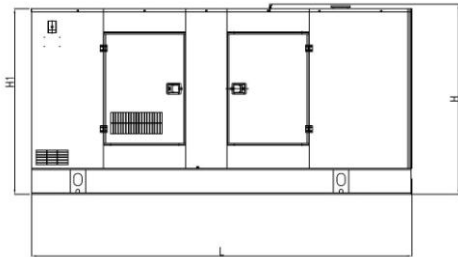
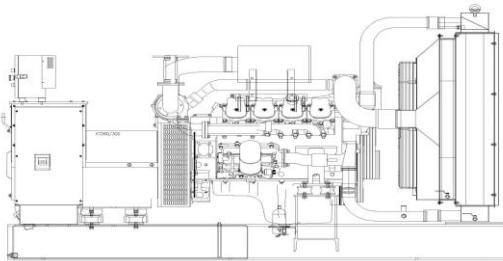


POWER RATING

	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	420 kW, 525 kVA	450 kW, 563 kVA
Standby power	460 kW, 575 kVA	500 kW, 625 kVA

Power ratings are made in accordance with ISO8528

Weight and Dimensions



Skid Type

Overall size (L*W*H), mm :
2,873*1,400*1,815
Weight : 3,090 kg

Sound Proof Type

Overall size (L*W*H), mm :
4,200*1,652*2,200
Weight : 4,928 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).
- Applied the 2/3 pitch winding to reduce the 3rd harmonics.
- **VOLTAGE REGULATION ACCURACY-** Under varying loads from no load to 100% load at the rated power factor (0.8), voltage regulation is less than $\pm 2.5\%$.
- Designed by using the latest technologies and the best materials available to guarantee high efficiency value.
- **SIMPLE AND EASY OPERATION-** With centralized controls simplifying generator operation and supervision is made very simple.
- **VOLTAGE ADJUSTABLE RANGE-** Under rated speed and no load condition, voltage adjustable range is less than $\pm 5\%$ of rated voltage.
- Impregnated with high-grade resin and protection against hostile environment is provided as standard.
- **LOW COST MAINTENANCE & OPERATION-** Use the specialized diesel engine for generator set keeps operation costs very low.
- 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.)

ENGINE

Manufacturer Doosan Infracore
Model..... DP158LD
Prime power
At 50 Hz 448 kWm (609 ps)/ 1500 rpm
At 60 Hz 481 kWm (654 ps)/ 1800 rpm
Standby power
At 50 Hz 494 kWm (672 ps)/ 1500 rpm
At 60 Hz 532 kWm (750 ps)/ 1800 rpm
Nos. of cylinder 8 cylinders
Block & cycle V-type 4 cycle
Displacement..... 14.618 liters
Compression ratio..... 15:1
Fire order..... 1,5,7,2,6,3,4,8
Cylinder type Replaceable wet liner
Bore x stroke 128 x 142 mm
Aspiration Turbo charged & Intercooled
Rotation Counter clockwise viewed
from flywheel

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

LUBRICATION SYSTEM

Oil filter..... Full flow 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 Full flow, cartridge type with
water drain valve
Injection pump Bosch 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 30.3, max 115.1 (lph)
At 60 Hz min 35.2, max 127.1 (lph)
NOTE- based on min at 25% loaded, max at 100% loaded

ELECTRICAL SYSTEM

Battery Nos. 2 x 150 AH
Alternator..... 27.5 Vdc, 45 A
Starting motor 24 Vdc, 7 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 100 m³/min at 60Hz
Exhaust gas temp..... 539 degree Celsius at 60Hz
Max permissible restriction (mmH2O)
Intake system initial 220, end 635
Exhaust system ... 600
Silencer/muffler Nos.2 x Dry type
Exhaust outlet..... Nos.2 x 5 inches (125A),
Based on 10meter

COOLING SYSTEM (Standard Radiator)

Type Water cooled
Pump capacity l/min 660 @60Hz
Thermostat operating temp (Celsius degree)
Opening 71
Full open 85
Shutdown set 103±3
Radiator grill size 1,150 x 1,220 (L x H, mm)

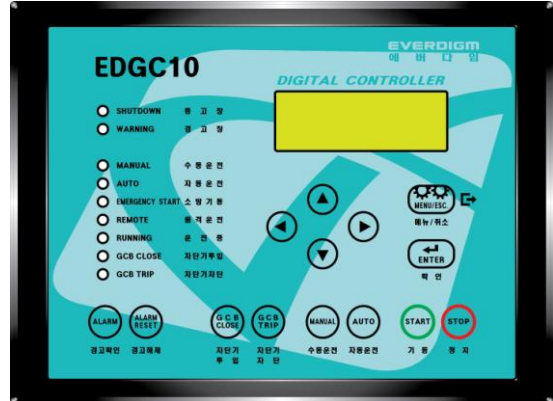
AIR SYSTEM

Air cleaner type Dry, paper element
Radiator duct area
Air inlet duct 1.756 m²
Air outlet duct 1.464 m²

SERVICE REFILL CAPACITY

Fuel tank Skid : 275 liters
Sound Proof 800 liters
Engine oil 22 liters
Coolant 79 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, 120V/240V
 Fuel heater, 120V/240V
 Air heater, 120V/240V

Spare parts

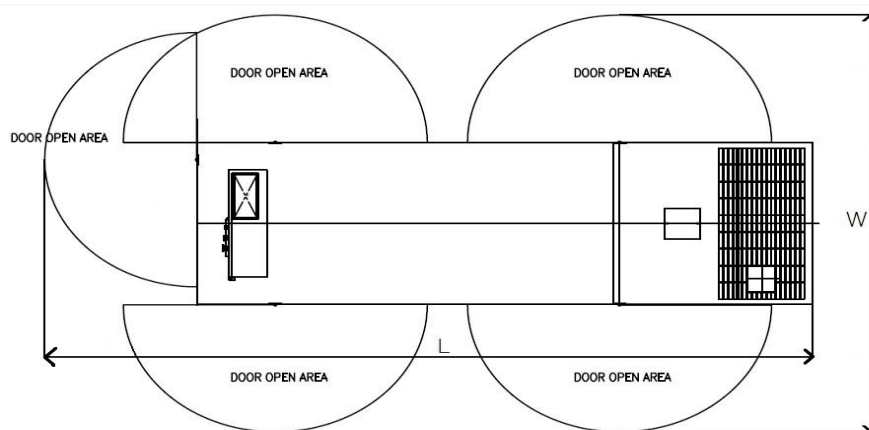
PM (preventive maintenance) parts; filters & oils
 RSP (recommended spare parts)

Fuel Options

Fuel Water Separator
 Free Standing Fuel Tank

Tropical Cooling System

SOUND PROOF CANOPY (Option)



L : 5400mm, W : 3450mm

NOISE LEVEL

TYPE	NO LOAD		FULL LOAD	
	1m	7m	1m	7m
SOUND PROOF	84 dB	73 dB	86 dB	75 dB