

Controls

Manual Motor Protectors - MPW Series



Outstanding Design

WEG Manual Motor Protectors are the state-of-the-art products available for worldwide market. With the latest technology and design, you'll find how easy is to save panel space and to face almost any application in motor control. Built in a very compact frame size, WEG's Manual Motor Protectors combine, added information short-circuit and motor overload protections in just one component.

These devices include a three-position rotary ON-TRIP-OFF handle, which can be padlocked in the OFF position.

WEG Manual Motor Protectors are designed for DIN rail mounting, while lugs for direct panel mounting are also available as an accessory.

Even Better Performance

Motor protectors include some of the same features you can find in WEG's RW bimetal overload relays, such as Class 10 protection, ambient temperature compensation and phase failure sensitivity, which give you all the protection your motors need. For short circuit protection, the magnetic device trips at 13 times the maximum FLA of the component.

When using WEG's contactors connected with the MPW series, you can provide a remote control either using pushbuttons or any other remote control device. Manual Motor Protectors can handle a wide range of applications, not only three phase motor control but single phase and DC motors as well.

A product for the world

Motor protectors are designed for use according to international standards, making them suitable for applications all over the world. Because of the multiple approvals WEG's Manual Motor Protectors can be used for many different applications. IEC standards recognize MPW series as a Circuit Breaker. According to this, different functions are available:

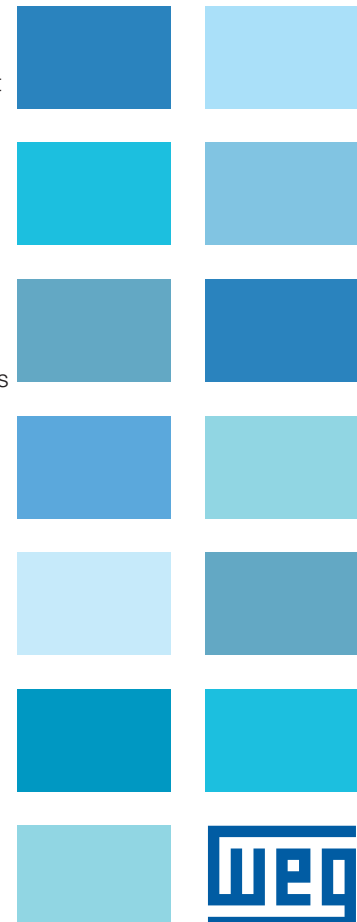
- Motor Circuit Protection
- Manual Disconnect
- Main Switch
- Emergency Disconnect

So, if you export your motor control panels outside the U.S. and Canada, the MPW series are your right choice. Also, UL508 has MPW series listed as Motor Controller, allowing them to be used in several different configurations:

- Manual Motor Starter,
- Combination Starter,
- Group Motor Installations,
- Motor Disconnect Applications

So, if you use your motor control panels inside the U.S. and Canada, the MPW series are still your right choice.

