

## **PRECISION**

# INDUSTRIES ®

PI 9.9P/50Hz PI 12.4P/60Hz

## THE POWER OF DUBAI

Output Power Ratings		Prime	<u>*</u>	Standby**		
rpm	Frequency	Voltage	Kva	kW	Kva	kW
1500	50Hz	400	9.0	7.2	9.9	7.9
1800	60Hz	480	11.3	9.0	12.4	9.9

The above KW ratings are at 0.8 pf

Guarantied within conditions equivalent to those specified in ISO 8528-1, ISO 3046-1 and BS 5514-1.

Engine Technical Data				
Engine Make and Model	Perkins 403A-11G1 / Perkins 403D-11G			
Cylinders	3 Vertical In-Line			
Aspiration	Naturally Aspirated			
Combustion System	Indirect Injection			
Displacement	1.131 liters			
Governor	Mechanical			
Emissions Regulations	EU stage IIIA & US EPA Tier 4			
Electrical Starting System	12 Volt Starter Motor And 12 Volt 15 Amp Alternator With DC Output			

Air Systems					
Air Filter Type		Dry Element (Replaceable)			
Combustion Air Flow m³/min (cfm)	Prime	50 Hz	60 Hz		
		0.7 (24.72)	0.9 (31.78)		
	Standby	0.7 (24.72)	0.9 (31.78)		
Maximum Air Filter Intake Restriction		6.4 kPa	6.4 kPa		

Fuel System					
Fuel Filter Type		Split Element (Replaceable)	Split Element (Replaceable)		
Recommended Fu	el	Class A2 Diesel			
	Engine Speed	1500 rpm	1800 rpm		
Fuel	Standby	2.9 (0.77)	3.6 (0.95)		
Consumption	Prime Power	2.6 (0.69)	3.0 (0.79)		
I/hr (US gal/hr)	%75 of Prime Power	2.0 (0.53)	2.3 (0.61)		
	%50 of Prime Power	1.5 (0.40)	1.7 (0.45)		
Fuel Tank Capacity: Open / Close		97 L / 114 L			

Lubrication System				
Lube Oil	API- CH4- or ACEA E5 SAE 15W°10-) 40 C to °50 C Ambient Temperature)			
Lube Oil Capacity	4.9 L			
Oil Pan	3.4 L			
Oil Filter Type	Spin-On Full Flow			
Oil Cooling Method	N/A			

Cooling System					
Coolant Capacity	5.2 L				
Cooling System	Mounted Radiator, Water Cooled	Mounted Radiator, Water Cooled			
Cooling Fan Air Flow m <sup>3</sup> /min (cfm)	40.2 (1419)	45.0 (1589)			
	50 Hz	60 Hz			
Heat Radiation to Room Prime	1.7 KW	2.6 kW			
Standby	2.5 KW	3.1 KW			

Exhaust System					
	Grade	Industrial			
Silencer	Size	2"			
	Qty	1			
Exhaust Gas Flow	Prime	1.66 (58.62)	2.21 (78.04)		
m³/min (cfm)	Standby	1.80 (63.56)	2.40 (84.75)		
Maximum Allowable Backp	ressure	10.2 kPa	10.2 kPa		
Exhaust Gas Maximum		50 Hz	60 Hz		
Temp	Prime Standby	368°C	437°C		
remp		420°C	515°C		

Alternator Technical Data	Stamfo	ord						
Model Number								
No. of Poles	4							
Number of Terminals (Leads)	12							
A.V.R. & Excitation	AS480							
Regulation	%1±							
Ingress Protection	IP23							
Insulation Class	Н	Н						
TIF	<50							
THD at Full Load %	5%							
THD at No Load %	1.5%							
Cooling Air Flow- @ 50 Hz m <sup>3</sup> /min (cfm)	6.6 (233)							
Cooling Air Flow- @ 60 Hz m <sup>3</sup> /min (cfm)	8.1 (286)							
Output Voltages	50Hz				60Hz			
V	380	400	415	440	415	440	460	480
kVA	11	11	11	10.5	12.1	12.9	13.3	13.8
kW	8.8	8.8	8.8	8.4	9.7	10.3	10.6	11.0











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Controller Features	DSE 4520 or Eq.			
Controller Make and Model	Auto Mains Failure (AMF) applications including remote communication , User configuration and complete gen-set monitoring and protection. Ready for generators with 3 ph 4 wires / 3 ph 3 wires / Mono ph			
Engine Protections	Oil pressure     Coolant temperature	<ul><li>Fuel level (Optional)</li><li>Coolant level</li></ul>		
Generator Protections	Over / Under voltage     Over/Under frequency     Phases Sequence	Over current     Charging Alternator Fault		
Inputs and Outputs	<ul><li>3 No's Configurable analog inputs</li><li>4 No's binary inputs</li></ul>	<ul><li>4 No's binary outputs</li><li>D + Pre-Excitation terminal</li></ul>		
Event and Performance Log	Gen-set text alarm log For More Features We Can Use Higher Controller	Engine hours history log		

Genset Enclosure Specification (Optional)				
Enclosure Type	Acoustic and Weather Proof			
Anticorrosive Protection	Polyester Powder Coated Galvanized Sheet			
Access Doors	4			
Drainage	Fuel & Water Drainage Provision			
Transportation	Tested Single Point Lifting Facility & Forklift Pockets			
Noise Level (@ Free-Field Conditions)	66 dBA @ 7 meter			
Water Fill	Radiator Water Filling Provision			
Cable Access	Cable Inlet and Outlet Provision			
Emergency Stop	External Emergency Push Button			
Canopy RAL Color	RAL 2000			
Chassis RAL Color	RAL 9011			

Shipping Data							
Туре	Length (mm)	Width (mm)	Height (mm)	Weight (kg)			
Open	1624	750	1220	340			
Enclosed	2212	912	1402	637			

#### Notes:

\*Prime power rating of the generating set is where a variable load and unlimited hours usage are applied on the generating set with an average load factor of 80% of the prime rating over each 24 hour period. Noting that a 10% overload is available for 1 hour in every 12 hours operation

\*\*Standby power rating of the generating set is where a variable load limited to an annual usage upto 500 hours is applied, with 300 hours of which may be continuous running. Noting that no overload is permitted

All generators carry a one year or (1000) hours' manufacturer's warranty

In line with our policy of continuous development, PI reserves the right to change specification without notice



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