



HIPOWER

HFW SERIES

Power Range

kW

kVA

Standby

247 - 255

309 - 319

Prime

220 - 227

275 - 284

MODEL:

HFW - 250 T6

STANDARD EQUIPMENT

| Open Type Set | Accessories Available for HFW-250 T6 |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> ■ Skid with integral day fuel tank (non-UL) ■ HIPOWER digital auto-start control panel (Page 4) ■ Dry-type replaceable element air-cleaner ■ Industrial muffler ■ Battery, battery rack, and cables ■ Fuel and lubrication oil replaceable element filters ■ Stamford AVR brushless 12-wire reconnectable alternator ■ Oil drain hand pump ■ Vibration Isolators between base and set assembly ■ Main Line Circuit Breaker for overload protection ■ Belt driven charging alternator ■ Guards for shielding all rotating parts ■ Fuel cut-off solenoid and protection switches ■ Radiator with pusher fan ■ Operation and installation manuals | <p style="text-align: center;"><u>Mechanical Accessories Offered</u></p> <ul style="list-style-type: none"> ■ Road towing trailers to DOT standards ■ Critical grade exhaust mufflers ■ UL double wall fuel tanks to customer specification ■ Oil field type skid ■ Flexible exhaust connection for open sets ■ Oil pressure and engine temperature gauges ■ Extended warranty coverage above the standard one year <p style="text-align: center;"><u>Generator End Accessories Offered</u></p> <ul style="list-style-type: none"> ■ PMG excitation for enhanced motor-starting ■ Anti-condensation heaters in alternator <p style="text-align: center;"><u>Electrical and Control Accessories Offered</u></p> <ul style="list-style-type: none"> ■ Automatic battery chargers 5 and 10 amp ■ NFPA 110 controls and remote annunciator ■ Analog instrumentation in lieu of digital ■ Transfer switch and paralleling control panels ■ Water Jacket Heater ■ Remote control from PC via hard and/or wireless link ■ GPS for mobile sets ■ Digital Timer |
| <p style="text-align: center;">Sound Attenuated Enclosure</p> <ul style="list-style-type: none"> ■ Fully sound attenuated enclosure (equipped as open set) ■ Powder Painted with finish that exceeds 1000-hr salt test ■ Rock wool insulation behind protective barrier ■ Curved edges and minimum outside fasteners ■ Single lifting point | |

GENERATOR RATINGS

| Alternator | Voltage | Ph | Hz | Standby Rating | | Prime Rating | |
|------------|-----------|----|----|----------------|------|--------------|------|
| | | | | kW/kVA | Amps | kW/kVA | Amps |
| HCI 444D | 120 / 208 | 3 | 60 | 247 / 309 | 859 | 220 / 275 | 764 |
| | 127 / 220 | 3 | 60 | 251 / 314 | 825 | 224 / 280 | 736 |
| | 120 / 240 | 3 | 60 | 247 / 309 | 744 | 220 / 275 | 662 |
| | 139 / 240 | 3 | 60 | 255 / 319 | 768 | 227 / 284 | 684 |
| | 277 / 480 | 3 | 60 | 255 / 319 | 384 | 227 / 284 | 342 |
| | 347 / 600 | 3 | 60 | 255 / 319 | 307 | 227 / 284 | 274 |

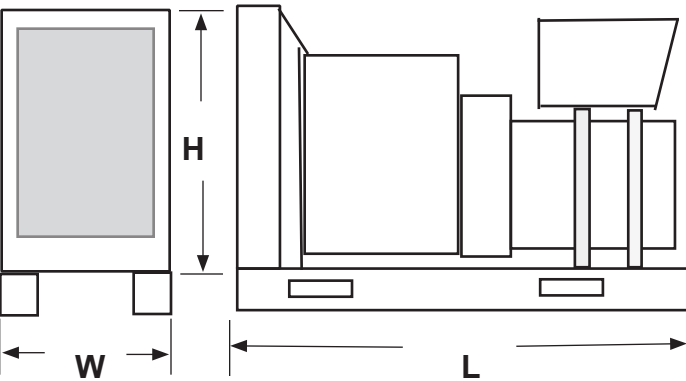
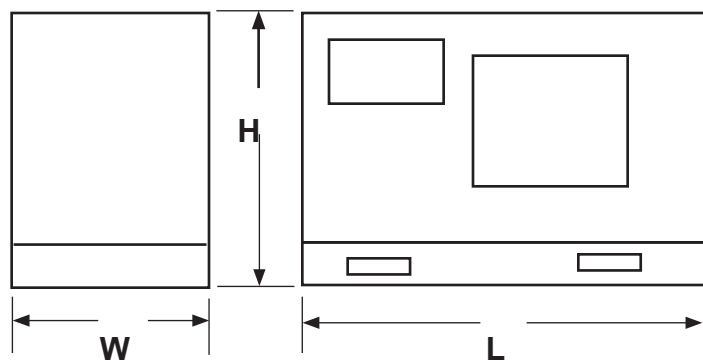
Application Data

