

Retrofitting kit Hard Bus Retrofill for Mitsubishi AE SS 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 Mitsubishi AE SS Air Circuit breaker with New Emax.

ABB ensures operating continuity between Mitsubishi AE SS air circuit breakers, **3 poles, 2000A, 1600A and 2500A**, equipped with **Vertical Rear Terminals**, and the recent series of circuit breakers New Emax.

Replacement kits are designed to preserve existing switchgear and reduce downtimes to a minimum.

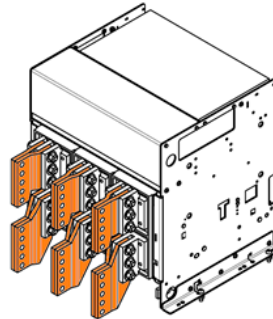
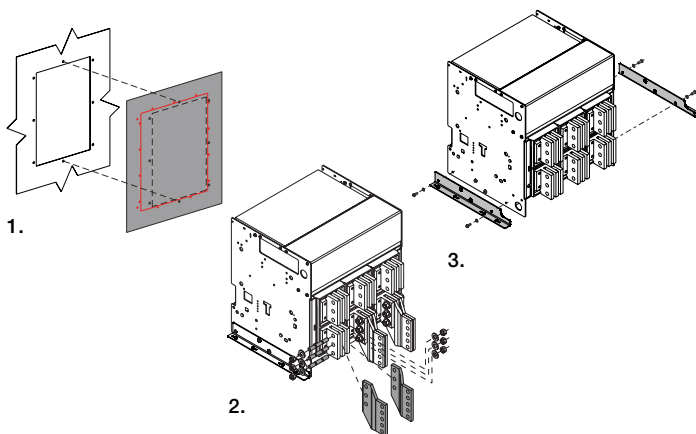
Special copper adapting kits are mounted on New Emax terminals in order to replicate the terminals of Mitsubishi breakers.

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. Special New Emax adapter busbars according to the size
3. Dedicated plates for fixed part to fix the circuit breaker in the same fixing point of Mitsubishi's one.



BENEFITS

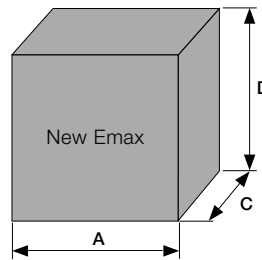
- Increased safety
- Service continuity
- Easy installation
- Maintenance costs reduction
- Products and spare parts availability
- Tested solution
- Wide range of mechanical and electrical accessories with New Emax
- Power measurement with advanced trip units (PR122 and PR123)
- Monitoring with PR120/K, 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.

It is required to order a dedicated New Emax Fixed Part (with retrofitting kit included in the package) + New Emax Moving Part.

Here below the list of Hard bus Retrofill (RF) retrofitting kits for kit Mitsubishi AE SS - ABB New Emax circuit breakers:

Mitsubishi circuit Breaker	Iu [A]	W terminals	Poles	vs	New Emax	Iu [A]	Poles
AE SS	1250	W - VR	3p	→	E2S	1250	3p
AE SS	2000	W - VR	3p	→	E3H	2000	3p
AE SS	2500	W - VR	3p	→	E3H	2500	3p

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



Retrofitting kit	E2 [mm/in]	E3 [mm/in]
A (3p)	400/15.75	500/19.7
C	380/15	380/15
D	500/19.7	500/19.7

Below the list of New Emax accessories available for the retrofitting kit Mitsubishi AE SS → New Emax:

New Emax accessories available for the Mitsubishi AE SS – New Emax 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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