



SPM-D10 Series

One Breaker Synchronizer

APPLICATIONS

The SPM-D10 is a microprocessor-based synchronizer designed for use on three phase AC generators equipped with Woodward or other compatible speed controls and automatic voltage regulators. The SPM-D10 synchronizer provides automatic frequency, phase and voltage matching using either analog- or discrete output bias signals.

Part-No. 8440-1668 SPM-D1040B/**XN** is a direct replacement of the SPM-A synchronizer.

DESCRIPTION

Synchronizing

- Phase match or slip frequency synchronization with voltage matching
- Two-phase sensing of generator and bus
- Selectable operating modes like SPM-A (Run, Check, Permissive, and OFF)
- Synchro-check possible
- Synchronization time monitoring

Isolated operation

- Frequency control
- Voltage control

DESCRIPTION

Dead bus operation

- Closing of CB on demand

Control outputs

Standard

- Discrete raise/lower for speed
- Discrete raise/lower for voltage

X & XN Packages

- Analog bias outputs for voltage and speed freely configurable for all levels (+/-1 V, +/-3 V, 0 to 5 V, 0.5 to 4.5 V, +/-10 V +/-5 V, 0 to 20 mA, +/-20 mA, and much more configurable)
- Speed bias output configurable as 500 Hz PWM output with adjustable voltage level
- Two raise/lower outputs configurable for either speed or voltage

Operating Features

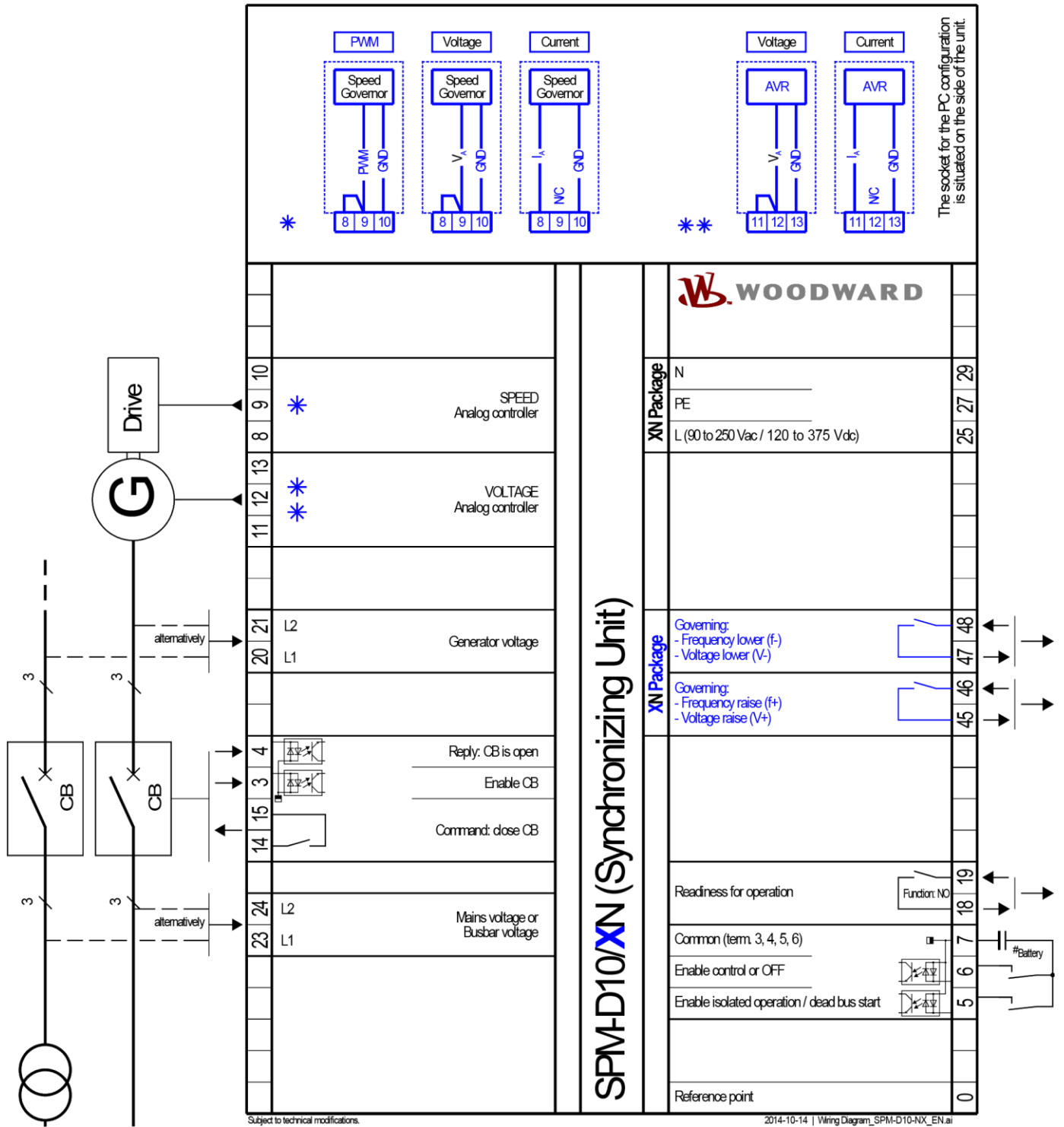
- Two-line Liquid Crystal display for operation and alarm indication
- Synchroscope
- Indication of control activity and breaker state
- Multi-level password protection for parameters
- Configuration directly or via PC
- English or German language adjustable

