

## Motor Protective Circuit Breakers MPW - Technical Data

Reference code		MPW16	MPW16i	MPW12_S	MPW12i_S
Maximum rated current $i_{max}(I_u)$		16 A	16 A	12 A	12 A
Number of poles		3	3	3	3
Instantaneous short-circuit		13 x $I_u$ max.	13 x $I_u$ max.	13 x $I_u$ max.	13 x $I_u$ max.
Rated operational voltage $U_e$		690 V <sup>1)</sup>	690 V <sup>1)</sup>	690 V <sup>1)</sup>	690 V <sup>1)</sup>
Rated operational frequency		50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
Insulation voltage $U_i$		690 V	690 V	690 V	690 V
Rated impulse withstand voltage $U_{imp}$		6 kV	6 kV	6 kV	6 kV
Utilization category	IEC 60 947-2 (circuit breaker)	A	A	A	A
	IEC 60 947-4-1 (motor starter)	AC-3	AC-3	AC-3	AC-3
Tripping test		Yes	Yes	Yes	Yes
Overload protection		Yes	No	Yes	No
Phase failure sensitivity		Yes	No	Yes	No
Tripping indication		Yes	Yes	Yes	Yes
Tripping class		10	-	10	-
Maximum operation per hour	Operations/hour	15	15	15	15
Altitude (m)		2,000	2,000	2,000	2,000
Degree of protection		IP20	IP20	IP20	IP20
Mechanical life span	Number of operations	100,000	100,000	100,000	100,000
Electrical life span	Number of operations	100,000	100,000	100,000	100,000
Ambient temperatures allowed					
Transport and storage		-50...+80 °C	-50...+80 °C	-50...+80 °C	-50...+80 °C
Operation <sup>1)</sup>		-20...+70 °C	-20...+70 °C	-20...+70 °C	-20...+70 °C
Temperature compensation		-20...+60 °C	-	-20...+60 °C	-
Resistance to impact (g)		15	15	15	15
Standards					
IEC/EN 60 947-1. DIN VDE 0660 (part 100)		Yes	Yes	Yes	Yes
IEC/EN 60 947-2. DIN VDE 0660 (part 101)		Yes	Yes	Yes	Yes
IEC/EN 60 947-4-1. DIN VDE 0660 (part 102)		Yes	Yes	Yes	Yes
Terminal capacity					
Type of terminal		Flat	Flat	-	-
Tightening torque	N.m	1.2...1.7	1.2...1.7	-	-
	lb.in	11...16	11...16	-	-
Type of screws		Philips (N°2)	Philips (N°2)	-	-
Dimensions					
Width (mm)		45	45	45	45
Height (mm)		90	90	100	100
Depth (mm)		77	77	77	77

### Altitude - Correction Factor

The MPW motor protective circuit breakers do not undergo any change to their specified performance when applied at an altitude of up to 2,000 meters above sea level. However, as the altitude increases, the atmospheric properties vary in terms of dielectric rigidity and pressure. Therefore, current and voltage correction factors must be applied for altitudes exceeding 2,000 meters, as shown in the following table.

Altitude (above sea level) - h	Rated operational voltage $U_e$	Current correction factor $I_u$
$h \leq 2,000$ m	690 V	$1 \times I_u$
$2,000 < h \leq 3,000$ m	550 V	$0.96 \times I_u$
$3,000 < h \leq 4,000$ m	480 V	$0.93 \times I_u$
$4,000 < h \leq 5,000$ m	420 V	$0.90 \times I_u$

Note: 1) Reduce current for temperatures exceeding +60 °C (87% to 70 °C).