



MPW Series Manual Motor Protectors



MPW40-3-U001

Overview

The WEG MPW Series Manual Motor Protectors provide a very compact solution for operation and protection in motor control applications. The NEC requires four functions to be considered a combination motor starter: Motor Disconnect, Branch Circuit

Protection, Motor Controller and Motor Overload Protection. The WEG MPW meets all of these requirements, as well as the requirements of UL for Self-Protected Motor Controllers to be used in Type-E & F applications. With worldwide approvals, the WEG MPW can be used in a variety of applications all over the globe.

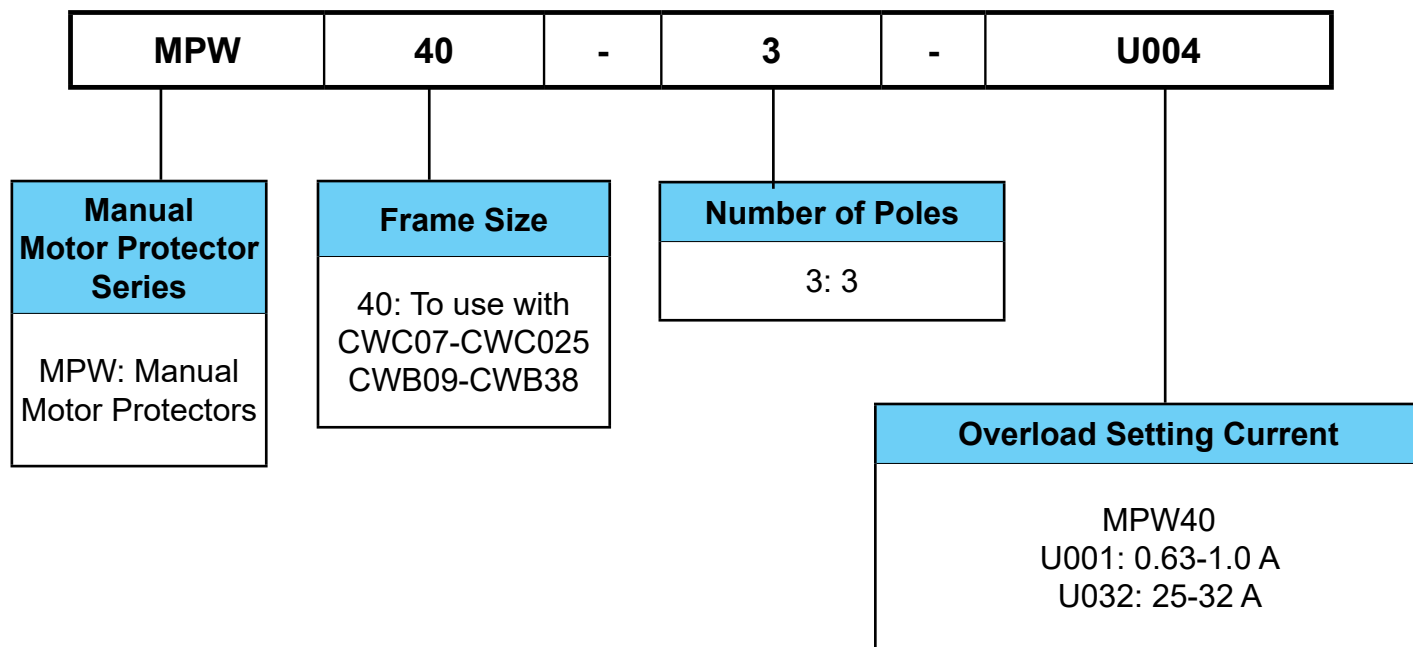
Features

- High short-circuit interrupting ratings (up to 65kA @480V)
- Phase-loss sensitivity protection
- UL Type-E self-protected combination starter
- Suitable for motor disconnect applications
- Group motor installations (per NEC Article 430)
- Wide variety of accessories
- Rated for DC applications



UL File No. E172121

MPW Manual Motor Protectors Catalog Number Sequence



For more details refer to selection table for each frame size

Table intended as reference only and not to create part numbers.



MPW Series Manual Motor Protectors



MPW40-3-U001

MPW40

- 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 $13 \times I_U$
- Phase-loss sensitivity
- Ambient temperature compensation -4 to +140°F (-20 to +60°C)

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

MPW Series Manual Motor Protectors Selection Guide

Part Number	Price	Maximum UL Horsepower						Thermal Setting (A)	Short-Circuit Ratings for Group Installation		Dimensional Drawing
		Single-Phase		Three-Phase					480V	600V	
		115V	230V	200V	230V	460V	575V				
MPW40-3-U001	\$54.00	—	—	—	—	1/2	1/2	0.63 - 1.0	50kA	25kA	PDF
MPW40-3-D016	\$54.00	—	1/10	1/4	1/3	3/4	1	1.0 - 1.6	50kA	25kA	PDF
MPW40-3-D025	\$54.00	—	1/6	1/2	1/2	1-1/2	1-1/2	1.6 - 2.5	50kA	25kA	PDF
MPW40-3-U004	\$54.00	1/8	1/3	3/4	1	2	3	2.5 - 4.0	50kA	25kA	PDF
MPW40-3-D063	\$54.00	—	3/4	1-1/2	1-1/2	5	5	4.0 - 6.3	50kA	25kA	PDF
MPW40-3-U010	\$54.00	1/2	1-1/2	3	3	7-1/2	10	6.3 - 10	50kA	25kA	PDF
MPW40-3-U016	\$59.00	1	3	5	5	10	15	10 - 16	50kA	25kA	PDF
MPW40-3-U020	\$65.00	1-1/2	3	5	7-1/2	15	20	16 - 20	50kA	25kA	PDF
MPW40-3-U025	\$77.00	2	3	7-1/2	7-1/2	15	20	20 - 25	50kA	25kA	PDF
MPW40-3-U032	\$82.00	—	5	10	10	20	25	25 - 32	42kA	25kA	PDF

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



MPW Series Manual Motor Protectors

**CLT32MPW40****MPW40-3-U001**

MPW40 With Current Limiter

- 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 $13 \times I_N$
- Phase-loss sensitivity
- Ambient temperature compensation -4 to +140°F (-20 to +60°C)
- MPW motor protectors and [CLT32MPW40](#) current limiter are ordered separately

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

MPW Series CLT32MPW40 Current Limiter Selection Guide

Current Limiter Part Number	Price	Dimensional Drawing	Use With MPW Motor Protector Part Number	Maximum UL Horsepower						Thermal Setting (A)	Short-Circuit Ratings for Group Installation	
				Single-Phase		Three-Phase					480V	600V
				115V	230V	200V	230V	460V	575V			
CLT32MPW40	\$45.00	PDF	MPW40-3-U001	—	—	—	—	1/2	1/2	0.63 - 1.0	100kA	50kA
			MPW40-3-D016	—	1/10	1/4	1/3	3/4	1	1.0 - 1.6	100kA	50kA
			MPW40-3-D025	—	1/6	1/2	1/2	1-1/2	1-1/2	1.6 - 2.5	100kA	50kA
			MPW40-3-U004	1/8	1/3	3/4	1	2	3	2.5 - 4.0	100kA	50kA
			MPW40-3-D063	1/4	3/4	1-1/2	1-1/2	5	5	4.0 - 6.3	100kA	50kA
			MPW40-3-U010	1/2	1-1/2	3	3	7-1/2	10	6.3 - 10	100kA	50kA
			MPW40-3-U016	1	3	5	5	10	15	10 - 16	100kA	50kA
			MPW40-3-U020	1-1/2	3	5	7-1/2	15	20	16 - 20	100kA	50kA
			MPW40-3-U025	2	3	7-1/2	7-1/2	15	20	20 - 25	100kA	50kA
			MPW40-3-U032	—	5	10	10	20	25	25 - 32	100kA	50kA

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



MPW Series Manual Motor Protectors

Accessories

Accessories for MPW Series Manual Motor Protectors – Selection Guide			
Part Number	Price	Description	Dimensional Drawing
Auxiliary Contact Blocks			
<u>ACBF-11</u>	\$8.25	Field installable auxiliary contact, front mount, (1) N.O./ (1) N.C. contact(s), 2.5A @300 VAC/1A @ 300 VDC, screw terminal. For use with MPW40 series manual motor protectors.	<u>PDF</u>
<u>ACBS-11</u>	\$9.00	Field installable auxiliary contact, left side mount, (1) N.O./ (1) N.C. contact(s), 10A @ 600 VAC/2.5A @ 600 VDC, screw terminal. For use with MPW40 series manual motor protectors.	<u>PDF</u>
<u>ACBS-20</u>	\$9.00	Field installable auxiliary contact, left side mount, (2) N.O. contact(s), 10A @ 600 VAC/2.5A @ 600 VDC, screw terminal. For use with MPW40 series manual motor protectors.	<u>PDF</u>
<u>ACBS-02</u>	\$9.00	Field installable auxiliary contact, left side mount, (2) N.C. contact(s), 10A @ 600 VAC/2.5A @ 600 VDC, screw terminal. For use with MPW40 series manual motor protectors.	<u>PDF</u>
Accessories for Combination Type-E Construction			
<u>LST25</u>	\$17.00	Incoming power terminal block, 3-pole, maximum current 63A, 20-8 AWG. For use with MPW40 series manual motor protectors. Required when using a MPW40 in a UL Type E application 32A and less.	<u>PDF</u>
<u>TSB</u>	\$15.00	Field installable short circuit alarm contact, left side mount, (2) N.O./ (2) N.C. contact(s), 2.5A @300 VAC/1A @ 300 VDC, screw terminal. For use with MPW40 series manual motor protectors.	<u>PDF</u>
Current Limiter			
<u>CLT32MPW40</u>	\$45.00	Current limiter, 35mm DIN rail mount. For use with MPW40 series manual motor protectors.	<u>PDF</u>
Link Modules			
<u>ECCMP-C0</u>	\$8.50	Link module, for use with MPW40 protectors and CWC07 through CWC016 series miniature contactors with AC or DC coils. Not for use with 4-Pole CWC series miniature contactors.	<u>PDF</u>
<u>ECCMP-C025</u>	\$8.50	Link module, for use with MPW40 protectors and CWC025 series miniature contactors with AC coils. Not for use with 4-Pole CWC series miniature contactors.	<u>PDF</u>
<u>ECCMP-40B38</u>	\$10.00	Link module, for use with MPW40 protectors and CWB9 through CWB38 series contactors with AC coils.	<u>PDF</u>
<u>ECCMP-40B38DC</u>	\$10.00	Link module, for use with MPW40 protectors and CWB9 through CWB38 series contactors with DC coils.	<u>PDF</u>

