



# PRECISION INDUSTRIES®

PI 220P/50Hz  
PI 269P/60Hz THE POWER OF DUBAI

Output Power Ratings			Prime*		Standby**		
rpm	Frequency	Voltage	Kva	kW	Kva	kW	
1500	50Hz	400	200	160	220	176	
1800	60Hz	480	245	196	269	215	

Generator speed @ 1500/1800 rpm

The above KW ratings are at 0.8 pf  
Guaranteed within conditions equivalent to those specified in ISO 8528-1, ISO 3046-1 and BS 5514-1.

Engine Technical Data	
Engine Make and Model	<b>Perkins 1506A-E88TAG1</b>
Cylinders	6 Vertical In-Line
Aspiration	Turbo Charged Air-to-Air Charge Cooled
Combustion System	Direct Injection
Displacement	8.8 liters
Governor	Electronic
Emissions Regulations	EU Stage II
Electrical Starting System	24 Volt Starter Motor And 24V 45 Amp Alternator With DC Output

Air Systems		
Air Filter Type	Dry Paper Element (Replaceable)	
Combustion Air Flow m <sup>3</sup> /min (cfm)	50 Hz	60 Hz
	Prime	TBD
	Standby	TBD
Maximum Air Filter Intake restriction	6.0kPa	TBD

Fuel System			
Fuel Filter Type	Spin-On With Pre-Filter (Replaceable)		
Recommended Fuel	Class A2 Diesel		
Fuel Consumption l/hr (US gal/hr)	Engine speed	1500 rpm	1800 rpm
	Standby	51.5 (13.60)	TBD
	Prime Power	48.6 (12.83)	TBD
	%75 of Prime Power	35.7 (9.43)	TBD
	%50 of Prime Power	23.5 (6.20)	TBD
Fuel Tank Capacity: Open / Close	405 L / 435 L		

Lubrication System	
Lube Oil	API-CH4/ CG4 or ACEA E3 SAE 15W-40 (-10 C to +50 C Ambient Temperature)
Lube Oil Capacity	41.0 L
Oil Pan	36.0 L
Oil Filter Type	Full Flow Spin-on (Replaceable)
Oil Cooling Method	Water

Cooling System		
Coolant Capacity	29.6 L	
Cooling System	Mounted Radiator, Water Cooled	
Cooling fan air flow m <sup>3</sup> /min (cfm)	270	TBD
	50 Hz	60 Hz
	Prime	TBD
Heat Radiation to Room	Standby	TBD

Exhaust System			
Silencer	Grade	Industrial	
	Size	4"	
	Qty	1	
Exhaust Gas Flow m <sup>3</sup> /min (cfm)	Prime	34.4 (1214.8)	TBD
	Standby	35.7 (1260.7)	TBD
Maximum allowable backpressure	10.0 kPa	10.0 kPa	
Exhaust Gas Maximum Temp	50 Hz	60 Hz	
	Prime	TBD	
Standby	475°C	TBD	

Alternator Technical Data		Mecc alte / or Equivalent							
Model Number	ECO38-2SN/4 or (ECO38-3SN/4 for 60hz)								
No. of Poles	4								
Number of Terminals (Leads)	12								
A.V.R. & Excitation	DSR								
Regulation	± 1.0 %								
Ingress Protection	IP-21								
Insulation Class	H								
TIF	< 40								
THD at Full Load %	2.6/2.7								
THD at No Load %	2.9/3.0								
Cooling Air Flow- @ 50 Hz m <sup>3</sup> /min (cfm)	1130.06) 32)								
Cooling Air Flow- @ 60 Hz m <sup>3</sup> /min (cfm)	1377.27) 39)								
Output Voltages	50Hz				60Hz				
V	380	400	415	440	415	440	460	480	
kVA	200	200	200	190					
Kw	160	160	160	152	TBD	TBD	TBD	TBD	
Alternator Performance Data									
Reactance (f.l.l.f)	Xd %	221.6	200	185.8	157.0				
	Xd'%	12.2	11.0	10.2	8.6				



Made in UAE



ISO 9001 : 2008 Certified



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	Xd"%	6.5	5.9	5.5	4.6			
Motor Starting Capability Based on %30 voltage dip and 0.8 PF (kVA)		400	490	600	-			

Controller Features	ComAp – AMF9 / DSE (Optional)
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	<ul style="list-style-type: none"> <li>Oil pressure</li> <li>Coolant temperature</li> <li>Fuel level (Optional)</li> <li>Coolant level (Optional)</li> </ul>
Generator Protections	<ul style="list-style-type: none"> <li>Over / Under voltage</li> <li>Over/Under frequency</li> <li>Phases Sequence</li> <li>Over current</li> <li>Charging Alternator Fault</li> </ul>
Inputs and Outputs	<ul style="list-style-type: none"> <li>3 No's Configurable analog inputs</li> <li>4 No's binary inputs</li> <li>6 No's binary outputs</li> <li>D + Pre-Excitation terminal</li> </ul>
Event and Performance Log	<ul style="list-style-type: none"> <li>Gen-set text alarm log</li> <li>For More Features We Can Use Higher Controller</li> <li>Engine hours history log</li> </ul>

Genset Enclosure Specification (optional)	
Enclosure Type	Acoustic and Weather Proof
Anticorrosive Protection	Polyester Powder Coated Galvanized Sheet
Access Doors	6
Drainage	Fuel & Water Drainage Provision
Transportation	Tested Single Point Lifting Facility & Forklift Pockets
Noise Level (@Free-Field Conditions)	73 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				
Type	Length (mm)	Width (mm)	Height (mm)	Weight (kg)
Open	2760	900	1560	1560
Enclosed	3592	1155	1832	2201

#### 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

**PRECISION**  
**INDUSTRIES**®

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GENSETS