

Manual Motor Protectors

MPW Series

Operation and Protection of Motors up to 100A

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, motor control, disconnect means short-circuit and motor overload protections in just one component.

These devices include pushbutton operators or 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

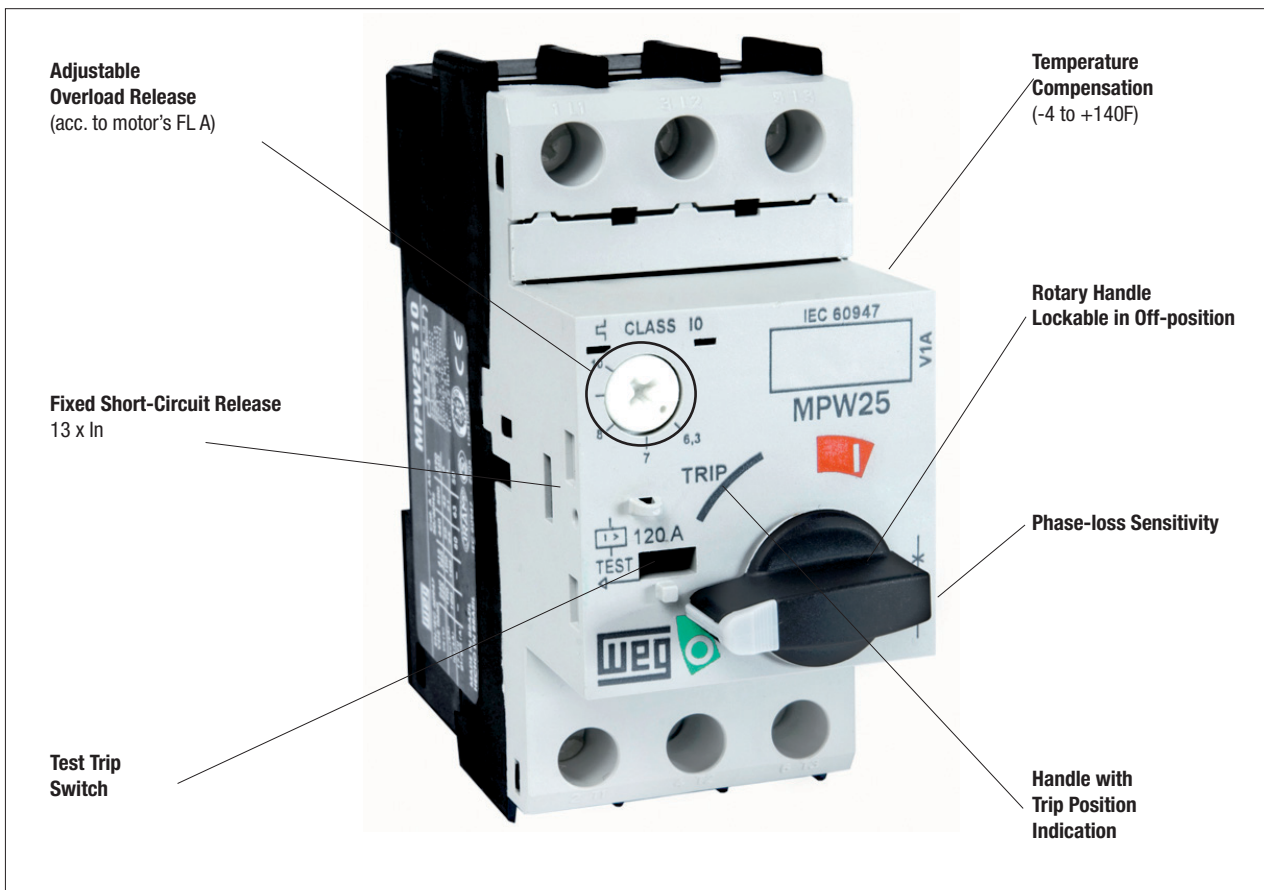


Controls

Manual Motor Protectors - MPW Series

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.

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.

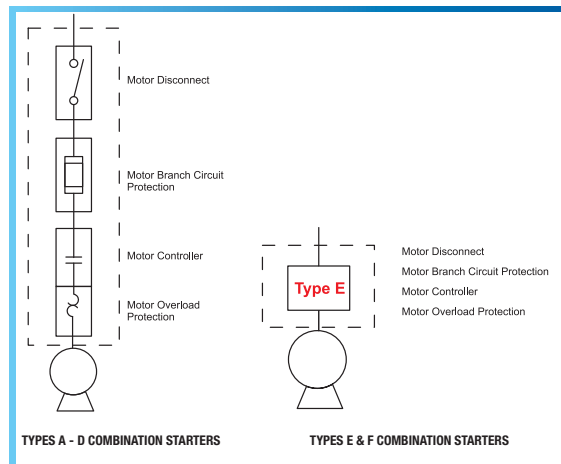
UL Combination Starter Type	Device Used for Component Function			
	Disconnected	Branch Circuit Protection	Motor Controller	Motor OL Relay
A		UL 248 Fuses	UL 508 Magnetic or Solid State Controller	UL 508 Motor Overload Relay
B	UL 98 Manual Disconnect	UL 508 Motor Short Circuit Protector		
C	UL 489 Inverse 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



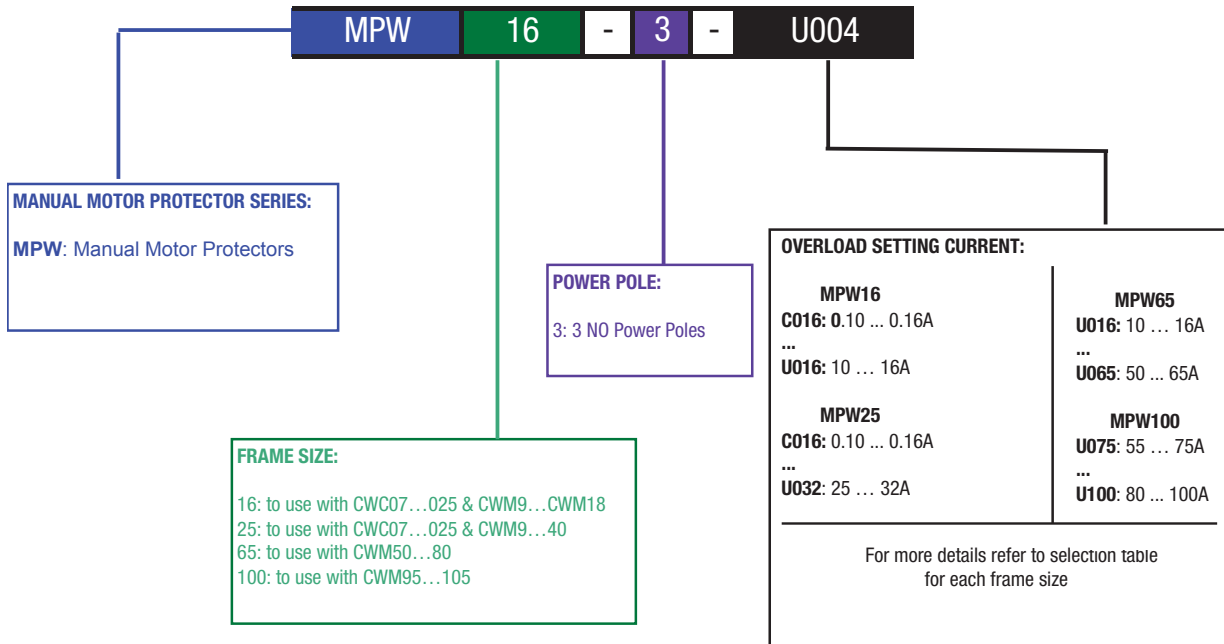
MPW SERIES



Controls

Manual Motor Protectors - MPW Series

Catalog part number composition



MPW SERIES

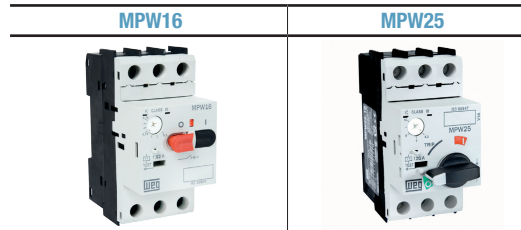


Controls

Manual Motor Protectors - Overview

All functions in just one component:

- Disconnect means
- Short circuit protection
- Motor control
- Overload protection



General Technical Data		MPW16	MPW25
		Maximum Rated Current I_{max} (I_u)	16A
Maximum Horsepower rating at 460Vac 60Hz	10Hp	20Hp	
Number of poles	3	3	
Short-Circuit release	13 x I _u max	13 x I _u max	
Rated Operational Voltage U_e	600V	600V	
Rated Frequency	50/60Hz	50/60Hz	
Tripping Test	Yes	Yes	
Overload Protection	Yes	Yes	
Phase failure sensitivity	Yes	Yes	
Tripping Indication	Yes	Yes	
Tripping Class	10	10	
Mechanical life	Number of operations	100,000	100,000
Electrical life	Number of operations	100,000	100,000
Temperature compensation		-4...+140°F	-4...+140°F
Type of protection		Thermomagnetic	Thermomagnetic
Overload setting 		Catalog number	Catalog number
I_r(A)			
0.1...0.16		MPW16-3-C016	MPW25-3-C016
0.16...0.25		MPW16-3-C025	MPW25-3-C025
0.25...0.4		MPW16-3-D004	MPW25-3-D004
0.4...0.63		MPW16-3-C063	MPW25-3-C063
0.63...1		MPW16-3-U001	MPW25-3-U001
1...1.6		MPW16-3-D016	MPW25-3-D016
1.6...2.5		MPW16-3-D025	MPW25-3-D025
2.5...4		MPW16-3-U004	MPW25-3-U004
4...6.3		MPW16-3-D063	MPW25-3-D063
6.3...10		MPW16-3-U010	MPW25-3-U010
10...16		MPW16-3-U016	MPW25-3-U016
16...20			MPW25-3-U020
20...25			MPW25-3-U025
25...32			MPW25-3-U032
32...40			
40...50			
50...65			
55...75			
70...90			
80...100			






Controls

Manual Motor Protectors - Overview

Designed for DIN rail mounting, lugs for direct panel mounting are also available as accessory.

MPW Manual Motor Protectors are available in four models: MPW16/MPW25 (45mm), MPW65 (54mm) and MPW100 (70mm) and designed for use according to international standards, making them suitable for applications all over the world.

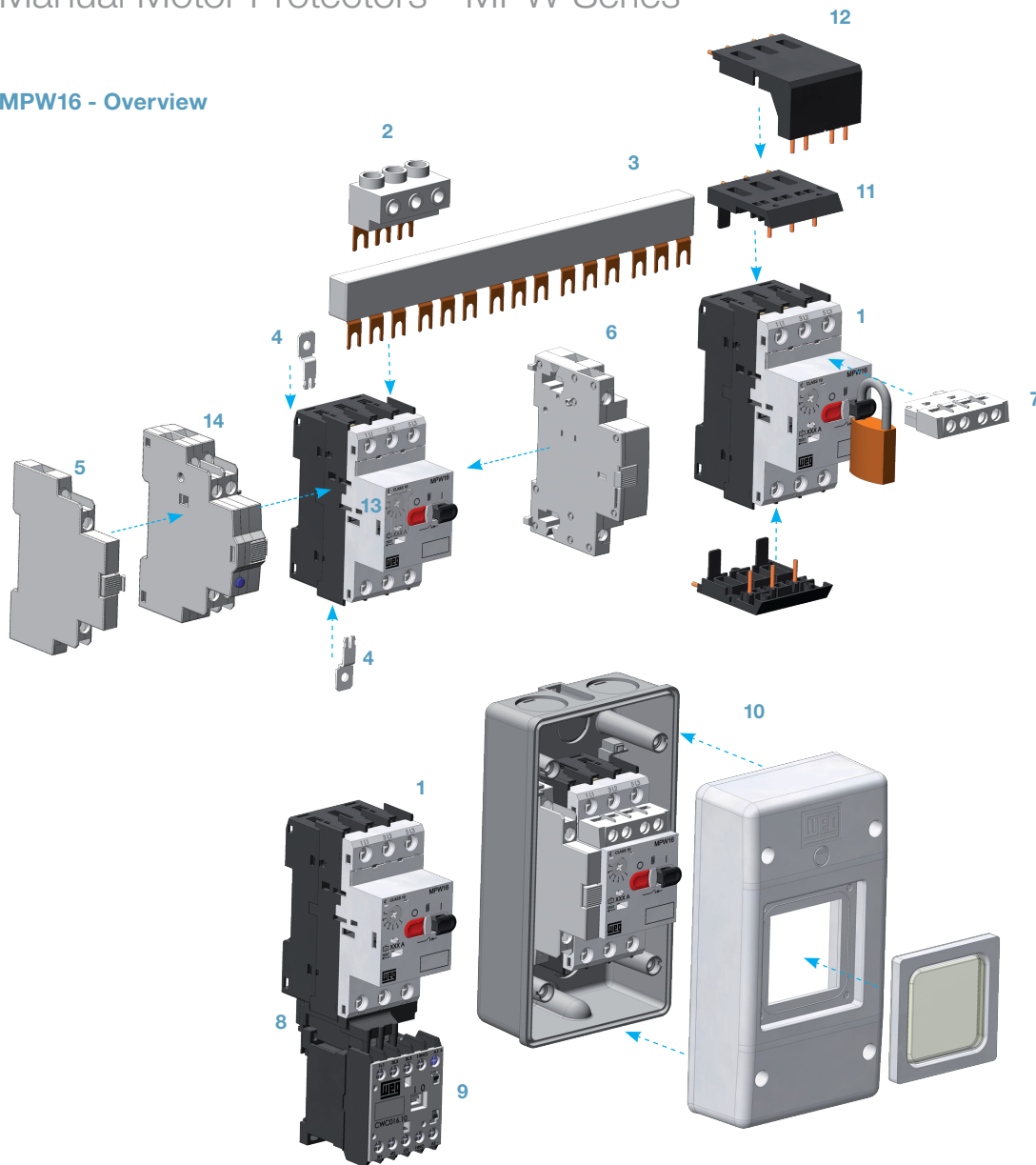
		MPW65	MPW100	
				
General Technical Data	Maximum Rated Current $I_{max}(I_p)$	65A	100A	
	Maximum Horsepower rating at 460Vac 60Hz	50Hp	75Hp	
	Number of poles	3	3	
	Short-Circuit release	$13 \times I_p \text{ max}$	$13 \times I_p \text{ max}$	
	Rated Operational Voltage U_e	600V	600V	
	Rated Frequency	50/60Hz	50/60Hz	
	Tripping Test	Yes	Yes	
	Overload Protection	Yes	Yes	
	Phase failure sensitivity	Yes	Yes	
	Tripping Indication	Yes	Yes	
	Tripping Class	10	10	
	Mechanical life	Number of operations	50,000	50,000
	Electrical life	Number of operations	25,000	25,000
	Temperature compensation		-4...+140°F	-4...+140°F
Type of protection		Thermomagnetic	Thermomagnetic	
Overload Fitting  $I_r(A)$		Catalog Number	Catalog Number	
	0.1...0.16			
	0.16...0.25			
	0.25...0.4			
	0.4...0.63			
	0.63...1			
	1...1.6			
	1.6...2.5			
	2.5...4			
	4...6.3			
	6.3...10			
	10...16	MPW65-3-U016		
	16...20	MPW65-3-U020		
	20...25	MPW65-3-U025		
	25...32	MPW65-3-U032		
	32...40	MPW65-3-U040		
	40...50	MPW65-3-U050		
	50...65	MPW65-3-U065		
	55...75		MPW100-3-U075	
	70...90		MPW100-3-U090	
	80...100		MPW100-3-U100	



Controls

Manual Motor Protectors - MPW Series

MPW16 - Overview



- 1. **MPW16** Manual Motor Protector - MPW16 Series
- 2. **FTBBS** Three Phase Line Side Feeder Terminal
- 3. **BBS** Three Phase Busbars
- 4. **PLMP** Push-in Lugs for panel mounting
- 5. **ACBS** Auxiliary Contact Block Side-Mounting
- 6. **URMP/SRMP** Undervoltage Release / Shunt Release
- 7. **ACBF** Auxiliary Contact Block Front-Mounting
- 8. **ECCMP-C016** Connection Link (MPW16 to + CWC07...16)
- 9. **CWC** 07, 09, 012, 016, Miniature Contactors
- 10. **PE66GN** IP66 Non Metallic Insulated Enclosure
- 11. Printed Circuit Board Connector for Power Terminals
- 12. Printed Circuit Board Connector front Auxiliary Contact Block
- 13. **SCMP** Scale Cover



Controls

Manual Motor Protectors - MPW Series

MPW16 - Product Selection

- Suitable for manual motor controller and group installation
- Built-in protection: disconnect means, short circuit protection, motor control and overload protection
- Short circuit interrupting capacity up to 50kA@480Vac (10kA@600Vac)
- Fixed short circuit release $13 \times I_u$
- Phase loss sensitivity
- Ambient temperature compensation -40...+140°F (-20...+60°C)



Maximum UL Horsepower						Thermal Setting	Short-Circuit interruption capacity		Catalog Number	List Price	Multiplier Symbol
Single Phase		Three Phase					[A]	480V			
115V	230V	200V	230V	460V	575V						
-	-	-	-	-	-	0.10 - 0.16	50kA	10kA	MPW16-3-C016	\$97	Z4
-	-	-	-	-	-	0.16 - 0.25	50kA	10kA	MPW16-3-C025	\$97	Z4
-	-	-	-	-	-	0.25 - 0.40	50kA	10kA	MPW16-3-D004	\$97	Z4
-	-	-	-	-	-	0.40 - 0.63	50kA	10kA	MPW16-3-C063	\$105	Z4
-	-	-	-	-	1/2	0.63 - 1.0	50kA	10kA	MPW16-3-U001	\$105	Z4
-	1/10	-	-	3/4	3/4	1.0 - 1.6	50kA	10kA	MPW16-3-D016	\$105	Z4
-	1/6	1/2	1/2	1	1 1/2	1.6 - 2.5	50kA	10kA	MPW16-3-D025	\$105	Z4
1/8	1/3	3/4	3/4	2	3	2.5 - 4.0	50kA	10kA	MPW16-3-U004	\$105	Z4
1/4	1/2	1	1 1/2	3	5	4.0 - 6.3	50kA	10kA	MPW16-3-D063	\$105	Z4
1/2	1 1/2	2	3	5	7 1/2	6.3 - 10	50kA	5kA	MPW16-3-U010	\$105	Z4
1	2	3	5	10	10	10 - 16	30kA	5kA	MPW16-3-U016	\$105	Z4

Note: Horsepower ratings shown in the table are for reference only. Please refer to the Full Load Amps of the Motor for final selection.



