

DPNL(HBDB1L) Leakage Circuit Breaker With Over-current Protection



1. Application

DPNL is used in the single phase circuit of AC 50Hz/60Hz, rate voltage 230V, used as electron shock protection. it can protect circuit form overload and short circuit. This product has advantages of small volume, high breaking capacity, live and zero wire are cut off at the same time, also protecting person from electric shock when the live wire connected opposite. It conforms with the standards of IEC61009.

2. Main technical parameter

Type	DPNL
Pole	1P+N
Rated current (A)	6, 10, 16, 20, 25, 32
Rated voltage(V)	230
Rated residual action current $I_{\Delta n}$ (A)	0.03
Rated residual non-action current $I_{\Delta no}$ (A)	0.015
Rated residual making/breaking capacity $I_{\Delta m}$ (A)	500
Type of instantaneous release	C
Rated making/breaking capacity I_m (A)	4500

3. Applicable conducting wire:

Rated current(A)	Normal cross section of wire mm ²
$I_n \leq 6$	1
$6 < I_n \leq 13$	1.5
$13 < I_n \leq 20$	2.5
$20 < I_n \leq 25$	4
$25 < I_n \leq 32$	6

4. Residual current breaking time

In (A)	IΔn (A)	Breaking time(s) when equals to rating following					
		IΔn	2IΔn	5IΔn	5, 10, 20, 50, 100, 200, 500 ^a (A)	IΔt ^b	
6–32	0.03	0.1	0.06	0.04	0.04	0.04	

5. The over-current protection property

Ambient Temperature	Initial Status	Test Current	Expected Result	Expected Result	Note
30 ± 2°C	Cold position	1.13 I_n	$t \leq 1h$	Non-release	—
	Carried out immediately after previous test	1.45 I_n	$t < 1h$	Release	—
	Cold position	2.55 I_n	$1s < t < 60s$	Release	Current smoothly rises to specified value within 5s
-5~+40°C	Cold position	5 I_n	$t \leq 0.1s$	Non-release	Type C
	Cold position	10 I_n	$t < 0.1s$	Release	Type C