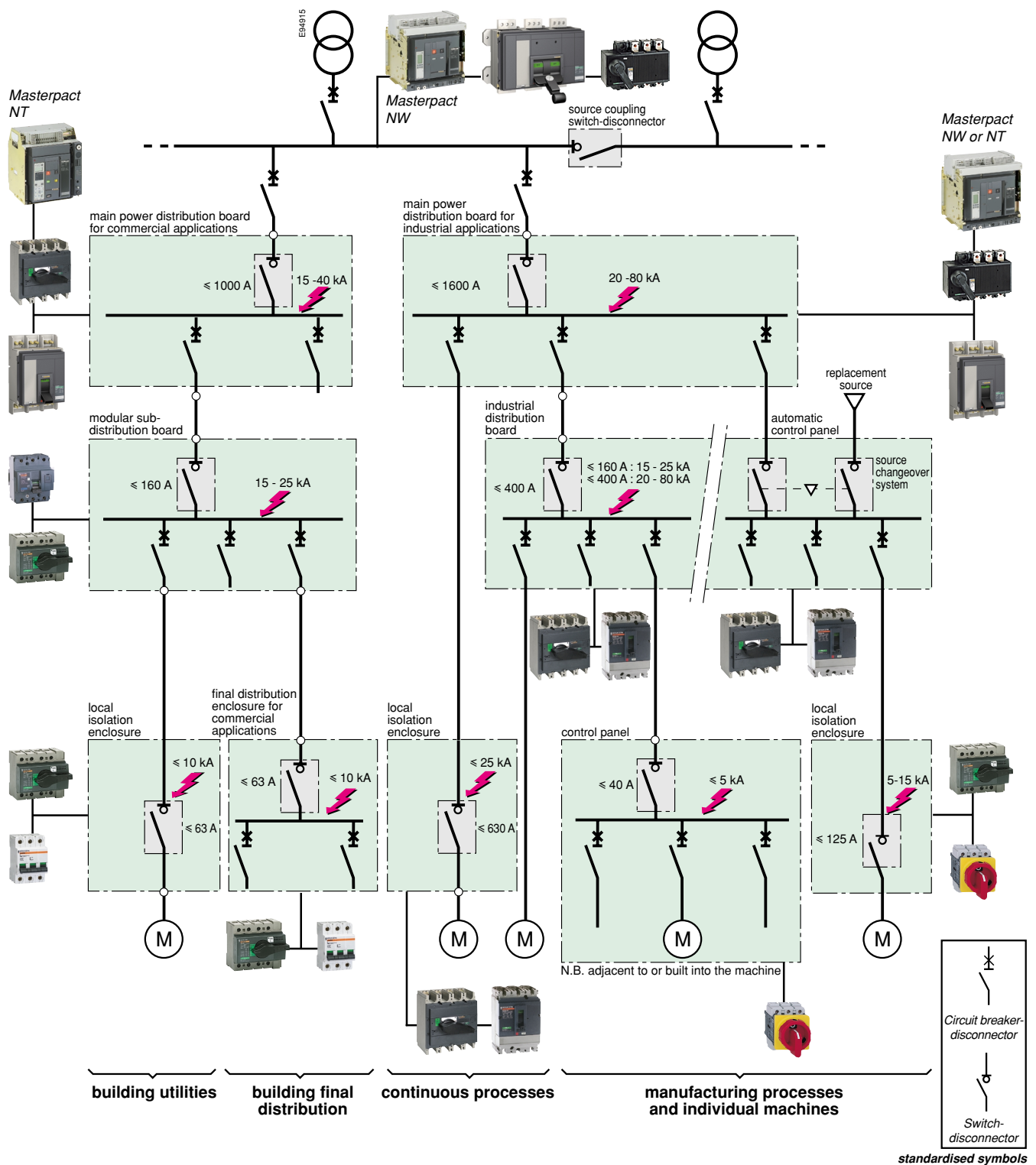
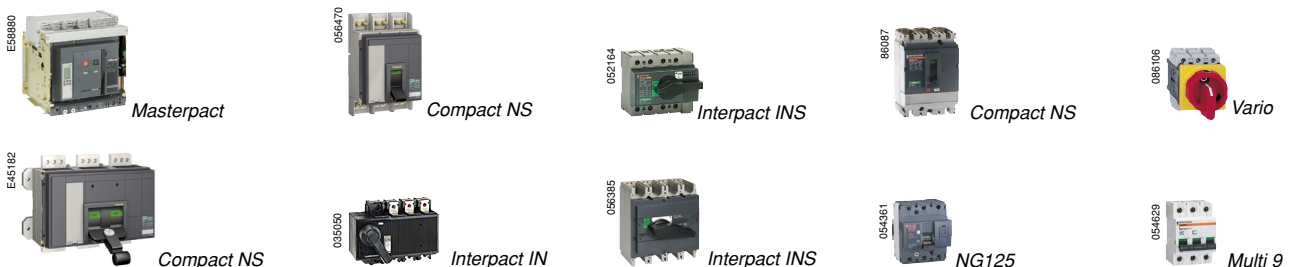




