

# DIESEL



# D300F\*Z4

# D280F\*Z5

## 300 KW @ 60 Hz.

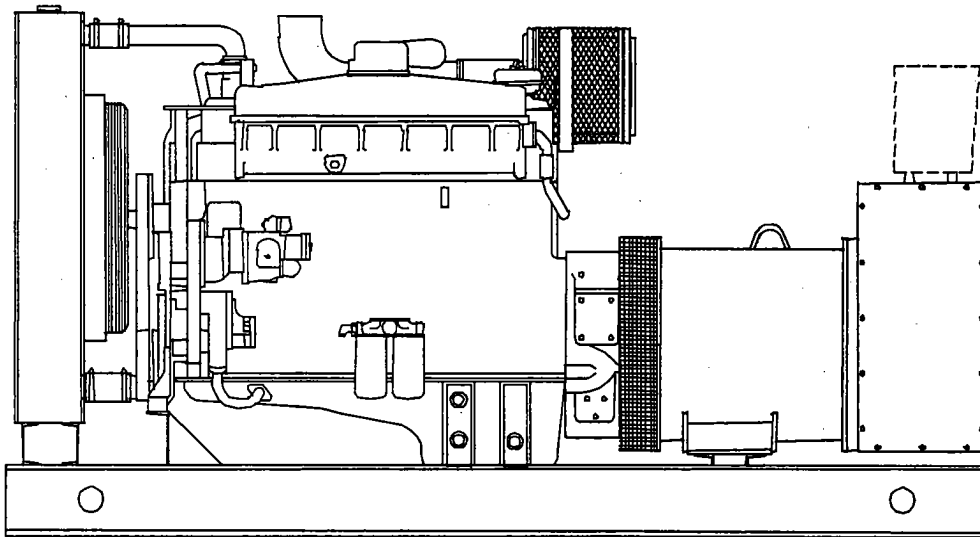
## 280 KW @ 50 Hz.

### Stand-By Power

## 275 KW @ 60 Hz.

## 250 KW @ 50 Hz.

### Prime Power



- Katolight's commitment to quality has been an industry standard since 1952.
- Katolight specializes in custom designing any application to meet the customers' most stringent specifications.
- Each and every unit is factory tested. This can eliminate costly startup and installation delays.
- Katolight supplies a broad range of accessories, fully integrated to our generator sets, to match any requirement worldwide.
- All generator set components and accessories are covered by Katolight with a limited two-year warranty. Optional warranty periods are also available.
- Katolight product accepts 100% of nameplate rating, per NFPA 110, in one step.

Katolight Model	Volts	Hz	Phase	Power Factor	Standby Amps	Standby Ratings kW/kVA	Prime Ratings kW/kVA	Connection
D300FRZ4	277/480	60	3	0.8	451	300/375	275/343.75	12 LEAD HI WYE
D300FPZ4	120/208	60	3	0.8	1,041	300/375	275/343.75	12 LEAD LOW WYE
D300FJZ4	120/240	60	3	0.8	902	300/375	275/343.75	12 LEAD HI DELTA
D300FNZ4	347/600	60	3	0.8	361	300/375	275/343.75	4 LEAD WYE
D300FGZ4	120/240	60	1	1.0	1,250	300/300	275/275	12 LEAD ZIG-ZAG
D300FDZ4	120/240	60	1	1.0	1,250	300/300	275/275	4 LEAD
D280FRZ5	220/380	50	3	0.8	532	280/350	250/312.5	12 LEAD HI WYE
D280FPZ5	110/190	50	3	0.8	1,064	280/350	250/312.5	12 LEAD LOW WYE
D280FJZ5	110/220	50	3	0.8	919	280/350	250/312.5	12 LEAD HI DELTA

