

Retrofitting kit Hard Bus Retrofill for Schneider Masterpact M with ABB SACE Emax 2 Air Circuit-breakers

With only few modification actions 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 in fixed and draw out version with the ABB latest family of circuit-breakers, SACE Emax 2.

ABB ensures operating continuity between Masterpact M Air circuit-breakers and the newest series of circuit-breakers SACE Emax 2.

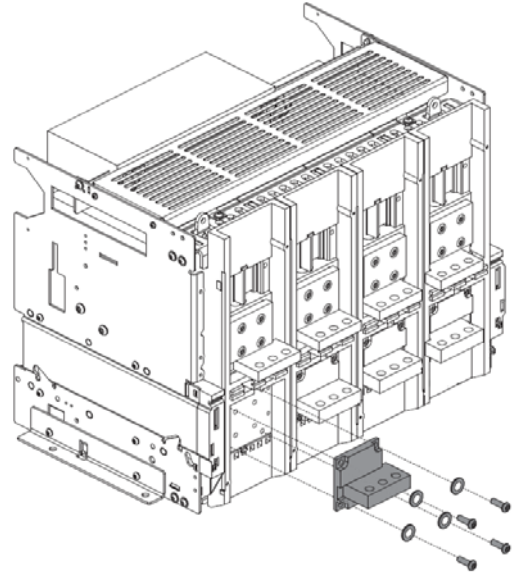
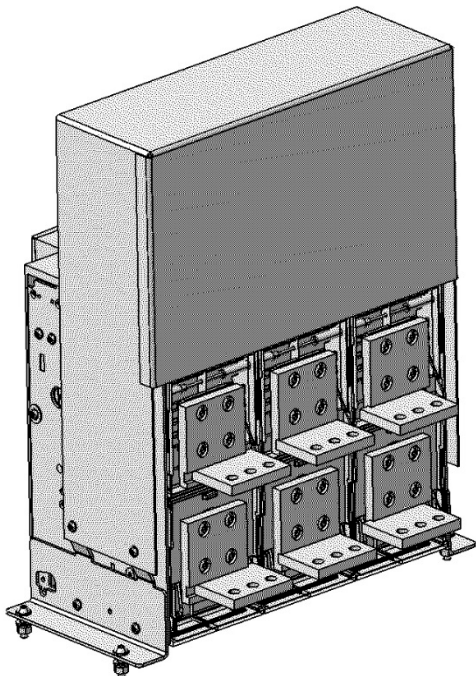
Replacement kits are designed to preserve existing switchgear performance specifications and reduce downtime to a minimum.

Special copper adapting kits can be mounted on SACE Emax 2 standard fixed part (with relevant moving portion) or fixed circuit breaker in order to replicate the copper bars connections of Schneider's breakers to the switchgear.

The result is a completely upgraded system with all the advantages of new technology offered by SACE Emax 2 circuit breakers.

Retrofitting kit consists of:

1. Dedicated plates for an easy installation of the circuit-breaker
2. Special SACE Emax 2 adapter busbars according to the size to be mounted on the fixed part for withdrawable or fixed breakers
3. Adhesive template and metal adapters for panel door cutout
4. Emax 2 fixed part (for withdrawable version).
5. Isolating protection to live parts of the switchgear (for fixed version).



BENEFITS

- Tested solution that allows service continuity
- Increased safety
- Easy installation
- Maintenance costs reduction
- Products and spare parts long availability
- Tested solution
- Wide range of mechanical and electrical accessories with Emax 2
- Power measurement with Emax 2 advanced trip units
- Programmed signal to remind to make maintenance
- Advanced communication modules with different protocols:
 - Modbus RS-485
 - Modbus TCP
 - Profibus
 - DeviceNet
 - EtherNet/IP
 - IEC61850
 - Bluetooth
- Diagnosis and installation with Ekip Connect Software
- Ekip PowerController to improve energy efficiency and saving
- All Emax 2 accessories are compatible with the retrofitting kit (mechanical interlock and ATS are available only with Emax 2 circuit-breakers).