Switch-disconnectors



Compact switch-disconnectors are used to control and isolate electrical distribution circuits. In addition to these basic functions, other functions for safety, remote control and convenience include:

- earth-leakage protection
- auxiliary MN/MX releases
- remote operation
- ammeter, etc.

Compact switch-disconnectors may be interlocked with another Compact switch-disconnector or circuit breaker to constitute a source-changeover system.



Compact NS250 switch-disconnector



Compact switch-disconnector equipped with a Vigi earth-leakage module



Compact switch-disconnector equipped with a motor mechanism



MN/MX voltage release

Control and disconnection

Compact NSA125NA and NSA160NA switch-disconnectors

Installation standards require upstream protection. However, due to their high-set magnetic release, Compact NSA125NA and NSA160NA switch-disconnectors are self protected.



Compact NSA125NA

Compact switch-disconnectors

Number of poles		
Control	manual	toggle direct or extended rotary handle
	electric	
Connections	fixed	front connection rear connection
	withdrawable	front connection
		rear connection
Built-in connectors	for 1.5 to 90 mm ² cables	
Mounting	on DIN rail	
Front-panel cutout	45 mm high	

Electrical characteristics as per IEC 60947-3 and EN 60947-3

Conventional thermal current (A)		I_{th}	60 °C	
Rated insulation voltage (V)		U_i		
Rated impulse withstand voltage (kV)		U_{imp}		
Rated operational voltage (V)		U_e	AC 50/60 Hz DC	
Rated operational current		I_e	AC 50/60 Hz 220/240 V 380/415 V 440/480 V 500 V	
Short-circuit making capacity	I_{cm}	(kA peak)	minimum (switch-disconnector alone) maximum (with protection circuit breaker upstream)	
Short-time withstand current	I_{cw}	(A rms)	1 s 3 s 20 s	
Suitability for isolation				
Durability (C-O cycles)	mechanical			
	electrical	AC	690 V	AC22A
			440 V	AC23A
	electrical	AC	250 V	AC23A

Positive contact indication

Pollution degree

Protection

Add-on earth-leakage protection	add-on Vigi module combination with Vigirex relay
---------------------------------	--

Additional indication and control auxiliaries

Indication contacts

Voltage releases

Installation and connection

Accessories

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

Source-changeover system (see section on "source-changeover systems")

Manual source-changeover systems

NSA125NA		NSA160NA	
3, 4		3, 4	
■		■	
■		■	
-		-	
■		■	
-		-	
-		-	
-		-	
■		■	
■		■	
■		■	
125		160	
500		500	
8		8	
500		500	
250		250	
AC22A	AC23A	AC22A	AC23A
125	125	160	160
125	125	160	160
125	125	160	160
125	100	160	125
2.1			
330			
1500			
1500			
580			
■			
10000			
5000			
5000			
5000			
■			
III			
■			
■			
1 OF + 1 SD			
MN or MX			
terminal shields			
depth adjuster			
90 x 120 x 82.5			
120 x 120 x 80			
1.1			
1.4			
■			

Control and disconnection

Compact NSC100NA and NS100NA to 630NA switch- disconnectors

Installation standards require upstream protection. However, due to their high-set magnetic release, Compact NSC100NA and NS100NA to 630NA switch-disconnectors are self protected.



