



**New Range  
Up to 32A**

# Motor Protective Circuit Breaker MPW25

- Compact solution for starting and protecting motors
- Thermal overload and magnetic short-circuit trip mechanism
- High short-circuit rating
- Wide range of accessories

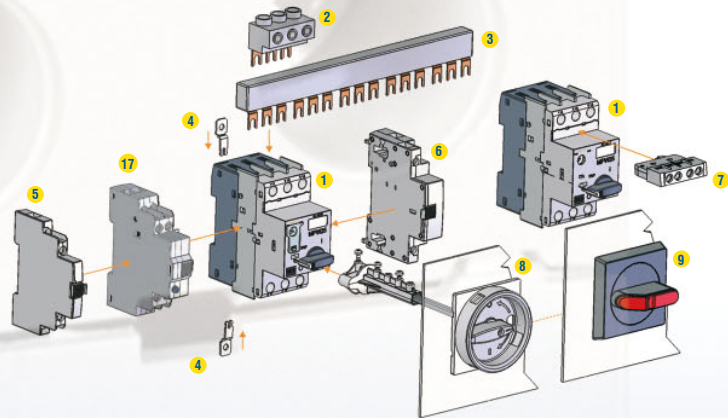


*Transforming energy  
into solutions*

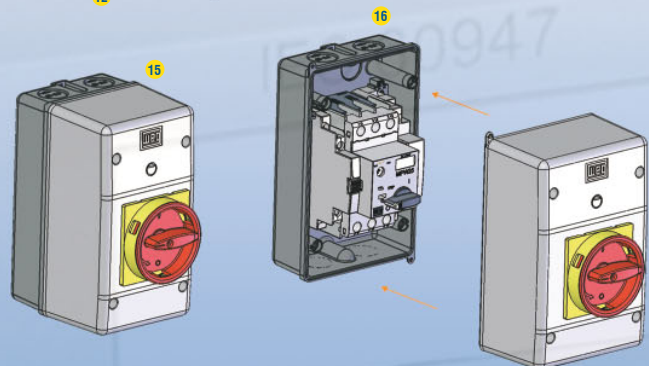
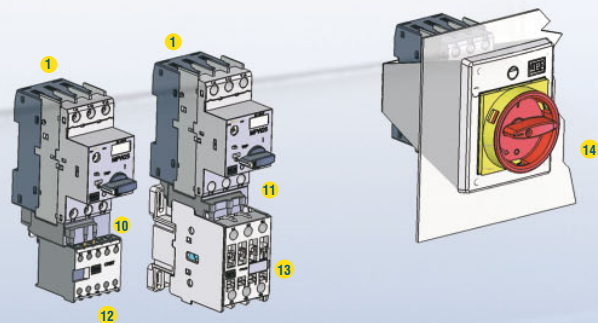
# Motor Protective Circuit Breaker MPW25

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

- 1 - Motor Circuit Breaker (MPW25)
- 2 - Three-phase commoning link (FTBBS)
- 3 - Feeder Terminal (BBS)
- 4 - Adapter for screw mounting (PLMP)
- 5 - Lateral auxiliary contact block (ACBS)
- 6 - Undervoltage Release (URMP) or Shunt Release (SRMP)
- 7 - Frontal auxiliary contact block (ACBF)
- 8 - Door coupling rotary handle (RMMP)
- 9 - Door coupling rotary handle (MR MPW25)
- 10 - MPW25 Circuit-Breaker - CW07 Contactor link module (ECCMP-07)
- 11 - MPW25 Circuit-Breaker - CWM9...25 Contactor link module (ECCMP-25)
- 12 - Minicontactor (CW07)
- 13 - Contactor (CWM9...25)
- 14 - Flush Mounting Enclosure (FME55)
- 15 - Insulated Enclosure (MPE55)
- 16 - Insulated Enclosure (MLPE55)
- 17 - Trip-Indicating Contact Block (TSB)

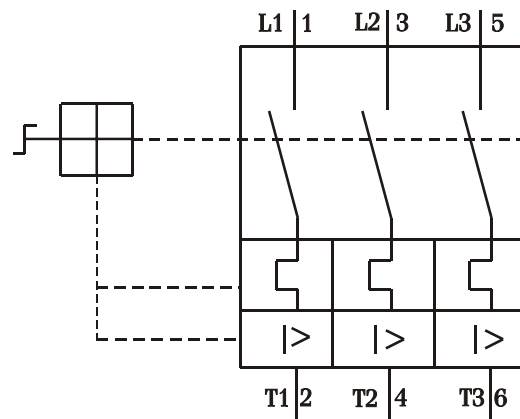


MPW25

## Motor Protective Circuit Breaker MPW25

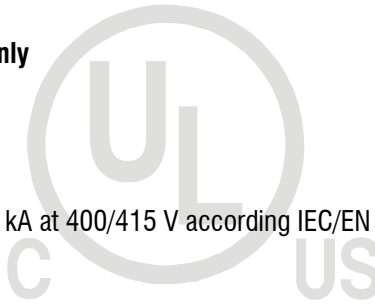
- with overload and short circuit protection,
- fixed short circuit release  $12 \times I_u$
- with phase-failure sensitivity according IEC/EN 60947-4-1/DIN VDE 0660 T.102
- with temperature compensation,
- for use as main switch,
- MPW25 up to 10 A at 400/415 V are self protected
- MPW25 above 10 A provide a breaking capacity of 50 kA at 400/415 V according IEC/EN 60947-2
- MPW25 fulfill UL/CSA


max. operational power (kW) AC 3				operational instantaneous current  $I_u$ (A)	Setting overload release   $I_r$ (A)	Short-circuit release   $I_{rm}$ (A)	Type	Weight  g/pc.
400 V 415 V	440 V	500 V	690 V					
-	-	-	0,06	0,16	0,1 - 0,16	1,9	<b>MPW25-0,16</b>	322
<b>0,06</b>	0,06	0,06	0,12	0,25	0,16 - 0,25	3	<b>MPW25-0,25</b>	322
<b>0,09</b>	0,12	0,12	0,18	0,4	0,25 - 0,4	4,8	<b>MPW25-0,40</b>	322
<b>0,12</b>	0,18	0,25	0,25	0,63	0,4 - 0,63	7,5	<b>MPW25-0,63</b>	322
<b>0,25</b>	0,25	0,37	0,55	1	0,63 - 1,0	12	<b>MPW25-1,0</b>	322
<b>0,55</b>	0,55	0,75	1,1	1,6	1,0 - 1,6	19	<b>MPW25-1,6</b>	322
<b>0,75</b>	1,1	1,1	1,5	2,5	1,6 - 2,5	30	<b>MPW25-2,5</b>	322
<b>1,5</b>	1,5	2,2	3	4	2,5 - 4,0	48	<b>MPW25-4,0</b>	322
<b>2,2</b>	3	3	4	6,3	4,0 - 6,3	75	<b>MPW25-6,3</b>	322
<b>4</b>	4	4	7,5	10	6,3 - 10	120	<b>MPW25-10</b>	322
<b>7,5</b>	9	9	12,5	16	10 - 16	190	<b>MPW25-16</b>	322
<b>9</b>	11	12,5	15	20	16 - 20	240	<b>MPW25-20</b>	322
<b>12,5</b>	12,5	15	22	25	20 - 25	300	<b>MPW25-25</b>	322
<b>15</b>	15	18,5	30	32	25 - 32	384	<b>MPW25-32</b>	322

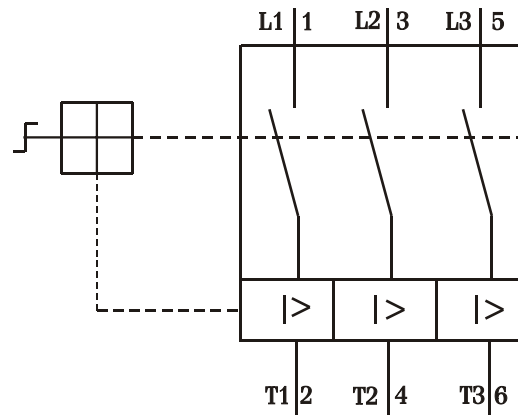


## Motor Protective Circuit Breaker MPW25i, magnetic only


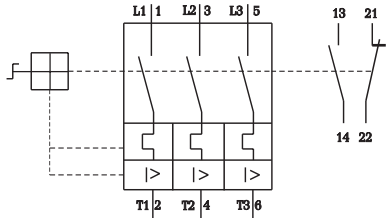
- with short circuit releases,
- fixed short circuit release  $12 \times I_u$
- for use as main switch,
- MPW25 up to 10 A at 400/415 V are self protected
- MPW25 above 10 A provide a breaking capacity of 50 kA at 400/415 V according IEC/EN 60947-2
- MPW25 fulfill UL/CSA




