

INSTRUCTION MANUAL

MODEL HCL-1000DM DIGITAL CLAMP TESTER

MULTI

1. FEATURES

- * Safe AC current measurement on circuit having internal voltage from AC 80V to AC 46KV.
(In case of more than 600V must be connected with Hot Stick)
- * Provides wide range of current measurement from AC 0.01A to 600A.
- * Sealed to withstand water and contaminants
- * Provides the smooth and easy clamping for the cable with special made "PUSH TO OPEN" mechanism.

2. CAUTION

- * Before operating this instrument, familiarize yourself with instruction outlined in this manual. .
- * Always check to make sure that the function switch is set to the proper position.
- * To avoid electrical shock, operate this instrument very carefully, especially for the measurement of the circuit with more than AC 1000V.
- * As the high voltage circuit is very dangerous, those who do not have such specialized knowledge must not use this instrument.
- * Never make measurements for uninsulated conductors or bus bars.
- * Do not use this instrument, if you find any damage on the instrument of CT and or body case.
- * Through this instrument is sealed to withstand water, avoid the operation of this instrument under heavy rain and humidity for the safety.
- * Do not disassemble this instrument.
- * When [B] sign appears on the display during the use of this instrument, replace the batteries to new ones, as the operation voltage gets below than normal use for the measurement.
- * This model is high precision measuring instrument.
It may cause defect, if the CT part receives damage.

3. CARRY AND STORAGE

- * Take care not to drop down the instrument and or not to load heavy weight and or strong shock to the instrument.
- * Do not apply chemicals to this instrument.
- * Do not leave this instrument on the road and or the place under the direct sunshine during summer and also do not leave it in the high temperature place, such as inside of the car, etc.
- * Keep the instrument clean and chose the storage place where is dry and not getting direct sunshine.

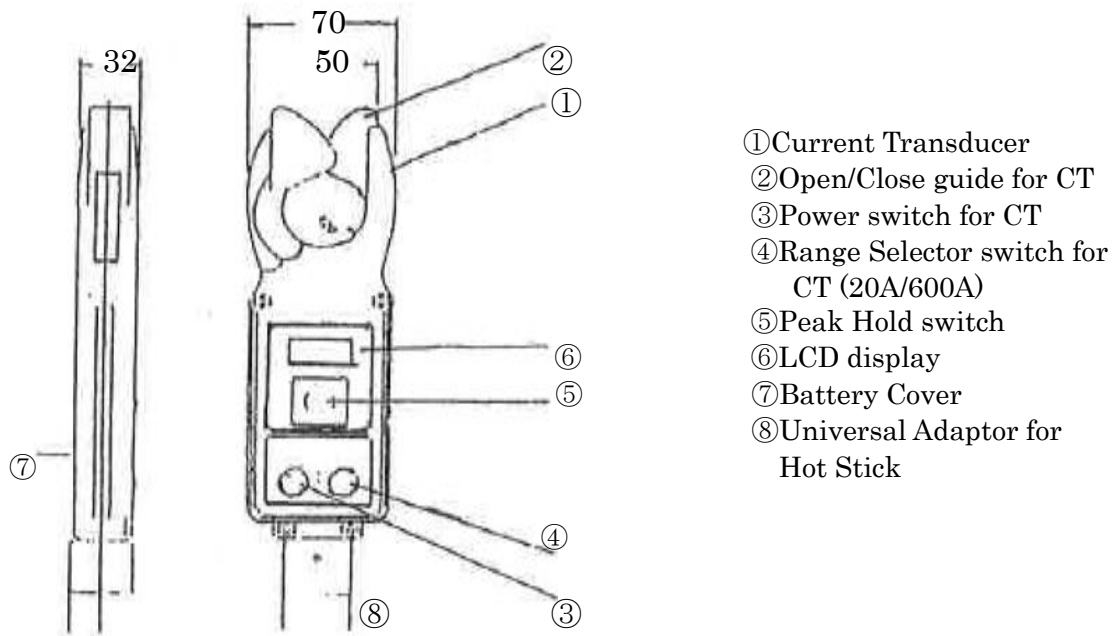
4. SPECIFICATION

Measuring method	Dual integration mode
Measuring function	AC line current
Display	3.5 digit LCD, max, reading of 1999 with annunciators
Range	0~20A/600A(50/60Hz)
Ranging	2 manual ranging
Accuracy	23°C±5°C, 80RH or less

Range	Resolution	Accuracy
20A	0.01A	±2.0% rdg ±8 dgt
600A	1A	0~400A±2.0% rdg ±8 dgt 400~600A±3.0% rdg ±8 dgt

Jaw opening capability	35mm φ
Low battery indication	Display "B" mark on LCD readout
Over range indication	Blanking of all digits except MSD1 (Except 600A range)
Sampling	2 times/sec
Peak hold indication	"PEAK" LED lamp indication
Insulation resistance	100MΩ or more by DC 1000V insulation tester (Between operation handle and core of CT)
Withstanding voltage	AC 15KV, 1 minute (Between handle and core of CT) AC 100KV, 5 minute (Between rod of hot stick and core of CT).
Limitation of circuit voltage	AC 80V to 46KV with hot stick
Power supply	1.5V("AAA" size) x2
Structure	Water resistance rank II (Japanese standard)
Size	70(W) x 356(H) x 32(D)mm
Weight	Approx. 370g
Accessories	Carrying case.....1 Instruction manual.....1 Batteries.....2
Option	Hot stick (2m, 5m, 10m, 12m)

5. DIMENSIONS & PANEL



6. METHOD OF MEASUREMENT

6-1. Preparation and Caution before Measurement

- * Before making measurements, install the batteries.
- * Check if there are no damage or unusualness on the instrument.
- * Check the battery by switching the power on.
- * Do not change the batteries, keeping clamp the instrument on the wire.
- * Remove the batteries, if the instrument will not be used for a long period of time.
- * Do not make measurement with the battery cover off.

6-2. Measurement

- 1) Push the power switch to ON and select appropriate range to be measured by the range select switch.
- 2) Push the peak hold switch and confirm the light of peak hold lamp.
- 3) Clamp CT to the conductor to be measured by pushing open/close guide.
- 4) After measurement, draw out CT from the conductor and read the measured value.
- 5) For next measurement, set the peak hold switch once to OFF and then, set to ON again.
- 6) Push the power switch to become OFF, after finished all measurements.

- * The display value may not become "0" even when there is no input current of the conductor but it is caused from the measuring method & design of this instrument and such phenomenon will not effect on any accuracy of the actual measurement value.
- * The instrument may get heat and or damage if the over value current is loaded to the CT. Do not load the current more than 600A.
- * Avoid the measurement at the place where 2 wires contact with CT at the same time.

6-3. Instrument/Replacement of Batteries

- 1) Confirm the power switch is OFF.
 - 2) Remove the battery covers by the ⊕ driver. (Be careful not to miss the screw cap).
 - 3) Install the batteries according to the indication of battery case.
 - 4) Set up the battery cover and make the screws tightened firmly.
 - 5) Put the screw cap on.
- * Do not use the batteries by mixing new & old ones or used ones.

7. TESTING OF WITHSTANDING VOLTAGE

We recommend the testing if withstand voltage by loading 100KV for 5 minute between rod of hot stick and core of CT once a year for the safety.

— Manufactured by —

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