



HLS-110 SYNC LED SYNCHROSCOPE



- Input Voltage : 120V AC or 240V AC.
- Standard 4.25-inch switchboard case.
- Front panel mount.
- 3 bi-colored LED indicators for "SYNC", "GEN" and "BUS".
- 24 LEDs in a circle display the phase angle and the frequency differences between 2 networks.
- 360 ° LED indication.
- 12 o'clock position LED is bi-colored.

OPERATION PRINCIPLE

Initially, SYNC, BUS and GEN LEDs are lit Red and the outer ring will show a single Red traveling LED. When voltage and phase angle are unmatched the outer ring LED rotates according to the system phase difference.

When the BUS voltage is at $\pm 10\%$ of nominal system voltage, the BUS LED will change from Red to Green signifying proper BUS voltage has been established. When the GEN voltage is at $\pm 10\%$ of nominal system voltage the GEN LED will change from Red to Green signifying proper GEN voltage has been established.

Finally, once all system voltages match and the systems are synchronized, the SYNC LED will change from Red to Green. All LEDs are now Green when the systems are synchronized.

SPECIFICATIONS

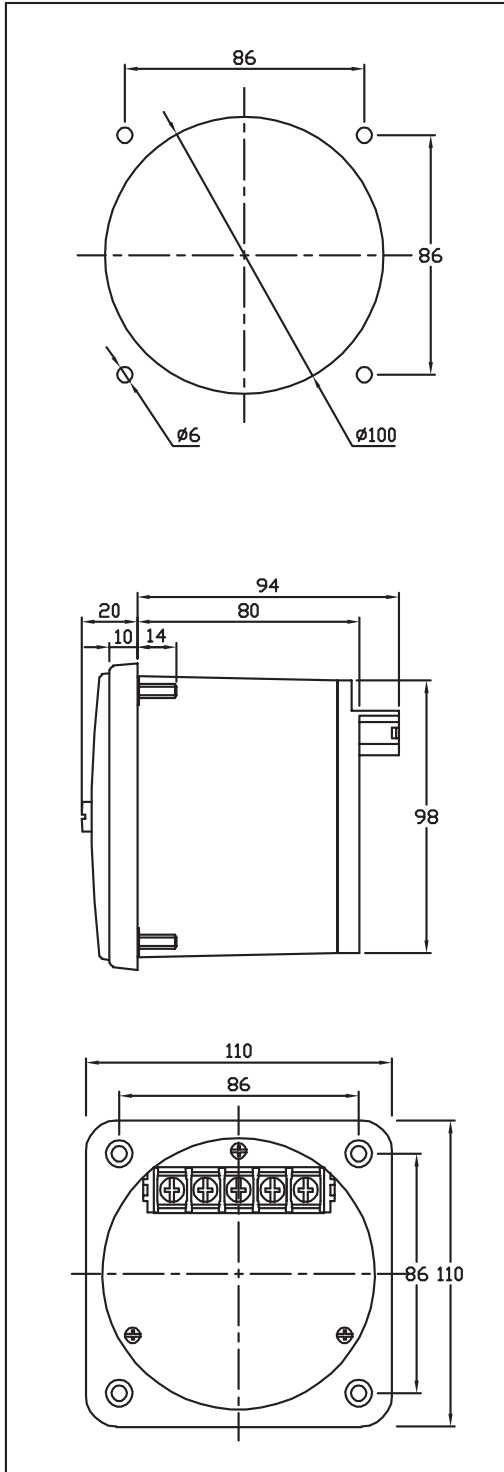
Nominal Input Voltage	120V AC or 240V AC
Overload	1.25 × Nominal voltage
Frequency Range	35~70Hz
Scale	SLOW / FAST
Pointer LED	15 degrees / LED
BUS LED (Bi-colored)	Green : 108V-132V AC
	Red : <108V or >132V AC
GEN LED (Bi-colored)	Green : 108V-132V AC
	Red : <108V or >132V AC
SYNC LED (Bi-colored)	Green : "GEN" and "BUS" are synchronized
	Red : "GEN" and "BUS" are not synchronized



Switchboard

HLS-110

DIMENSIONS



WIRING DIAGRAM