### STANDARD EQUIPMENT

#### CONTROL PANEL

- Model #45 control panel
- AC voltmeter, 3½", 2% accuracy
- AC ammeter, 3½", 2% accuracy
- Combination VM/AM selector switch, 4 position
- Frequency meter, 3½", 55-65 Hz.
- Vibration shock mounts (4)
- Engine control - KASSEC-24 VDC, with cyclic cranking timer
- 4 engine shutdowns with separate failure lights
  - \* High water temperature / Low water level
  - \* Low oil pressure
  - \* Engine overspeed
  - \* Engine overcrank
- Engine gauges - 2"
  - \* Battery charging DC ammeter
  - \* Water temperature
  - \* Oil pressure
  - \* Running time meter - 5 digits
- 3 position mode switch (auto-off-manual)

#### ENGINE

- Air cleaner
- Fuel pump
- Fuel filter
- Oil pump
- Full flow oil filter
- Jacket water pump
- Thermostat
- Exhaust manifold - dry
- Oil cooler
- Blower fan & fan drive
- Radiator - unit mounted
- Vibration isolators - pad type
- Electric starting motor - 24v

#### ENGINE (cont.)

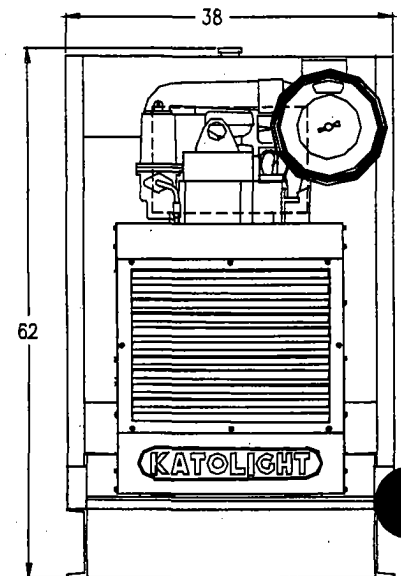
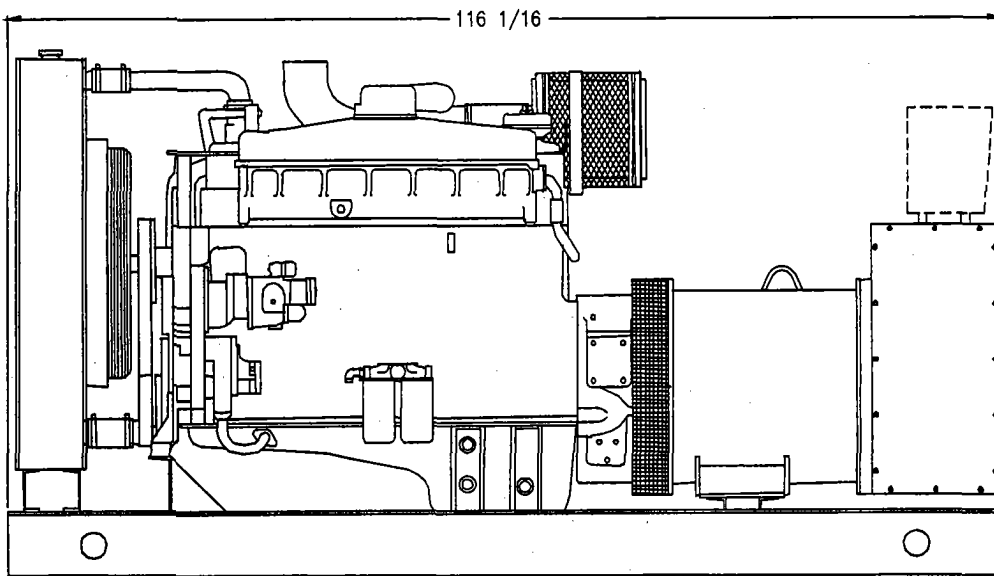
- Turbocharged
- Governor - electric isochronous
- Base - channel steel
- Housing & flywheel
- Charging alternator - 24v
- Battery box & cables
- Flexible fuel & exhaust connectors

#### GENERATOR

- A.C. Generator
- Brushless design
- Single bearing
- Direct connection with flex plate
- Class H insulation
- All models manufactured to meet NEMA MG1-22.4 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 3.5% maximum
- Permanently lubricated ball type bearings
- Generator is self-ventilated
- Drip-proof construction

#### VOLTAGE REGULATOR

- Regulation - 1%
- Voltage adjust rheostat
- EMI filter (Internal Electromagnetic Interference)
- Underspeed protection
- Overexcitation protection
- Fully encapsulated



For illustration purposes only.

