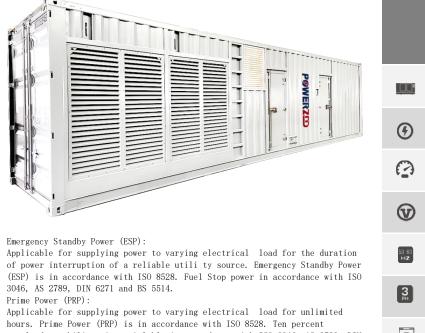


P#WERZOD



overload capabili ty is avai lable 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

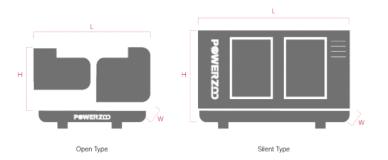
•2014/30/EU Electromagnetic compatibility

•Power according to ISO 8528 and ISO 3046

•Ambient reference conditions 1000 mbar,  $25^{\circ}$  C, 30% relative humidity. Information based on standard specification equipment unless otherwise stated.

GENERATOR MODEL			C2000P5		
	Generator specificationsl		PRP	ESP	
۲	Power	kW/kVA	1600/200 0	1760/2200	
0	Rated speed	r.p.m.	1500		
V	Available voltages	V	380~415		
50 60 HZ	Frequency	Hz	50		
3 PH	Phase		З-РН		
A	Power factor	Cos $\phi$	0.8		
٦	Fuel cons 100%	L/H	394		
	Starting power	kW	24V		
ŝ	Recommended battery	Ah	120		
	Number of batteries		4		

# Dimension and Weight



	DIMENSION		OPEN TYPE	SILENT TYPE
0 5	Length (L)	mm	5795	12192
ý.,£1	Width (W)	mm	2200	2438
	Height (H)	mm	2565	2896
Kg	Dry weight	kg	12000	18200
	Fuel tank	L	TBD	2000

VDC

**NC** 

ISO 9001

55

STACKABLE

Auxiliary voltage

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	Cummins®	ENGINE	Cummins®
Engine model	QSK60-G4	Total lubrication system capacity	280 L
Number of cylinders	16	Coolant capacity	242 L
Cylinder arrangement	V	Speed stability (%)	≤1%
Cycle	Four stroke	Start type	Electrical
Aspiration	Turbocharged, aftercooled	Limiting ambient temp.	<b>54.9</b> ℃
Bore × Stroke	159 × 190 mm	Coolant ratio	50% ethylene glycol; 50% water
Displacement	60.2 L	Fan power	45 KW
Compression ratio	14.5:1	Cooling system air flow	29.8 m³/S
Prime power/Speed	1730/1500 (kW/rpm)	Cooling system design	2 pump - 2 loop
Standby power/Speed	1915/1500 (kW/rpm)	Consumption @ 100% load ESP	437L/H
Fuel system	Cummins HPI	Consumption @ 100% load PRP	394 L/H
Cooling system (open type)	$40^\circ C$ tropical radiator	Consumption @ 75% load PRP	291 L/H
Cooling system (silent type)	50℃ tropical radiator	Consumption @ 50% load PRP	200 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		ALTERNATOR	
Exciter type	Brushless, self-excited	Voltage regulation NL-FL	≤±1.0%
Power factor	0.8	Insulation grade	н
Voltage adjust range	≥5%	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



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# SmartGen SmartGen CamAp ComApie Deep See DEF Woodward Datakom Outakom Datakom

# **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	•	•	•	•

lacksquare Standard  $\hdotsquare$  Optional





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Emergency stopIIIIIHigh/Low voltageIIIIIIShor-circuitIIIIIIIIncorrect phase sequenceIII	OPTIONAL CONFIGURATION	Stand-alone Basic	Stand-alone Advanced	Synchronization Basic	Synchronization Advanced
High/Low voltage•••••Short-circuit•••••••Incorrect phase sequence••<	Emergency stop	•	•	•	•
Short-circuitIncorrect phase sequenceIncorrect phase sequence <td>High/Low frequency</td> <td>•</td> <td>•</td> <td>•</td> <td>•</td>	High/Low frequency	•	•	•	•
Incorrect phase sequenceIIIIIIInverse powerIIIIIIDverloadIIIIIIITotal hour counterIIIIIIIKilowatt meterII	High/Low voltage	•	•	•	•
Inverse powerInverse powerInvers	Short-circuit	•	•	•	•
DverlaadIIIITotal hour counterIIIIKilowatt meterIIIIStarts valid countersIIIIMaintenanceIIIIIUSBIIIIISoftware for PCIIIIIAlarm historyIIIIIExternal startIIIIISoftware for pcIIIIIAlarm historyIIIIIExternal startIIIIISoftware for pcIIIIIAlarm historyIIIIIExternal startIIIIISoftware for pcIIIIIMains failure startIIIIIPre-heating engine controlIIIIIFuel transfer controlIIIIIProgrammable alarmsIIIIIIRodus IPIIIIIIIJ1939IIIIIIISynchronizationIIIIIIIFuel level (%)IIIIIILink Synchroniz	Incorrect phase sequence	•	•	•	•
Total hour counterImage: starts valid countersImage: start valid countersIm	Inverse power	•	•	•	•
Kilowatt meterIIIIStarts valid countersIIIIMaintenanceIIIIUSBIIIIISoftware for PCIIIIAlarm historyIIIIExternal startIIIIStart inhibitionIIIIPre-heating engine controlIIIIFuel transfer controlIIIIProgrammable alarmsIIIIRestIIIIIMultilingualIIIIIModus IPIIIIIJ1939IIIIISynchronizationIIIIIFuel level (%)IIIIIFuel level RevelIIIIISynchronizationIIIIIFuel level RevelIIIIIFuel level RevelIIIIISynchronizationIIIIIFuel level RevelIIIIISynchronizationIIIIIFuel level RevelIIIIISynchronizationIIIII <td>Overload</td> <td>•</td> <td>•</td> <td>•</td> <td>•</td>	Overload	•	•	•	•
Starts valid countersImage: starts valid countersImage: starts valid countersImage: starts valid countersMaintenanceImage: startImage: startsImage: startsImage: startsSoftware for PCImage: startImage: startsImage: startsImage: startsAlarm historyImage: startsImage: startsImage: startsImage: startsStarts inhibitionImage: startsImage: startsImage: startsImage: startsMains failure startImage: startsImage: startsImage: startsImage: startsPre-heating engine controlImage: startsImage: startsImage: startsImage: startsFuel transfer controlImage: start start startsImage: startsImage: startsImage: startsProgrammable alarmsImage: start start start startsImage: start start startsImage: start start startsImage: start start startsImage: start start startsMultilingualImage: start startsImage: start start startsImage: start startsImage: start startsImage: start startsMuddus IPImage: start startsImage: start startsImage: start startsImage: start startsImage: start startsMultilingualImage: start startsImage: start startsImage: start startsImage: start startsImage: startsMuddus IPImage: start startsImage: start startsImage: start startsImage: startsImage: startsMultilingualImage: start startsImage: startsImage: startsImage: startsImage: startstar	Total hour counter	•	•	•	•
MaintenanceImage: section of the section	Kilowatt meter	•	•	•	•
USBImage: state of the state of	Starts valid counters	•	•	•	•
Software for PCImage: startImage: star	Maintenance	•	•	•	•
Alarm historyImage: start start startImage: start	USB	•	•	•	•
External startImage: start	Software for PC	•	•	•	•
Start inhibitionImage: start inhibitionImage: start inhibitionImage: start inhibitionImage: start inhibitionImage: start inhibitionMains failure startImage: start inhibitionImage: start inhibitionImage: start inhibitionImage: start inhibitionFuel transfer controlImage: start inhibitionImage: start inhibitionImage: start inhibitionImage: start inhibitionFugre temperature controlImage: start inhibitionImage: start inhibitionImage: start inhibitionImage: start inhibitionForgrammable alarmsImage: start inhibitionImage: start inhibitionImage: start inhibitionImage: start inhibitionForgrammable outputsImage: start inhibitionImage: start inhibitionImage: start inhibitionImage: start inhibitionMultilingualImage: start inhibitionImage: start inhibitionImage: start inhibitionImage: start inhibitionMudbus IPImage: start inhibitionImage: start inhibitionImage: start inhibitionImage: start inhibitionJ1939Image: start inhibitionImage: start inhibitionImage: start inhibitionImage: start inhibitionFuel level (%)Image: start inhibitionImage: start inhibitionImage: start inhibitionImage: start inhibitionFuel level (%)Image: start inhibitionImage: start inhibitionImage: start inhibitionImage: start inhibitionFuel level (%)Image: start inhibitionImage: start inhibitionImage: start inhibitionImage: start inhibitionFuel level (%)Image: start inhibitionIma	Alarm history	•	•	•	•
Mains failure startImage:	External start	•	•	•	•
Pre-heating engine controlImage: state of the	Start inhibition	•	•	•	•
Fuel transfer controlImage: start function in test modeImage: start function	Mains failure start	•	•	•	•
Engine temperature controlImage: controlImage: controlProgrammable alarmsImage: controlImage: controlGenset start function in test modeImage: controlImage: controlProgrammable outputsImage: controlImage: controlMultilingualImage: controlImage: controlMutsilingualImage: controlImage: controlMuddbus IPImage: controlImage: controlJ1939Image: controlImage: controlSynchronizationImage: controlImage: controlMains synchronizationImage: controlImage: control	Pre-heating engine control	•	•	•	•
Programmable alarmsi.e.i.e.i.e.Genset start function in test modei.e.i.e.i.e.Programmable outputsi.e.i.e.i.e.i.e.Multilinguali.e.i.e.i.e.i.e.RS485i.e.i.e.i.e.i.e.i.e.Modbus IPi.e.i.e.i.e.i.e.J1939i.e.i.e.i.e.i.e.i.e.Synchronizationi.e.i.e.i.e.i.e.Fuel level (%)i.e.i.e.i.e.i.e.Low water leveli.e.i.e.i.e.i.e.GSM/GPRS modemi.e.i.e.i.e.i.e.	Fuel transfer control	•	•	•	•
Genset start function in test modeImage: start function in test modeImage: start function in test modeProgrammable outputsImage: start function function for the start function function for the start function for th	Engine temperature control	•	•	•	•
Programmable outputsImage: state of the state	Programmable alarms	•	•	•	•
MultilingualImage: second	Genset start function in test mode	•	•	•	•
RS485Image: state of the state o	Programmable outputs	•	•	•	•
Modbus IPImage: Constraint of the second	Multilingual	•	•	•	•
J1939••••SynchronizationI••••Mains synchronizationIII••Fuel level (%)000000SSM/GPRS modem000000	RS485		•	•	•
SynchronizationImage: synchronizationImage: synchronizationImage: synchronizationMains synchronizationImage: synchronizationImage: synchronizationImage: synchronizationFuel level (%)Image: synchronizationImage: synchronizationImage: synchronizationLow water levelImage: synchronizationImage: synchronizationImage: synchronizationGSM/GPRS modemImage: synchronizationImage: synchronizationImage: synchronization	Modbus IP		•	•	•
Mains synchronizationImage: Constraint of the synchronizationImage: Constraint of the synchronizationFuel level (%)0000Low water level0000GSM/GPRS modem0000	J1939		•	•	•
Fuel level (%)000Low water level0000GSM/GPRS modem0000	Synchronization			•	•
Low water level000GSM/GPRS modem0000	Mains synchronization				•
GSM/GPRS modem 0 0 0	Fuel level (%)	0	0	0	0
	Low water level	0	0	0	0
Remote screen o o o	GSM/GPRS modem	0	0	0	0
	Remote screen	0	0	0	0

• Standard O Optional



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