

SPM-A Synchronizer Specifications

Woodward Part Numbers:

9905-001/9907-028	50/60 Hz, $\pm 10^\circ$ phase angle, no voltage matching
9905-002/9907-029	50/60 Hz, $\pm 10^\circ$ phase angle, 1% voltage matching
9905-003	50/60 Hz, $\pm 10^\circ$ phase angle, 5% voltage matching
9905-004	50/60 Hz, $\pm 5^\circ$ phase angle, no voltage matching
9905-005	50/60 Hz, $\pm 5^\circ$ phase angle, 1% voltage matching
9905-006	50/60 Hz, $\pm 10^\circ$ phase angle, 0.5% voltage matching
9905-008	400 Hz, $\pm 10^\circ$ phase angle, 1% voltage matching
9905-009	50/60 Hz, $\pm 10^\circ$ phase angle, 10% voltage matching
9905-107	50/60 Hz, $\pm 15^\circ$ phase angle, 5% voltage matching

Inputs

Voltage (bus and generator)	115 or 230 Vac rms, 50/60 Hz
Voltage Tolerance	$\pm 10\%$
Power Consumption	5 W maximum

Outputs

Control Compatibility	high impedance output for 2301 load sharing controls low impedance output for 2301A, EPG, and 2500 load sharing controls; and EGA, and EGM controls with external resistor EPG output for EPG controls without load sharing normally open contact provided
Breaker Close Relay	
Breaker Close Relay	
Contact Ratings	Resistive Loads: 10 A at 28 Vdc 3 A at 120 Vac, 50/60 Hz Inductive Loads: 6 A at 28 Vdc 2 A at 120 Vac, 50/60 Hz
Breaker Close	
Command Duration	approx. 1 second

Selections and Adjustments

Operating Modes	RUN, CHECK, PERMISSIVE, OFF
Synchronizer Reset	automatic reset
Phase Match Window	$\pm 5^\circ$, $\pm 10^\circ$, $\pm 15^\circ$ available
Match-up Time	1/8, 1/4, 1/2, 1 second field-selectable internally (factory default is 1/2 second)
Voltage Matching Range	0.5%, 1%, 5%, 10% available

Physical Installation

Location	mount with switch gear
Weight	2.2 kg (5 lbs)
Maximum Operating	
Temperature Range	-45 to $+70^\circ\text{C}$ (-49 to $+158^\circ\text{F}$)
Optimal Operating	
Temperature Range	$+10$ to $+30^\circ\text{C}$ ($+50$ to $+86^\circ\text{F}$)