Characteristics of ZNO Blocks
for
Use Under Oil

EL-1480B

October 1998

Meidensha Corporation

Type of block	ZE64G23
Diameter	64.5±1.0 (mm)
Thickness	22.5±1.0 (mm)
Max. continuous operating voltage (MCOV) in oil up to 115℃	1.6kV rms
Max. long-term average operating temperature of oil	90℃
Max. energy absorption capability (2ms rectangular wave, 20 shots)	15kJ
Weight of blocks (approx.)	410g
V1mA (Residual voltage at D.C. 1mA)	Class L : 4.28 - 4.42kV Class M : 4.43 - 4.57kV Class H : 4.58 - 4.72kV
V10kA (8/20μs wave) / V1mA D.C.	1.69 (Max.) 1.65 (Average)
Max. discharge current 4/10μs wave, 2 shots 2ms rectangular wave, 20 shots	 100kA 1,000A

Note 1. For further details, please see our specification No. TS-9703.
Please note that the following values stated in this specification are not applicable for use in oil.

1) V1mA range
2) Ageing test voltage
3) Atmospheric conditions

Note 2. Indication (marking) on each block is as follows.

1) Lot number (Manufacturing number)

2) Classification of V1mA:

A) Class L:

L4 ... 4.28 - 4.32kV

L3 ... 4.33 - 4.37kV

L2 ... 4.38 - 4.42kV

B) Class M:

ML ... 4.43 - 4.47kV

MM ... 4.48 - 4.52kV

MH ... 4.53 - 4.57kV

C) Class H:

H2 ... 4.58 - 4.62kV

H3 ... 4.63 - 4.67kV

H4 ... 4.68 - 4.72kV

Note 3. Residual voltage - current characteristics:

Average voltage-current curve is shown in our specification No. TS-9703.
In this curve, the vertical axis shows the residual voltage ratio (VxkA / V1mA D.C.)

Estimation of V10kA:

Average residual voltage ratio for 10kA (V10kA / V1mA) is 1.65; however, max. ratio shall be 1.69 (about 2.5% higher than average value).

V10kA values are shown as follows.

Class	V1mA (kV)	Average value of 10kA (kV)	Max. value of V10kA (kV)
L	4.28 - 4.42	7.06 - 7.30	7.23 - 7.47
M	4.43 - 4.57	7.31 - 7.54	7.48 - 7.73
H	4.58 - 4.72	7.55 - 7.79	7.74 - 7.98