

# **HYW** SERIES

Power Range kW
Standby 22
Prime 20

KW

A Standby 22

Output Description: A Standby 20

Standby 20

STANDARD EQUIPMENT			
Open Type Set	Accessories Available for HYW-25 M6		
■ Skid with integral day fuel tank (non-UL)	Mechanical Accessories Offered		
■ HIPOWER digital auto-start control panel (Page 4)	■ Road towing trailers to DOT standards		
■ Dry-type replaceable element air-cleaner	■ Critical grade exhaust mufflers		
■ Industrial muffler	■ UL double wall fuel tanks to customer specification		
■ Battery, battery rack, and cables	■ Oil field type skid		
■ Fuel and lubrication oil replaceable element filters	■ Flexible exhaust connection for open sets		
■ Stamford AVR brushless 12-wire reconnectable alternator	Oil pressure and engine temperature gauges		
■ Oil drain hand pump	■ Water Jacket heater		
■ Vibration Isolators between base and set assembly	■ Extended warranty coverage period		
■ Main Line Circuit Breaker for overload protection			
■ Belt driven charging alternator	Generator End Accessories Offered		
<ul> <li>Guards for shielding all rotating parts</li> </ul>	■ Anti-condensation heaters in alternator		
■ Fuel cut-off solenoid and protection switches			
<ul><li>Radiator with pusher fan</li></ul>	Electrical and Control Accessories Offered		
Operation and installation manuals	■ Automatic battery chargers 1.5 and 6 amp		
Sound Attenuated Enclosure	■ NFPA 110 controls and remote annunciator		
■ Fully sound attenuated enclosure (equipped as open set)	■ Transfer switch and paralleling control panels		
■ Powder Painted with finish that exceeds 1000-hr salt test	■ Remote control from PC via hard and/or wireless link		
<ul> <li>Rock wool insulation behind protective barrier</li> </ul>	■ Digital Timer		
■ Curved edges and minimum outside fasteners			
■ Single lifting point			

### **GENERATOR RATINGS**

				Standby Rating		Prime Rating	
Alternator	Voltage	Ph	Hz	kW	Amps	kW	Amps
UCI 224 C	120 / 240	1	60	22	91.6	20	83

## **Application Data**

Alternator S	pecifications	Engine Mechanical Specifications		
Manufacturer	Newage Stamford	Manufacturer	Yanmar	
Туре	4-pole, rotating field	Engine model	4TNV84T	
Exciter type	Brushless, self excited.	Engine type	4-cycle, Turbocharged	
Leads: quantity, type	12, reconnectable	Cylinder arrangement	4 in line	
Voltage regulator	Solid state, volts/Hz and excitation overload protection	EPA Certification :	TIER 3	
Insulation:  Material  Temperature rise	Class H 125° C , standby	Displacement, L (cu. in.)  Bore and stroke, mm (in.)	2.0 (122) 84 x 90 (3.31 x 3.54)	
Bearing: quantity, type	Single bearing sealed	Compression ratio	18.9 : 1	
Coupling	Flexible disc	Piston speed, m/min. (ft./min.)	324 (1063)	
Amortisseur Windings	Full	Main bearings: quantity, type	5, replaceable insert	
Voltage regulation, no-load to full load	± 1.5%	Rated rpm	1,800	
Unbalanced load capability	100% of rated standby current	Max. power at rated rpm, kWm (BHP)	27.7 (37.1)	
Load acceptance	Per ISO - 8528	BMEP, gross, psi ( Bar )	134 (9.26)	
Peak motor starting kVA: 480 V	(30% dip) self-excited series - 61 kVA	Overall thermal efficiency	35.4%	
Engine Electrical Specifications		Exhaust Gas Flow, m³ /min (cfm) Exhaust gas temperature °C (°F)	7.96 (281.2) 560 (1040)	
Engine Electrical S	Engine Electrical System (12 Volt) 60 Hz		4.5 %	
Battery charging alternator: Ground (negative/positive). Volts (DC) Ampere rating	Negative V A	Governor: Type: Make: Standard:	Mechanical Yanmar	
Starter motor rated voltage (DC)	V	Frequency regulation, steady state	±0.4%	
Starter motor rated kW: Battery CCA rating: Battery & qty, AH rating:	Kw A x AH	Frequency	Fixed	
Battery Voltage (DC)	12V	Air cleaner type	Dry	
Remote Ra	diator System	Fuel Consumption 60 Hz		
Exhaust manifold type		Diesel gal/hr (L/hr)	Standby Rating	
Connection sizes:		100%	2.06 (7.8)	
Water inlet ID hose, mm (in)		75%	1.65 ( 6.2)	
Water outlet ID hose, mm (in)		50%	1.24 (4.7)	
Charge air cooling (CAC)	Not Available	25%	0.72 (2.7)	
Water inlet ID hose, mm (in)	110t/Wallable	Diesel gal/hr (L/hr)	Prime Power Rating	
Water outlet ID hose, mm (in)		100%	1.87 (7.1)	
Static head allowable above engine, ft.H²O (kPa)		75%	1.50 (5.7)	
Maximum CAC restriction H <sup>2</sup> O in.		50%	1.12 (4.2)	
Contact the HIPOWER distri	butor for special cooling options	25%	0.65 (2.5)	