Controls

Manual Motor Protectors - MPW Series

Accessories for MPW16 - Summary

Description	Catalog Number	List Price	Multiplier Symbol
Auxiliary Contact Blocks			
1NO&1NC auxiliary contact block front mounting - 250Vmax.	ACBF-11	\$20	Z4
1NO&1NC auxiliary contact block left side mounting - 600Vmax.	ACBS-11	\$22	Z4
2NO Auxiliary contact block left side mounting - 600Vmax.	ACBS-20	\$22	Z4
2NC Auxiliary contact block left side mounting - 600Vmax.	ACBS-02	\$22	Z4
Link Modules			
Mechanical and electrical link module for CWC07 to CWC016 miniature contactor series	ECCMP-C016	\$20	Z4
Mechanical and electrical link module for CWC025 miniature contactor series	ECCMP-C025	\$20	Z4
Accessories for Group Motor Installation ¹			
Three Phase Line Side Feeder Terminal	FTBBS	\$35	Z4
Bus bar system 45mm (for 2 MPW without side mounting auxiliary contacts)	BBS45-2	\$32	Z4
Bus bar system 45mm (for 3 MPW without side mounting auxiliary contacts)	BBS45-3	\$35	Z4
Bus bar system 45mm (for 4 MPW without side mounting auxiliary contacts)	BBS45-4	\$45	Z4
Bus bar system 45mm (for 5 MPW without side mounting auxiliary contacts)	BBS45-5	\$60	Z4
Bus bar system 54mm (for 2 MPW with side mounting auxiliary contacts)	BBS54-2	\$32	Z4
Bus bar system 54mm (for 3 MPW with side mounting auxiliary contacts)	BBS54-3	\$35	Z4
Bus bar system 54mm (for 4 MPW with side mounting auxiliary contacts)	BBS54-4	\$45	Z4
Bus bar system 54mm (for 5 MPW with side mounting auxiliary contacts)	BBS54-5	\$60	Z4
Shroud for unused terminals of BBS bars	CSD	\$10	Z4
Under Voltage and Shunt Block Releases			
Shunt release block right side mounting - 20-24V 50/60Hz	SRMP D51	\$56	Z4
Shunt release block right side mounting - 100-127V 50/60Hz	SRMP D59	\$56	Z4
Shunt release block right side mounting - 200-240V 50/60Hz	SRMP D65	\$56	Z4
Under voltage release block right side mounting - 24V 60Hz	URMP V05	\$56	Z4
Under voltage release block right side mounting - 120V 60Hz	URMP V18	\$56	Z4
Under voltage release block right side mounting - 208V 60Hz	URMP V23	\$56	Z4
Under voltage release block right side mounting - 240V 60Hz	URMP V30	\$56	Z4
Under voltage release block right side mounting - 480V 60Hz	URMP V47	\$56	Z4
IEC Enclosures			
IEC IP66 enclosure (non-UL)	PE66GN	\$45	Z4
Other Accessories			
Scale cover protection for the current range adjustment - package with 5 units	SCMP	\$5	Z4
Lugs for panel mounting - package with 2 pieces (one MPW mounting)	PLMP	\$0.50	Z4

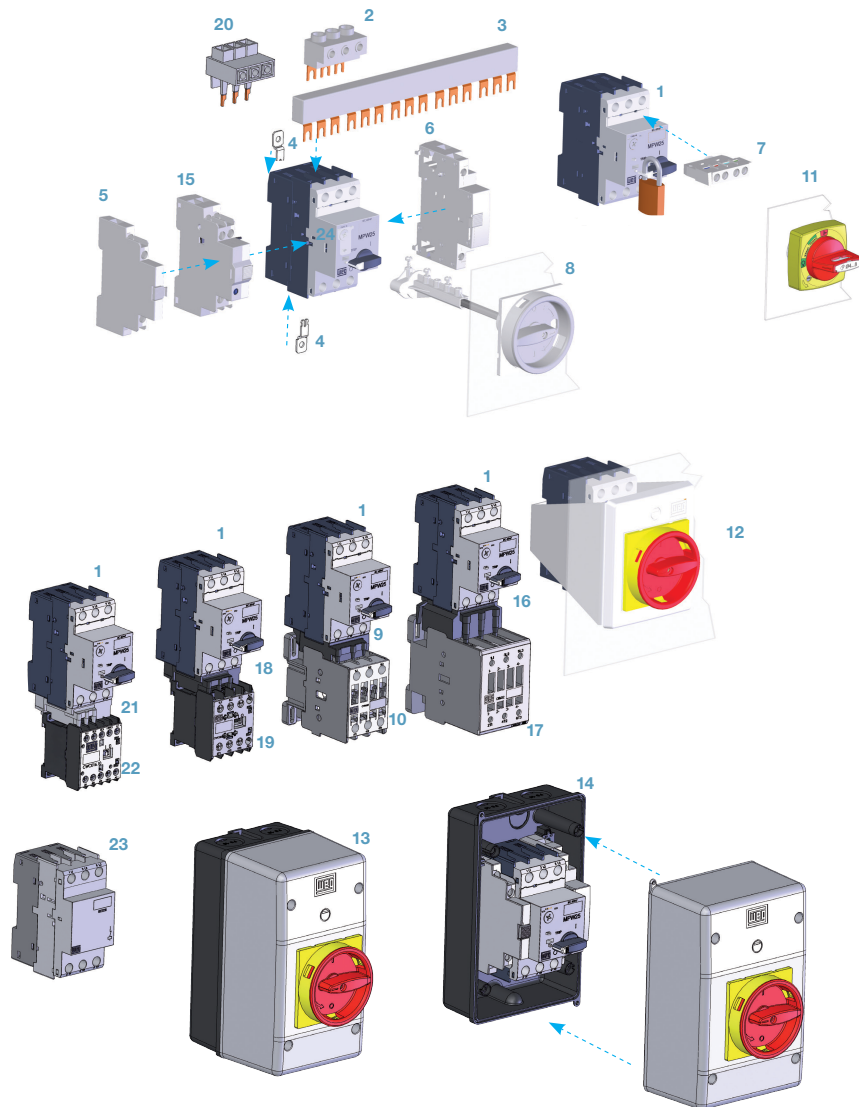
Note: ¹ Maximum Amps of each Bus bar system (BBS) must not be exceeded by adding multiple MPW. Bus bar capacity is 63Amps.



Controls

Manual Motor Protectors - MPW Series

MPW25



- | | | | |
|---------------------|--|-----------------------|--|
| 1. MPW25 | Manual motor protector – MPW25 Series | 14. LPE55GN | IP55 Non Metallic enclosure for MPW25 (wide) |
| 2. FTBBS | Three-phase line side feeder terminal | 15. TSB-22 | Trip signaling block for Type E/F construction |
| 3. BBS | Three-phase busbars | 16. ECCMP-32 | Connector link (MPW25 + CWM32...40) |
| 4. PLMP | Push-in-lugs for panel mounting | 17. CWM | 32, 40 Contactors |
| 5. ACBS | Auxiliary contact block side mounting | 18. ECCMP-C025 | Connector link (MPW25 + CWC025) |
| 6. URMP/SRMP | Undervoltage release / Shunt release | 19. CWC025 | Miniature contactor |
| 7. ACBF | Auxiliary contact block front mounting | 20. LST25 | Line side terminal for Type E/F construction |
| 8. RMMP | NEMA 1 through-the-door interlocked handle | 21. ECCMP-CO | Connector link (MPW25 + CWC07...16) |
| 9. ECCMP-25 | Connector link (MPW25 + CWM9...25) | 22. CWC | 07, 09, 012, 016 Miniature contactors |
| 10. CWM | 9, 12, 18, 25 Contactors | 23. CLT25 | Current limiter |
| 11. MRX | NEMA 4 through-the-door interlocked handle | 24. SCMP | Scale cover |
| 12. FME55 | Front plate panel mounting (non-UL) | | |
| 13. PE55GN | IP55 Non Metallic enclosure for MPW25 (standard) | | |



Controls

Manual Motor Protectors - MPW Series

MPW25 - Product Selection

- Suitable for manual motor controller, group installation, tap conductor and combination starters* type E & type F
- Built-in protection: disconnect means, short-circuit protection, motor control and overload protection
- Short-circuit interrupting capacity up to 50kA@480Vac (25kA@600Vac)
- Fixed short-circuit release 13 x Iu
- Phase loss sensitivity
- Ambient temperature compensation -4...+140°F (-20...+60°C)



Maximum UL Horsepower						Thermal Setting [A]	Short-Circuit Ratings for Group Installation		Catalog Number	List Price	Multiplier Symbol
Single Phase		Three Phase					480V	600V			
115V	230V	200V	230V	460V	575V						
-	-	-	-	-	-	0.10 - 0.16	50kA	25kA	MPW25-3-C016	\$116	Z4
-	-	-	-	-	-	0.16 - 0.25	50kA	25kA	MPW25-3-C025	\$116	Z4
-	-	-	-	-	-	0.25 - 0.40	50kA	25kA	MPW25-3-D004	\$116	Z4
-	-	-	-	-	1/4	0.40 - 0.63	50kA	25kA	MPW25-3-C063	\$137	Z4
-	-	-	-	1/2	1/2	0.63 - 1.0	50kA	25kA	MPW25-3-U001	\$137	Z4
-	1/10	1/4	1/3	3/4	1	1.0 - 1.6	50kA	25kA	MPW25-3-D016	\$137	Z4
-	1/6	1/2	1/2	1 1/2	1 1/2	1.6 - 2.5	50kA	25kA	MPW25-3-D025	\$137	Z4
1/8	1/3	3/4	1	2	3	2.5 - 4.0	50kA	25kA	MPW25-3-U004	\$137	Z4
1/4	3/4	1 1/2	1 1/2	3	5	4.0 - 6.3	50kA	25kA	MPW25-3-D063	\$137	Z4
1/2	1 1/2	3	3	5	7 1/2	6.3 - 10	50kA	25kA	MPW25-3-U010	\$137	Z4
1	3	5	5	10	15	10 - 16	50kA	25kA	MPW25-3-U016	\$150	Z4
1 1/2	3	5	7 1/2	15	15	16 - 20	50kA	25kA	MPW25-3-U020	\$150	Z4
2	3	7 1/2	7 1/2	15	20	20 - 25	50kA	25kA	MPW25-3-U025	\$150	Z4
-	5	10	10	20	25	25 - 32	42kA	25kA	MPW25-3-U032	\$190	Z4

Note: Horsepower ratings shown in the table are for reference only. Please refer to the Full Load Amps of the Motor for final selection.

*When associated with line side terminal LST25 and trip indicator TSB-22

MPW SERIES



Controls

Manual Motor Protectors - MPW Series

MPW25 with current Limiter - Product Selection

- Suitable for manual motor controller, group installation, tap conductor and combination starters* type E & type F
- Built-in protection: disconnect means, short-circuit protection, motor control and overload protection
- Short-circuit interrupting capacity up to 100kA@480Vac (50kA@600Vac)
- Fixed short-circuit release 13 x I_n
- Phase loss sensitivity
- Ambient temperature compensation -4...+140°F (-20...+60°C)



Maximum UL Horsepower						Thermal Setting [A]	Short-Circuit interruption capacity		Individual Component Catalog Number ¹				Multiplier Symbol
Single Phase		Three Phase							Catalog Number	List Price	Catalog Number	List Price	
115V	230V	200V	230V	460V	575V	[A]	480V	600V	Catalog Number	List Price	Catalog Number	List Price	Multiplier Symbol
-	-	-	-	-	-	0.10 - 0.16	100kA	50kA	MPW25-3-C016	\$116	CLT25	\$100	Z4
-	-	-	-	-	-	0.16 - 0.25	100kA	50kA	MPW25-3-C025	\$116	CLT25	\$100	Z4
-	-	-	-	-	-	0.25 - 0.40	100kA	50kA	MPW25-3-D004	\$116	CLT25	\$100	Z4
-	-	-	-	-	1/4	0.40 - 0.63	100kA	50kA	MPW25-3-C063	\$137	CLT25	\$100	Z4
-	-	-	-	1/2	1/2	0.63 - 1.0	100kA	50kA	MPW25-3-U001	\$137	CLT25	\$100	Z4
-	1/10	1/4	1/3	3/4	1	1.0 - 1.6	100kA	50kA	MPW25-3-D016	\$137	CLT25	\$100	Z4
-	1/6	1/2	1/2	1 1/2	1 1/2	1.6 - 2.5	100kA	50kA	MPW25-3-D025	\$137	CLT25	\$100	Z4
1/8	1/3	3/4	1	2	3	2.5 - 4.0	100kA	50kA	MPW25-3-U004	\$137	CLT25	\$100	Z4
1/4	3/4	1 1/2	1 1/2	3	5	4.0 - 6.3	100kA	50kA	MPW25-3-D063	\$137	CLT25	\$100	Z4
1/2	1 1/2	3	3	5	7 1/2	6.3 - 10	100kA	50kA	MPW25-3-U010	\$137	CLT25	\$100	Z4
1	3	5	5	10	15	10 - 16	100kA	50kA	MPW25-3-U016	\$150	CLT25	\$100	Z4
1 1/2	3	5	7 1/2	15	15	16 - 20	100kA	50kA	MPW25-3-U020	\$150	CLT25	\$100	Z4
2	3	7 1/2	7 1/2	15	20	20 - 25	100kA	50kA	MPW25-3-U025	\$150	CLT25	\$100	Z4
-	5	10	10	20	25	25 - 32	100kA	50kA	MPW25-3-U032	\$190	CLT25	\$100	Z4

Note: Horsepower ratings shown in the table are for reference only. Please refer to the Full Load Amps of the Motor for final selection.

¹ Individual Component Catalog Numbers are ordered separately.

* When associated with line side terminal LST25 and trip indicator TSB-22



Controls

Manual Motor Protectors - MPW Series

Accessories for MPW25 - Summary

Description	Catalog Number	List Price	Multiplier Symbol
Auxiliary Contact Blocks			
1NO&1NC auxiliary contact block front mounting - 250Vmax.	ACBF-11	\$20	Z4
1NO&1NC auxiliary contact block left side mounting - 600Vmax.	ACBS-11	\$22	Z4
2NO Auxiliary contact block left side mounting - 600Vmax.	ACBS-20	\$22	Z4
2NC Auxiliary contact block left side mounting - 600Vmax.	ACBS-02	\$22	Z4
Accessories for Combination Type-E Construction			
Line power terminal	LST25	\$30	Z4
Trip Signaling and Alarm Contact Block (1NO&1NC for Short-circuit and 1NO&1NC for Overload)	TSB-22	\$38	Z4
Current Limiter			
Current Limiter	CLT25	\$100	Z4
Link Modules			
Mechanical and electrical link module for CWC07 to CWC016 miniature contactor series	ECCMP-C0	\$20	Z4
Mechanical and electrical link module for CWM9...CWM25 contactor series	ECCMP-25	\$20	Z4
Mechanical and electrical link module for CWM32...CWM40 contactor series	ECCMP-32	\$20	Z4
Accessories for Group Motor Installation¹			
Income power terminal for bus bar system	FTBBS	\$35	Z4
Bus bar system 45mm (for 2 MPW without side mounting auxiliary contacts)	BBS45-2	\$32	Z4
Bus bar system 45mm (for 3 MPW without side mounting auxiliary contacts)	BBS45-3	\$35	Z4
Bus bar system 45mm (for 4 MPW without side mounting auxiliary contacts)	BBS45-4	\$45	Z4
Bus bar system 45mm (for 5 MPW without side mounting auxiliary contacts)	BBS45-5	\$60	Z4
Bus bar system 54mm (for 2 MPW with side mounting auxiliary contacts)	BBS54-2	\$32	Z4
Bus bar system 54mm (for 3 MPW with side mounting auxiliary contacts)	BBS54-3	\$35	Z4
Bus bar system 54mm (for 4 MPW with side mounting auxiliary contacts)	BBS54-4	\$45	Z4
Bus bar system 54mm (for 5 MPW with side mounting auxiliary contacts)	BBS54-5	\$60	Z4
Shroud for unused terminals of BBS bars	CSD	\$10	Z4
Through-the-door Rotary Mechanisms			
Rotary NEMA 1 Through the Door Mechanism - gray/black handle with 130mm shaft	RMMP-130	\$60	Z4
Rotary NEMA 1 Through the Door Mechanism - yellow/red handle with 130mm shaft	RMMP-130-E	\$60	Z4
Rotary NEMA 1 Through the Door Mechanism - gray/black handle with 330mm shaft	RMMP-330	\$70	Z4
Rotary NEMA 1 Through the Door Mechanism - yellow/red handle with 330mm shaft	RMMP-330-E	\$70	Z4
Rotary NEMA 4X Through the Door Mechanism - gray/black handle with 130mm shaft	MRX-130	\$105	Z4
Rotary NEMA 4X Through the Door Mechanism - yellow/red handle with 130mm shaft	MRX-130-E	\$105	Z4
Rotary NEMA 4X Through the Door Mechanism - gray/black handle with 330mm shaft	MRX-330	\$115	Z4
Rotary NEMA 4X Through the Door Mechanism - yellow/red handle with 330mm shaft	MRX-330-E	\$115	Z4
Under Voltage and Shunt Block Releases			
Shunt release block right side mounting - 20-24V 50/60Hz	SRMP D51	\$56	Z4
Shunt release block right side mounting - 100-127V 50/60Hz	SRMP D59	\$56	Z4
Shunt release block right side mounting - 200-240V 50/60Hz	SRMP D65	\$56	Z4
Under voltage release block right side mounting - 24V 60Hz	URMP V05	\$56	Z4
Under voltage release block right side mounting - 120V 60Hz	URMP V18	\$56	Z4
Under voltage release block right side mounting - 208V 60Hz	URMP V23	\$56	Z4
Under voltage release block right side mounting - 240V 60Hz	URMP V30	\$56	Z4
Under voltage release block right side mounting - 480V 60Hz	URMP V47	\$56	Z4
Mounting adapter			
Mounting adapter for a D.O.L. assembly with MPW25 and CWM contactors series	MA45DOL	\$40	Z4
Mounting adapter for a REVERSING assembly with MPW25 and CWM contactors series	MA90RVS	\$50	Z4
Mounting adapter for a STAR-DELTA assembly with MPW25 and CWM contactors series	MA90SDS	\$50	Z4
IEC Enclosures			
IEC IP55 enclosure yellow/red handle (non-UL)	PE55GN-E	\$45	Z4
IEC IP55 enclosure + lateral auxiliary device yellow/red handle (non-UL)	LPE55GN-E	\$55	Z4
IEC IP55 enclosure gray/black handle (non-UL)	PE55GN	\$45	Z4
IEC IP55 enclosure + lateral auxiliary device gray/black handle (non-UL)	LPE55GN	\$55	Z4
Other Accessories			
Scale cover protection for the current range adjustment - package with 5 units	SCMP	\$5	Z4
Lugs for panel mounting - package with 2 pieces (one MPW mounting)	PLMP	\$0.50	Z4

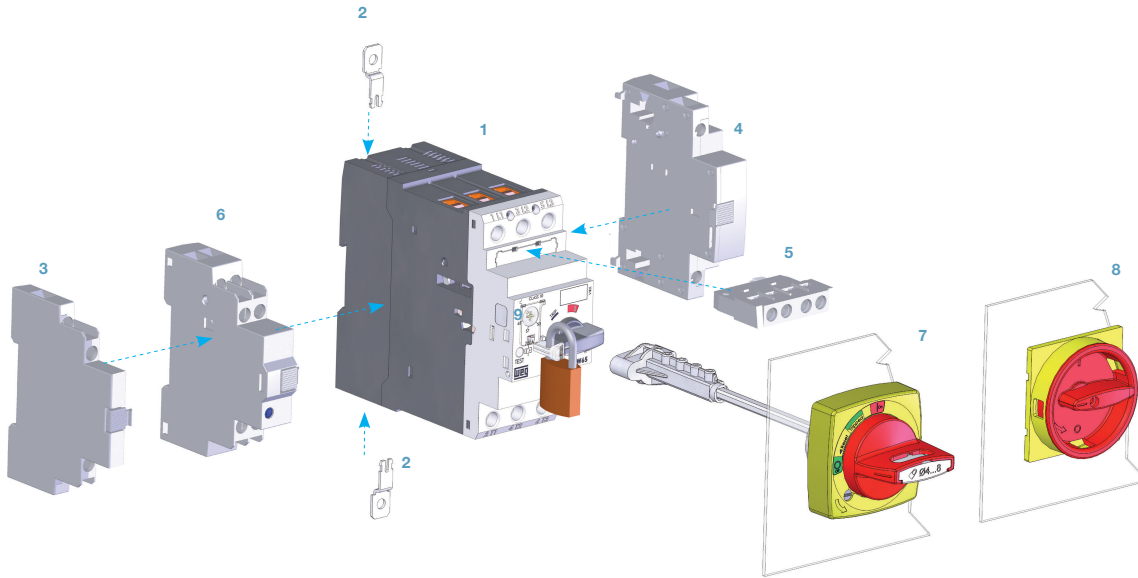
Note: ¹ Maximum Amps of each Bus bar system (BBS) must not be exceeded by adding multiple MPW. Bus bar capacity is 63Amps.



