



Retrofitting kit
New Emax Direct Replacement of Megamax and Novomax

Retrofitting kit Megamax/Novomax → New Emax Direct Replacement

With just very few modifications and sustainable costs, Retrofitting kits are the perfect solution for improving low voltage switchgear. The direct replacement retrofitting kit allows a very fast and reliable upgrade of the old Megamax Open Door and Novomax circuit breakers

In the field of low voltage circuit-breakers, ABB ensures operating continuity between the previous series of its apparatus and those currently in production, by making its replacement kits specially studied to preserve the existing switchgear and reduce downtimes to a minimum.

It is now possible to replace the old series of Megamax circuit breakers, F1 and F2, in Open Door withdrawable version and Novomax G2/LG with the the recent series of circuit New Emax by using the newly designed direct replacement retrofitting kit.

A special moving part is created starting from the new circuit breaker in fixed version with horizontal rear terminals and a dedicated conversion kit.

The result is a new New Emax moving part able to be inserted into the existing Megamax/Novomax fixed part.

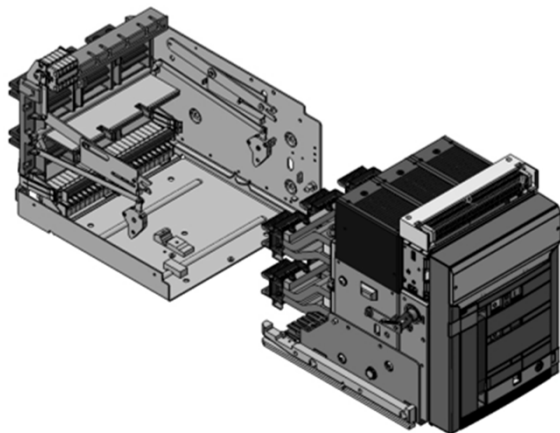
There is no need to manage any dismantling operation of the Megamax/Novomax circuit breaker fixed part: thanks to this special solution the downtime is reduced and limited to the single load.

Even the old circuit breaker's open door draw out mechanism is perfectly reproduced on the New Emax circuit breaker in order to keep the original system.



Benefits

- Increase safety
- Service continuity guaranteed
- Easy to install
- Reduce the cost of maintenance and spare parts
- Long availability of the product and its spare parts
- Conversion wiring already included
- Guarantee solution as tested
- The New Emax can be equipped with a wide range of accessories
- Accessories prewired according to the original trip unit (For Novomax: S1,T or S2, for Megamax: PR1/P, AR1)
- Advanced monitoring system
- Power measurement, monitoring and communication



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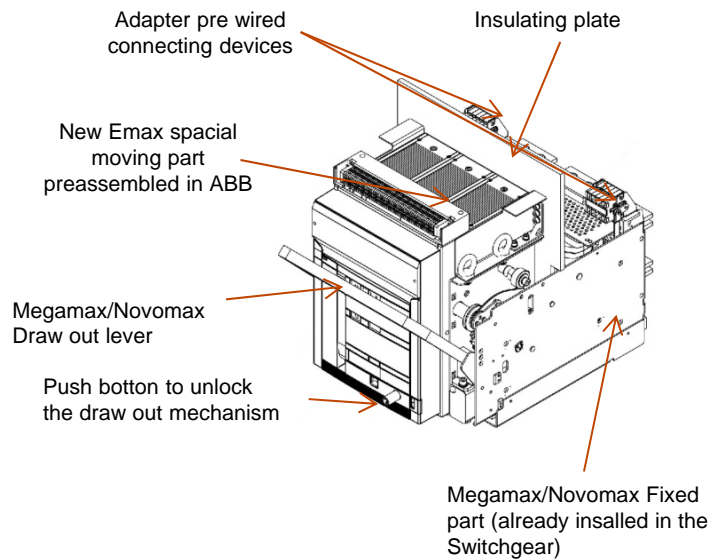
Direct Replacement is now available for Megamax F1 and F2 draw out version (W) Open Door and Novomax G2/LG.

Here below the table with the correspondence between Megamax/ Novomax and New Emax Direct Replacement:

Megamax- Novomax	Performance level	Iu	W	poles	to	New Emax	Performance level	Iu	In (Rating Plug)
F1	B	1250	OD	3/4p	-->	E2	B	1600	1250
F1	B	1600	OD	3/4p	-->	E2	B	1600	1600
F1	B	2000	OD	3/4p	-->	E2	B	2000	2000
F1	N	1250	OD	3/4p	-->	E2	N	1250	1250
F1	N	1600	OD	3/4p	-->	E2	N	1600	1600
F1	N	2000	OD	3/4p	-->	E2	N	2000	2000
F1	S	1250	OD	3/4p	-->	E2	N	1250	1250
F1	S	1600	OD	3/4p	-->	E2	N	1600	1600
F1	S	2000	OD	3/4p	-->	E2	N	2000	2000
F1	H	1250	OD	3/4p	-->	E2	S	1250	1250
F1	H	1600	OD	3/4p	-->	E2	S	1600	1600
F1	V	1250	OD	3/4p	-->	E2	L	1250	1250
F1	V	1600	OD	3/4p	-->	E2	L	1600	1600
F1	L	1250	OD	3/4p	-->	E2	L	1250	1250
F1	L	1600	OD	3/4p	-->	E2	L	1600	1600
F2	H	2000	OD	3/4p	-->	E2	S	2000	2000
G2		1250	OD	3/4p	-->	E2	N	1250	1250
G2		1600	OD	3/4p	-->	E2	N	1600	1600
G2		2000	OD	3/4p	-->	E2	N	2000	2000
LG		1250	OD	3/4p	-->	E2	L	1250	1250
LG		1600	OD	3/4p	-->	E2	L	1600	1600

