









**HIMOINSA®**  
THE ENERGY



Model: HPCW-630 D5-6

HEAVY RANGE  
Container  
Powered by MTU

-  10 FT
-  WATER-COOLED
-  THREE PHASE
-   50 HZ 60 HZ
-  DIESEL

## Generating Rates



SERVICE		50Hz		60Hz	
		PRP	STANDBY	PRP	STANDBY
Power	kVA	628	698	697	768
Power	kW	502	558	558	615
Rated Speed	r.p.m.	1.500		1.800	
Standard Voltage	V	400/230		480/277	
Available Voltages	V	380/220-415/240		460/265-440/254-416/240 220/127V	
Rated at power factor		0,8			

HIMOINSA company with quality certification ISO 9001:2008  
HIMOINSA gensets are compliant with the following directives.

- 2006/42/CE Machinery safety.
- 2004/108/CE Electromagnetic compatibility.
- EN 12100, EN 13857 y EN 60204 Design and manufacturing.
- 97/68/CE Emissions of gaseous and particulate pollutants.
- 2000/14/CE Sound Power level. Noise emissions outdoor equipment.
- 2006/95/CE Low voltage.

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

Prime Power (PRP):

According to Standard ISO 8528-1:2005, this is the maximum power available for variable loads for unlimited running hours a year between the maintenance times recommended by the manufacturer under the environmental conditions established by the same. The average power consumed over a 24-hour period may not exceed 70% of the PRP.

Emergency Standby Power (ESP): According to Standard ISO 8528-1:2005, this is the maximum power available for variable loads to be used when a normally available electrical supply network or grid fails or under test conditions where the running hours will be less than 200 hours a year between the maintenance times recommended by the manufacturer under the environmental conditions established by the same. The average power consumed over a 24-hour period may not exceed 70% of the ESP.

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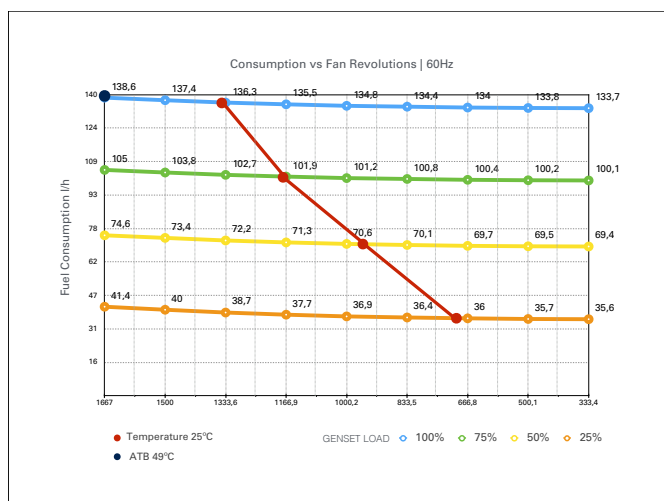
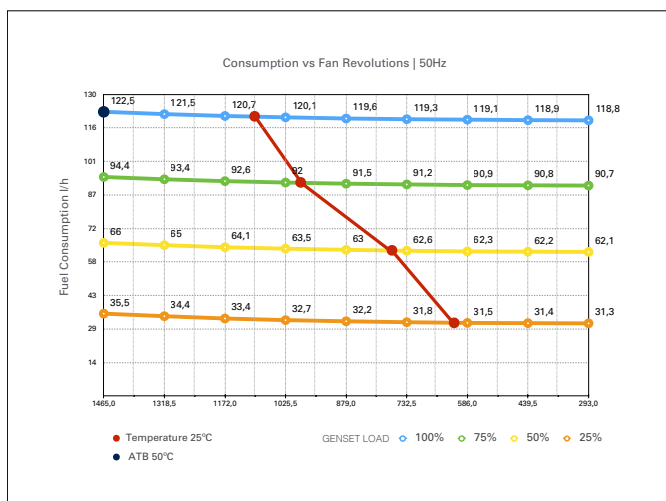


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Engine Specifications 1.800 r.p.m.

ENGINE		1500 rpm		1800 rpm	
		PRP	STANDBY	PRP	STANDBY
Rated Output	kW	576	634	608	668
Manufacturer		MTU			
Model		12V1600B40S			
Engine Type		Diesel 4 strokes-cycle			
Injection Type		Direct			
Aspiration Type		Turbocharged and aftercooled			
Cylinders Arrangement		12V			
Bore and Stroke	mm	122 x 150			
Displacement	L	21			
Cooling System		coolant			
Lube Oil Specifications		S10 W40			
Compression Ratio		17,5			
Fuel Consumption 100% PRP	l/h	120,1		136,3	
Fuel Consumption 75 % PRP	l/h	91,5		101,9	
Fuel Consumption 50 % PRP	l/h	62,6		70,6	
Fuel Consumption 25 % PRP	l/h	31,5		36	
Lube Oil Consumption Full Load		0,5		0,5	
Total oil capacity including tubes, filters	L	72,5			
Governor	Type	Electronic			
Air Filter	Type	Dry			
Inner diameter exhaust pipe	mm	106			





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## Generator

Generator		
Poles	Num	4
Winding Conections (standard)		Star - Serie
Frame Mounting		S-1 14"
Insulation	Class	H class
Enclosure (according IEC-34-5)		IP23
Exciter System		self-regulating, brushless
Voltage Regulator		A.V.R. (Electronic)
Bearing		Single bearing sealed
Coupling		Flexible disc
Coating type		Standar (Vacuum impregnation)





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## Application Data

		1500 rpm	1800 rpm
<b>Exhaust System</b>			
Maximum exhaust temperature	°C	485	425
Exhaust Gas Flow	m3/min	120	132
Maximum allowed back pressure	mbar	150	
Exhaust Flange Size (external diameter)	mm	118	

<b>Air Inlet System</b>			
Intake Air Flow	m3/h	45	54
Cooling Air Flow	m3/s	14	16,7
Alternator fan air flow	m3/s	2,08	2,5

<b>Starting System</b>			
Starting Motor	kW	8	
Starting Motor	CV	10,88	
Recommended Battery Capacity	Ah	2 x 75	
Auxiliary Voltage	Vcc	24	
Current of starter (Rush)	A	800	
Current of starter (Cranking)	A	250	

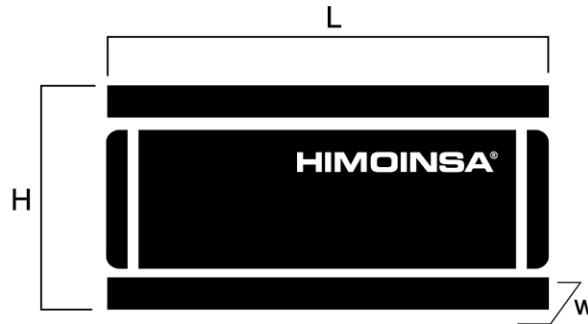
<b>Fuel System</b>			
Fuel Oil Specifications	Diesel		
Fuel Tank	L	0	



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## Dimensions



10ft	Weight and Dimensions		
(L)	Length	mm	2.991
(H)	Height	mm	2.591
(W)	Width	mm	2.438
	Shipping Volume seaworthy (standard supplier)	m <sup>3</sup>	18,89
(*)	Wet weight	Kg	7064
	Fuel tank capacity	L	No fuel tank
	Noise level @7m (50Hz)	Db(A)	66
	Noise level @7m (60Hz)	Db(A)	68

(\*) (with standard accessories)

STANDARD VERSION

Himoinsa reserves the right to modify any characteristic without prior notice.  
Weights and dimensions based on products standar. Illustrations may include optional equipment.  
Technical data described here correspond with the available information at the moment of printing.  
Industrial design under patent.

Local Distributor



# DSE 8610

Model: HPCW-630 D5-6

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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.



## 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.





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## 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.**



## Generating Sets Standard and Optional Features

### Engine

- Diesel engine
- 4 strokes-cycle
- Water-cooled
- 24V Electrical system
- Remote cooling radiator
- Water separator decanting filter (visible level)
- Electronic governor
- Sender WT
- Senders OP
- Low water level sensor
- Dry air cleaner
- Hot components and radiator guards
- Mobile components guards

### Alternator

- Self-excited and Self-regulated
- IP23 protection degree
- Insulation H class

### Container version

- Soundproof insulation made of high density volcanic rockwool
- High mechanical resistance
- Low level of sound emissions
- System of interior lighting
- Door with window to visualize control panel, alarms and measurements
- Hoisting points reinforced for crane lifting and forklift pockets
- Residential silencer steel made, 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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## Generating Sets Standard and Optional Features

### Container version

- Easy access to the power connection
- Reinforced chassis for heavy range
- Easy access for chassis cleaning
- Silent-block with anti-corrosion protection between the genset and the chassis
- Easy access to fill radiator through the roof
- Automatic lube oil replenishment system with a 50L tank
- 10 feet ISO Container
- External connection to fuel tank

### Container Electrical System

- Battery charger
- Pre-heating resistance
- Control panel and emergency stop button
- Power panel
- Battery charge alternator with ground connection
- Starting battery/ies installed and connected to the engine (supports included)
- Ground connection electrical installation with connection ready for ground pike (not supplied)
- 4 poles circuit breaker
- Power panel with safety protection in output terminals box (open thermal magnetic protection and alarm)
- Maintenance-free and anti-blast battery
- Battery isolator





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## PDF Summary

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Page 1. Genset data

Page 2. Engine Specifications

Page 3. Generator Specifications

Page 4. Synchronizing Panel & Controller

Page 5. Controller

Page 6. Controller Alarms & Readings

Page 7. Controller Protections & Operating Mode

Page 8. Generator Features & Options

Page 9. Generator Features & Options

Page 10. Installation Data

Page 11. Dimensions

Page 12. PDF Summary (ID454E36393331313833)

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