

Synchro, Torque Receiver Transmitter, Type 15TRX4A

FSC 5990

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This specification is approved for use by all Departments and Agencies of the Department of Defense. The requirements for acquiring the Synchros described herein shall consist of this specification and the latest issue of MIL-S-20708.

TABLE I. Requirements.

Requirement	Value	Unit	Tolerance
Frequency	400	Hz	$\pm 1\%$
Primary Voltage	115	volts	$\pm 1\%$
Primary Current	190.0	milliamps	maximum
Primary Power	2.9	watts	maximum
Impedance:			
Z _{ss}	50.0–82.0	ohms	min.–max.
Impedance Angle:			
Z _{ss}	33.0–46.0	degrees	min.–max.
Transformation Ratio	0.783	—	$\pm 2\%$
Phase Shift (Lead)	5.0	degrees	maximum
Electrical Error	6.0	minutes	maximum
Receiver Error	45.0	minutes	maximum
Null Voltage:			
Total	100.0	millivolts	maximum
Fundamental	50.0	millivolts	maximum
Synchronizing Time:			
30° $\pm 2^\circ$	1.0	seconds	maximum
Synchronizing Time:			
177° $\pm 2^\circ$	2.0	seconds	maximum
Torque Gradient	0.030	ounce–inches per degree	minimum
Radial Play	0.0006	inches	maximum
End Play	0.0020	inches	± 0.0010
Temperature Rise	35.0	degrees (C)	maximum
Variation of Voltage (+10%) and Freq. (–5%)	4.1	watts	maximum