Compact NS100NA

Compact switch-disconnectors

Number of poles		
Control	manual	toggle direct or extended rotary handle
	electric	
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 60947-3 and EN 60947-3

Conventional thermal current (A)		I_{th}	60 °C	
Rated insulation voltage (V)		U_i		
Rated impulse withstand voltage (kV)		U_{imp}		
Rated operational voltage (V)		U_e	AC 50/60 Hz	
			DC	
Rated operational current		I_e	AC 50/60 Hz	
			220/240 V	
			380/415 V	
			440/480 V ⁽²⁾	
			500/525 V	
			660/690 V	
			DC	
			250 V (1 P)	
			500 V (2 P in series)	
Short-circuit making capacity	I_{cm}	(kA peak)	minimum (switch-disconnector alone)	
			maximum (with protection circuit breaker upstream)	
Short-time withstand current	I_{cw}	(A rms)	1 s	
			3 s	
			20 s	
Suitability for isolation				
Durability (C-O cycles)	mechanical			
	electrical	AC	690 V	AC22A
			440 V	AC23A
		DC	250 V	DC23A

Positive contact indication

Pollution degree

Protection

Add-on earth-leakage protection	add-on Vigi module combination with Vigirex relay
---------------------------------	--

Additional indication and control auxiliaries

Indication contacts	
Voltage releases	MX shunt release MN undervoltage release
Voltage-presence indicator	
Current-transformer module	
Ammeter module	
Insulation-monitoring module	

Remote communication by bus

Device status indications (communicating auxiliary contacts)

Device remote operation (communicating motor mechanism)

Installation

Accessories	terminal extensions and spreaders terminal shields and interphase barriers escutcheons		
Dimensions (mm)	fixed, front connection	2/3P	
W x H x D		4P	
Weight (kg)	fixed, front connection	3P	
		4P	

Source-changeover system (see section "on source-changeover systems")

Manual source-changeover systems	
Remote-operated and automatic source-changeover systems	

(1) 2P in 3P case

(2) Suitable for 480 V NEMA

NSC100NA		NS100NA		NS160NA		NS250NA		NS400NA		NS630NA	
3, 4		2 ⁽¹⁾ , 3, 4		2 ⁽¹⁾ , 3, 4		2 ⁽¹⁾ , 3, 4		3, 4		3, 4	
■		■		■		■		■		■	
■		■		■		■		■		■	
-		■		■		■		■		■	
■		■		■		■		■		■	
-		■		■		■		■		■	
-		■		■		■		■		■	
-		■		■		■		■		■	
-		■		■		■		■		■	
-		■		■		■		■		■	
100		100		160		250		400		630	
750		750		750		750		750		750	
8		8		8		8		8		8	
690		690		690		690		690		690	
250		500		500		500		500		500	
AC22A	AC23A	AC22A	AC23A	AC22A	AC23A	AC22A	AC23A	AC22A	AC23A	AC22A	AC23A
100	100	100	100	160	160	250	250	400	400	630	630
100	100	100	100	160	160	250	250	400	400	630	630
100	100	100	100	160	160	250	250	400	400	630	630
100	100	100	100	160	160	250	250	400	400	630	630
-	-	100	100	160	160	250	250	400	400	630	630
DC22A	DC23A	DC22A	DC23A	DC22A	DC23A	DC22A	DC23A	DC22A	DC23A	DC22A	DC23A
-	-	100	100	160	160	250	250	400	400	630	630
-	-	100	100	160	160	250	250	400	400	630	630
2.1		2.6		3.6		4.9		7.1		8.5	
330		330		330		330		330		330	
1500		1800		2500		3500		5000		6000	
1500		1800		2500		3500		5000		6000	
580		690		960		1350		1930		2320	
■		■		■		■		■		■	
20000		50000		40000		20000		15000		15000	
7000		50000		40000		20000		15000		15000	
7000		30000 (50000 - In/2)		20000 (40000 - In/2)		10000 (20000 - In/2)		6000 (12000 - In/2)		4000 (8000 - In/2)	
7000		30000 (50000 - In/2)		20000 (40000 - In/2)		10000 (20000 - In/2)		6000 (12000 - In/2)		4000 (8000 - In/2)	
■		■		■		■		■		■	
III		III		III		III		III		III	
■		■						■			
■		■						■			
■		■						■			
■		■						■			
-		■						■			
-		■						■			
-		■						■			
-		■						■			
■		■						■			
-		■						■			
■		■						■			
■		■						■			
■		■						■			
90 x 120 x 80		105 x 161 x 86						140 x 255 x 110			
120 x 120 x 80		140 x 161 x 86						185 x 255 x 110			
0.9		1.5 to 1.8						5.2			
1.2		2.0 to 2.2						6.8			
■ (locking)		■						■			
		■						■			