The kit consists in:

- Special New Emax moving part
- Standard Megamax/Novomax sliding contacts (left and right) and dedicated wiring
- Draw out lever
- Door flange
- Coils support
- Mechanical signalling of circuit breaker tripped
- Anti-insertion locks
- Lifting golfare



Retrofitting kit Megamax/Novomax → New Emax Direct Replacement

Electrical and Mechanical accessories mounted in Megamax that can be replaced with the corresponding one of New Emax

Megamax	→	New Emax
YO (shunt opening release)	-->	New Emax standard YO
YC (shunt closing release)	-->	New Emax standard YC
YU (undervoltage release)	-->	New Emax standard YU
D (electronical Delay for YU - into the switchboard)	-->	Remove the Megamax version and add the one of New Emax
M (motor for charging spings)	-->	New Emax standard Spring charge motor
AUX Spring charged (S33M)	-->	New Emax standard
AUX CB tripped - S51	-->	New Emax standard changeover contacts
AUX CB connected/ insulated position - S75S-S75I	-->	Already included in the sliding contacts (standard supply)
AUX YU (YU energized)	-->	New Emax standard
Electric TU reset	-->	Not available
PR1/A (Ammeter module)	-->	Only with PR122/3
PR1/C (Control module)	-->	No more available
PR1/D (Insum dialog module)	-->	No more available
Q1...Q25 (Open/Close AUX contacts)	-->	Use same of Megamax on Fixed Part
SD devices	-->	No more available
TV 051 (voltage transformer)	-->	No more available. Use internal PR120/V module
Megamax Shutter padlock device	-->	Use the one of Megamax
Current sensor for neutral conductor outside circuit-breaker (into the switchboard)	-->	Remove the Megamax version and add the one of New Emax standard
Key lock in open position	-->	New Emax standard
Padlock in open position	-->	New Emax standard
Mechanical operation counter	-->	New Emax standard
IP54 door protection	-->	New Emax standard
Transparent protective cover for O/C pushbuttons	-->	New Emax standard
SOR Test Unit	-->	New Emax standard

The following New Emax accessories are not compatible with New Emax Direct replacement kit:

- Internal and external O/C AUX
- Remote reset command for tripped indication
- ATS
- Homopolar toroid
- Lock in/test/out position
- Mechanical lock for compartment door
- Mechanical interlock
- New Emax Lift Device
- all accessories for New Emax fixed part
- PR120/K
- PR120D-M
- EP010
- HMI030
- RRD

Retrofitting kit Megamax/Novomax → New Emax Direct Replacement

Electrical and Mechanical accessories mounted in Novomax that can be replaced with the corresponding one of New Emax

Novomax	→	New Emax
YO (shunt opening release)	-->	New Emax standard YO
YC (shunt closing release)	-->	New Emax standard YC
YU (undervoltage release)	-->	New Emax standard YU
D (pneumatic Delay for YU)	-->	Add the one of New Emax standard to be cabled into the Switchgear
M (motor for charging springs)	-->	New Emax standard Spring charge motor
AUX Spring charged (33M2)	-->	New Emax standard
AUX CB tripped - Sr	-->	New Emax standard changeover contacts
AUX CB connected/ insulated position - 75S-75I	-->	Already included in the sliding contacts (standard supply)
Electric TU reset	-->	Not available
Q1...Q25 (Open/Close AUX contacts)	-->	Use same of Novomax on Fixed Part
Novomax Shutter padlock device	-->	Use the one of Novomax
Current sensor for neutral conductor outside circuit-breaker (into the switchboard)	-->	Remove the Novomax version and add the one of New Emax standard
Key lock in open position	-->	New Emax standard
Padlock in open position	-->	New Emax standard
Mechanical operation counter	-->	New Emax standard
IP54 door protection	-->	New Emax standard
Transparent protective cover for O/C pushbuttons	-->	New Emax standard
SOR Test Unit	-->	New Emax standard to be cabled into the Switchgear

The following New Emax accessories are not compatible with New Emax Direct replacement kit:

- Internal and external O/C AUX
- Remote reset command for tripped indication
- ATS
- Homopolar toroid
- Lock in/test/out position
- Mechanical lock for compartment door
- Mechanical interlock
- New Emax Lift Device
- all accessories for New Emax fixed part
- PR120/K
- PR120D-M
- EP010
- HMI030
- RRD

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