WBPS

POWER YOU CAN TRUST

CONTAINERISED J110K

ENGINE CHARACTERISTICS

BENEFITS

- Upto 100kVA
- Large internal fuel tank
- Integrated distribution unit
- Internal LED lighting
- Available with remote monitoring
- Available as hybrid package
- Reduced acoustic levels
- Completely self contained

POPULAR FOR

- Construction sites
- Utilities sector
- Telecoms industry
- Highway applications
- Remote locations

POWER DEFINITION

PRP : Prime Power is available for an unlimited number of annual operating hours in variable load applications, in accordance with ISO 8528-1. ESP : The standby power rating is applicable for supplying emergency power in variable load applications in accordance with ISO 8528-1. Overload is not allowed.

TERMS OF USE

According to the standard, the nominal power assigned by the genset is given for 25°C Air Intlet Temperature, of a barometric pressure of 100 kPA (100 m A.S.L), and 30 % relative humidity. For particular conditions in your installation, refer to the derating table.

GENERAL CHARACTERISTICS	
Frequency (Hz)	50
Voltage (V)	400/230
Standard Control Panel	APM303

POWER					
Voltage	ESP		PRP		Standby Amps
	kWe	kVA	kWe	kVA	
220 TRI	88	110	80	100	289
220/127	88	110	80	100	289
400/230	88	110	80	100	159
380/220	88	110	80	100	167
200/115	88	110	80	100	318
240 TRI	88	110	80	100	265
230 TRI	88	110	80	100	276

OVERALL DIMENSIONS	
Length (mm)	2400
Width (mm)	3000
Height (mm)	2700
Dry weight (kg)	3587
Tank capacity (L)	1350

CONTACT US

WB Power Services Ltd, Heanor Gate Road
Heanor Gate Industrial Estate, Heanor
Derbyshire DE75 7RJ

Email us at: sales@wbpsltd.co.uk
Call us 01159 444 422
www.wbpsltd.co.uk/hire

WBPS

POWER YOU CAN TRUST

CONTAINERISED J110

ENGINE CHARACTERISTICS

GENERAL ENGINE DATA	
Engine model	JOHN DEERE
Engine ref.	4045HF120
Air inlet	Turbo
Cylinders arrangement	L
Number of cylinders	4
Displacement (C.I.)	4.48
Air coolant	DC
Bore (mm) x Stroke (mm)	106 x 127
Compression ratio	17:01
Speed (RPM)	1500
Pistons speed (m/s)	6.35
Maximum stand-by power at rated RPM (kW)	100
Frequency regulation (%)	+/- 2.5%
BMEP (bar)	16.24
Governor type	Mechanical

COOLING SYSTEM	
Radiator & Engine capacity (L)	16.10
Max water temperature (°C)	105
Outlet water temperature (°C)	93
Fan power (kW)	0.70
Fan air flow w/o restriction (m3/s)	1.74
Available restriction on air flow (mm Water Column)	20
Type of coolant	Glycol-Ethylene
Thermostat (°C)	82-94

EXHAUST	
Exhaust gas temperature (°C)	545
Exhaust gas flow (L/s)	283
Max. exhaust back pressure (mm EC)	750

FUEL	
Consumption @ 110% load (L/h)	25.5
Consumption @ 100% load (L/h)	23.5
Consumption @ 75% load (L/h)	16.5
Consumption @ 50% load (L/h)	11.5
Maximum fuel pump flow (L/h)	108

OIL	
Oil capacity (L)	13.5
Min. oil pressure (bar)	1
Max. oil pressure (bar)	5
Oil consumption 100% load (L/h)	0.0240
Carter oil capacity (L)	12.50

HEAT BALANCE	
Heat rejection to exhaust (kW)	64
Radiated heat to ambiant (kW)	10.5
Heat rejection to coolant (kW)	36

AIR INTAKE	
Max. intake restriction (mm EC)	625
Intake air flow (L/s)	106

CONTACT US

WB Power Services Ltd, Heanor Gate Road
Heanor Gate Industrial Estate, Heanor
Derbyshire DE75 7RJ

Email us at: sales@wbpsltd.co.uk
Call us 01159 444 422
www.wbpsltd.co.uk/hire

WBPS
POWER YOU CAN TRUST

CONTAINERISED J33
ALTERNATOR CHARACTERISTICS

GENERAL DATA	
Alternator ref.	AT00840T
Number of Phase	Three phase
Power factor (Cos Phi)	0.80
Altitude (m)	0 to 1000
Overspeed (rpm)	2250
Number of pole	4
Capacity for maintaining short circuit at 3 in for 10 s	No
Insulation class	H
T° class, continuous 40°C	H / 125°K
T° class, standby 27°C	H / 163°K
AVR Regulation	Yes
Total Harmonic Distortion in no-load DHT (%)	<2
Total Harmonic Distortion, on load DHT (%)	<5
Wave form : NEMA=TIF	<50
Wave form : CEI=FHT	
Number of bearing	1
Coupling	Direct
Voltage regulation at established rating (+/- %)	
Recovery time (Delta U = 20% transcient) (ms)	500
Indication of protection	IP 23
Technology	Without collar or brush

OTHER DATA	
Continuous Nominal Rating 40°C (kVA)	100
Standby Rating 27°C (kVA)	110
Efficiencies 100% of load (%)	92.10
Air flow (m3/s)	0.25
Short circuit ratio (Kcc)	0.54
Direct axis synchro reactance unsaturated (Xd) (%)	287
Quadra axis synchro reactance unsaturated (Xq) (%)	172
Open circuit time constant (T'do) (ms)	2211
Direct axis transcient reactance saturated (X'd) (%)	12.90
Short circuit transcient time constant (T'd) (ms)	100
Direct axis subtranscient reactance saturated (X"d) (%)	7.70
Subtranscient time constant (T"d) (ms)	10
Quadra axis subtranscient reactance saturated (X"q) (%)	16.10
Subtranscient time constant (T"q) (ms)	
Zero sequence reactance unsaturated (Xo) (%)	0.39
Negative sequence reactance saturated (X2) (%)	11.95
Armature time constant (Ta) (ms)	15
No load excitation current (io) (A)	0.71
Full load excitation current (ic) (A)	2.24
Full load excitation voltage (uc) (V)	28
Engine start (Delta U = 20% perm. or 50% trans.) (kVA)	264
Transcient dip (4/4 load) - PF : 0,8 AR (%)	12.40
No load losses (W)	2317
Heat rejection (W)	6789
Unbalanced load acceptance ratio (%)	

APM303, comprehensive and simple

The APM303 is a versatile unit which can be operated in manual or automatic mode. Equipped with an LCD screen, the user-friendly APM303 offers high-quality basic functions to guarantee simple, reliable operation and supervision of your generating set. It offers the following features:

Measurements: phase-to-neutral and phase-to-phase voltages, active power currents, effective power, power factors, Kw/h energy meter Fuel, oil pressure and coolant temperature levels

Supervision: Modbus RTU communication on RS485

Reports: 2 configurable reports

Safety features:
Overspeed, oil pressure
Coolant temperatures
Minimum and maximum voltage
Minimum and maximum frequency
Maximum current
Maximum active power
Phase sequence

Traceability:
Stack of 12 stored events For further information, please refer to the data sheet for the APM303.