

1.3 SPECIFICATIONS

POTENTIAL MEASUREMENTS (EACH CHANNEL)

Input: Two coded binding posts with a 10 megohm resistive differential input circuit. Maximum input 650 volts RMS. Will withstand 1200 peak voltage line-to-line or line-to-ground.

Ranges: 650 volts A.C. or D.C. full scale with 0.1 volt resolution. Autoranging at 100 volts to give a 99.99 volt scale with 0.1 volt resolution.

Accuracy*: $\pm 0.5\%$ of reading $\pm 0.2\%$ of full scale.

CURRENT MEASUREMENTS (EACH CHANNEL)

Inputs: Two coded binding posts with precision current transformer inputs presenting less than 0.1VA burden at 5 Amperes. Will withstand 200 Amperes for 1 minute.

Ranges: 100 Amperes A.C. true RMS full scale. Maximum reading 99.99A with 0.01A resolution. Autoranging at 10 Amperes to give a 9.999A range with 0.001A resolution.

Accuracy*: $\pm 0.5\%$ of reading $\pm 0.2\%$ of full scale.

PHASE ANGLE MEASUREMENT

Operation: Indicates angle between Channel A and Channel B when both A.C. inputs are present and at the same frequency.

Ranges: 0° to 359.9° or 0° to $\pm 180.0^\circ$ switch selectable.

Resolution: 0.1° for inputs $> 0.4V$ or $55mA$.
 1° for lower inputs.

Accuracy: $\pm 0.5^\circ$ for inputs $> 0.8V$ or $100mA$.
 $\pm 4^\circ$ for lower inputs.
Minimum functional level is $0.1V$, $20mA$.

* These specifications are valid at 60Hz only for filtered averaged responding measurements.

1.3 SPECIFICATIONS (continued)

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KILOWATT INDICATION

Operation: The multifunction display will show a power reading computed from $VA \cos \theta$ if one channel is measuring an A.C. voltage and the other is measuring an alternating current.

Accuracy: As this number is computed its accuracy is the sum of the voltage, current and phase measuring accuracies: $\pm 1.4\%$ of VA.

POWER FACTOR INDICATION

Operation: The instrument translates the measured phase angle into power factor by a cosine function.

Reading: 0.000 to ± 1.000 PF.

Accuracy: $\frac{\pm 0.004}{\text{PF}}$

TIME INTERVAL MEASUREMENT

Operation: The timer will display the interval between applications of the start input and stop/hold input. When the enable switch is activated, the stop/hold input will also freeze the channel A, channel B, phase and frequency measurements. All readings will be held until manually reset. The hold function may also be initiated from the front panel. A slow blinking of the display indicates a hold condition.

Start/Stop
Inputs:

Change of state operation.
D.C. Voltage: ± 10 volts minimum.
A.C. Voltage: 10 volts RMS minimum at 50Hz.
Contacts: Less than 1000 ohms for closure.
Maximum Input: 300V D.C. or peak A.C.

Ranging: 0.000 to 9999 seconds or 0 to 9999 cycles, autoscaling. Resolution and accuracy are one digit.

1.3 SPECIFICATIONS (continued)

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FREQUENCY MEASUREMENTS

- Range: A.C. inputs to either Channel A or Channel B must be greater than 0.05 volts or 0.01 Amperes for proper operation.
- Reading: 44.00 Hz to 66.00 Hz with 0.01 Hz resolution and accuracy.

OPERATIONAL FEATURES

LCD Displays: Three high temperature 18mm liquid crystal displays. Protected against ultraviolet radiation with special filtering. Reading rate is two measurements per second.

Environmental: Operating: 0°C to 50°C, R.H. to 80%.
Storage: -40°C to +65°C.

Line Power: 104 to 250 volts, 45 to 65 Hz, 20VA maximum.

Instrument Power Supply:
Internal sealed lead rechargeable battery giving minimum 15 hour continuous operation on full charge. Indication when approximately 10% charge remains. Internally protected against charge exhaustion and overcharging by a temperature compensated charging circuit giving 10-12 hour recharge. Instrument may be operated while recharging through standard CEE three pin line socket with built-in fuse and spare. Yellow L.E.D. illuminates when AC line power is applied to charger and when battery is 90% recharged.

Accessories Furnished: Three wire line cord, Instruction manual.

Physical: Instrument is supplied in portable steel case with lead storage compartment and removable cover.

Sizes: 330W x 280H x 180D millimeters
(13W x 11H x 7D inches)

Weight: Instrument: 6kg (13 lbs).
Shipping: 7kg (15 lbs).