



# Yanmar RENTAL SERIES

Power Range	kW	kVA
Standby	31 - 44	31 - 55
Prime	31 - 40	31 - 50

**MODEL: HYW - 45R**

### STANDARD EQUIPMENT

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| <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>■ Dry type air-cleaner, fuel filter, and lube oil filter</li> <li>■ 65 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>■ Twist lock and duplex receptacles with GFI</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 readings</li> <li>■ GPS for mobile sets</li> <li>■ Electronic engine governor</li> <li>■ Anti-condensation heater in generator</li> </ul> |
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### GENERATOR RATING

Alternator	Voltage	Ph	Hz	Standby Rating		Prime Rating	
				kW/kVA	Amps	kW/kVA	Amps
BCI 184J	120 / 208	3	60	41.6 / 52	145	38 / 47.5	132
	277 / 480	3	60	44 / 55	66	40 / 50	60
	120 / 240	3	60	41.6 / 52	125	38 / 47.5	114
	120 / 240	1	60	31 / 31	129	31 / 31	129
		HP	KW	SKVA			
Maximum Motor Starting		19.4	14.5	122.2			

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

## Application Data GEHWY-45R

Alternator Specifications		Engine Mechanical Specifications	
Manufacturer	Newage Stamford	Manufacturer	Yanmar
Type	4-pole, rotating field	Engine model	4TNV98T
Exciter type	Brushless, self excited.	Engine type	4-cycle, Naturally aspirated
Leads: quantity, type	12, reconnectable	Cylinder arrangement	4 in line
Voltage regulator	Solid state, volts/Hz and excitation overload protection	EPA Certification :	TIER 2
Insulation:		Displacement, L (cu. in.)	3.32 (203)
Material.....	Class H	Bore and stroke, mm (in.)	98 x 110 (3.86 x 4.33)
Temperature rise.....	150° C , standby	Compression ratio	18.1 : 1
Bearing: quantity, type	Single bearing sealed	Piston speed, m/min. (ft./min.)	395.9 (1299)
Coupling	Flexible disc	Main bearings: quantity, type	5, 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)	51.0 (68.4)
Unbalanced load capability	100% of rated standby current	BMEP, gross, psi ( Bar )	148.5 (10.24)
Load acceptance	Per ISO - 8528	Overall thermal efficiency	35.4%
Peak motor starting kVA: 480 V	(30% dip) self-excited series - 100kVA	Exhaust Gas Flow, m <sup>3</sup> /min (cfm)	15.0 (530.3)
		Exhaust gas temperature °C (°F)	580 (1076)
<b>Engine Electrical Specifications</b>		Frequency regulation, no-load to full load	4.5%
Engine Electrical System (12 Volt) 60 Hz		Governor: Type:	Mechanical
Battery charging alternator:		Make:	Yanmar
Ground (negative/positive).	Negative	Standard:	
Volts (DC).....	12V	Frequency regulation, steady state	± 0.4%
Ampere rating.....	40A	Frequency	Fixed
Starter motor rated voltage (DC)	12V	Air cleaner type	Dry
Starter motor rated kW:	2.3Kw		
Battery CCA rating:	770A		
Battery & qty, AH rating:	1 x 70 AH		
Battery Voltage (DC)	12V		
<b>Remote Radiator System</b>		<b>Fuel Consumption 60 Hz</b>	
Exhaust manifold type		Diesel gal/hr (L/hr)	Prime Power Rating
Connection sizes:		100%	3.43 (13.0)
Water inlet ID hose, mm (in)		75%	2.74 (10.4)
Water outlet ID hose, mm (in)		50%	2.06 (7.8)
Charge air cooling (CAC)	<b>Not Available</b>	25%	1.20 (4.5)
Water inlet ID hose, mm (in)		<b>Unit autonomy (hours)</b>	
Water outlet ID hose, mm (in)		100%	24
Static head allowable above engine, ft.H <sub>2</sub> O (kPa)		75%	30
Maximum CAC restriction H <sub>2</sub> O in.		50%	39
Contact the HIMOINSA distributor for special cooling options			

## Application Data GEHYW-45R

Cooling		Lubrication	
Radiator Systems	60 Hz	Lubricating System	60 Hz
Ambient temperature, °C (°F)	NA	Type	Full pressure
Engine jacket water capacity L (gal)	4.2 (1.1)	Oil pan capacity, L, (qt.)	10.5 (11.1)
Radiator system capacity, including engine, L (gal.)	NA	Recommended lube oil	SAE15W40 ; API CF-4
Engine jacket water flow, L/min (g/min)	50 (13.2)	Oil pan capacity with filter, L (qt.)	NA
Heat rejected to cooling water at rated kW, dry exhaust, kW (Btu/min.)	24.4 (1388)	Oil filter: quantity, type	1, cartridge
Water pump type	Centrifugal	Oil cooler	None
Fan, kWm (HP)	0.4 (0.5)	Maximum oil temperature, °C(°F)	120 (248)
Max. restriction of cooling air, intake and discharge side of radiator, Pa (in. H <sup>2</sup> O)	62.2 (0.25)	<b>Ventilation and Air-Flow Requirements</b>	
dBA LEVELS SOUND ATTENUATED ENCLOSED	Within (under) 70dBA @ 21 feet	Air Requirements	60 Hz
		Radiator-cooled cooling air, m <sup>3</sup> /min. (scfm)	NA
		Air density kg/m <sup>3</sup> (ibm/ft <sup>3</sup> )	1.20 (0.075)
		Heat rejected to exhaust, kW (btu/min)	42.2 (2400)
		Heat radiated to surrounding air Engine: kW (Btu)	6.6 (375)
		Combustion air, m <sup>3</sup> /min. (cfm)	2.69 (95.2)

## Dimensions and Weights

Sound Attenuated Set Model: GEHYW-45R	
Skid mounted unit. L x W x H, mm (in)	2,250 x 1050 x 1,600
	(88.5 x 41.3 x 63)
Skid mounted dry Weight, kg (lb.):	1,231 (2,708)
Skid mounted operating Weight, kg (lb.):	1,500 (3,302)
Trailer mounted unit. L x W x H, mm (in)	3,733 x 1,625 x 2,011
	(147 x 64 x 79.2)
Trailer mounted dry Weight, Kg (lb.)	1,559 (3,431)
Trailer mounted operating Weight, Kg (lb.)	1,829 (4,025)
Fuel Tank Capacity, L (US gal) :	312 (82)

**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).

# 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:

