



**ESSEX ELECTRO
ENGINEERS, INC.**

2015 Mitchell Blvd Schaumburg, IL 60193

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**TECHNICAL DATA SHEET
MOTOR GENERATOR SET
MODEL NO. A700A**

COGNIZANT SERVICE: U.S.A.F.

NATIONAL STOCK NUMBER: 6125-01-029-5464



OVERALL DIMENSIONS AND WEIGHT:

Height: 41 Inches

Length: 88-3/4 Inches

Depth: 36-1/2 Inches

Weight (Dry): 3,920 Lbs.

FUNCTIONAL DESCRIPTION:

Model A700A is intended for use in supplying high quality, closely regulated, 400-cycle power for hangers, maintenance shops, instructional facilities and other installations requiring precise power. The Motor Generator Set is a self-contained, forced air-cooled skid mounted unit. The unit basically consists of a motor generator, instruments, controls, and terminal board; all

mounted within a sheet metal housing. Rotating brushless exciters are supplied for both the motor and generator. A solid state voltage regulator is supplied for controlling the output of the generator. Voltage and current protective devices are furnished to protect the input and output circuits.



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RELATION TO SIMILAR EQUIPMENT:

TECHNICAL DESCRIPTION:

Output Rating	62.5 KVA, 0.8 power factor, 120/208 Volt, 3-phase, 4 wire, 400 Hertz, 175 Ampere 62.5 KVA, 0.8 power factor, 120 Volt, 3 phase, 3 wire, 400 Hertz, Delta Connected, 303 Ampere 62.5 KVA, 0.8 power factor, 120 Volt, 1 phase, 2 wire, 400 Hertz,, Delta Connected, 520 Ampere
Input Rating	220/440 Volt, 3 phase, 60 Hertz 154 Amperes at 220 Volts 77 Amperes at 440 Volts
Starting Current	500 Amperes at 220 Volts 250 Amperes at 440 Volts
Voltage- Regulation	1% no load to full load
Voltage Transient	20% maximum upon full load application or rejection
Voltage Modulation	1/4%
Voltage Unbalance	1% maximum for balance 3 phase loads
Voltage Response Time	0.2 second to within 2% of rated voltage upon application or rejection of full load
Harmonic Content.....	2% Total
Frequency Response Time.....	3 seconds to within $\pm 1/2$ cycle upon application or rejection of full load
Circuit Protection.....	A protective module which protects the unit from input overvoltage, output overvoltage, and output overcurrent. Overload relays for input overload protection
Input Voltmeter.....	0-500 Volt, 2% Accuracy, 60 Hertz
Output Voltmeter	0-150 Volt, 2% Accuracy, 400 Hertz
Output Ammeter System	0-250 Amperes, 3% Accuracy, 400 Hertz
Output Frequency Meter	390-410 Hertz, Accuracy ± 1.0 Hertz at 400 Hertz and 120 Volts
Running Time Meter	0-9999.99 Hours
Input and Output Terminals.....	Stud type connections for 3/8 lugs
Operating Temperature Range	-46°C to +55°C
Optional Features	Trailer Mounted; Cable Assembly - Input Cable; Output AC Cable; Output DC Cable; DC Power Supply - 28 VDC - 500 Amps