### **Application Data**

Cooling		Lubrication		
Radiator Systems	60 Hz	Lubricating System	60 Hz	
Ambient temperature, °C (°F)	NA	Туре	Full pressure	
Engine jacket water capacity L (gal)	3.2 (0.85)	Oil pan capacity, L, (qt.) Recommended lube oil	7.4 (7.8) SAE15W40 ; API CF-4	
Radiator system capacity, including engine, L (gal.)	NA	Oil pan capacity with filter, L (qt.)	NA	
Engine jacket water flow, L/min (g/min)	34 (9.0)	Oil filter: quantity, type	1, cartridge	
Heat rejected to cooling water at rated kW, dry exhaust, kW (Btu/min.)	19.0 (1081)	Oil cooler Maximum oil temperature, °C(°F)	Oil to water 120 (248)	
Water pump type	Centrifugal	Ventilation and Air-Flow Requirements		
Fan, kWm (HP)	0.8 (1.1)	Air Requirements	60 Hz	
		Radiator-cooled cooling air, m³/min. (scfm)	NA	
		Air density kg/m³ (ibm/ft³)	1.20 (0.075)	
Max. restriction of cooling air, intake and discharge side of radiator, Pa (in. H²O)	62.2 (0.25)	Heat rejected to exhaust, kW (btu/min)	25.8 (1468)	
ADVANTENEL COUNTY ATTENUATED ENGLOSED	50 dD(A) @ 00 foot	Heat radiated to surrounding air Engine: kW (Btu)	5.2 (296)	
dB(A) LEVEL SOUND ATTENUATED ENCLOSED	58 dB(A) @ 23 feet	Combustion air, m³/min. (cfm)	2.34 (82.6)	

### **Dimensions and Weights**

Open Skid Model		Sound Attenuated Enclosure		
Overall size, L x W x H, mm (ins.)	1,700 x 620 x 1,280	Overall size, L x W x H, mm (ins.)	2,250 x 1100 x 1,340	
	66.9 x 24.4 x 50.4		(88.6 x 43.3 x 52.8)	
Weight, radiator-mounted model, wet, kg (lb.):	416 (917)	Weight, radiator-mounted model, wet, kg (lb.):	1,050 (2,315)	
Fuel Tank Capacity, L (US gal)	72 (19)	Fuel Tank Capacity, L (US gal)	100 (26.4)	
H W		H W		

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 Systesm @ 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 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).



#### **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
- Incorrect phase sequence









