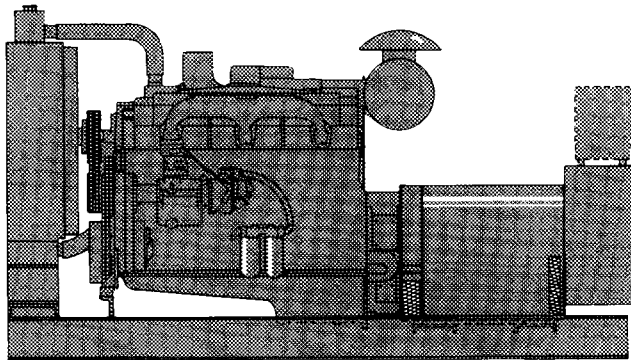


KATOLIGHT® Diesel ENGINE GENERATOR SETS

350 KW
60 Hz
310 KW
50 Hz



Model Selection / Rating Chart

MODEL NO. @ 60 Hz	STANDBY RATINGS & CHARACTERISTICS					
	*KW	RPM	VOLTS	KVA @ .8 P.F.	PHASE	WIRE
D350FRZ4	350	1800	277/480	437.5	3	10
D350FPZ4	350	1800	120/208	437.5	3	10
D350FJZ4	350	1800	120/240	437.5	3	10

MODEL NO. @ 50 Hz	STANDBY RATINGS & CHARACTERISTICS					
	*KW	RPM	VOLTS	KVA @ .8 P.F.	PHASE	WIRE
D310FRZ5	310	1500	220/380	387.5	3	10
D310FPZ5	310	1500	110/190	387.5	3	10
D310FJZ5	310	1500	110/220	387.5	3	10

General Specifications

ENGINE

TYPE: Inline Multi-Cylinder, Turbo Charged aftercooled
 CYCLE: 4 CYLINDER: 6
 H.P.: 535 @ 1800 RPM KW: 400 @ 1800 RPM
 470 @ 1500 RPM 351 @ 1500 RPM
 BORE: 5.5 in. (14 cm.) STROKE: 6 in. (15 cm.)
 PISTON DISPLACEMENT: 855 in.³ (14 lit.)
 BMEP: 275 psi (1,896 kPa)
 ASPIRATING: 1,100 CFM @ 60 Hz (519 lit/sec @ 60 Hz)
 950 CFM @ 50 Hz (448 lit/sec @ 50 Hz)
 FUEL CONSUMPTION: 25 gal/hr (95 lit/hr)

GENERATOR

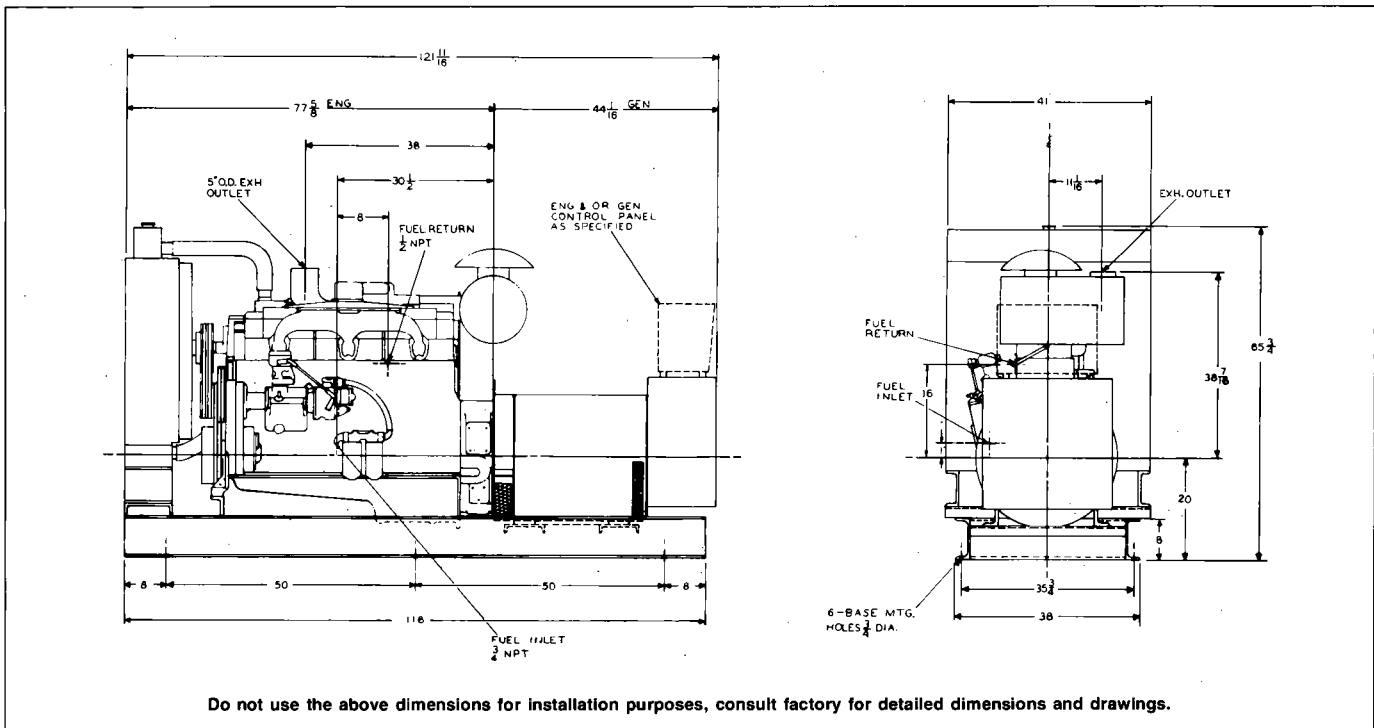
TYPE: Revolving Field - Brushless - Direct Connected Exciter
 CONSTRUCTION: Single Regreaseable Bearing - Close Coupled
 REGULATION: Static Regulator Maintains ½% of rated voltage
 INSULATION: Class F (Epoxy Vacuum Impregnated)
 CONNECTION: WYE or DELTA
 AMBIENT TEMPERATURE: 40° C.

Installation Facts

DIMENSION & WEIGHT	60 Hz Standby	50 Hz Standby
Length	128 in. (325 cm.)	128 in. (325 cm.)
Width	47 in. (119 cm.)	47 in. (119 cm.)
Height	78 in. (198 cm.)	78 in. (198 cm.)
Dry Weight	6,688 lb. (3,034 kg.)	6,688 lb. (3,034 kg.)
LIQUID CAPACITY (Refill)		
Oil Sump	10.5 gal. (40 lit.)	10.5 gal. (40 lit.)
Jacket Water, engine only	5.5 gal. (21 lit.)	5.5 gal. (21 lit.)
Radiator, including engine, jacket water system, and lines - standard capacity	31 gal. (117 lit.)	31 gal. (117 lit.)
EXHAUST SYSTEM		
Gas Temperature (Stack)	970° F. (521° C.)	1095° F. (591° C.)
Gas Volume at Stack Temperature	3,050 CFM (1,440 lit/sec)	2,540 CFM (1,199 lit/sec)
Maximum allowable back pressure	41.1 in. H ₂ O (1,044 mm. H ₂ O)	41.1 in. H ₂ O (1,044 mm. H ₂ O)
COOLING SYSTEM		
Ambient Capability of Radiator	100° F. (38° C.)	100° F. (38° C.)
Maximum allowable static pressure on exhaust side of the radiator	0.5 in. H ₂ O (12.7 mm. H ₂ O)	0.5 in. H ₂ O (12.7 mm. H ₂ O)
Heat rejection to engine jacket water (dry exhaust)	13,375 BTUM (235 KW)	11,750 BTUM (207 KW)
Water pump capacity	103 gpm (6.5 lit/sec)	85 gpm (5.4 lit/sec)
STARTING SYSTEM		
Electric volt DC	24 volt	24 volt
Battery recommendation—Minimum temperature 0° F. (-17.7° C.)	220 Amp-hr.	220 Amp-hr.
AIR REQUIREMENTS		
Air flow required for Radiator Cooled unit	25,345 CFM (11,966 lit/sec)	21,340 CFM (10,075 lit/sec)
Air flow required for Heat Exchanger or Remote Radiator	10,100 CFM (4,768 lit/sec)	8,416 CFM (3,974 lit/sec)
Generator set radiator heat	5,185 BTUM (101 KW)	4,821 BTUM (85 KW)

*Derate 4% per 1,000 feet (305 m.) above 5,000 feet (1,525 m.) and 1% per 10° F. (5.5° C.) above 100° F. (38° C.)
 Other voltages available. Up to 6600 volts AC.

Drawings for 350Z4



Design & Performance

- Katolight Generator manufactured to NEMA-MG-1-22.40 and CSA Standards.
- Telephone Influence Factor is well within NEMA standards.
- Wave Form Deviation Factor is no more than 5%, well within NEMA standards.
- Harmonic Content is 3% maximum.
- Voltage Regulation — Standard static regulators will keep voltage within 1/2% of rated voltage.
- Engine and generator controls are designed and manufactured by Katolight.
- Regreasable ball bearings are used for Gen-Sets over 50 KW.

Standard Equipment

- Basic Engine — NTA-855G
- A.C. Generator
- Fuel Pump
- Primary & Secondary Fuel Filter
- Lube Oil Circulating Pump
- Lube Oil Cooler
- Full Flow Lube Oil Filter
- Jacket Water Circulating Pump
- Thermostat
- Air Filter
- Exhaust Manifold
- 24 Volt Electric Starting Motor, Solenoid, and Switch
- 24 Volt Battery Charging Alternator & D.C. Ammeter
- Oil Pressure — Water Temperature Gauges, Running Time Meter
- Generator Terminal Box
- Governor — Electronic
- Fabricated Steel Sub-base

Optional Equipment

- Special Voltages up to 6600 Volts.
- Frequency: 50 - 400 Hz.
- Special array of temperature rise (50°C, 60°C, 70°C, 80°C, 105°C, and 130°C) generators available, meeting NEMA MG1-22.84 standards.
- Custom designed control systems — Special metering — Bussing — Switch gear.
- Precise governing Electronic systems.
- Cooling — Remote radiator/hotwell tank — Heat exchangers.
- Fuel systems — Pumps — Valves — Tanks — Switches.
- Batteries — Lead acid — Lead calcium — Nickel cadmium.
- Enclosures — Weather resistant — Thermal insulated — Sound attenuated.
- Custom designed trailer mounting.

Materials and Specifications May Change Without Notice.

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Printed in U.S.A.

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