



### Emergency Standby Power (ESP):

Applicable for supplying power to varying electrical load for the duration of power interruption of a reliable utility source. Emergency Standby Power (ESP) is in accordance with ISO 8528. Fuel Stop power in accordance with ISO 3046, AS 2789, DIN 6271 and BS 5514.

### Prime Power (PRP):

Applicable for supplying power to varying electrical load for unlimited hours. Prime Power (PRP) is in accordance with ISO 8528. Ten percent overload capability is available in accordance with ISO 3046, AS 2789, DIN 6271 and BS 5514.

### Continuous Power (COP):

Applicable for supplying power continuously to a constant electrical load for unlimited hours. Continuous Power (COP) in accordance with ISO 8528, ISO 3046, AS 2789, DIN6271 and BS 5514.

Powerzoo generators are CE certified and conform to the following Directives:

- EN 12100: 2010, EN ISO 8528-13: 2016, EN 60204-1: 2018,
  - EN 61000-6-2: 2019, 2006/42/CE Machinery safety
  - 2014/35/EU Low voltage
  - 2014/30/EU Electromagnetic compatibility
  - Power according to ISO 8528 and ISO 3046
  - Ambient reference conditions 1000 mbar, 25° C, 30% relative humidity.
- Information based on standard specification equipment unless otherwise stated.

GENERATOR MODEL		F450P5		
	Generator specifications	PRP	ESP	
	Power	kW/kVA	360/450	400/500
	Rated speed	r.p.m.	1500	
	Available voltages	V	380~415	
	Frequency	Hz	50	
	Phase		3-PH	
	Power factor	Cos φ	0.8	
	Fuel cons 100%	L/H	102.8	
	Starting power	kW	7.5	
	Recommended battery	Ah	120	
	Number of batteries		2	
	Auxiliary voltage	VDC	24V	

FREQUENCY

DIESEL FUEL

WATER-COOLED

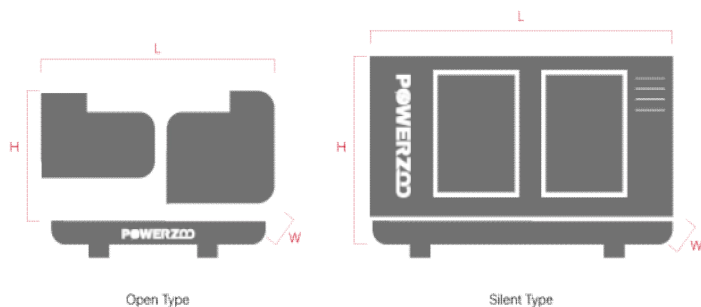
SOUNDPROOF

CERTIFICATION

ISO 9001

STACKABLE

## Dimension and Weight



DIMENSION		OPEN TYPE	SILENT TYPE	
	Length (L)	mm	3300	4350
	Width (W)	mm	1200	1430
	Height (H)	mm	1950	2250
	Dry weight	kg	3520	4000
	Fuel tank	L	NA	850

Powerzoo has the right to modify any feature without prior notice. Weights and dimensions based on standard products. Illustrations may include optional equipment. Technical data described in this catalogue correspond to the available information at the moment of printing. The illustrations and images are indicative and may not coincide in their entirety with the product. Industrial design under patent.



## Engine Specifications

ENGINE	FAWDE®
Engine model	CA6DM3J-46DG33
Number of cylinders	6
Cylinder arrangement	Vertical in-line
Cycle	Four stroke
Aspiration	TC
Bore x Stroke	126.5 * 166 mm
Displacement	12.52 L
Compression ratio	18:01
Prime power/Speed	440 /1500 (kW/rpm)
Standby power/Speed	482 /1500 (kW/rpm)
Speed governor	E
Cooling system (open type)	40°C tropical radiator
Cooling system (silent type)	50°C tropical radiator

ENGINE	FAWDE®
Total lubrication system capacity	34 L
Coolant capacity-engine	20 L
Speed stability (%)	≤3%
Start type	Electrical
Maximum exhaust temperature	≤510°C
Exhaust gas flow	1300 L/S
Maximum allowed back pressure	≤5.0 kPa
Intake air flow	468.33 L/S
Cooling air flow	TBD
Consumption @ 100% load ESP	TBD
Consumption @ 100% load PRP	100.941 L/H
Consumption @ 75% load PRP	75.318 L/H
Consumption @ 50% load PRP	51.765 L/H



### Features:

- Diesel engine
- 4-stroke cycle
- Water-cooled
- Dry air filter
- Radiator with pusher fan
- Moving parts protection
- Radiator water level sensor (Optional)
- 55 degree radiator (Optional)
- Jacket coolant heater (Optional)
- Lube oil heater (Optional)
- Engine filter heater (Optional)
- Fuel inlet line heater (Optional)
- Heavy duty air filter (Optional)



## Alternator Specification

ALTERNATOR	
Exciter type	Brushless, self-excited
Power factor	0.8
Voltage adjust range	≥5%

ALTERNATOR	
Voltage regulation NL-FL	≤±1.0%
Insulation grade	H
Protection grade	IP23

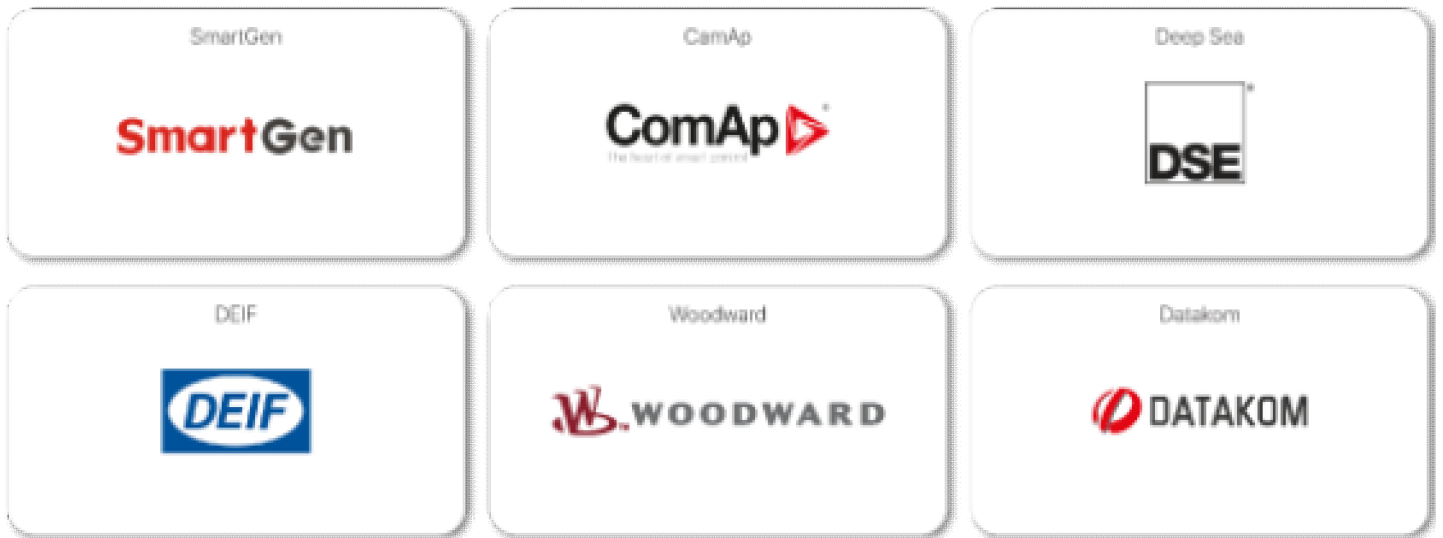


### Options:

- AREP/PMG/EBS
- Air inlet filter (5% deration)
- Louver (5% deration)
- Space heater
- Digital AVR
- Severe environmental impregnation
- Stator sensor
- PT100
- Rotor sensor
- Double bearing
- Drip proof cover
- Terminal box IP44



## Controller Brands



## Controller Functions

OPTIONAL CONFIGURATION	Stand-alone Basic	Stand-alone Advanced	Synchronization Basic	Synchronization Advanced
Voltage between phases	●	●	●	●
Voltage between neutral and phase	●	●	●	●
Current intensities	●	●	●	●
Frequency	●	●	●	●
Apparent power (kVA)	●	●	●	●
Active power (kW)	●	●	●	●
Reactive power (kVAr)	●	●	●	●
Power factor	●	●	●	●
Coolant temperature	●	●	●	●
Oil pressure	●	●	●	●
Battery voltage	●	●	●	●
R.P.M.	●	●	●	●
Battery charge alternator voltage	●	●	●	●
High water temperature by sensor	●	●	●	●
Low oil pressure by sensor	●	●	●	●
Unexpected shutdown	●	●	●	●
Fuel storage by sensor	●	●	●	●
Stop failure/Start failure	●	●	●	●
Overspeed/Underspeed	●	●	●	●

● Standard ○ Optional

OPTIONAL CONFIGURATION	Stand-alone Basic	Stand-alone Advanced	Synchronization Basic	Synchronization Advanced
Emergency stop	●	●	●	●
High/Low frequency	●	●	●	●
High/Low voltage	●	●	●	●
Short-circuit	●	●	●	●
Incorrect phase sequence	●	●	●	●
Inverse power	●	●	●	●
Overload	●	●	●	●
Total hour counter	●	●	●	●
Kilowatt meter	●	●	●	●
Starts valid counters	●	●	●	●
Maintenance	●	●	●	●
USB	●	●	●	●
Software for PC	●	●	●	●
Alarm history	●	●	●	●
External start	●	●	●	●
Start inhibition	●	●	●	●
Mains failure start	●	●	●	●
Pre-heating engine control	●	●	●	●
Fuel transfer control	●	●	●	●
Engine temperature control	●	●	●	●
Programmable alarms	●	●	●	●
Genset start function in test mode	●	●	●	●
Programmable outputs	●	●	●	●
Multilingual	●	●	●	●
RS485		●	●	●
Modbus IP		●	●	●
J1939		●	●	●
Synchronization			●	●
Mains synchronization				●
Fuel level [%]	○	○	○	○
Low water level	○	○	○	○
GSM/GPRS modem	○	○	○	○
Remote screen	○	○	○	○

● Standard ○ Optional