## ENGINE TECHNICAL DATA

60 Hz

50 Hz

Model: .....	NTA855-G2	
Type: .....	4-Cycle	
Aspiration: .....	Turbocharged - Aftercooled	
Cylinder Arrangement: (Number, inline, V, etc.): .....	6-Inline	
Displacement - Cu. In. (lit) .....	855 (14)	
Bore - in. (cm) x stroke - in. (cm) .....	5.5 (14) x 6.0 (15.2)	
Compression Ratio: .....	15.3:1	
Rated RPM .....	1800	1500
BMEP: psi (kPa) .....	239 (1,648)	266 (1,834)
Maximum Power at Rated RPM - hp(kW) .....	465 (347)	430 (321)

## INSTALLATION DATA \*

### Dimensions & Weight

Length: in. (cm) .....	116.1 (295)
Width: in. (cm) .....	38 (97)
Height: in. (cm) .....	62 (158)
Weight (dry): lb. (Kg) .....	5,245 (2,379)

### Liquid Capacity

Total Oil System: gal/(lit) .....	10.2 (39)
Engine Jacket Water Capacity: gal/(lit) .....	5.5 (22)
System Coolant Capacity: gal/(lit) .....	16 (61)

### Electrical System

Electric Volts DC .....	24
Cold Cranking Amps under 0°F (-17.8°C) .....	900

### Exhaust System

Gas Temp. (Stack): °F (°C) .....	100 (38)	100 (38)
Gas Volume at Stack Temp.: CFM (m³/min) .....	2,570 (22)	2,370 (67)
Maximum Allowable Back Pressure: in. H2O (kPa) .....	41 (10.2)	41 (10.2)
Emissions - HC: g/hp-hr .....	0.07	0.33
Emissions - CO: g/hp-hr .....	1.20	2.75
Emissions - NOx: g/hp-hr .....	8.87	9.45

### Cooling System

Ambient Capacity of Radiator: °F °C .....	100 (38)	100 (38)
Maximum Allowable Static Pressure on Rad. Exhaust: in. H2O (kPa) .....	0.5 (.12)	0.5 (.12)
Water Pump Capacity: gpm (lit/min) .....	116 (439)	94 (356)
Heat Rejection to Coolant: BTUM (kW) .....	11,625 (204)	10,750 (188)
Heat Radiated to Ambient: BTUM (kW) .....	4,451 (78)	3,788 (67)

### Air Requirements

Aspirating: CFM (m³/min) .....	980 (28)	885 (25)
Air Flow Required for Rad. Cooled Unit: CFM (m³/min) .....	15,932 (451)	15,100 (428)
Air Flow Required for Heat Exchanger/Remote Rad. based on 20°F Rise: CFM (m³/min) .....	12,364 (350)	10,522 (297)

### Fuel Consumption: gal/hr (lit/hr)

At 100% of Power Rating: .....	23.5 (89)	20.7 (78)
At 75% of Power Rating: .....	17.5 (66)	15 (57)
At 50% of Power Rating: .....	13.8 (52)	11.2 (42.9)

### Sound Level Data †

Sound level at full load		
23 ft (7m) opw w/ critical grade muffler (dBA) .....	87.1	87.1
23 ft (7m) Sound Attenuated Housing (dBA) .....	80.2	80.2
Sound level at no load		
23 ft (7m) opw w/ critical grade muffler (dBA) .....	85.3	84.4
23 ft (7m) Sound Attenuated Housing (dBA) .....	80.4	79.9

### Deration

Altitude	
4% per 1,000 ft above .....	5,000 ft
4% per 305 m above .....	1,525 m
Temperature	
1% per 10°F above .....	104°F
2% per 11°C above .....	40°C

\* Installation data based on 480 volt, 60 Hz. application and open power unit.

