

Retrofitting kit Hard Bus Retrofill for Siemens 3WN1 and 3WN6 Air Circuit Breakers with ABB New Emax Air Circuit Breakers

With a few modification and sustainable costs, Retrofitting kits are the perfect solution to improve a low voltage switchgear.

ABB SACE has developed new hard bus retrofill Retrofitting kits to replace and upgrade Siemens 3WN1 and 3WN6 Air Circuit breaker with New Emax.

ABB ensures operating continuity between Siemens 3WN1 and 3WN6 air circuit breakers and the recent series of circuit New Emax.

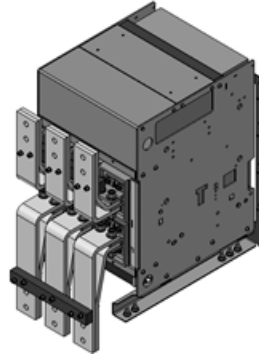
Replacement kits are designed to preserve existing switchgear and reduce downtimes to a minimum. Special copper adapting kits can be mounted on New Emax terminals in order to replicate the copper bars connections of Siemens breaker.

The result is a completely upgraded System with all the advantages of new technology offered by ABB New Emax circuit breakers.

All New Emax Electrical and Mechanical accessories can be used. Mechanical interlock and ATS work only with New Emax Circuit breakers.

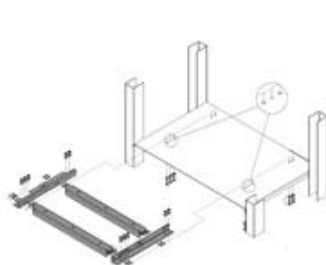
Retrofitting kit consists of:

1. Dedicated plates for fixed part to fix the circuit breaker in the same fixing point of Siemens's one
2. Special New Emax adapter busbars according to the size
3. In some cases, where necessary, insulating material to align terminals according to New Emax dimensions
4. Adhesive template for panel door cutout.

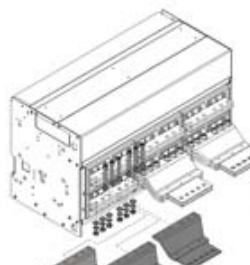


Benefits with Retrofitting kits:

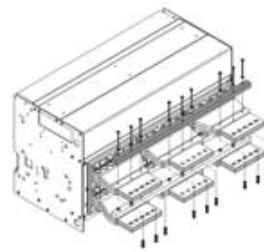
- Increased safety
- Service continuity
- Easy installation
- Maintenance costs reduction
- Products and spare parts availability
- Tested solution
- Wide range of mechanical and electrical accessories with New Emax
- Power measurement with advanced trip units (PR122 and PR123)
- Monitoring with PR120/K, electrical signaling internal module
- Communication:
 - Modbus (PR120/D-M),
 - Wireless, (PR120/D-BT),
 - Profibus, DeviceNet or AS-I (EP 010 – FBP)
- Diagnosis and installation with Ekip Connect Software.



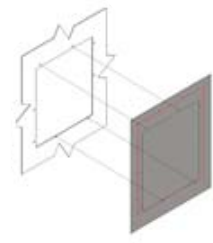
1.



2.



3.



4.

Hard Bus Retrofill for Siemens 3WN1 and 3WN6 Air Circuit Breakers with ABB New Emax Air Circuit Breakers

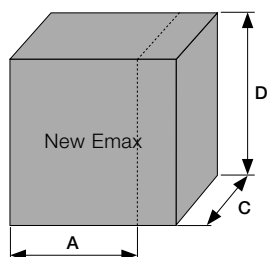
The kit includes the Fixed part and the special terminals.

Here below the list of Hard bus Retrofill (RF) retrofitting kits for Siemens 3WN1 and 3WN6 ABB New Emax circuit breakers:

Siemens 3WN	Type	Iu [A]	Version (terminals)	Poles	vs	New Emax CB	In [A]	What to order
Siemens 3WN1	3WN10	630	W (F)	3p/4p	→	E2S 800	800 (RP=630)	MP + kit (FP included)
			W (HR)	3p	→	E2S 800	800 (RP=630)	MP + kit (FP included)
			W (VR)	3p/4p	→	E2S 800	800 (RP=630)	MP + kit (FP included)
	3WN11	800	W (F)	3p/4p	→	E2S 800	800	MP + kit (FP included)
			W (HR)	3p/4p	→	E2S 800	800	MP + kit (FP included)
			W (VR)	3p/4p	→	E2S 800	800	MP + kit (FP included)
	3WN12	1000	W (F)	3p/4p	→	E2S 1000/1250	1000/1250	MP + kit (FP included)
			W (HR)	3p/4p	→	E2S 1000/1250	1000/1250	MP + kit (FP included)
			W (VR)	3p/4p	→	E2S 1000/1250	1000/1250	MP + kit (FP included)
	3WN13	1250	W (F)	3p/4p	→	E2S 1250	1250	MP + kit (FP included)
			W (HR)	3p/4p	→	E2S 1250	1250	MP + kit (FP included)
			W (VR)	3p/4p	→	E2S 1250	1250	MP + kit (FP included)
	3WN14	1600	W (F)	3p/4p	→	E2S 1600	1600	MP + kit (FP included)
			W (HR)	3p/4p	→	E2S 1600	1600	MP + kit (FP included)
			W (VR)	3p/4p	→	E2S 1600	1600	MP + kit (FP included)
	3WN15	2000	W (F)	3p/4p	→	E3H 2000	2000	MP + kit (FP included)
			W (HR)	3p/4p	→	E3H 2000	2000	MP + kit (FP included)
	3WN16	2500	W (F)	3p/4p	→	E3H 2500	2500	MP + kit (FP included)
			W (HR)	3p/4p	→	E3H 2500	2500	MP + kit (FP included)
3WN17	3200	W (F)	4p	→	E3H 3200	3200 but derating 2900	MP + kit (FP included)	
		W (HR)	3p	→	E4H 3200	3200	MP + kit (FP included)	
		W (HR)	4p	→	E3H 3200	3200 but derating 2900	MP + kit (FP included)	
3WN18	4000	W (F)	3p	→	E4H 4000	4000 but derating 3700	MP + kit (FP included)	
		W (HR)	4p	→	E6H 4000	4000	MP + kit (FP included)	
3WN19	5000	W (HR)	3p/4p	→	E6H 5000	5000	MP + kit (FP included)	
		W (HR)	3p	→	E6H 5000	5000	MP + kit (FP included)	
		W (HR)	3p	→	E6H 6300	6300 but derating 5200	MP + kit (FP included)	
Siemens 3WN6	3WN60	630	W (HR)	3p/4p	→	E2S 800	800 (RP=630)	MP + kit (FP included)
			W (VR)	3p/4p	→	E2S 800	800 (RP=630)	MP + kit (FP included)
	3WN61	800	W (HR)	3p/4p	→	E2S 800	800	MP + kit (FP included)
			W (VR)	3p/4p	→	E2S 800	800	MP + kit (FP included)
	3WN62	1000	W (HR)	3p/4p	→	E2S 1000	1000	MP + kit (FP included)
			W (VR)	3p/4p	→	E2S 1000	1000	MP + kit (FP included)
	3WN63	1250	W (HR)	3p/4p	→	E2S 1250	1250	MP + kit (FP included)
			W (VR)	3p/4p	→	E2S 1250	1250	MP + kit (FP included)
	3WN64	1600	W (HR)	3p/4p	→	E2S 1600	1600	MP + kit (FP included)
			W (VR)	3p/4p	→	E2S 1600	1600	MP + kit (FP included)
	3WN65	2000	W (HR)	3p/4p	→	E3H 2000	2000	MP + kit (FP included)
			W (VR)	3p/4p	→	E3H 2000	2000	MP + kit (FP included)
	3WN66	2500	W (HR)	3p/4p	→	E3H 2500	2500	MP + kit (FP included)
			W (VR)	3p/4p	→	E3H 2500	2500	MP + kit (FP included)
	3WN67	3200	W (HR)	3p/4p	→	E3H 3200	3200	MP + kit (FP included)
W (VR)			3p/4p	→	E3H 3200	3200	MP + kit (FP included)	

Recommendations:

The following minimum dimensions of compartment need to be verified before ordering:



Kit di retrofit	E2 [mm/in]	E3 [mm/in]	E4 [mm/in]	E6 [mm/in]
A (3p)	400/15.8"	500/19.7"	700/27.6"	1000/39.4"
A (4p)	490/19.3"	630/24.8"	790/31.1"	1130/44.5"
C	242/9.53"	242/9.53"	242/9.53"	242/9.53"
D	500/19.7"	500/19.7"	500/19.7"	500/19.7"

Below the list of New Emax accessories available for the retrofitting kit Siemens 3WN1 and 3WN6 → New Emax:

Electrical accessories

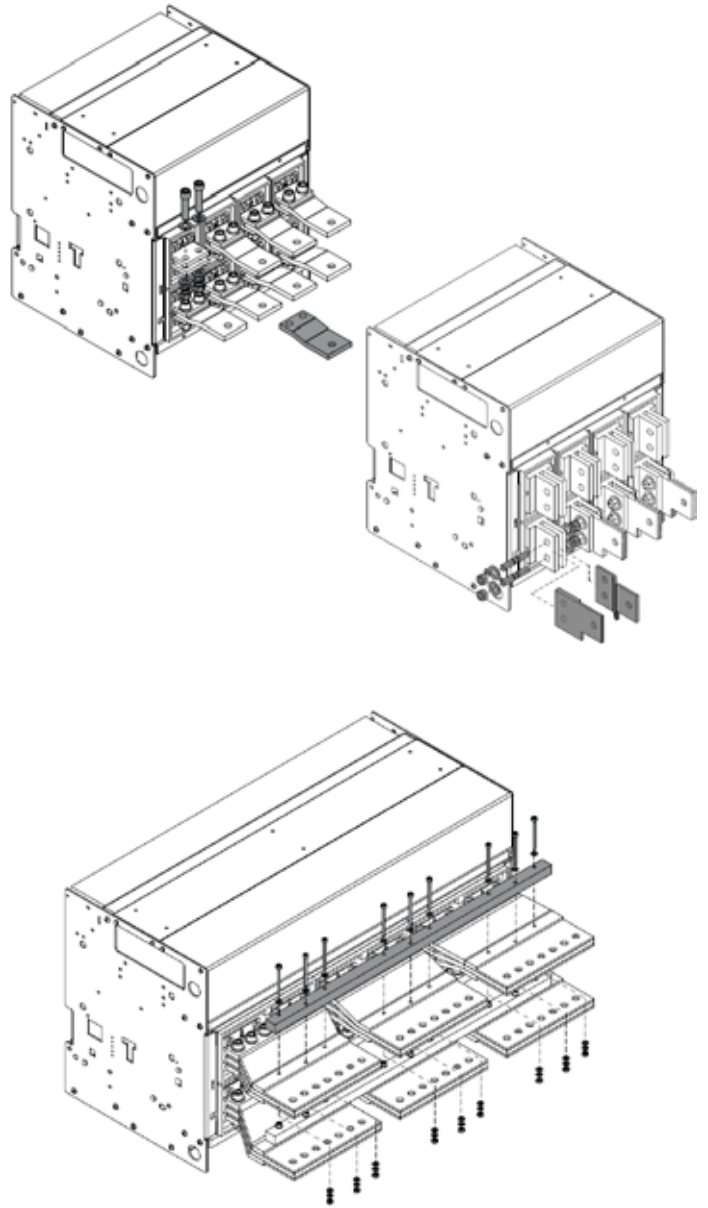
- YO (shunt opening release)
 - YO2 (second shunt opening release)
 - YC (shunt closing release)
 - YU (undervoltage release)
 - D (electronical Delay for YU - into the switchboard)
 - M (motor for charging springs)
 - AUX Spring charged (S33M)
 - AUX Open/Closed auxiliary contacts
 - AUX CB connected/test/insulated position
 - Closing Spring charged signalling – S33
 - Electric TU reset
 - SOR Test Unit
 - Overcurrent release trip indication
 - Contact for signalling undervoltage release de-energized
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Mechanical accessories

- Key lock in open position
 - Padlock in open position
 - Key lock in racked in/test/out position
 - Mechanical compartment door lock
 - Protection for sealable trip unit
 - Mechanical operation counter
 - IP54 door protection
 - O/C pushbutton protection
 - Mechanical Interlock (only with other New Emax CB)
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Modules

- PR120/K signalling module
 - PR120/V measuring module
 - PR120/D-M Modbus communication module
 - PR120/D-BT Bluetooth communication module
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