Control and disconnection

Compact NS630bNA to NS1600NA switch-disconnectors

Installation standards require upstream protection.



Compact NS800NA

Compact switch-disconnectors

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

Electrical characteristics as per IEC 60947-3 and EN 60947-3

Conventional thermal current (A)	I _{th}	60 °C	
Rated insulation voltage (V)		U _i	
Rated impulse withstand voltage (kV)	U _{imp}		
Rated operational voltage (V)	U _e	AC 50/60 Hz	
Rated operational current	I	AC 50/60 H	
			220/240 380/415 440/480 V ⁽¹⁾ 500/525 660/690
			D
			250 V (1P 500 V (2P in series
Short-circuit making capacit	I _c	(kA peak	minimum (switch-disconnector alone maximum (with protectio circuit breaker upstream) ⁽²⁾
Short-time withstand curren	I _c	(A rms	0.5 1 20
Suitability for isolatio			
Durability (C-O cycles)	mechanica		
	electrica	A	690 AC22A/I 440 AC23A/I

Positive contact indicatio

Pollution degre

Protectio

Add-on earth-leakage protectio combination with Vigirex rela

Additional indication and control auxiliaire

Indication contact	
Voltage release	MX shunt releas MN undervoltage releas

Remote communication by bu

Device status indications (communicating auxiliary contacts

Device remote operation (communicating motor mechanism

Installatio

Accessorie	terminal extensions and spreader	
	terminal shields and interphase barrier	
	escutcheon	
Dimensions (mm)	fixe	3
W x H x		4
Weight (kg)	fixe	3
		4

Source-changeover system (see section "on source-changeover systems"

Manual source-changeover systems, remote-operated and automati

(1) Suitable for 480 V NEMA.

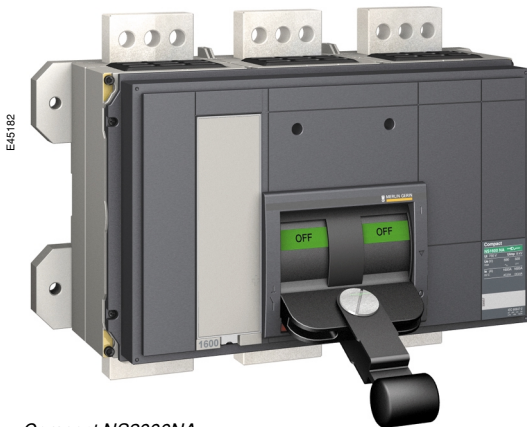
(2) Protection by upstream type NS, NT or NW circuit breaker:
see additional technical information.

