





WATER-COOLED



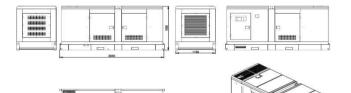
3 PHASE



50 HZ 380-415V



DIESEL FUEL



# **STANDARD SPECIFICATIONS**

## 1. ENGINE

FOUR STROKE HEAVY DUTY IGH PERFORMANCE INDUSTRIAL DIESEL ENGINE

# 2. ENGINE FILTRATION SYSTEM

- AIR FILTER
- FUEL FILTER
- FULL FOLLOW LUBO OIL FILTER

ALL FILTERS HAS REPLACEABLE ELEMENTS

- 3. COOLING SYSTEM
- 4. EXHAUST SYSTEM

HEAVY DUTY INDUSTRIAL EXHAUST SILENCER

**5. CIRCUIT BREAKER TYPE** 

**DELIXI MCCB 3POLE** 

GENERATING SET MODEL			PWG-DFAW-55
OUTPUT RATING	PRIME		STANDBY
380V,3PH, 50HZ,1500RPM	50 kVA		55 kVA
	40KW		44KW
GENERATING SET MODEL			
ENGINE MAKE		FAWDE	
ENGINE MODEL		4DX22-65D	
GOVERNING TYPE		Electrical	
NUMBER OF CYLINDERS		4	
CYLINDER ARRANGEMENT		IN-LINE	
BORE AND STROKE (mm)		102 X 118	
DISPLACEMENT		3.86L	
CYCLE		4 STROKE	
COMPRESSION RATIO		17:1	
ASPIRATION		TURBOCHARGED	
COOLING SYSTEM		WATER-COOLING	
FREQUENCY & ENGINE SPEED		50 HZ & 1500RPM	
NOISE LEVEL @ 7M		70 dBA	
	PRIME		STANDBY
GROSS ENGINE POWER kW	48 KW		-
FUEL CONSUMPTION @ 100% L/hr	10.48		-
FUEL CONSUMPTION @ 50% L/hr			

ALTERNATOR DATA	
MAKE	STAMFORD
MODEL	DPC224D
NO. OF BEARINGS	1
INSULATION CLASS	Н
WIRES	12
EXCITATION SYSTEM	SHUNT
INGRESS PROTECTION	IP23
VOLTAGE	±1%



2280	
900	
1070	
986	
90 L	
DEEPSEA	
6020	

## **RATINGS DEFINITION**

### **PRIME POWER**

THESE RATING ARE APPLICABLE FOR SUPPLYING CONTINUOUSPURCHASED POWER. 10% OVERLOAD POWER IS AVAILABLE FOR 1HOUR IN 12HOURS CONTINUOUS OPERATION.

#### **STANDBY POWER**

THESE RATING ARE APPLICABLE FOR SUPPLYING CONTINUOUS ELECTRICAL POWER (AT VARIABLE LOAD) IN THE EVENT OF AN UTILITY POWER FAILURE. NO OVERLOAD IS PERMITTED.

## STANDARD REFERENCE CONDITIONS

OUTPUT RATING ARE PRESENTED AT 27% AIR INLET TEMPERATURE, BAROMETRIC PRESSURE 100kPa, RELAIVE HUMIDITY 30%, THIS GENERATING SET IS DESIGNED TO OPERATE AT HIGH AMBIENT TEMPERATURE (UP TO 52%), HUMIDITY (UP TO 90%) AND HIGH ALTITUDES. DERATION MAY APPLY, PLEASE CONSULT US FOR SPECIFIC SITE RATINGS.

# **AVAILABLE OPTIONS & ACCESSORIES**

WE OFFER A RANGE OF OPTIONAL FEATURES AND ACCESSORIES TO TAILOR OUR GENERATING SETS TO MEET YOUR POWER NEEDS.

