

# HDYW SERIES

**Power Range**

**kW**

**kVA**

Standby

8.1

10.13

Prime

7.4

9.25

**MODEL:**

**HDYW - 09 T6**

**STANDARD EQUIPMENT**

**Open Type Set**

- Skid with integral day fuel tank (non-UL)
- Hardy M6 analog 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

**Accessories Available for HYW-09 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
- Water Jacket heater
- Extended warranty coverage period

Generator End Accessories Offered

- Anti-condensation heaters in alternator

Electrical and Control Accessories Offered

- Automatic battery chargers 1.5 and 6 amp
- Digital Timer

**GENERATOR RATINGS**

Alternator	Voltage	Ph	Hz	Standby Rating		Prime Rating	
				kW/kVA	Amps	kW/kVA	Amps
BCI 164 A	120 / 208	3	60	8.1 / 10.4	28.8	7.4 / 9.25	26
	277 / 480	3	60	8.1 / 10.4	12.5	7.4 / 9.25	11
	347 / 600	3	60	8.1 / 10.4	10	7.4 / 9.25	9

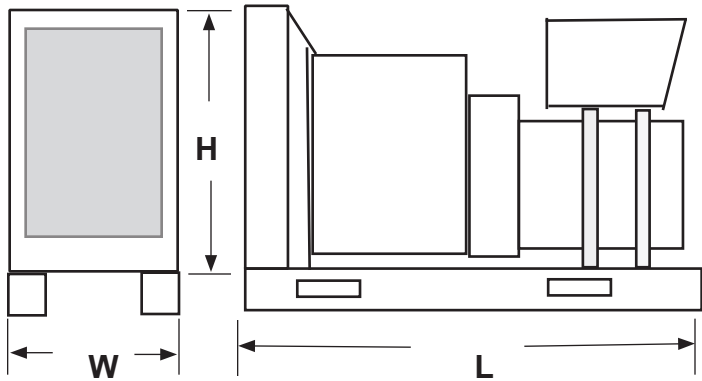
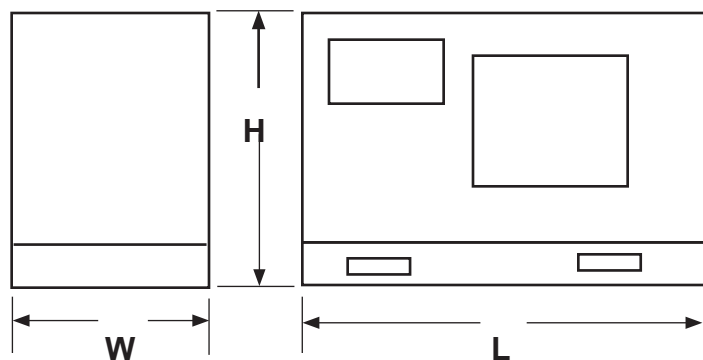
## Application Data

Alternator Specifications		Engine Mechanical Specifications	
Manufacturer	Newage Stamford	Manufacturer	Yanmar
Type	4-pole, rotating field	Engine model	3TNV76
Exciter type	Brushless, self excited.	Engine type	4-cycle, Naturally aspirated
Leads: quantity, type	12, reconnectable	Cylinder arrangement	3 in line
Voltage regulator	Solid state, volts/Hz and excitation overload protection	EPA Certification :	TIER 4
Insulation:		Displacement, L (cu. in.)	1.12 (68)
Material.....	Class H	Bore and stroke, mm (in.)	76 X 82 (3.0 X 3.2)
Temperature rise.....	150° C , standby	Compression ratio	23.5 : 1
Bearing: quantity, type	Single bearing sealed	Piston speed, m/min. (ft./min.)	295.2 (968.5)
Coupling	Flexible disc	Main bearings: quantity, type	4, 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)	11.0 (14.7)
Unbalanced load capability	100% of rated standby current	BMEP, gross, psi ( Bar )	95.3 (6.57)
Load acceptance	Per ISO - 8528	Overall thermal efficiency	31.8%
Peak motor starting kVA: 480 V	(30% dip) self-excited series - 28 kVA	Exhaust Gas Flow, m <sup>3</sup> /min (cfm)	2.61 (92.2)
<b>Engine Electrical Specifications</b>		Exhaust gas temperature °C (°F)	410 (770)
		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:	1.1Kw	<b>Remote Radiator System</b>	
Battery CCA rating:	590A	<b>Fuel Consumption 60 Hz</b>	
Battery & qty, AH rating:	1 x 66 AH		
Battery Voltage (DC)	12V		
Not Available		Diesel gal/hr (L/hr)      Standby Rating	
		100%      0.91 (3.5)	
		75%      0.73 (2.8)	
		50%      0.55 (2.1)	
		25%      0.32 (1.2)	
		Diesel gal/hr (L/hr)      Prime Power Rating	
		100%      0.84 (3.2)	
		75%      0.67 (2.5)	
		50%      0.50 (1.9)	
		25%      0.29 (1.1)	
Contact the HIPOWER distributor for special cooling options			