NS630bNA		NS800NA		NS1000NA		NS1250NA		NS1600NA	
3, 4		3, 4		3, 4		3, 4		3, 4	
■		■		■		■		■	
■		■		■		■		■	
■		■		■		■		■	
■		■		■		■		■	
■		■		■		■		■	
■		■		■		■		■	
■		■		■		■		■	
630		800		1000		1250		1600	
750		750		750		750		750	
8		8		8		8		8	
690		690		690		690		690	
500		500		500		500		500	
AC22A	AC23A	AC22A	AC23A	AC22A	AC23A	AC22A	AC23A	AC22A	AC23A
630	630	800	800	1000	1000	1250	1250	1600	1600
630	630	800	800	1000	1000	1250	1250	1600	1600
630	630	800	800	1000	1000	1250	1250	1600	1600
630	630	800	800	1000	1000	1250	1250	1600	1600
630	630	800	800	1000	1000	1250	1250	1600	1520
DC22A	DC23A	DC22A	DC23A	DC22A	DC23A	DC22A	DC23A	DC22A	DC23A
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
50		50		50		50		50	
330		330		330		330		330	
25		25		25		25		25	
17		17		17		17		17	
4		4		4		4		4	
■		■		■		■		■	
10000		10000		10000		10000		10000	
2000		2000		2000		2000		1000	
2000		2000		2000		2000		1000	
■		■		■		■		■	
III		III		III		III		III	
■									
■									
■									
■									
■									
■									
■									
■									
■									
327 x 210 x 147									
327 x 280 x 147									
14									
18									
■									

Control and disconnection

Compact NS1600bNA to 3200NA switch-disconnectors

Installation standards require upstream protection. However, Compact NS1600b to 3200NA switch-disconnectors are self-protected for all currents higher than 130 kA peak.



Compact NS2000NA

Compact switch-disconnectors

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

Electrical characteristics as per IEC 60947-3 and EN 60947-3

Conventional thermal current (A)	I_{th}	60 °C	
Rated insulation voltage (V)		U_i	
Rated impulse withstand voltage (kV)	U_{imp}		
Rated operational voltage (V)	U_e	AC 50/60 Hz DC	
Rated operational current	I_e	AC 50/60 Hz	220/240 V 380/415 V 440/480 V ⁽¹⁾ 500/525 V 660/690 V
Short-circuit making capacity	I_{cm}	(kA peak)	minimum (switch-disconnector alone) maximum (with protection circuit breaker upstream) ⁽²⁾
Short-time withstand current	I_{cw}	(A rms)	3 s
Integrated instantaneous protection (kA peak ±10 %)			
Suitability for isolation			
Durability (C-O cycles)	mechanical		
	electrical	AC	690 V AC22A/In 440 V AC23A/In

Positive contact indication

Pollution degree

Protection

Add-on earth-leakage protection combination with Vigirex relay

Additional indication and control auxiliaries

Indication contacts

Voltage releases MX shunt release
MN undervoltage release

Installation

Accessories	escutcheons	
Dimensions (mm)	fixed	3P
W x H x D		4P
Weight (kg)	fixed	3P
		4P

Source-changeover system (see section "on source-changeover systems")

Manual source-changeover systems, remote-operated and automatic

(1) Suitable for 480 V NEMA.

(2) Protection by upstream type NS, NT or NW circuit breaker: see additional technical information.

NS1600bNA		NS2000NA		NS2500NA		NS3200NA	
3, 4		3, 4		3, 4		3, 4	
■		■		■		■	
-		-		-		-	
-		-		-		-	
■		■		■		■	
-		-		-		-	
-		-		-		-	
-		-		-		-	
1600		2000		2500		3200	
750		750		750		750	
8		8		8		8	
690		690		690		690	
500		500		500		500	
AC22A	AC23A	AC22A	AC23A	AC22A	AC23A	AC22A	AC23A
1600	1600	2000	2000	2500	2500	3200	3200
1600	1600	2000	2000	2500	2500	3200	3200
1600	1600	2000	2000	2500	2500	3200	3200
1600	1600	2000	2000	2500	2500	3200	3200
1600	1600	2000	2000	2500	2500	3200	3200
135		135		135		135	
178		178		178		178	
32		32		32		32	
130		130		130		130	
■		■		■		■	
6000		6000		6000		6000	
1000		1000		1000		4000	
1000		1000		1000		2000	
■		■		■		■	
III		III		III		III	
■							
■							
■							
■							
■							
350 x 420 x 160							
350 x 535 x 160							
23							
36							
-							