

# VITOLUX POWER GENERATOR



**WATER-COOLED**



**3 PHASE**



**50HZ**



**DIESEL FUEL**

## STANDARD SPECIFICATIONS

1. **ENGINE**  
FOUR STROKE HEAVY DUTY HIGH PERFORMANCE INDUSTRIAL DIESEL ENGINE.
2. **ENGINE FILTRATION SYSTEM**
  - AIR FILTER
  - FUEL FILTER
  - FULL FLOW LUBO OIL FILTER

ALL FILTERS HAS REPLACEABLE ELEMENTS
3. **COOLING SYSTEM**  
EFFICIENT WATER-COOLED SYSTEM WITH COMPLETE SAFETY GUARDS, DESIGNED TO COOL THE ENGINE AT HIGH AMBIENT TEMPERATURES (CONSULT US FOR DE-RATION FACTORS)
4. **EXHAUST SYSTEM**  
HEAVY DUTY INDUSTRIAL EXHAUST SILENCER
5. **CIRCUIT BREAKER TYPE**  
DELIXI MCCB 3POLE

GENERATING SET MODEL			MTS44		ALTERNATOR DATA	
OUTPUT RATING	PRIME	STANDBY	MAKE	STAMFORD		
400/230V, 3PH, 50HZ, 1500RPM	40KVA	44KVA	MODEL	PI 144J		
	32KW	35KW	NO.OF BEARINGS	1		
			INSULATION CLASS	H		
			WIRES	12		
			INGRESS PROTECTION	IP23		
			EXCITATION SYSTEM	SHUNT		
			VOLTAGE	±1%		
ENGINE TECHNICAL DATA						
ENGINE MAKE	MITSUBISHI					
ENGINE MODEL	S4S-DT					
GOVERNING TYPE	MECHANICAL					
NUMBER OF CYLINDERS	4					
CYLINDER ARRANGEMENT	IN-LINE					
BORE AND STROKE (mm)	94 X 120					
DISPLACEMENT	3,331					L
ASPIRATION	NATURAL-ASPIRATED					
CYCLE	4 STROKE					
COMPRESSION RATIO	/					
COOLING SYSTEM	WATER-COOLING					
FREQUENCY & ENGINE SPEED	50HZ & 1500RPM					
	PRIME	STANDBY				
GROSS ENGINE POWER kW	37.5kW	-				
FUEL CONSUMPTION @ 100% L/hr	9,1	-				
FUEL CONSUMPTION @ 50% L/hr	-	-				
DIMENSION & WEIGHT						
LENGTH mm	1900					
WIDTH mm	780					
HEIGHT mm	1000					
WEIGHT*kg	773					
FUEL TANK CAPACITY	75L					
CONTROL PANEL						
MAKE	SMARTGEN					
MODEL	HGM6120NC					

PLEASE REFER TO 6120NC BROCHURE FOR MORE DETAILS

**AN INSPIRED DESIGN TO MEET YOUR NEEDS**

# VITOLUX POWER GENERATOR

## RATINGS DEFINITION

### PRIME POWER

THESE RATING ARE APPLICABLE FOR SUPPLYING CONTINUOUS ELECTRICAL POWER (AT VARIABLE LOAD) IN LIEU OF COMMERCIALY PURCHASED 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 A UTILITY POWER FAILURE. NO OVERLOAD IS PERMITTED.

### STANDARD REFERENCE CONDITIONS

OUTPUT RATING ARE PRESENTED AT 27°C AIR INLET TEMPERATURE, BAROMETRIC PRESSURE 100kPa, RELATIVE HUMIDITY 30%. THIS GENERATING SET IS DESIGNED TO OPERATE AT HIGH AMBIENT TEMPERATURE (UP TO 52°C), HUMIDITY (UP TO 90%) AND HIGH ALTITUDES. DE-RATION 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
- MANUAL & AUTOMATIC TRANSFER SWITCHS

### 8.2 ANTI-VIBERATION MOUNTING DUMPER

DUMPER ARE AFFIXED BETWEEN THE ENGINE & ALTERNATOR FEET AND THE CHASSIS, THUS ENSURING COMPLETE VIBRATION ISOLATION OF ROTATING ASSEMBLY.

### 8.3 COUPLING

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

### 8.4 SAFETY GUARDS

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

### 9. TESTS

- THE GENERATING SET IS LOAD TEST BEFORE DISPATCH.
- ALL PROTECTIVE DEVICES CONTROL FUNCTIONS AND SITE LOAD CONDITIONS ARE SIMULATED. THE GENERATOR AND IT'S SYSTEMS ARE CHECKED BEFORE DISPATCH.

### 10. EQUIPMENT FINISHING

ALL MILD STEEL COMPONENTS ARE FULLY DEGREASED AND PAINTED WITH POWDER COATED PAINT TO ENSURE MAXIMUM SCUFF RESISTANCE AND DURABILITY.

### 11. EQUIPMENT FINISHING

OPERATION & MAINTENANCE MANUAL, CIRCUIT WIRING DIAGRAMS.

### 12. QUALITY STANDARDS

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

### 13. WARRANTY

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

## STANDARD SPECIFICATIONS

### 6. 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.

### 7. ALTERNATOR

#### 7.1 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

#### 7.2 AUTOMATIC VOLTAGE REGULATOR (AVR)

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

#### 7.3 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.

### 8. MOUNTING ARRANGMENT

#### 8.1 CHASSIS

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

IN LINE WITH CONTINUOUS PRODUCT DEVELOPMENT, WE RESERVE THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.