

Retrofitting kit Hard Bus Retrofill for Schneider Masterpact M Air Circuit Breaker with ABB New Emax Air Circuit Breaker

With a few modifications 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 Schneider Masterpact M Air Circuit breaker with New Emax.

ABB ensures operating continuity between Masterpact M Air Circuit Breakers and the recent series of circuit New Emax:

- **M32 and M40** withdrawable version, **3 and 4 poles, 3200A and 4000A**, equipped with either **Vertical or Horizontal Rear Terminals**
- **M16 and M20** fixed version, **3 poles** only, with **Horizontal Rear Terminals**.

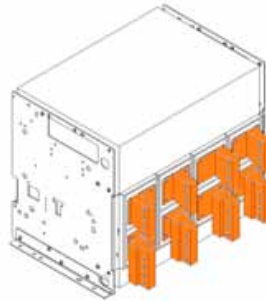
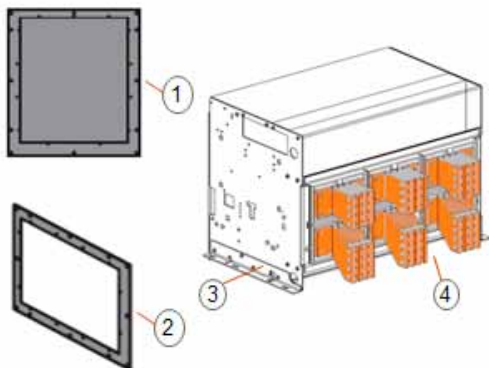
Replacement kits are designed to preserve existing switchgear and reduce downtimes to a minimum. Special terminals are mounted on New Emax Fixed part in order to replicate the copper bars connections of Masterpact M breaker.

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. Adhesive template for panel door cutout
2. Adapter kit for panel door
3. Dedicated plates for fixed part to fix the circuit breaker in the same fixing point of Masterpact ones
4. Special New Emax terminals.



BENEFITS

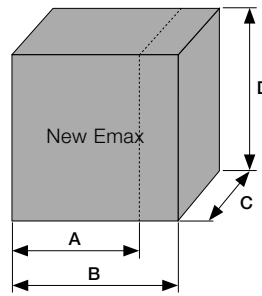
- Service continuity
- Easy installation
- Maintenance costs reduction
- Products and spare parts availability
- Tested solution
- Wide range of mechanical and electrical accessories with New Emax
- Power measurement with advanced trip units (PR122 and PR123)
- Monitoring with PR120/K, electrical signaling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

It is required to order:

- A dedicated New Emax Fixed Part (with special terminals) + New Emax Moving Part for withdrawable version.
- A dedicated Fixed breaker with special terminals for Fixed version.

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

Schneider circuit breaker	Iu [A]	Version - terminals	Poles	to	New Emax	Poles
Masterpact M32H1	3200	W - HR	3p	→	E3S	3p
Masterpact M32H1	3200	W - HR	4p	→	E3S	4p
Masterpact M32H1	3200	W - VR	3p	→	E3S	3p
Masterpact M32H1	3200	W - VR	4p	→	E3S	4p
Masterpact M40H1	4000	W - HR	3p	→	E4S	3p
Masterpact M40H1	4000	W - HR	4p	→	E4S	4p/f
Masterpact M40H1	4000	W - VR	3p	→	E4S	3p
Masterpact M40H1	4000	W - VR	4p	→	E4S	4p/f
Masterpact M32H2	3200	W - HR	3p	→	E3V	3p
Masterpact M32H2	3200	W - HR	4p	→	E3V	4p
Masterpact M32H2	3200	W - VR	3p	→	E3V	3p
Masterpact M32H2	3200	W - VR	4p	→	E3V	4p
Masterpact M40H2	4000	W - HR	3p	→	E4H	3p
Masterpact M40H2	4000	W - HR	4p	→	E4H	4p/f
Masterpact M40H2	4000	W - VR	3p	→	E4H	3p
Masterpact M40H2	4000	W - VR	4p	→	E4H	4p/f
Masterpact M16	1600	F - HR	3p	→	E2N	3p
Masterpact M20	2000	F - HR	3p	→	E2N	3p



Panel dimension	E2-F [mm/in]	E3-W [mm/in]	E4-W [mm/in]
A (3p)	400/15.75	500/19.7	700/27.58
B (4p/f)	-	630/24.82	880/34.65
C	242/9.53	380/14.96	380/14.96
D	500/19.7	500/19.7	500/19.7

New Emax accessories available for the Masterpact M-New Emax retrofitting kits:

New Emax accessories available for the retrofitting kit:

Electrical accessories	Mechanical accessories
YO (shunt opening release)	Key lock in open position
YO2 (second shunt opening release)	Padlock in open position
YC (shunt closing release)	Key lock in racked in/test/out position
YU (undervoltage release)	Mechanical compartment door lock
D (electronical Delay for YU - into the switchboard)	Protection for sealable trip unit
M (motor for charging springs)	Mechanical operation counter
AUX Spring charged (S33M)	IP54 door protection
AUX Open/Closed auxiliary contacts	O/C pushbutton protection
AUX CB connected/test/insulated position	Mechanical Interlock (only with other New Emax CB)
Closing Spring charged signalling – S33	Modules
Electric TU reset	PR120/K signalling module
SOR Test Unit	PR120/V measuring module
Overcurrent release trip indication	PR120/D-M Modbus communication module
Contact for signalling undervoltage release de-energized	PR120/D-BT Bluetooth communication module

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