**[ACBF-11](#)****[ACBS-11](#)****[ACBS-20](#)****[ACBS-02](#)****[LST25](#)****[TSB](#)****[CLT32MPW40](#)****[ECCMP-C0](#)****[ECCMP-C025](#)****[ECCMP-40B38](#)****[ECCMP-40B38DC](#)**



MPW Series Manual Motor Protectors

Accessories, continued

Accessories for MPW Series Manual Motor Protectors – Selection Guide

Part Number	Price	Description	Dimensional Drawing
Through-the-Door Rotary Mechanisms			
<u>RMMP-130</u>	\$28.50	Handle, rotary, 130mm length, black/gray, external front mount, 2-position, lockable in OFF only, NEMA 1/3R, IP55. For use with MPW40 series manual motor protectors.	<u>PDF</u>
<u>RMMP-130E</u>	\$28.50	Handle, rotary, 130mm length, red/yellow, external front mount, 2-position, lockable in OFF only, NEMA 1/3R, IP55. For use with MPW40 series manual motor protectors.	<u>PDF</u>
<u>RMMP-330</u>	\$34.50	Handle, rotary, 330mm length, black/gray, external front mount, 2-position, lockable in OFF only, NEMA 1/3R, IP55. For use with MPW40 series manual motor protectors.	<u>PDF</u>
<u>RMMP-330E</u>	\$34.50	Handle, rotary, 330mm length, red/yellow, external front mount, 2-position, lockable in OFF only, NEMA 1/3R, IP55. For use with MPW40 series manual motor protectors.	<u>PDF</u>
<u>MRX-130</u>	\$42.50	Handle, rotary, 130mm length, black/gray, external front mount, 2-position, lockable in OFF only, defeatable, NEMA 4/4X, IP65. For use with MPW40 series manual motor protectors.	<u>PDF</u>
<u>MRX-130E</u>	\$42.50	Handle, rotary, 130mm length, red/yellow, external front mount, 2-position, lockable in OFF only, defeatable, NEMA 4/4X, IP65. For use with MPW40 series manual motor protectors.	<u>PDF</u>
<u>MRX-330</u>	\$46.50	Handle, rotary, 330mm length, black/gray, external front mount, 2-position, lockable in OFF only, defeatable, NEMA 4/4X, IP65. For use with MPW40 series manual motor protectors.	<u>PDF</u>
<u>MRX-330E</u>	\$46.50	Handle, rotary, 330mm length, red/yellow, external front mount, 2-position, lockable in OFF only, defeatable, NEMA 4/4X, IP65. For use with MPW40 series manual motor protectors.	<u>PDF</u>
Under Voltage and Shunt Trip Releases			
<u>SRMPD51</u>	\$22.50	Field installable shunt trip, right side mount, 20-24 VAC (50/60Hz) coil voltage, screw terminal. For use with MPW40 series manual motor protectors.	<u>PDF</u>
<u>SRMPD59</u>	\$22.50	Field installable shunt trip, right side mount, 100-127 VAC (50/60Hz) coil voltage, screw terminal. For use with MPW40 series manual motor protectors.	<u>PDF</u>
<u>SRMPD65</u>	\$22.50	Field installable shunt trip, right side mount, 200-240 VAC (50/60Hz) coil voltage, screw terminal. For use with MPW40 series manual motor protectors.	<u>PDF</u>
<u>URMPV18</u>	\$22.50	Field installable undervoltage trip device, right side mount, 110 VAC (50Hz)/120 VAC (60Hz) sensing range, screw terminals. For use with MPW40 series manual motor protectors.	<u>PDF</u>
<u>URMPV23</u>	\$22.50	Field installable undervoltage trip device, right side mount, 180 VAC (50Hz)/208 VAC (60Hz) sensing range, screw terminals. For use with MPW40 series manual motor protectors.	<u>PDF</u>
<u>URMPV30</u>	\$22.50	Field installable undervoltage trip device, right side mount, 208 VAC (50Hz)/240 VAC (60Hz) sensing range, screw terminals. For use with MPW40 series manual motor protectors.	<u>PDF</u>
<u>URMPV37</u>	\$22.50	Field installable undervoltage trip device, right side mount, 230-240 VAC (50Hz)/240-277 VAC (60Hz) sensing range, screw terminals. For use with MPW40 series manual motor protectors.	<u>PDF</u>
<u>URMPV47</u>	\$22.50	Field installable undervoltage trip device, right side mount, 400-415 VAC (50Hz)/480 VAC (60Hz) sensing range, screw terminals. For use with MPW40 series manual motor protectors.	<u>PDF</u>
<u>URMPD02</u>	\$22.50	Field installable undervoltage trip device, right side mount, 24 VAC (50/60Hz) sensing range, screw terminals. For use with MPW40 series manual motor protectors.	<u>PDF</u>

**RMMP-130****MRX-130****MRX-130E****SRMPD51****URMPV18****URMPD02**



Self Protected Combination Type-E Motor Controller

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. UL currently recognizes six different types of combination starters that meet the requirements of a motor branch circuit.

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

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

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

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

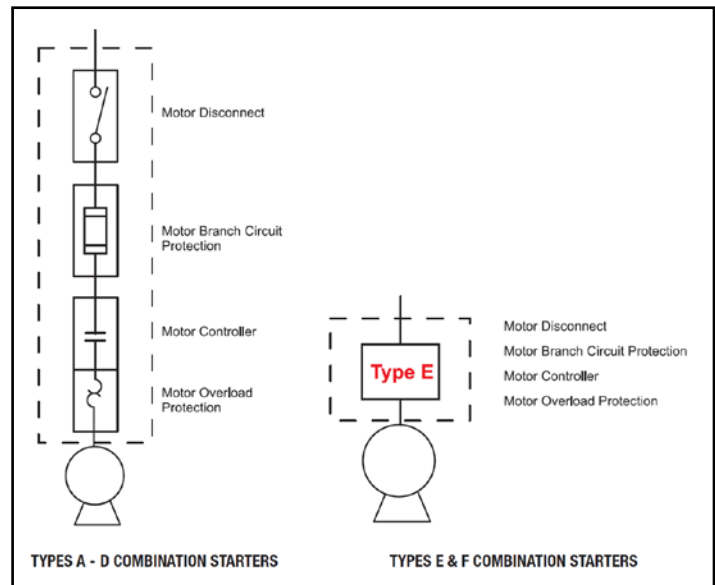
Tests performed in order to fulfill the Type E requirements are considered the hardest in UL508, including short-circuit and endurance tests on the same sample. As a comparison, UL Type E exceeds the requirements for Type F and IEC60947-4-1 Coordination type 2.

WEG's self-protected combination Type E combines all of these functions within a single product for a manual operation or within a set of two products (with a listed contactor) for a remote operation. Both options must be associated with the accessories Line Side Terminal (LST25) and Tripping Signaling Block (TSB) 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 20Hp@460V motors (0.16 to 32A) 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 the CWB 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.





Manual Self Protected Combination Type-E Motor Controllers

**MPW40-3-U001**

Manual Self-Protected Combination Type-E Motor Controllers

- No need for upstream protective devices such as UL489 MCCB or UL248 fuses
- Built-in protection: 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 to +140°F (-20 to +60°C)

Manual Self Protected Combination Type-E Motor Controllers (High Interruption Capacity) Selection Guide

Part Number			Maximum UL Horsepower						Thermal Setting (A)	Short-Circuit Interruption Capacity
Manual Motor Protector	Line Side Terminal	Tripping Indicator	Single-Phase		Three-Phase					
			115V	230V	200V	230V	460V	575V		480V
MPW40-3-U001	LST25	TSB	–	–	–	–	1/2	1/2	0.63 - 1.0	65kA
MPW40-3-D016			–	1/10	1/4	1/3	3/4	1	1.0 - 1.6	65kA
MPW40-3-D025			–	1/6	1/2	1/2	1-1/2	1-1/2	1.6 - 2.5	65kA
MPW40-3-U004			1/8	1/3	3/4	1	2	3	2.5 - 4.0	65kA
MPW40-3-D063			1/4	3/4	1-1/2	1-1/2	5	5	4.0 - 6.3	65kA
MPW40-3-U010			1/2	1-1/2	3	3	7-1/2	10	6.3 - 10	65kA
MPW40-3-U016			1	3	5	5	10	15	10 - 16	65kA
MPW40-3-U020			1-1/2	3	5	7-1/2	15	20	16 - 20	50kA
MPW40-3-U025			2	3	7-1/2	7-1/2	15	20	20 - 25	50kA
MPW40-3-U032			–	5	10	10	20	25	25 - 32	42kA

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

Note: Individual component catalog numbers are ordered separately.

