



# Perkins RENTAL SERIES

Power Range	kW	kVA
Standby	123 - 178	123 - 222.5
Prime	123 - 161	123 - 201

**MODEL: HPW - 180R**

### STANDARD EQUIPMENT

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>■ Heavy duty steel, fully sound-attenuated enclosure</li> <li>■ Powder Painted with finish that exceeds 1000-hr salt test</li> <li>■ Fired-proof Rock wool insulation</li> <li>■ Key Lockable doors</li> <li>■ Fuel tank with full spill containment</li> <li>■ Single lifting point</li> <li>■ Stainless steel hardware</li> <li>■ Residential muffler built into enclosure</li> <li>■ Oil drain pump</li> </ul> | <ul style="list-style-type: none"> <li>■ Radiator pusher fan with full guarding</li> <li>■ Dry type air-cleaner, fuel filter, and lube oil filter</li> <li>■ 68 dBA at 23 feet @ full prime load</li> <li>■ 12 volt starter motor and charging alternator</li> <li>■ Battery, battery rack, and cables</li> <li>■ Digital auto start control panel (see page 4)</li> <li>■ 3 position voltage selector switch</li> <li>■ Adjustable Main line circuit breaker</li> <li>■ Class H, brushless Newage alternator</li> </ul> |
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### OPTIONAL EQUIPMENT

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|---|---|
| <ul style="list-style-type: none"> <li>■ Road towing trailers to DOT standards</li> <li>■ Double wall Sub-base fuel tanks in lieu of standard</li> <li>■ Oil Field Skid base for dragging</li> <li>■ Sensor for leakage inside containment base</li> <li>■ 2 way valve for quick connection to external fuel source</li> <li>■ Different colors for volume orders. (Standard color is Off-white paint)</li> <li>■ Extended warranty period</li> </ul> | <ul style="list-style-type: none"> <li>■ Automatic battery charger 5 amps</li> <li>■ Water Jacket heater</li> <li>■ Kw reading</li> <li>■ Twist lock and duplex receptacles with GFI</li> <li>■ GPS for mobile sets</li> <li>■ Anti-condensation heaters in generator</li> <li>■ PMG excitation system</li> </ul> |
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### GENERATOR RATING

Alternator	Voltage	Ph	Hz	Standby Rating		Prime Rating	
				kW/kVA	Amps	kW/kVA	Amps
UCI 274G	120 / 208	3	60	170 / 212.5	590	160.7 / 200.8	558
	277 / 480	3	60	178 / 222.5	277	161 / 201	243
	120 / 240	3	60	170 / 212.5	512	160.7 / 200.8	484
	120 / 240	1	60	123 / 123	512	123 / 123	512
		HP	KW	SKVA			
Maximum Motor Starting		179	133.6	1,128.6			

Motor starting is based on a 35% voltage dip at 480VAC 3Ph 60hz with a code G motor

## Application Data GEHPW-180R

Alternator Specifications		Engine Mechanical Specifications	
Manufacturer	Newage Stamford	Manufacturer	Perkins
Type	4-pole, rotating field	Engine model	1106D E66TAG4
Exciter type	Brushless, self excited.	Engine type	4-cycle, Turbocharged, Air to Air Aftercooled
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.)	6.6 (403)
Material.....	Class H	Bore and stroke, mm (in.)	105 x 127 (4.1 x 5.0)
Temperature rise.....	150° C , standby	Compression ratio	16.3 : 1
Bearing: quantity, type	Single bearing sealed	Piston speed, m/min. (ft./min.)	457 (1,500)
Coupling	Flexible disc	Main bearings: quantity, type	7, replaceable insert
Amortisseur Windings	Full	Rated rpm	1,800
Voltage regulation, no-load to full load	± 1.5%	Max. power at rated rpm, kWm (BHP)	204.3 (274.0)
Unbalanced load capability	100% of rated standby current	BMEP, gross, psi ( Bar )	299.5 (20.7)
Load acceptance	Per ISO - 8528	Overall thermal efficiency	37%
Peak motor starting kVA: 480 V	(30% dip) self-excited series - 730kVA PMG - 920kVA	Exhaust Gas Flow, m <sup>3</sup> /min (cfm)	34.5 (1,218)
<b>Engine Electrical Specifications</b>		Exhaust gas temperature °C (°F)	677 (1,251)
		Frequency regulation, no-load to full load	0.25%
Engine Electrical System (12 Volt) 60 Hz		Governor: Type:	Electronic Isochronous
Battery charging alternator:		Make:	Perkins
Ground (negative/positive).	Negative	Standard:	ISO 8528 Class G3
Volts (DC).....	12V	Frequency regulation, steady state	± 0.5%
Ampere rating.....	100A	Frequency	Fixed
Starter motor rated voltage (DC)	12V	Air cleaner type	Dry
Starter motor rated kW:	3.0Kw	<b>Remote Radiator System</b>	
Battery CCA rating:	TBA	<b>Fuel Consumption 60 Hz</b>	
Battery & qty, AH rating:	TBA		
Battery Voltage (DC)	12V		
		Diesel gal/hr (L/hr)	Prime Power Rating
		100%	13.4 (51.0)
		75%	10.9 (41.2)
		50%	8.62 (32.6)
Not Available		25%	5.3 (20.1)
		Unit autonomy (hours)	
		100%	15
		75%	18
		50%	22
		Contact the HIMOINSA distributor for special cooling options	

## Application Data GEHPW-180R

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)	9.5 (2.5)	Oil pan capacity, L, (qt.)	15.5 (16.4)
Radiator system capacity, including engine, L (gal.)	TBA	Recommended lube oil	API CH-4/CI-4
Engine jacket water flow, L/min (g/min)	216 (57.1)	Oil pan capacity with filter, L (qt.)	16.5 (17.4)
Heat rejected to cooling water at rated kW, dry exhaust, kW (Btu/min.)	TBA	Oil filter: quantity, type	1, cartridge
Heat rejected to charge cooler at rated kW, dry exhaust, kW (Btu/min.)	TBA	Oil cooler	Oil to water
Water pump type	Centrifugal	Normal oil temperature, °C (°F)	125 (257)
Fan, kWm (HP)	12.0 (16.1)	<b>Ventilation and Air-Flow Requirements</b>	
Max. restriction of cooling air, intake and discharge side of radiator, Pa (in. H <sup>2</sup> O)	62.2 (0.25)	Air Requirements	60 Hz
dBA LEVELS SOUND ATTENUATED ENCLOSED      Within (under) 70dBA @ 21 feet		Radiator-cooled cooling air, m <sup>3</sup> /min. (scfm)	TBA
		Air density kg/m <sup>3</sup> (ibm/ft <sup>3</sup> )	1.20 (0.075)
		Heat rejected to exhaust, kW (btu/min)	TBA
		Heat radiated to surrounding air Engine: kW (Btu)	TBA
		Combustion air, m <sup>3</sup> /min. (cfm)	13.2 (466)

## Dimensions and Weights

### Sound Attenuated Set Model: GEHPW-180R

Skid mounted unit. L x W x H, mm (in)	3,300 x 1,200 x 2,055
	(130.0 x 47.3 x 81.0)
Skid mounted dry Weight, kg (lb.):	3,079 (6,774)
Skid mounted operating Weight, kg (lb.):	3,727 (8,200)
Trailer mounted unit. L x W x H, mm (in)	4,750 x 1,778 x 2,568
	(187 x 70 x 101.1)
Trailer mounted dry Weight, Kg (lb.)	3,665 (8,064)
Trailer mounted operating Weight, Kg (lb.)	4,313 (9,490)
20 hour Fuel Tank Capacity, L (US gal) :	750 (198)

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 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 10°C (18°F) temperature above 40°C (104°F).

# HIMOINSA 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



## Distributor:

