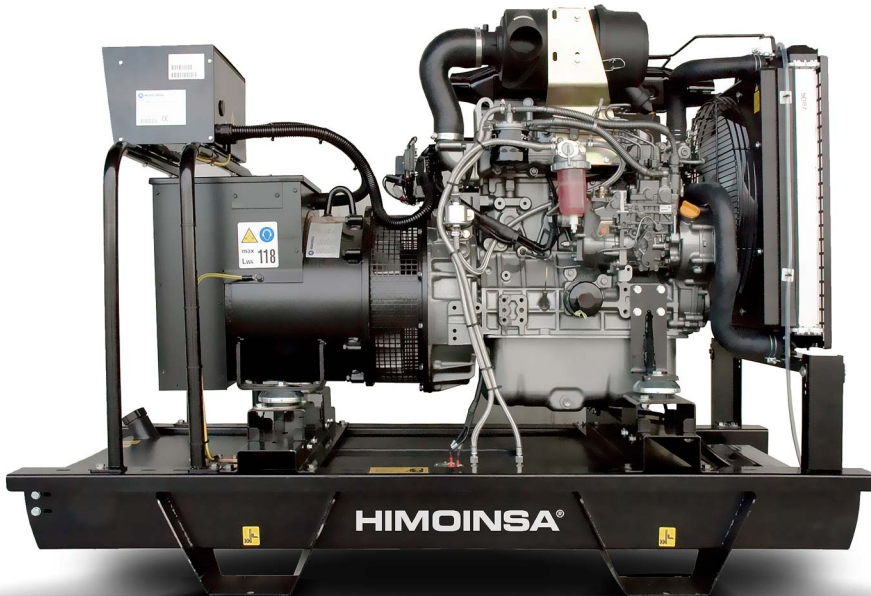




# HIMOINSA



MODEL  
**HYW-20 T5**  
 INDUSTRIAL RANGE  
 Open Skid  
 Powered by YANMAR

- K2
- WATER-COOLED
- THREE PHASE
- 50 HZ
- STAGE 3A
- DIESEL

## Generating Rates



SERVICE		PRP	STANDBY
Power	kVA	20	22
Power	kW	16	17,6
Rated Speed	r.p.m.	1.500	
Standard Voltage	V	240/415	
Available Voltages	V	220/380 - 230/400	
Rated at power factor	Cos Phi	0,8	

01

### HIMOINSA Company with quality certification ISO 9001

HIMOINSA gensets are compliant with EC mark which includes the following directives:

- 2006/42/CE Machinery safety.
- 2014/30/UE Electromagnetic compatibility.
- 2014/35/UE electrical equipment designed for use within certain voltage limits
- 2000/14/EC Sound Power level. Noise emissions outdoor equipment. (amended by 2005/88/EC)
- 97/68/EC Emissions of gaseous and particulate pollutants. (amended by 2002/88/EC & 2004/26/EC)
- EN 12100, EN 13857, EN 60204

Ambient conditions of reference according to ISO 8528-1:2005 normative: 1000 mbar, 25°C, 30% relative humidity.

#### Prime Power (PRP):

According to ISO 8528-1:2005, Prime power is the maximum power which a generating set is capable of delivering continuously whilst supplying a variable electrical load when operated for an unlimited number of hours per year under the agreed operating conditions with the maintenance intervals and procedures being carried out as prescribed by the manufacturer. The permissible average power output (Ppp) over 24 h of operation shall not exceed 70 % of the PRP.

#### Emergency Standby Power (ESP):

According to ISO 8528-1:2005, Emergency standby power is the maximum power available during a variable electrical power sequence, under the stated operating conditions, for which a generating set is capable of delivering in the event of a utility power outage or under test conditions for up to 200 h of operation per year with the maintenance intervals and procedures being carried out as prescribed by the manufacturers. The permissible average power output over 24 h of operation shall not exceed 70 % of the ESP

G2 class load acceptance in accordance with ISO 8528-5:2013

#### HIMOINSA HEADQUARTERS:

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## Engine Specifications 1.500 r.p.m.

ENGINE		PRP	STANDBY
Rated Output	kW	19,1	21
Manufacturer		YANMAR	
Model		4TNV84TBGGEH	
Engine Type		4-stroke diesel	
Injection Type		Direct	
Aspiration Type		Turbocharged	
Number of cylinders and arrangement		4-L	
Bore and Stroke	mm	84 x 90	
Displacement	L	1,995	
Cooling System		Coolant	
Lube Oil Specifications		SAE 3 class 10W30 / API grade CD,CF	
Compression Ratio		18,9	
Fuel Consumption Standby	l/h	5,47	
Fuel Consumption 100% PRP	l/h	4,95	
Fuel Consumption 75 % PRP	l/h	3,75	
Fuel Consumption 50 % PRP	l/h	2,72	
Lube oil consumption with full load	g/kWh	0,27	
Total oil capacity	L	7,4	
Total coolant capacity	L	5,8	
Governor	Type	Mechanical	
Air Filter	Type	Dry	
Inner diameter exhaust pipe	mm	34,7	

## Generator

Generator		
Manufacturer		MECCALTE
Poles	No.	4
Connection type (standard)		Star-series
Mounting type		S-4 7,5"
Insulation	Class	H class
Enclosure (according IEC-34-5)		IP23
Exciter system		Self-excited, brushless
Voltage regulator		A.V.R. (Electronic)
Bracket type		Single bearing
Coupling system		Flexible disc
Coating type		Standard (Vacuum impregnation)



## Application Data

Exhaust System		
Maximum exhaust temperature	°C	450
Exhaust Gas Flow	m <sup>3</sup> /min	5,24
Maximum allowed back pressure	mm H <sub>2</sub> O	1000

