



HIMOINSA



MODEL
HPCW-420 D5/6
RENTAL RANGE
Container
Powered by FPT_IVECO



10FT



WATER-COOLED



THREE PHASE



50 / 60



STAGE 2



DIESEL

Generating Rates



SERVICE		50 Hz		60 Hz	
		PRP	STANDBY	PRP	STANDBY
Power	kVA	411	450	434	478
Power	kW	329	360	347	382
Rated Speed	r.p.m.	1.500		1.800	
Standard Voltage	V	400/230		480/277	
Available Voltages	V	230 - 230/132 - 380/220		208/120 - 220/127 - 416/240	
		415/240		440/254 - 460/265	
Rated at power factor	Cos Phi	0,8			

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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)
- 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

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Engine Specifications

ENGINE		50 Hz		60 Hz	
		PRP	STANDBY	PRP	STANDBY
Rated Output	kW	366,2	401	384,5	423
Manufacturer		FPT_IVECO			
Model		C13TE3A			
Engine Type		4-stroke diesel			
Injection Type		Direct			
Aspiration Type		Turbocharged and after-cooled			
Number of cylinders and arrangement		6-L			
Bore and Stroke	mm	135 x 150			
Displacement	L	12,88			
Cooling System		Liquid (water + 50% glycol)			
Lube Oil Specifications		ACEA E3 - E5			
Compression Ratio		16,5:1			
Lube oil consumption with full load		0,5 % of fuel consumption			
Total oil capacity including tubes, filters	L	35			
Governor	Type	Electrical			
Air Filter	Type	Dry			
Inner diameter exhaust pipe	mm	108			

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Generator

Generator		
Poles	No.	4
Connection type (standard)		Star-series
Mounting type		S-1 14"
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)



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Application Data

Exhaust System		50 Hz	60 Hz
Maximum exhaust temperature	°C	445	450
Exhaust Gas Flow	kg/s	0,613	0,684
Maximum allowed back pressure	mbar	50	50
Heat dissipated by exhaust pipe	KCal/Kwh	703	734

Necessary Amount Of Air			
Intake air flow	m ³ /h	1770	1974
Alternator fan air flow	m ³ /s	1,035	1,312

Starting System		
Starting power	kW	6
Starting power	CV	8,16
Recommended battery	Ah	185 x 2
Auxiliary Voltage	Vdc	24

Fuel System		
Fuel Oil Specifications		Diesel
Fuel Tank	L	500

03



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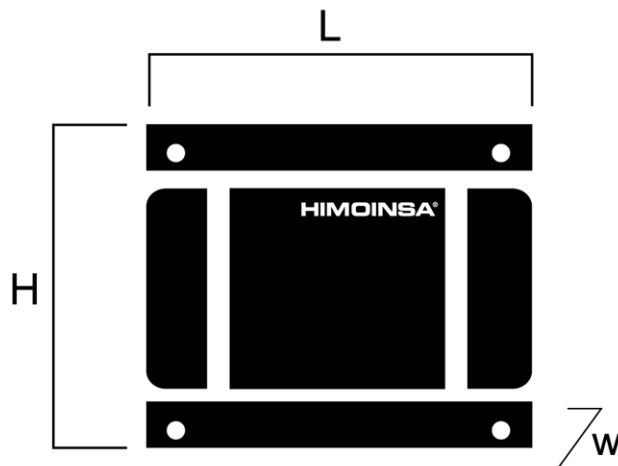
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Dimensions



10ft	Weight and Dimensions		
(L)	Length	mm	2.991
(H)	Height	mm	2.591
(W)	Width	mm	2.438
	Maximum shipping volume	m ³	18,89
(*)	Weight with liquids in radiator and sump	kg	6.651

(*) (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



DSE 8610

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Synchronizing Panel

Automatic control panel WITHOUT ATS (Automatic Transfer Switch) and WITHOUT mains control with thermal magnetic protection (according to voltage and number of phases) and Earth leakage protection, composed by:

- Control and power electric panel, with measurements devices and controller (according to necessity and configuration), both fitted on the Genset.
- Automatic circuit breaker (one for each set) of suitable rated current completed with motorized driver, opening coil MN and aux. contacts.
- Earth leakage adjustable protection (time [inst 0,2 0,5 3 5 s] sensibility [30 300mA 3A])
- Battery Charger
- Engine water preheating.



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Control Panel

The DSE8610 is an easy to use multi-generator loadshare system, designed to synchronise up to 32 generators including electronic and non-electronic engines.

The DSE8610 monitors the generator and indicates operational status and fault conditions, automatically starting or stopping the engine on load demand or fault condition.

System alarms are annunciated on the LCD screen (multiple language options available), illuminated LED and audible sounder. The event log will record 250 events to facilitate easy maintenance. An extensive number of fixed and flexible monitoring, metering and protection features are included as well as comprehensive communication and system expansion options.

Using the DSE PC Configuration Suite Software allows easy alteration of the operational sequences, timers and alarms. With all communication ports capable of being active at the same time, the DSE8610 is ideal for a wide variety of demanding load share applications.





Control Panel

KEY LOAD SHARE FEATURES:

- Peak lopping
- Sequential set start
- Manual voltage/frequency adjustment
- R.O.C.O.F. and vector shift
- Generator load demand
- Automatic hours run balancing
- Mains (Utility) de-coupling
- Mains (Utility) de-coupling test mode
- Dead bus sensing
- Bus failure detection
- Direct governor and AVR control
- Volts and frequency matching
- kW and kV Ar load sharing

KEY BENEFITS

- RS232 & RS485 can be used at the same time
- DSENet connection for system expansion
- PLC functionality
- Auto voltage sensing
- Five step dummy load support
- Five step load shedding support
- High number of inputs and outputs
- Worldwide language support
- Configuration Suite PC software
- Direct USB connection to PC
- Ethernet monitoring
- USB host
- Data logging & trending

KEY FEATURES

- Comprehensive loadshare capabilities
- Configurable inputs (11)
- Configurable outputs (8)
- Voltage measurement
- Built-in governor and AVR control
- kW overload alarms
- Comprehensive electrical protection
- Magnetic pick-up
- Electronic engine capability
- RS232 & RS485 remote communications
- Modbus RTU
- PLC functionality
- Multi event exercise timer
- Back-lit LCD 4-line text display
- Multiple display languages
- Automatic start/Manual start
- Audible alarm
- Fixed and flexible LED indicators
- Event log (250)
- Engine protection
- Fault condition notification to a designated PC
- Front panel mounting
- Protected front panel programming
- PC configuration
- Configurable alarms and timers
- Configurable start and stop timers
- SMS alert messaging
- Remote monitoring



Control Panel_ALARMMS

ENGINE ALARMS

1. High coolant temperature.
2. Low oil pressure.
3. Battery charge alternator
4. Start failure.
5. Low water level.
6. Fuel storage.
7. Overspeed.
8. Under speed.
9. Low battery voltage.
10. High coolant temperature by sensor.
11. Low oil pressure by sensor.
12. Low fuel level by sensor.
13. Unexpected shutdown.
14. Stop failure.
15. Low engine temperature.
16. Genset voltage drops.
17. Emergency stop.

GENERATOR ALARMS

1. Over-load
2. Unbalanced voltage
3. Over voltage
4. Under voltage
5. Over frequency
6. Under frequency
7. Over load
8. Short-circuit
9. Inverse Power
10. Incorrect phase sequence
11. Asymmetry among phases
12. Emergency stop

Control Panel_READINGS

ENGINE READINGS

Coolant temperature
Oil pressure
Fuel level (%)
Battery voltage
R.P.M.
Battery charge alternator voltage

GENERATOR READINGS

Voltage among phases
Voltage among phases and neutral
Amperage
Frequency
Apparent power (kVA)
Active power (kW)
Reactive power (kVAr)
Power factor



Control Panel_PROTECTIONS

ENGINE PROTECTIONS

High water temperature
High coolant temperature by sensor
Low engine temperature by sensor
Low oil pressure
Low oil pressure by sensor
Low coolant level
Unexpected shutdown
Fuel storage
Fuel storage by sensor
Stop failure
Battery voltage failure
Battery charge alternator failure
Overspeed
Under speed
Start failure
Emergency Stop

ALTERNATOR PROTECTIONS

High frequency
Low frequency
High voltage
Low voltage
Short-circuit
Asymmetry among phases
Incorrect phase sequence
Inverse power
Overload
Genset signal droop

Control Panel_OPERATING MODE

1. Locked | OFF. Controller is switched off, it is not allowed any operation on the Genset, all sequences are blocked. This has to be configured for maintenance operation.
2. Manual Mode | MAN. Gensets starts through frontal command, breaker closing is manual but all protection devices are activated..
3. Automatic Mode | AUTO.

- a. Parallel with main| LOAD SHARING. Genset and the main work together sharing the load.
Back-Synch is not available.
- b. Parallel with main | BASE LOAD. Genset and the main work together. Genset works at a fixed power.
Back-Synch is not available.
- c. Parallel with main | PEAK SHAVING. Genset and the main work together. The main is the main supplier and the Genset supplies peaks. Back-Synch is not available.

Pictures are indicative, components features may change at any time.



Generator set features

Engine

- Diesel engine
- 4-stroke cycle
- Air-cooled
- 24V electrical system
- Remote radiator
- Electronic governor
- HTW sender
- LOP sender
- Dry air filter
- Hot parts protection
- Moving parts protection

Alternator

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

Container version

- Soundproofing provided by high-density volcanic rock wool
- High mechanical resistance
- Low level of noise emissions
- System of interior lighting
- Door with window to visualize control panel, alarms and measurements
- Reinforced lifting points for crane hoisting and lower ones for transportation by forklift
- Residential steel silencer with -35dB attenuation and tilting cap in the exhaust
- Anti-vibration shock absorbers
- Steel chassis
- Manual oil extraction pump
- Robust construction designed for continuous or emergency applications
- Stainless steel fittings
- Emergency stops



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Generator set features

Container version

- Easy access to the power connection
- Reinforced chassis for heavy range
- Silent-block with anti-corrosion protection between the genset and the chassis
- Easy access to fill radiator through the roof
- 50L tank for automatic oil replenishment
- 10-foot container
- 3-way valve for external fuel supply

Electrical System Container

- Control panel and emergency stop button
- Battery charger
- Heating resistor
- Power panel
- Battery charge alternator with ground connection
- Starter battery/ies installed (cables and bracket included)
- Ground connection electrical installation with connection ready for ground spike (not supplied)
- 4 pole circuit breaker
- Power panel with safety protection in output terminals box (open thermal magnetic protection and alarm)
- Maintenance-free and anti-explosion battery
- Battery isolator



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PDF Summary

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