Certifications

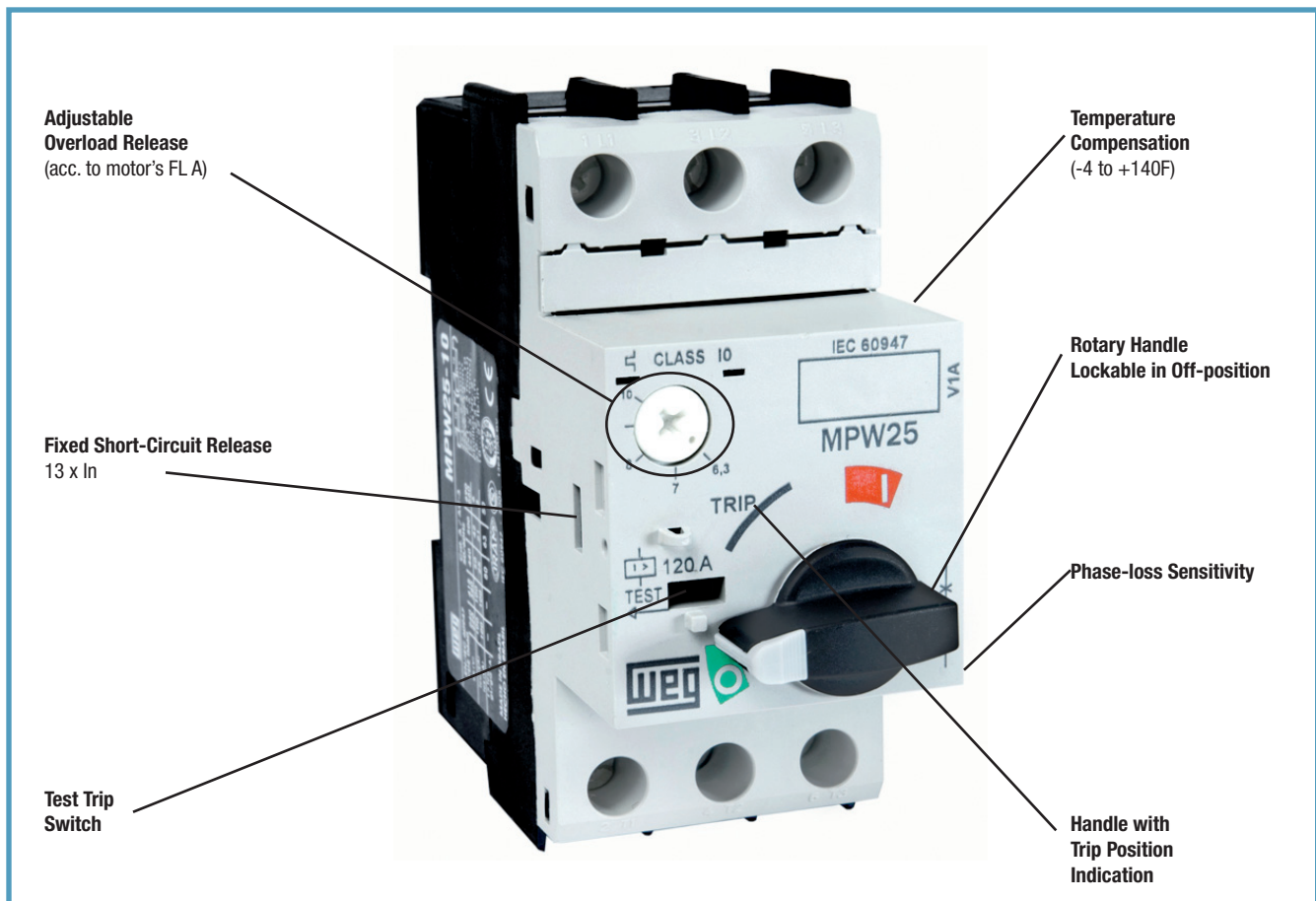


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Standard Features

- High short-circuit interrupting rating – up to 50kA @ 480V
- Current limiting short-circuit protection
- Thermal overload protection Class 10
- Phase loss sensitivity protection
- Ambient temperature compensation -4°F +140°F (-20°C +60°C)
- Lockable rotary handle mechanism for disconnect
- Visual indication of ON-TRIP-OFF status
- 35mm DIN-rail mounting
- Snap-in accessories
- Finger safe protected terminals
- Rated for DC applications
- Test trip feature
- Coordination type 2 per IEC60947-4-1 and UL508E, with WEG's CWM contactors
- Manual Motor Starters
- Group motor installations (per NEC Article 430)
- Multi-motor starter applications
- Suitable for motor disconnect applications
- UL Type-E self protected combination starter



WEG's Self Protected Combination Type-E Motor Controller with Unmatched Features and Benefits

Combination starters are the most common type of packaged motor controllers. They are called combination because of their construction and combined functions required by the US National Electric Code (NEC): Motor Disconnect, Motor Branch Circuit Protection, Motor Controller and Motor Overload Protection. UL1 currently recognizes six different types of combination starters that meet the requirements of a motor branch circuit.

Constructions Types A through D are traditional starters that use either a listed disconnect switch and fuses or a listed circuit breakers as the disconnect means and for short circuit protection. Each type uses a separate UL 508 listed motor controller and overload relay. Recently revisions on UL508 introduced the Type E and Type F starters.

UL Combination Starter Type	Device Used for Component Function			
	Disconnected	Branch Circuit Protection	Motor Controller	Motor OL Relay
A	UL 98 Manual Disconnect	UL 248 Fuses	UL 508 Magnetic or Solid State Controller	UL 508 Motor Overload Relay
B		UL 508 Motor Short Circuit Protector		
C	UL 489 Inverse Time Circuit Breaker			
D	UL 489 Instantaneous Trip Circuit Breaker			
E	UL 508 Self-protected Combination Controller			
F	UL 508 Manual Self-protected Combination Controller	UL 508 Magnetic or Solid State Controller	UL 508 Manual Self-Protected Combination Controller	

Type E starter is a self-protected combination motor controller that combines in a single device all the required functions of a combination starter and eliminates any additional requirements for upstream fuses or circuit breakers. These starters clear faults within their rating without sustaining damage to themselves or the rest of the system, being able to get back into operation. There are two arrangements for a Type E starter: manual (as stand-alone) and associated with a contactor. Both are submitted to the same tests sequences.

Type F starter consists of a listed manual Type E combined with a UL508 listed contactor. The difference between the two types is related to the absence of self-protected characteristic; hence, Type F has softened tests sequences allowing damages on the contactor after a fault.

Tests performed in order to fulfill the Type E requirements are considered the hardest in UL508, including short-circuit and endurance tests on the same sample. As a comparison, UL Type E exceeds the requirements for Type F and IEC60947-4-1 Coordination type 2.

WEG's self-protected combination Type E combines all of these functions within a single product for a manual operation or within a set of two products (with a listed contactor) for a remote operation. Both options must be associated with the accessories Line Side Terminal (LST25) and Tripping Signaling Block (TSB-22) to accomplish UL508/UL489 requirements for spacing (clearance and creepage) and short-circuit indication.

They are recommended for a wide range of applications where full voltage combination starters are required. Some examples are: Pumps, Industrial Washing Machines, Compressors, Blowers, Cutting Machines, Conveyors, Lumber Processing and many others.

The Manual Type E Starter is a stand-alone product – MPW series – that ranges from fractional up to 75Hp@460V motors (0.16 to 100A) with up to 100KA@480V and 50KA@600V interrupting short-circuit capability. Together with some accessories that complete this product line, the MPW series are a compact and reliable solution for starting and protecting motors.

WEG also offers an option for a remote Type E & F Starter, combining the MPW series (as a manual type E) together with a contactor from CWM Series. As this version undergoes the same tests, it has the same horse power ratings and short-circuit capabilities as the manual Type E. However, it provides remote operation and controlling of the application through the contactor's coil.

In addition to its popular line of UL enclosed starters, WEG is also providing a NEMA 4X (IP65) enclosed Type E & F Starter – ESWE & ESWF – featuring as standard a handle for disconnect means through the door and a contactor for remote operation. Provisions for control circuit transformer installation as well as pilot lights are also included.