† For sound level readings with other Katolight housings, please contact factory.

Sound level data acquired per Test Method SAE J1074. Installation factors and site conditions can affect sound levels.

# OPTIONS

# Diesel Gen-Set

## Control Panel

\*\* NOTE: #45 series control panel is standard on all units, see page 2 of spec sheet for standard features.

- Model #45 Series Control Panel Options
  - Emergency stop button
  - Alarm buzzer with silencing switch
  - Auxiliary relay for dry contacts (2 max.)
  - A separate low water level light is optional
  - Hooded panel lights (2) and on/off switch
  - NEMA 12 Panel Face
  - Additional LED lights (4 max.) One or two of the following conditions may be indicated:
    - unit not in auto
    - low fuel level
    - low water level
    - low water temp.
    - EPS supplying load
    - pre-alarm oil
    - pre-alarm temp.
    - charger malfunction
- Model #50 Series Control Panel  
STANDARD FEATURES: same as #45 series control panel except for these added features:
  - Hooded panel lights (2) and on/off switch
  - 4 Engine shutdowns
  - 12 light engine control package meeting NFPA-110 requirement
  - Repetitive alarm buzzer and silencing switch
  - Light and alarm press to test
- #50 SERIES OPTIONS
  - Emergency stop button
  - Additional space for one 3½" meter
  - Auxiliary relay for dry contacts (2 max.)
  - A separate low water level light is optional
  - Additional LED lights (4 max.) One to four additional conditions may be indicated: customer to specify
  - NEMA 12 Panel Face
- Model #60 and #80 Series Custom Control Panels  
It may be necessary to use a 60 or 80 series control panel on certain units where numerous options are required.
- Microprocessor Control Panel – KDGC-2000

## Fuel System

- Fuel/Water Separator
- Day Tank
- Above Ground Fuel Tank
- Auxiliary Fuel Pump
- Sub-Base Mounted Fuel Tank
  - Single Wall
  - Double Wall
  - UL Listed

## Exhaust System

- Industrial Grade Muffler
- Residential Grade Muffler
- Critical Grade Muffler
- Rain Cap

## Engine Electrical System

- Battery
  - Lead-Acid
  - Nicad
- Battery Warmer Plate
- Battery Rack
- Battery Charger
  - Automatic
  - Trickle
  - Mounted & Wired

## Generator

- Main Line Circuit Breaker (2-pole or 3-pole)
  - Shunt trip
  - Auxiliary switch
- PMG Excitation & DVR 2000 Regulator
- Space Heaters 120/240 volt
- Special Testing
- Additional Temperature Rise Generators Available (80°C, 105°C, & 130°C)

## Additional Optional Equipment

- Spring vibration isolators
- Oil Drain Extension
- Housings
  - Sound Attenuated
  - Weather Proof
  - Aluminum
  - Interior lights AC or DC
  - Floor Plate
- Jacket Water Heater
- Crankcase Oil Heater
- Trailer Mounting
- Isochronous Governor
- Remote Annunciator
- 12 Light Annunciator
  - Flush Mounted
  - Surface Mounted
  - 4 additional lights, if needed
- Export Boxing
- Warranties
  - 1 Year
  - 2 Year
  - 5 Year
  - 10 Year
- Operating instructions under plexi-glass
- Service indicator light

## GEN-SET OPTIONS

### Cooling System

- Remote Radiator
- High Ambient Radiator
- Heat Exchanger Cooling
- Radiator Duct Flange

