



PRECISION INDUSTRIES®

PI 450P/50Hz THE POWER OF DUBAI
PI 438P/60Hz

| Output Power Ratings | | | Prime* | | Standby* | | |
|----------------------|-----------|---------|--------|-----|----------|-----|--|
| rpm | Frequency | Voltage | Kva | kW | Kva | kW | |
| 1500 | 50Hz | 400 | 400 | 320 | 450 | 360 | |
| 1800 | 60Hz | 480 | 400 | 320 | 438 | 350 | |

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 | Perkins 2206A-E13TAG3 |
| Cylinders | 6 Vertical In-Line |
| Aspiration | Turbo Charged and Air-To-Air Charge Cooled |
| Combustion System | Direct Injection |
| Displacement | 12.5liters |
| Governor | Electronic |
| Emissions Regulations | Non-Compliant |
| Electrical Starting System | 24 Volt Starter Motor And 24 Volt 70 Amp Alternator With DC Output |

| Air Systems | |
|--|----------------------------|
| Air Filter Type | Paper Element(Replaceable) |
| Combustion Air Flow m ³ /min (cfm) | 50 Hz |
| | 60 Hz |
| Prime Standby | 858.14) 24.3) |
| | 932.30) 26.4) |
| Maximum Air Filter Intake Restriction | 967.62) 27.4) |
| | 1024.12) 29.0) |
| Maximum Air Filter Intake Restriction | 6.4 kPa |

| Fuel System | |
|--------------------------------------|----------------------|
| Fuel Filter Type | Ecoplus(Replaceable) |
| Recommended Fuel | Class A2 Diesel |
| Fuel Consumption l/hr (US gal/hr) | Engine Speed |
| | 1500 rpm |
| | 1800 rpm |
| | Standby |
| | 23.8) 90) |
| Prime Power | 23.0) 87) |
| | 21.4) 81) |
| %75 of Prime Power | 21.4) 81) |
| | 16.4) 62) |
| %50 of Prime Power | 16.4) 62) |
| | 11.1) 42) |
| Fuel Tank Capacity: Open / Close | 11.4) 43) |
| Fuel Tank Capacity: Open / Close | 690 L / 690 L |

| Lubrication System | |
|--------------------|---|
| Lube Oil | API-C14, SAE 15W-40 (-*10 C to *50 C Ambient Temperature) |
| Lube Oil Capacity | 40 L |
| Oil Pan | 38 L |
| Oil Filter Type | Full-Flow Ecoplus (Replaceable) |
| Oil Cooling Method | Water |

| Cooling System | |
|---|--------------------------------|
| Coolant Capacity | 51.4 L |
| Cooling System | Mounted Radiator, Water Cooled |
| Cooling Fan Air Flow m ³ /min (cfm) | 23095.79) 654) |
| | 27827.96) 788) |
| Heat Radiation to Room | 50 Hz |
| | 60 Hz |
| Prime Standby | 34.0 kW |
| | 40.3kW |
| Prime Standby | 39.8kW |
| | 49.6kW |

| Exhaust System | |
|---|----------------|
| Silencer | Grade |
| | Industrial |
| | Size |
| Exhaust Gas Flow m ³ /min (cfm) | 6" |
| | Qty |
| | 1 |
| Exhaust Gas Flow m ³ /min (cfm) | Prime |
| | 2281.32) 64.6) |
| Maximum Allowable Backpressure | Standby |
| | 2560.31) 72.5) |
| Exhaust Gas Maximum Temp | 10 kPa |
| | 10 kPa |
| Prime Standby | 50 Hz |
| | 60 Hz |
| Prime Standby | 630°C |
| | 660°C |
| Prime Standby | 630°C |
| | *660C |

| Alternator Technical Data | | Stamford | | | | | | | |
|---|---|-------------|-----|-----|-----|------|-----|-----|-----|
| Model Number | | HCI444F | | | | | | | |
| No. of Poles | | 4 | | | | | | | |
| Number of Terminals (Leads) | | 12 | | | | | | | |
| A.V.R. & Excitation | | AS440 | | | | | | | |
| Regulation | | ±1% | | | | | | | |
| Ingress Protection | | IP-23 | | | | | | | |
| Insulation Class | | H | | | | | | | |
| Total Harmonic TGH / THC | | < %2 | | | | | | | |
| TIF | | <50 | | | | | | | |
| Cooling Air Flow- @ 50 Hz m ³ /min (cfm) | | 48.0 (1700) | | | | | | | |
| Cooling Air Flow- @ 60 Hz m ³ /min (cfm) | | 59.4 (2100) | | | | | | | |
| Output Voltages | | 50Hz | | | | 60Hz | | | |
| | V | 380 | 400 | 415 | 440 | 416 | 440 | 460 | 480 |
| kVA | | 400 | 400 | 400 | 400 | 455 | 480 | 500 | 500 |
| Kw | | 328 | 328 | 328 | 328 | 364 | 384 | 400 | 400 |



Made in UAE



ISO 9001 : 2008 Certified



THE POWER OF DUBAI

PI 450P/50Hz

PI 438P/60Hz

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

| 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 Double Point Lifting Facility & Forklift Pockets |
| Noise Level (@Free-Field Conditions) | 75 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 | 3515 | 1250 | 2204 | 3097 |
| Enclosed | 5012 | 1670 | 2447 | 3890 |

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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GPS: 25° 7' 50" N , 55° 14' 53" E



GENSETS