Manual Self Protected Combination Type-E Motor Controllers (Extra High Interruption Capacity) Selection Guide

Part Number				Maximum UL Horsepower						Thermal Setting (A)	Short-Circuit Interruption Capacity
Manual Motor Protector	Current Limiter	Line Side Terminal	Tripping Indicator	Single-Phase		Three-Phase					
				115V	230V	200V	230V	460V	575V		480V
MPW40-3-U001	CLT32MPW40	LST25	TSB	—	—	—	—	1/2	1/2	0.63 - 1.0	100kA
MPW40-3-D016				—	1/10	1/4	1/3	3/4	1	1.0 - 1.6	100kA
MPW40-3-D025				—	1/6	1/2	1/2	1-1/2	1-1/2	1.6 - 2.5	100kA
MPW40-3-U004				1/8	1/3	3/4	1	2	3	2.5 - 4.0	100kA
MPW40-3-D063				1/4	3/4	1-1/2	1-1/2	5	5	4.0 - 6.3	100kA
MPW40-3-U010				1/2	1-1/2	3	3	7-1/2	10	6.3 - 10	100kA
MPW40-3-U016				1	3	5	5	10	15	10 - 16	100kA
MPW40-3-U020				1-1/2	3	5	7-1/2	15	20	16 - 20	100kA
MPW40-3-U025				2	3	7-1/2	7-1/2	15	20	20 - 25	100kA
MPW40-3-U032				—	5	10	10	20	25	25 - 32	100kA

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

Note: Individual component catalog numbers are ordered separately.



Combination Type-F Motor Controllers



MPW40-3-U001

Combination Type-F Motor Controllers

- No need for upstream protective devices such as UL489 MCCB or UL248 fuses
- Built-in protection: 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 to +140°F (-20 to +60°C)
- Remote operation

Combination Type-F Motor Controllers (High Interruption Capacity) Selection Guide

Part Number					Maximum UL Horsepower						Thermal Setting (A)	Short-Circuit Interruption Capacity
Manual Motor Protector	Line Side Terminal	Tripping Indicator	Link Module	Contactor	Single-Phase		Three-Phase					
					115V	230V	200V	230V	460V	575V		480V
MPW40-3-U001	LST25	TSB	ECCMP-40B38	CWB9	–	–	–	–	1/2	1/2	0.63 - 1.0	65kA
MPW40-3-D016				CWB9	–	1/10	1/4	1/3	3/4	1	1.0 - 1.6	65kA
MPW40-3-D025				CWB9	–	1/6	1/2	1/2	1-1/2	1-1/2	1.6 - 2.5	65kA
MPW40-3-U004				CWB9	1/8	1/3	3/4	1	2	3	2.5 - 4.0	65kA
MPW40-3-D063				CWB9	1/4	3/4	1-1/2	1-1/2	5	5	4.0 - 6.3	65kA
MPW40-3-U010				CWB9	1/2	1-1/2	3	3	7-1/2	10	6.3 - 10	65kA
MPW40-3-U016				CWB18	1	3	5	5	10	15	10 - 16	65kA
MPW40-3-U020				CWB18	1-1/2	3	5	7-1/2	15	20	16 - 20	50kA
MPW40-3-U025				CWB25	2	3	7-1/2	7-1/2	15	20	20 - 25	42kA

Notes: 1) Horsepower ratings shown in the table are for reference only. Please refer to "Full Load Amps of the Motor" for final selection.

2) Individual component catalog numbers are ordered separately.

Combination Type-F Motor Controllers (Extra-High Interruption Capacity) Selection Guide

Part Number						Maximum UL Horsepower						Thermal Setting (A)	Short-Circuit Interruption Capacity
Manual Motor Protector	Line Side Terminal	Tripping Indicator	Link Module	Current Limiter	Contactor	Single-Phase		Three-Phase					
						115V	230V	200V	230V	460V	575V		480V
MPW40-3-U001	LST25	TSB	ECCMP-40B38	CLT32MPW40	CWB9	–	–	–	–	1/2	1/2	0.63 - 1.0	100kA
MPW40-3-D016					CWB9	–	1/10	1/4	1/3	3/4	1	1.0 - 1.6	100kA
MPW40-3-D025					CWB9	–	1/6	1/2	1/2	1-1/2	1-1/2	1.6 - 2.5	100kA
MPW40-3-U004					CWB9	1/8	1/3	3/4	1	2	3	2.5 - 4.0	100kA
MPW40-3-D063					CWB9	1/4	3/4	1-1/2	1-1/2	5	5	4.0 - 6.3	100kA
MPW40-3-U010					CWB9	1/2	1-1/2	3	3	7-1/2	10	6.3 - 10	100kA
MPW40-3-U016					CWB18	1	3	5	5	10	15	10 - 16	100kA
MPW40-3-U020					CWB18	1-1/2	3	5	7-1/2	15	20	16 - 20	100kA
MPW40-3-U025					CWB25	2	3	7-1/2	7-1/2	15	20	20 - 25	100kA
MPW40-3-U032					CWB32	–	5	10	10	20	25	25 - 32	100kA

Notes: 1) Horsepower ratings shown in the table are for reference only. Please refer to "Full Load Amps of the Motor" for final selection.

2) Individual component catalog numbers are ordered separately.



Combination Type-F Motor Controllers

Accessories for MPW Series Manual Motor Protectors

Auxiliary Contact Block Accessories Selection Guide

Part Number	Price	Description	Auxiliary Contacts		Dimensional Drawing
			N.O.	N.C.	
Front Mounting Auxiliary Contact Block – CBF					
ACBF-11	\$8.25	For use with MPW40 ¹	1	1	PDF
Left Side Auxiliary Contact Block – ACBS					
ACBS-11	\$9.00	For use with MPW40 ¹	1	1	PDF
ACBS-20	\$9.00		2	–	PDF
ACBS-02	\$9.00		–	2	PDF

**ACBF-11****ACBS-11**

Trip Signalling Block (TSB) Accessory Selection Guide

Part Number	Price	For Use With	Description	Dimensional Drawing
<u>TSB</u>	\$15.00	MPW40 ¹	- Equipped with 2 auxiliary contacts (1 N.O. + 1 N.C.) for overload trip signalling and 2 other auxiliary contacts (1 N.O. + 1 N.C.) 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.	<u>PDF</u>

**ACBS-20****ACBS-02**

Undervoltage Release (URMP) Accessory Selection Guide

Part Number	Price	For Use With	Voltage	Dimensional Drawing
<u>URMPV23</u>	\$22.50	MPW40 ¹	208VAC 60Hz	<u>PDF</u>
<u>URMPD02</u>	\$22.50		24VAC 50/60Hz	<u>PDF</u>
<u>URMPV47</u>	\$22.50		400-415 VAC 50Hz / 480VAC 60Hz	<u>PDF</u>
<u>URMPV18</u>	\$22.50		110VAC50Hz / 120VAC 60Hz	<u>PDF</u>
<u>URMPV30</u>	\$22.50		240VAC 60Hz	<u>PDF</u>
<u>URMPV37</u>	\$22.50		230-240 VAC 50Hz / 277VAC 60Hz	<u>PDF</u>

**TSB****URMPV18**

Shunt Trip Releases Selection Guide

Part Number	Price	For Use With	Voltage	Dimensional Drawing
<u>SRMPD51</u>	\$22.50	MPW40 ¹	20-24 VAC 50/60 Hz	<u>PDF</u>
<u>SRMPD59</u>	\$22.50		100-127 VAC 50/60 Hz	<u>PDF</u>
<u>SRMPD65</u>	\$22.50		200-240 VAC 50/60 Hz	<u>PDF</u>

**URMPD02**

Link Modules for Manual Motor Protector Assembly + Contactors (ECCMP) Selection Guide

Part Number	Price	For Use With	Description	Contactors	Dimensional Drawing
<u>ECCMP-C0</u>	\$8.50	MPW40 ¹	For direct connection (electrical and mechanical) of motor protector to contactors.	CWC07 through CWC016, AC coils	<u>PDF</u>
<u>ECCMP-C025</u>	\$8.50			CWC025, AC coils	<u>PDF</u>

**ECCMP-C0****ECCMP-C025**

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

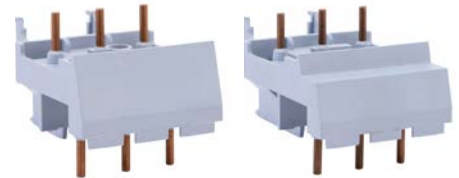


Combination Type-F Motor Controllers

Accessories (continued)

Connector Links for MPW40 and CWB Contactors Selection Guide

Part Number	Price	For Use With	Description	Contactors	Dimensional Drawing
<u>ECCMP-40B38</u>	\$10.00	MPW40	For direct connection (electrical and mechanical) of motor protector to contactors.	CWB9 through CWB38, AC coils	<u>PDF</u>
<u>ECCMP-40B38DC</u>	\$10.00			CWB9 through CWB38, DC coils	<u>PDF</u>