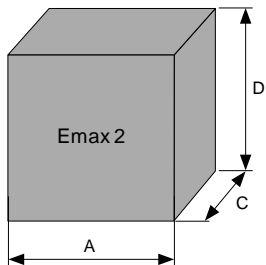
Here below the list of Hard bus Retrofill (RF) retrofitting kits for Masterpact M versus ABB Emax 2 circuit-breakers

(F=Fixed & W=Withdrawable).

Masterpact M F and W	Iu [A]	Poles	terminals	to	Emax 2
M08(N1-H1)	800	3p/4p	HR	→	E4.2N
M10(N1-H1)	1000				
M12(N1-H1)	1250				
M16(N1-H1)	1600				
M08(H2)	800	3p/4p	HR	→	E4.2H
M10(H2)	1000				
M12(H2)	1250				
M16(H2)	1600				
M08(H1)	800	3p/4p	VR	→	E4.2N
M10(H1)	1000				
M12(H1)	1250				
M16(H1)	1600				
M08(H2)	800	3p/4p	VR	→	E4.2H
M10(H2)	1000				
M12(H2)	1250				
M16(H2)	1600				
M20(N1)	2000	3p/4p	HR	→	E4.2N
M25(N1)	2500				
M20(H1)	2000				
M25(H1)	2500				
M20(H2)	2000	3p/4p	VR	→	E4.2H
M25(H2)	2500				
M20(N1)	2000				
M25(N1)	2500				
M20(H1)	2000	3p/4p	VR	→	E4.2H
M25(H1)	2500				
M20(H2)	2000				
M25(H2)	2500				

Recommendations:

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



Panel dimension	E4.2 [mm]	E6.2 [mm]
A (3p)	500	900
A (4p)	600	1000
A (4p/f)	-	1200
C	355	355
D	500	500

Masterpact M Withdrawable	Iu [A]	Poles	terminals	to	Emax 2	Derating In [A]
M32(H1)	2000	3p/4p	HR	→	E4.2H	
M32(H2)	2500		VR	→	E4.2H	
M32(H1)	2000	3p/4p	HR	→	E4.2H	3000
M32(H2)	3200		VR	→	E4.2H	
M40(H1)	4000	3p	HR	→	E4.2H	3450
M40(H2)	4000		VR	→	E4.2H	3900
M40(H1)	4000	3p	HR	→	E4.2H	3450
M40(H2)	4000		VR	→	E4.2H	3900
M50(H1)	5000	3p/4p	HR	→	E6.2H	
M50(H2)	5000		VR	→	E6.2H	
M50(H1)	5000	3p/4p	HR	→	E6.2V	
M50(H2)	5000		VR	→	E6.2V	
M63(H1)	6300	3p/4p	HR	→	E6.2H	5900
M63(H2)	6300		VR	→	E6.2H	
M63(H1)	6300	3p/4p	HR	→	E6.2H	
M63(H2)	6300		VR	→	E6.2H	
Masterpact M Fixed	Iu [A]	Poles	terminals	to	Emax 2	Derating In [A]
M32(H1)	3200	3p/4p	HR	→	E4.2H	
M32(H2)	3200		VR	→	E4.2H	
M40(H1)	4000	3p	HR	→	E4.2H	3700
M40(H2)	4000		VR	→	E4.2H	
M40(H1)	4000	3p	HR	→	E4.2H	3700
M40(H2)	4000		VR	→	E4.2H	
M50(H1)	5000	3p	HR	→	E6.2H	
M50(H2)	5000		VR	→	E6.2H	
M50(H1)	5000	3p	HR	→	E6.2V	
M50(H2)	5000		VR	→	E6.2V	

For further information contact:

A division of ABB S.p.A.
 L.V. Breakers
 ViaPescaria,5
 24123Bergamo - Italy
 Phone: +39 035 395.111
 Fax: +39 035 395.306-433
 www.abb.com

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