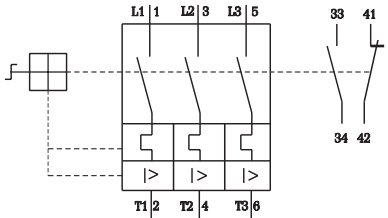
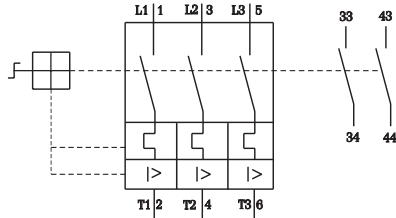
max. operational power (kW) AC 3				operational instantaneous current  $I_u$ (A)	Short-circuit release auslöser   $I_{rm}$ (A)	Type	Weight  g/pc.
400 V 415 V	440 V	500 V	690 V				
-	-	-	0,06	0,16	1,9	<b>MPW25i-0,16</b>	320
<b>0,06</b>	0,06	0,06	0,12	0,25	3	<b>MPW25i-0,25</b>	320
<b>0,09</b>	0,12	0,12	0,18	0,4	4,8	<b>MPW25i-0,40</b>	320
<b>0,12</b>	0,18	0,25	0,25	0,63	7,5	<b>MPW25i-0,63</b>	320
<b>0,25</b>	0,25	0,37	0,55	1	12	<b>MPW25i-1,0</b>	320
<b>0,55</b>	0,55	0,75	1,1	1,6	19	<b>MPW25i-1,6</b>	320
<b>0,75</b>	1,1	1,1	1,5	2,5	30	<b>MPW25i-2,5</b>	320
<b>1,5</b>	1,5	2,2	3	4	48	<b>MPW25i-4,0</b>	320
<b>2,2</b>	3	3	4	6,3	75	<b>MPW25i-6,3</b>	320
<b>4</b>	4	4	7,5	10	120	<b>MPW25i-10</b>	320
<b>7,5</b>	9	9	12,5	16	190	<b>MPW25i-16</b>	320
<b>9</b>	11	12,5	15	20	240	<b>MPW25i-20</b>	320
<b>12,5</b>	12,5	15	22	25	300	<b>MPW25i-25</b>	320
<b>15</b>	15	18,5	30	32	384	<b>MPW25i-32</b>	322




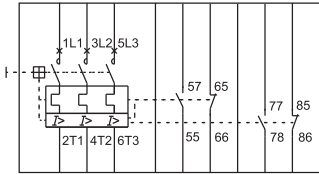
Front mountable auxiliary contact block, the 45 mm widths of the MPCB remain unchanged

	Circuit diagram	Auxiliary contacts		Type	Weight g/pc.	Packing unit
		NO	NC			
		1	1	ACBF-11	20	1

Left side mountable auxiliary contact blocks, can be combined with front mountable auxiliary contact block

	Circuit diagram	Auxiliary contacts		Type	Weight g/pc.	Packing unit
		NO	NC			
		1	1	ACBS-11	38	1
		2	0	ACBS-20	38	1


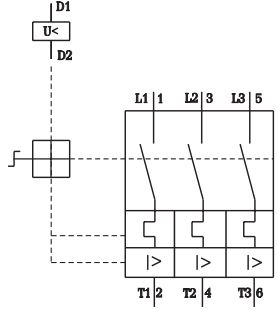
### Trip Indicating Contact Block

	Diagram	Notes	Type	Weight g/pc.	Packing unit
		Separate tripped and short-circuit alarms, 1 NO + 1NC for each circuit. Allows mounting with lateral auxiliary contact block. Left side mounting.	TSB	150	1


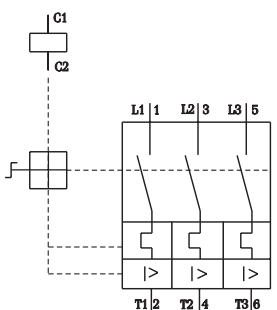
### Terminal for Combination Motor Controller Type E to UL 508



NOTE	For use with	Type	Weight g/pc.	Packing unit
- As UL 508 demands for combination Motor Controller Type E creepage distances at line-side.	MPW25	LST	115	1

### Undervoltage Release, on the right mountable


	Circuit diagram	Actuating voltages	Type	Weight g/pc.	Packing unit
		24 V 50-60 Hz 110-115 V 50 Hz / 127 V 60 Hz 230-240 V 50 Hz / 277 V 60 Hz 380 V 50 Hz / 440 V 60 Hz 400-415 V 50 Hz / 480 V 60 Hz 500 V 50 Hz / 600 V 60 Hz	<b>URMP-Z7</b> <b>URMP-Q</b> <b>URMP-N</b> <b>URMP-H</b> <b>URMP-U</b> <b>URMP-Y</b>	115	1
Pick-up voltage $> 0,85 \times U_e$		Drop-out voltage $0,35 - 0,7 \times U_e$	100 % DF		

### Shunt Release, on the right mountable


	Circuit diagram	Actuating voltages	Type	Weight g/pc.	Packing unit
		20 - 24 V 50/60 Hz 40 - 48 V 50/60 Hz 100 - 127 V 50/60 Hz 200 - 240 V 50/60 Hz 365 - 440 V 50/60 Hz	<b>SRMP-Z2</b> <b>SRMP-Z7</b> <b>SRMP-Z15</b> <b>SRMP-Z20</b> <b>SRMP-Z26</b>	115	1
Pick-up voltage $0,7 \times U_e$		100 % DF			

	Description	Type	Weight g/pc.	Packing unit
	Scale cover	SCMP	15	5
	Push-in-lugs	PLMP	25	5

## Insulated enclosure with black/grey rotary handle, IP 55


	Notes	for use with	Type	Weight g/pc.	Packing unit
	with black/grey rotary handle	MPW25 or MPW25i + ACBF11 + ACBS11 or ACBS20 + PL...	<b>MPE55G</b>	365	1
	with integrated PE(N) terminal				
	lockable in Off position with 3 padlocks	MPW25 or MPW25i + URMP or SRMP + ACBF11 + ACBS11 or ACBS20 + PL...	<b>MLPE55G</b>	415	1
	two M25 metric cable entry knockout, top and bottom				

## Insulated enclosure with red/yellow rotary handle, IP 55


	Notes	for use with	Type	Weight g/pc.	Packing unit
	with red/yellow rotary handle	MPW25 or MPW25i + ACBF11 + ACBS11 or ACBS20 + PL...	<b>MPE55G-E</b>	365	1
	for use on Emergency-Stop switches to IEC/EN 60204				
	with integrated PE(N) terminal	MPW25 or MPW25i + URMP or SRMP + ACBF11 + ACBS11 or ACBS20 + PL...	<b>MLPE55G-E</b>	415	1
	lockable in Off position with 3 padlocks				
	two M25 metric cable entry knockout, top and bottom				

Neutral terminal	for connection of a 5th conductor	MPE55G, MLPE55G, MPE55G-E and MLPE55G-E	<b>NL-MPE</b>	365	1
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## Flush Mounting Enclosure

	Notes	Color	Type	Weight g/pc.	Packing unit
	<ul style="list-style-type: none"> <li>- For MPW mounting on panel door</li> <li>- Degree of protection IP55</li> <li>- Moulded plastic front plate with rotary operating mechanism</li> <li>- Lockable in off position</li> <li>- Allows accessories ACBF-11, ACBS-11 or ACBS-20 and one URMP or SRMP</li> <li>- Allow installation with lamp</li> </ul>	<b>Black</b>	FME55	200	1
		<b>Red with Yellow background</b>	FME55-E	200	


### Door coupling rotary handle black/grey, IP55

	Notes	Color	Type	Weight g/pc.	Packing unit
	extension shaft, length <b>130</b> to 155 mm extension shaft, length <b>330</b> to 355 mm door coupling rotary handle black/grey; extension shaft can be cut to any required length, minimum 80 mm; thickness of panel door may range from 1 to 3,5 mm; for use on main switch to IEC/EN 60 204; ON/Off/Tripped position; lockable in off position with 3 padlocks; the Motor Protective Circuit Breaker can also be used turned 90°.	black	<b>RMMP130</b> <b>RMMP330</b>	76 114	1
		red	<b>RMMP130E</b> <b>RMMP330E</b>	76 114	1

### Door coupling rotary handle red/yellow, IP55

	Notes	Type	Weight g/pc.	Packing unit
	extension shaft, length <b>130</b> to 155 mm extension shaft, length <b>330</b> to 355 mm door coupling rotary handle red/yellow; extension shaft can be cut to any required length, minimum 80 mm; thickness of panel door may range from 1 to 3,5 mm; for use on main switch to IEC/EN 60 204; ON/Off/Tripped position; lockable in off position with 3 padlocks; the Motor Protective Circuit Breaker can also be used turned 90°; allows panel operating in position on.	<b>MR MPW25-130</b>	76	1
		<b>MR MPW25-330</b>	114	1

### Indicator light

	Notes	Type	Weight g/pc.	Packing unit
	<b>Colour: red</b> voltage: 110...130 V voltage: 210...230 V voltage: 400...560 V	<b>PL130</b> <b>PL230</b> <b>PL560</b>	17	10
	<b>Colour: green</b> voltage: 110...130 V voltage: 210...230 V voltage: 400...560 V	<b>PL130G</b> <b>PL230G</b> <b>PL560G</b>		
	<b>Colour: white</b> voltage: 110...130 V voltage: 210...230 V voltage: 400...560 V	<b>PL130W</b> <b>PL230W</b> <b>PL560W</b>		

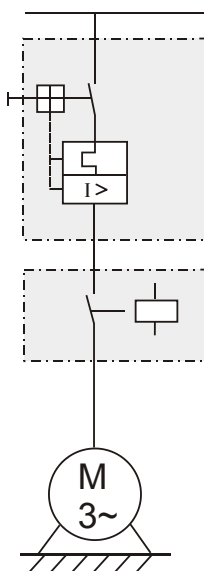
## Type "1" Coordination - rated conditional short-circuit current $I_q = 50 \text{ kA}/415 \text{ V}$

### Direct-on-line starters

- direct-on-line starters consists of a motor protective circuit breaker **MPW25** and a **CW07** or **CWM** contactor, which are already electrically and mechanically connected via the link module ECCMP

Rated operational power (kW) AC 3 400 V 415 V	Rated operational power $I_e$ (A)	Setting overload release $I_r$ (A)	Short circuit release $I_{rm}$ (A)	Type Motor Protective Circuit Breaker	Type suffix contactor CW07 Actuating voltage 230 V 50/60 Hz	Type suffix contactor CWM Actuating voltage 230 V 50/60 Hz	Weight g/pc.
0,06	0,21	0,16 - 0,25	3	MPW25-0,25	+CW07.10-230V-50/60Hz	+CWM9.10-230V-50/60Hz	470/644
0,09	0,31	0,25 - 0,4	4,8	MPW25-0,40	+CW07.10-230V-50/60Hz	+CWM9.10-230V-50/60Hz	470/644
0,12	0,41	0,4 - 0,63	7,5	MPW25-0,63	+CW07.10-230V-50/60Hz	+CWM9.10-230V-50/60Hz	470/644
0,18	0,6	0,4 - 0,63	7,5	MPW25-0,63	+CW07.10-230V-50/60Hz	+CWM9.10-230V-50/60Hz	470/644
0,25	0,8	0,63 - 1,0	12	MPW25-1,0	+CW07.10-230V-50/60Hz	+CWM9.10-230V-50/60Hz	470/644
0,37	1,1	1,0 - 1,6	19	MPW25-1,6	+CW07.10-230V-50/60Hz	+CWM9.10-230V-50/60Hz	470/644
0,55	1,5	1,0 - 1,6	19	MPW25-1,6	+CW07.10-230V-50/60Hz	+CWM9.10-230V-50/60Hz	470/644
0,75	1,9	1,6 - 2,5	30	MPW25-2,5	+CW07.10-230V-50/60Hz	+CWM9.10-230V-50/60Hz	470/644
1,1	2,6	2,5 - 4,0	48	MPW25-4,0	+CW07.10-230V-50/60Hz	+CWM9.10-230V-50/60Hz	470/644
1,5	3,6	2,5 - 4,0	48	MPW25-4,0	+CW07.10-230V-50/60Hz	+CWM9.10-230V-50/60Hz	470/644
2,2	5	4,0 - 6,3	75	MPW25-6,3	+CW07.10-230V-50/60Hz	+CWM9.10-230V-50/60Hz	470/644
3,0	6,6	6,3 - 10	120	MPW25-10	+CW07.10-230V-50/60Hz	+CWM9.10-230V-50/60Hz	470/644
4,0	8,5	6,3 - 10	120	MPW25-10	-	+CWM9.10-230V-50/60Hz	644
5,5	11,3	10 - 16	190	MPW25-16	-	+CWM12.10-230V-50/60Hz	644
7,5	15,2	10 - 16	190	MPW25-16	-	+CWM18.10-230V-50/60Hz	644
11	21,7	20 - 25	300	MPW25-25	-	+CWM25.10-230V-50/60Hz	644
15	29,3	25 - 32	384	MPW25-32	-	+CWM32.10-230V-50/60Hz	644



**Ordering example:** The type can be found in the "Rated operational power" column alongside the selected rating 2,2 kW, desired type: MPW25-6,3+CW07-230V-50/60Hz, using the mini contactor  
desired type: MPW25-6,3+CWM9.10-230V-50/60Hz, using the standard contactor



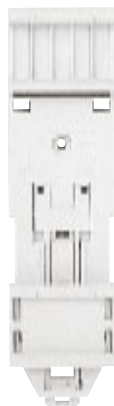
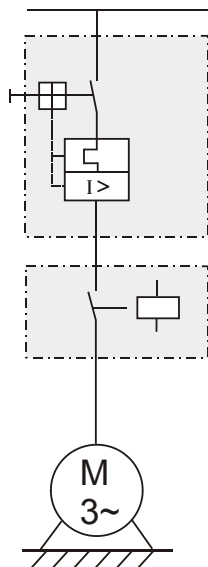
### Type "2" Coordination - rated conditional short-circuit current $I_q = 50 \text{ kA}/415 \text{ V}$

#### Direct-on-line starters

- direct-on-line starters consists of a motor protective circuit breaker **MPW25** and a **CW07** or **CWM** contactor, which are already electrically and mechanically connected via the link module ECCMP

Rated operational power (kW)	Rated operational power $I_e$ (A)	Setting overload release $I_r$ (A)	Short circuit release $I_{rm}$ (A)	Type Motor Protective Circuit Breaker	Type suffix contactor CW07 Actuating voltage 230 V 50/60 Hz	Type suffix contactor CWM Actuating voltage 230 V 50/60 Hz	Weight g/pc.
AC 3 400 V 415 V							
0,06	0,21	0,16 - 0,25	3	MPW25-0,25	+CW07.10-230V-50/60Hz	+CWM9.10-230V-50/60Hz	470/644
0,09	0,31	0,25 - 0,4	4,8	MPW25-0,40	+CW07.10-230V-50/60Hz	+CWM9.10-230V-50/60Hz	470/644
0,12	0,41	0,4 - 0,63	7,5	MPW25-0,63	+CW07.10-230V-50/60Hz	+CWM9.10-230V-50/60Hz	470/644
0,18	0,6	0,4 - 0,63	7,5	MPW25-0,63	+CW07.10-230V-50/60Hz	+CWM9.10-230V-50/60Hz	470/644
0,25	0,8	0,63 - 1,0	12	MPW25-1,0	+CW07.10-230V-50/60Hz	+CWM9.10-230V-50/60Hz	470/644
0,37	1,1	1,0 - 1,6	19	MPW25-1,6	+CW07.10-230V-50/60Hz	+CWM9.10-230V-50/60Hz	470/644
0,55	1,5	1,0 - 1,6	19	MPW25-1,6	+CW07.10-230V-50/60Hz	+CWM9.10-230V-50/60Hz	470/644
0,75	1,9	1,6 - 2,5	30	MPW25-2,5	-	+CWM9.10-230V-50/60Hz	644
1,1	2,6	2,5 - 4,0	48	MPW25-4,0	-	+CWM9.10-230V-50/60Hz	644
1,5	3,6	2,5 - 4,0	48	MPW25-4,0	-	+CWM9.10-230V-50/60Hz	644
2,2	5	4,0 - 6,3	75	MPW25-6,3	-	+CWM9.10-230V-50/60Hz	644
3,0	6,6	6,3 - 10	120	MPW25-10	-	+CWM9.10-230V-50/60Hz	644
4,0	8,5	6,3 - 10	120	MPW25-10	-	+CWM9.10-230V-50/60Hz	644
5,5	11,3	10 - 16	190	MPW25-16	-	+CWM12.10-230V-50/60Hz	644
7,5	15,2	10 - 16	190	MPW25-16	-	+CWM18.10-230V-50/60Hz	644
11	21,7	20 - 25	300	MPW25-25	-	+CWM25.10-230V-50/60Hz	644
15	28,93	25 - 32	384	MPW25-32	-	+CWM32.10-230V-50/60Hz	644


**Ordering example:** The type can be found in the "Rated operational power" column alongside the selected rating 2,2 kW, desired type: MPW25-6,3 + CWM9.10-230V-50/60Hz



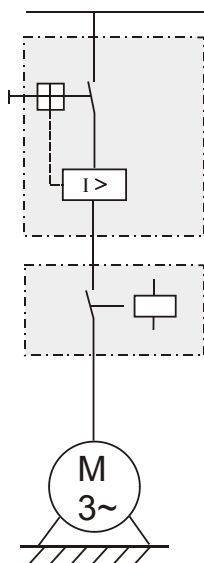
## Type "1" Coordination - rated conditional short-circuit current $I_q = 50 \text{ kA}/415 \text{ V}$

### Direct-on-line starters

- direct-on-line starters consists of a motor protective circuit breaker **MPW25 $i$**  and a **CW07** or **CWM** contactor, which are already electrically and mechanically connected via the link module ECCMP

Rated operational power (kW) AC 3 400 V 415 V	Rated operational power $I_e$ (A)	Short circuit release  $I_{rm}$ (A)	Type Motor Protective Circuit Breaker (magnetic only)	Type suffix contactor CW07  Actuating voltage 230 V 50/60 Hz	Type suffix contactor CWM  Actuating voltage 230 V 50/60 Hz	Weight  g/pc
0,06	0,21	3	MPW25 $i$ -0,25	+CW07.10-230V-50/60Hz	+CWM9.10-230V-50/60Hz	470/644
0,09	0,31	4,8	MPW25 $i$ -0,40	+CW07.10-230V-50/60Hz	+CWM9.10-230V-50/60Hz	470/644
0,12	0,41	7,5	MPW25 $i$ -0,63	+CW07.10-230V-50/60Hz	+CWM9.10-230V-50/60Hz	470/644
0,18	0,6	7,5	MPW25 $i$ -0,63	+CW07.10-230V-50/60Hz	+CWM9.10-230V-50/60Hz	470/644
0,25	0,8	12	MPW25 $i$ -1,0	+CW07.10-230V-50/60Hz	+CWM9.10-230V-50/60Hz	470/644
0,37	1,1	19	MPW25 $i$ -1,6	+CW07.10-230V-50/60Hz	+CWM9.10-230V-50/60Hz	470/644
0,55	1,5	19	MPW25 $i$ -1,6	+CW07.10-230V-50/60Hz	+CWM9.10-230V-50/60Hz	470/644
0,75	1,9	30	MPW25 $i$ -2,5	+CW07.10-230V-50/60Hz	+CWM9.10-230V-50/60Hz	470/644
1,1	2,6	48	MPW25 $i$ -4,0	+CW07.10-230V-50/60Hz	+CWM9.10-230V-50/60Hz	470/644
1,5	3,6	48	MPW25 $i$ -4,0	+CW07.10-230V-50/60Hz	+CWM9.10-230V-50/60Hz	470/644
2,2	5	75	MPW25 $i$ -6,3	+CW07.10-230V-50/60Hz	+CWM9.10-230V-50/60Hz	470/644
3,0	6,6	120	MPW25 $i$ -10	+CW07.10-230V-50/60Hz	+CWM9.10-230V-50/60Hz	470/644
4,0	8,5	120	MPW25 $i$ -10	-	+CWM9.10-230V-50/60Hz	644
5,5	11,3	190	MPW25 $i$ -16	-	+CWM12.10-230V-50/60Hz	644
7,5	15,2	190	MPW25 $i$ -16	-	+CWM18.10-230V-50/60Hz	644
11	21,7	300	MPW25 $i$ -25	-	+CWM25.10-230V-50/60Hz	644
15	29,3	384	MPW25 $i$ -32	-	+CWM32.10-230V-50/60Hz	644


**Ordering example:** The type can be found in the "Rated operational power" column alongside the selected rating 2,2 kW, desired type: MPW25 $i$ -6,3+CW07-10-230V-50/60Hz  
desired type: MPW25 $i$ -6,3+CWM9.10-203V-50/60Hz



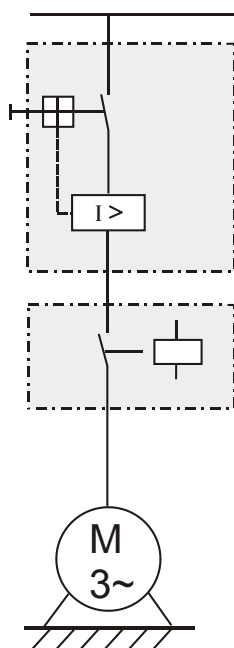
### Type "2" Coordination - rated conditional short-circuit current $I_q = 50 \text{ kA}/415 \text{ V}$

#### Direct-on-line starters

- direct-on-line starters consists of a motor protective circuit breaker **MPW25i** and a **CW07** or **CWM** contactor, which are already electrically and mechanically connected via the link module ECCMP

Rated operational power (kW) AC 3 400 V 415 V	Rated operational power $I_e$ (A)	Short circuit release  $I_{rm}$ (A)	Type Motor Protective Circuit Breaker (magnetic only)	Type suffix contactor CW07 Actuating voltage 230 V 50/60 Hz	Type suffix contactor CWM Actuating voltage 230 V 50/60 Hz	Weight g/pc.
0,06	0,21	3	MPW25i-0,25	+CW07.10-230V-50/60Hz	+CWM9.10-230V-50/60Hz	470/644
0,09	0,31	4,8	MPW25i-0,40	+CW07.10-230V-50/60Hz	+CWM9.10-230V-50/60Hz	470/644
0,12	0,41	7,5	MPW25i-0,63	+CW07.10-230V-50/60Hz	+CWM9.10-230V-50/60Hz	470/644
0,18	0,6	7,5	MPW25i-0,63	+CW07.10-230V-50/60Hz	+CWM9.10-230V-50/60Hz	470/644
0,25	0,8	12	MPW25i-1,0	+CW07.10-230V-50/60Hz	+CWM9.10-230V-50/60Hz	470/644
0,37	1,1	19	MPW25i-1,6	+CW07.10-230V-50/60Hz	+CWM9.10-230V-50/60Hz	470/644
0,55	1,5	19	MPW25i-1,6	+CW07.10-230V-50/60Hz	+CWM9.10-230V-50/60Hz	470/644
0,75	1,9	30	MPW25i-2,5	-	+CWM9.10-230V-50/60Hz	644
1,1	2,6	48	MPW25i-4,0	-	+CWM9.10-230V-50/60Hz	644
1,5	3,6	48	MPW25i-4,0	-	+CWM9.10-230V-50/60Hz	644
2,2	5	75	MPW25i-6,3	-	+CWM9.10-230V-50/60Hz	644
3,0	6,6	120	MPW25i-10	-	+CWM9.10-230V-50/60Hz	644
4,0	8,5	120	MPW25i-10	-	+CWM9.10-230V-50/60Hz	644
5,5	11,3	190	MPW25i-16	-	+CWM12.10-230V-50/60Hz	644
7,5	15,2	190	MPW25i-16	-	+CWM18.10-230V-50/60Hz	644
11	21,7	300	MPW25i-25	-	+CWM25.10-230V-50/60Hz	644
15	29,3	384	MPW25i-32	-	+CWM32.10-230V-50/60Hz	644

**Ordering example:** The type can be found in the "Rated operational power" column alongside the selected rating 2,2 kW, desired type: MPW25i-6,3 + CWM9.10-230V-50/60Hz



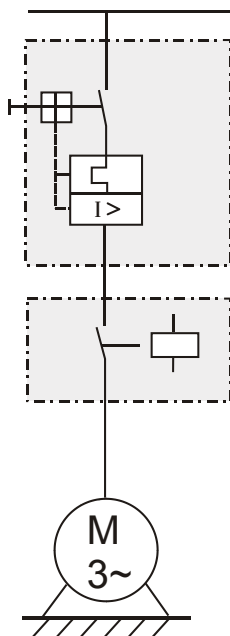
### Type "1" Coordination - rated conditional short-circuit current $I_q = 50 \text{ kA}/415 \text{ V}$

#### Direct-on-line starters

- direct-on-line starters consists of a motor protective circuit breaker **MPW25** and a **CW07** or **CWM** contactor

Rated operational power (kW)	Rated operational power $I_e$ (A)	Setting overload release $I_r$ (A)	Short circuit release $I_{rm}$ (A)	Type Motor Protective Circuit Breaker	Type suffix contactor CWM Actuating voltage 24 V DC	Contactor Circuit Breaker Link Module Actuating voltage 24 V DC	Weight g/pc.
0,06	0,21	0,16 - 0,25	3	MPW25-0,25	+CWM9.10-24VDC	ECCMP-25	860
0,09	0,31	0,25 - 0,4	4,8	MPW25-0,40	+CWM9.10-24VDC	ECCMP-25	860
0,12	0,41	0,4 - 0,63	7,5	MPW25-0,63	+CWM9.10-24VDC	ECCMP-25	860
0,18	0,6	0,4 - 0,63	7,5	MPW25-0,63	+CWM9.10-24VDC	ECCMP-25	860
0,25	0,8	0,63 - 1,0	12	MPW25-1,0	+CWM9.10-24VDC	ECCMP-25	860
0,37	1,1	1,0 - 1,6	19	MPW25-1,6	+CWM9.10-24VDC	ECCMP-25	860
0,55	1,5	1,0 - 1,6	19	MPW25-1,6	+CWM9.10-24VDC	ECCMP-25	860
0,75	1,9	1,6 - 2,5	30	MPW25-2,5	+CWM9.10-24VDC	ECCMP-25	860
1,1	2,6	2,5 - 4,0	48	MPW25-4,0	+CWM9.10-24VDC	ECCMP-25	860
1,5	3,6	2,5 - 4,0	48	MPW25-4,0	+CWM9.10-24VDC	ECCMP-25	860
2,2	5	4,0 - 6,3	75	MPW25-6,3	+CWM9.10-24VDC	ECCMP-25	860
3,0	6,6	6,3 - 10	120	MPW25-10	+CWM9.10-24VDC	ECCMP-25	860
4,0	8,5	6,3 - 10	120	MPW25-10	+CWM9.10-24VDC	ECCMP-25	860
5,5	11,3	10 - 16	190	MPW25-16	+CWM12.10-24VDC	ECCMP-25	860
7,5	15,2	10 - 16	190	MPW25-16	+CWM18.10-24VDC	ECCMP-25	860
11	21,7	20 - 25	300	MPW25-25	+CWM25.10-24VDC	ECCMP-25	860
15	29,3	25 - 32	384	MPW25-32	+CWM32.10-24VDC	-	860


**Ordering example:** The type can be found in the "Rated operational power" column alongside the selected rating 2,2 kW, desired type: MPW25-6,3 + CWM9.10-230V-50/60Hz



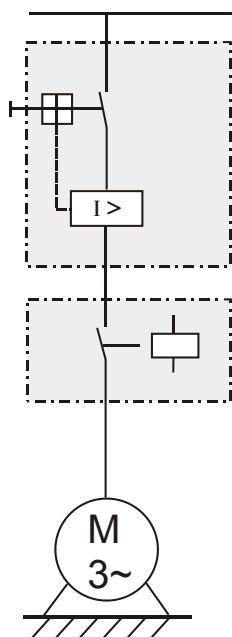
### Type "2" Coordination - rated conditional short-circuit current $I_q = 50 \text{ kA}/415 \text{ V}$

#### Direct-on-line starters

- direct-on-line starters consists of a motor protective circuit breaker **MPW25** and a **CWM** contactor

Rated operational power (kW) AC 3 400 V 415 V	Rated operational power $I_e$ (A)	Short circuit release  $I_{rm}$ (A)	Type Motor Protective Circuit Breaker (magnetic only)	Type suffix contactor CWM  Actuating voltage 24 V DC	Contactor Circuit Breaker Link Module  Actuating voltage 24 V DC	Weight  g/pc.
0,06	0,21	3	MPW25 <i>i</i> -0,25	+CWM9.10-24VDC	ECCMP-25	860
0,09	0,31	4,8	MPW25 <i>i</i> -0,40	+CWM9.10-24VDC	ECCMP-25	860
0,12	0,41	7,5	MPW25 <i>i</i> -0,63	+CWM9.10-24VDC	ECCMP-25	860
0,18	0,6	7,5	MPW25 <i>i</i> -0,63	+CWM9.10-24VDC	ECCMP-25	860
0,25	0,8	12	MPW25 <i>i</i> -1,0	+CWM9.10-24VDC	ECCMP-25	860
0,37	1,1	19	MPW25 <i>i</i> -1,6	+CWM9.10-24VDC	ECCMP-25	860
0,55	1,5	19	MPW25 <i>i</i> -1,6	+CWM9.10-24VDC	ECCMP-25	860
0,75	1,9	30	MPW25 <i>i</i> -2,5	+CWM9.10-24VDC	ECCMP-25	860
1,1	2,6	48	MPW25 <i>i</i> -4,0	+CWM9.10-24VDC	ECCMP-25	860
1,5	3,6	48	MPW25 <i>i</i> -4,0	+CWM9.10-24VDC	ECCMP-25	860
2,2	5	75	MPW25 <i>i</i> -6,3	+CWM9.10-24VDC	ECCMP-25	860
3,0	6,6	120	MPW25 <i>i</i> -10	+CWM9.10-24VDC	ECCMP-25	860
4,0	8,5	120	MPW25 <i>i</i> -10	+CWM9.10-24VDC	ECCMP-25	860
5,5	11,3	190	MPW25 <i>i</i> -16	+CWM12.10-24VDC	ECCMP-25	860
7,5	15,2	190	MPW25 <i>i</i> -16	+CWM18.10-24VDC	ECCMP-25	860
11	21,7	300	MPW25 <i>i</i> -25	+CWM25.10-24VDC	ECCMP-25	860
15	29,3	384	MPW25 <i>i</i> -32	+CWM32.10-24VDC	-	860

**Ordering example:** The type can be found in the "Rated operational power" column alongside the selected rating 2,2 kW, desired type: MPW25-6,3 + CWM9.10-24VDC



### Three-phase commoning links

- protection against direct contact,  $U_e = 690\text{ V}$ ,  $I_u = 63\text{ A}$ , can be lengthened by rotated mounting
- for Motor Protective Circuit Breakers MPW25 and MPW25i

- for motor protective circuit breakers without side-fitted auxiliary contacts or voltage releases

	Number of circuit breakers	Length mm	Type	Weight g/pc.	Packing unit
	2 MPCBs without aux. Contacts	91	BBS45-2	35	1
	3 MPCBs without aux. Contacts	136	BBS45-3	60	1
	4 MPCBs without aux. Contacts	181	BBS45-4	75	1
	5 MPCBs without aux. Contacts	226	BBS45-5	100	1

- for motor protective circuit breakers each having one auxiliary contact fitted on the left

	2 MPCBs with aux. Contacts	100	BBS54-2	40	1
	3 MPCBs with aux. Contacts	154	BBS54-3	65	1
	4 MPCBs with aux. Contacts	208	BBS54-4	90	1
	5 MPCBs with aux. Contacts	262	BBS54-5	105	1

### Feeder terminal

	protection against direct contact $U_e = 690\text{ V}$ $I_u = 63\text{ A}$ 6 - 25 mm <sup>2</sup> stranded 6 - 16 mm <sup>2</sup> flexible with ferrule	FTBBS	35	1
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### Shroud for unused terminals




	protection against direct contact to cover unused terminals on a three-phase commoning link	CSD	12	10
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### Circuit breaker-contactor link module


	to electrically and mechanically link the motor protective circuit breaker MPW25/MPW25i and contactor	For use with contactor		27	1
		CW07	ECCMP07		
		CWC07...16 CWM9...25	ECCMP25		

### Mounting Adapter

- 2 DIN Rails
- lower DIN Rail adjustable

	Width mm	for use with	Type
	45	Direct starter consists of: <b>MPW25</b> + <b>CW07</b> or + <b>CWM9</b> up to <b>CWM25</b>	MA 45 DOL
	90	Reversing starter consists of: <b>MPW25</b> + <b>CW107</b> or + <b>2 x CWM9</b> up to <b>CWM25</b>	MA 90 RVS
	90	Star-delta starter consists of: <b>MPW 25</b> + <b>2 X CWM9</b> up to <b>CWM25</b>	MA 90 SDS

### Three-phase-current connection

	Width/ Nominal rated current/ Length of the wiring	for use with	Type
	45 mm/ 20 A/ 75 mm	Connection of: <b>MPW25</b> with <b>Contactor CW07</b> or <b>Contactors CWM9</b> up to <b>CWM25</b>	C 2075
	45 mm/ 20 A/ 100 mm		C 20100

## Motor Protective Circuit Breaker MPW25

### General technical data

Standards	IEC/EN 60 947, DIN VDE 0660, UL 508, CSA C22.2 No.14		
Climatic proofing	damp heat, constant, to IEC 60 068-2-3 damp heat, cyclical, to IEC 60 068-2-30		
Ambient temperature	Storage	°C	-50 to + 80
	open	°C	-20 to + 70
	enclosed	°C	-20 to + 35
Mounting position	any position		
Degree of protection	IP20		
Protection against direct contact to IEC 536	finger- and back-of-hand proof		
Shock resistance to IEC 60 068-2-27	g		15
Altitude	m		2000
Conductor cross-section for main circuit	solid	mm <sup>2</sup>	1 x (1,5 to 6) or 2 x (1,5 to 6)
	stranded	mm <sup>2</sup>	2 x (1,5 to 6) or 2 x (1,5 to 6)
	solid or stranded	AWG	2 x (14 to 10)
Tightening torque	main circuits	Nm	2,0 ... 2,5
	control circuits	Nm	1,0 ... 1,25

### Main contacts

Rated impulse withstand voltage	U <sub>imp</sub>	kV	6
Overvoltage category/pollution degree			III/3
Rated operational voltage	U <sub>e</sub>	V	690
Rated operational current	I <sub>e</sub>	A	25 or setting current of overload release
Rated frequency		Hz	50/60
Current heat losses, 3-pole at operational temperature	W		5 (MPW25-0,1 - MPW25-16)
	W		6 (MPW25-1 - MPW25-6,3)
	W		7 (MPW25-10)
	W		8 (MPW25-16 - MPW25-25)
	W		10 (MPW25-32)
Lifespan, mechanical = electrical	Ops.		100 000
Maximum operating frequency	Ops./h		15

### Releases

Temperature compensation	°C	-20 to + 60
Adjustable overload releases	x I <sub>u</sub>	0,6 - 1
Fixed short circuit releases	x I <sub>u</sub>	12
Phase failure sensitivity		IEC/EN 60 947-4-1, DIN VDE 0660 Part 102

### Auxiliary contacts

Rated impulse withstand voltage	U <sub>imp</sub>	kV	6	
Overvoltage category/pollution degree			III/3	
Rated operational voltage	U <sub>e</sub>	V	690 (250 for ACBF...)	
rated operational current				
AC-15	24 V	I <sub>e</sub>	A	6 (2 for ACBF...)
	230 V	I <sub>e</sub>	A	4 (0,5 for ACBF...)
	380 V - 415 V	I <sub>e</sub>	A	3 (- for ACBF...)
	440 V - 500 V	I <sub>e</sub>	A	2 (- for ACBF...)
DC-13	24 V	I <sub>e</sub>	A	2 (1 for ACBF...)
	60 V	I <sub>e</sub>	A	0,5 (0,15 for ACBF...)
	110 V	I <sub>e</sub>	A	0,5 (- for ACBF...)
	220 V	I <sub>e</sub>	A	0,25 (- for ACBF...)
Control circuit reliability at U <sub>e</sub>				U <sub>min</sub> = 17 V, I <sub>min</sub> = 5 mA
	Fault probability			< 1 fault in 1 million operations
Short-circuit rating without welding	Fuse	gG/gL	A	10
Conductor cross-section for auxiliary and control circuits	solid or stranded	mm <sup>2</sup>		1 x (0,5 to 2,5) or 2 x (0,5 to 2,5)
	solid or stranded	AWG		1 x (18 ... 14) or 2 x (18 ... 14)

### Motor Protective Circuit Breaker MPW25

#### Voltage Releases

Rated operational voltage		Ue	V	24 - 480
Conductor cross-section for main circuit	solid or stranded		mm <sup>2</sup>	1 x (0,5 to 2,5) or 2 x (0,5 to 2,5)
	solid or stranded		AWG	1 x (18 ... 4) or 2 x (18 ... 14)

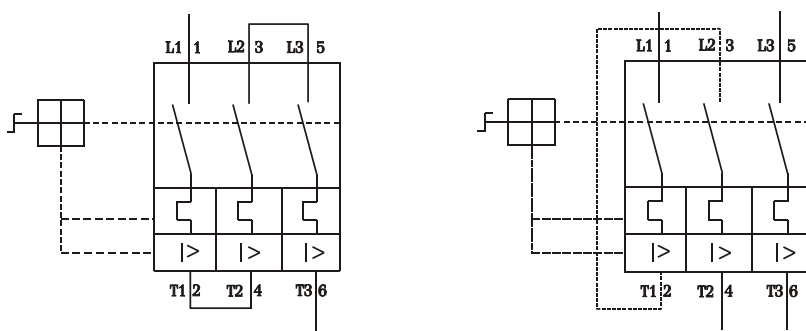
#### Shunt Releases

Operating range			x Us	0,7 - 1,1
Power consumption	Pull		VA	10
	Sealing		VA	4,5

#### Undervoltage Releases

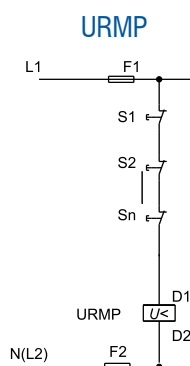
Pick-up voltage			x Us	0,85 - 1,1
Drop-out voltage			x Us	0,7 - 0,35

### MPW25 and MPW25i wired 1- or 2-pole

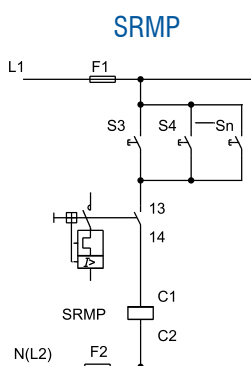


### Typical circuits

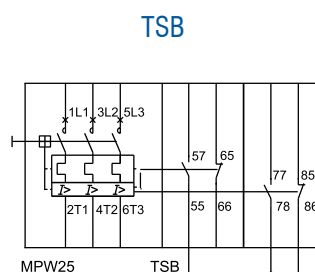
#### Undervoltage Release



#### Shunt Release



#### Trip Signalling Block



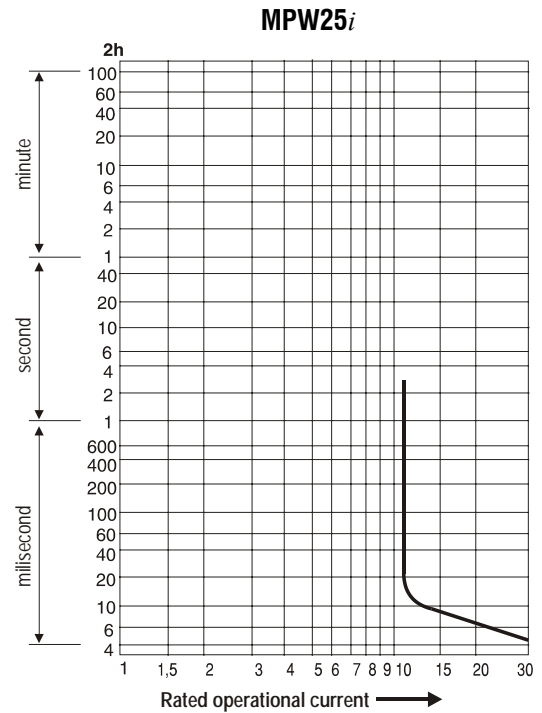
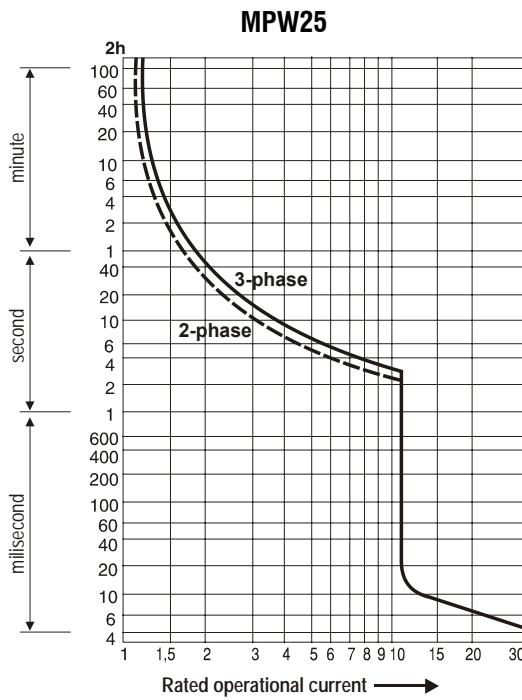
### Altitude - Factor of Correction

Altitude (above the sea level) - h	Rated operational voltage Ue	Factor of correction lu
h ≤ 2000 m	690 V	1 x In
2000 < h ≤ 3000 m	550 V	0,96 x In
3000 < h ≤ 4000 m	480 V	0,93 x In
4000 < h ≤ 5000 m	420 V	0,90 x In

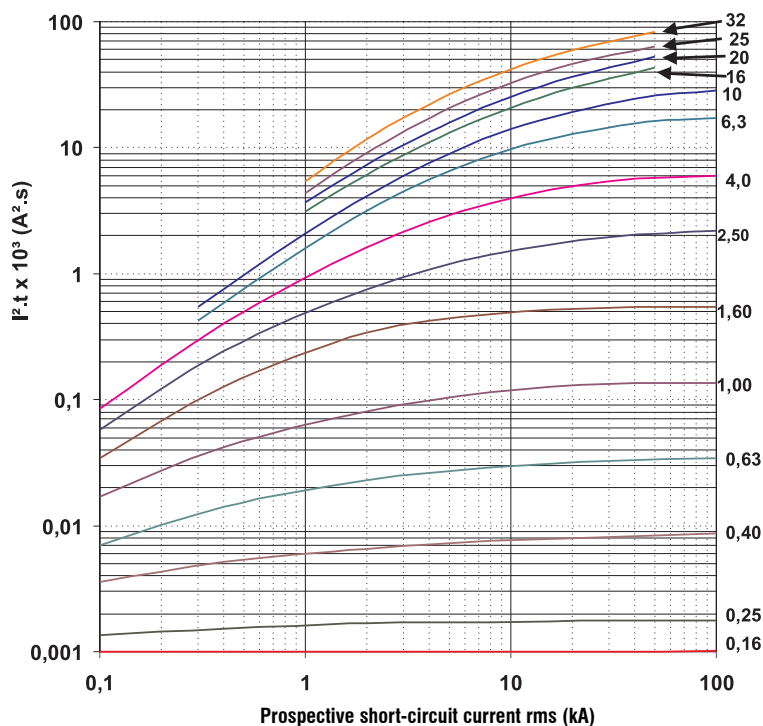
## MPW25/MPW25*i* tripping characteristics

The tripping characteristics show the tripping time of the circuit-breakers in relation to the current. They show mean values of the tolerance ranges at an ambient temperature of 20 °C, starting from cold. The tripping time of the overload releases at operational temperature is reduced to approximately 25 % of the values shown. Under normal operational conditions, all three phases of the MPW25 should be loaded.

Under normal operational conditions, all three phases of the MPW25 should be loaded.



## MPW25/MPW25*i* Let-through characteristics at 415 V.



### Breaking capacity of motor protective circuit breakers MPW25(i)

$I_u$  = Rated uninterrupted current

$I_{cu}$  = Rated ultimate short-circuit breaking capacity

$I_{cs}$  = Rated service short-circuit breaking capacity

$I_u$ A	230V			400V			440V			500V			690V		
	$I_{cu}$	$I_{cs}$	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	$I_{cu}$	$I_{cs}$	max. fuse gL/gG
	kA	kA	A	kA	kA	A	kA	kA	A	kA	kA	A	kA	kA	A
0,16	100	100	-	100	100	-	100	100	-	100	100	-	100	100	-
0,25	100	100	-	100	100	-	100	100	-	100	100	-	100	100	-
0,4	100	100	-	100	100	-	100	100	-	100	100	-	100	100	-
0,63	100	100	-	100	100	-	100	100	-	100	100	-	100	100	-
1	100	100	-	100	100	-	100	100	-	100	100	-	100	100	-
1,6	100	100	-	100	100	-	100	100	-	100	100	-	100	100	-
2,5	100	100	-	100	100	-	100	100	-	100	100	-	8	8	25 <sup>(1)</sup>
4	100	100	-	100	100	-	100	100	-	100	100	-	6	3	32 <sup>(1)</sup>
6,3	100	100	-	100	100	-	100	100	-	100	100	-	6	3	50 <sup>(1)</sup>
10	100	100	-	100	100	-	50	25	80 <sup>(1)</sup>	42	21	63 <sup>(1)</sup>	6	3	50 <sup>(1)</sup>
16	100	100	-	50	25	100 <sup>(1)</sup>	50	15	80 <sup>(1)</sup>	10	8	80 <sup>(1)</sup>	4	3	63 <sup>(1)</sup>
20	100	100	-	50	25	125 <sup>(1)</sup>	50	15	80 <sup>(1)</sup>	10	8	80 <sup>(1)</sup>	4	3	63 <sup>(1)</sup>
25	100	100	-	50	25	125 <sup>(1)</sup>	50	15	100 <sup>(1)</sup>	10	8	80 <sup>(1)</sup>	4	3	63 <sup>(1)</sup>
32	100	100	-	50	25	125 <sup>(1)</sup>	50	15	100 <sup>(1)</sup>	10	8	80 <sup>(1)</sup>	4	3	63 <sup>(1)</sup>

1) Fuse required if the prospective short-circuit current exceeds the rated ultimate short circuit breaking capacity ( $I_{cc} > I_{cu}$ ).

