



# HP SERIES

Power Range	kW	kVA
Standby	470 - 513	587 - 641
Prime	460 - 464	575 - 580

## MODELS:

HP - 513

HP - 513

### STANDARD EQUIPMENT

Open Set Model: HP-513	Accessories Available for HP-513
<ul style="list-style-type: none"> <li>■ Skid with integral day fuel tank (non-UL)</li> <li>■ Deep Sea 5210 digital auto-start control panel</li> <li>■ Dry-type replaceable element air-cleaner</li> <li>■ Industrial muffler</li> <li>■ Battery, battery rack, and cables</li> <li>■ Fuel and lubrication oil replaceable element filters</li> <li>■ Stamford AVR brushless 12-wire reconnectable alternator</li> <li>■ Oil drain hand pump</li> <li>■ Vibration Isolators between base and set assembly</li> <li>■ Main Line Circuit Breaker for overload protection</li> <li>■ Belt driven charging alternator</li> <li>■ Guards for shielding all rotating parts</li> <li>■ Fuel cut-off solenoid and protection switches</li> <li>■ Radiator with pusher fan</li> <li>■ Operation and installation manuals</li> </ul>	<p style="text-align: center;"><u>Mechanical Accessories Offered</u></p> <ul style="list-style-type: none"> <li>■ Weather protective canopy (for Open Set)</li> <li>■ Road towing trailers to DOT standards</li> <li>■ Critical grade exhaust mufflers</li> <li>■ UL double wall fuel tanks to customer specification</li> <li>■ Oil field type skid</li> <li>■ Flexible exhaust connection for open sets</li> <li>■ Oil pressure and engine temperature gauges</li> <li>■ Extended warranty coverage above the standard one year</li> </ul> <p style="text-align: center;"><u>Generator End Accessories Offered</u></p> <ul style="list-style-type: none"> <li>■ PMG excitation for enhanced motor-starting</li> <li>■ Anti-condensation heaters in alternator</li> </ul> <p style="text-align: center;"><u>Electrical and Control Accessories Offered</u></p> <ul style="list-style-type: none"> <li>■ Automatic battery chargers 5 and 10 amp</li> <li>■ NFPA 110 controls and remote annunciator</li> <li>■ Analog instrumentation in lieu of digital</li> <li>■ Transfer switch and paralleling control panels</li> <li>■ Water Jacket Heater</li> <li>■ Remote control from PC via hard and/or wireless link</li> <li>■ GPS for mobile sets</li> <li>■ Digital Timer (Auto-start sets only)</li> </ul>
<p style="text-align: center;"><b>Sound Attenuated Set Model: HP-513</b></p> <ul style="list-style-type: none"> <li>■ Fully sound attenuated enclosure (equipped as open set)</li> <li>■ Powder Painted with finish that exceeds 1000-hr salt test</li> <li>■ Rock wool insulation behind protective barrier</li> <li>■ Curved edges and minimum outside fasteners</li> <li>■ Single lifting point</li> </ul>	

### GENERATOR RATINGS

Alternator	Voltage	Ph	Hz	Standby Rating		Prime Rating	
				kW/kVA	Amps	kW/kVA	Amps
HCI 544D	120 / 208	3	60	470 / 587	1,633	460 / 575	1,596
	127 / 220	3	60	500 / 625	1,642	462 / 577	1,514
	120 / 240	3	60	470 / 587	1,415	460 / 575	1,383
	139 / 240	3	60	513 / 641	1,543	464 / 580	1,395
	277 / 480	3	60	513 / 641	772	464 / 580	698
	347 / 600	3	60	513 / 641	617	464 / 580	558

## Application Data

Alternator Specifications		Engine Mechanical Specifications	
Manufacturer	Newage Stamford	Manufacturer	Perkins
Type	4-pole, rotating field	Engine model	2806C E16TAG1
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 2
Insulation:		Displacement, L (cu. in.)	15.8 (964)
Material.....	Class H	Bore and stroke, mm (in.)	140 x 171 (5.51 x 6.73)
Temperature rise.....	150° C , standby	Compression ratio	15.9 : 1
Bearing: quantity, type	Single bearing sealed	Piston speed, m/min. (ft./min.)	615.6 (2,020)
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)	562.7 (754)
Unbalanced load capability	100% of rated standby current	BMEP, gross, psi ( Bar )	345.2 (23.8)
Load acceptance	Per ISO - 8528	Overall thermal efficiency	39.3%
Peak motor starting kVA:	(30% dip)	Exhaust Gas Flow, m <sup>3</sup> /min (cfm)	110.2 (3,892)
480 V	self-excited series 4 - 1440 kVA	Exhaust gas temperature °C (°F)	430 (806)
480 V	PMG series. 3 - 1750 kVA		
Engine Electrical Specifications		Frequency regulation, no-load to full load	0.25%
Engine Electrical System (24 Volt) 60 Hz		Governor: Type:	Electronic Isochronous
Battery charging alternator:		Make:	Perkins
Ground (negative/positive).	Negative	Standard:	ISO 3046-4 class A1
Volts (DC).....	24V	Frequency regulation, steady state	± 0.25%
Ampere rating.....	70A	Frequency	Fixed
Starter motor rated voltage (DC)	24V	Air cleaner type	Dry
Starter motor rated kW:	7.7 Kw		
Battery CCA rating:	1400A		
Battery & qty, AH rating:	2 x 128AH		
Battery Voltage (DC)	24V		
Remote Radiator System		Fuel Consumption 60 Hz	
Exhaust manifold type		Diesel gal/hr (L/hr)	Standby Rating
Connection sizes:		100%	34.6 (130.78)
Water inlet ID hose, mm (in)		75%	26.3 (99.41)
Water outlet ID hose, mm (in)		50%	19.4 (73.33)
Charge air cooling (CAC)	Not Available	25%	10.4 (39.31)
Water inlet ID hose, mm (in)		Diesel gal/hr (L/hr)	Prime Power Rating
Water outlet ID hose, mm (in)		100%	30.6 (115.66)
Static head allowable above engine, ft.H <sup>2</sup> O (kPa)		75%	23.2 (87.69)
Maximum CAC restriction H <sup>2</sup> O in.		50%	17.2 (65.00)
Contact us for special cooling options		25%	9.2 (34.77)

## Application Data

Cooling		Lubrication	
Radiator Systems	60 Hz	Lubricating System	60 Hz
Ambient temperature, °C (°F)	46 (115)	Type	Full pressure
Engine jacket water capacity L (gal)	TBA	Oil pan capacity, L, (qt.) Recommended lube oil	60.0 (63.4) API CG-4
Radiator system capacity, including engine, L (gal.)	50 (13.2)	Oil pan capacity with filter, L (qt.)	68.0 (71.9)
Engine jacket water flow, L/min (g/min)	372 (98.3)	Oil filter: quantity, type	1, cartridge
Heat rejected to cooling water at rated kW, dry exhaust, kW (Btu/min.)	180.0 (10,239)	Oil cooler Normal oil temperature, °C(°F)	Oil to water 95 (203)
Heat rejected to charge cooler at rated kW, dry exhaust, kW (Btu/min.)	153.0 (8703)	<b>Ventilation and Air-Flow Requirements</b>	
Water pump type	Centrifugal	Air Requirements	60 Hz
Fan, kWm (HP)	20.9 (28.0)	Radiator-cooled cooling air, m³/min. (scfm)	882 (31,148)
Max. restriction of cooling air, intake and discharge side of radiator, Pa (in. H²O)	62.2 (0.25)	Air density kg/m³ (ibm/ft³)	1.20 (0.075)
dBA LEVELS SOUND ATTENUATED ENCLOSED	Within (under) 70dBA @ 21 feet	Heat rejected to exhaust, kW (btu/min)	416.7 (23,703)
		Heat radiated to surrounding air Engine: kW (Btu)	27.8 (1,581)
		Combustion air, m³/min. (cfm)	450 (1,589)

## Dimensions and Weights

Open Set Model: HP-513		Sound Attenuated Set Model: HP-513	
Overall size, L x W x H, mm (ins.)	4,000 x 1,300 x 2,320 (157.5 x 51.2 x 91.33)	Overall size, L x W x H, mm (ins.)	4,500 x 1,800 x 2,440 (177.16 x 70.8 x 96.06)
Weight, radiator-mounted model, wet, kg (lb.):	3,803 (8,384)	Weight, radiator-mounted model, wet, kg (lb.):	5,275 (11,605)
Fuel Tank Capacity, L (US gal)	1,000 (264.5)	Fuel Tank Capacity, L (US gal)	800 (211.6)
			