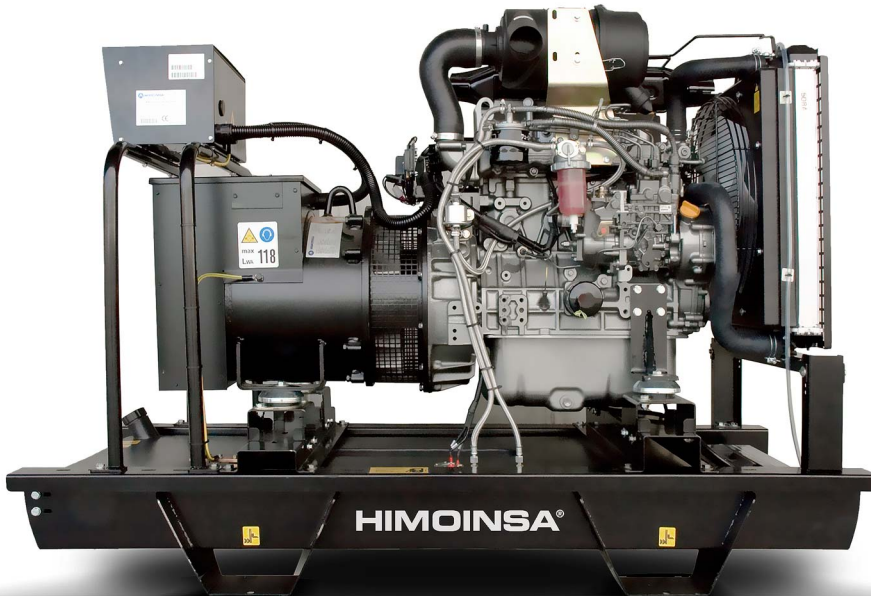




HIMOINSA



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	ESP
Power	kVA	20	22
Power	kW	16	17,6
Rated Speed	r.p.m.	1.500	
Standard Voltage	V	400/230	
Available Voltages	V	230 - 230/132	
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 8528-1:2018 normative: 1000 mbar, 25°C, 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

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

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Engine Specifications 1.500 r.p.m.

ENGINE		PRP	ESP
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 ESP	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		STAMFORD
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 ³ /min	5,24
Maximum allowed back pressure	mm H ₂ O	1000

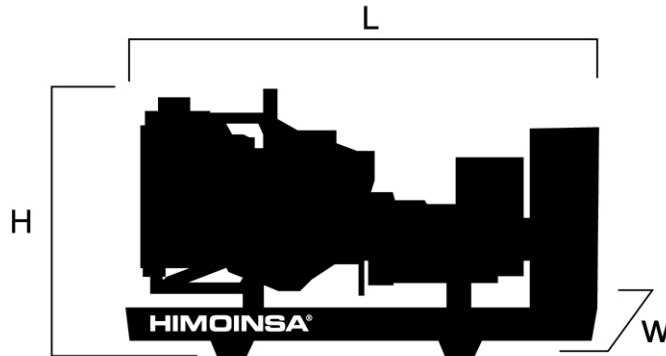
Necessary Amount Of Air		
Intake air flow	m ³ /h	116,71
Cooling Air Flow	m ³ /s	0,8
Alternator fan air flow	m ³ /s	0,09

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 ³	1,36
(*) Weight with liquids in radiator and sump	kg	416
Fuel tank capacity	L	76
Autonomy	Hours	20

(*) (with standard accessories)

STANDARD VERSION

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.
Industrial design under patent.

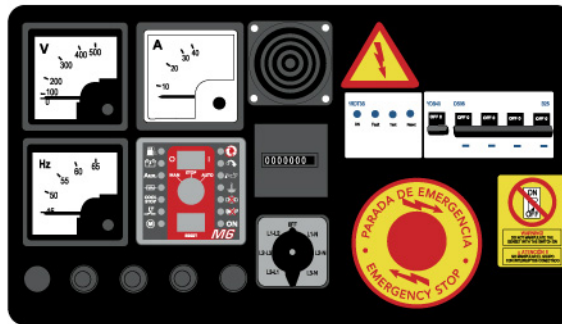
Local Distributor



CONTROL PANEL MODEL

M6

Manual volt-free contact start panel and thermal magnetic protection (depending on current and voltage) and differential. Control unit M6



M5

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



AS5

Automatic panel WITHOUT transfer switch and WITHOUT mains control with CEM7 unit. (*) AS5 as optional with CEA7 unit. Automatic panel without transfer switch and WITH mains control.

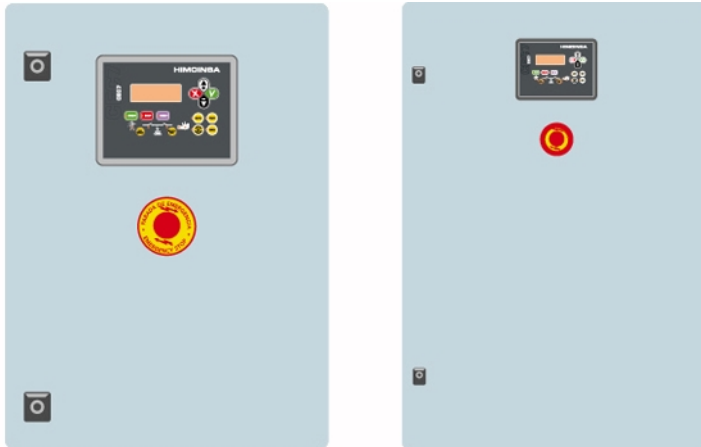




CONTROL PANEL MODEL

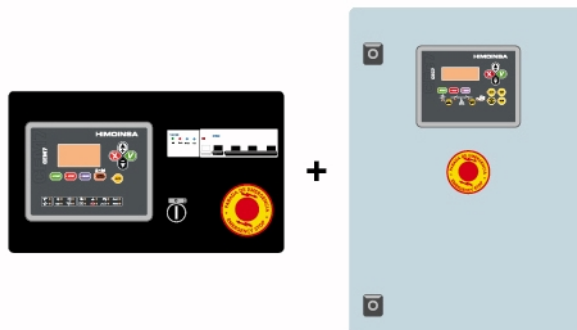
CC2

Himoinsa Switching cabinet WITH display. Digital control unit CEC7



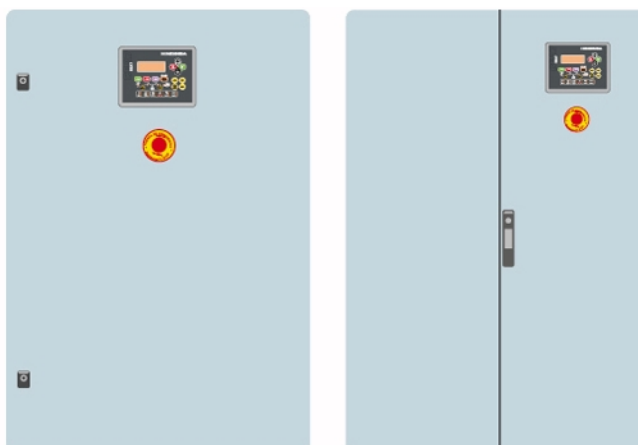
AS5 + CC2

Automatic panel WITH transfer switch and with mains control. The display will be on the genset and on the cabinet. Digital control unit CEM7+CEC7



AC5

Automatic mains failure control panel. Wall-mounted cabinet WITH transfer switch and thermal magnetic protection (depending on current and voltage). Digital control unit CEA7





Controller features (I)

- : Standard
- x : Not included
- : Optional
- A : Warning. Warning alarm without engine stop.
- P : Alarm with Engine Stop

Generator Readings	M6	CEM 7	CEA 7	CEC 7	CEM7 + CEC7
Voltage between phases	x	•	•	•	•
Voltage between neutral and phase	x	•	•	•	•
Current intensities	x	•	•	•	•
Frequency	x	•	•	•	•
Apparent power (Kva)	x	•	•	•	•
Active power (Kw)	x	•	•	•	•
Reactive power (kVAr)	x	•	•	•	•
Power factor	x	•	•	•	•
Mains Readings	M6	CEM 7	CEA 7	CEC 7	CEM7 + CEC7
Voltage between phases	x	x	•	•	•
Voltage between phases and neutral	x	x	•	•	•
Current intensities	x	x	•	•	•
Frequency	x	x	•	•	•
Apparent power	x	x	•	x	x
Active power	x	x	•	x	x
Reactive power	x	x	•	x	x
Power factor	x	x	•	x	x
Engine Readings	M6	CEM 7	CEA 7	CEC 7	CEM7 + CEC7
Coolant temperature	x	•	•	x	•
Oil pressure	x	•	•	x	•
Fuel level (%)	x	•	•	x	•
Battery voltage	x	•	•	x	•
R.P.M.	x	•	•	x	•
Battery charge alternator voltage	x	•	•	x	•
Engine Protections	M6	CEM 7	CEA 7	CEC 7	CEM7 + CEC7
High water temperature	P	•	•	x	•
High water temperature by sensor	x	•	•	x	•
Low water temperature by sensor	x	•	•	x	•
Low oil pressure	P	•	•	x	•
Low oil pressure by sensor	x	•	•	x	•
Low water level	x	•	•	x	•
Unexpected shutdown	•	•	•	x	•



Controller features (II)

- : Standard
- x : Not included
- (blue) : Optional
- A : Warning. Warning alarm without engine stop.
- P : Alarm with Engine Stop

Engine Protections	M6	CEM 7	CEA 7	CEC 7	CEM7 + CEC7
Fuel storage	A	•	•	x	•
Fuel storage by sensor	x	•	•	x	•
Stop failure	x	•	•	x	•
Battery voltage failure	x	•	•	x	•
Battery charge alternator failure	A	•	•	x	•
Overspeed	P	•	•	x	•
Underspeed	x	•	•	x	•
Start failure	•	•	•	x	•
Emergency stop	•	•	•	•	•
Alternator Protections	M6	CEM 7	CEA 7	CEC 7	CEM7 + CEC7
High frequency	P	•	•	•	•
Low frequency	x	•	•	•	•
High voltage	x	•	•	•	•
Low voltage	x	•	•	•	•
Short-circuit	x	•	•	x	•
Asymmetry between phases	x	•	•	•	•
Incorrect phase sequence	x	•	•	•	•
Inverse power	x	•	•	x	•
Overload	x	•	•	x	•
Genset signal drop	x	•	•	•	•
Counters	M6	CEM 7	CEA 7	CEC 7	CEM7 + CEC7
Total hour counter	x	•	•	•	•
Partial hour counter	x	•	•	•	•
Kilowatt meter	x	•	•	•	•
Starts valid counters	x	•	•	•	•
Starts failure counters	x	•	•	•	•
Maintenance	x	•	•	•	•
Communications	M6	CEM 7	CEA 7	CEC 7	CEM7 + CEC7
RS232	x	•	•	•	•
RS485	x	•	•	•	•
Modbus IP	x	•	•	•	•
Modbus	x	•	•	•	•



Controller features (III)

- : Standard
- x : Not included
- (Optional)
- A : Warning. Warning alarm without engine stop.
- P : Alarm with Engine Stop

Communications	M6	CEM 7	CEA 7	CEC 7	CEM7 + CEC7
CCLAN	x	•	•	x	•
Software for PC	x	•	•	•	•
Analogue modem	x	•	•	•	•
GSM/GPRS modem	x	•	•	•	•
Remote screen	x	•	•	x	•
Tele signal	x	• (8 + 4)	• (8 + 4)	x	• (8 + 4)
J1939	x	•	•	x	•
Features	M6	CEM 7	CEA 7	CEC 7	CEM7 + CEC7
Alarm history	x	• (10) / (opc. +100)	• (10) / (opc. +100)	• (10) / (opc. +100)	• (10) / (opc. +100)
External start	•	•	•	•	•
Start inhibition	x	•	•	•	•
Mains failure start	x	x	•	•	•
Start under normative EJP	x	•	•	x	•
Pre-heating engine control	•	•	•	x	•
Genset contactor activation	•	•	•	•	•
Mains & Genset contactor activation	x	x	•	•	•
Fuel transfer control	x	•	•	x	•
Engine temperature control	x	•	•	x	•
Manual override	x	•	•	x	•
Programmable alarms	x	•	•	x	•
Genset start function in test mode	x	•	•	•	•
Programmable outputs	x	•	•	x	•
Multilingual	x	•	•	•	•
Special Functions	M6	CEM 7	CEA 7	CEC 7	CEM7 + CEC7
GPS Positioning	x	•	•	x	•
Synchronisation	x	•	•	x	•
Mains synchronization	x	•	•	x	•
Second Zero elimination	x	•	•	x	•
RAM7	x	•	•	x	•
Remote screen	x	•	•	x	•
Programming timer	x	•	•	x	•



Generator set features

Engine

- Diesel engine
- 4-stroke cycle
- Water-cooled
- 12V electrical system
- Water separator filter (visible level)
- Dry air filter
- Radiator with blower fan
- Mechanical governor
- 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
- Adjustable earth leakage protection (time & sensitivity) standard in M5 and AS5, with thermal magnetic protection
- 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.



PDF Summary

Created : 04/04/2019 07:48

Author : Himoinsa

Number of pages : 11

Report Type: Data Sheet - Industrial range

Generated by: HIMOINSA Engineering Dept.

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