Controls

Manual Motor Protectors - MPW Series

MPW65 - Overview



- | | | |
|---|------------------|--|
| 1 | MPW65 | Manual motor protector – MPW65 Series |
| 2 | PLMP | Push-in-lugs for panel mounting |
| 3 | ACBS | Auxiliary contact block side mounting |
| 4 | URMP/SRMP | Undervoltage release / Shunt release |
| 5 | ACBF | Auxiliary contact block front mounting |
| 6 | TSB-22 | Trip signaling block for Type E/F construction |
| 7 | MRX65 | NEMA 4 through-the-door interlocked handle |
| 8 | RMMP65 | NEMA 1 through-the-door interlocked handle |
| 9 | SCMP | Scale cover |



Controls

Manual Motor Protectors - MPW Series

MPW65 - Product Selection

- Suitable for manual motor controller, group installation, tap conductor and combination starters¹ type E & type F
- Built-in protection: disconnect means, short-circuit protection, motor control and overload protection
- Short-circuit interrupting capacity up to 35kA@480Vac (10kA@600Vac)
- Fixed short-circuit release 13 x I_n
- Phase loss sensitivity
- Ambient temperature compensation -4...+140°F (-20...+60°C)

Maximum UL Horsepower						Thermal Setting	Short-Circuit interruption capacity		Catalog Number	List Price	Multiplier Symbol
Single Phase		Three Phase					[A]	480V			
115V	230V	200V	230V	460V	575V						
3	7 1/2	-	15	25	30	32 ... 40	35kA	10kA	MPW65-3-U040	\$380	Z4
-	10	15	15	30	40	40 ... 50	35kA	10kA	MPW65-3-U050	\$380	Z4
5	10	20	20	50	60	50 ... 65	35kA	10kA	MPW65-3-U065	\$380	Z4

Note: Horsepower ratings shown in the table are for reference only. Please refer to the Full Load Amps of the Motor for final selection
¹ When associated with line side terminal (LST65) and Trip indicator (TSB-22)

MPW100 - Product Selection

- Suitable for manual motor controller, group installation, tap conductor and combination starters² type E & type F
- Built-in protection: disconnect means, short-circuit protection, motor control and overload protection
- Short-circuit interrupting capacity up to 50kA@480Vac (10kA@600Vac)
- Fixed short-circuit release 13 x I_n
- Phase loss sensitivity
- Ambient temperature compensation -4...+140°F (-20...+60°C)

Maximum UL Horsepower						Thermal Setting	Short-Circuit interruption capacity		Catalog Number	List Price	Multiplier Symbol
Single Phase		Three Phase					[A]	480V			
115V	230V	200V	230V	460V	575V						
5	15	20	25	50	60	55 ... 75	50kA	10kA	MPW100-3-U075	\$460	Z4
7 1/2	20	25	30	60	75	70 ... 90	50kA	10kA	MPW100-3-U090	\$530	Z4
10	20	30	30	75	100	80 ... 100	50kA	10kA	MPW100-3-U100	\$530	Z4

Note: Horsepower ratings shown in the table are for reference only. Please refer to the Full Load Amps of the Motor for final selection.
² When associated with line side terminal (IB MPW100) and Trip indicator (TSB SC-11 MPW100)



Controls

Manual Motor Protectors - MPW Series

Accessories for MPW65 - Summary

Description	Catalog Number	List Price	Multiplier Symbol
Auxiliary Contact Blocks			
1NO&1NC auxiliary contact block front mounting - 250Vmax.	ACBF-11	\$20	Z4
1NO&1NC auxiliary contact block left side mounting - 600Vmax.	ACBS-11	\$22	Z4
2NO Auxiliary contact block left side mounting - 600Vmax.	ACBS-20	\$22	Z4
2NC Auxiliary contact block left side mounting - 600Vmax.	ACBS-02	\$22	Z4
Accessories for Combination Type-E Construction			
Line power terminal (for MPW65-3-U040 to MPW65-3-U065)	LST65	\$61	Z4
Trip Signaling and Alarm Contact Block (1NO&1NC for Short-circuit and 1NO&1NC for Overload)	TSB-22	\$38	Z4
Through-the-door Rotary Mechanisms			
Rotary NEMA 1 Through the Door Mechanism - gray/black handle with 130mm shaft	RMMP65-130	\$80	Z4
Rotary NEMA 1 Through the Door Mechanism - yellow/red handle with 130mm shaft	RMMP65-130-E	\$80	Z4
Rotary NEMA 1 Through the Door Mechanism - gray/black handle with 330mm shaft	RMMP65-330	\$90	Z4
Rotary NEMA 1 Through the Door Mechanism - yellow/red handle with 330mm shaft	RMMP65-330-E	\$90	Z4
Rotary NEMA 4X Through the Door Mechanism - black/red handle with 130mm shaft	MRX65-130	\$120	Z4
Rotary NEMA 4X Through the Door Mechanism - yellow/red handle with 130mm shaft	MRX65-130-E	\$120	Z4
Rotary NEMA 4X Through the Door Mechanism - black/red handle with 330mm shaft	MRX65-330	\$130	Z4
Rotary NEMA 4X Through the Door Mechanism - yellow/red handle with 330mm shaft	MRX65-330-E	\$130	Z4
Under Voltage and Shunt Block Releases			
Shunt release block right side mounting - 20-24V 50/60Hz	SRMP D51	\$56	Z4
Shunt release block right side mounting - 100-127V 50/60Hz	SRMP D59	\$56	Z4
Shunt release block right side mounting - 200-240V 50/60Hz	SRMP D65	\$56	Z4
Under voltage release block right side mounting - 24V 60Hz	URMP V05	\$56	Z4
Under voltage release block right side mounting - 120V 60Hz	URMP V18	\$56	Z4
Under voltage release block right side mounting - 208V 60Hz	URMP V23	\$56	Z4
Under voltage release block right side mounting - 240V 60Hz	URMP V30	\$56	Z4
Under voltage release block right side mounting - 480V 60Hz	URMP V47	\$56	Z4
Other Accessories			
Scale cover protection for the current range adjustment - package with 5 units	SCMP	\$5	Z4
Lugs for panel mounting - package with 2 pieces (one MPW mounting)	PLMP	\$0.50	Z4

Accessories for MPW100 - Summary

Description	Catalog Number	List Price	Multiplier Symbol
Auxiliary Contact Blocks			
1NO&1NC auxiliary contact block front mounting - 250Vmax.	ACBF-11 MPW100	\$20	Z4
1NO&1NC auxiliary contact block left side mounting - 600Vmax.	ACBS-11 MPW100	\$22	Z4
2NO Auxiliary contact block left side mounting - 600Vmax.	ACBS-20 MPW100	\$22	Z4
2NC Auxiliary contact block left side mounting - 600Vmax.	ACBS-02 MPW100	\$22	Z4
Accessories for Combination Type-E Construction			
Insulators	IB MPW100	\$30	Z4
Trip Signaling and Alarm Contact Block (1NO&1NC for Short-circuit and Overload)	TSB-11 MPW100	\$38	Z4
Through-the-door Rotary Mechanisms			
Rotary NEMA 1 Through the Door Mechanism - gray/black handle with 115mm shaft	MR MPW100-115	\$80	Z4
Rotary NEMA 1 Through the Door Mechanism - gray/black handle with 315mm shaft	MR MPW100-315	\$90	Z4
Rotary NEMA 4X Through the Door Mechanism - gray/black handle with 130mm shaft	MRX100-130	\$130	Z4
Rotary NEMA 4X Through the Door Mechanism - yellow/red handle with 130mm shaft	MRX100-130E	\$130	Z4
Under Voltage and Shunt Block Releases			
Shunt release block right side mounting - 120V 50/60Hz	SRMP V18 MPW100	\$56	Z4
Shunt release block right side mounting - 240-260V 60Hz	SRMP V33 MPW100	\$56	Z4
Under voltage release block right side mounting - 120V 60Hz	URMP V18 MPW100	\$56	Z4
Under voltage release block right side mounting - 240V 60Hz	URMP V33 MPW100	\$56	Z4
Under voltage release block right side mounting - 460V 60Hz	URMP V43 MPW100	\$56	Z4



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 248 Fuses	UL 508 Magnetic or Solid State Controller	UL 508 Motor Overload Relay
B	UL 98 Manual Disconnect	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	

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.

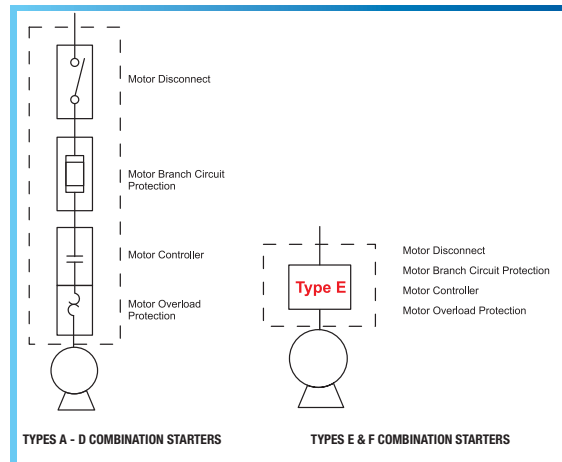
WEG also offers an option for a remote Type E & F Starter, combining the MPW series (as a manual type E) together with a contactor from CWM Series. As this version undergoes the same tests, it has the same horse power ratings and short-circuit capabilities as the manual Type E. However, it provides remote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

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



MPW SERIES



Controls

Manual Motor Protectors - MPW Series

Manual Self-Protected Combination Motor Controller Type-E

- No need of upstream protective devices such as UL489 MCCB or UL248 fuses
- Built-in protections: disconnect means, short-circuit protection, motor control and overload protection
- Short-circuit interrupting capacity up to 100kA@480Vac (50kA@600Vac)
- Compact combination starter
- Phase loss sensitivity
- Ambient temperature compensation -4...+140°F (-20...+60°C)



High Interruption Capacity

Maximum UL Horsepower						Thermal Setting [A]	Short-Circuit Interruption Capacity		Individual Component Catalog Number ¹			List Price
Single Phase		Three Phase					480V	600V	Manual Motor Protector	Line Side Terminal	Tripping Indicator	
115V	230V	200V	230V	460V	575V							
-	-	-	-	-	-	0.10 - 0.16	50kA	25kA	MPW25-3-C016	LST25	TSB-22	\$184
-	-	-	-	-	-	0.16 - 0.25	50kA	25kA	MPW25-3-C025	LST25	TSB-22	
-	-	-	-	-	-	0.25 - 0.40	50kA	25kA	MPW25-3-D004	LST25	TSB-22	
-	-	-	-	-	1/4	0.40 - 0.63	50kA	25kA	MPW25-3-C063	LST25	TSB-22	\$205
-	-	-	-	1/2	1/2	0.63 - 1.0	50kA	25kA	MPW25-3-U001	LST25	TSB-22	
-	1/10	1/4	1/3	3/4	1	1.0 - 1.6	50kA	25kA	MPW25-3-D016	LST25	TSB-22	
-	1/6	1/2	1/2	1 1/2	1 1/2	1.6 - 2.5	50kA	25kA	MPW25-3-D025	LST25	TSB-22	
1/8	1/3	3/4	1	2	3	2.5 - 4.0	50kA	25kA	MPW25-3-U004	LST25	TSB-22	
1/4	3/4	1 1/2	1 1/2	3	5	4.0 - 6.3	50kA	25kA	MPW25-3-D063	LST25	TSB-22	\$218
1/2	1 1/2	3	3	5	7 1/2	6.3 - 10	50kA	25kA	MPW25-3-U010	LST25	TSB-22	
1	3	5	5	10	15	10 - 16	50kA	25kA	MPW25-3-U016	LST25	TSB-22	
1 1/2	3	5	7 1/2	15	15	16 - 20	50kA	25kA	MPW25-3-U020	LST25	TSB-22	\$258
2	3	7 1/2	7 1/2	15	20	20 - 25	50kA	25kA	MPW25-3-U025	LST25	TSB-22	
-	5	10	10	20	25	25 - 32	42kA	25kA	MPW25-3-U032	LST25	TSB-22	\$475
3	7 1/2	-	15	25	30	32 ... 40	35kA	10kA	MPW65-3-U040	LST65	TSB-22	
-	10	15	15	30	40	40 ... 50	35kA	10kA	MPW65-3-U050	LST65	TSB-22	
5	10	20	20	50	60	50 ... 65	35kA	10kA	MPW65-3-U065	LST65	TSB-22	\$518
5	15	20	25	50	60	55 ... 75	50kA	10kA	MPW100-3-U075	IB MPW100	TSB SC-11 MPW100	
7 1/2	20	25	30	60	75	70 ... 90	50kA	10kA	MPW100-3-U090	IB MPW100	TSB SC-11 MPW100	\$588
10	20	30	30	75	100	80 ... 100	50kA	10kA	MPW100-3-U100	IB MPW100	TSB SC-11 MPW100	

Note: Horsepower ratings shown in the table are for reference only. Please refer to the Full Load Amps of the Motor for final selection.

¹ Individual Component Catalog Numbers are ordered separately. Multiplier Symbol Z4.

Extra High Interruption Capacity

Maximum UL Horsepower						Thermal Setting [A]	Short-Circuit Interruption Capacity		Individual Component Catalog Number ¹				List Price
Single Phase		Three Phase					480V	600V	Manual Motor Protector	Current Limiter	Line Side Terminal	Tripping Indicator	
115V	230V	200V	230V	460V	575V								
-	-	-	-	-	-	0.10 - 0.16	100kA	50kA	MPW25-3-C016	CLT25	LST25	TSB-22	\$284
-	-	-	-	-	-	0.16 - 0.25	100kA	50kA	MPW25-3-C025	CLT25	LST25	TSB-22	
-	-	-	-	-	-	0.25 - 0.40	100kA	50kA	MPW25-3-D004	CLT25	LST25	TSB-22	
-	-	-	-	-	1/4	0.40 - 0.63	100kA	50kA	MPW25-3-C063	CLT25	LST25	TSB-22	\$305
-	-	-	-	1/2	1/2	0.63 - 1.0	100kA	50kA	MPW25-3-U001	CLT25	LST25	TSB-22	
-	1/10	1/4	1/3	3/4	1	1.0 - 1.6	100kA	50kA	MPW25-3-D016	CLT25	LST25	TSB-22	
-	1/6	1/2	1/2	1 1/2	1 1/2	1.6 - 2.5	100kA	50kA	MPW25-3-D025	CLT25	LST25	TSB-22	
1/8	1/3	3/4	1	2	3	2.5 - 4.0	100kA	50kA	MPW25-3-U004	CLT25	LST25	TSB-22	
1/4	3/4	1 1/2	1 1/2	3	5	4.0 - 6.3	100kA	50kA	MPW25-3-D063	CLT25	LST25	TSB-22	\$318
1/2	1 1/2	3	3	5	7 1/2	6.3 - 10	100kA	50kA	MPW25-3-U010	CLT25	LST25	TSB-22	
1	3	5	5	10	15	10 - 16	100kA	50kA	MPW25-3-U016	CLT25	LST25	TSB-22	
1 1/2	3	5	7 1/2	15	15	16 - 20	100kA	50kA	MPW25-3-U020	CLT25	LST25	TSB-22	\$358
2	3	7 1/2	7 1/2	15	20	20 - 25	100kA	50kA	MPW25-3-U025	CLT25	LST25	TSB-22	
-	5	10	10	20	25	25 - 32	100kA	50kA	MPW25-3-U032	CLT25	LST25	TSB-22	

Note: Horsepower ratings shown in the table are for reference only. Please refer to the Full Load Amps of the Motor for final selection.

¹ Individual Component Catalog Numbers are ordered separately. Multiplier Symbol Z4.



Controls

Manual Motor Protectors - MPW Series

Combination Motor Controller Type-F

- No need of upstream protective devices such as UL489 MCCB or UL248 fuses
- Built-in protections: disconnect means, short-circuit protection, motor control and overload protection
- Short-circuit interrupting capacity up to 100kA@480Vac (50kA@600Vac)
- Compact combination starter
- Phase loss sensitivity
- Ambient temperature compensation -4...+140°F (-20...+60°C)
- Remote operation



High interruption capacity

Maximum UL Horsepower						Thermal Setting [A]	Short-Circuit Interruption Capacity		Individual Component Catalog Number ¹					
Single Phase		Three Phase					480V	600V	Manual Motor Protector	Line Side Terminal	Tripping Indicator	List Price ²	Contactor ³	List Price ³
115V	230V	200V	230V	460V	575V									
-	-	-	-	-	-	0.10 - 0.16	50kA	25kA	MPW25-3-C016	LST25	TSB-22	\$184	CWM9	\$72
-	-	-	-	-	-	0.16 - 0.25	50kA	25kA	MPW25-3-C025	LST25	TSB-22		CWM9	
-	-	-	-	-	-	0.25 - 0.40	50kA	25kA	MPW25-3-D004	LST25	TSB-22		CWM9	
-	-	-	-	-	1/4	0.40 - 0.63	50kA	25kA	MPW25-3-C063	LST25	TSB-22	CWM9		
-	-	-	-	1/2	1/2	0.63 - 1.0	50kA	25kA	MPW25-3-U001	LST25	TSB-22	CWM9		
-	1/10	1/4	1/3	3/4	1	1.0 - 1.6	50kA	25kA	MPW25-3-D016	LST25	TSB-22	CWM9		
-	1/6	1/2	1/2	1 1/2	1 1/2	1.6 - 2.5	50kA	25kA	MPW25-3-D025	LST25	TSB-22	CWM9		
1/8	1/3	3/4	1	2	3	2.5 - 4.0	50kA	25kA	MPW25-3-U004	LST25	TSB-22	CWM9		
1/4	3/4	1 1/2	1 1/2	3	5	4.0 - 6.3	50kA	25kA	MPW25-3-D063	LST25	TSB-22	CWM9		
1/2	1 1/2	3	3	5	7 1/2	6.3 - 10	50kA	25kA	MPW25-3-U010	LST25	TSB-22	CWM9		
1	3	5	5	10	15	10 - 16	50kA	25kA	MPW25-3-U016	LST25	TSB-22	CWM18	\$103	
1 1/2	3	5	7 1/2	15	15	16 - 20	50kA	25kA	MPW25-3-U020	LST25	TSB-22	CWM25	\$118	
2	3	7 1/2	7 1/2	15	20	20 - 25	50kA	25kA	MPW25-3-U025	LST25	TSB-22	CWM32	\$140	
-	5	10	10	20	25	25 - 32	42kA	25kA	MPW25-3-U032	LST25	TSB-22	CWM40	\$164	
3	7 1/2	-	15	25	30	32 ... 40	30kA	10kA	MPW65-3-U040	LST65	TSB-22	CWM50	\$190	
-	10	15	15	30	40	40 ... 50	30kA	10kA	MPW65-3-U050	LST65	TSB-22	CWM65	\$215	
5	10	20	20	50	60	50 ... 65	30kA	10kA	MPW65-3-U065	LST65	TSB-22	CWM80	\$261	
5	15	20	25	50	60	55 ... 75	50kA	10kA	MPW100-3-U075	IB MPW100	TSB AT-11 MPW100	CWM95	\$294	
7 1/2	20	25	30	60	75	70 ... 90	50kA	10kA	MPW100-3-U090	IB MPW100	TSB AT-11 MPW100	CWM95		
10	20	30	30	75	100	80 ... 100	50kA	10kA	MPW100-3-U100	IB MPW100	TSB AT-11 MPW100	CWM105	\$393	

Note: Horsepower ratings shown in the table are for reference only. Please refer to the Full Load Amps of the Motor for final selection.
¹ Individual Component Catalog Numbers are ordered separately.
² Multiplier Symbol Z4
³ Multiplier Symbol Z1

Extra-High interruption capacity


Maximum UL Horsepower						Thermal Setting [A]	Short-Circuit Interruption Capacity		Individual Component Catalog Number ¹						
Single Phase		Three Phase					480V	600V	Manual Motor Protector	Current Limiter	Line Side Terminal	Tripping Indicator	List Price ²	Contactor ³	List Price ³
115V	230V	200V	230V	460V	575V										
-	-	-	-	-	-	0.10 - 0.16	100kA	50kA	MPW25-3-C016	CLT25	LST25	TSB-22	\$284	CWM9	\$72
-	-	-	-	-	-	0.16 - 0.25	100kA	50kA	MPW25-3-C025	CLT25	LST25	TSB-22		CWM9	
-	-	-	-	-	-	0.25 - 0.40	100kA	50kA	MPW25-3-D004	CLT25	LST25	TSB-22		CWM9	
-	-	-	-	-	1/4	0.40 - 0.63	100kA	50kA	MPW25-3-C063	CLT25	LST25	TSB-22	CWM9		
-	-	-	-	1/2	1/2	0.63 - 1.0	100kA	50kA	MPW25-3-U001	CLT25	LST25	TSB-22	CWM9		
-	1/10	1/4	1/3	3/4	1	1.0 - 1.6	100kA	50kA	MPW25-3-D016	CLT25	LST25	TSB-22	CWM9		
-	1/6	1/2	1/2	1 1/2	1 1/2	1.6 - 2.5	100kA	50kA	MPW25-3-D025	CLT25	LST25	TSB-22	CWM9		
1/8	1/3	3/4	1	2	3	2.5 - 4.0	100kA	50kA	MPW25-3-U004	CLT25	LST25	TSB-22	CWM9		
1/4	3/4	1 1/2	1 1/2	3	5	4.0 - 6.3	100kA	50kA	MPW25-3-D063	CLT25	LST25	TSB-22	CWM9		
1/2	1 1/2	3	3	5	7 1/2	6.3 - 10	100kA	50kA	MPW25-3-U010	CLT25	LST25	TSB-22	CWM9		
1	3	5	5	10	15	10 - 16	100kA	50kA	MPW25-3-U016	CLT25	LST25	TSB-22	CWM18	\$103	
1 1/2	3	5	7 1/2	15	15	16 - 20	100kA	50kA	MPW25-3-U020	CLT25	LST25	TSB-22	CWM25	\$118	
2	3	7 1/2	7 1/2	15	20	20 - 25	100kA	50kA	MPW25-3-U025	CLT25	LST25	TSB-22	CWM32	\$140	
-	5	10	10	20	25	25 - 32	100kA	50kA	MPW25-3-U032	CLT25	LST25	TSB-22	CWM40	\$164	

Note: Horsepower ratings shown in the table are for reference only. Please refer to the Full Load Amps of the Motor for final selection.
¹ Individual Component Catalog Numbers are ordered separately.
² Multiplier Symbol Z4
³ Multiplier Symbol Z1


Controls

Manual Motor Protectors - Accessories

Front Mounting Auxiliary Contact Block - ACBF

For use with		Auxiliary Contacts		Catalog Number	List Price	Multiplier Symbol
		NO	NC			
MPW16 MPW25 MPW65 1)		1	1	ACBF-11	\$20	Z4
		MPW100			ACBF-11 MPW100	\$20

Left side Auxiliary Contact Block - ACBS

For use with		Auxiliary Contacts		Catalog Number	List Price	Multiplier Symbol
		NO	NC			
MPW16 MPW25 MPW65 1)		1	1	ACBS-11	\$22	Z4
		2	-	ACBS-20		
		-	2	ACBS-02		
MPW100		1	1	ACBS-11 MPW100	\$22	Z4
		2	-	ACBS-20 MPW100		
		-	2	ACBS-02 MPW100		

Note: 1) The following accessories can be assembled at the same time: 1 ACBF + 1 URMP/SRMP + 1 TSB-22 or 1 ACBS + 1 URMP/SRMP + 1 TSB-22


MPW SERIES




Controls

Manual Motor Protectors - Accessories

Trip Signalling Block - TSB-22

For use with		Description	Catalog Number	List Price	Multiplier Symbol
MPW25 MPW65 1)		<ul style="list-style-type: none"> - Equipped with 2 auxiliary contacts (1NO + 1NC) for overload trip signalling and 2 other auxiliary contacts (1NO + 1NC) for short-circuit trip signalling. - To reset the MPW after a short-circuit, the blue flag must be manually reset after the cause of the failure has been solved. - Left side auxiliary contacts can be assembled together with the trip signalling block. - Left side assembly only 	TSB-22	\$38	Z4
MPW100		<ul style="list-style-type: none"> - Equipped with 2 auxiliary contacts (1NO + 1NC) for overload and short-circuit trip signalling. - Left side assembly only 	TSB SC11 MPW100	\$38	Z4

Undervoltage Release - URMP

For use with		Voltage	Catalog Number	List Price	Multiplier Symbol
MPW16 MPW25 MPW65 1)		208V 60Hz 24V 50/60Hz 400-415V 50Hz / 480V 60Hz 110V 50Hz / 120V 60Hz 240V 60Hz	URMP V23 URMP D02 URMP V47 URMP V18 URMP V30	\$56	Z4
MPW100		Note: - Operating voltage > 0,85 x Ue - Non operating voltage 0,35...0,7 x Ue	110V 50Hz / 120V 60Hz 220-230V 50Hz / 240V 60Hz 380-400V 50Hz / 460V 60Hz	URMP V18 MPW100 URMP V33 MPW100 URMP V43 MPW100	\$56


Note: 1) The following accessories can be coupled at the same time: 1 ACBF + 1 URMP/SRMP + 1 TSB-22 or 1 ACBS + 1 URMP/SRMP + 1 TSB-22



Controls

Manual Motor Protectors - Accessories

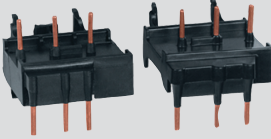
Shunt Release - SRMP

For use with		Voltage	Catalog Number	List Price	Multiplier Symbol
MPW16 MPW25 MPW65 1)		20-24V 50/60Hz 100-127V 50/60Hz 200-240V 50/60Hz	SRMP D51 SRMP D59 SRMP D65	\$56	Z4
MPW100	Note: - Operating voltage > 0.7 x Ue	110V 50Hz / 120V 60Hz 220-230V 50Hz / 240-260V 60Hz	SRMP V18 MPW100 SRMP V33 MPW100	\$56	Z4

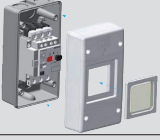


Note: 1) The following accessories can be coupled at the same time:

1 ACBF + 1 URMP/SRMP + 1 TSB or 1 ACBS + 1 URMP/SRMP + 1 TSB

Link modules for manual motor protector assembly + contactors – ECCMP

For use with		Description	Contactors	Catalog Number	List Price	Multiplier Symbol
MPW16		- For direct connection (electrical and mechanical) of motor circuit breakers to contactors. Note: - Not applicable to CWM contactors with DC coils.	CWC07...16 CWC025	ECCMP-C016 ECCMP-C025	\$20	Z4
MPW25			CWC07...16 CWM9...25 CWM32...40	ECCMP-C0 ECCMP-25 ECCMP-32		

Standard IEC Enclosure - PE

For use with	Illustrative picture	Description	Terminals	Handle color	Catalog Number	List Price	Multiplier Symbol
MPW16		- Degree of protection: IP66 - Two cable entry knockouts, top and bottom - Allows installing: MPW16 + ACBF11/PL lamps + ACBS	With neutral and ground terminals	-	PE66GN	\$45	Z4
MPW25		- Degree of protection: IP55 - Allows installing: MPW25 + ACBF11/PL lamps + ACBS - Two cable entry knockouts, top and bottom - Handle can be locked with up to 3 padlocks at OFF position.	With neutral and ground terminals	Black	PE55GN	\$45	
				Red with yellow background	PE55GNE	\$45	

Controls

Manual Motor Protectors - Accessories

Through-the-door Rotary Handle - RMMP and MRX

For use with	Illustrative picture	Description	Handle color	Catalog Number	Price List	Multiplier Symbol
MPW25		<ul style="list-style-type: none"> - Degree of protection IP55/NEMA1; - Shows MPW position "I"(ON) or "O"(OFF); 	Gray/Black	RMMP-130	\$60	Z4
			Gray/Black	RMMP-330	\$70	
			Red/Yellow	RMMP-130E	\$60	
			Red/Yellow	RMMP-330E	\$70	
MPW65		<ul style="list-style-type: none"> - Panel door can only be opened in OFF position; - Adjustable shaft length. There are 2 standard shaft sizes: 130-155mm (Model 130) and 330-355mm (Model 330). To assemble the handle on the MPW the shaft must have a length of at least 80mm; - Up to 3 padlocks can be used in the OFF position. This blocks MPW operation and panel door opening; - Handle can be mounted on panels with thickness of 1 to 5mm; - Handle can be assembled even with MPW turned in 90° position 	Gray/Black	RMMP65-130	\$60	
			Gray/Black	RMMP65-330	\$70	
			Gray/Black	RMMP65-130E	\$60	
			Red/Yellow	RMMP65-330E	\$70	
MPW100		<ul style="list-style-type: none"> - Degree of protection NEMA1; - Shows MPW position "I"(ON) or "O"(OFF); - Panel door can be opened at ON position (thermometry) by defeating mechanism; - Adjustable shaft length. There are 2 standard shaft sizes: 115mm (Model 115) and 315mm (Model 315). To assemble the handle to the MPW, the shaft must have a min. length of at least 80mm; - Up to 3 padlocks can be used in the OFF position. This blocks the MPW operation and opens panel door. 	Gray/Black	MR MPW100-115	\$80	
			Gray/Black	MR MPW100-315	\$90	
MPW25		<ul style="list-style-type: none"> - Panel door can be opened in ON position (thermometry) by defeating mechanism. - Degree of protection: IP65/Nema 4X - Shows MPW position "I"(ON) or "O"(OFF) - Adjustable shaft length. There are 2 standard shaft sizes: 130-155mm (Model 130) and 330-355mm (Model 330). To assemble the handle ON the MPW the shaft must have a length of at least 80mm - Up to 3 padlocks can be used in the OFF position. This blocks MPW operation and opens panel door. Handle can be mounted on panels with thickness of 1 to 5mm 	Gray/Black	MRX-130	\$105	
Gray/Black			MRX-330	\$115		
Red/Yellow			MRX-130E	\$105		
Red/Yellow			MRX-330E	\$115		
Gray/Black			MRX65-130	\$120		
Gray/Black			MRX65-330	\$130		
Red/Yellow			MRX65-130E	\$120		
Red/Yellow			MRX65-330E	\$130		
MPW100			Gray/Black	MRX100-130-E	\$130	
Red/Yellow			MRX100-130-E	\$130		

MPW SERIES



Controls

Manual Motor Protectors - Accessories

Large IEC Enclosure - LPE55

For use with		Description	Terminals	Handle color	Catalog Number	List Price	Multiplier Symbol
MPW25		<ul style="list-style-type: none"> - Degree of protection: IP55 - For use with MPW25 + URMP/ SRMP + ACBF11 + ACBS + PL lamps - Two cable entry knockouts, top and bottom - Handle can be locked with up to 3 padlocks at OFF position. 	With neutral and ground terminals	Black	LPE55GN	\$55	Z4
				Red with yellow background	LPE55GN-E		

Manual Motor Protector mounting adapter - MA

For use with		Description	Contactors	Catalog Number	List Price	Multiplier Symbol
MPW25		Used for direct on line starters 45mm width	CWC07...25 CWM9...CWM25	MA45DOL	\$40	
MPW25		Used for reversing starters 90mm width	2 x CWC07...25 2x CWM9...CWM25	MA90RVS	\$50	Z4
MPW25		Used for star-delta motor starters 90mm width	2 x CWC07...25 2x CWM9...CWM25	MA90SDS	\$50	


MPW SERIES





Controls

Manual Motor Protectors - Accessories

Insulators - IB

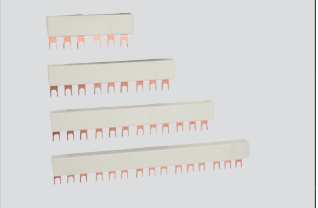
For use with		Description	Catalog Number	List Price	Multiplier Symbol
MPW100		Insulators for increasing creepage distance and clearances according to UL requirements.	IB MPW100	\$30	Z4

Three-phase feeder terminal – FTBBS and LST25

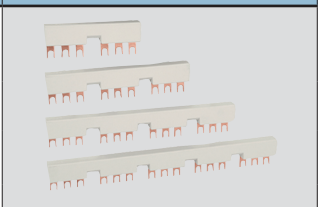
For use with		Description	Catalog Number	List Price	Multiplier Symbol
MPW16 MPW25		<ul style="list-style-type: none"> - For feeding the feeder terminals; - Rated insulation voltage: 690VAC; - I_g: 63A; - Terminals: 6-25mm² rigid wire and 6-16mm² flexible wire with terminal. 	FTBBS	\$35	Z4
MPW25		<ul style="list-style-type: none"> - Block module for “Type E” Combination motor Controller” in accordance with UL (LST25+MPW+TSB-22); - Rated insulation voltage: 690VAC; - I_g: 63A. - Terminals: 8-20AWG. 	LST25	\$30	Z4

MPW SERIES

Three-phase feeder terminals for MPW without side auxiliary contacts – BBS45

For use with		Description	Numbers of MPW	Catalog Number	List Price	Multiplier Symbol
MPW16 MPW25		<ul style="list-style-type: none"> - For parallel blocking of side-by-side mounted MPW, without side auxiliary contacts; - Enables the use of frontal auxiliary contact block ACBF-11; - U_g: 690VAC; - I_g: 63A. 	2	BBS45-2	\$32	Z4
			3	BBS45-3	\$35	
			4	BBS45-4	\$45	
			5	BBS45-5	\$60	

Three-phase feeder terminals for MPW with side auxiliary contacts – BBS54


For use with		Description	Numbers of MPW	Catalog Number	List Price	Multiplier Symbol
MPW16/ MPW25		<ul style="list-style-type: none"> - For parallel blocking of side-by-side mounted MPW; - Enables the use of frontal auxiliary contact block ACBF-11 and side auxiliary contact block ACBS; - U_g: 690VAC; - I_g: 63A. 	2	BBS54-2	\$32	Z4
			3	BBS54-3	\$35	
			4	BBS54-4	\$45	
			5	BBS54-5	\$60	




Controls

Manual Motor Protectors - Accessories


Current Limiter - CLT25

For use with		Description	Catalog Number	List Price	Multiplier Symbol
MPW25		<p>- For protecting electrical circuits where extra high short-circuit breaking capacity is required:</p> <p>100kA @ 480VAC;</p> <p>Note: This accessory must be used together with a MPW motor protector.</p>	CLT25	\$100	Z4


Shroud for unused terminals – CSD

For use with		Description	Catalog Number	List Price	Multiplier Symbol
BBS45 and BBS54		Protection against direct contact on unused terminals on energized BBS45 and BBS54 three-phase feeder terminals.	CSD	\$10	Z4

Scale Cover - SCMP

For use with		Description	Catalog Number	List Price	Multiplier Symbol
MPW16 MPW25 MPW65		Protects the current adjustment dial against direct contact while enabling the set current to be viewed.	SCMP	\$5	Z4

Push-in-lugs - PLMP

For use with		Description	Catalog Number	List Price	Multiplier Symbol
MPW16 MPW25 MPW65		For direct assembly of motor protective circuit breaker onto any surface using screws.	PLMP	\$0.50	Z4

Controls

Manual Motor Protectors - MPW16 Technical Data

General Ratings

TYPE			MPW16-3-C016	MPW16-3-C025	MPW16-3-D004	MPW16-3-C063	MPW16-3-U001	MPW16-3-D016	MPW16-3-D025
Standards			Devices according to International Standards IEC 60947-1 / 60947-4-1, European Standards EN 60947-1 / 60947-4-1, Underwriters Laboratories - UL 508; CSA C.22.2/14; VDE 0660/102						
Current Setting Range		[A]	0.10 - 0.16	0.16 - 0.25	0.25 - 0.40	0.40 - 0.63	0.63 - 1.0	1.0 - 1.6	1.6 - 2.5
Rated Thermal Current Ith		[A]	0.16	0.25	0.40	0.63	1.0	1.6	2.5
Rated Insulation Voltage Ui									
Acc. IEC; VDE 0660		[V]	690						
Acc. UL; CSA		[V]	600						
Rated Operating Voltage Ue									
Acc. IEC; VDE 0660		[V]	690						
Acc. UL; CSA		[V]	600						
Rated Impulse Voltage Uimp									
Acc. IEC60947-1		[kV]	6						
Rated Operating Frequency		[Hz]	50/60						
Overvoltage Category			III						
Pollution Degree			3						
Utilization Category									
IEC 60947-2 (Motor Protector)			A						
IEC 60947-4-1 (Motor Starter)			AC-3						
Lifespan									
Mechanical		[ops.]	100,000						
Electrical (Ie max.)		[ops.]	100,000						
Switching Rate (motor starts)	AC-3	[ops/hr]	15						
Ambient Temperature									
Storage		[oC (oF)]	-50 to +80 (-58 to +176)						
Operating		[oC (oF)]	-20 to +60 (-4 to +140)						
Ambient Temperature Compensation		[oC (oF)]	-20 to +60 (-4 to +140)						
Climatic Proofing			IEC 60068-2-3 / IEC 60068-2-30						
Altitude									
Up to 2,000m (6,600ft)			Nominal Values (for higher altitudes refer to page B-181)						
Degree of protection			IP20						
Resistance to Shock									
Acc. IEC 60068-2-27		[g]	15						
Resistance to Vibration			IEC 68-2						
Protection against direct contact									
Acc. IEC 536; DIN VDE 0106 Part 100			Finger and back of hand proof						
Phase Failure Sensitivity Protection			Yes						
Overload Protection Characteristics	x Iu	[A]	0.6 - 1						
Magnetic Release	x Iu	[A]	13						
Overload Trip Class			10						
Total Power Loss Pv									
At rated load operating temperature		[W]	6	6	6	6	6	6	6
Weight		[kg]	0.30						
		[lb]	0.70						
Type of Terminal			Flat Type						
Screw Driver			Phillips #2						
Terminal Capacity									
Solid - Stranded	[mm ²]	[AWG]	Refer to table on page B-180						
Tightening Torque	N.m)	lb.in	1.2 - 1.7 (11 - 16)						
Mounting Position			Any Position						



Controls

Manual Motor Protectors - MPW16 Technical Data

General Ratings

TYPE			MPW16-3-U004	MPW16-3-D063	MPW16-3-U010	MPW16-3-U016
Standards			Devices according to International Standards IEC 60947-1 / 60947-4-1, European Standards EN 60947-1 / 60947-4-1, Underwriters Laboratories - UL 508; CSA C.22.2/14; VDE 0660/102			
Current Setting Range		[A]	2.5 - 4.0	4.0 - 6.3	6.3 - 10	10 - 16
Rated Thermal Current I _{th}		[A]	4.0	6.3	10	16
Rated Insulation Voltage U _i						
Acc. IEC; VDE 0660		[V]	690			
Acc. UL; CSA		[V]	600			
Rated Operating Voltage U _e						
Acc. IEC; VDE 0660		[V]	690			
Acc. UL; CSA		[V]	600			
Rated Impulse Voltage U _{imp}						
Acc. IEC60947-1		[kV]	6			
Rated Operating Frequency		[Hz]	50/60			
Overvoltage Category			III			
Pollution Degree			3			
Utilization Category						
IEC 60947-2 (Motor Protector)			A			
IEC 60947-4-1 (Motor Starter)			AC-3			
Lifespan						
Mechanical		[ops.]	100,000			
Electrical (I _e max.)		[ops.]	100,000			
Switching Rate (motor starts)	AC-3	[ops/hr]	15			
Ambient Temperature						
Storage		[°C (°F)]	-50 to +80 (-58 to +176)			
Operating		[°C (°F)]	-20 to +60 (-4 to +140)			
Ambient Temperature Compensation		[°C (°F)]	-20 to +60 (-4 to +140)			
Climatic Proofing			IEC 60068-2-3 / IEC 60068-2-30			
Altitude						
Up to 2,000m (6,600ft)			Nominal Values (for higher altitudes refer to page B-181)			
Degree of protection			IP20			
Resistance to Shock						
Acc. IEC 60068-2-27		[g]	15			
Resistance to Vibration			IEC 68-2			
Protection against direct contact						
Acc. IEC 536; DIN VDE 0106 Part 100			Finger and back of hand proof			
Phase Failure Sensitivity Protection			Yes			
Overload Protection Characteristics	x I _u	[A]	0.6 - 1			
Magnetic Release	x I _u	[A]	12			
Overload Trip Class			10			
Total Power Loss P _v						
At rated load operating temperature		[W]	6	6	6	6
Weight		[kg]	0.3			
		[lb]	0.7			
Type of Terminal			Flat Type			
Screw Driver			Phillips #2			
Terminal Capacity						
Solid - Stranded	[mm ²]	[AWG]	Refer to table on page B-180			
Tightening Torque	N.m)	lb.in	1.2 - 1.7 (11 - 16)			
Mounting Position			Any Position			

Controls

Manual Motor Protectors - MPW16 Technical Data

Power Contact Ratings

TYPE UL/CSA DATA			MPW16-3-C016	MPW16-3-C025	MPW16-3-C040	MPW16-3-C063	MPW16-3-C100	MPW16-3-C160	MPW16-3-C250
Rated Operational Current I _e	[A]		0.16	0.25	0.40	0.63	1.0	1.6	2.5
Magnetic Release Current	[A]		2	3	5	8	13	21	33
Max. Short Circuit Current									
	480V	[kA]	50						
	600V	[kA]	10						
Motor Load, 1-phase									
	115V	[HP]	-	-	-	-	-	-	-
	230V	[HP]	-	-	-	-	-	1/10	1/6
Motor Load, 3-phase									
	200V	[HP]	-	-	-	-	-	1/4	1/2
	230V	[HP]	-	-	-	-	-	1/3	1/2
	460V	[HP]	-	-	-	-	1/2	3/4	1 1/2
	575V	[HP]	-	-	-	1/4	1/2	1	1 1/2
Max. Rated Current of Protection Device for Group Installation									
	Fuse or MCCB	[A]	125	125	125	125	125	125	125
IEC DATA									
Rated Operational Current I _e	[A]		0.16	0.25	0.4	0.63	1	1.6	2.5
Magnetic Release Current	[A]		2	3	5	8	13	21	33
Back-Up Fuses									
gL/gG	220/240V	[A]	-	-	-	-	-	-	-
	380/400V	[A]	-	-	-	-	-	-	-
	415/440V	[A]	-	-	-	-	-	-	-
	500V	[A]	-	-	-	-	-	-	-
	660/690V	[A]	-	-	-	-	-	-	25
Ultimate Short Circuit Breaking Capacity									
I _{cu}	220/240V	[kA]	100	100	100	100	100	100	100
	380/400V	[kA]	100	100	100	100	100	100	100
	415/440V	[kA]	100	100	100	100	100	100	100
	500V	[kA]	100	100	100	100	100	100	100
	660/690V	[kA]	100	100	100	100	100	100	8
Rated Service Short Circuit Breaking Capacity									
I _{cs}	220/240V	[kA]	100	100	100	100	100	100	100
	380/400V	[kA]	100	100	100	100	100	100	100
	415/440V	[kA]	100	100	100	100	100	100	100
	500V	[kA]	100	100	100	100	100	100	100
	660/690V	[kA]	100	100	100	100	100	100	8