FURTHER SPM-D SYNCHRONIZERS

- The SPM-D10/**YB** Series provides three-phase generator and bus measurement refer to product specifications 37298 for more information
- The SPM-D11 Series provides load/var sharing refer to product specifications 37292 for more information

- Synchronization for one circuit breaker
- Frequency, phase, and voltage matching
- Selectable types of control output
- Digital display of generator and bus values
- Microprocessor technology for flexible and reliable operation
- Wide range power supply available
- Additional mains protection and display of mains values available
- PC and front panel configurable
- CE marked
- UL/cUL Listed

WIRING DIAGRAM



Subject to technical modifications.

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FEATURES OVERVIEW

SPM-D10 Series Synchronizer #1	SPM-D10	SPM D10/N	SPM-D10/X	SPM D10/XN
Measuring/Display				
Generator voltage, 2phase	✓	✓	✓	✓
Busbar voltage, 2phase	✓	✓	✓	✓
Mains voltage, 3phase				
Control				
Breaker	1	1	1	1
Synchronization, 2phase	✓	✓	✓	✓
Isolated operation	✓	✓	✓	✓
Controller				
Discrete raise/lower: speed	✓	✓	✓ #2	✓ #2
Discrete raise/lower: voltage	✓	✓	✓ #2	✓ #2
Analog output: speed			✓	✓
Analog output: voltage			✓	✓
PMW output: speed			✓	✓
Listings/Approvals				
CE marked	✓	✓	✓	✓
UL/cUL listed	✓	✓	✓	✓
Accessories				
Configuration via PC #3	✓	✓	✓	✓
Power supply				
24 Vdc	✓		✓	
Wide range: 90 to 250 Vac / 120 to 375 Vdc		✓		✓
	English	37215	37215	37215
	German	GR37215	GR37215	GR37215
Part numbers P/N				
Measuring inputs 100 Vac	5448-890	8440-1432	5448-893	8440-1667
Measuring inputs 400 Vac #4	8440-1019	8440-1433	8440-1301	8440-1668

#1 Information about the SPM-D10YB can be found in the separate product specs 37298.

#2 Configurable to either speed or voltage.

#3 Cable incl. software necessary (DPC).

#4 All units with 400V measuring inputs can also be used for 100V system voltage.