





Emergency Standby Power (ESP):

Applicable for supplying power to varying electrical load for the duration of power interruption of a reliable utili ty 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 capabili ty 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 unlimi ted hours. Continuous Power (COP) in accordance wi th 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			Y20P5		
	Generator specificationsl		PRP	ESP	
•	Power	kW/kVA	16/20	17.6/22	
2	Rated speed	r.p.m.	1500		
<b>w</b>	Available voltages	V	380~415		
50 60 HZ	Frequency	Hz	50		
3	Phase		3-PH		
	Power factor	Cos $\Phi$	0.8		
<b>(3)</b>	Fuel cons 100%	L/H	5	.57	
	Starting power	kW		1.4	
âñ	Recommended battery	Ah	60		
	Number of batteries		1		
	Auxiliary voltage	VDC		12V	







WATER-COOLED 1))



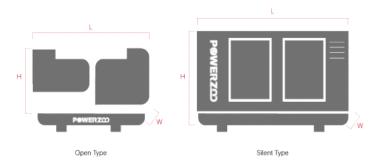
SOUNDPROOF







# Dimension and Weight



	DIMENSION		OPEN TYPE	SILENT TYPE
0 日	Length (L)	mm	1630	1800
□ ₩	Width (W)	mm	730	750
	Height (H)	mm	1170	1050
Kg	Dry weight	kg	650	750
	Fuel tank	L	55	55

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	YANMAR <sup>®</sup>
Engine model	4TNV84T-GGE
Number of cylinders	4
Cylinder arrangement	Vertical in-line
Cycle	Four stroke
Combustion system	Direct injection
Bore × Stroke	84 × 90 mm
Displacement	1.995 L
Compression ratio	18.9:1
Rated output/Speed	21/1500 (kW/rpm)
Continuous rating/Speed	19.1/1500 (kW/rpm)
Speed governor	Mechanical
Cooling system (open type)	40°C tropical radiator
Cooling system (silent type)	50°C tropical radiator

ENGINE	YANMAR <sup>®</sup>
Total lubrication system capacity	7.4 L
Coolant capacity	2.7 L
Speed stability (%)	≤5%
Start type	Electrical
Maximum exhaust temperature	TBD
Exhaust gas flow	TBD
Maximum allowed back pressure	TBD
Intake air flow	TBD
Water flow to engine	TBD
Consumption @ 100% load ESP	6.12 L/H
Consumption @ 100% load PRP	5.57 L/H
Consumption @ 75% load PRP	4.18 L/H
Consumption @ 50% load PRP	2.79 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	Н
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



E-mail: info@powerzoos.com Tel: +86 13358296663





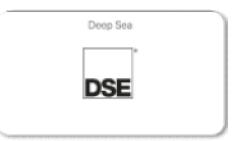




### **Controller Brands**













## **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



E-mail: info@powerzoos.com Tel: +86 13358296663







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 (%)	0	0	0	0
Low water level	0	0	0	0
GSM/GPRS modem	0	0	0	0
Remote screen	0	0	0	0

● Standard ○ Optional



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