MPW SERIES



Controls

Manual Motor Protectors - MPW16 Technical Data

Power Contact Ratings

TYPE			MPW16-3-U004	MPW16-3-D063	MPW16-3-U010	MPW16-3-U016
UL/CSA DATA						
Rated Operational Current I _e		[A]	4.0	6.3	10	16
Magnetic Release Current		[A]	52	82	130	208
Max. Short Circuit Current						
	480V	[kA]	50	50	50	30
	600V	[kA]	10	10	5	5
Motor Load, 1-phase						
	115V	[HP]	1/8	1/4	1/2	1
	230V	[HP]	1/3	3/4	1 1/2	3
Motor Load, 3-phase						
	200V	[HP]	3/4	1 1/2	3	5
	230V	[HP]	1	1 1/2	3	5
	460V	[HP]	2	5	7 1/2	10
	575V	[HP]	3	5	10	15
Max. Rated Current of Protection Device for Group Installation						
	Fuse or MCCB	[A]	125	125	125	160
IEC DATA						
Rated Operational Current I _e		[A]	4	6.3	10	16
Magnetic Release Current		[A]	52	82	130	208
Back-Up Fuses						
gL/gG	220/240V	[A]	-	-	-	-
	380/400V	[A]	-	-	100	100
	415/440V	[A]	-	-	80	80
	500V	[A]	-	-	63	80
	660/690V	[A]	35	50	50	63
Ultimate Short Circuit Breaking Capacity						
I _{cu}	220/240V	[kA]	100	100	100	100
	380/400V	[kA]	100	100	50	10
	415/440V	[kA]	100	100	50	10
	500V	[kA]	100	100	10	10
	660/690V	[kA]	8	8	5	4
Rated Service Short Circuit Breaking Capacity						
I _{cs}	220/240V	[kA]	100	100	100	100
	380/400V	[kA]	100	100	10	10
	415/440V	[kA]	100	100	10	10
	500V	[kA]	100	100	10	10
	660/690V	[kA]	8	8	5	3



Controls

Manual Motor Protectors - MPW25 Technical Data

General Ratings

TYPE			MPW25-3-C016	MPW25-3-C025	MPW25-3-D004	MPW25-3-C063	MPW25-3-U001	MPW25-3-D016	MPW25-3-D025
Standards			Devices according to International Standards IEC 60947-1 / 60947-4-1, European Standards EN 60947-1 / 60947-4-1, Underwriters Laboratories - UL 508; CSA C.22.2/14; VDE 0660/102						
Current Setting Range		[A]	0.10 - 0.16	0.16 - 0.25	0.25 - 0.40	0.40 - 0.63	0.63 - 1.0	1.0 - 1.6	1.6 - 2.5
Rated Thermal Current I _{th}		[A]	0.16	0.25	0.40	0.63	1.0	1.6	2.5
Rated Insulation Voltage U _i									
Acc. IEC; VDE 0660		[V]	690						
Acc. UL; CSA		[V]	600						
Rated Operating Voltage U _e									
Acc. IEC; VDE 0660		[V]	690						
Acc. UL; CSA		[V]	600						
Rated Impulse Voltage U _{imp}									
Acc. IEC60947-1		[kV]	6						
Rated Operating Frequency		[Hz]	50/60						
Overvoltage Category			III						
Pollution Degree			3						
Utilization Category									
IEC 60947-2 (Motor Protector)			A						
IEC 60947-4-1 (Motor Starter)			AC-3						
Lifespan									
Mechanical		[ops.]	100,000						
Electrical (I _e max.)		[ops.]	100,000						
Switching Rate (motor starts)	AC-3	[ops/hr]	15						
Ambient Temperature									
Storage		[oC (oF)]	-50 to +80 (-58 to +176)						
Operating		[oC (oF)]	-20 to +60 (-4 to +140)						
Ambient Temperature Compensation		[oC (oF)]	-20 to +60 (-4 to +140)						
Climatic Proofing			IEC 60068-2-3 / IEC 60068-2-30						
Altitude									
Up to 2,000m (6,600ft)			Nominal Values (for higher altitudes refer to page B-181)						
Degree of protection			IP20						
Resistance to Shock									
Acc. IEC 60068-2-27		[g]	15						
Resistance to Vibration			IEC 68-2						
Protection against direct contact									
Acc. IEC 536; DIN VDE 0106 Part 100			Finger and back of hand proof						
Phase Failure Sensitivity Protection			Yes						
Overload Protection Characteristics	x I _u	[A]	0.6 - 1						
Magnetic Release	x I _u	[A]	13						
Overload Trip Class			10						
Total Power Loss P _v									
At rated load operating temperature		[W]	6	6	6	6	6	6	6
Weight		[kg]	0.32						
		[lb]	0.71						
Type of Terminal			Flat Type						
Screw Driver			Philips #2						
Terminal Capacity									
Solid - Stranded	[mm ²]	[AWG]	Refer to table on page B-180						
Tightening Torque	N.m)	lb.in	1.2 - 1.7 (11 - 16)						
Mounting Position			Any Position						

Controls

Manual Motor Protectors - MPW25 Technical Data

General Ratings

TYPE			MPW25-3-U004	MPW25-3-D063	MPW25-3-U010	MPW25-3-U016	MPW25-3-U020	MPW25-3-U025	MPW25-3-U032
Standards			Devices according to International Standards IEC 60947-1 / 60947-4-1, European Standards EN 60947-1 / 60947-4-1, Underwriters Laboratories - UL 508; CSA C.22.2/14; VDE 0660/102						
Current Setting Range		[A]	2.5 - 4.0	4.0 - 6.3	6.3 - 10	10 - 16	16 - 20	20 - 25	25 - 32
Rated Thermal Current Ith		[A]	4.0	6.3	10	16	20	25	32
Rated Insulation Voltage Ui									
Acc. IEC; VDE 0660		[V]	690						
Acc. UL; CSA		[V]	600						
Rated Operating Voltage Ue									
Acc. IEC; VDE 0660		[V]	690						
Acc. UL; CSA		[V]	600						
Rated Impulse Voltage Uimp									
Acc. IEC60947-1		[kV]	6						
Rated Operating Frequency		[Hz]	50/60						
Overvoltage Category			III						
Pollution Degree			3						
Utilization Category									
IEC 60947-2 (Motor Protector)			A						
IEC 60947-4-1 (Motor Starter)			AC-3						
Lifespan									
Mechanical		[ops.]	100,000						
Electrical (Ie max.)		[ops.]	100,000						
Switching Rate (motor starts)	AC-3	[ops/hr]	15						
Ambient Temperature									
Storage		[oC (oF)]	-50 to +80 (-58 to +176)						
Operating		[oC (oF)]	-20 to +60 (-4 to +140)						
Ambient Temperature Compensation		[oC (oF)]	-20 to +60 (-4 to +140)						
Climatic Proofing			IEC 60068-2-3 / IEC 60068-2-30						
Altitude									
Up to 2,000m (6,600ft)			Nominal Values (for higher altitudes refer to page B-181)						
Degree of protection			IP20						
Resistance to Shock									
Acc. IEC 60068-2-27		[g]	15						
Resistance to Vibration			IEC 68-2						
Protection against direct contact									
Acc. IEC 536; DIN VDE 0106 Part 100			Finger and back of hand proof						
Phase Failure Sensitivity Protection			Yes						
Overload Protection Characteristics	x lu	[A]	0.6 - 1						
Magnetic Release	x lu	[A]	13						
Overload Trip Class			10						
Total Power Loss Pv									
At rated load operating temperature		[W]	6	6	6	6	8	8	8
Weight		[kg]	0.32						
		[lb]	0.71						
Type of Terminal			Flat Type						
Screw Driver			Phillips #2						
Terminal Capacity									
Solid - Stranded	[mm ²]	[AWG]	Refer to table on page B-180						
Tightening Torque	N.m)	lb.in	1.2 - 1.7 (11 - 16)						
Mounting Position			Any Position						

Controls

Manual Motor Protectors - MPW25 Technical Data

Power Contact Ratings

TYPE			MPW25-3-C016	MPW25-3-C025	MPW25-3-C040	MPW25-3-C063	MPW25-3-U001	MPW25-3-D016	MPW25-3-D025
UL/CSA DATA									
Rated Operational Current I _e		[A]	0.16	0.25	0.40	0.63	1.0	1.6	2.5
Magnetic Release Current		[A]	2	3	5	8	13	21	33
Max. Short Circuit Current without CLT25									
	480V	[kA]	50						
	600V	[kA]	25						
with CLT25									
	480V	[kA]	100						
	600V	[kA]	50						
Motor Load, 1-phase									
	115V	[HP]	-	-	-	-	-	-	-
	230V	[HP]	-	-	-	-	-	1/10	1/6
Motor Load, 3-phase									
	200V	[HP]	-	-	-	-	-	1/4	1/2
	230V	[HP]	-	-	-	-	-	1/3	1/2
	460V	[HP]	-	-	-	-	1/2	3/4	1 1/2
	575V	[HP]	-	-	-	1/4	1/2	1	1 1/2
Max. Rated Current of Protection Device for Group Installation									
	Fuse or MCCB	[A]	125	125	125	125	125	125	125
IEC DATA									
Rated Operational Current I _e		[A]	0.16	0.25	0.4	0.63	1	1.6	2.5
Magnetic Release Current		[A]	2	3	5	8	13	21	33
Back-Up Fuses									
gL/gG	220/240V	[A]	-	-	-	-	-	-	-
	380/400V	[A]	-	-	-	-	-	-	-
	415/440V	[A]	-	-	-	-	-	-	-
	500V	[A]	-	-	-	-	-	-	-
	660/690V	[A]	-	-	-	-	-	-	25
Ultimate Short Circuit Breaking Capacity									
I _{cu}	220/240V	[kA]	100	100	100	100	100	100	100
	380/400V	[kA]	100	100	100	100	100	100	100
	415/440V	[kA]	100	100	100	100	100	100	100
	500V	[kA]	100	100	100	100	100	100	100
	660/690V	[kA]	100	100	100	100	100	100	8
Rated Service Short Circuit Breaking Capacity									
I _{cs}	220/240V	[kA]	100	100	100	100	100	100	100
	380/400V	[kA]	100	100	100	100	100	100	100
	415/440V	[kA]	100	100	100	100	100	100	100
	500V	[kA]	100	100	100	100	100	100	100
	660/690V	[kA]	100	100	100	100	100	100	8



Controls

Manual Motor Protectors - MPW25 Technical Data

Power Contact Ratings

TYPE			MPW25-3-U004	MPW25-3-D063	MPW25-3-U010	MPW25-3-U016	MPW25-3-U020	MPW25-3-U025	MPW25-3-U032	
UL/CSA DATA										
Rated Operational Current Ie		[A]	4.0	6.3	10	16	20	25	32	
Magnetic Release Current		[A]	52	82	130	208	260	325	416	
Max. Short Circuit Current without CLT25										
	480V	[kA]	50							42
	600V	[kA]	25							25
with CLT25										
	480V	[kA]	100							
	600V	[kA]	50							
Motor Load, 1-phase										
	115V	[HP]	1/8	1/4	1/2	1	1 1/2	2	-	
	230V	[HP]	1/3	3/4	1 1/2	3	3	3	5	
Motor Load, 3-phase										
	200V	[HP]	3/4	1 1/2	3	5	5	7 1/2	10	
	230V	[HP]	1	1 1/2	3	5	7 1/2	7 1/2	10	
	460V	[HP]	2	5	7 1/2	10	15	15	20	
	575V	[HP]	3	5	10	15	20	20	25	
Max. Rated Current of Protection Device for Group Installation										
	Fuse or MCCB	[A]	125	125	125	160	250	250	300	
IEC DATA										
Rated Operational Current Ie		[A]	4	6.3	10	16	20	25	32	
Magnetic Release Current		[A]	52	82	130	208	260	325	416	
Back-Up Fuses										
gL/gG	220/240V	[A]	-	-	-	-	-	-	-	
	380/400V	[A]	-	-	-	100	125	125	125	
	415/440V	[A]	-	-	80	80	80	100	100	
	500V	[A]	-	-	63	80	80	80	80	
	660/690V	[A]	35	50	50	63	63	63	63	
Ultimate Short Circuit Breaking Capacity										
Icu	220/240V	[kA]	100	100	100	100	100	100	100	
	380/400V	[kA]	100	100	100	50	50	50	50	
	415/440V	[kA]	100	100	50	50	50	50	25	
	500V	[kA]	100	100	42	10	10	10	10	
	660/690V	[kA]	8	8	8	5	5	5	5	
Rated Service Short Circuit Breaking Capacity										
Ics	220/240V	[kA]	100	100	100	100	100	100	100	
	380/400V	[kA]	100	100	100	25	25	25	25	
	415/440V	[kA]	100	100	25	15	15	15	15	
	500V	[kA]	100	100	21	8	8	8	8	
	660/690V	[kA]	8	8	8	5	5	5	5	



Controls

Manual Motor Protectors - MPW65 Technical Data

General Rating

TYPE			MPW65-3-U016	MPW65-3-U020	MPW65-3-U025	MPW65-3-U032	MPW65-3-U040	MPW65-3-U050	MPW65-3-U065
Standards			Devices according to International Standards IEC 60947-1 / 60947-4-1, European Standards EN 60947-1 / 60947-4-1, Underwriters Laboratories - UL 508; CSA C.22.2/14; VDE 0660/102						
Current Setting Range		[A]	10 - 16	16 - 20	20 - 25	25 - 32	32 - 40	40 - 50	50 - 65
Rated Thermal Current I _{th}		[A]	16	20	25.00	32	40.0	50	65
Rated Insulation Voltage U _i									
Acc. IEC; VDE 0660		[V]	690						
Acc. UL; CSA		[V]	600						
Rated Operating Voltage U _e									
Acc. IEC; VDE 0660		[V]	690						
Acc. UL; CSA		[V]	600						
Rated Impulse Voltage U _{imp}									
Acc. IEC60947-1		[kV]	6						
Rated Operating Frequency		[Hz]	50/60						
Overtoltage Category			III						
Pollution Degree			3						
Utilization Category									
IEC 60947-2 (Motor Protector)			A						
IEC 60947-4-1 (Motor Starter)			AC-3						
Lifespan									
Mechanical		[ops.]	50,000						
Electrical (I _e max.)		[ops.]	25,000						
Switching Rate (motor starts)	AC-3	[ops/hr]	15						
Ambient Temperature									
Storage		[°C (°F)]	-50 to +80 (-58 to +176)						
Operating		[°C (°F)]	-20 to +60 (-4 to +140)						
Ambient Temperature Compensation		[°C (°F)]	-20 to +60 (-4 to +140)						
Climatic Proofing			IEC 60068-2-3 / IEC 60068-2-30						
Altitude									
Up to 2,000m (6,600ft)			Nominal Values (for higher altitudes refer to page B-181)						
Degree of protection			IP20						
Resistance to Shock									
Acc. IEC 60068-2-27		[g]	15						
Resistance to Vibration			IEC 68-2						
Protection against direct contact									
Acc. IEC 536; DIN VDE 0106 Part 100			Finger and back of hand proof						
Phase Failure Sensitivity Protection			Yes						
Overload Protection Characteristics	x I _u	[A]	0.6 - 1						
Magnetic Release	x I _u	[A]	13						
Overload Trip Class			10						
Total Power Loss P _v									
At rated load operating temperature		[W]	8	8	8	8	8	8	8
Weight		[kg]	0.60						
		[lb]	1.42						
Type of Terminal			Flat Type						
Screw Driver			Allen #4						
Terminal Capacity									
Solid - Stranded	[mm ²]	[AWG]	Refer to table on page B-180						
Tightening Torque	N.m)	lb.in	1.2 - 1.7 (11 - 16)						
Mounting Position			Any Position						



Controls

Manual Motor Protectors - MPW65 Technical Data

Power Contact Ratings

TYPE			MPW65-3-U016	MPW65-3-U020	MPW65-3-U025	MPW65-3-U032	MPW65-3-U040	MPW65-3-U050	MPW65-3-U065	
UL/CSA DATA										
Rated Operational Current I _e		[A]	16	20	25	32	40	50	65	
Magnetic Release Current		[A]	208	260	325	416	520	650	845	
Max. Short Circuit Current										
	480V	[kA]	50				35			
	600V	[kA]	30				10			
Motor Load, 1-phase										
	115V	[HP]					3	-	5	
	230V	[HP]					7 1/2	10	10	
Motor Load, 3-phase										
	200V	[HP]					-	15	20	
	230V	[HP]					15	15	20	
	460V	[HP]					25	30	50	
	575V	[HP]					30	40	60	
Max. Rated Current of Protection Device for Group Installation										
	Fuse or MCCB	[A]								
IEC DATA										
Rated Operational Current I _e		[A]	16	20	25	32	40	50	65	
Magnetic Release Current		[A]	208	260	325	416	520	650	845	
Back-Up Fuses										
gL/gG	220/240V	[A]	-	-	-	-	-	-	-	
	380/400V	[A]	100	125	125	125	160	160	160	
	415/440V	[A]	80	80	80	100	125	125	125	
	500V	[A]	80	80	100	80	100	100	100	
	660/690V	[A]	63	63	63	63	63	80	80	
Ultimate Short Circuit Breaking Capacity										
I _{cu}	220/240V	[kA]	100	100	100	100	100	100	100	
	380/400V	[kA]	50	50	50	50	50	50	50	
	415/440V	[kA]	50	50	50	50	50	50	50	
	500V	[kA]	15	15	15	15	15	15	15	
	660/690V	[kA]	8	8	8	5	5	5	5	
Rated Service Short Circuit Breaking Capacity										
I _{cs}	220/240V	[kA]	100	100	100	100	100	100	100	
	380/400V	[kA]	50	50	50	50	50	50	50	
	415/440V	[kA]	50	50	50	50	50	50	50	
	500V	[kA]	15	15	15	15	10	10	10	
	660/690V	[kA]	8	8	8	5	5	5	5	



Controls

Manual Motor Protectors - MPW100 Technical Data

General Contact Ratings

TYPE			MPW100-3-U075	MPW100-3-U090	MPW100-3-U100
Standards			Devices according to International Standards IEC 60947-1 / 60947-4-1, European Standards EN 60947-1 / 60947-4-1, Underwriters Laboratories - UL 508; CSA C.22.2/14; VDE 0660/102		
Current Setting Range		[A]	55 - 75	70 - 90	80 - 100
Rated Thermal Current I _{th}		[A]	75	90	100.00
Rated Insulation Voltage U _i					
Acc. IEC; VDE 0660		[V]		690	
Acc. UL; CSA		[V]		600	
Rated Operating Voltage U _e					
Acc. IEC; VDE 0660		[V]		690	
Acc. UL; CSA		[V]		600	
Rated Impulse Voltage U _{imp}					
Acc. IEC60947-1		[kV]		6	
Rated Operating Frequency		[Hz]		50/60	
Overvoltage Category				III	
Pollution Degree				3	
Utilization Category					
IEC 60947-2 (Motor Protector)				A	
IEC 60947-4-1 (Motor Starter)				AC-3	
Lifespan					
Mechanical		[ops.]		50,000	
Electrical (I _e max.)		[ops.]		25,000	
Switching Rate (motor starts)	AC-3	[ops/hr]		15	
Ambient Temperature					
Storage		[oC (oF)]		-50 to +80 (-58 to +176)	
Operating		[oC (oF)]		-20 to +60 (-4 to +140)	
Ambient Temperature Compensation		[oC (oF)]		-20 to +60 (-4 to +140)	
Climatic Proofing				IEC 60068-2-3 / IEC 60068-2-30	
Altitude					
Up to 2,000m (6,600ft)				Nominal Values (for higher altitudes refer to page B-181)	
Degree of protection				IP20	
Resistance to Shock					
Acc. IEC 60068-2-27		[g]		15	
Resistance to Vibration				IEC 68-2	
Protection against direct contact					
Acc. IEC 536; DIN VDE 0106 Part 100				Finger and back of hand proof	
Phase Failure Sensitivity Protection				Yes	
Overload Protection Characteristics	x I _u	[A]		0.6 - 1	
Magnetic Release	x I _u	[A]		13	
Overload Trip Class				10	
Total Power Loss P _v					
At rated load operating temperature		[W]	10	10	10
Weight		[kg]		1.20	
		[lb]		3.00	
Type of Terminal				Flat Type	
Screw Driver				Allen #4	
Terminal Capacity					
Solid		[mm ²]	Refer to table on page B-180		
Stranded		[mm ²]			
Solid or Stranded		[AWG]			
Tightening Torque		[N.m (lb. in.)]	4.0 - 4.6 (35 - 55)		
Mounting Position			Any Position		



