

General characteristics of Masterpact NW DC - DC PV

Masterpact NW10 to NW40 DC

PB104917 eps



NW10 DC 3P.

A

PB10604_42 eps



NW10 DC 4P.

Masterpact NW DC circuit breaker

Poles coupling version

C or D (3 poles)

E (4 poles)

Electrical characteristics as per IEC 60947-1/ 60947-2 and EN 60947-1 / 60947-2

Rated current at 40 °C / 50 °C^[1]**I_n** (A)

Rated insulation voltage

U_i (V)

Rated impulse withstand voltage

U_{imp} (kV peak)

Rated operational voltage

U_e (V DC)

Type of circuit breaker

Ultimate breaking capacity

L/R = 5 ms

I_{cu}

(kA)

V DC

500

750

900

L/R = 15 ms

I_{cu}

(kA)

500

750

900

L/R = 30 ms

I_{cu}

(kA)

500

750

900

Service breaking capacity

I_{cs}% I_{cu}

Rated making capacity

I_{cm}% I_{cu}

Short-time withstand current

I_{cw}

1 s

Utilisation category

Breaking time

(ms)

Making time

(ms)

Suitability for isolation

Pollution degree (as per IEC 60664-1)

Protection against overcurrents (see trip-unit table page D-12)

Trip units

Built-in

Protection

Overloads

Short-circuits

Durability

(O/C cycles)

Mechanical

With maintenance

Without maintenance

Electrical

Without maintenance

500 V DC

900 V DC

Indication and control auxiliaries

Auxiliary contacts

Voltage release

MX shunt release

MN undervoltage release

Switch-disconnector as per IEC 60947-3 and EN 60947-3

Type of switch-disconnector

Rated making capacity

I_{cm}

(kA)

Rated short-time withstand current

I_{cw}

(kA)

1 s

Unprotected circuit breaker (500 V DC only)

Tripping by shunt trip as per IEC 60947-2

Type of unprotected circuit breaker

Ultimate breaking capacity

L/R = 6.5 ms

I_{cu}

(kA)

500 V DC

Short-time withstand current

I_{cw}

(kA)

1 s

Ultimate breaking capacity

L/R = 15 ms

I_{cu}

(kA)

500 V DC

Short-time withstand current

I_{cw}

(kA)

1 s

Service breaking capacity

I_{cs}% I_{cu}

Overload and short-circuit protection

External protection relay: short-circuit protection, maximum delay: 500 ms

Installation and connections

Connection

Drawout

3P

RC

Horizontal

4P

Vertical

Fixed

3P

RC

Horizontal

4P

Vertical

Dimensions and weight

Dimensions

Drawout

3P

4P

Fixed

3P

4P

Weight (kg) connected in series (approximate values)

Drawout

3P

4P

Fixed

3P

4P

[1] 50 °C - see the derating table for the NW40 DC.

General characteristics of Masterpact NW DC - DC PV

Masterpact NW10 to NW40 DC

NW10 DC		NW20 DC		NW40 DC	
1000		2000		4000	
1000		1000		1000	
12		12		12	
500/900		500/900		500/900	
N	H	N	H	N	H
85	100	85	100	85	100
-	85	-	85	-	85
-	85	-	85	-	85
35	85	35	85	35	85
-	50	-	50	-	50
-	35	-	35	-	35
25	50	25	50	25	50
-	50	-	50	-	50
-	25	-	25	-	25
100 %					
100 %					
50	85	50	85	50	85
B					
30 to 75					
< 70					
4					
-	-	-	-	-	-
20000					
10000					
8500		5000		2000	
-	2000	-	2000	-	1000
	HA		HA		HA
-	85	-	85	-	85
-	85	-	85	-	85
NW10 HADC-C 500V DC		NW20 HADC-C 500V DC		NW40 HADC-C 500V DC	
85		85		85	
85		85		85	
65		65		65	
65		65		65	
100 %					
-		-		-	
				-	-
				-	-
439 x 441 x 494				439 x 441 x 594	
439 x 556 x 494				439 x 556 x 594	
352 x 422 x 427				352 x 422 x 527	
352 x 537 x 427				352 x 537 x 527	
90 to 116					
125 to 146					
60 to 86					
85 to 106					

A