HIMOINSA
A YANMAR COMPANY

HRYW-20 T5

RENTAL RANGE
Powered by YANMAR

SERVICE		PRP	ESP
POWER	kVA	20	22
POWER	kW	16	17,6
RATED SPEED	r.p.m.	1.500	
MAIN VOLTAGE	V	400/230	
AVAILABLE VOLTAGES	V	200/115 · 230 V (t)	
RATED AT POWER FACTOR	Cos Phi	0,8	

RENTAL RANGE

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.
- EN 12100, EN 13857, EN 60204

Ambient conditions of reference according to ISO 8528-1:2018 normative: 1000 mbar, 25ºC, 30% relative humidity.

Prime Power (PRP):
According to ISO 8528-1:2018, 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 8528-1:2018, 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

Continuous Power (COP): According to Standard ISO 8528-1:2018, this is the maximum power available for continuous loads for unlimited running hours a year between the maintenance times recommended by the manufacturer under the environmental conditions established by the same.

G2 class load acceptance in accordance with ISO 8528-5:2018

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Manufacture facilities:
SPAIN • FRANCE • INDIA • CHINA • USA • BRAZIL • ARGENTINA

Subsidiaries:
PORTUGAL | POLAND | GERMANY | UK | SINGAPORE | UAE | PANAMA | DOMINICAN REPUBLIC | ARGENTINA | ANGOLA | SOUTH AFRICA

SOUNDPROOFED RENTAL

- B10R
- WATER-COOLED
- THREE PHASE
- 50 HZ
- STAGE 3A
- DIESEL

Himoinsa 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.

The illustrations and images are indicative and may not coincide in their entirety with the product.

Industrial design under patent.

Engine Specifications | 1.500 r.p.m.

Rated Engine Output (PRP)	kW	19,1
Rated Engine Output (ESP)	kW	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

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

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

Generator Specifications | MECC ALTE

Manufacturer		MECC ALTE
Model		ECP28.M4C
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)

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

ISO 9001
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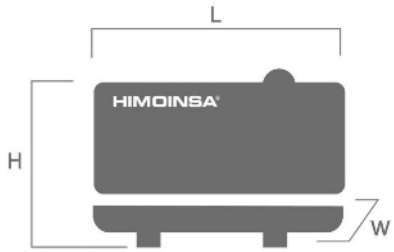
WEIGHT AND DIMENSIONS

		Standard Version	Optional version	High Capacity version	High Capacity version
Length (L)	mm	2.150	2.150	2.150	2.150
Height (H)	mm	1.329	1.329	1.557	1.557
Width (W)	mm	1.025	1.025	1.025	1.025
Maximum shipping volume	m³	2,93	2,93	3,43	3,43
Weight with liquids in radiator and sump	Kg	808	848	898	953
Fuel tank capacity	L	100	100	190	330
Autonomy (100% PRP)	Hours	20	20	38	67
		Plastic tank	Steel tank	Steel tank	Steel tank



SOUND PRESSURE

Sound pressure level	dB(A)@7m	60 ± 2,4

APPLICATION DATA

EXHAUST SYSTEM

Maximum exhaust temperature	°C	450
Exhaust Gas Flow	m³/min	5,24
Maximum allowed back pressure	mm H2o	1000
Exhaust Flange Size (external diameter)	mm	65

NECESSARY AMOUNT OF AIR

Intake air flow	m³/h	116,71
Cooling Air Flow	m³/s	0,8
Alternator fan air flow	m³/s	0,11

FUEL CONSUMPTION

Fuel Consumption ESP	l/h	5,47
Fuel Consumption 100% PRP	l/h	4,95
Fuel Consumption 70 % PRP	l/h	3,54
Fuel Consumption 50 % PRP	l/h	2,72

FUEL SYSTEM

Fuel Oil Specifications		Diesel
Fuel Tank	L	100
Other fuel tank capacities	L	100, 190, 330

STARTING SYSTEM

Starting power	kW	1,4
Starting power	CV	1,9
Recommended battery	Ah	85
Auxiliary Voltage	Vdc	12

Soundproofed version

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- Steel chassis
- Manhole to fill the radiator
- Pre-installation or niche to house the quick connection hydraulic fittings for fuel transfer
- Anti-leakage chassis, predisposed to retain liquids (retention tray)
- Manhole for fuel tank cleaning and drainage
- Manhole for chassis cleaning
- Oversized chassis to protect the bodywork
- Slide carriage and brackets for transportation with forklift
- Tilting cap in the exhaust
- Anti-vibration shock absorbers
- Chassis with integrated fuel tank
- Fuel level gauge
- Bodywork made from high quality steel plate
- High mechanical strength
- Low noise emissions level
- Soundproofing provided by high-density volcanic rock wool
- Epoxy polyester powder coating
- Full access for maintenance (water, oil and filters, no need to remove the canopy)
- Reinforced lifting hooks for crane hoisting
- Steel residential silencer -35db(A) attenuation.
- Oil sump extraction kit
- Versatility to assemble a high capacity chassis with a metallic fuel tank
- External filling of the fuel tank with safety key
- Emergency stop button (double emergency stop protection: Interior on the panel + Exterior on the bodywork)
- Mechanized for power cable output
- Door with window to visualize control panel, alarms and measurements
- Pressure locks
- IP Protection according to ISO 8528-13:2016
- 3 way valve for external fuel supply (available in 1/2" and 3/8" fittings) (Opcional).
- Fuel transfer pump (Opcional).

FEATURES OF THE CONTROL UNITS

		CEM 7
Generator Readings	Voltage between phases	•
	Voltage between neutral and phase	•
	Current intensities	•
	Frequency	•
	Apparent power (Kva)	•
	Active power (Kw)	•
	Reactive power (kVAr)	•
	Power factor	•
Mains Readings	Voltage between phases	
	Voltage between phases and neutral	
	Current intensities	
	Frequency	
	Apparent power	
	Active power	
	Reactive power	
	Power factor	
Engine Readings	Coolant temperature	•
	Oil pressure	•
	Fuel level (%)	•
	Battery voltage	•
	R.P.M.	•
	Battery charge alternator voltage	•
Engine Protections	High water temperature	•
	High water temperature by sensor	•
	Low water temperature by sensor	•
	Low oil pressure	•
	Low oil pressure by sensor	•
	Low water level	•
	Unexpected shutdown	•
	Fuel storage	•
	Fuel storage by sensor	•
	Stop failure	•
	Battery voltage failure	•
	Battery charge alternator failure	•
	Overspeed	•
	Underspeed	•
	Start failure	•
	Emergency stop	•

• Standard ⓞ Optional

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		CEM 7	
Alternator Protections	High frequency	•	
	Low frequency	•	
	High voltage	•	
	Low voltage	•	
	Short-circuit	•	
	Asymmetry between phases	•	
	Incorrect phase sequence	•	
	Inverse power	•	
	Overload	•	
	Genset signal drop	•	
Counters	Total hour counter	•	
	Partial hour counter	•	
	Kilowatt meter	•	
	Starts valid counters	•	
	Starts failure counters	•	
	Maintenance	•	
Communications	RS232	ⓞ	
	RS485	ⓞ	
	Modbus IP	ⓞ	
	Modbus	ⓞ	
	CCLAN	ⓞ	
	Software for PC	ⓞ	
	Analogue modem	ⓞ	
	GSM/GPRS modem	ⓞ	
	Remote screen	ⓞ	
	Tele signal	ⓞ (8 + 4)	
	J1939	ⓞ	
Features	Alarm history	•	(100)
	External start	•	
	Start inhibition	•	
	Mains failure start		
	Start under normative EJP	•	
	Pre-heating engine control	•	
	Genset contactor activation	•	
	Mains & Genset contactor activation		
	Fuel transfer control	•	
	Engine temperature control	•	
	Manual override	•	
	Programmable alarms	•	
	Genset start function in test mode	•	
	Programmable outputs	•	
	Multilingual	•	
Special Functions	GPS Positioning	ⓞ	
	Synchronisation	ⓞ	
	Mains synchronization	ⓞ	
	Second Zero elimination	ⓞ	
	RAM7	ⓞ	
	Remote screen	ⓞ	

• Standard ⓞ Optional

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CONTROL PANELS

M5

Digital manual Auto-Start control panel and thermal magnetic protection (depending on current and voltage) and differential with CEM7.

Digital control unit CEM7

Electrical system

- M5 control panel with electronic CEM7 control unit and switched emergency stop
- Power panel with built-in circuit breaker plates
- Safety relay in output terminal board (thermal magnetic trip and alarm in control unit)
- Adjustable earth leakage protection (time & sensitivity) standard in M5 and AS5, with thermal magnetic protection
- 4-pole thermal magnetic circuit breaker
- 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)
- Battery Switch (Opcional).

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