

# Digital Synchroscope for Generator Synchronization

The NS5 Digital Synchroscope is designed for automatic switching of three-phase generators in parallel operations. It provides clear data visualization with a color graphic display and supports various input signals and network services.



## Overview

### Precision Synchronization Meter

The NS5 is a specialized digital synchroscope designed for the automatic switching of three-phase generators. It facilitates parallel operation with the grid or other generators, ensuring safe and efficient power system synchronization. With advanced visualization and robust communication interfaces, it provides real-time monitoring of voltage, frequency, and phase angle differences.

## Technical Specifications

Input Voltage Range	50-150 V or 150-400 V
Rated Frequency	50 Hz
Display	3.5" TFT Color Graphic Display
External Dimensions	96 x 96 x 77 mm

## Communication & Interfaces

Ethernet Interface	10/100 BASE-T
Network Services	Web Server, Modbus TCP/IP, DHCP Client
Serial Interface	RS485 with MODBUS RTU protocol

## Operational Features

### Measurements

- Voltage difference (U)
- Frequency difference (f)
- Phase shift angle ( $\Delta\epsilon$ )
- Min/Max voltage and frequency

### Programmable Hysteresis

- Voltage difference
- Frequency difference
- Phase shift angle

### Control Inputs

BLK (Lock Synchronization), START (Start Synchronization)