

TECHNICAL DATA SHEET

COGNIZANT SERVICE: U.S.A.
FEDERAL STOCK NUMBER:

ITEM NUMBER: Electrical Test Set & Load Bank
MODEL NUMBER: A427A
FUNCTIONAL CLASSIFICATION:

STATUS OR TYPE CLASSIFICATION:

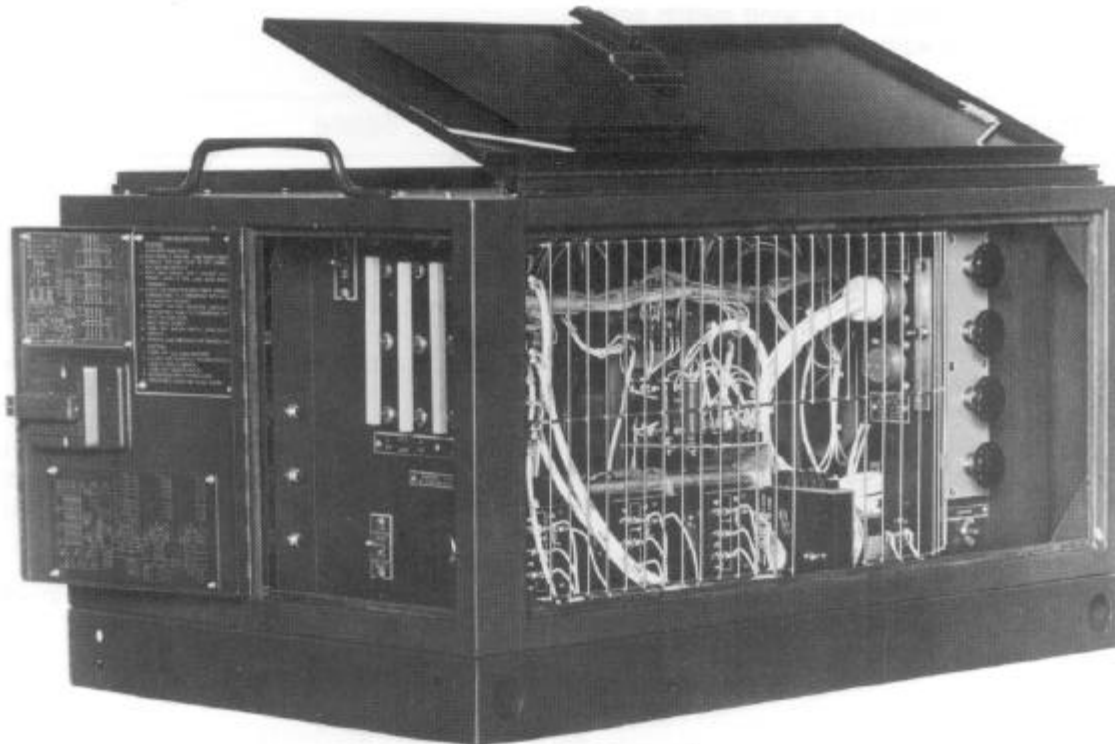
U.S.A.

U.S.N.

U.S.A.F.

U.S.M.C.

MANUFACTURERS NAME AND CODE: Essex Electro Engineers, Inc.



OVERALL DIMENSIONS AND WEIGHT:

Length: 36 inches Width: 23 inches Height: 20 inches Weight: 256 pounds

FUNCTIONAL DESCRIPTION:

The Essex Electro Engineers, Inc. Model #A427A, Electrical Test Set and Load Bank, is a portable, skid mounted resistive load unit. The Model A427A operates as a loading and testing device for electrical generating equipment. The load bank is designed to test the output characteristics of generating plants rated at 120/208 and 240/416 volts, three phase, 4 wire; 120 or 240 volts, single phase, 2 wire. The load bank can operate at frequencies between 50 and 1000 cycles per seconds. The model A427A is a completely self-contained unit mounted within a weather resistant

enclosure. It is designed to apply various combinations of the resistive load increments to simulate any output load. Input power terminals are supplied for connection of power cables. Power cables are not supplied with the equipment. The load bank can apply 0.5 to 3 kilowatts variable load and 3, 6, 9, and 12 KW fixed loads. When fixed and variable loads are applied in combination, the load bank can supply any load from 0.5 to 33 kilowatts on either single or balanced three phase operation.

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The major assemblies and components of the test set include a housing, control panel assembly, three power absorbers, variable transformer, contactor, rectifier, output terminals, and a voltage sensing module. All doors are provided with latches and weather resistant gasketing for security and protection during shipment and inclement weather. The control panel contains all the necessary controls for operation of the unit.

Three duct-type 11 kilowatt power absorbers provide the resistive load. They are provided with an integral fan to insure proper cooling and a wind switch and thermal switch to protect against overheating.

Four stud-type terminals are supplied together with one copper shorting link which tie the studs together for single phase operation.

The Model A427A is equipped with a voltage sensing module which opens the control circuit and prevents the operation of the test set if the incoming voltage does not conform to the voltage connection of the load bank.

RELATION TO SIMILAR EQUIPMENT: Model A427B per MIL-L-52366

TECHNICAL DESCRIPTION:

Continuous Rating	120/208 or 240/416 volt, 3 phase, 4 wire 120 or 240 volt, single phase, 2 wire at 50-1000 cps
Fixed Loads	3, 6, 9, 12 or any combination up to 30 KW in multiples of 3
Variable Loads	0 to 3 KW combined fixed and variable control of load between 0.5 KW and 33 KW, single phase or balanced three phase operation with fixed and variable load switches in proper condition
Temperature Limits	25° F (-4°C) to +125°F (52°C) at relative humidity up to 100%
Altitude Range	Sea level to 8,000 feet (240 meters)
Acceleration Limits	2.6 G momentarily applied to any three major axis; in both directions. 2-500 cps
Power Absorber	Circular, duct type, fan cooled, 11 KW per absorber. 375° C temperature rise on each element
Fan Motors	24 VDC
Radio Suppressed	MIL-STD-461
Shock	15 G