| Alternator Specifications | | Engine Mechanical Specifications | |
|---------------------------------------------------------------|----------------------------------------------------------|--------------------------------------------|------------------------------------|
| Manufacturer | Newage Stamford | Manufacturer | Fiat Powertrain Technologies |
| Type | 4-pole, rotating field | Engine model | CURSOR 87 TE1D |
| Exciter type | Brushless, self excited. (PMG option) | Engine type | 4-cycle, Turbocharged After-cooled |
| Leads: quantity, type | 12, reconnectable | Cylinder arrangement | 6 in line |
| Voltage regulator | Solid state, volts/Hz and excitation overload protection | EPA Certification : | TIER 3 |
| Insulation: | | Displacement, L (cu. in.) | 8.7 (531) |
| Material..... | Class H | Bore and stroke, mm (in.) | 117 x 135 (4.61 x 5.32) |
| Temperature rise..... | 150° C , standby | Compression ratio | 16.5 : 1 |
| Bearing: quantity, type | Single bearing sealed | Piston speed, m/min. (ft./min.) | 486 (1,596) |
| Coupling | Flexible disc | Main bearings: quantity, type | 7, replaceable insert |
| Amortisseur Windings | Full | Rated rpm | 1,800 |
| Voltage regulation, no-load to full load | ± 1.0% (with PMG) ± 1.5% (with Self Excited) | Max. power at rated rpm, kWm (BHP) | 290 (389) |
| Unbalanced load capability | 100% of rated standby current | BMEP, gross, psi (Bar) | 322 (22.2) |
| Load acceptance | Per ISO - 8528 | Overall thermal efficiency | 40.8 |
| Peak motor starting kVA: | (30% dip) | Exhaust Gas Flow, m³ /min (cfm) | 55.5 (1,959) |
| 480 V | self-excited series 4 - 780 kVA | Exhaust gas temperature °C (°F) | 500 (932) |
| 480 V | PMG series. 3 - 940 kVA | | |
| Engine Electrical Specifications | | Frequency regulation, no-load to full load | 0.25% |
| Engine Electrical System (24 Volt) 60 Hz | | Governor: Type: | Electronic |
| Battery charging alternator: | | Make: | Bosch EDC7 |
| Ground (negative/positive). | Negative | Standard: | ISO 3046-4 Class A1 |
| Volts (DC)..... | 28V | Frequency regulation, steady state | ± 0.50% |
| Ampere rating..... | 90A | Frequency | Fixed |
| Starter motor rated voltage (DC) | 24V | Air cleaner type | Dry |
| Starter motor rated kW: | 4.5Kw | | |
| Battery CCA rating: | 1200A | | |
| Battery & qty, AH rating: | 2 x 185AH | | |
| Battery Voltage (DC) | 24V | | |
| Remote Radiator System | | Fuel Consumption 60 Hz | |
| Exhaust manifold type | | Diesel gal/hr (L/hr) | Standby Rating |
| Connection sizes: | | 100% | 18.7 (70.8) |
| Water inlet ID hose, mm (in) | | 75% | 15.0 (56.6) |
| Water outlet ID hose, mm (in) | | 50% | 11.2 (42.5) |
| Charge air cooling (CAC) | Not Available | 25% | 5.6 (21.3) |
| Water inlet ID hose, mm (in) | | Diesel gal/hr (L/hr) | Prime Power Rating |
| Water outlet ID hose, mm (in) | | 100% | 17.8 (67.3) |
| Static head allowable above engine, ft.H ² O (kPa) | | 75% | 14.2 (53.8) |
| Maximum CAC restriction H ² O in. | | 50% | 10.7 (40.4) |
| Contact the HIPOWER distributor for special cooling options | | 25% | 5.3 (20.2) |

