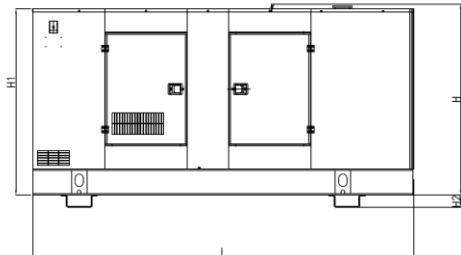
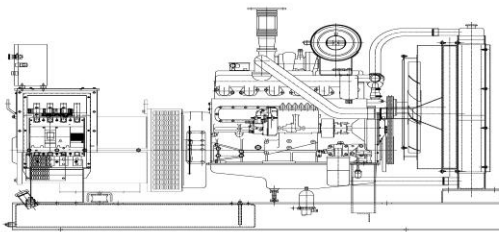


POWER RATING

	With 50 Hz of frequency	With 60 Hz of frequency
Output voltage (Vac), 3Phase	380 ~ 440 Volts (208-220volt option)	380 ~ 480 Volts(208-240volt option)
Prime power	160 kW, 200 kVA	180 kW, 225 kVA
Standby power	176 kW, 220 kVA	200 kW, 250 kVA

Power ratings are made in accordance with ISO8528

Weight and Dimensions



Skid Type

Overall size (L*W*H), mm :
2,594*946*1,660
Weight : 1,670 kg

Sound Proof Type

Overall size (L*W*H), mm :
3,700*1,112*1,968
Weight : 2,376 kg

Generator Set Performance and Feature

- **RELIABLE HIGH QUALITY SYSTEM-** To improve the performance of Products, high quality auxiliaries equipment applied and optimized protection device built in the digital controller against malfunctioning and abnormal conditions.
- **FREQUENCY REGULATION ACCURACY-** Under varying loads from no load to 100% load at the rated power factor(0.8), frequency regulation is 5%(mechanical type governor), 1%(electric type governor).
- **VOLTAGE REGULATION ACCURACY-** Under varying loads from no load to 100% load at the rated power factor (0.8), voltage regulation is less than $\pm 2.5\%$.
- **VOLTAGE ADJUSTABLE RANGE-** Under rated speed and no load condition, voltage adjustable range is less than $\pm 5\%$ of rated voltage.
- Applied the 2/3 pitch winding to reduce the 3rd harmonics.
- Designed by using the latest technologies and the best materials available to guarantee high efficiency value.
- Impregnated with high-grade resin and protection against hostile environment is provided as standard.
- Supplied with over exciting current and under frequency protection built in the AVR.
- Suitable for parallel operation with other generator or mains power. (Parallel kit is available on request.)
- **SIMPLE AND EASY OPERATION-** With centralized controls simplifying generator operation and supervision is made very simple.
- **LOW COST MAINTENANCE & OPERATION-** Use the specialized diesel engine for generator set keeps operation costs very low.

ENGINE

Manufacturer Doosan Infracore
Model..... P086TI
Prime power
At 50 Hz 177 kWm (240 ps)/ 1500 rpm
At 60 Hz 205 kWm (279 ps)/ 1800 rpm
Standby power
At 50 Hz 199 kWm (270 ps)/ 1500 rpm
At 60 Hz 223 kWm (303 ps)/ 1800 rpm
Nos. of cylinder 6 cylinders
Block & cycle In-line 4 cycle
Displacement..... 8.071 liters
Compression ratio..... 16.4:1
Fire order..... 1,5,3,6,2 to 4
Cylinder type Replaceable dry liner
Bore x stroke 111 x 139 mm
Aspiration Turbo charged & Intercooled
Rotation Anti-clockwise (view from flywheel)

NOTE-The Engine performance corresponds to ISO3046, BS5514 and DIN 6271.

LUBRICATION SYSTEM

Oil filter..... Cartridge type
Lube method Full forced pressure feed
Oil consumption 0.5 grams per ps and hour
Oil pump type Gear driven by crankshaft
Max oil temp. 120 Celsius degree
Shutdown setting..... 0.5 to 0.7 kg/cm²
Oil Type..... SAE15W40CE

FUEL SYSTEM

Fuel filter Cartridge type
Injection pump Zexel in-line "P" type
Governor Electric Type
Fuel type Light diesel fuel, DIN51601, BS2869, ASTM D975
Fuel tank mounted in bed
Fuel consumption at prime operation (liter/hr)
At 50 Hz min 11.3, max 43.1 (lph)
At 60 Hz min 13.8, max 50.6 (lph)
NOTE- based on min at 25% loaded, max at 100% loaded

ELECTRICAL SYSTEM

Battery Nos. 2 x 120 AH
Alternator..... 24 Vdc, 45 A
Starting motor..... 24 Vdc, 6 kW

GENERATOR

Type Revolution Field
Phase & wire 3P4W
Power factor..... 0.8

GENERATOR

Nos. of Pole 4
Speed 1500/50, 1800/60 (rpm/Hz)
Insulation Class..... H
Excitation..... Self-Excited, Brushless
Method of cooling Self ventilation
Winding Pitch 2/3
One-step load 100% (NFPA110)
Coupling..... Flexible Disc
Bearing Single, Ball Bearing
Connection Star (Wye)
Insulation grade IP22
Over speed 1800 rpm
Overload 110% for 1 hr of rated power

