



ADC POWER CONCEPT

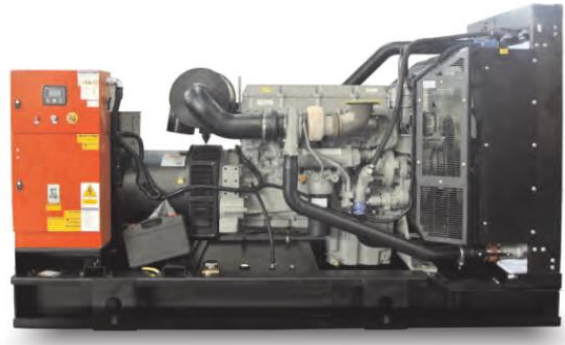
Generator
Model P330E5





Model: P330E5

Powered by PERKINS



Generator Specification

Service	PRP ₍₁₎	ESP ₍₂₎
Power (kVA)	300	330
Power (kW)	240	264
Rated speed (r.p.m)	1500	
Standard voltage (V)	400/230V	
Rated at power factor(cos phi)	0.8	

Performance Data		
Model	P330E5	
Engine brand	Perkins	
Engine model	1506A-E88TAG5	
Speed control type	ECM	
Phase	3	
Control system	Digital	
Starter motor voltage	24V	
Frequency	50HZ	
Engine speed (RPM)	1500	
Fuel Consumption (L/H)	100% standby power	73
	100% prime power	65
	75% prime power	48
	50% prime power	33



The gensets are compliant with ISO 9001 and CE standard, which include the following directives:

- 2006/42/EC Machinery safety.
- 2006/95/EC Low voltage
- EN 60204-1: 2006+A1: 2009, EN ISO 12100: 2010, EN ISO 13849-1: 2008, EN 12601 : 2010

(1) PRP (Prime Power):

According to ISO8528-1, prime power is the maximum power available during a variable power sequence, which may be run for an unlimited number of hours per year, between stated maintenance intervals. The permissible average power output during at 24 hours period shall not exceed 80% of the prime power. 10% overload available for governing purposes only.

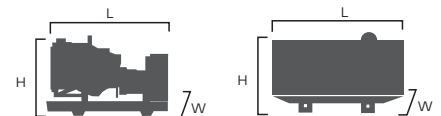
(2) ESP (Standby Power):

According to ISO 8528-1, It is defined as the maximum power available, under the agreed operating conditions, for which the generating set is capable of delivering for up to 500 hours of operation per year (of which no more than 300 hours for continuative use) with the maintenance intervals and procedures being carried out as prescribed by the manufacturers. No overload capability is available.

Powers Voltage (V)	ESP		PRP		Standby Amps
	KVA	KW	KVA	KW	
415/240	330	264	300	240	459.1
400/230	330	264	300	240	476.3
380/220	330	264	300	240	501.4

Standard reference Conditions

Note: Standard reference condition 25°C (77°F) air inlet temp, 100m(328ft) A.S.L 30% relative humidity. Fuel consumption dat with diesel fuel with specific gravity of 0.85 and conforming to BS 2869: 1998 , Class A2



Dimension and Weight		
Dimension	Open	Silent
Length (L)	2850mm	4120mm
Width (W)	1200mm	1350mm
Height (H)	1760mm	2253mm
Net Weight	2310KG	3522KG
Fuel Tank (L)	450	425

Note: This parameters allows for some acceptable deviations.



ADC Power Concept
Power Quality Specialist

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■ Engine Specification: 1506A-E88TAG5

Basic technical data	
No. of cylinders	6
Cylinder arrangement	Vertical in-line
Cycle	4 stroke
Induction system	Turbocharged aftercooled
Compression ratio	16.1:1
Bore	112mm
Stroke	149mm
Displacement	8.8L
All ratings certified to within	TBD
Speed variation at constant load	TBD

Cooling system	
Total coolant capacity	
-with radiator	TBD
-without radiator	TBD
Maximum top tank temp	107°C
Thermostat operation range	87-98°C
Radiator face area	.62 m ²
Rows and material	4 /aluminium
Pressure cap setting	110 kPa
Fan diameter	813 mm
Drive ratio	1 : 1
Number of blades	9

Fuel system	
Injection system	Direct
Fuel injection pump	TBD
Fuel atomiser	TBD
Nozzel opening pressure	TBD
Fuel lift pump type	ECM
- flow/hour	TBD
- pressure	TBD
Maximum suction head:	
-1500 rev/min	60.9 kPa

Induction system	
Clean filter	3.7kpa
Dirty filter	6.2kpa
Air filter type	Dry paper element

Lubrication system	
Total lub capacity	41L
Sump minimum	TBD
Sump maximum	TBD
Maximum engine operating angles	
-front up, front down, right side	TBD
or left side	
Lubricating oil pressure	TBD
-Relief valve opens	
- at maximum no-load speed	TBD
Oil consumption at full load	TBD
as a % of fuel consumption	

Electrical system	
Type	Negative ground
Alternator voltage	24 volts
Alternator output	45 amps
Starter motor voltage	24 volts
Starter motor power	5.3 kw

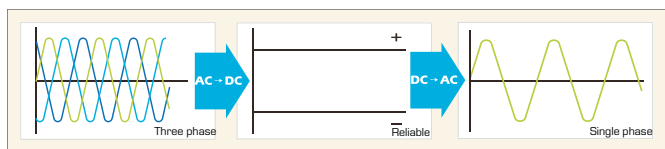
General installation	Prime power
Combustion air flow	15.1m ³ /min
Exhaust gas temp	574° C
Exhaust gas flow, wet	41.5m ³ /min
Engine coolant flow	140l/min
Cooling fan air flow	TBD



