



DZ158LE Residual Current Operated Circuit Breaker

1. General

1.1 Function

Personnel and fire protection
Cable and line protection against overload and short-circuits.

1.2 Selection

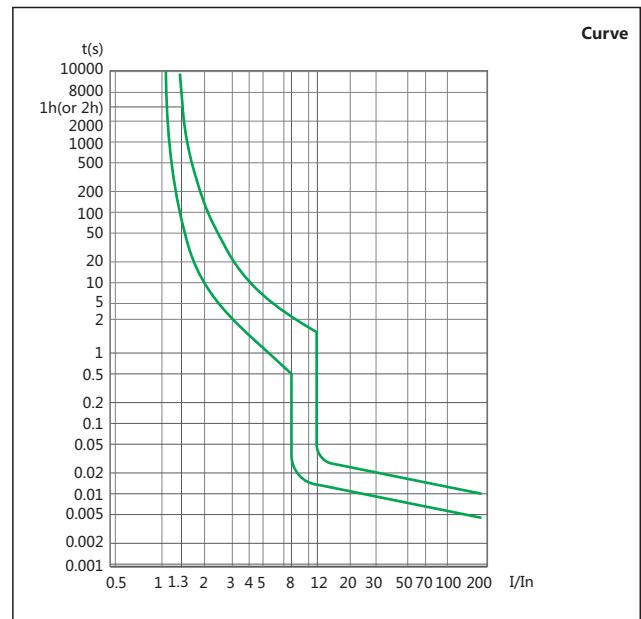
$I\Delta n \leq 30 \text{ mA}$: additional protection
in the case of direct contact.
 $I\Delta n \leq 300 \text{ mA}$: preventative fire protection
in the case of ground fault currents.
AC class – Tripping is ensured for sinusoidal,
alternating currents, whether they be quickly applied
or slowly increase.

1.3 Approvals and certificates

Detailed information, please refer to Certificates Table
on the last page.

2. Technical data

2.1 Curves





2.2

	Standard		IEC/EN 60947-2
Electrical features	Type (wave form of the earth leakage sensed)		AC
	Thermo-magnetic release characteristic		8-12In
	Rated current I _n	A	63, 80, 100
	Poles		1P+N, 2P, 3P, 3P+N, 4P
	Rated voltage U _e	V	230/400
	Rated sensitivity I Δ n	A	0.03, 0.1, 0.3
	Rated residual making and breaking capacity I Δ m	A	2,000
	Rated short-circuit capacity I _{cn}	A	6,000
	Break time under I ⁿ	S	≤0.1
	Rated frequency	Hz	50
	Rated impulse withstand voltage (1.2/50)U _{imp}	V	4,000
	Dielectric TEST voltage at ind. Freq. for 1min	kV	1.89
	Insulation voltage U _i	V	500
	Pollution degree		3
Mechanical features	Electrical life		1,500
	Mechanical life		8,500
	Contact position indicator		Yes
	Protection degree		IP20
	Ambient temperature (with daily average ≤35°C)	°C	-5...+40
	Storage temperature	°C	-25...+70
Installation	Terminal connection type		Cable/Pin-type busbar
	Terminal size top/bottom for cable	mm ²	16~50
		AWG	6-0
	Terminal size top/bottom for busbar	mm ²	16~35
		AWG	6-2
	Tightening torque	N·m	3.5
In-lbs.		31	
Mounting Connection		On DIN rail EN 60715 (35mm) by means of fast clip device From top	

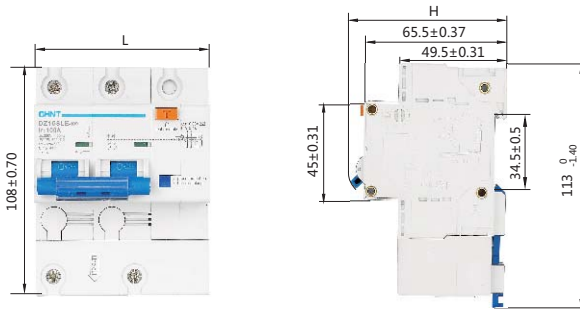
2.3 Temperature derating

The maximum permissible current in a circuit breaker depends on the ambient temperature where the circuit breaker is placed. Ambient temperature is the temperature inside the enclosure or switchboard in which the circuit breakers are installed.

The reference temperature is 30°C

Rated current I _n (A)	Temperature compensation coefficient under various operational temperature							
	-10°C	0°C	10°C	20°C	30°C	40°C	50°C	60°C
63	1.275	1.215	1.15	1.075	1.00	0.915	0.825	0.735
80	1.27	1.205	1.135	1.27	1.00	0.925	0.845	0.755
100	1.275	1.21	1.135	1.075	1.00	0.925	0.845	0.755

3. Overall and mounting dimensions (mm)



Number of poles	1P+N	2P	3P	3P+N	4P
L (mm)	$54 \begin{smallmatrix} 0 \\ -0.74 \end{smallmatrix}$	$81 \begin{smallmatrix} 0 \\ -0.87 \end{smallmatrix}$	$108 \begin{smallmatrix} 0 \\ -1.40 \end{smallmatrix}$	$108 \begin{smallmatrix} 0 \\ -1.40 \end{smallmatrix}$	$135 \begin{smallmatrix} 0 \\ -1.60 \end{smallmatrix}$
H (mm)	$73.5 \begin{smallmatrix} 0 \\ -1.2 \end{smallmatrix}$	$78.5 \begin{smallmatrix} 0 \\ -1.2 \end{smallmatrix}$	$78.5 \begin{smallmatrix} 0 \\ -1.2 \end{smallmatrix}$	$78.5 \begin{smallmatrix} 0 \\ -1.2 \end{smallmatrix}$	$78.5 \begin{smallmatrix} 0 \\ -1.2 \end{smallmatrix}$