NOTE- Generator is in compliance with IEC 60034-1, CEI 2-3, BS4999-5000, VDE 0530, NF 51-100, 111, OVE M-10, NEMA MG 1.22

EXHAUST SYSTEM

Exhaust gas flow 38.8 m³/min at 60Hz
Exhaust gas temp..... 530 degree Celsius at 60Hz
Max permissible restriction (mmH2O)
Intake system initial 220, end 635
Exhaust system ... 600
Silencer/muffler Nos.1 x Dry type
Exhaust outlet..... Nos.1 x 4 inches (100A),
Based on 10meter

COOLING SYSTEM (Standard Radiator)

Type Water cooled
Pump capacity l/min 150 @60Hz
Thermostat operating temp (Celsius degree)
Opening 71
Full open 85
Shutdown set 103±3
Radiator grill size..... 800 x 925 (L x H, mm)

AIR SYSTEM

Air cleaner type Dry, paper element
Radiator duct area
Air inlet duct 0.888 m²
Air outlet duct 0.740 m²

SERVICE REFILL CAPACITY

Fuel tank Skid : 132 liters
Sound Proof : 300 liters
Engine oil 15.5 liters
Coolant 48.5 liters

CONTROL PANEL mounted



Dimension (W x H x D): 450 x 600 x 200 (mm)

SPECIFICATION		
SWITCH& PUSH BUTTON		
Manual/Remote/Auto button		O
Stop button		O
GCB Close/Trip button		O
Alarm button		O
Direction/Enter/ESC button		O
Emergency stop push button		O
Main Power Switch		O
Voltage Adjuster		O
DISPLAY		
Digital Volt./Current/Power/PF/Hz		O
Running Hours/Kilowatt hour		O
RPM/DC Voltage		O
Oil press./Coolant temp		O
Cooldown time/Mains power live/Failure sensing time		O
BREAKER		
Main molded case circuit breaker (MCCB 4P)		O (3P as option)
Circuit protector for DC source		O
Breaker for main power/coolant heater		O
INDICATOR & PROTECTION SYSTEM		
Main power lamp		O
Manual/Remote/Auto, LED		O
Running, LED		O
GCB close/trip, LED		O
Emergency stop, LCD		O
Over voltage/Under voltage/Over Current, LCD		O
High coolant temperature, LCD		O
Low lub. oil pressure, LCD		O
Fail to start, LCD		O
Over speed, LCD		O
REMOTE SYSTEM		
PC Monitoring program		▲
Dry Contact (Mains Power, Running, Fault)		O
CONTROL SYSTEM		
SPEED CONTROL UNIT		O
OTHERS		
Dry Contact (Extension Module)		▲
Battery Charger		O

O: Equipped as standard

▲: To be equipped as option

X: not applicable

STANDARD EQUIPMENT

Engine

Fuel oil filter
 Lub. oil filter and drain valve
 Air cleaner
 Lubricate oil
 Fan Belt

Control panel

Digital control panel (EDGC10)

Exhaust

Silencer (Sound attenuation up to 20db)
 Bellows

Voltage Connection

- 50Hz: 400V/230V
 - 60Hz: 380V/220V

Electrical System

Battery and Battery cable
 Charging Alternator

Manual

Operation & Maintenance manual
 Generator part book
 Engine part book

OPTIONAL EQUIPMENT

Engine

Battery auto charger (For Standby Power usage)

Control panel

Analog control panel
 Self-standing panel
 Parallel control panel : Island or Grid Mode

Enclosed Unit

Weather Proof Enclosure
 Sound Proof Enclosure
 Containerized Enclosure

Cold climate heater

Coolant heater, AC 120V/240V
 Fuel heater, DC 24V
 Air heater, DC 12V * 2EA

Spare parts

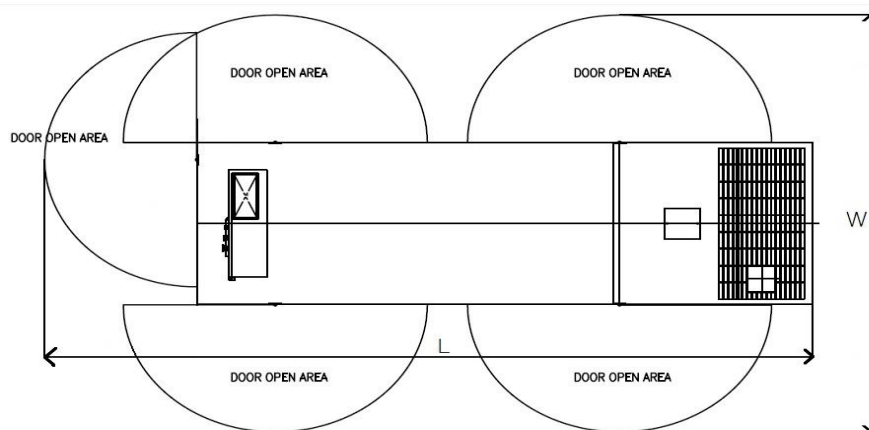
PM (preventive maintenance) parts; filters & oils
 RSP (recommended spare parts)

Fuel Options

Fuel Water Separator
 Free Standing Fuel Tank

Tropical Cooling System

SOUND PROOF CANOPY (Option)



L : 4500mm, W : 2700mm

NOISE LEVEL

TYPE	NO LOAD		FULL LOAD	
	1m	7m	1m	7m
SOUND PROOF	80 dB	70 dB	82 dB	71 dB