### The MPW switching direct current

The MPW circuit breakers for alternating current are able to switch direct current. However, you are obliged to observe the maximum permissible DC voltage per conducting path. In the case of higher voltages, series connection of 2 or 3 conducting paths is required.

The response characteristics of the overload releases remain unchanged. The response thresholds of the short-circuit releases are increased with direct current by approximately 35%.

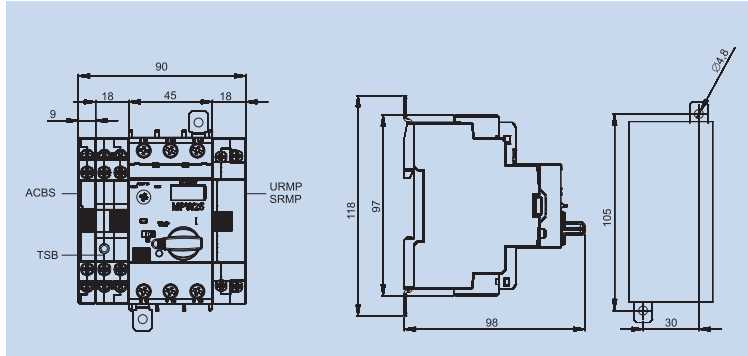
The following table shows suggestions for switching direct current:

Recommended Connection	Highest Permissible Direct Voltage	Explanation
	150 VDC	<b>2-poles switching Ungrounded system</b> If a ground fault can be excluded, or if every ground fault is immediately corrected (via ground-fault monitoring), the maximum permissible DC voltage can be multiplied by 3
	300 VDC	<b>2-pole switching Grounded system</b> The grounded pole must always be assigned to the individual conducting path so that in the event of a ground fault there are always 2 conducting paths in series
	450 VDC	<b>1-pole switching Grounded system</b> 3 conducting paths in series. The grounded pole should be assigned to the unswitched conducting path.

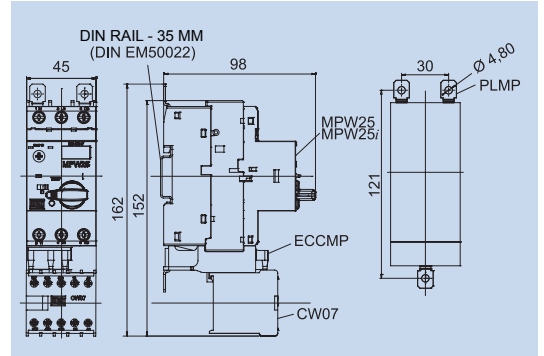
DC short-circuit breaking capacity (time constant  $t \leq 5$  ms)

- 1 conducting path DC 150 V 10 kA
- 2 conducting paths in series DC 300 V 10 kA
- 3 conducting paths in series DC 450 V 10 kA