**ECCMP-40B38****ECCMP-40B38DC**

Through-the-Door Rotary Handle – RMMP and MRX Selection Guide

Part Number	Price	For Use With	Description	Handle Color	Dimensional Drawing
<u>RMMP-130</u>	\$28.50	MPW40	- Degree of protection: IP55/NEMA1. - Shows MPW position "1" (ON) or "0" (OFF). - Panel door can only be opened in OFF position. - Adjustable shaft length: 130-155 mm [5.12- 6.10 in] (Model 130) and 330-355 mm [12.99-13.98 in] (Model 330). - To assemble the handle on the MPW, the shaft must have a length of at least 80mm [3.15 in] - Up to three padlocks can be used in OFF position to block MPW operation and panel door opening - Handle can be mounted on panels with thickness of 1-5 mm [0.04-0.20 in]. - Handle can be assembled even with MPW turned in the 90° position.	Gray/black	<u>PDF</u>
<u>RMMP-330</u>	\$34.50				<u>PDF</u>
<u>RMMP-130E</u>	\$28.50			Red/yellow	<u>PDF</u>
<u>RMMP-330E</u>	\$34.50				<u>PDF</u>
<u>MRX-130</u>	\$42.50		- Panel door can be opened in ON position (thermometry) by defeating mechanism, - Degree of protection: IP65/NEMA 4X. - Shows MPW position "1" (ON) or "0" (OFF). - Panel door can only be opened in OFF position. - Adjustable shaft length: 130-155 mm [5.12- 6.10 in] (Model 130) and 330-355 mm [12.99-13.98 in] (Model 330). - To assemble the handle on the MPW, the shaft must have a length of at least 80mm [3.15 in] - Up to three padlocks can be used in OFF position to block MPW operation and panel door opening - Handle can be mounted on panels with thickness of 1-5 mm [0.04-0.20 in].	Gray/black	<u>PDF</u>
<u>MRX-330</u>	\$46.50				<u>PDF</u>
<u>MRX-130E</u>	\$42.50			Red/yellow	<u>PDF</u>
<u>MRX-330E</u>	\$46.50				<u>PDF</u>

**RMMP-130****MRX-130**

Three-Phase Feeder Terminal – Selection Guide

Part Number	Price	For Use With	Description	Dimensional Drawing
<u>LST25</u>	\$17.00	MPW40	- Block module for "Type E" Combination Motor Controller" in accordance with UL (LST25+MPW+TSB) - Rated insulation voltage: 690VAC. - I_g: 63A - Terminals: 8-20AWG	<u>PDF</u>

**LST25**



MPW40 Technical Data

MPW40 – Specifications					
Type	MPW40-3-U001	MPW40-3-D016	MPW40-3-D025	MPW40-3-U004	MPW40-3-D063
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	0.63-1.0 A	1.0 - 1.6 A	1.6 - 2.5 A	2.5-4.0 A	4.0-6.3 A
Rated Thermal Current I_{th}	1.0 A	1.6 A	2.5 A	4.0 A	6.3 A
Rated Insulation Voltage U_i					
Acc. IEC; VDE 0660	690V				
Acc. UL; CSA	600V				
Rated Operating Voltage U_e					
Acc. IEC; VDE 0660	690V				
Acc. UL; CSA	600V				
Rated Impulse Voltage U_{imp}					
Acc. IEC60947-1	6kV				
Rated Operating Frequency	50/60 Hz				
Overvoltage Category	III				
Pollution Degree	3				
Utilization Category					
IEC 60947-2 (Motor Protector)	A				
IEC 60947-4-1 (Motor Starter)	AC-3				
Lifespan					
Mechanical	100,000 operations				
Electrical (I_e max.)	100,000 operations				
Switching Rate (motor starts) AC-3	15 operations/hour				
Ambient Temperature					
Storage	-50°C to +80°C (-58°F to +176°F)				
Operating	-20°C to +60°C (-4°F to +140°F)				
Ambient Temperature Compensation	-20°C to +60°C (-4°F to +140°F)				
Climatic Proofing	IEC 60068-2-3 / IEC 60068-2-30				
Altitude					
Up to 2,000m (6,600ft)	Nominal values (for higher altitudes refer to Altitude Correction Factors table)				
Degree of protection	IP20				
Resistance to Shock					
Acc. IEC 60068-2-27	15g				
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_{th})	0.6 - 1 A				
Magnetic Release (x I_{th})	13A				
Overload Trip Class	10				
Total Power Loss P_v					
At rated load operating temperature	6W	6W	6W	6W	6W
Weight	0.32 kg [0.71 lb]				
Type of Terminal	Flat type				
Screw Driver	Philips #2				
Terminal Capacity					
Solid-Stranded	1 or 2 x (0.5 to 2.5)				
Tightening Torque	1.2-1.7 N•m [11-16 lb•in]				
Mounting Position	Any position				



MPW40 Technical Data

MPW40 – Specifications (continued)					
Type	MPW40-3-U010	MPW40-3-U016	MPW40-3-U020	MPW40-3-U025	MPW40-3-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	6.3 - 10 A	10 - 16 A	16 - 20 A	20 - 25 A	25 - 32 A
Rated Thermal Current I_{th}	10A	16A	20A	25A	32A
Rated Insulation Voltage U_i					
Acc. IEC; VDE 0660	690V				
Acc. UL; CSA	600V				
Rated Operating Voltage U_e					
Acc. IEC; VDE 0660	690V				
Acc. UL; CSA	600V				
Rated Impulse Voltage U_{imp}					
Acc. IEC60947-1	6kV				
Rated Operating Frequency	50/60 Hz				
Overvoltage Category	III				
Pollution Degree	3				
Utilization Category					
IEC 60947-2 (Motor Protector)	A				
IEC 60947-4-1 (Motor Starter)	AC-3				
Lifespan					
Mechanical	100,000 operations				
Electrical (I_e max.)	100,000 operations				
Switching Rate (motor starts) AC-3	15 operations/hour				
Ambient Temperature					
Storage	-50°C to +80°C (-58°F to +176°F)				
Operating	-20°C to +60°C (-4°F to +140°F)				
Ambient Temperature Compensation	-20°C to +60°C (-4°F to +140°F)				
Climatic Proofing	IEC 60068-2-3 / IEC 60068-2-30				
Altitude					
Up to 2,000m (6,600ft)	Nominal values (for higher altitudes refer to Altitude Correction Factor tables)				
Degree of protection	IP20				
Resistance to Shock					
Acc. IEC 60068-2-27	15g				
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 ($\times I_U$)	0.6 - 1 A				
Magnetic Release ($\times I_U$)	13A				
Overload Trip Class	10A				
Total Power Loss P_V					
At rated load operating temperature	6W	6W	8W	8W	8W
Weight	0.32 kg [0.71 lb]				
Type of Terminal	Flat type				
Screw Driver	Philips #2				
Terminal Capacity					
Solid-Stranded	1 or 2 x (0.5 to 2.5)				
Tightening Torque	1.2-1.7 N•m [11-16 lb•in]				
Mounting Position	Any position				



MPW40 Technical Data

MPW40 – Specifications – Power Contact Ratings

Type	MPW40-3-U001	MPW40-3-D016	MPW40-3-D025	MPW40-3-U004	MPW40-3-D063
UL/CSA Data					
Rated Operational Current I_e	1.0 A	1.6 A	2.5 A	4.0 A	6.3 A
Magnetic Release Current	13A	21A	33A	52A	82A
Max. Short Circuit Current					
Without CLT32 (480V)	65kA	65kA	65kA	65kA	65kA
Without CLT32 (600V)	25kA	25kA	25kA	25kA	25kA
With CLT32 (480V)	100kA	100kA	100kA	100kA	100kA
With CLT32 (600V)	50kA	50kA	50kA	50kA	50kA
Motor Load, 1-phase (115V)	–	–	–	1/8 hp	1/4 hp
Motor Load, 1-phase (230V)	–	1/10 hp	1/6 hp	1/3 hp	3/4 hp
Motor Load, 3-phase (200V)	–	1/4 hp	1/2 hp	3/4 hp	1 1/2 hp
Motor Load, 3-phase (230V)	–	1/3 hp	1/2 hp	1 hp	1 1/2 hp
Motor Load, 3-phase (460V)	1/2	3/4 hp	1 1/2 hp	2 hp	5 hp
Motor Load, 3-phase (575V)	1/2	1 hp	1 1/2 hp	3 hp	5 hp
Max. Rated Current of Protection Device for Group Installation					
Fuse or MCCB	125A	125A	125A	125A	125A