Controls

Manual Motor Protectors - MPW100 Technical Data

Power Contact Ratings

TYPE			MPW100-3-U075	MPW100-3-U090	MPW100-3-U100
UL/CSA DATA					
Rated Operational Current I _e		[A]	75	90	100
Magnetic Release Current		[A]	975	1170	1300
Max. Short Circuit Current					
	480V	[kA]	50		
	600V	[kA]	10		
Motor Load, 1-phase					
	115V	[HP]	5	7 1/2	10
	230V	[HP]	15	20	20
Motor Load, 3-phase					
	200V	[HP]	20	25	30
	230V	[HP]	25	30	30
	460V	[HP]	50	60	75
	575V	[HP]	60	75	100
Max. Rated Current of Protection Device for Group Installation					
	Fuse or MCCB	[A]			
IEC DATA					
Rated Operational Current I _e		[A]	75	90	100
Magnetic Release Current		[A]	975	1170	1300
Back-Up Fuses					
gL/gG	220/240V	[A]	-	-	-
	380/400V	[A]	-	-	-
	415/440V	[A]	200	200	200
	500V	[A]	160	160	160
	660/690V	[A]	125	160	160
Ultimate Short Circuit Breaking Capacity					
I _{cu}	220/240V	[kA]	100	100	100
	380/400V	[kA]	75	75	75
	415/440V	[kA]	50	50	50
	500V	[kA]	12	12	12
	660/690V	[kA]	6	6	6
Rated Service Short Circuit Breaking Capacity					
I _{cs}	220/240V	[kA]	100	100	100
	380/400V	[kA]	50	50	50
	415/440V	[kA]	38	38	38
	500V	[kA]	9	9	9
	660/690V	[kA]	6	6	6



Controls

Manual Motor Protectors - MPW Technical Data

Auxiliary Contact Block Ratings

TYPE			ACBF-11	ACBF-11 MPW100	ACBS-11	ACBS-20	ACBS-02	ACBS-11 MPW100	ACBS-20 MPW100	ACBS-02 MPW100
Rated Insulation Voltage Ui										
Acc. IEC; VDE 0660		[V]	300		690					
Acc. UL; CSA		[V]	240		600					
Rated Operating Voltage Ue										
Acc. IEC; VDE 0660		[V]	250		690					
Acc. UL; CSA		[V]	240		600					
Rated Impulse Voltage Uimp										
Acc. IEC60947-1		[kV]	4		6					
Overvoltage Category			III							
Pollution Degree			3							
Life Span										
Mechanical		[ops.]					100,000			
Electrical (Ie max.)		[ops.]					100,000			
Rated Thermal Current Ith		[A]	2.5		10					
Rated Operating Current Ie										
Acc. IEC 60947-5-1 / AC-15	24V	[A]	2		6					
	110-127V	[A]	0.5		6					
	220-240V	[A]	0.5		6					
	380-400V	[A]	-		3					
	415-450V	[A]	-		1					
	500V	[A]	-		1					
	660-690V	[A]	-		1					
Acc. UL; CSA			C300		A600					
Rated Operating Current Ie										
Acc. IEC 60947-5-1 / DC-13	24V	[A]	1		2					
	48V	[A]	0.3		0.8					
	60V	[A]	0.15		0.5					
	110V	[A]	-		0.5					
	220V	[A]	-		0.25 0.25					
	440V	[A]	-		0.1 0.1					
Acc. UL; CSA			R300		Q600					
Short Circuit rating without welding										
gL/gG		[A]					10			
MCB		[A]					6			
Type of Terminal	Screw Driver		Philips #2							
Terminal Capacity										
Solid or Stranded		[mm ²]					1 or 2 x (0.5 to 2.5)			
Solid or Stranded		[AWG]					1 or 2 x (18 to 14)			
Tightening Torque		[N.m]	1.0 - 1.25							



Controls

Manual Motor Protectors - MPW Technical Data

Trip Signalling Block

TYPE			TSB-22	TSB-11 MPW100
Rated Insulation Voltage Ui				
Acc. IEC; VDE 0660		[V]	690	
Acc. UL; CSA		[V]	600	
Rated Operating Voltage Ue				
Acc. IEC; VDE 0660		[V]	690	
Acc. UL; CSA		[V]	600	
Rated Impulse Voltage Uimp				
Acc. IEC60947-1		[kV]	6	
Overvoltage Category			III	
Pollution Degree			3	
Life Span				
Mechanical		[ops.]	100000	
Electrical (Ie max.)		[ops.]	100000	
Rated Thermal Current Ith		[A]	10	
Rated Operating Current Ie				
Acc. IEC 60947-5-1 / AC-15	24V	[A]	6	
	110-127V	[A]	6	
	220-240V	[A]	6	
	380-400V	[A]	3	
	415-450V	[A]	3	
	500V	[A]	2	
	660-690V	[A]	1	
Acc. UL; CSA			A600	
Rated Operating Current Ie				
Acc. IEC 60947-5-1 / DC-13	24V	[A]	2	
	48V	[A]	0.5	
	60V	[A]	0.5	
	110V	[A]	0.5	
	220V	[A]	0.25	
	440V	[A]	0.1	
Acc. UL; CSA			Q600	
Short Circuit rating without welding				
gL/gG		[A]	6	
MCB		[A]	6	
Type of Terminal	Screw Driver		Philips #2	
Terminal Capacity				
Solid or Stranded		[mm ²]	1 or 2 x (0.5 to 2.5)	
Solid or Stranded		AWG	1 or 2 x (18 to 14)	
Tightening Torque		[N.m (lb.in)]	1.0 - 1.25 (6.5 ... 10)	



Controls

Manual Motor Protectors - MPW Technical Data

Shunt Release Block

TYPE			SRMP	SRMP MPW100
Rated Insulation Voltage Ui				
Acc. IEC; VDE 0660		[V]	690	
Acc. UL; CSA		[V]	600	
Rated Operating Voltage Ue				
Acc. IEC; VDE 0660		[V]	690	
Acc. UL; CSA		[V]	600	
Rated Impulse Voltage Uimp				
Acc. IEC60947-1		[kV]	6	
Overvoltage Category				
Pollution Degree				
Life Span				
Mechanical		[ops.]	100000	
Electrical (Ie max.)		[ops.]	100000	
Actuating Voltage	x Us	[V]	0.7 - 1.1	
Power Consumption				
Pull-In		[VA (W)]	20.2 (13)	8.5 (6)
Hold		[VA (W)]	7.2 (2.4)	3 (1.2)
Maximum Opening Time				
Short Circuit Rating without Welding				
Fuse gL/gG				
MCB				
Type of Terminal	Screw Driver		Philips #2	
Terminal Capacity				
Solid or Stranded		[mm ²]	1 or 2 x (0.5 to 2.5)	
Solid or Stranded		AWG	1 or 2 x (18 to 14)	
Tightening Torque		[N.m (lb.in)]	1.0 - 1.25 (6.5 ... 10)	

Under Voltage Release Block

TYPE			URMP	URMP MPW100
Rated Insulation Voltage Ui				
Acc. IEC; VDE 0660		[V]	690	
Acc. UL; CSA		[V]	600	
Rated Operating Voltage Ue				
Acc. IEC; VDE 0660		[V]	690	
Acc. UL; CSA		[V]	600	
Rated Impulse Voltage Uimp				
Acc. IEC60947-1		[kV]	6	
Overvoltage Category				
Pollution Degree				
Life Span				
Mechanical		[ops.]	100000	
Electrical (Ie max.)		[ops.]	100000	
Pick-Up Voltage	x Us	[V]	0.85 - 1.1	
Drop-Out Voltage	x Us	[V]	0.7 - 0.35	
Power Consumption				
Pull-In		[VA (W)]	20.2 (13)	8.5 (6)
Hold		[VA (W)]	7.2 (2.4)	3 (1.2)
Maximum Opening Time				
Short Circuit Rating without Welding				
Fuse gL/gG				
MCB				
Type of Terminal	Screw Driver		Philips #2	
Terminal Capacity				
Solid or Stranded		[mm ²]	1 or 2 x (0.5 to 2.5)	
Solid or Stranded		AWG	1 or 2 x (18 to 14)	
Tightening Torque		[N.m]	1.0 - 1.25 (6.5 ... 10)	



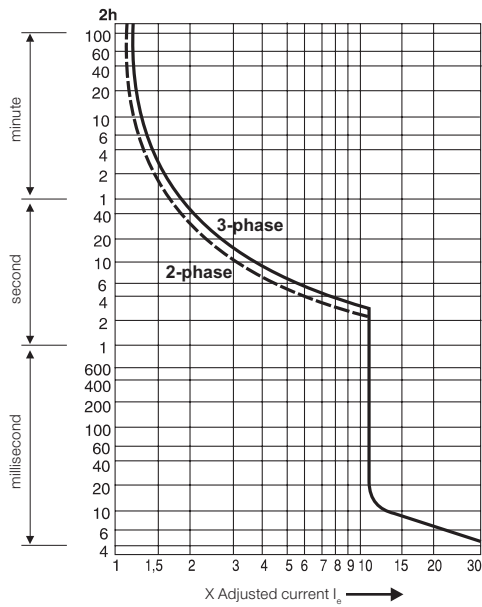
Controls

Manual Motor Protectors - Characteristics Curves

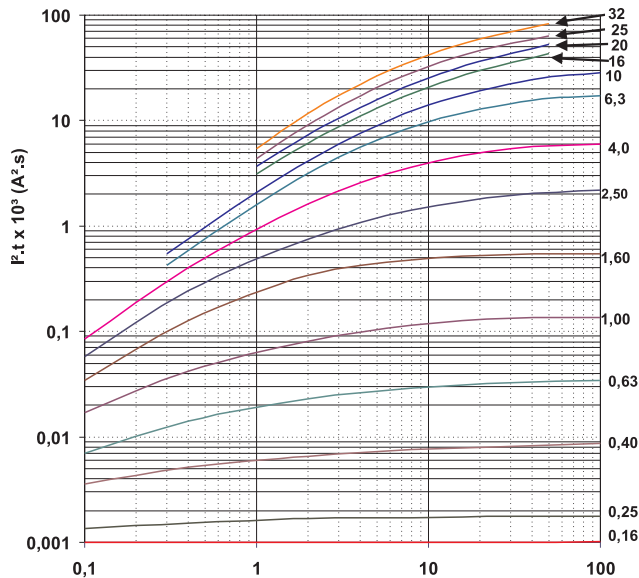
Time Current Characteristic MPW25 Class 10

The tripping characteristic indicates the manual motor protector trip time in relation to the rated current. The curves show average tolerance range values for an ambient temperature of 20°C (68°F), starting in cold state. Thermal trip time when working in operating temperature is reduced to around 25% of the listed values. Under normal operating conditions, all 3 manual motor protector phases must be conducting.

MPW16/25/65



Characteristic I²t at 460V - MPW25



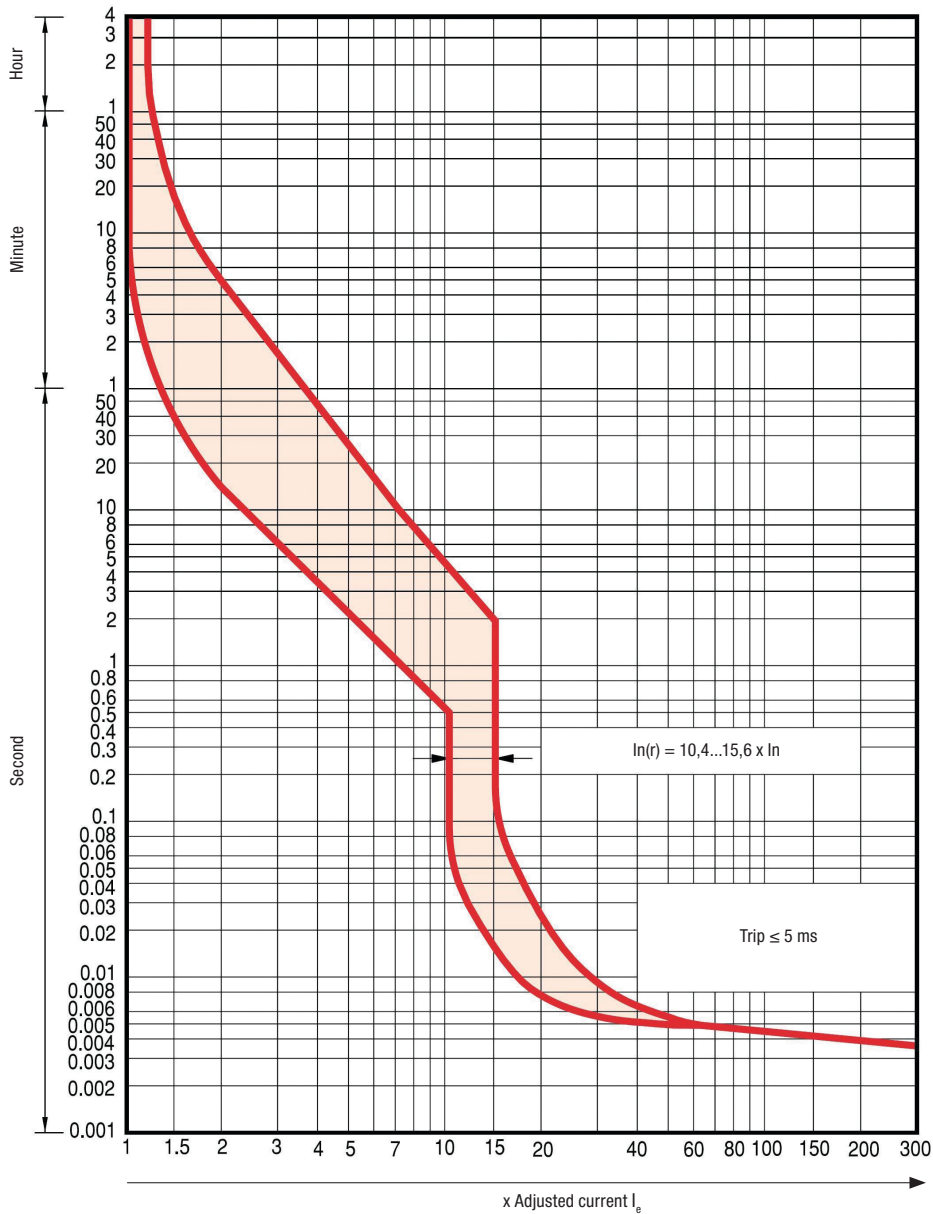
MPW SERIES



Controls

Manual Motor Protectors - Characteristics Curves

MPW100



Notes: 1) Thermal Tripping current: Curve presented for an ambient temperature of 20°C(68°F) starting from cold state.



Controls

Manual Motor Protectors

Short Circuit Interruption Capacity UL/CSA for MPW16, MPW25, MPW65, MPW100

Catalog Number	Manual Motor Controller High Capacity				Combination Motor Controller (Type E/F) High Capacity				Combination Motor Controller (Type E/F) Extra High Capacity				
	Setting Overload Release (A)	240VAC	480VAC Y/277VAC	600VAC Y/347VAC	Max. Fuse or MCCB	240VAC	480VAC Y/277VAC	600VAC Y/347VAC	Max. Fuse or MCCB	240VAC	480VAC Y/277VAC	600VAC Y/347VAC	Max. Fuse or MCCB
		kA	kA	kA	A	kA	kA	kA	A	kA	kA	kA	A
MPW16	0.10 - 0.16	50	50	10	125	-	-	-	-	-	-	-	-
	0.16 - 0.25	50	50	10	125	-	-	-	-	-	-	-	-
	0.25 - 0.40	50	50	10	125	-	-	-	-	-	-	-	-
	0.40 - 0.63	50	50	10	125	-	-	-	-	-	-	-	-
	0.63 - 1.0	50	50	10	125	-	-	-	-	-	-	-	-
	1.0 - 1.6	50	50	10	125	-	-	-	-	-	-	-	-
	1.6 - 2.5	50	50	10	125	-	-	-	-	-	-	-	-
	2.5 - 4.0	50	50	10	125	-	-	-	-	-	-	-	-
	4.0 - 6.3	50	50	10	125	-	-	-	-	-	-	-	-
	6.3 - 10	50	50	5	125	-	-	-	-	-	-	-	-
10 - 16	30	30	5	160	-	-	-	-	-	-	-	-	
MPW25	0.10 - 0.16	50	50	25	125	50	50	25	-	100	100	50	-
	0.16 - 0.25	50	50	25	125	50	50	25	-	100	100	50	-
	0.25 - 0.40	50	50	25	125	50	50	25	-	100	100	50	-
	0.40 - 0.63	50	50	25	125	50	50	25	-	100	100	50	-
	0.63 - 1.0	50	50	25	125	50	50	25	-	100	100	50	-
	1.0 - 1.6	50	50	25	125	50	50	25	-	100	100	50	-
	1.6 - 2.5	50	50	25	125	50	50	25	-	100	100	50	-
	2.5 - 4.0	50	50	25	125	50	50	25	-	100	100	50	-
	4.0 - 6.3	50	50	25	125	50	50	25	-	100	100	50	-
	6.3 - 10	50	50	25	125	50	50	25	-	100	100	50	-
	10 - 16	50	50	25	160	50	50	25	-	100	100	50	-
	16 - 20	50	50	25	250	50	50	25	-	100	100	50	-
20 - 25	50	50	25	250	50	50	25	-	100	100	50	-	
25 - 32	42	42	25	500	42	42	25	-	100	100	50	-	
MPW65	10 ... 16	50	50	30	160	50	50	30	-	-	-	-	-
	16 ... 20	50	50	30	250	50	50	30	-	-	-	-	-
	20 ... 25	50	50	30	250	50	50	30	-	-	-	-	-
	25 ... 32	50	50	30	500	50	50	30	-	-	-	-	-
	32 ... 40	35	35	10	500	35	35	10	-	-	-	-	-
	40 ... 50	35	35	10	750	35	35	10	-	-	-	-	-
MPW100	55 ... 75	50	50	10	1250	50	50	10	-	-	-	-	-
	70 ... 90	50	50	10	1250	50	50	10	-	-	-	-	-
	80 ... 100	50	50	10	1250	50	50	10	-	-	-	-	-

Note: "-" Fuse or MCCB not required.



Controls

Manual Motor Protectors

Short-Circuit Interruption Capacity (IEC 60947-2) for MPW16 , MPW25, MPW65, MPW100

Catalog Number	Setting Overload Release (A)	220-230VAC			380-415VAC			440VAC			460-500VAC			630-690VAC		
		I_{cu}	I_{cs}	Max. Fuse (gL/gG)	I_{cu}	I_{cs}	Max. Fuse (gL/gG) ¹⁾	I_{cu}	I_{cs}	Max. Fuse (gL/gG) ¹⁾	I_{cu}	I_{cs}	Max. Fuse (gL/gG) ¹⁾	I_{cu}	I_{cs}	Max. Fuse (gL/gG) ¹⁾
		kA	kA	A	kA	kA	A	kA	kA	A	kA	kA	A	kA	kA	A
MPW16	0.10...0.16	100	100	-	100	100	-	100	100	-	100	100	-	10	10	-
	0.16...0.25	100	100	-	100	100	-	100	100	-	100	100	-	10	10	-
	0.25...0.4	100	100	-	100	100	-	100	100	-	100	100	-	10	10	-
	0.4...0.63	100	100	-	100	100	-	100	100	-	100	100	-	10	10	-
	0.63...1	100	100	-	100	100	-	100	100	-	100	100	-	10	10	-
	1...1.6	100	100	-	100	100	-	100	100	-	100	100	-	10	10	-
	1.6...2.5	100	100	-	100	100	-	100	100	-	100	100	-	8	8	25
	2.5...4	100	100	-	100	100	-	100	100	-	100	100	-	8	8	35
	4...6.3	100	100	-	100	100	-	100	100	-	100	100	-	8	8	50
	6.3...10	100	100	-	50	10	100	50	10	80	10	10	63	5	5	50
10...16	100	100	-	10	10	100	10	10	80	10	10	80	4	3	63	
MPW25	0.10...0.16	100	100	-	100	100	-	100	100	-	100	100	-	100	100	-
	0.16...0.25	100	100	-	100	100	-	100	100	-	100	100	-	100	100	-
	0.25...0.4	100	100	-	100	100	-	100	100	-	100	100	-	100	100	-
	0.4...0.63	100	100	-	100	100	-	100	100	-	100	100	-	100	100	-
	0.63...1	100	100	-	100	100	-	100	100	-	100	100	-	100	100	-
	1...1.6	100	100	-	100	100	-	100	100	-	100	100	-	100	100	-
	1.6...2.5	100	100	-	100	100	-	100	100	-	100	100	-	8	8	25
	2.5...4	100	100	-	100	100	-	100	100	-	100	100	-	8	8	32
	4...6.3	100	100	-	100	100	-	100	100	-	100	100	-	8	8	50
	6.3...10	100	100	-	100	100	-	50	25	80	42	21	63	8	8	50
	10...16	100	100	-	50	25	100	50	15	80	10	8	80	5	5	63
	16...20	100	100	-	50	25	125	50	15	80	10	8	80	5	5	63
	20...25	100	100	-	50	25	125	50	15	100	10	8	80	5	5	63
25...32	100	100	-	50	25	125	25	15	100	10	8	80	5	5	63	
MPW65	10...16	100	100	-	50	50	100	50	50	80	15	15	80	8	8	63
	16...20	100	100	-	50	50	125	50	50	80	15	15	80	8	8	63
	20...25	100	100	-	50	50	125	50	50	100	15	15	80	8	8	63
	25...32	100	100	-	50	50	125	50	50	100	15	15	80	5	5	63
	32...40	100	100	-	50	50	160	50	50	125	15	10	100	5	5	63
	40...50	100	100	-	50	50	160	50	50	125	15	10	100	5	5	80
MPW100	55...75	100	100	-	75	50	-	50	38	200	12	9	160	6	6	125
	70...90	100	100	-	75	50	-	50	38	200	12	9	160	6	6	160
	80...100	100	100	-	75	50	-	50	38	200	12	9	160	6	6	160

Self protected against short-circuits up to 100kA

- Back-up fuse not required

1) Fuse required for greater short-circuit currents.



Controls

Manual Motor Protectors

Short-Circuit Interruption Capacity (IEC 60947-2) Limiter Function MPW25 + CLT25

Catalog Number	Setting Overload Release (A)	380-415VAC			440VAC			460-500VAC			630-690VAC		
		I_{cu}	I_{cs}	Max. Fuse (gL/gG)	I_{cu}	I_{cs}	Max. Fuse (gL/gG)	I_{cu}	I_{cs}	Max. Fuse (gL/gG)	I_{cu}	I_{cs}	Max. Fuse (gL/gG)
		kA	kA	A	kA	kA	A	kA	kA	A	kA	kA	A
MPW25 + CLT25	0.10...0.16	◆	◆	-	◆	◆	-	◆	◆	-	◆	◆	-
	0.16...0.25	◆	◆	-	◆	◆	-	◆	◆	-	◆	◆	-
	0.25...0.4	◆	◆	-	◆	◆	-	◆	◆	-	◆	◆	-
	0.4...0.63	◆	◆	-	◆	◆	-	◆	◆	-	◆	◆	-
	0.63...1	◆	◆	-	◆	◆	-	◆	◆	-	◆	◆	-
	1...1.6	◆	◆	-	◆	◆	-	◆	◆	-	◆	◆	-
	1.6...2.5	◆	◆	-	◆	◆	-	◆	◆	-	50	50	-
	2.5...4	◆	◆	-	◆	◆	-	◆	◆	-	50	50	-
	4...6.3	◆	◆	-	◆	◆	-	◆	◆	-	50	50	-
	6.3...10	◆	◆	-	100	100	-	100	100	-	50	50	-
	10...16	100	100	-	100	100	-	100	100	-	50	50	-
	16...20	100	100	-	100	100	-	100	100	-	50	50	-
20...25	100	100	-	100	100	-	100	100	-	10	10	-	
25...32	100	100	-	100	100	-	100	100	-	10	10	-	

Self protected against short-circuits up to 100kA

- Back-up fuse not required

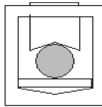
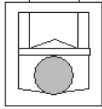
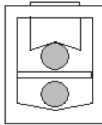
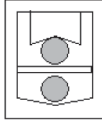
◆ Not applicable due to MPW25/already having 100 kA of I_{cu} / I_{cs} in referred ranges.



Controls

Manual Motor Protectors - MPW Technical Data

Main Terminal Capacity

Catalog Number	Type	Number of conductors	Cross-Section
MPW16	Rigid or flexible cable	1 or 2	1...4 mm ²
			18...12 AWG
MPW25	Rigid or flexible cable	1 or 2	1...2.5 mm ²
			2.5...6 mm ² 14...8 AWG ¹⁾
MPW65	Type	1 conductor connection in upper part only	Cross-Section
	Rigid cable		1...35 mm ²
	Cable without terminal		1.5...35 mm ²
	Cable with terminal		1...35 mm ²
	Flexible cable		1.5...35 mm ² 16...2 AWG
	Type	1 conductor connection in lower part only	Cross-Section
	Rigid cable		2.5...35mm ²
	Cable without terminal		6...35mm ²
	Cable with terminal		2.5...35mm ²
	Flexible cable		6...35mm ² 12...2 AWG
	Type	Connection of 2 conductors - Conductor in upper part	Cross-Section
	Rigid cable		1...35mm ²
	Cable without terminal		1.5...35mm ²
	Cable with terminal		1...35mm ²
	Flexible cable		1.5...35mm ² 16...2 AWG
	Type	Conductor in lower part	Cross-Section
	Rigid cable		2.5...35mm ²
	Cable without terminal		6...35mm ²
	Cable with terminal		2.5...35mm ²
	Flexible cable		6...35mm ² 12...2 AWG
MPW100	Type	Number of conductors	Cross-Section
	Rigid cable	1	2.5...70 mm ²
		2	12...2/0 AWG
	Flexible cable	2	2.5...50 mm ²
		1	12...1/0 AWG
		1	2.5...50 mm ²
2		12...1/0 AWG	
			2.5...35 mm ²
			10...2 AWG

Note: 1) 8 AWG for flexible cable only



Controls

Manual Motor Protectors - MPW Technical Data

Altitude - Correction factor

The MPW manual motor protectors do not undergo any change to their specified performance when applied at an altitude of up to 2000 meters above sea level.

However, as the altitude increases, the reduced atmospheric pressure produces decreasing dielectric properties. Therefore, current and voltage correction factors must be applied for altitudes exceeding 2000 meters, as shown in the table on the right.

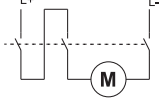
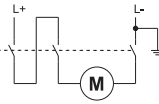
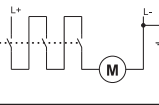
Altitude (above sea level) - h	Rated operational voltage U_e	Current correction factor I_u
$h \leq 2000$ m	690 V	$1 \times I_u$
$2000 < h \leq 3000$ m	550 V	$0,96 \times I_u$
$3000 < h \leq 4000$ m	480 V	$0,93 \times I_u$
$4000 < h \leq 5000$ m	420 V	$0,90 \times I_u$

DC operation

The MPW16, MPW25 and MPW65 motor protective circuit breakers can also be used for operating DC loads. For such operation it is necessary to connect 2 or 3 poles in series. See recommended circuits and their voltage limits in the table on the right.

Time constant $t = 5$ ms

Short-circuit breaking capacity $I_{cu} = 10$ kA for all configurations

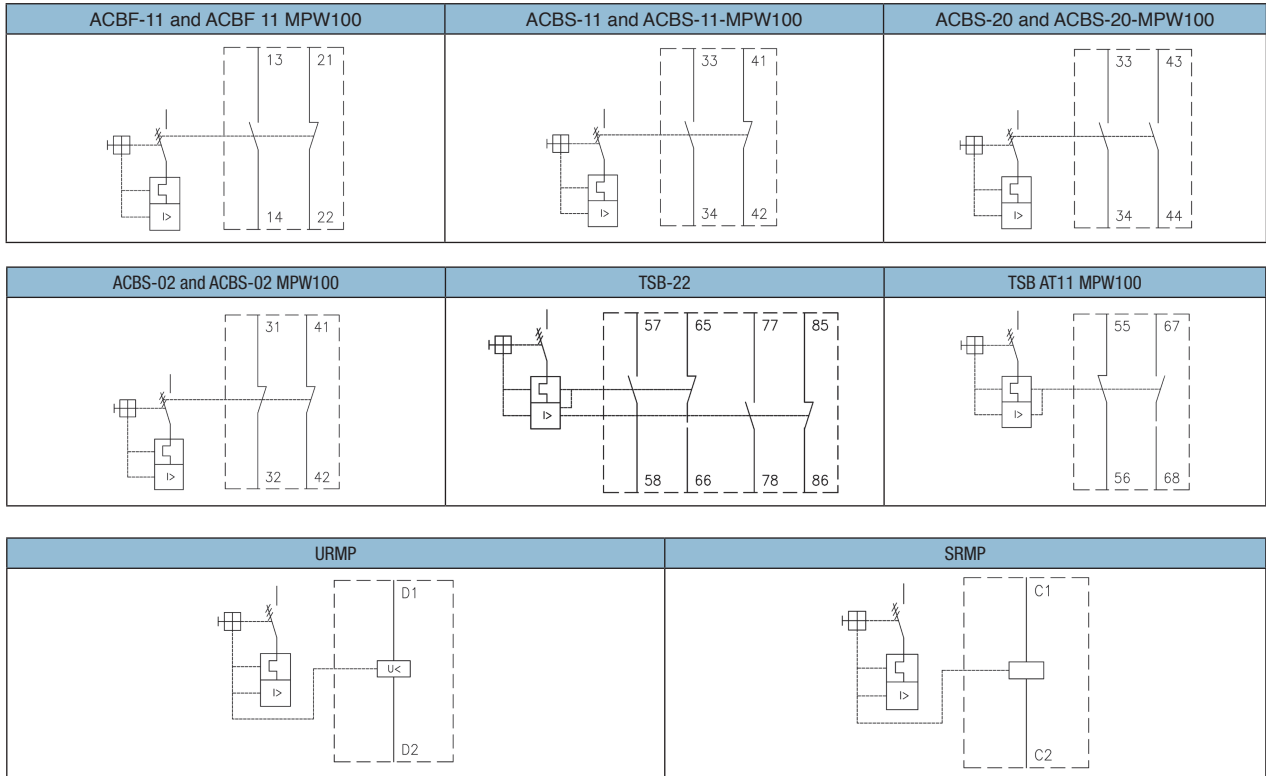
Circuits	Max. VDC	Notes
	150 VDC	System not grounded 2 pole series connected
	300 VDC	System grounded 2 pole series connected
	450 VDC	System grounded 3 pole series connected



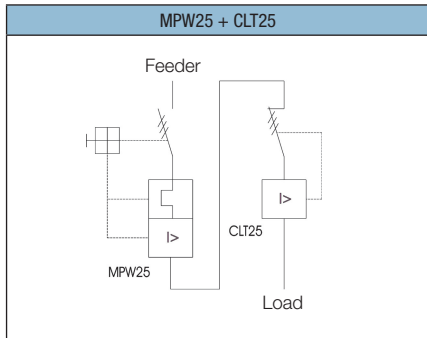
Controls

Manual Motor Protectors

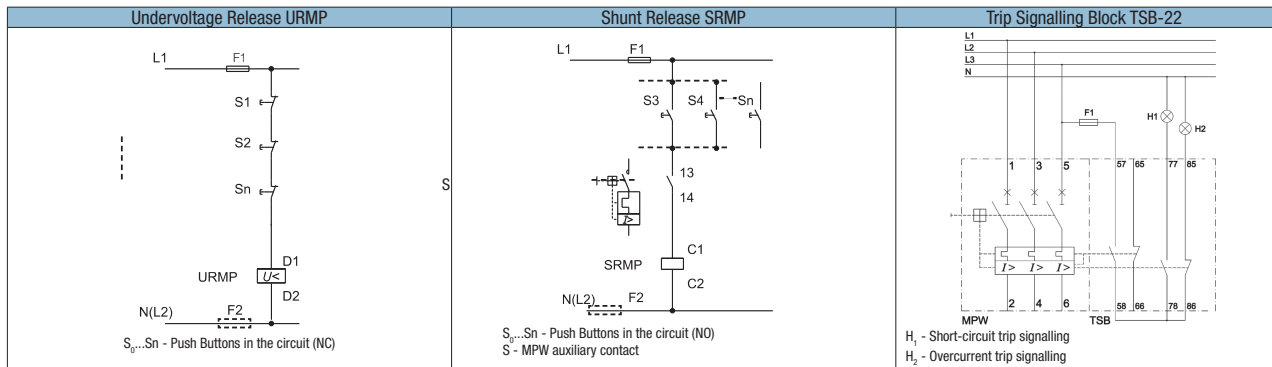
Connection Diagrams and Typical Circuits



MPW SERIES



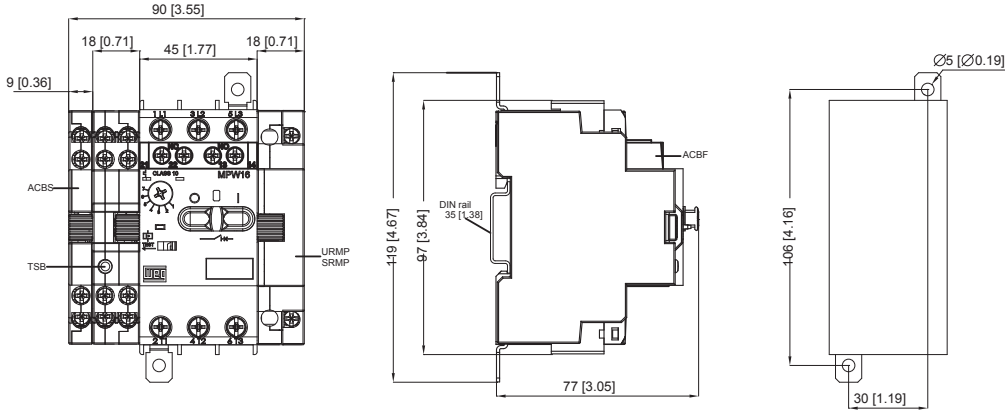
Typical Circuits



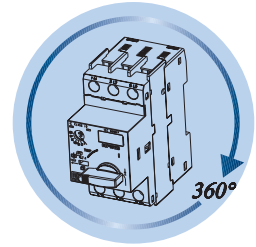
Controls

Manual Motor Protectors - Dimensions mm (in)

MPW16 + Accessories

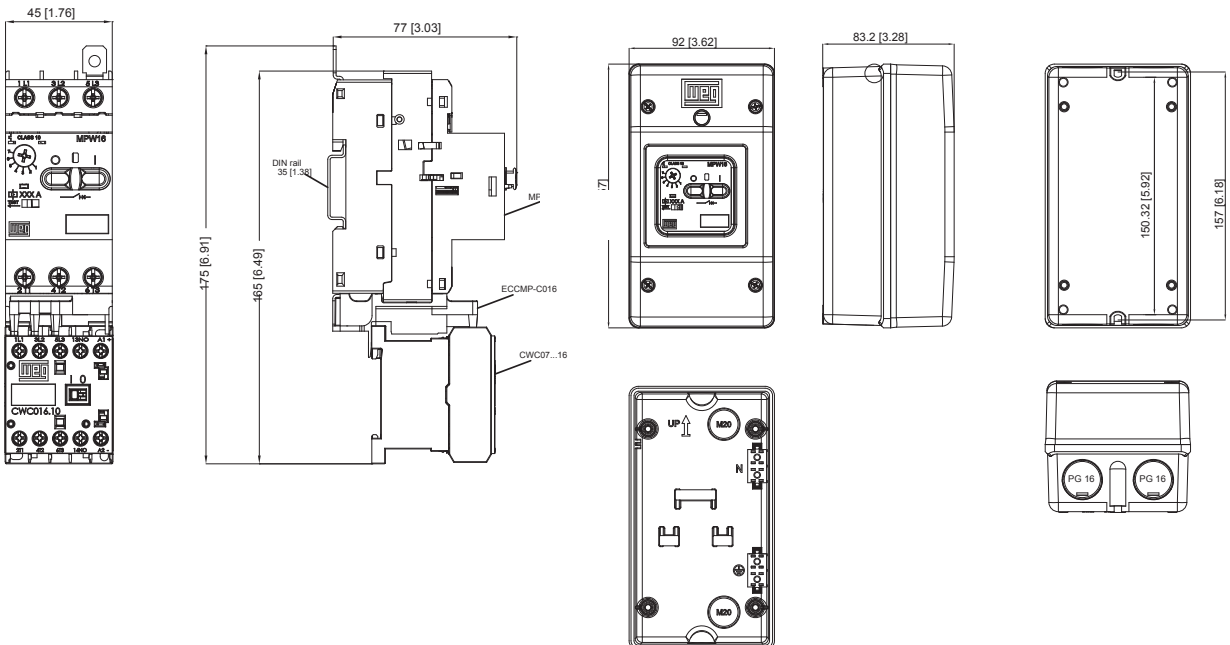


Mounting Position



MPW16 + CWC07...16

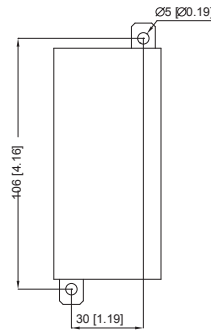
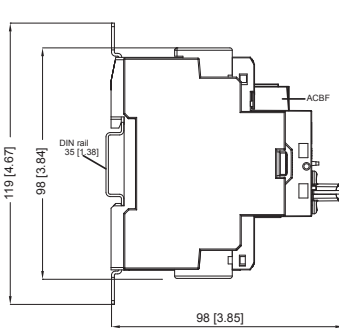
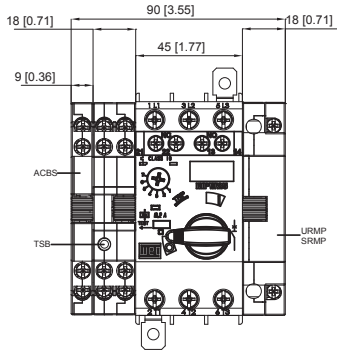
Insulated Enclosure - PE66 (IP66)



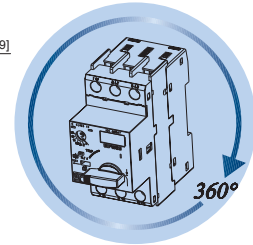
Controls

Manual Motor Protectors - Dimensions mm (in)

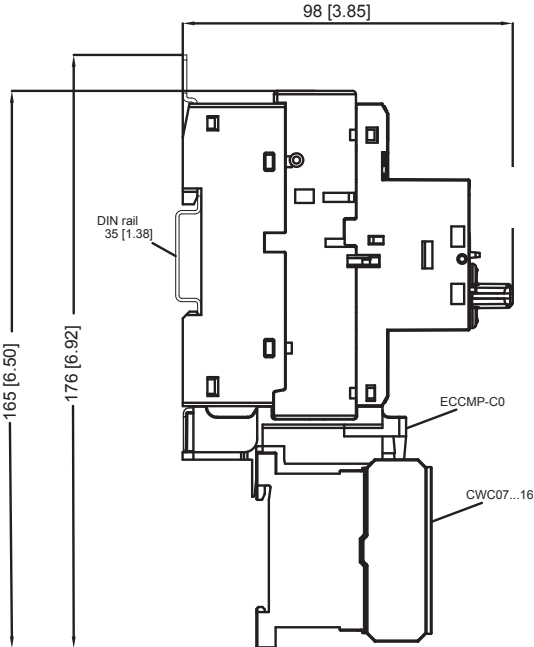
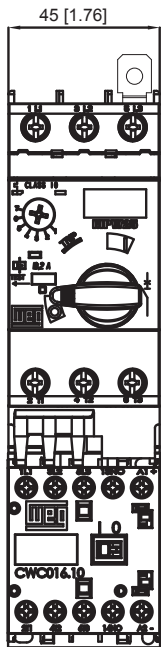
MPW25 + Accessories



