HIGH VOLTAGE APPARATUS

FUNCTIONAL VALUES
OIL-MINIMUM CIRCUIT-BREAKER TYPE HLR 145-420/250X B WITH OPERATING MECHANISM TYPE BLG, BLG-B OR BLG-C

Closing speed $s/t = 6.5-7.2 \text{ m/s}$
Opening speed $s/t = 5.5-6.2 \text{ m/s}$
Closing time $130 \text{ ms}$
Opening time with BLG $35 \pm 3 \text{ ms}$
BLG-B $25 \pm 3 \text{ ms}$
BLG-C $22 \pm 3 \text{ ms}$

Resistance of main circuits not exceeding $n \times 45 \ \mu \Omega /\text{pol}$ where $n$ is number of elements per pole.

TRAVEL DIAGRAM

Time $t = 0.02 \text{ s}$

Fully-closed position

Fully-open position

Contact stroke $360-390 \text{ mm}$

65-120 ms
HIGH VOLTAGE APPARATUS

FUNCTIONAL VALUES

OIL-MINIMUM CIRCUIT-BREAKER TYPE HLR-E WITH OPERATING MECHANISM TYPE BLG

Closing speed \( s/t = 8-9.2 \text{ m/s} \)
Opening speed HLR-E1 \( s/t = 7.5-8.5 \text{ m/s} \)
HLR-E2 \( s/t = 6.8-7.8 \text{ m/s} \)
HLR-E3 \( s/t = 8.0-9.0 \text{ m/s} \)
HLR-E = HLR-E1

Closing time 130 ms
Opening time BLG
BLG-B 34 ±5 ms
BLG-C, BLG 500 22 ±3 ms

Resistance of main circuits shall not exceed \( n \times R \mu\Omega/\text{pole} \) where \( n \) is number of breaking units per pole and \( R \) is the resistance per unit.

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\begin{align*}
R &= \text{max 65 } \mu\Omega/\text{per unit with insulator length } = 1100 \text{ mm} \\
R &= \text{max 71 } \mu\Omega/\text{per unit } = 1300 \text{ mm} \\
R &= \text{max 77 } \mu\Omega/\text{per unit } = 1500 \text{ mm}
\end{align*}
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TRAVEL DIAGRAM

Time

Closed position

Contact stroke 460-490 mm

Open position

min 60 ms

max 165 ms