## Application Data

Cooling		Lubrication	
Radiator Systems	60 Hz	Lubricating System	60 Hz
Ambient temperature, °C (°F)	NA	Type	Full pressure
Engine jacket water capacity L (gal)	0.9 (0.23)	Oil pan capacity, L, (qt.)	3.5 (3.7)
Radiator system capacity, including engine, L (gal.)	NA	Recommended lube oil	SAE15W40 ; API CF-4
Engine jacket water flow, L/min (g/min)	25 (6.6)	Oil pan capacity with filter, L (qt.)	NA
Heat rejected to cooling water at rated kW, dry exhaust, kW (Btu/min.)	10.3 (586)	Oil filter: quantity, type	1, cartridge
Water pump type	Centrifugal	Oil cooler	None
Fan, kWm (HP)	0.3 (0.4)	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>	
dB(A) LEVEL SOUND ATTENUATED ENCLOSED	65 dB(A) @ 23 feet	Air Requirements	60 Hz
		Radiator-cooled cooling air, m <sup>3</sup> /min. (scfm)	NA
		Air density kg/m <sup>3</sup> (lbm/ft <sup>3</sup> )	1.20 (0.075)
		Heat rejected to exhaust, kW (btu/min)	9.2 (523)
		Heat radiated to surrounding air Engine: kW (Btu)	2.7
		Combustion air, m <sup>3</sup> /min. (cfm)	0.91 (31.9)

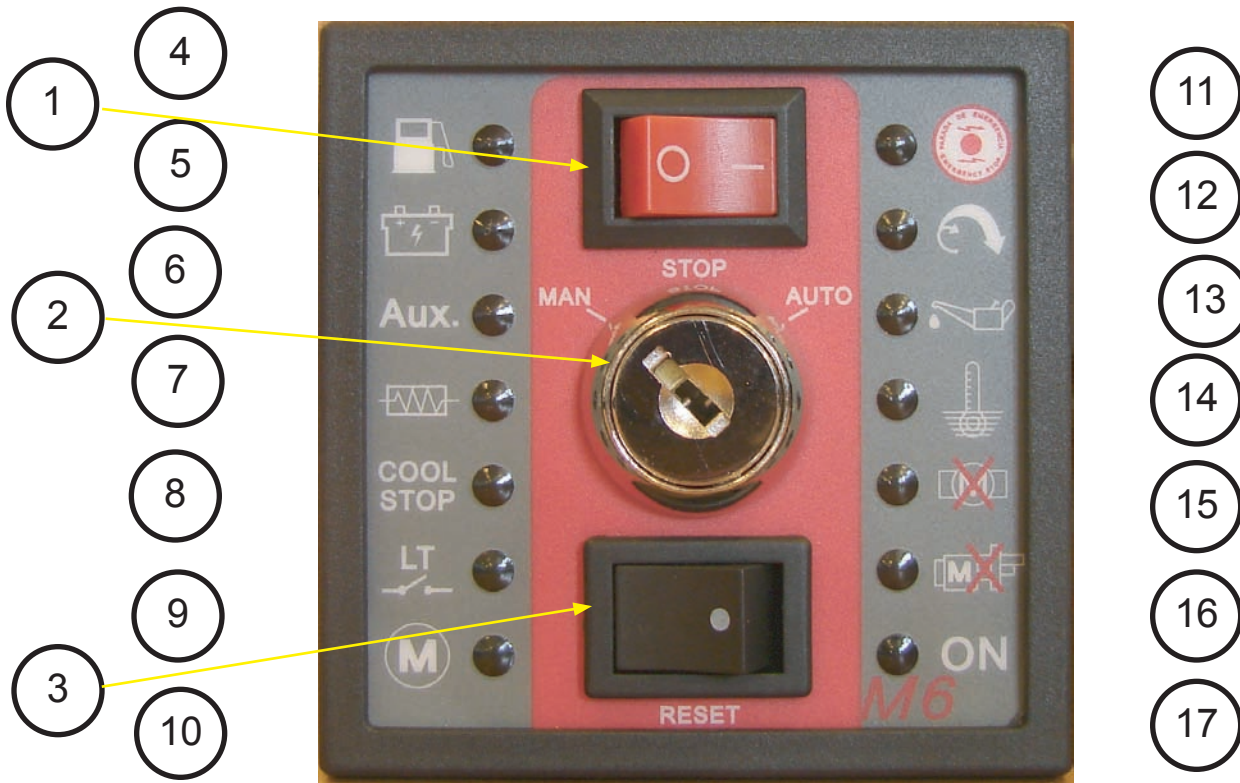
## Dimensions and Weights

Open Skid Model		Sound Attenuated Enclosure	
Overall size, L x W x H, mm (ins.)	1,450 x 620 x 1,280 (57.1 x 24.4 x 50.4)	Overall size, L x W x H, mm (ins.)	1,475 x 750 x 1,110 (58.1 x 29.5 x 43.7)
Weight, radiator-mounted model, kg (lb.):	328 (723)	Weight, radiator-mounted model, kg (lb.):	611 (1,347)
Fuel Tank Capacity, L (US gal)	65 (17)	Fuel Tank Capacity, L (US gal)	23 (6.1)
			

NOTE: The drawings above are only representative of the overall dimensions.

**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).

# Hardy Diesel M6 Auto Start Analog Controller



- 1. Main Switch
- 2. Auto / Manual Switch
- 3. Reset Push Button

### Controllers LED'S :

- 4. Fuel Reserve
- 5. Battery Charging Failure
- 6. Auxiliary Input Alarm
- 7. Glow Plug Pre-Heating
- 8. Stop With Cool-Down Period
- 9. Remote Start Contacts Closed
- 10. Engine Running
- 11. Emergency Stop Activated
- 12. Over-Speed
- 13. Low Oil Pressure

- 14. High Coolant Temperature
- 15. Engine Failure
- 16. Engine Failed to Start
- 17. Power Supply

### Shutdowns and Alarms for:

- \* High Coolant Temperature
- \* Low Oil Pressure
- \* Over-Speed