

Model: P2030D5

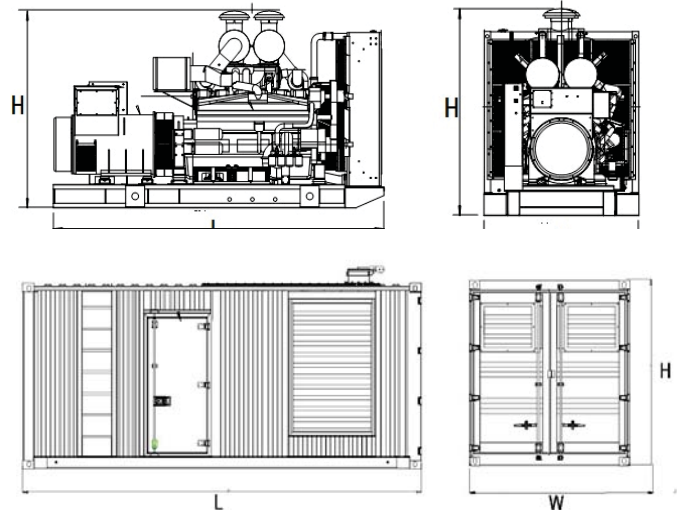
Powered by PERKINS

Output Rating

MODEL		Power rating		Voltage available		
		PRIME(1)	STANDBY(2)			
P2030D5	400V/50HZ	1476KW	1624KW	380/220V	400/230V	415/240V
	PF:0.8	1845KVA	2030KVA			

General Information

Model	P2030D5		
Engine	4016TAG1A		
Speed control type	Electronic		
Phase	3		
Control System	Digital		
System voltage	12V/24V		
Frequency	50HZ		
Engine Speed(RPM)	1500		
Fuel Consumption L/hr	Standby power(2)	424	
	Prime Power(1)	383	
	75% prime power	277	
	50% prime power	185	



Dimension and Weight

Dimension	Open	Silent
Length (L)	5962mm	12192mm
Width (W)	2128mm	2438mm
Height (H)	2522mm	2896mm
Net Weight	10800KG	NA

AGG POWER gensets are compliant with EC mark 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) Prime Power (PRP):

According to ISO 8528-1:2005, Prime power is the maximum power which a generating set is capable of delivering continuously whilst supplying a variable electrical load when operated for an unlimited number of hours per year under the agreed operation conditions with the maintenance intervals and procedures being carried out as prescribed by the manufacturer. The permissible average power output (Ppp) over 24h of operation shall not exceed 70% of the PRP.

(2) Standby Power (ESP):

According to ISO 8528-1:2005, standby power is the maximum power available during a variable electrical power sequence, under the stated operation conditions, for which a generating set is capable of delivering in the event of a utility power outage or under test conditions for up to 200h of operation per year with the maintenance intervals and procedures being carried out as prescribed by the manufacturers. The permissible average power output over 24h of operation shall not exceed 70% of the ESP.



Engine Specification

Basic technical data

Number of cylinders ... 16
 Cylinder arrangement ... 60° Vee
 Cycle ... 4 stroke, compression ignition
 Induction system... Turbocharged
 Compression ratio... 13.6:1 nominal
 Bore... 160 mm
 Stroke ... 190 mm
 Cubic capacity... 61.123 litres
 Direction of rotation... Anti-clockwise viewed on flywheel
 Firing order ... 1^A, 1^B, 3^A, 3^B, 7^A, 7^B, 5^A, 5^B, 8^A, 8^B, 6^A, 6^B, 2^A, 2^B, 4^A, 4^B
 Cylinder 1 furthest from flywheel
 Cylinders designated A are on the left side of the engine when viewed from front (opposite end to flywheel)
 Total weight Electrounit (engine only) ... (dry) 5570 kg
 ... (wet) 5847 kg

Cooling system

Recommended coolant: 50% inhibited ethylene glycol or 50% inhibited propylene glycol and 50% clean fresh water. For combined heat and power systems and where there is no likelihood of ambient temperature below 10 °C then clean 'soft' water may be used, treated with 1% by volume of Perkins inhibitor in the cooling system. The inhibitor is available in bottles under Perkins Part No. OE 45350 (1 litre).
 Maximum jacket water pressure in crankcase ... 1.7 bar
 The following is a guide based on ambient air conditions of 52 °C on a Perkins supplied radiator
 Total coolant capacity:
 Electrounit (engine only) ... 95 litres
 Electropak (engine/radiator)... 316 litres
 Pressure cap setting ... 0.69 bar
 Fan ... Incorporated in radiator
 Diameter ... 1905 mm (Pusher)
 Ambient Cooling Clearance (Open Electropak Prime power) based on air temp at fan 3 °C above ambient.

Lubrication system

Recommended lubricating oil to conform with the specification of APICD or CCMCD4
 Lubricating oil capacity:
 Sump maximum ... 213 litres
 Sump minimum... 157 litres
 Lubricating oil temperature maximum to bearings ... 105 °C
 Lubricating oil pressure:
 at 80 °C temperature to bearing gallery (minimum) ... 0.34 MPa

Exhaust system

Maximum back pressure for total system

Designation	Units	1500 rev/min	1800 rev/min
4016TAG1A	mmH ₂ O	949	-
4016TAG2A	mmH ₂ O	673	-

Exhaust outlet flange size ... 2 x 254 mm (Table 'D')
 Recommended pipe sizes Refer to Installation Manual.

4016TAG1A

Maximum additional restriction (duct allowance) to cooling airflow (Prime power) and resultant minimum airflow					
Ambient Clearance 50% glycol		Duct Allowance mm H ₂ O		Min airflow m ³ /min	
rev/min		rev/min		rev/min	
1500	1800	1500	1800	1500	1800
52 °C	-	17	-	2394	-

General installation 4016TAG1A

Designation	Units	50Hz 1500 rev/min			60Hz 1800 rev/min		
		Continuous Baseload	Prime Power	Standby Maximum	Continuous Baseload	Prime Power	Standby Maximum
Gross engine power	kWb	-	1588	1741	-	-	-
Fan power	kWm	51			-		
Net engine power	kWm	-	1537	1690	-	-	-
BMEP gross	bar	-	20.8	22.8	-	-	-
Combustion air flow	m ³ /min	-	132	140	-	-	-
Exhaust gas temperature max (after turbo)	°C	439			-		
Exhaust gas flow max (after turbo)	m ³ /min	343			-		
Boost pressure ratio	-	-	3.30	3.50	-	-	-
Mechanical efficiency	%	-	91	92	-	-	-
Overall thermal efficiency	%	-	41	41	-	-	-
Friction power and pumping losses	kWm	160			-		
Mean piston speed	m/s	9.5			-		
Engine coolant flow (min)	l/s	19			-		
Typical Genset Electrical Output 0.8pf 25 °C (100kPa)	kVA	-	1844	2028	-	-	-
	kWe	-	1476	1622	-	-	-
Assumed alternator efficiency	%	96			-		



▪ Alternator

Alternator		
Poles	Num	4
Winding Connections (standard)		Star-serie
Insulation	Class	H class
Enclosure (according IEC-34-5)		IP23
Exciter System		Brushless
Voltage Regulator		A.V.R.
Bearing		Single bearing
Coupling		Flexible disc
Coating type		Standard (Vacuum impregnation)

▪ Options

Engine	Alternator	Generator Sets	Fuel System	Canopy
<ul style="list-style-type: none"> •Water Jacket Preheater •Oil Preheater 	<ul style="list-style-type: none"> •Winding Temperature measuring Instrument •Alternator Preheater •PMG •Anti-damp and anti-corrosion treatment •Anti-condensation heater 	<ul style="list-style-type: none"> •Tools with the machine 	<ul style="list-style-type: none"> • Low fuel level alarm •Automatic fuel feeding system •Fuel T-valves 	<ul style="list-style-type: none"> •Rental Type Canopy •Trailer
Lubricating System	Exhaust System	Cooling System	Control Panel	Voltages
<ul style="list-style-type: none"> •Oil with the machine 	<ul style="list-style-type: none"> •Protection board from hotness 	<ul style="list-style-type: none"> • Front heat protection • Coolant (-30°C) 	<ul style="list-style-type: none"> •Remote control panel • ATS • Remote controller • Synchronizing controller 	<ul style="list-style-type: none"> • 415/240V • 380/220V • 220/127V • 220/127V • 200-115V



■ **Control Panel: AMF20**



Benefits

- Less wiring and components
- Integrated solution
- Less engineering and programming
- Perfect price/performance ratio

Features

- Support of engines equipped with Electronic Control Unit (J1939 interface)
- Comprehensive diagnostic messages; SPN/FMI codes; KWP2000 support
- Automatic or manual start/stop of the gen-set
- Push buttons for simple control, lamp test
- Graphic back-lit LCD display 128x64 pixels
- 6 LED indicators
- Parameters adjustable via keyboard or PC
- Generator C.B. and Mains C.B. control with feedback and return timer
- RS232 interface (AT-LINK CONV cable is necessary for IL-AMF 20)
- Modem communication support (IL-AMF 25 only)
- Dimensions 180x120 mm (front panel)
- Sealed to IP65

- Mains measurements (50/60 Hz): U1-U3, Hz
- Generator measurements (50/60 Hz): U1-U3, I1-I3, Hz, kW, kVAr, kWh
- Selectable protections alarm/shutdown
- 3 phase Generator protections
 - Over-/under voltage
 - Over-/under frequency
 - Current/voltage asymmetry
 - Overcurrent/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

The Chart of Functions of IntelLite[®] Controllers

FUNCTIONS/CONTROLLERS	IL-AMF 20	IL-AMF 25	IL-MRS 10	IL-MRS 15	IL-MRS 11	IL-MRS 16
Binary inputs/outputs	7 / 7	7 / 7	6 / 6	6 / 6	6 / 6	6 / 6
Analog inputs	3	3	3	3	3	3
Pick-up	•	•	•	•	•	•
AMF function	•	•	-	-	-	-
Input configuration	•	•	•	•	•	•
Output configuration	•	•	•	•	•	•
Voltage measurement Gen./Mains	3ph / 3ph	3ph / 3ph	3ph / -	3ph / -	3ph / -	3ph / -
Current measurement	3ph	3ph, IDMT overcurrent	3ph	3ph, IDMT overcurrent	3ph	3ph, IDMT overcurrent
kW/kWh measurement	• / -	• / •	• / -	• / •	• / -	• / •
GCB/MCB control with feedback	• / •	• / •	- / -	- / -	• / -	• / -
Extension units (periph.)	-	IGL-RA15, IG-IOM, IGS-PTM	-	IGL-RA15, IG-IOM, IGS-PTM	-	IGL-RA15, IG-IOM, IGS-PTM
Communication interfaces	RS232 ²⁾	RS232, CAN ³⁾	RS232 ²⁾	RS232, CAN ³⁾	RS232 ²⁾	RS232, CAN ³⁾
Modem support	-	•	-	•	-	•
Battery charging alternator circuit	•	•	•	•	•	•

Key: • included; - excluded
 1) GCB control, but without feedback
 2) For IL-AMF 20, IL-MRS 10/11 AT-LINK CONV cable necessary
 3) CAN for periph.

Legend: IG-IOM/IGS-PTM: I/O extension modules
 IGL-RA15: Remote annunciator
 I-RD: Remote display

