

MEIU™

MPRT EPOCH Interface Unit



- **Interconnects MPRT to Multi-Amp EPOCH-II or EPOCH-20 unit.**
- **MPRT Touch View Interface provides manual control of the EPOCH-II/20 output.**
- **Automated control via AVTS software.**
- **High Power EPOCH-II/20 units provide capability to test panel of relays or high burden electromechanical ground overcurrent relays at high multiples of tap.**
- **EPOCH-II/20 can be used to perform transient DFR playback, when high test currents / VA are required.**

DESCRIPTION

The MEIU is a small, light-weight, field portable, interface unit specifically designed to control Multi-Amp EPOCH-II® and EPOCH-20® units with the Megger MPRT relay test system. It adds high-current, high volt-ampere output capability to the MPRT relay testing capability.

APPLICATIONS

The combination of the MPRT and the EPOCH-II/20 units provides a very powerful test capability. A single EPOCH-II/20 unit can provide a maximum of 170 Amperes for simulating single phase to ground faults. With a three channel MPRT unit, the MEIU can interface and control up to three EPOCH-II/20 units either manually from the MPRT Touch View Interface or through the AVTS software. With three EPOCH-II/20 units, three-phase fault simulations of up to 170 amperes per phase are possible. The combination of a three channel MPRT, the MEIU and three EPOCH-II/20 units can provide 6 currents for testing three-phase current differential protection schemes at higher than normal restraint and operating test currents.

Testing a whole panel of relays at one time has become a very popular time saving test technique, requiring both high current and high power. Electromechanical relays present a very high burden requiring a high compliance voltage in order to test a panel of relays. For example, the EPOCH-II can provide up to 170 amperes at 1,000 VA for 3 minutes. The smaller EPOCH-20 can provide up to 170 amperes at 600 VA for 3 minutes. At the same time a three channel MPRT can provide three currents up to 30 amperes at 200 VA each, or three phase voltage up to 300 volts at 150 VA each.

FEATURES AND BENEFITS

Interface MPRT to Multi-Amp Models EPOCH-II or EPOCH-20 High Current/ VA Amplifiers – Use MPRT to control the EPOCH units when test requirements demand high test current and output power.

Control up to 3 EPOCH-II/20 units with one MEIU and MPRT unit – Using a three channel MPRT unit and the Touch View Interface, the operator can manually control up to 3 EPOCH-II/20 units, as well as the three MPRT current channels. This feature allows for special test applications such as testing multi-terminal current differential relays with 6 currents.

SPECIFICATIONS

MEIU Input Port

21 pin D-connector connects the MEIU to the MPRT EPOCH interface connector.

MEIU Output Ports

Three (3) each 15 pin D-connectors connect the MEIU to the EPOCH-20 units, or the to the EPOCH-II units.

Temperature Range

Operating: 32 to 122° F (0 to 50° C)

Storage: -13 to 158° F (-25 to 70° C)

Relative Humidity

90% RH, Non-condensing

Dimensions

6.0 W x 1.75 H x 6.375 D in.

152.4 W x 44.45 H x 161.9 D mm

Weight

0.80 lbs. (0.36 kg)

Enclosure

The unit comes mounted in a rugged enclosure for field portability. A padded soft-sided carry case is provided.

The following are abbreviated specifications for the EPOCH-II and EPOCH-20 High Current Units. For complete specifications of these units refer to the EPOCH-II or EPOCH-20 bulletins.

EPOCH Output Ranges and Power

The EPOCH-II and EPOCH-20 units have six output taps providing currents up to 170 Amperes rms. The maximum compliance voltage depends on which output tap and range is in use.

EPOCH-20 Output

	High Range: 600 VA rms	Low Range: 300 VA rms
Output Current	Output Volts	Output Volts
10.00 Amps	60 Volts	30 Volts
15.00 Amps	40 Volts	20 Volts
40.00 Amps	15 Volts	7.5 Volts
50.00 Amps	12 Volts	6 Volts
100.0 Amps	6 Volts	3 Volts
170.0 Amps	3.5 Volts	1.75 Volts

EPOCH-II Output

	High Range: 1,000 VA rms	Low Range: 500 VA rms
Output Current	Output Volts	Output Volts
10.00 Amps	100 Volts	50 Volts
15.00 Amps	66.6 Volts	33.3 Volts
40.00 Amps	25 Volts	12.5 Volts
50.00 Amps	20 Volts	10 Volts
100.0 Amps	10 Volts	5 Volts
170.0 Amps	5.9 Volts	2.95 Volts

Duty Cycle

Three minutes full rated output, fifteen minutes recovery time.

EPOCH-II/20 Output Frequency

The MPRT and interface unit provides a variable output frequency signal to the EPOCH units. Output frequency is continuously displayed on the Touch View Interface display screen, when in the Manual mode of operation. The output frequency can be varied manually using the MPRT Touch View Interface with the following ranges:

5.000 to 99.999

100.00 to 999.99

Frequency Accuracy

± 25 ppm at 23° C ± 5° C

Amplitude Accuracy

At 23° C ± 5° C, 50/60 Hz, typical accuracy is ± 0.5 % of setting, throughout range of load, from 10 to 100 % of range, and range of input voltage. Accuracy ± 1 % of setting maximum from 0° to 50° C.

Phase Angle

Range: 0 to 359.9 degrees

Resolution: 0.1 degree

Accuracy: ± 0.2° typical, ± 0.5° maximum at 50 or 60 Hz, full-scale output current.

ORDERING INFORMATION

Item (Qty)	Cat. No.
MEIU, MPRT EPOCH Interface Unit	801050
Model MEIU Includes	
Instruction Leaflet (1 ea)	710017
MPRT to MEIU Interface Cable (1 ea.)	620081
EPOCH-20 Interface Cable (1 ea.)	15821
EPOCH-II Interface Adapter (1 ea.)	15833
Carry Case (1 ea.)	14574

UK
Archcliffe Road, Dover
CT17 9EN England
T (0) 1 304 502101
F (0) 1 304 207342

UNITED STATES
4271 Bronze Way
Dallas, TX 75237-1019 USA
T 1 800 723 2861
T 1 214 333 3201
F 1 214 331 7399

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Mumbai INDIA, Trappes FRANCE,
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