MPW40 – Specifications – Power Contact Ratings

Type	MPW40-3-U010	MPW40-3-U016	MPW40-3-U020	MPW40-3-U025	MPW40-3-U032
UL/CSA Data					
Rated Operational Current I_e	10A	16A	20A	25A	32A
Magnetic Release Current	130A	208A	260A	325A	416A
Max. Short Circuit Current					
Without CLT32 (480V)	65kA	50kA	50kA	50kA	50kA
Without CLT32 (600V)	25kA	25kA	25kA	25kA	25kA
With CLT32 (480V)	100kA	100kA	100kA	100kA	100kA
With CLT32 (600V)	50kA	50kA	50kA	50kA	50kA
Motor Load, 1-phase (115V)	1/2 hp	1 hp	1 1/2 hp	2 hp	–
Motor Load, 1-phase (230V)	1 1/2 hp	3 hp	3 hp	3 hp	5 hp
Motor Load, 3-phase (200V)	3 hp	5 hp	5 hp	7 1/2 hp	10 hp
Motor Load, 3-phase (230V)	3 hp	5 hp	7 1/2 hp	7 1/2 hp	10 hp
Motor Load, 3-phase (460V)	7 1/2 hp	10 hp	15 hp	15 hp	20 hp
Motor Load, 3-phase (575V)	10 hp	15 hp	20 hp	20 hp	25 hp
Max. Rated Current of Protection Device for Group Installation					
Fuse or MCCB	125A	160A	250A	250A	300A



MPW

Technical Data

Auxiliary Contact Ratings					
Type	ACBF-11		ACBS-11	ACBS-20	ACBS-02
Rated Insulation Voltage U_i					
Acc. IEC; VDE 0660	300V		690V	690V	690V
Acc. UL; CSA	240V		600V	600V	600V
Rated Operating Voltage U_e					
Acc. IEC; VDE 0660	250V		690V	690V	690V
Acc. UL; CSA	240V		600V	600V	600V
Rated Impulse Voltage U_{imp}					
Acc. IEC60947-1	4kv		6kv	6kv	6kv
Overvoltage Category	III		III	III	III
Pollution Degree	3				
Life Span					
Mechanical	100,000 operations				
Electrical (I_e max.)	100,000 operations				
Rated Thermal Current I_{th}	2.5 A		10A	10A	10A
Rated Operating Current I_e					
Acc. IEC 60947-5-1 / AC-15	24V	2A	6A	6A	6A
	110-127V	0.5 A	6A	6A	6A
	220-240V	0.5 A	6A	6A	6A
	380-400V	–	3A	3A	3A
	415-450V	–	1A	1A	1A
	500V	–	1A	1A	1A
	660-690V	–	1A	1A	1A
Acc. UL; CSA	C300		A600	A600	A600
Rated Operating Current I_e					
Acc. IEC 60947-5-1 / DC-13	24V	1A	2A	2A	2A
	48V	0.3 A	0.8 A	0.8 A	0.8A
	60V	0.15 A	0.5 A	0.5 A	0.5 A
	110V	–	0.5 A	0.5 A	0.5 A
	220V	–	0.25 A	0.25 A	0.25 A
	440V	–	0.1 A	0.1 A	0.1 A
Acc. UL; CSA	R300		Q600	Q600	Q600
Short Circuit Rating Without Welding					
RK5	10A				
MCB	6A				
Type of Terminal	Screwdriver; Philips #2				
Terminal Capacity					
Solid or Stranded	1 or 2 x (0.5 to 2.5 mm ²)				
Solid or Stranded	1 or 2 x (18 to 14 AWG)				
Tightening Torque	1.0-1.25 N•m [8.85-11.06 lb•in]				



MPW

Technical Data

Trip Signalling Block Ratings		
Type		TSB
Rated Insulation Voltage U_i		
Acc. IEC; VDE 0660		690V
Acc. UL; CSA		600V
Rated Operating Voltage U_e		
Acc. IEC; VDE 0660		690V
Acc. UL; CSA		600V
Rated Impulse Voltage U_{imp}		
Acc. IEC60947-1		6kv
Overvoltage Category		III
Pollution Degree		3
Life Span		
Mechanical		100,000 operations
Electrical (I_e max.)		100,000 operations
Rated Thermal Current I_{th}		10A
Rated Operating Current I_e		
Acc. IEC 60947-5-1 / AC-15	24V	6A
	110-127V	6A
	220-240V	6A
	380-400V	3A
	415-450V	3A
	500V	2A
	660-690V	1A
Acc. UL; CSA		A600
Rated Operating Current I_e		
Acc. IEC 60947-5-1 / DC-13	24V	2A
	48V	0.5 A
	60V	0.5 A
	110V	0.5 A
	220V	0.25 A
	440V	0.1 A
Acc. UL; CSA		Q600
Short Circuit Rating Without Welding		
Fuse RK5		6A
MCB		6A
Type of Terminal		Screwdriver; Philips #2
Terminal Capacity		
Solid or Stranded		1 or 2 x (0.5 to 2.5 mm ²)
Solid or Stranded		1 or 2 x (18 to 14 AWG)
Tightening Torque		1.0-1.25 N·m [8.85-11.06 lb·in]



MPW Technical Data

Shunt Trip Ratings

Type	SRMP
Rated Insulation Voltage U_i	
Acc. IEC; VDE 0660	690V
Acc. UL; CSA	600V
Rated Operating Voltage U_e	
Acc. IEC; VDE 0660	690V
Acc. UL; CSA	600V
Rated Impulse Voltage U_{imp}	
Acc. IEC60947-1	6kv
Overvoltage Category	III
Pollution Degree	3
Life Span	
Mechanical	100,000 operations
Electrical (I_e max.)	100,000 operations
Actuating Voltage ($\times U_S$)	0.7-1.1 V
Power Consumption	
Pull-In	20.2 VA [13W]
Hold	7.2 VA [2.4 W]
Maximum Opening Time	20ms
Short Circuit Rating Without Welding	
Fuse RK5	10A
MCB	6A
Type of Terminal	Screwdriver; Philips #2
Terminal Capacity	
Solid or Stranded	1 or 2 x (0.5 to 2.5 mm ²)
Solid or Stranded	1 or 2 x (18 to 14 AWG)
Tightening Torque	1.0-1.25 N·m [8.85-11.06 lb·in]

Undervoltage Trip Ratings

Type	URMP
Rated Insulation Voltage U_i	
Acc. IEC; VDE 0660	690V
Acc. UL; CSA	600V
Rated Operating Voltage U_e	
Acc. IEC; VDE 0660	690V
Acc. UL; CSA	600V
Rated Impulse Voltage U_{imp}	
Acc. IEC60947-1	6kv
Overvoltage Category	III
Pollution Degree	3
Life Span	
Mechanical	100,000 operations
Electrical (I_e max.)	100,000 operations
Pick-Up Voltage ($\times U_S$)	0.85-1.1 V
Drop-Out Voltage ($\times U_S$)	0.7-0.35 V
Power Consumption	
Pull-In	20.2 VA [13W]
Hold	7.2 VA [2.4 W]
Maximum Opening Time	20ms
Short Circuit Rating Without Welding	
Fuse gL/gG	10A
MCB	6A
Type of Terminal	Screwdriver; Philips #2
Terminal Capacity	
Solid or Stranded	1 or 2 x (0.5 to 2.5 mm ²)
Solid or Stranded	1 or 2 x (18 to 14 AWG)
Tightening Torque	1.0-1.25 N·m [8.85-11.06 lb·in]

Main Terminal Capacity

Part Number	Type	Number of Conductors	Cross-Section
MPW40-x-xxxx	Rigid or flexible cable	1 or 2	1 to 2.5 mm ² 2.5 to 6 mm ² 14 to 8 AWG



MPW Technical Data

Altitude – Correction Factor

The MPW manual motor protectors do not undergo any change in their specified performance when used at an altitude of up to 2000 meters above sea level. However, as the altitude increases, the reduced atmospheric pressure results in decreasing dielectric properties. Therefore, current and voltage correction factors must be applied for altitudes exceeding 2000 meters, as shown in the table at right.

Altitude h (above sea level)	Rated operational voltage U_e	Current correction factor I_u
$h \leq 2000$ m	690V	$1 \times I_u$
$2000 < h \leq 3000$ m	550V	$0.96 \times I_u$
$3000 < h \leq 4000$ m	480V	$0.93 \times I_u$
$4000 < h \leq 5000$ m	420V	$0.90 \times I_u$

DC Operation

The MPW40 motor protective circuit breaker 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 at right.

Time constant $t = 5\text{ms}$

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

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



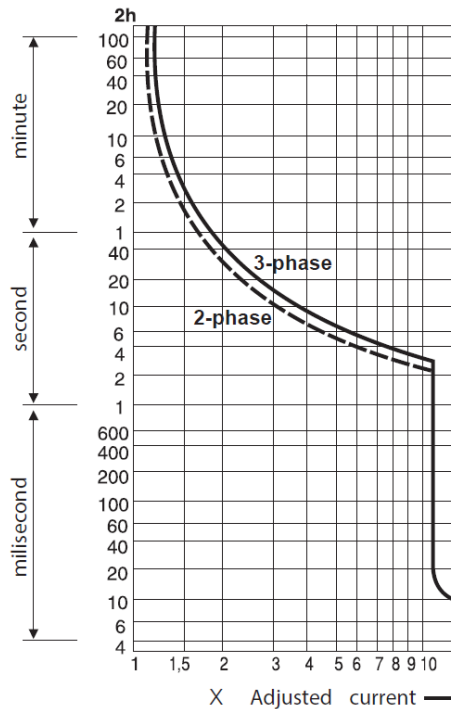
MPW Technical Data

Time Current Characteristic MPW40 Class 10

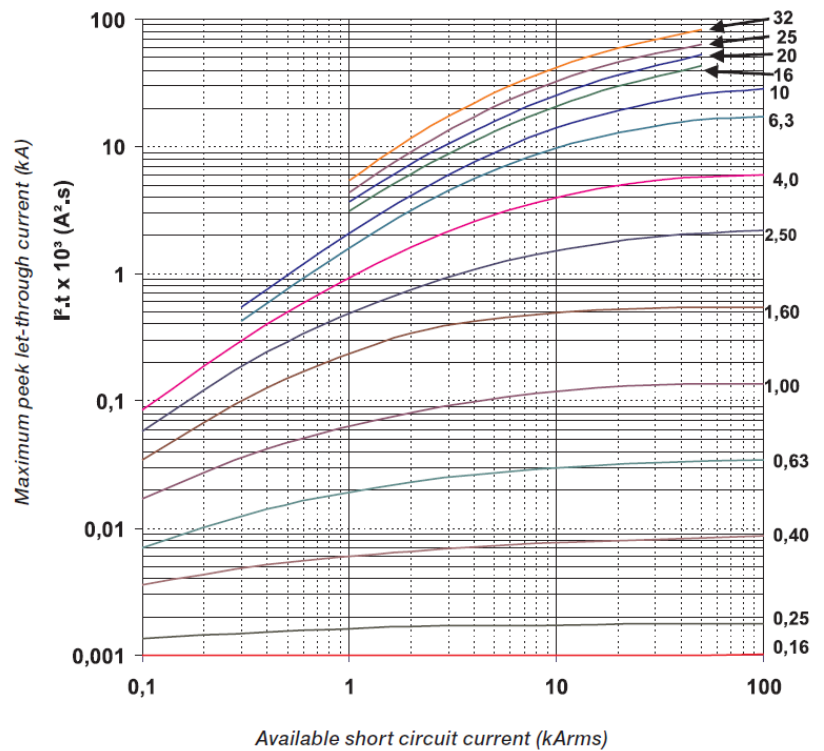
The tripping characteristic indicates the manual motor protector trip time in relation to the rated current.

The curves show average tolerance range values for an ambient temperature of 20°C [68°F], starting in a cold state. Thermal trip time when working in operating temperature is reduced to around 25% of the listed values. Under normal operating conditions, all three manual motor protector phases must be conducting.

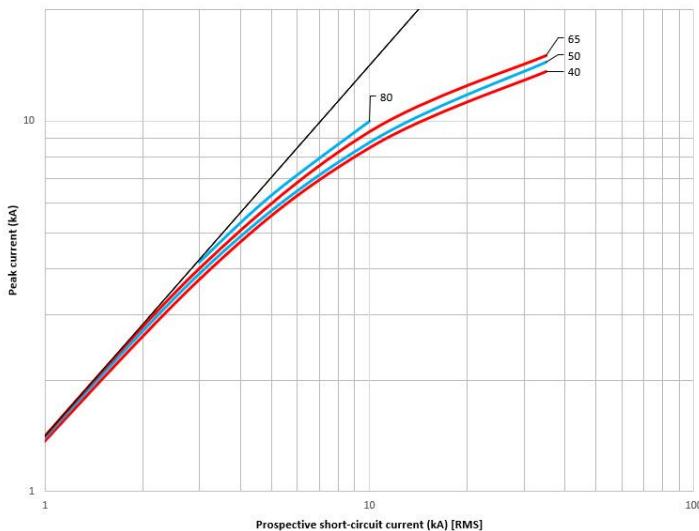
MPW40/80



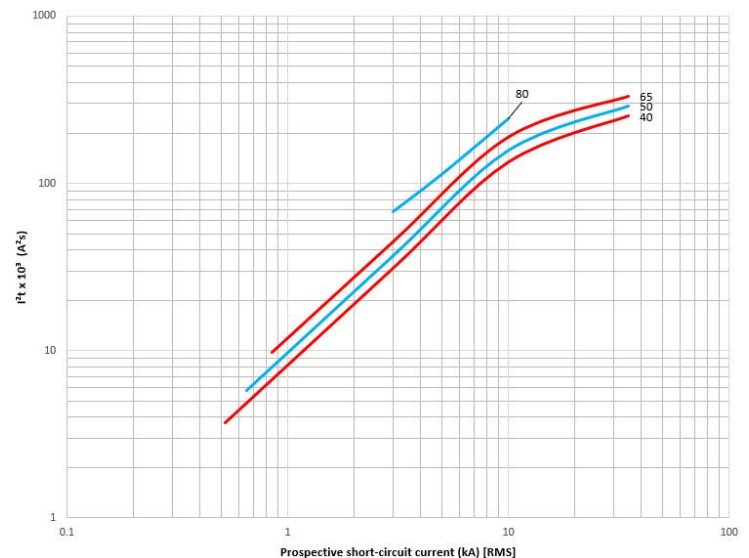
Characteristic I^2t at 460V – MPW40



Short-Circuit Current Limitation Curve at 500V – MPW80



Characteristic I^2t at 500V – MPW80





MPW

Technical Data

Short Circuit Interruption Capacity UL/CSA for MPW40

Setting Overload Release (A)	Manual Motor Controller High Capacity				Combination Motor Controller (Type E/F) High Capacity				Combination Motor Controller (Type E/F) Extra High Capacity			
	240VAC	480Y 277VAC	600Y 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
0.63 - 1.0	50	65	25	125	50	50	25	—	100	100	50	—
1.0 - 1.6	50	65	25	125	50	50	25	—	100	100	50	—
1.6 - 2.5	50	65	25	125	50	50	25	—	100	100	50	—
2.5 - 4.0	50	65	25	125	50	50	25	—	100	100	50	—
4.0 - 6.3	50	65	25	125	50	50	25	—	100	100	50	—
6.3 - 10	50	65	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	50	25	500	42	42	25	—	100	100	50	—
32 - 40	20	20	5	520	—	—	—	—	—	—	—	—

Note: Fuse or MCCB not required.

Short-Circuit Interruption Capacity (IEC 60947-2) for MPW40

Setting Overload Release (A)	220-230 VAC			380-415 VAC			440VAC			460-500 VAC			630-690 VAC		
	I_{cu} (kA)	I_{cs} (kA)	Max. Fuse (RK5) (A)	I_{cu} (kA)	I_{cs} (kA)	Max. Fuse (RK5) (A)	I_{cu} (kA)	I_{cs} (kA)	Max. Fuse (RK5) (A)	I_{cu} (kA)	I_{cs} (kA)	Max. Fuse (RK5) (A)	I_{cu} (kA)	I_{cs} (kA)	Max. Fuse (RK5) (A)
0.63 - 1.0	100	100	—	100	100	—	100	100	—	100	100	—	100	100	—
1.0 - 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 - 4.0	100	100	—	100	100	—	100	100	—	100	100	—	8	8	32
4.0 - 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
32 - 40	100	100	—	50	25	125	25	15	100	10	8	80	5	2	63

Self-protected against short-circuits up to 100kA.

— Back-up fuse not required

1) Fuse required for greater short-circuit currents.



MPW

Technical Data

Short-Circuit Interruption Capacity (IEC 60947-2) With Current Limiter (MPW40 + CLT32MPW40)

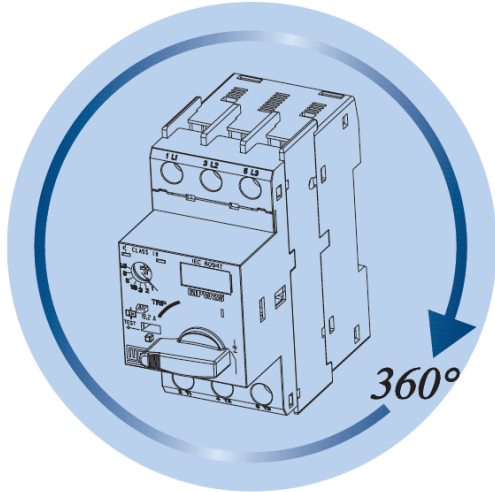
Setting Overload Release (A)	380-415 VAC			440VAC			460-500 VAC			630-690 VAC		
	I_{cu} (kA)	I_{cs} (kA)	Max. Fuse (RK5) (A)	I_{cu} (kA)	I_{cs} (kA)	Max. Fuse (RK5) (A)	I_{cu} (kA)	I_{cs} (kA)	Max. Fuse (RK5) (A)	I_{cu} (kA)	I_{cs} (kA)	Max. Fuse (RK5) (A)
0.63 - 1.0	•	•	–	•	•	–	•	•	–	•	•	–
1.0 - 1.6	•	•	–	•	•	–	•	•	–	•	•	–
1.6 - 2.5	•	•	–	•	•	–	•	•	–	50	50	–
2.5 - 4.0	•	•	–	•	•	–	•	•	–	50	50	–
4.0 - 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	–

Note: Self protected against short-circuits up to 100kA

- Back-up fuse not required
- Not applicable due to MPW40 already having 100 kA of I_{cu} / I_{cs} in referred ranges.

MPW Technical Data

Mounting Position





MPW Series Manual Motor Protectors



MPW40-3-U001

Features (MPW40 Series)

- 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 times the maximum circuit breaker rated current
- Phase-loss sensitivity
- Ambient temperature compensation -4 to +140°F (-20 to +60°C)

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

MPW40 Series Manual Motor Protectors Selection Guide

Part Number	Price	Maximum UL Horsepower						Thermal Setting (A)	Short-Circuit Ratings for Group Installation		Drawing
		Single-Phase		Three-Phase					480V	600V	
		115V	230V	200V	230V	460V	575V				
MPW40-3-U001	\$54.00	–	–	–	–	1/2	1/2	0.63 - 1.0	50kA	25kA	PDF
MPW40-3-D016	\$54.00	–	1/10	1/4	1/3	3/4	1	1.0 - 1.6	50kA	25kA	PDF
MPW40-3-D025	\$54.00	–	1/6	1/2	1/2	1-1/2	1-1/2	1.6 - 2.5	50kA	25kA	PDF
MPW40-3-U004	\$54.00	1/8	1/3	3/4	1	2	3	2.5 - 4.0	50kA	25kA	PDF
MPW40-3-D063	\$54.00	–	3/4	1-1/2	1-1/2	5	5	4.0 - 6.3	50kA	25kA	PDF
MPW40-3-U010	\$54.00	1/2	1-1/2	3	3	7-1/2	10	6.3 - 10	50kA	25kA	PDF
MPW40-3-U016	\$59.00	1	3	5	5	10	15	10 - 16	50kA	25kA	PDF
MPW40-3-U020	\$65.00	1-1/2	3	5	7-1/2	15	20	16 - 20	50kA	25kA	PDF
MPW40-3-U025	\$77.00	2	3	7-1/2	7-1/2	15	20	20 - 25	50kA	25kA	PDF
MPW40-3-U032	\$82.00	–	5	10	10	20	25	25 - 32	42kA	25kA	PDF
MPW40-3-U040	\$98.00	–	5	10	15	25	–	32 - 40	20kA	5kA	PDF

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



MPW80-3-U065

Features (MPW80 Series)

- Designed to provide operation, overload and short circuit protection of electric motors
- Suitable for manual motor controller, group installation, tap conductor and combination starters* Type E & Type F
- Fixed short-circuit release 13 times the maximum circuit breaker rated current
- Phase-failure sensitivity according to IEC 60947-4-1
- Can be used as main switch (IEC 60947-2)
- Short-circuit breaking capacity from 65kA up to 80A at 380 VAC according to IEC 60947-2
- Thermomagnetic Motor Protective Circuit Breaker with overload protection (class 10)
- Ambient temperature compensation -4 to +140°F (-20 to +60°C)

* When associated with line side terminal LST65 and trip indicator TSB

MPW80 Series Manual Motor Protectors Selection Guide

Part Number	Price	Maximum UL Horsepower						Thermal Setting (A)	Short-Circuit Ratings for Group Installation		Drawing
		Single-Phase		Three-Phase					480V	600V	
		115V	230V	200V	230V	460V	575V				
MPW80-3-U040	\$149.00	3	7.5	–	15	25	30	32-40	35kA	10kA	PDF
MPW80-3-U050	\$149.00	–	10	15	15	30	40	40-50	35kA	10kA	PDF
MPW80-3-U065	\$149.00	5	10	20	20	50	60	50-65	35kA	10kA	PDF

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



MPW Series Manual Motor Protectors



MPW40-3-U001

Features (MPW40 Series)

- 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 times the maximum circuit breaker rated current
- Phase-loss sensitivity
- Ambient temperature compensation -4 to +140°F (-20 to +60°C)

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

MPW40 Series Manual Motor Protectors Selection Guide

Part Number	Price	Maximum UL Horsepower						Thermal Setting (A)	Short-Circuit Ratings for Group Installation		Drawing
		Single-Phase		Three-Phase					480V	600V	
		115V	230V	200V	230V	460V	575V				
MPW40-3-U001	\$54.00	–	–	–	–	1/2	1/2	0.63 - 1.0	50kA	25kA	PDF
MPW40-3-D016	\$54.00	–	1/10	1/4	1/3	3/4	1	1.0 - 1.6	50kA	25kA	PDF
MPW40-3-D025	\$54.00	–	1/6	1/2	1/2	1-1/2	1-1/2	1.6 - 2.5	50kA	25kA	PDF
MPW40-3-U004	\$54.00	1/8	1/3	3/4	1	2	3	2.5 - 4.0	50kA	25kA	PDF
MPW40-3-D063	\$54.00	–	3/4	1-1/2	1-1/2	5	5	4.0 - 6.3	50kA	25kA	PDF
MPW40-3-U010	\$54.00	1/2	1-1/2	3	3	7-1/2	10	6.3 - 10	50kA	25kA	PDF
MPW40-3-U016	\$59.00	1	3	5	5	10	15	10 - 16	50kA	25kA	PDF
MPW40-3-U020	\$65.00	1-1/2	3	5	7-1/2	15	20	16 - 20	50kA	25kA	PDF
MPW40-3-U025	\$77.00	2	3	7-1/2	7-1/2	15	20	20 - 25	50kA	25kA	PDF
MPW40-3-U032	\$82.00	–	5	10	10	20	25	25 - 32	42kA	25kA	PDF
MPW40-3-U040	\$98.00	–	5	10	15	25	–	32 - 40	20kA	5kA	PDF

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



MPW80-3-U065

Features (MPW80 Series)

- Designed to provide operation, overload and short circuit protection of electric motors
- Suitable for manual motor controller, group installation, tap conductor and combination starters* Type E & Type F
- Fixed short-circuit release 13 times the maximum circuit breaker rated current
- Phase-failure sensitivity according to IEC 60947-4-1
- Can be used as main switch (IEC 60947-2)
- Short-circuit breaking capacity from 65kA up to 80A at 380 VAC according to IEC 60947-2
- Thermomagnetic Motor Protective Circuit Breaker with overload protection (class 10)
- Ambient temperature compensation -4 to +140°F (-20 to +60°C)

* When associated with line side terminal LST65 and trip indicator TSB

MPW80 Series Manual Motor Protectors Selection Guide

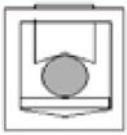
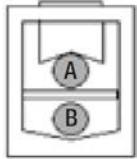
Part Number	Price	Maximum UL Horsepower						Thermal Setting (A)	Short-Circuit Ratings for Group Installation		Drawing
		Single-Phase		Three-Phase					480V	600V	
		115V	230V	200V	230V	460V	575V				
MPW80-3-U040	\$149.00	3	7.5	—	15	25	30	32-40	35kA	10kA	PDF
MPW80-3-U050	\$149.00	—	10	15	15	30	40	40-50	35kA	10kA	PDF
MPW80-3-U065	\$149.00	5	10	20	20	50	60	50-65	35kA	10kA	PDF

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



MPW Series Manual Motor Protectors

MPW80 Series Main Terminal Capacity Specifications

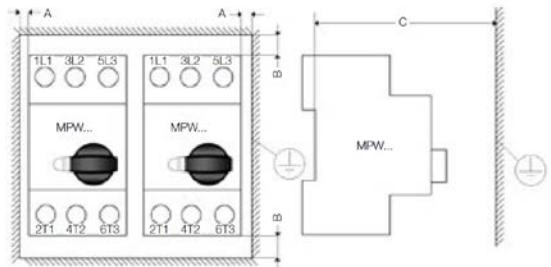
Connection	Type	Cross-Section
1 conductor connection on top only 	Rigid Cable	1 - 35 mm ²
	Cable Without Terminal/Ferrules	1.5 - 35 mm ²
	Cable With Terminal/Ferrules	1 - 35 mm ²
	Flexible Cable	1.5 - 35 mm ² 12 - 2 AWG
1 conductor connection on bottom only 	Rigid Cable	2.5 - 35 mm ²
	Cable Without Terminal/Ferrules	6 - 35 mm ²
	Cable With Terminal/Ferrules	2.5 - 35 mm ²
	Flexible Cable	6 - 35 mm ² 12 - 2 AWG
Connection of 2 conductors 	Rigid Cable	(A) 1 - 35 mm ²
		(B) 2.5 - 35 mm ²
	Cable Without Terminal/Ferrules	(A) 1.5 - 35 mm ²
		(B) 6 - 35 mm ²
	Cable With Terminal/Ferrules	(A) 1 - 35 mm ²
		(B) 2.5 - 35 mm ²
	Flexible Cable	(A) 1.5 - 35 mm ² 12 - 2 AWG
		(B) 6 - 35 mm ² 12 - 2 AWG

Mounting Configurations

MPW Series Mounting Configurations

Live or Grounded Parts – Distance to the Circuit Breaker

Model	U _e	Minimum distance between the circuit breaker and live or grounded parts (mm [in])		
		A	B	C
MPW40	Up to 500 V	9 [0.35]	30 [1.18]	95 [3.74]
	Up to 690 V	30 [1.18]	50 [1.97]	95 [3.74]
MPW80	Up to 690 V	10 [0.39]	50 [1.97]	150 [5.91]

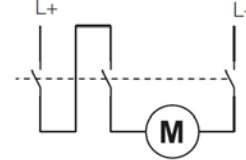
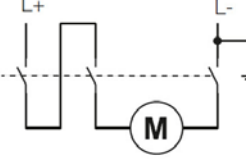
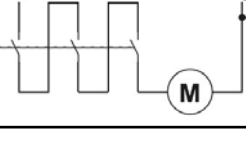


The motor protective circuit breaker can be mounted in any position, but according to IEC 60447 standard, the "On - I" indicator must be to the right or up.

DC Operation

The MPW40-MPW80 can also be used for operating continuous current 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 below. Short-circuit breaking capacity $I_{CU} = 10kA$ for all configurations.

MPW Series DC Operation

Circuit	Maximum VDC	Notes
	150VDC	System not grounded; 2 poles in series.
	300VDC	System grounded; 2 poles in series.
	450VDC	System grounded; 3 poles in series.



MPW Series Manual Motor Protectors Accessories

Accessories for MPW Series Manual Motor Protectors – Selection Guide

Part Number	Price	Description	Drawing
Auxiliary Contact Blocks			
<u>ACBF-11</u>	\$8.25	Field installable auxiliary contact, front mount, (1) N.O./ (1) N.C. contact(s), 2.5A @300 VAC/1A @ 300 VDC, screw terminal. For use with MPW40 series manual motor protectors.	<u>PDF</u>
<u>ACBS-11</u>	\$9.00	Field installable auxiliary contact, left side mount, (1) N.O./ (1) N.C. contact(s), 10A @ 600 VAC/2.5A @ 600 VDC, screw terminal. For use with MPW40 series manual motor protectors.	<u>PDF</u>
<u>ACBS-20</u>	\$9.00	Field installable auxiliary contact, left side mount, (2) N.O. contact(s), 10A @ 600 VAC/2.5A @ 600 VDC, screw terminal. For use with MPW40 series manual motor protectors.	<u>PDF</u>
<u>ACBS-02</u>	\$9.00	Field installable auxiliary contact, left side mount, (2) N.C. contact(s), 10A @ 600 VAC/2.5A @ 600 VDC, screw terminal. For use with MPW40 series manual motor protectors.	<u>PDF</u>
Accessories for Combination Type-E Construction			
<u>LST25</u>	\$17.00	Incoming power terminal block, 3-pole, maximum current 63A, 20-8 AWG. For use with MPW40 series manual motor protectors. Required when using a MPW40 in a UL Type E application 32A and less.	<u>PDF</u>
<u>LST65</u>	\$33.50	Incoming power terminal block, 3-pole, maximum current 120A, 8-4 AWG. For use with MPW80 series manual motor protectors.	
<u>TSB</u>	\$15.00	Field installable short circuit alarm contact, left side mount, (2) N.O./ (2) N.C. contact(s), 2.5A @300 VAC/1A @ 300 VDC, screw terminal. For use with MPW40 series manual motor protectors.	<u>PDF</u>
Current Limiter			
<u>CLT32MPW40</u>	\$45.00	Current limiter, 35mm DIN rail mount. For use with MPW40 series manual motor protectors.	<u>PDF</u>
Link Modules			
<u>ECCMP-C0</u>	\$8.50	Link module, for use with MPW40 protectors and CWC07 through CWC016 series miniature contactors with AC or DC coils. Not for use with 4-Pole CWC series miniature contactors.	<u>PDF</u>
<u>ECCMP-C025</u>	\$8.50	Link module, for use with MPW40 protectors and CWC025 series miniature contactors with AC coils. Not for use with 4-Pole CWC series miniature contactors.	<u>PDF</u>
<u>ECCMP-40B38</u>	\$10.00	Link module, for use with MPW40 protectors and CWB9 through CWB38 series contactors with AC coils.	<u>PDF</u>
<u>ECCMP-40B38DC</u>	\$10.00	Link module, for use with MPW40 protectors and CWB9 through CWB38 series contactors with DC coils.	<u>PDF</u>
<u>ECCMP-80B80</u>	\$37.50	Link module, for use with MPW80 protectors and CWB40 through CWB80 series contactors with AC and DC coils.	<u>PDF</u>
<u>EC-R3</u>	\$39.50	Reversing connection kit, for use with CWB95 to CWB125 series contactors. Line and loadside connection bars included.	<u>PDF</u>

**ACBF-11****ACBS-11****ACBS-20****ACBS-02****LST25****TSB****CLT32MPW40****ECCMP-C0****ECCMP-C025****ECCMP-40B38****ECCMP-40B38DC**



MPW Series Manual Motor Protectors

Accessories, continued

**RMMP-130****MRX-130****MRX-130E****MRX65-130****SRMPD51****URMPV18****URMPD02**

Accessories for MPW Series Manual Motor Protectors – Selection Guide

Part Number	Price	Description	Drawing
Through-the-Door Rotary Mechanisms			
<u>RMMP-130</u>	\$28.50	Handle, rotary, 130mm length, black/gray, external front mount, 2-position, lockable in OFF only, NEMA 1/3R, IP55. For use with MPW40 series manual motor protectors.	<u>PDF</u>
<u>RMMP-130E</u>	\$28.50	Handle, rotary, 130mm length, red/yellow, external front mount, 2-position, lockable in OFF only, NEMA 1/3R, IP55. For use with MPW40 series manual motor protectors.	<u>PDF</u>
<u>RMMP-330</u>	\$34.50	Handle, rotary, 330mm length, black/gray, external front mount, 2-position, lockable in OFF only, NEMA 1/3R, IP55. For use with MPW40 series manual motor protectors.	<u>PDF</u>
<u>RMMP-330E</u>	\$34.50	Handle, rotary, 330mm length, red/yellow, external front mount, 2-position, lockable in OFF only, NEMA 1/3R, IP55. For use with MPW40 series manual motor protectors.	<u>PDF</u>
<u>MRX-130</u>	\$42.50	Handle, rotary, 130mm length, black/gray, external front mount, 2-position, lockable in OFF only, defeatable, NEMA 4/4X, IP65. For use with MPW40 series manual motor protectors.	<u>PDF</u>
<u>MRX-130E</u>	\$42.50	Handle, rotary, 130mm length, red/yellow, external front mount, 2-position, lockable in OFF only, defeatable, NEMA 4/4X, IP65. For use with MPW40 series manual motor protectors.	<u>PDF</u>
<u>MRX-330</u>	\$46.50	Handle, rotary, 330mm length, black/gray, external front mount, 2-position, lockable in OFF only, defeatable, NEMA 4/4X, IP65. For use with MPW40 series manual motor protectors.	<u>PDF</u>
<u>MRX-330E</u>	\$46.50	Handle, rotary, 330mm length, red/yellow, external front mount, 2-position, lockable in OFF only, defeatable, NEMA 4/4X, IP65. For use with MPW40 series manual motor protectors.	<u>PDF</u>
<u>MRX65-130</u>	\$47.50	Rotary handle, selector, black/gray, external front mount, 2-position, lockable in OFF only, defeatable, NEMA 4/4X, IP65. For use with MPW80 series manual motor protectors. 130mm shaft included.	<u>PDF</u>
<u>MRX65-130E</u>	\$47.50	Rotary handle, selector, red/yellow, external front mount, 2-position, lockable in OFF only, defeatable, NEMA 4/4X, IP65. For use with MPW80 series manual motor protectors. 130mm shaft included.	<u>PDF</u>
<u>MRX65-330</u>	\$51.00	Rotary handle, selector, black/gray, external front mount, 2-position, lockable in OFF only, defeatable, NEMA 4/4X, IP65. For use with MPW80 series manual motor protectors. 330mm shaft included.	<u>PDF</u>
<u>MRX65-330E</u>	\$51.00	Rotary handle, selector, red/yellow, external front mount, 2-position, lockable in OFF only, defeatable, NEMA 4/4X, IP65. For use with MPW80 series manual motor protectors. 330mm shaft included.	<u>PDF</u>
Under Voltage and Shunt Trip Releases			
<u>SRMPD51</u>	\$22.50	Field installable shunt trip, right side mount, 20-24 VAC (50/60Hz) coil voltage, screw terminal. For use with MPW40 and MPW80 series manual motor protectors.	<u>PDF</u>
<u>SRMPD59</u>	\$22.50	Field installable shunt trip, right side mount, 100-127 VAC (50/60Hz) coil voltage, screw terminal. For use with MPW40 and MPW80 series manual motor protectors.	<u>PDF</u>
<u>SRMPD65</u>	\$22.50	Field installable shunt trip, right side mount, 200-240 VAC (50/60Hz) coil voltage, screw terminal. For use with MPW40 and MPW80 series manual motor protectors.	<u>PDF</u>
<u>URMPV18</u>	\$22.50	Field installable undervoltage trip device, right side mount, 110 VAC (50Hz)/120 VAC (60Hz) sensing range, screw terminals. For use with MPW40 and MPW80 series manual motor protectors.	<u>PDF</u>
<u>URMPV23</u>	\$22.50	Field installable undervoltage trip device, right side mount, 180 VAC (50Hz)/208 VAC (60Hz) sensing range, screw terminals. For use with MPW40 and MPW80 series manual motor protectors.	<u>PDF</u>
<u>URMPV30</u>	\$22.50	Field installable undervoltage trip device, right side mount, 208 VAC (50Hz)/240 VAC (60Hz) sensing range, screw terminals. For use with MPW40 and MPW80 series manual motor protectors.	<u>PDF</u>
<u>URMPV37</u>	\$22.50	Field installable undervoltage trip device, right side mount, 230-240 VAC (50Hz)/240-277 VAC (60Hz) sensing range, screw terminals. For use with MPW40 and MPW80 series manual motor protectors.	<u>PDF</u>
<u>URMPV47</u>	\$22.50	Field installable undervoltage trip device, right side mount, 400-415 VAC (50Hz)/480 VAC (60Hz) sensing range, screw terminals. For use with MPW40 and MPW80 series manual motor protectors.	<u>PDF</u>
<u>URMPD02</u>	\$22.50	Field installable undervoltage trip device, right side mount, 24 VAC (50/60Hz) sensing range, screw terminals. For use with MPW40 and MPW80 series manual motor protectors.	<u>PDF</u>