R330C5

Engine ref.	6090CP550
Rehlko Alternator description	KH01641T
Canopy	M5227
Performance class	G3

GENERAL CHARACTERISTICS

Frequency (Hz)	50 Hz
Voltage (V)	400/230
Standard Control Panel	APM403

Voltage	ESP		PRP		Standby Amps
	kWe	kVA	kWe	kVA	
400/230	264	330	240	300	476

DIMENSIONS

Length (mm)	4332
Width (mm)	1360
Height (mm)	2580
Dry weight (kg)	4850
Tank capacity (L)	1083

SOUND LEVELS

Acoustic pressure level @1m in dB(A) 50Hz (75% PRP)	76
Acoustic pressure level @7m in dB(A) 50Hz (75% PRP)	66
Sound power level guaranteed (Lwa) 50Hz (75% PRP) (Associated uncertainty)	96 (0.7)

DESCRIPTIVE

- Stage V engine
- Four-pole circuit breaker
- Connection terminal box rental type
- Containment fuel tank and large autonomy
- Forks and frame protection pads
- Adjustable earth fault protection and earthing rod
- Inlet air preheating
- Battery isolating switch
- Oil drainage pump
- Heavy duty air filter with interchangeable cartridge
- Primary fuel filter
- Heat hand protections (EC standards)
- Access door to the radiator
- Electronic governor with speed adjustement

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.

ASSOCIATED UNCERTAINTY

For the generating sets used indoor, where the acoustic pressure levels depends on the installation conditions, it is not possible to specify the ambient noise level in the exploitation and maintenance instructions . You will also find in our exploitation and maintenance instructions a warning concerning the air noise dangers and the need to implement appropriated preventive measures.

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ENGINE CHARACTERISTICS

GENERAL ENGINE DATAS

Engine brand	JOHN DEERE
Engine ref.	6090CP550
Air inlet system	Turbo
Cylinder configuration	L
Number of cylinders	6
Displacement (l)	8.92
Charge Air coolant	Air/Air
Bore (mm) x Stroke (mm)	118 x 136
Compression ratio	16 : 1
Speed (RPM)	1500
Pistons speed (m/s)	6.80
Maximum stand-by power at rated RPM (kW)	305
BMEP @ PRP 50 Hz (bar)	24.80
Governor type	Electronic

COOLING SYSTEM

Radiator & Engine capacity (l)	30.60
Fan power 50Hz (kW)	10
Fan air flow w/o restriction (m3/s)	10
Available restriction on air flow (mm H2O)	25
Type of coolant	Glycol-Ethylene

EMISSIONS

Emissions PM (g/kW.h)	0.00046
Emissions CO (g/kW.h)	0.001
Emissions NOx (g/kW.h)	0.084
Emissions HC (g/kW.h)	0.004

DIESEL EXHAUST FLUID

DEF Tank Capacity (L)	113
Cons. @ ESP Max Power (l/h)	3.1
Cons. @ PRP Max Power (l/h)	2.9
Cons. @ 75% of PRP Power (l/h)	1.5
Cons. @ 50% of PRP Power (l/h)	1.1

EXHAUST

Exhaust gas temperature @ ESP 50Hz (°C)	454
Exhaust gas flow @ ESP 50Hz (l/s)	633.30
Max. exhaust back pressure (mm H2O)	2200

FUEL

Fuel consumption @ ESP Max Power (l/h)	73.40
Fuel consumption @ PRP Max Power (l/h)	65.20
Fuel consumption @ 75% of PRP Power (l/h)	48.30
Fuel consumption @ 50% of PRP Power (l/h)	32.70
Maximum fuel pump flow (l/h)	145.90

OIL

Oil system capacity including filters (l)	40
Min. oil pressure (bar)	1
Oil consumption 100% ESP 50Hz (l/h)	0.1840

HEAT BALANCE

Radiated heat to ambiant (kW)	168

AIR INTAKE

Max. intake restriction (mm H2O)	625
Combustion air flow (l/s)	313.30

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ALTERNATOR CHARACTERISTICS

Rehlko Alternator description	KH01641T
Number of Phase	Three phase
Power factor (Cos Phi)	0.80
Altitude (m)	0 à 1000
Overspeed (rpm)	2250
Number of pole	4
Capacity for maintaining short circuit at 300% of rated current for 10 s	Yes
Insulation class	H
T° class (H/125°), continuous 40°C	H / 125°K
T° class (H/163°C), standby 27°C	H / 163°K
AVR Regulation	Yes
Total Harmonic Distortion in no-load DHT (%)	<2.5
Total Harmonic Distortion, on linear load DHT (%)	<2.5
Wave form : NEMA=TIF	<50
Wave form : CEI=FHT	<2
Number of bearing	Single Bearing
Coupling	Direct
Voltage regulation at established rating (+/- %)	0.50
Recovery time (Delta U = 20% transcient) (ms)	500
Indication of protection	IP 23
Technology	Brushless

Continuous Nominal Rating 40°C (kVA)	300
Standby Rating 27°C (kVA)	330
Efficiencies 100% of load (%)	93.10
Air flow (m3/s)	0.48
Short circuit ratio (Kcc)	0.4440
Direct axis synchro reactance unsaturated (Xd) (%)	344
Quadra axis synchro reactance unsaturated (Xq) (%)	175
Open circuit time constant (T'do) (ms)	2543
Direct axis transcient reactance saturated (X'd) (%)	13.50
Short circuit transcient time constant (T'd) (ms)	100
Direct axis subtranscient reactance saturated (X"d) (%)	10.80
Subtranscient time constant (T"d) (ms)	10
Quadra axis subtranscient reactance saturated (X"q) (%)	14.30
Subtranscient time constant (T"q) (ms)	10
Zero sequence reactance unsaturated (Xo) (%)	0.50
Negative sequence reactance saturated (X2) (%)	12.62
Armature time constant (Ta) (ms)	15
No load excitation current (io) (A)	0.94
Full load excitation current (ic) (A)	3.41
Full load excitation voltage (uc) (V)	49.70
Engine start (Delta U = 20% perm. or 30% trans.) (kVA)	835.38
Transcient dip (4/4 load) - PF : 0,8 AR (%)	11
No load losses (W)	4449.02
Heat rejected to ambient air (kW)	17.61
Unbalanced load acceptance ratio (%)	100

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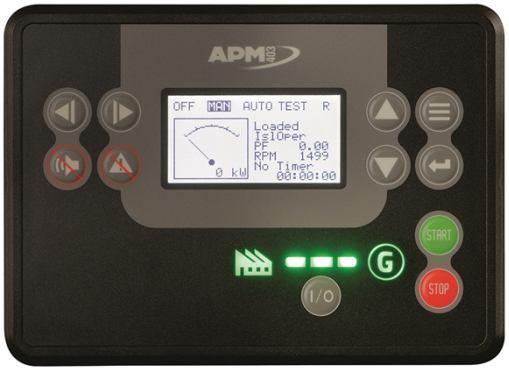
CONTROL PANEL

APM403, basic generating set and power plant control



The APM403 is a versatile control unit which allows operation in manual or automatic mode
Measurements : voltage and current
kW/kWh/kVA power meters
Standard specifications: Voltmeter, Frequency meter.
Optional : Battery ammeter.
J1939 CAN ECU engine control
Alarms and faults: Oil pressure, Coolant temperature, Overspeed, Start-up failure, alternator min/max, Emergency stop button.
Engine parameters: Fuel level, hour counter, battery voltage.
Optional (standard at 24V): Oil pressure, water temperature.
Event log/ Management of the last 300 genset events.
Mains and genset protection
Clock management
USB connections, USB Host and PC,
Communications : RS485 INTERFACE
ModBUS protocol /SNMP
Optional : Ethernet, GPRS, remote control, 3G, 4G, Websupervisor, SMS, E-mails