•	•	•	•	•	•	•	•	•	•
-	-	•	•	•	•	•	•	•	•	•	•	•	•
-	-	•	•	•	•	•	•	•	•	•	•	•	•
	NS630b	NS800	NS1000	NS1250	NS1600	NS1600b	NS2000	NS2500	NS3200				
•						•							
•						•							
•						-							
•						•							
•						•							
	327 x 210 x 147					350 x 420 x 160							
	327 x 280 x 147					350 x 535 x 160							
	14					24							
	18					36							
•						-							



The Compact range:



A solution for all application types: Compact NS and Compact NSX



Source changeover

The Compact range proposes interlocking solutions between two devices to perform the source changeover switch function.

As from 100 A, a motor mechanism ensures automatic replacement of the main source by a secondary source in order to ensure permanent availability of energy.

Applications are numerous: operating theatres, emergency lighting systems, computer rooms, bank security, etc.

Motor applications

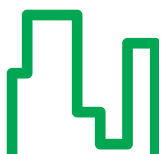
Associated with specific control units, the Compact range ensures motor protection functions up to 750 kW, and includes a dedicated product, Compact NS 80H-MA, for applications up to 37 kW.

DC applications

A specific range from 100 to 630 A with performance up to 100 kA and 750 V for battery or traction network type applications.

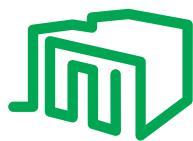
1000 V / 400 Hz applications

The Compact range covers 1000 V / 400 Hz applications up to 630 A: road and rail tunnels, mines, wind turbines (1000 V) and aircraft facilities (400 Hz).



Building

- Hotels
- Hospitals
- Offices
- Retail



Data Centres and Networks



Industry

- Mining and minerals
- Automotive
- Food and beverage
- Chemical industry



Energy and Infrastructures

- Airports
- Oil and gas
- Water
- Electrical energy
- Marine
- Wind turbines

All the guarantees of a leading brand



Certification

The reliability of the Compact NS range circuit breakers must be total.

Such reliability is obtained thanks to faultless quality at all stages, from design to operation, in complete compliance with international standards and local certification.



Tools for easy design

Full documentation, CAD software and a library are available to assist you in all stages of installation design.



Distribution and service network

With more than 5000 sales outlets in 130 countries, you are guaranteed to find world-wide the range of products complying with your needs and satisfying user country standards perfectly.



Environmentally friendly products

Schneider Electric commits itself to an environmental approach, manufacturing products in keeping with the requirements of European Directive RoHS (Restriction of Hazardous Substances) in non-polluting ISO 14001 certified manufacturing units.

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