Application Data

| Cooling | | Lubrication | |
|---------------------------------------------------------------------------------------------------|--------------------|----------------------------------------------------------|----------------|
| Radiator Systems | 60 Hz | Lubricating System | 60 Hz |
| Ambient temperature, °C (°F) | 50 (122) | Type | Full pressure |
| Engine jacket water capacity L (gal) | 15 (4.0) | Oil pan capacity, L, (qt.) | 28.0 (29.6) |
| Radiator system capacity, including engine, L (gal.) | 63 (16.6) | Recommended lube oil | ACEA E3-E5 |
| Engine jacket water flow, L/min (g/min) | 283 (76.1) | Oil pan capacity with filter, L (qt.) | 28 (29.6) |
| Heat rejected to cooling water at rated kW, dry exhaust, kW (Btu/min.) | 119.7 (6,808) | Oil filter: quantity, type | 2, Cartridge |
| Heat rejected to charge cooler at rated kW, dry exhaust, kW (Btu/min.) | 63.7 (3,625) | Oil cooler | Oil to Water |
| Water pump type | Centrifugal | Maximum oil temperature, °C(°F) | 120 (248) |
| Fan, kWm (HP) | 10.0 (13.4) | Ventilation and Air-Flow Requirements | |
| Max. restriction of cooling air, intake and discharge side of radiator, Pa (in. H ² O) | 61.25 (0.25) | Air Requirements | 60 Hz |
| dB(A) LEVEL SOUND ATTENUATED ENCLOSED | 71 dB(A) @ 23 feet | Radiator-cooled cooling air, m ³ /min. (scfm) | 435 (15,362) |
| | | Air density kg/m ³ (lbm/ft ³) | 1.20 (0.075) |
| | | Heat rejected to exhaust, kW (btu/min) | 225.0 (12,811) |
| | | Heat radiated to surrounding air Engine: kW(btu)/m | 18.5 (1,055) |
| | | Combustion air, m ³ /min. (cfm) | 20.8 (735) |

Dimensions and Weights

| Open Skid Model | | Sound Attenuated Enclosure | |
|-------------------------------------------------------------------------------------|------------------------------------------------|--------------------------------------------------------------------------------------|------------------------------------------------|
| Overall size, L x W x H, mm (ins.) | 3,125 x 1,060 x 2,160 (123.0 x 41.7 x 85.0) | Overall size, L x W x H, mm (ins.) | 3,800 x 1,400 x 2,105 (149.6 x 55.1 x 82.9) |
| Weight, radiator-mounted model, wet, kg (lb.): | 2,435 (5,368) | Weight, radiator-mounted model, wet, kg (lb.): | 2,935 (6,471) |
| Fuel Tank Capacity, L (US gal) | 445 (117.6) | Fuel Tank Capacity, L (US gal) | 445 (117.6) |
|  | |  | |

NOTE: The drawings above are only representative of the overall dimensions. For full detailed installation drawings please consult your local distributor or contact Himoina Power Systems @ www.hipowersystems.com

RATINGS: Power factor three-phase is 0.8 and single-phase unity. Standby Ratings: Standby ratings assume installation normally served by reliable utility power. The standby rating is available for varying loads for the length of the power outage. No overload is available with the standby rating. Ratings are in accordance with ISO-3046/1 and DIN 6271. Prime Power Ratings: Prime power ratings assume no or unreliable utility power. For varying loads the generator set has unlimited operating hours. A 10% overload capacity is available for any 1 hour in a 12 hour continuous running period. Ratings are in accordance with ISO-3046/1 and DIN 6271. Consult Himoina for limited running time and base load ratings. Himoina reserves the right to change the design or specifications without notice and without any obligation or liability whatsoever. DERATION GUIDELINES: Altitude: Derate 1.3% per 100 m (328 ft) elevation above 1000 m (3280 ft). Temperature: Derate 1.0% per 10°C (18°F) temperature above 40°C (104°F).



CONTROLLER DISPLAY :

1. Voltage between each Phase & Neutral
2. Voltage between Phases
3. Current (amps) on each Phase
4. Frequency
5. Active, Aparent & Reactive Power
6. Power Factor
7. Instant Power (KWH) and Accumulative power (day, month & year)
8. Fuel reserve
9. Oil pressure, coolant temperature
10. Battery voltage, battery charging alternator voltage
11. Engine Speed
12. Hours running

ENGINE ALARMS :

1. High coolant temperature
2. Low oil pressure
3. Emergency stop

4. Battery charging alternator failure
5. Low coolant level
6. Low fuel level
7. Over speed
8. Under speed
9. Battery low voltage

GENERATOR ALARMS :

1. Over-load
2. Unbalanced voltage
3. Over-voltage
4. Under-voltage
5. Over-frequency
6. Under-frequency
7. Short-circuit
8. Inverse Power
9. Incorrect phase sequence

Distributor:

