HIPOWER

HPW SERIES

Power Range	kW	kVA
Standby	56.9	71.1
Prime	51.1	63.9

MODEL: HPW - 50 T6

STANDARD EQUIPMENT

Open Type Set

- 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

Sound Attenuated Enclosure

- 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

Accessories Available for HPW-50 T6

Mechanical Accessories Offered

- 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

Generator End Accessories Offered

- PMG excitation for enhanced motor-starting
- Anti-condensation heaters in alternator

Electrical and Control Accessories Offered

- 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

GENERATOR RATINGS

				Standby Rating		Prime Rating	
Alternator	Voltage	Ph	Hz	kW/kVA	Amps	kW/kVA	Amps
	120 / 208	3	60	56.4 / 70.6	195	51.3 / 64.1	178
	127 / 220	3	60	56.4 / 70.6	185	51.3 / 64.1	168
	139 / 240	3	60	56.4 / 70.6	170	51.3 / 64.1	154
UCI 224 F	277 / 480	3	60	56.9 / 71.1	86	51.1 / 63.9	77
	347 / 600	3	60	56.9 / 71.1	68	51.6 / 64.6	62
	120 / 240	1	60	56.7 / 56.7	236	51.3 / 51.3	213

Application Data

Alternator Specifications

Manufacturer	Newage Stamford
Type	4-pole, rotating field
Exciter type	Brushless, self excited. (PMG option)
Leads: quantity, type	12, reconnectable
Voltage regulator	Solid state, volts/Hz and excitation overload protection
Insulation: Material..... Temperature rise.....	 Class H 150° C , standby
Bearing: quantity, type	Single bearing sealed
Coupling	Flexible disc
Amortisseur Windings	Full
Voltage regulation, no-load to full load	± 1.0% (with PMG) ± 1.5% (with Self Excited)
Unbalanced load capability	100% of rated standby current
Load acceptance	Per ISO - 8528
Peak motor starting kVA: 480 V 480 V	(30% dip) self-excited series 4 - 132 kVA PMG series. 3 - 150 kVA

Engine Mechanical Specifications

Manufacturer	Perkins
Engine model	1104D 44TG1
Engine type	4-cycle, Turbocharged
Cylinder arrangement	4 in line
EPA Certification for :	TIER 3
Displacement, L (cu. in.)	4.4 (269)
Bore and stroke, mm (in.)	105 x 127 (4.1 x 5.0)
Compression ratio	18.2 : 1
Piston speed, m/min. (ft./min.)	457 (1,500)
Main bearings: quantity, type	5, replaceable insert
Rated rpm	1,800
Max. power at rated rpm, kWm (BHP)	58 (78)
BMEP, gross, psi (Bar)	140.7 (9.7)
Overall thermal efficiency	33.0%
Exhaust Gas Flow, m³ /min (cfm)	13.7 (484)
Exhaust gas temperature °C (°F)	571 (1,060)
Frequency regulation, no-load to full load	0.25%
Governor: Type: Make: Standard:	Electronic Isochronous Perkins ECU ISO 8528 class G3
Frequency regulation, steady state	± 0.5%
Frequency	Fixed
Air cleaner type	Dry

Engine Electrical Specifications

Engine Electrical System (12 Volt) 60 Hz

Battery charging alternator: Ground (negative/positive). Volts (DC)..... Ampere rating.....	 Negative 12V 65A
Starter motor rated voltage (DC)	12V
Starter motor rated kW: Battery CCA rating: Battery & qty, AH rating:	3.0 Kw 810A 1 x 90AH
Battery Voltage (DC)	12V

Remote Radiator System

Exhaust manifold type	Not Available
Connection sizes:	
Water inlet ID hose, mm (in)	
Water outlet ID hose, mm (in)	
Charge air cooling (CAC)	
Water inlet ID hose, mm (in)	
Water outlet ID hose, mm (in)	
Static head allowable above engine, ft.H²O (kPa)	
Maximum CAC restriction H²O in.	

Contact the HIPOWER distributor for special cooling options

Fuel Consumption 60 Hz

Diesel gal/hr (L/hr)	Standby Rating
100%	4.9 (18.7)
75%	3.8 (14.4)
50%	2.7 (10.1)
25%	1.6 (5.9)

Diesel gal/hr (L/hr)	Prime Power Rating
100%	4.4 (16.6)
75%	3.4 (12.8)
50%	2.4 (9.0)
25%	1.4 (5.2)

Application Data

Cooling

Radiator Systems	60 Hz
Ambient temperature, °C (°F)	46 (115)
Engine jacket water capacity L (gal)	7.0 (1.8)
Radiator system capacity, including engine, L (gal.)	16.5 (4.4)
Engine jacket water flow, L/min (g/min)	151 (39.9)
Heat rejected to cooling water at rated kW, dry exhaust, kW (Btu/min.)	46.1 (2,622)
Water pump type	Centrifugal
Fan, kWm (HP)	1.1 (1.5)
Max. restriction of cooling air, intake and discharge side of radiator, Pa (in. H²O)	62.2 (0.25)
dB(A) LEVEL SOUND ATTENUATED ENCLOSED	64 dB(A) @ 23 feet

Lubrication

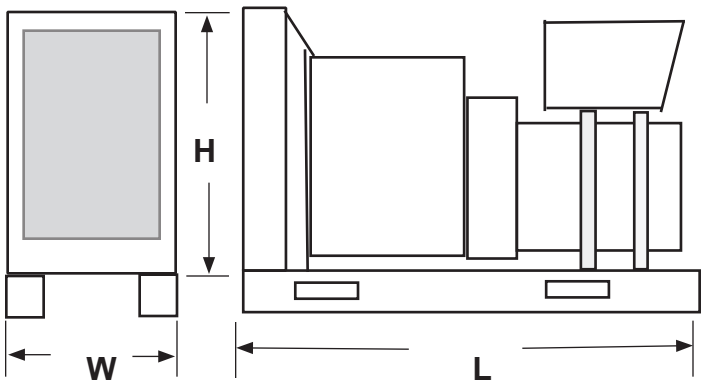
Lubricating System	60 Hz
Type	Full pressure
Oil pan capacity, L, (qt.) Recommended lube oil	6.9 (7.3) 15W40 API CH4
Oil pan capacity with filter, L (qt.)	8.4 (8.9)
Oil filter: quantity, type	1, cartridge
Oil cooler Maximum continuous oil temperature, ºC(ºF)	None 125 (257)

Ventilation and Air-Flow Requirements

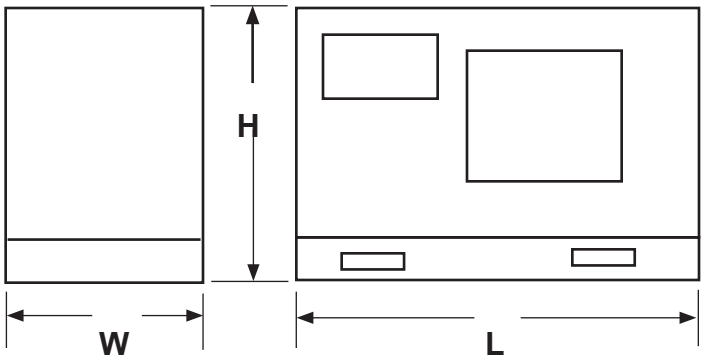
Air Requirements	60 Hz
Radiator-cooled cooling air, m³/min. (scfm)	98.2 (3,468)
Air density kg/m³ (ibm/ft³)	1.20 (0.075)
Heat rejected to exhaust, kW (btu/min)	66.9 (3,805)
Heat radiated to surrounding air Engine: kW (Btu)	13.1 (745)
Combustion air, m³/min. (cfm)	5.3 (187)

Dimensions and Weights

Open Skid Model	
Overall size, L x W x H, mm (ins.)	1,950 x 780 x 1,352
	(76.8 x 30.7 x 53.2)
Weight, radiator-mounted model, wet, kg (lb.):	880 (1,940)
Fuel Tank Capacity, L (US gal)	145 (38.3)



Sound Attenuated Enclosure	
Overall size, L x W x H, mm (ins.)	2,250 x 1,050 x 1,450
	(88.6 x 41.3 x 57.1)
Weight, radiator-mounted model, wet, kg (lb.):	1,305 (2,877)
Fuel Tank Capacity, L (US gal)	75 (19.8)



NOTE: The drawings above are only representative of the overall dimensions. For full detailed installation drawings please consult your local distributor or contact Himoinsa 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 continous running period. Ratings are in acoordance with ISO-3046/1 and DIN 6271. Consult Himoinsa for limited running time and base load ratings. Himoinsa 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 10ºC (18ºF) temperature above 40ºC (104ºF).

HIPOWER CEM6 Autostart Digital Controller

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

MEMBER EGSA Electrical Generating Systems Association

Distributor:

ISO 9001

HIPOWER

Himoinsa Power Systems, Inc. ▪ 16210 West 110th Street, Lenexa, KS 66219 ▪ Tel: 913-495-5557 ▪ Fax: 913-495-5575
www.hipowersystems.com