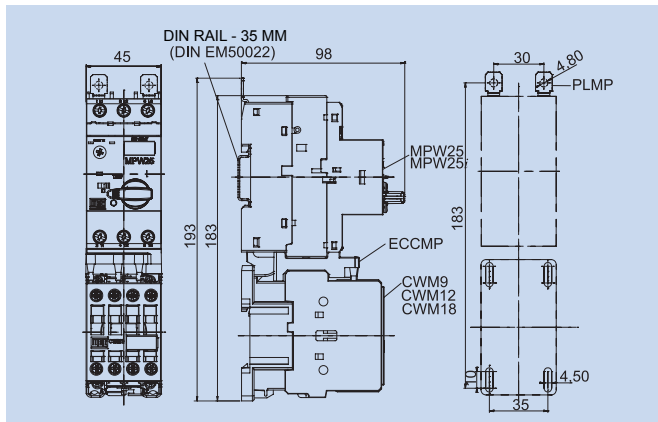
## MPW25 + Accessories



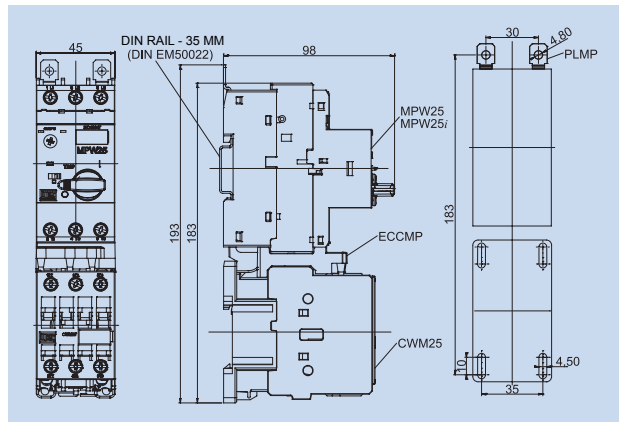
## MPW25 + CW07



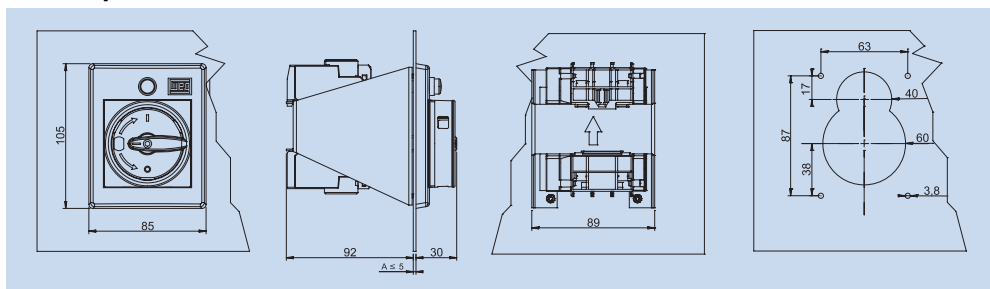
## MPW25 + CWM9...CWM18



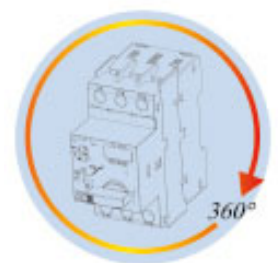
## MPW25 + CWM25



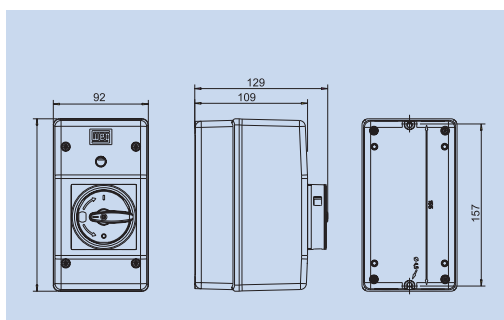
## Frontal plate - FME55



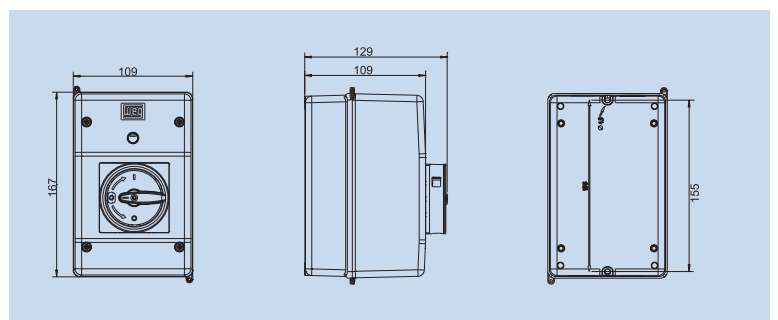
## Mounting Position



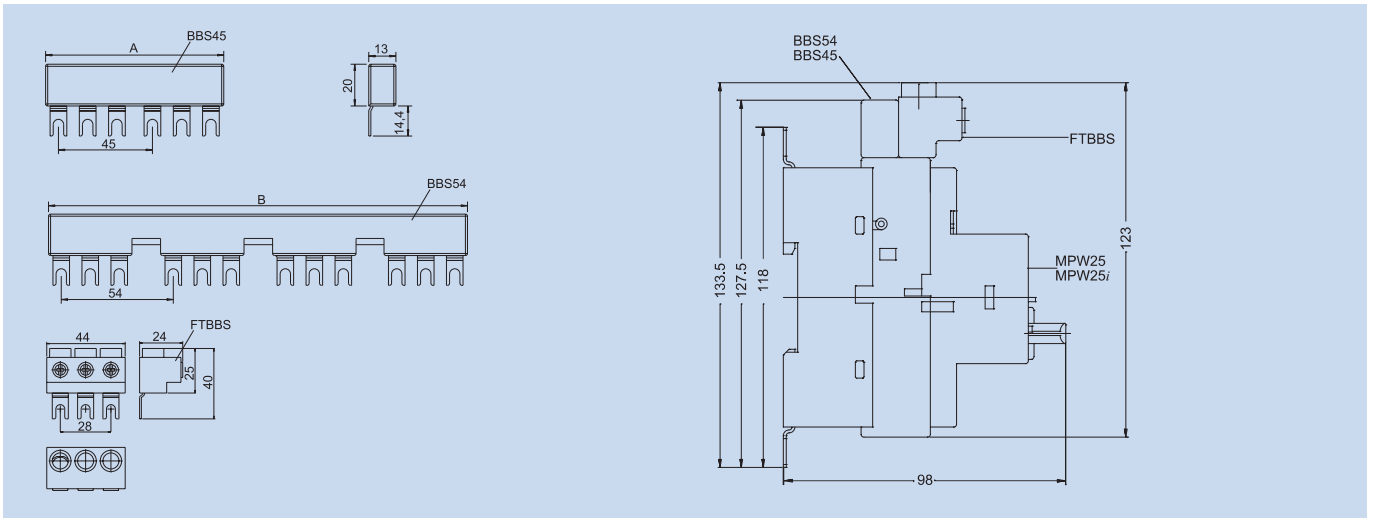
## Insulated Enclosure - MPE55



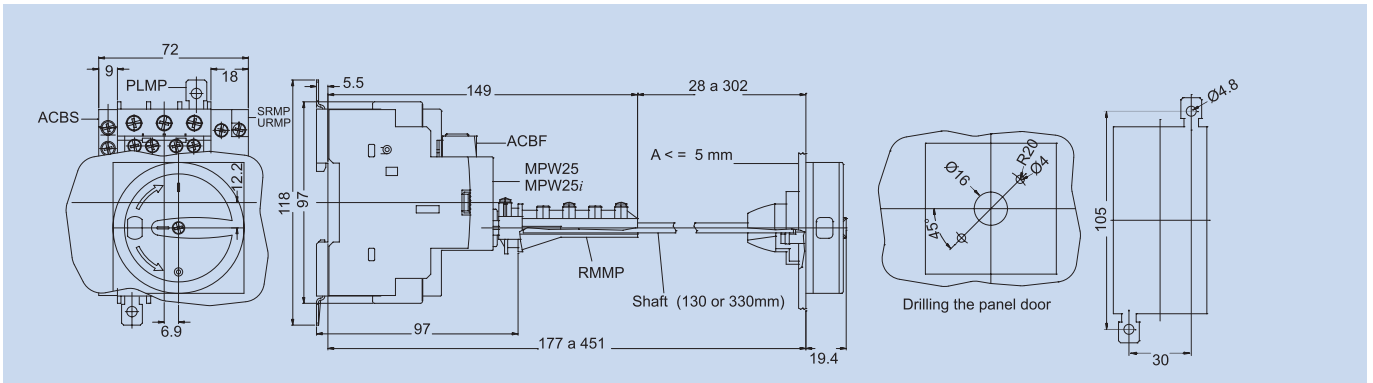
## Insulated Enclosure - MLPE55



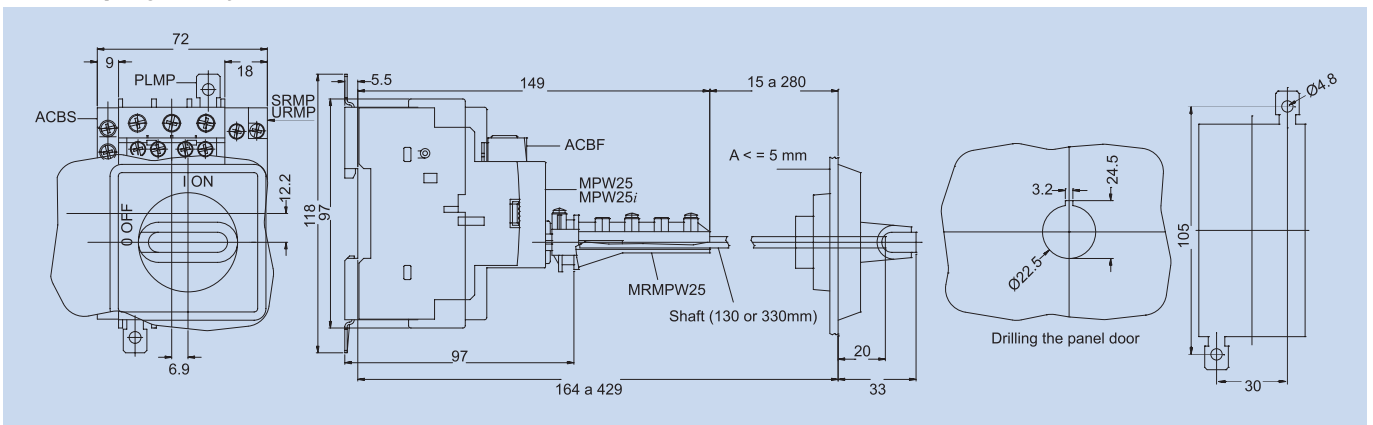
### Three-phase commoning links BBS45 / BBS54 / FTBBS



### Door Coupling Rotary Handle - RMMP



### Door Coupling Rotary Handle - MR MPW25



# Motor Protective Circuit Breaker MPW25



**Minimum fuse size for the protection of three-phase motors.**

The maximum size is governed by the requirements of the associated switchgear or overload relay

Motor rating			230 V			400 V			500 V			690V		
			Rated motor current	Fuse		Rated motor current	Fuse		Rated motor current	Fuse		Rated motor current	Fuse	
				Starting direct	Y/Δ		Starting direct	Y/Δ		Starting direct	Y/Δ		Starting direct	Y/Δ
kW	cosφ	φ (%)	A	A	A	A	A	A	A	A	A	A	A	A
0,06	0,7	58	0,37	2	-	0,21	2	-	0,17	2	-	0,12	2	-
0,09	0,7	60	0,54	2	-	0,31	2	-	0,25	2	-	0,18	2	-
0,12	0,7	60	0,72	4	2	0,41	2	-	0,33	2	-	0,24	2	-
0,18	0,7	62	1,04	4	2	0,6	2	-	0,48	2	-	0,35	2	-
0,25	0,7	62	1,4	4	2	0,8	4	2	0,7	2	-	0,5	2	-
0,37	0,72	66	2	6	4	1,1	4	2	0,9	2	2	0,7	2	-
0,55	0,75	69	2,7	10	4	1,5	4	2	1,2	4	2	0,9	4	2
0,75	0,79	74	3,2	10	4	1,9	6	4	1,5	4	2	1,1	4	2
1,1	0,81	74	4,6	10	6	2,6	6	4	2,1	6	4	1,5	4	2
1,5	0,81	74	6,3	16	10	3,6	6	4	2,9	6	4	2,1	6	4
2,2	0,81	78	8,7	20	10	5	10	6	4	10	4	2,9	10	4
3	0,82	80	11,5	25	16	6,6	16	10	5,3	16	6	3,8	10	4
4	0,82	83	14,8	32	16	8,5	20	10	6,8	16	10	4,9	16	6
5,5	0,82	86	19,6	32	25	11,3	25	16	9	20	16	6,5	16	10
7,5	0,82	87	26,4	50	32	15,2	32	16	12,1	25	16	8,8	20	10
11	0,84	87	38	80	40	21,7	40	25	17,4	32	20	12,6	25	16
15	0,84	88	51	100	63	29,3	63	32	23,4	50	25	17	32	20
18,5	0,84	88	63	125	80	36	63	40	28,9	50	32	20,9	32	25
22	0,84	92	71	125	80	41	80	50	33	63	32	23,8	50	25
30	0,85	92	96	200	100	55	100	63	44	80	50	32	63	32
37	0,86	92	117	200	125	68	125	80	54	100	63	39	80	50
45	0,86	93	141	250	160	81	160	100	65	125	80	47	80	63
55	0,86	93	173	250	200	99	200	125	79	160	80	58	100	63
75	0,86	94	233	315	250	134	200	160	107	200	125	78	160	100
90	0,86	94	279	400	315	161	250	200	129	200	160	93	160	100
110	0,86	94	342	500	400	196	315	200	157	250	160	114	200	125
132	0,87	95	401	630	500	231	400	250	184	250	200	134	250	160
160	0,87	95	486	630	630	279	400	315	224	315	250	162	250	200
200	0,87	95	607	800	630	349	500	400	279	400	315	202	315	250
250	0,87	95	-	-	-	437	630	500	349	500	400	253	400	315
315	0,87	96	-	-	-	544	800	630	436	630	500	316	500	400
400	0,88	96	-	-	-	683	1000	800	547	800	630	396	630	400
450	0,88	96	-	-	-	769	1000	800	615	800	630	446	630	630
500	0,88	97	-	-	-	-	-	-	-	-	-	491	630	630
560	0,88	97	-	-	-	-	-	-	-	-	-	550	800	630
630	0,88	97	-	-	-	-	-	-	-	-	-	618	800	630

**Notes** The rated motor currents apply to normal, internal-ventilated and enclosed fan-cooled three-phase motors at 1500 rpm.  
D.O.L. Starting: Maximum starting current 6 x rated motor current  
Maximum starting time 5 seconds.  
Y/Δ-starting: Maximum starting current 2 x rated motor current  
Maximum starting time 15 seconds  
Set the overload relay in the phase lead to 0,58 x rated motor current.

Rated fuse currents for Y/Δ-starting also apply to three-phase motors with slip-ring rotors.  
Use a larger fuse if the rated current or starting current is higher and/or if the starting time is longer.  
The table applies to "slow" or "gL" fuse (VDE 0636)

**By NH fuse with aM characteristics, select fuse size to match rated current.**



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