

# Masterpact NW08 to NW63 AC circuit breakers and switch-disconnectors from 800 to 6300 A



PEI00768-38



PEI00768-70

### Common characteristics

Number of poles		3/4
Rated insulation voltage (V)	<b>Ui</b>	1000/1250
Impulse withstand voltage (kV)	<b>Uimp</b>	12
Rated operational voltage (V AC 50/60 Hz)	<b>Ue</b>	690/1150
Suitability for isolation	IEC 60947-2	
Degree of pollution	IEC 60664-1	4 (1000 V) / 3 (1250 V)

### Basic circuit-breaker

#### Circuit-breaker as per IEC 60947-2

Rated current (A)		at 40 °C / 50 °C <sup>(1)</sup>
Rating of 4th pole (A)		
Sensor ratings (A)		

#### Type of circuit breaker

Ultimate breaking capacity (kA rms) V AC 50/60 Hz	<b>Icu</b>	220/415/440 V 525 V 690 V 1150 V
Rated service breaking capacity (kA rms)	<b>Ics</b>	% Icu
Utilisation category		
Rated short-time withstand current (kA rms) V AC 50/60 Hz	<b>Icw</b>	1 s 3 s
Integrated instantaneous protection (kA peak ±10 %)		
Rated making capacity (kA peak) V AC 50/60 Hz	<b>Icm</b>	220/415/440 V 525 V 690 V 1150 V

Break time (ms) between tripping order and arc extinction

Closing time (ms)

#### Circuit-breaker as per NEMA AB1

Breaking capacity (kA) V AC 50/60 Hz		240/480 V 600 V
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### Unprotected circuit-breaker

#### Tripping by shunt trip as per IEC 60947-2

#### Type of circuit breaker

Ultimate breaking capacity (kA rms) V AC 50/60 Hz	<b>Icu</b>	220...690 V
Rated service breaking capacity (kA rms)	<b>Ics</b>	% Icu
Rated short-time withstand current (kA rms)	<b>Icw</b>	1 s 3 s

Overload and short-circuit protection

External protection relay: short-circuit protection, maximum delay: 350 ms <sup>(4)</sup>

Rated making capacity (kA peak) V AC 50/60 Hz	<b>Icm</b>	220...690 V
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### Switch-disconnector as per IEC 60947-3 and Annex A

#### Type of switch-disconnector

Rated making capacity (kA peak) <b>AC23A/AC3 category</b> V AC 50/60 Hz	<b>Icm</b>	220...690 V 1150 V
Rated short-time withstand current (kA rms) <b>AC23A/AC3 category</b> V AC 50/60 Hz	<b>Icw</b>	0.5 s 1 s 3 s

### Mechanical and electrical durability as per IEC 60947-2/3 at In/Ie

Service life	Mechanical	with maintenance	
C/O cycles x 1000		without maintenance	

#### Type of circuit breaker

Rated current		<b>In (A)</b>	
C/O cycles x 1000	Electrical	without maintenance	440 V <sup>(5)</sup>
IEC 60947-2			690 V 1150 V

#### Type of circuit breaker or switch-disconnector

Rated operational current		<b>Ie (A)</b>	<b>AC23A</b>
C/O cycles x 1000	Electrical	without maintenance	440 V <sup>(5)</sup>
IEC 60947-3			690 V

#### Type of circuit breaker or switch-disconnector

Rated operational current		<b>Ie (A)</b>	<b>AC3 <sup>(6)</sup></b>
Motor power			380/415 V (kW) 440 V <sup>(5)</sup> (kW) 690 V (kW)
C/O cycles x 1000	Electrical	without maintenance	440/690 V <sup>(5)</sup>
IEC 60947-3 Annex M/IEC 60947-4-1			

(1) 50 °C: rear vertical connected. Refer to temperature derating tables for other connection types.

(2) See the current-limiting curves in the "additional characteristics" section.

(3) Equipped with a trip unit with a making current of 90 kA peak.

(4) External protection must comply with permissible thermal constraints of the circuit breaker (please consult us).

No fault-trip indication by the SDE or the reset button.

(5) Available for 480 V NEMA.

(6) Suitable for motor control (direct-on-line starting).

# Masterpact NT and NW

## Sensor selection

Sensor rating (A)	250 <sup>(1)</sup>	400	630	800	1000	1250	1600	2000	2500	3200	4000	5000	6300
Ir threshold setting(A)	100 to 250	160 to 400	250 to 630	320 to 800	400 to 1000	500 to 1250	630 to 1600	800 to 2000	1000 to 2500	1250 to 3200	1600 to 4000	2000 to 5000	2500 to 6300

(1) For circuit-breaker NW02, please consult us.

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