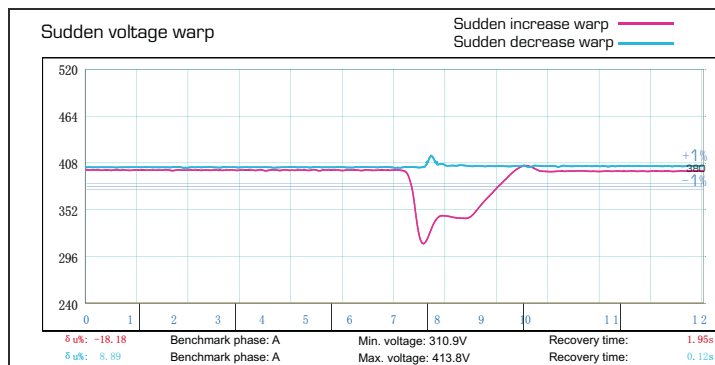


■ Alternator Specification

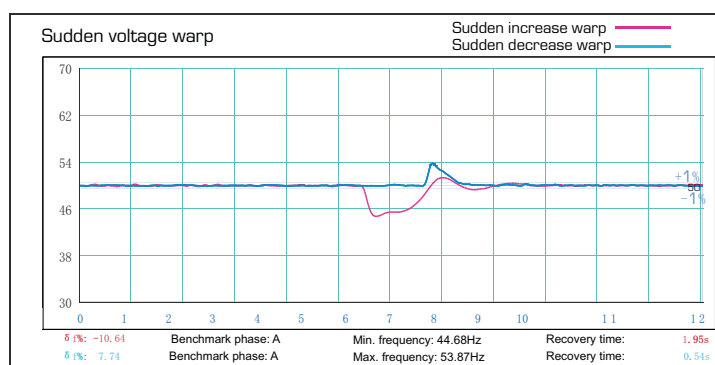
Alternator	
Number of phase	3
Power factor (Cos Phi)	0.8
Poles	4
Winding Connections (standard)	Star-serie
Terminals	12
Insulation type	H class
Winding Pitch	2/3
IP rating	IP23
Excitation system	Self-excited
Bearing	Single bearing
Coating	Vacuum impregnation
Voltage regulator	A.V.R
Couping	Flexible disc



Emergency voltage curve



Emergency frequency curve



■ Options

Engine	Alternator	Generator Sets	Fuel System
<ul style="list-style-type: none"> Water Jacket Pre-heater Fuel heater 	<ul style="list-style-type: none"> Winding Temp measuring Instrument Alternator Pre-heater PMG Anti-damp and anti-corrosion treatment Anti-condensation heater Winding and bearing RTD 	<ul style="list-style-type: none"> Tools with the machine Extended range fuel tank Bunded fuel tank 	<ul style="list-style-type: none"> Low fuel level alarm Automatic fuel feeding system Fuel T-valves
Canopy	Lub oil system	Cooling System	Control Panel
<ul style="list-style-type: none"> Rental type Canopy Trailer 	<ul style="list-style-type: none"> Oil Pre-heater Oil temp sensor 	<ul style="list-style-type: none"> Front heat protection 	<ul style="list-style-type: none"> Remote control panel ATS Synchronizing controller Adjustable earth leakage relay





■ Control Panel

Configuration

- Emergency stop button
- Protection MCB
- Battery charger
- Integrated aviation plug
- ATS connection
- Digital control module

Features

- 3 phase generator set monitoring
- Support of engines equipped with electronic control unit
- Comprehensive diagnostic message
- Automatic or manual start/stop of the gensets
- Push buttons for simple control, lamp test
- Graphic back-lit LCD display
- Parameters adjustable via keyboard or PC
- Mains measurements (50HZ/60HZ)
- Generator measurements (50HZ/60HZ)
- Comprehensive shutdown or warning on fault condition
- 3 phase Generator protections
 - Over-/under voltage
 - Over-/under frequency
 - Current/voltage asymmetry
 - Over current/overload
- 3 phase AMF function
 - Over-/under frequency
 - Over-/under voltage
 - Voltage asymmetry
- Configurable analog inputs
- Battery voltage, engine speed (pick-up) measurement
- Configurable programmable binary inputs and outputs
- Warm-up and cooling functions
- Generator C.B. and Mains C.B. control with feedback and return timer
- RS232 interface
- Modem communication support
- Hours counter
- Sealed to Ip65
- Event log

Benefits

- Less wiring and components
- Integrated solution
- Less engineering and programming
- User friendly set-up and button layout
- Module can be configured to suit individual applications
- PC software for simplified configuration
- Wide range of communication capabilities

Operation conditions

- Operation temp: -20 °C to + 70 °C
- Storage temp: -30 °C to + 80 °C
- Operating humidity: 95% w/o condensation
- Vibration : 5-25Hz, ± 1.6 mm
5-100Hz, a=4g
- Shocks: a= 500m/s²

Options

- Ethernet interface (Remote monitoring and control)
- GSM modem/wireless internet (Remote monitoring and control)
- RS232-RS485 Dual port interface
- Synchronizing control panel
- Distribution board with sockets kit and power busbar
- Battery trickle charge ammeter
- Earth leakage protection
- Earth fault protection
- Low fuel level alarm
- Low fuel level shutdown
- High fuel level alarm
- Fuel transfer system control
- Low coolant level shutdown
- High lube oil temp shutdown
- Overload via alarm switch on breaker
- Engine coolant heater controls
- Control panel heater
- Speed adjust switch
- Oil temp displayed on LCD screen
- Additional 8 inputs and outputs

