

## NEW PRODUCT 2014

# SCR2.0

## Synchroscope/Synch check relay

- Synch check relay
- Front panel configurable
- 50/60 Hz compatibility
- Basic unit

### PART NUMBER

A60X2

### ASSOCIATED PRODUCTS

Advanced: C2S

Complementary: UNIGEN  
Family

SCR2.0 is a microprocessor controlled synchroscope with programmable synch check relay in a DIN96 front panel mounted package. It monitors the voltage and frequency of 2 independent power sources as well as the instantaneous phase angle between them.

The measured parameters are displayed on the 3 digit display and the 24 led circular synchroscope displays the phase angle between the 2 power source. The synchroscope display is only activated if both power source voltages are within the set limits.



### A SIMPLE PRODUCT FOR SAFETY FUNCTIONS

Synchronization checking is enabled either via the SYNCH CHECK ENABLE signal input or by pressing the front panel SYNCH pushbutton.

If all the necessary conditions are satisfied:

- busbar phase (busbar phase voltage) voltage between set limits
- generator phase voltage between set limits
- busbar-generator frequency difference below the set limit
- busbar-generator voltage difference below the set limit
- busbar-generator phase difference (phase difference below) below the set limit

The SYNCH CHECK relay will be energized. If the busbar is not powered up, the synch checking may be overridden with the DEAD BUS ENABLE signal input.

### FRONT PANEL CONFIGURATION

SCR2.0 provides a comprehensive set of digitally adjustable threshold and timers. All settings are modified via front panel pushbuttons, and do not require an external unit. The MENU pushbutton allows the digital display to navigate between various measured parameters.

### RELIABLE AND SIMPLE

SCR2.0 is dedicated to basic applications which require no extra costs or expensive hardware.

All CRE TECHNOLOGY products aim to provide the same satisfaction levels. The SCR2.0 has passed EMC and low voltage tests, and each unit is 100% tested before delivery.

### RELAY OUTPUTS

The unit provides a synch check relay output with voltage free contacts.

## SCR2.0 Synch check relay



### FEATURES

- 24 led circular synchroscope
- Programmable  $\Delta V$ ,  $\Delta f$ ,  $\Delta \theta$  for check synch relay
- 1 phase genset & busbar voltage input
- Synch check & dead bus enable input
- Auto power off
- Adjustable parameters
- Front panel configurable
- Plug-in connection system for easy replacement

### DIGITAL INPUTS

The unit has 2 digital inputs:

- Synch check enable
- Dead-bus enable

The inputs will be active when connected to the battery negative. The input function is disabled if the input is left open.

### CHARACTERISTICS

#### Current, voltage and frequency

- **Generator voltage:** 300 V<sub>AC</sub> max. (Ph-N)
- Generator frequency: 0-100 Hz.
- **Busbar voltage:** 300 V<sub>AC</sub> max. (Ph-N)
- Busbar frequency: 50/60 Hz.
- Digital inputs: 0 - 30 V<sub>DC</sub>
- DC supply range: 9.0 to 33.0 V<sub>DC</sub>
- Current consumption 100 mA-DC
- Max. operating current: 150 mA-DC (Relay outputs open)

- Synch check relay output: 16A/250V<sub>AC</sub>

#### Environment & protections

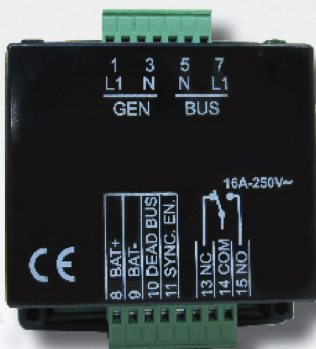
- Operating temp.: -20°C (-4°F) to 70 °C (158°F).
- Storage temp.: -30°C (-22°F) to 80 °C (176°F).
- Maximum humidity: 95% non-condensing.
- IP65 for the front panel, IP30 for the rear.
- Case: High Temperature ABS (UL94-V0, 100°C)

#### Size and weight

- Dimensions: 102x102x57mm (WxHxD)
- Panel cut-out dimensions: 92x92mm minimum
- Weight: 170 g (approx.)
- Installation: Flush mounted with retaining plastic brackets

#### Certifications

- Low voltage
- EU Directives: 2006/95/EC (LVD), 2004/108/EC (EMC)
- Normes of reference: EN61010 (safety)/EN61326 (EMC)



**Note:** The terminals N can be connected to L2 in HV applications delivering 100V without neutral