Mounting Position



MPW25 + CWC07...16



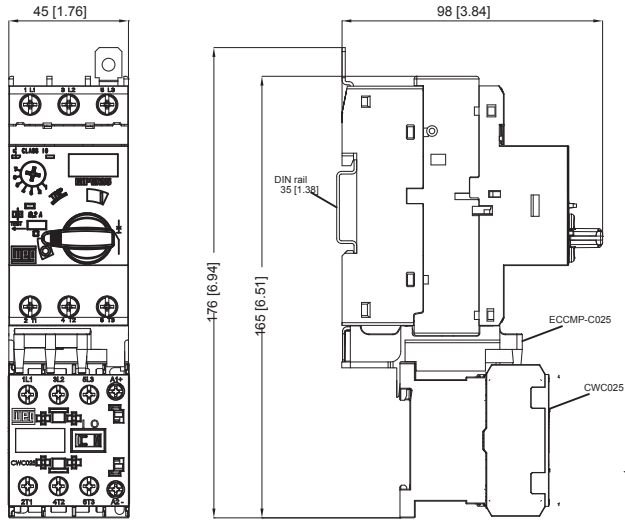
MPW SERIES



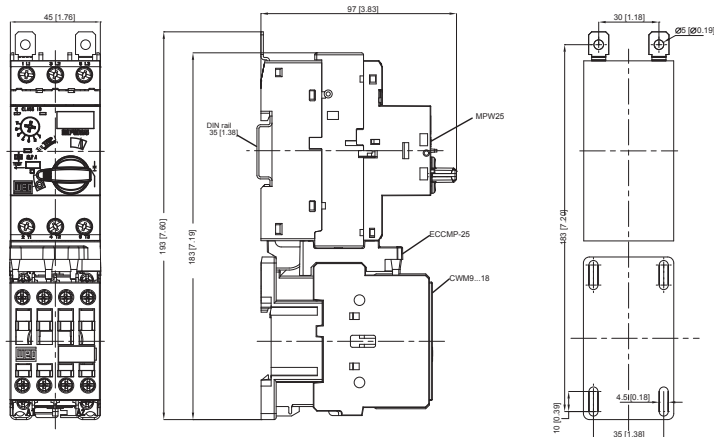
Controls

Manual Motor Protectors - Dimensions mm (in)

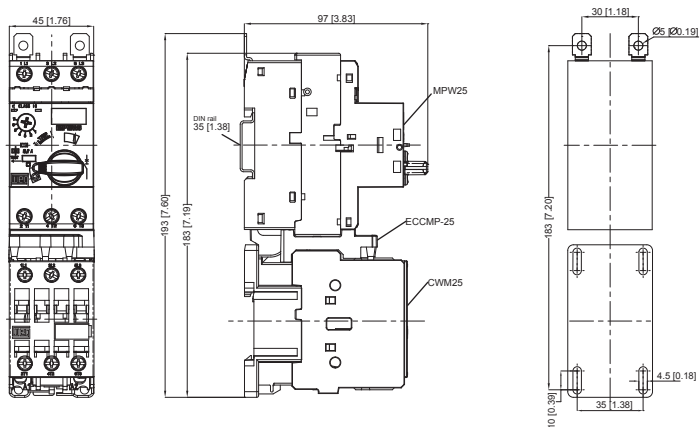
MPW25 + CWC025



MPW25 + CWM9...18



MPW25 + CWM25



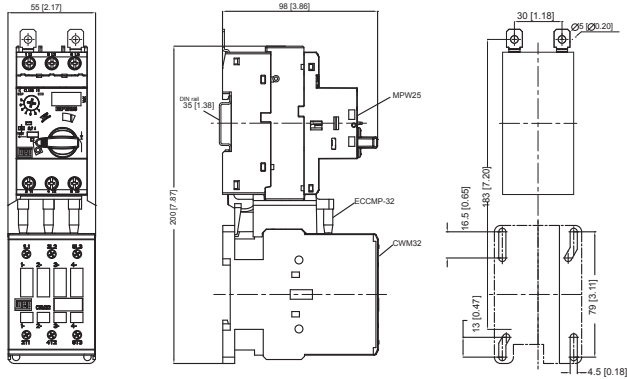
MPW SERIES



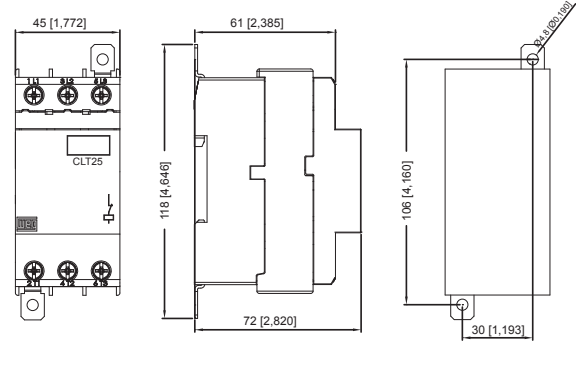


Controls Manual Motor Protectors - Dimensions mm (in)

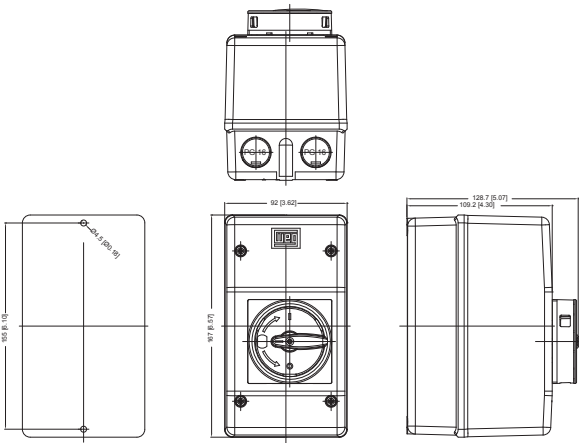
MPW25 + CWM32



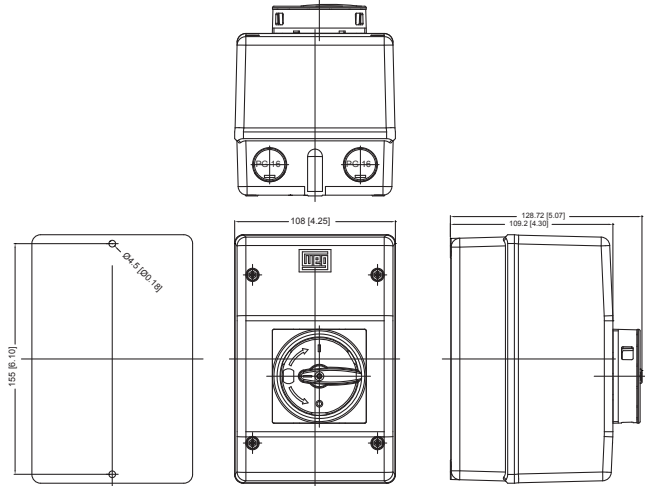
Current limiter - CLT25



Insulated Enclosure - PE55 (IP55)



Insulated Enclosure - LPE55 (IP55)



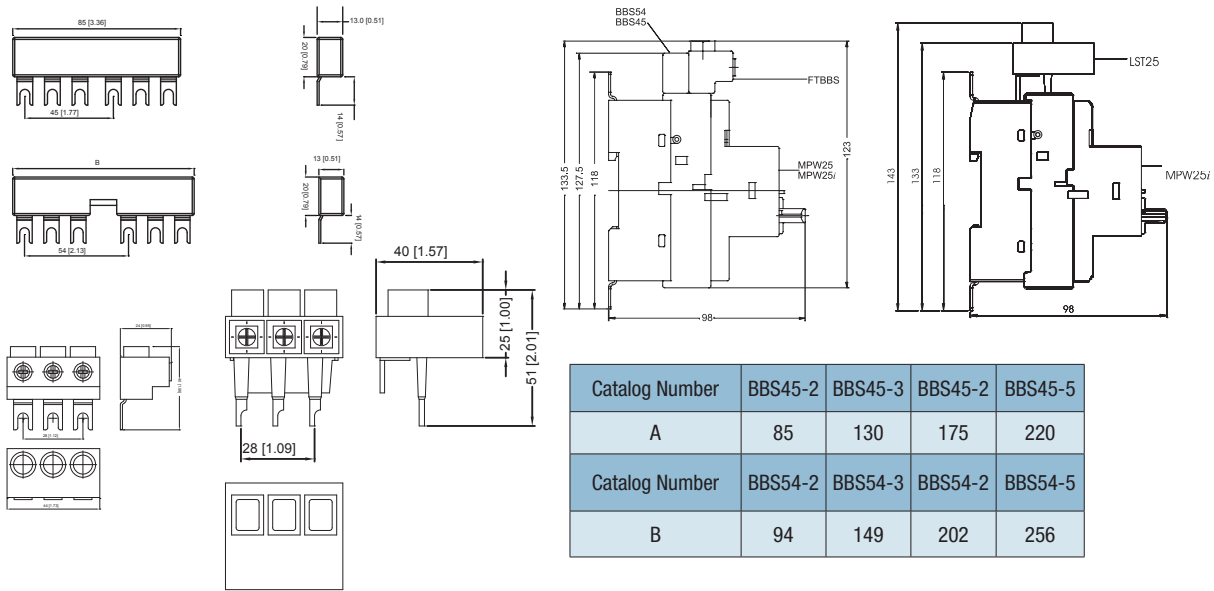
MPW SERIES



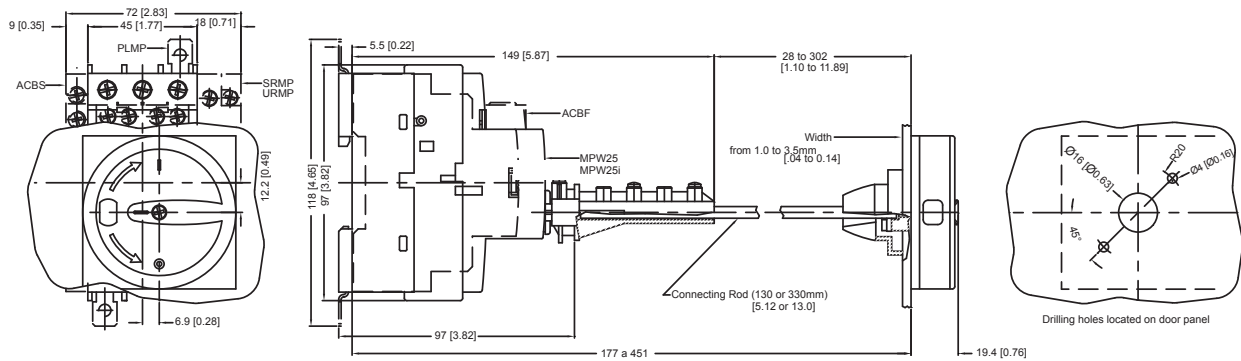
Controls

Manual Motor Protectors - Dimensions mm (in)

Accessories: BBS45, BBS54, FTBBS, LST25

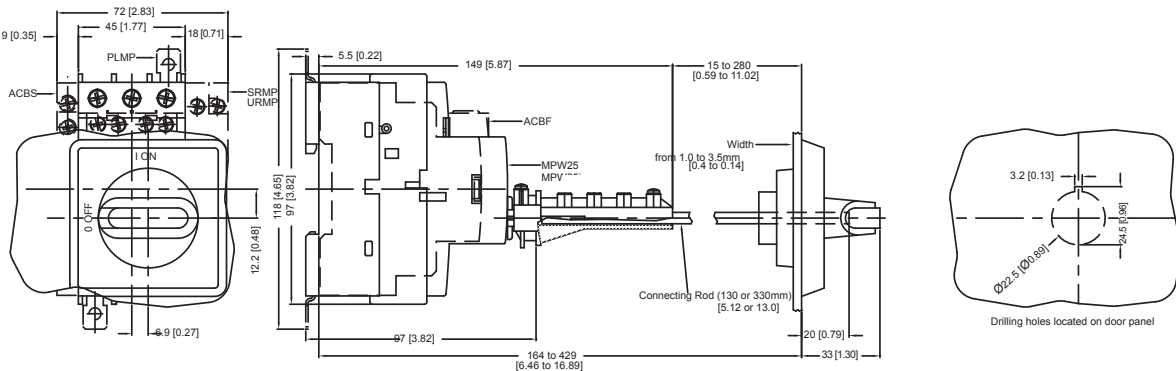


Through the Door Rotary Handle - RMMP



MPW SERIES

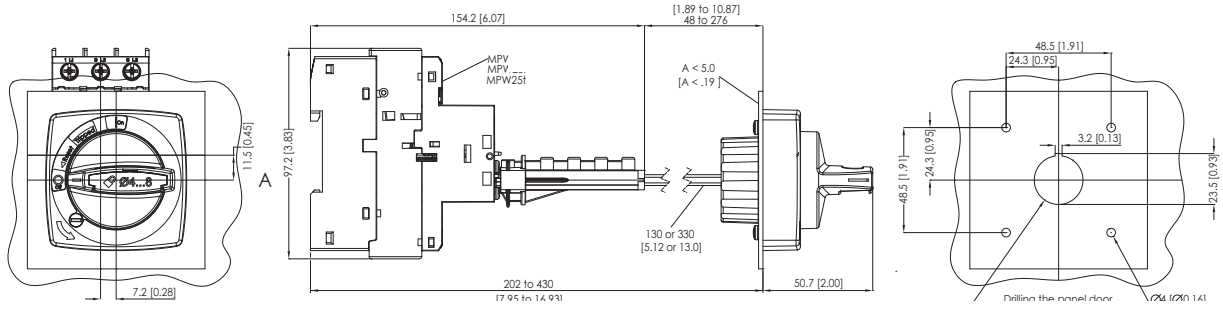
Through the Door Rotary Handle - MR MPW25



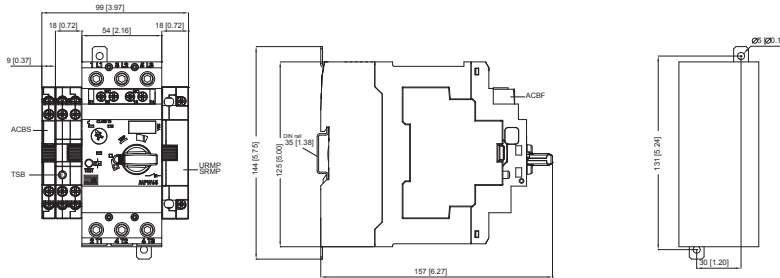
Controls

Manual Motor Protectors - Dimensions mm (in)

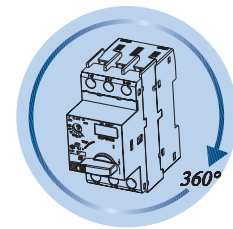
Through the Door Rotary Handle - MRX



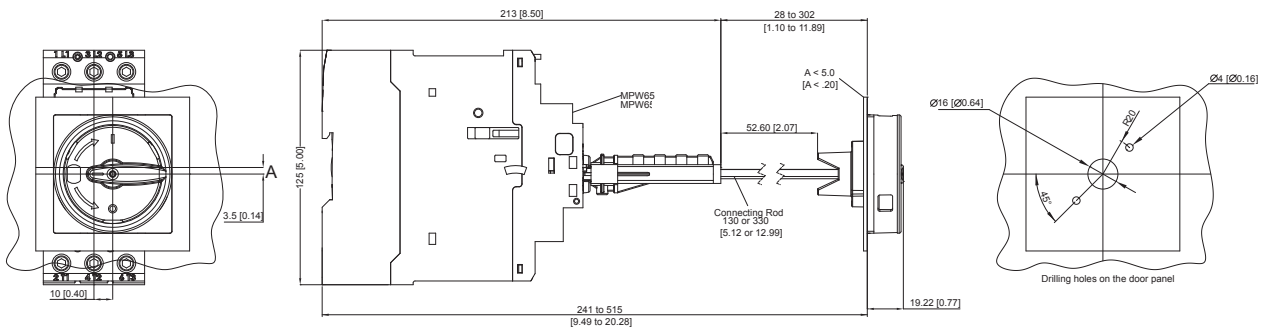
MPW65 + Accessories



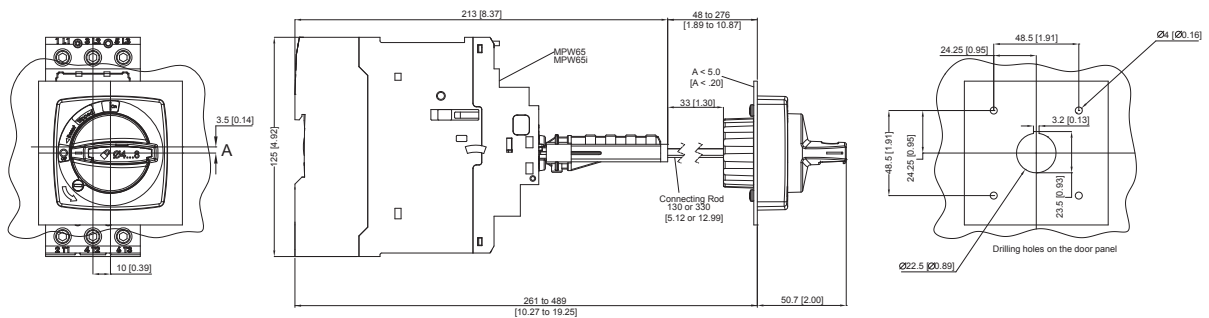
Mounting Position



Through the Door Rotary Handle - RMMP65



Through the Door Rotary Handle - MRX65



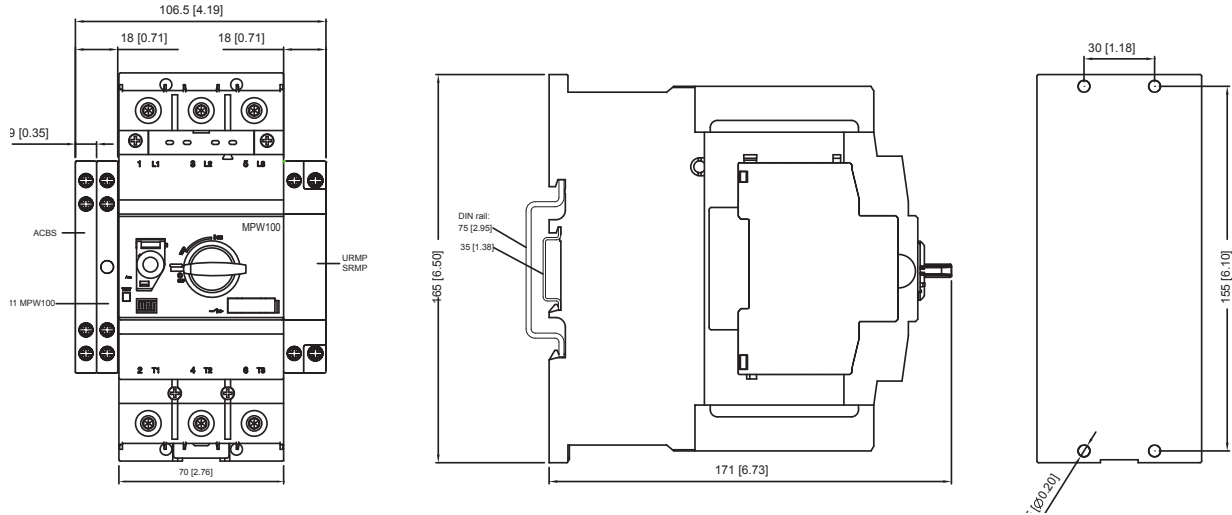
MPW SERIES



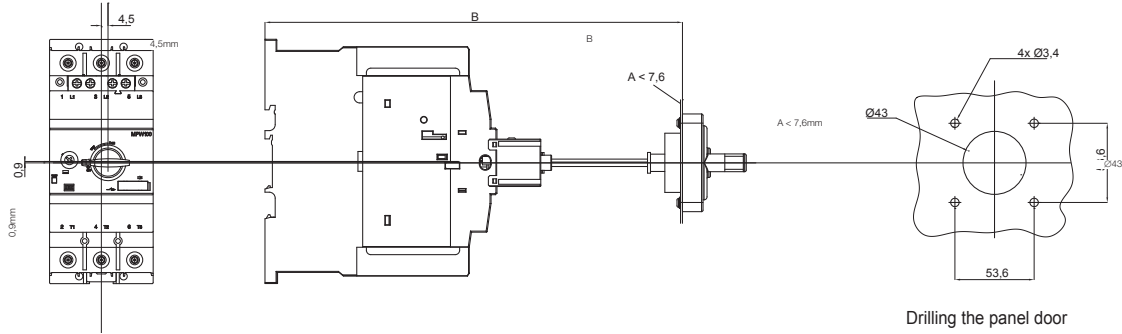
Controls

Manual Motor Protectors - Dimensions mm (in)

MPW100



Through the Door Coupling Rotary Handle - MR MPW100



Reference Code	B (mm)
MR MPW100-115	min: 220
	max: 282
MR MPW100-315	min: 220
	max: 482

Mounting position