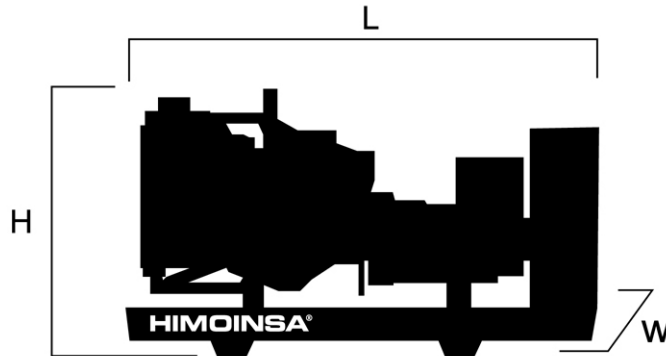
Necessary Amount Of Air		
Intake air flow	m <sup>3</sup> /h	116,71
Cooling Air Flow	m <sup>3</sup> /s	0,8
Alternator fan air flow	m <sup>3</sup> /s	0,09

Starting System		
Starting power	kW	1,4
Starting power	CV	1,9
Recommended battery	Ah	92
Auxiliary Voltage	Vdc	12

Fuel System		
Fuel Oil Specifications		Diesel
Fuel Tank	L	76



## Dimensions



### Weight and Dimensions

(L) Length	mm	1.700
(H) Height	mm	1.286
(W) Width	mm	620
Maximum shipping volume	m <sup>3</sup>	1,36
(*) Weight with liquids in radiator and sump	kg	452
Fuel tank capacity	L	76
Autonomy	Hours	20

(\*) (with standard accessories)

STANDARD VERSION

Australia has the right to modify any feature without prior notice.  
Weights and dimensions based on standard products. Illustrations may include optional equipment.  
Technical data described in this catalogue correspond to the available information at the moment of printing.  
Industrial design under patent.

Local Distributor



## Control Panel M7

### Control & Power Panel

1. CM Control Panel.
2. CP Power Panel.
3. On/Off Switch..
4. Emergency Stop.
5. Main Line Circuit Breaker for overload protection.
6. Main bus /hardwire connection panel with safety protection.



### M7 Key-start control panel

The M7 device is a monitoring and control electronic system for electrical engine generator sets .

The M7 device is a compact module place in the front panel that develops the following features :

• User's interface. The M7 controller provides information about the status of the generator set and, at the same time, allows the user to interact with it; using M7 keyboard, user is able to configure the functions of the unit.

M7 controller allows to check the last 100 failures registered and a detailed information of the generator set of the last 10 failures.

• Generator set control. M7 controller keep the generator set in working order, including engine control and electrical signal monitoring the generator set, including engine and electrical signal. Every signal, sensor and actuator is connected to the rear part of the M device.

### Generator set signals

- Phase to neutral voltage
- Phase to Phase voltage
- Phase current
- Frequency
- Real, apparent and reactive power
- power factor

### Engine signals

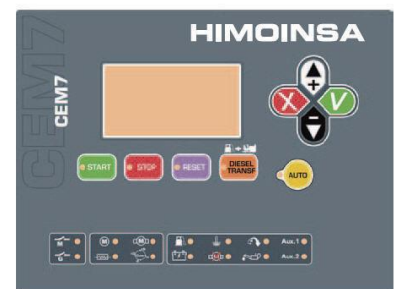
- Fuel reserve
- Oil pressure
- High coolant temperature
- Coolant level
- Emergency stop
- Battery charger alternator voltage
- Battery voltage

### Generator set outputs

- Preheating
- Engine control (fuel output or stop pulse)
- Crank output
- Battery charging alternator excitation.
- General warning output

## Optional Automatic Controller CEM7

The CEM7 is an Auto-start digital controller which is equipped on Himoinsa generator sets, which is able to control the operation, monitoring and protection of a generator-set.



### Controller Display:

- Voltage between each Phase& Neutral
- Voltage between Phases
- Current (amps) on each Phase
- Frequency
- Active, Apparent, & Reactive Power
- Power Factor
- Instant Power (kWh) and Accumulative power
- Fuel level
- Oil pressure, coolant temperature
- Battery voltage, battery charging alternator voltage
- Engine Speed
- Hours running

### Engine Alarms:

- High coolant temperature
- Low oil pressure
- Emergency stop
- Battery charging alternator
- Low coolant level
- Over Speed
- Under speed
- Low fuel level by sensor
- Battery low voltage

### Generator Alarms:

- Over-load
- Unbalanced voltage
- Over-voltage
- Under-voltage
- Over-frequency
- Under-frequency
- Short-circuit
- Inverse Power
- Asymmetry among phases





## Generator set features

### Engine

- Diesel engine
- 4-stroke cycle
- Water-cooled
- 12V electrical system
- Radiator with blower fan
- Water separator filter (visible level)
- Mechanical governor
- Dry air filter
- Hot parts protection
- Moving parts protection

### Alternator

- Self-excited and self-regulated
- IP23 protection
- H class insulation

### Electrical system

- Electric control and power panel with measurements devices and control unit (according to necessity and configuration)
- 4-pole thermal magnetic circuit breaker
- Battery charger (standard on gensets with automatic control panels)
- Heating resistor (standard on sets with automatic control panels)
- Battery charger alternator with ground connection
- Starter battery/ies installed (cables and bracket included)
- Ground connection electrical installation with connection ready for ground spike (not supplied)
- Optional :      · Battery isolator

### Open set version

- Steel chassis
- Emergency stop button
- Anti-vibration shock absorbers
- Chassis with integrated fuel tank
- Fuel level gauge
- Fuel tank drain plug
- Steel industrial silencer -15db(A) attenuation
- Optional :      · Fuel transfer pump
- Steel residential silencer -35db(A) attenuation.