### **OPTIONS**

- A VARIETY OF GENERATING SET CONTROL AND SYNCHRONIZING PANELS
- ADDITIONAL PROTECTION ALARMS AND SHUTDOWNS
- WATER FUEL SEPERATOR
- WATERJACKET HEATER
- BATTERY CHARGER

### **ACCESSORIES**

- GENUINE SPARE PARTS
- AUXILIARY FUEL TANKS



#### 1. FUEL SYSTEM

ON GENERATING SETS UP TO 750KVA STANDBY, THE CHASSIS DESIGN IS INCORPORATED WITH INTEGRAL FUEL TANK WITH A CAPACITY OF APPROX 5HOURS TO 8HOURS RUNNING AT FULL LOAD. THE TANK IS SUPPLIED COMPLETE WITH FILL CAP, BREATHER, FUEL FEED AND RETURN LINES TO THE ENGINE AND DRAIN PLUG.

#### 2. ALTERNATOR

#### 2.1. INSULATION SYSTEM

- THE INSULATION SYSTEM IS CLASS H
- ALL WINDINGS ARE IMPREGNATED IN EITHER A TRIPLE DIP THERMOSETTING LIQUID, OIL AND ACID RESISTING POLYESTER VARNISH OR VACUUM PRESSURE IMPREGNATED WITH A SPECIAL POLYESTER RESIN.
- HEAVY COAT OF ANTITRACKING VARNISH ADDITIONAL PROTECTION AGAINST MOISTURE OR CONDENSATION

#### 2.2. AUTOMATIC VOLTAGE REGULATOR (AVR)

THE FULLY SEALED AUTOMATIC VOLTAGE REGULATOR MAINTAINS THE VOLTAGE REGULATION AT ±1%.

# 2.3. MOTOR STARING (OPTIONAL)

 AN OVERLOAD CAPACITY EQUIVALENT TO 300% OF THE FULL LOAD IMPEDANCE AT ZERO POWER FACTOR CAN BE SUSTAINED FOR 10 SECONDS, WHEN AREP (AUXILIARY WINDING) OPTION IS FITTED.

#### 3. MOUNTING ARRANGEMENT

### 3.1. CHASSIS

THE COMPLETE GENERATING SET IS MOUNTED AS A WHOLE ON A HEAVY-DUTY FABRICATED STEEL CHASSIS.

### 3.2. ANTI-VIBERATION MOUNTING DUMPER

DUMPER ARE AFFIXED BETWEEN THE ENGINE & ALTERNATOR FEET AND THE CHASSIS, THUS ENSURING COMPLETE

#### 3.3. COUPLING

THE ENGINE AND ALTERNATOR ARE DIRECTLY COUPLED BY MEANS OF AN SAE FLANGE. THE ENGINE FLYWHEEL IS FLEXIBLY COUPLED TO THE ALTERNATOR ROTOR.

### 3.4. SAFETY GUARDS

THE FAN & FAN DRIVE ALONG WITH THE BATTERY CHARGING ALTERNATOR ARE SAFETY GUARD PROTECTED FOR PERSONAL PROTECTION.

#### 4.TESTS

THE GENERATING SET IS LOAD TEST BEFORE DISPATCH.

ALL PROTECTIVE DEVICES CONTROL FUNCTIONS AND SITE LOAD CONDITIONS ARE SIMULATED. THE GENERATOR AND Its SYSTEMS ARE CHECKED BEFORE DISPATCH.

#### 5. EQUIPMENT FINISHING

ALL MILD STEEL COMPONENTS ARE FULLY DEGREASED AND PAINTED WITH POWDER COATED PAINT TO ENSURE MAXIMUM 7.2 AUTOMATIC VOLTAGE REGULATOR (AVR) SCUFF RESISTANCE AND DURABILITY.

### 6. EQUIPMENT FINISHING

OPERATION & MAINTENANCE MANUAL, CIRCUIT WIRING DIAGRAMS

#### 7. QUALITY STANDARDS

THE EUQIPMENT MEETS THE FOLLOWING STANDARDS:BS4999, BS5000, BS5514, IEC60034, VDE0530 AND ISO8528

### 8. WARRANTY

ALL OF THE GENERATING SETS ARE COVERED UNDER AWARRANTY POLICY FOR A PERIOD OF 12MONTHS OR 1 YEAR (WHICHEVER COMES EARLIER) OF THE EQUIPMENT IS IN LINE WITH MANUFACTURERS WARRANTY TERMS AND CONDITIONS.

#### **DISTRIBUTED BY**



#### **POWERGUARD GENERATOR**

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