



# HIMOINSA



MODEL  
**HPCW-510 T5**  
 UDLEJNINGSSERIE  
 Lydisoleret udlejning  
 Powered by MTU

- 10FT
- VANDKØLET
- TREFASE
- 50 HZ
- STAGE 3A
- DIESEL

## Genererede effekter



| SERVICE                 |         | PRP           | ESP |
|-------------------------|---------|---------------|-----|
| Effekt                  | kVA     | 510           | 562 |
| Effekt                  | kW      | 408           | 450 |
| Nominel hastighed       | r.p.m.  | 1.500         |     |
| Standard spænding       | V       | 400/230       |     |
| Tilgængelige spændinger | V       | 230 - 230/132 |     |
| Nominel effektfaktor    | 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

### HIMOINSA HEADQUARTERS:

Fábrica: Ctra. Murcia - San Javier, Km. 23,6 | 30730 SAN JAVIER (Murcia) Spain  
Tel.+34 968 19 11 28 Fax +34 968 19 12 17 Fax +34 968 19 04 20 | info@himoinsa.com | www.himoinsa.com

#### Manufacture facilities:

SPAIN • FRANCE • INDIA • CHINA • USA • BRASIL • ARGENTINA

#### Subsidiaries:

PORTUGAL | POLAND | GERMANY | SINGAPORE | UAE | MEXICO | PANAMÁ | ANGOLA | UK





## Motorspecifikationer 1.500 r.p.m.

| MOTOR                                     |      | PRP                       | ESP |
|---|------|---------------------------|-----|
| Nominel effekt                            | kW   | 448                       | 493 |
| Producent                                 |      | MTU                       |     |
| Model                                     |      | 10V1600G20F               |     |
| Motortype                                 |      | Diesel 4 takt             |     |
| Indsprøjtningsstype                       |      | Direkte                   |     |
| Aspirationstype                           |      | Turboladet og efterkølet  |     |
| Antal cylindre og arrangement             |      | 10-V                      |     |
| Boring og slaglængde                      | mm   | 122 x 150                 |     |
| Slagvolumen                               | L    | 17,5                      |     |
| Kølesystem                                |      | kølevæske                 |     |
| Smøreoliespecifikationer                  |      | S10 W40                   |     |
| Kompressionsforhold                       |      | 17,5                      |     |
| Brændstofforbrug ESP                      | l/h  | 117,52                    |     |
| Brændstofforbrug 100 % PRP                | l/h  | 108,87                    |     |
| Brændstofforbrug 75 % PRP                 | l/h  | 86,34                     |     |
| Brændstofforbrug 50 % PRP                 | l/h  | 60,69                     |     |
| Brændstofforbrug 25 % PRP                 | l/h  | 31,65                     |     |
| Smørelieferbrug fuld belastning           |      | 0,5 % af brændstofforbrug |     |
| Total oliekapacitet inklusive rør, filtre | L    | 60,5                      |     |
| Regulering                                | Type | Elektrisk                 |     |
| Luftfilter                                | Type | Tør                       |     |
| Indvendig diameter udstødningsrør         | mm   | 106                       |     |

## Generator

| Generator                        |        |                               |
|----------------------------------|--------|-------------------------------|
| Producent                        |        | MECC ALTE                     |
| Poler                            | Antal  | 4                             |
| Kabeltilslutninger (standard)    |        | Star - Parallel               |
| Rammemonteret                    |        | S-1 14"                       |
| Isolering                        | Klasse | H-klasse                      |
| Kabinet (i henhold til IEC-34-5) |        | IP23                          |
| Exciter system                   |        | selvmagnetiserende, børstefri |
| Spændingsregulering              |        | A.V.R. (Elektronisk)          |
| Leje                             |        | enkeltleje                    |
| Kobling                          |        | Fleksibel skive               |
| Belægningstype                   |        | Standard (Vacuumstyret)       |



## Anvendelsesdata

| Udstødningssystem                              |                     |      |
|--|---------------------|------|
| Maksimal udstødningstemperatur                 | °C                  | 499  |
| Udstødningsgasstrøm                            | m <sup>3</sup> /min | 98,4 |
| Maksimalt tilladte returtryk                   | mbar                | 150  |
| Udstødningsflange dimension (ekstern diameter) | mm                  | 118  |

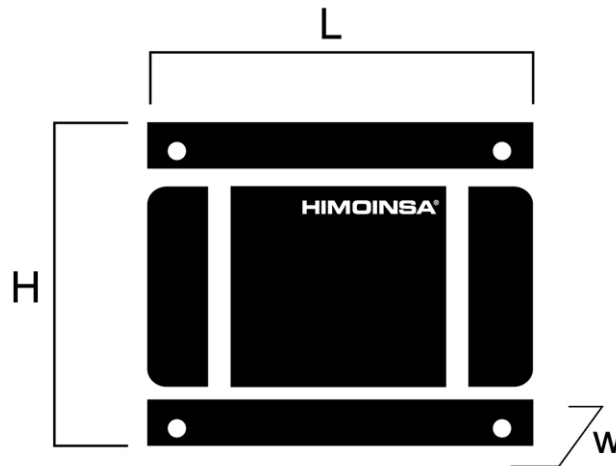
| Påkrævede Luftmængde      |                   |      |
|---------------------------|-------------------|------|
| Indsugnings luftstrøm     | m <sup>3</sup> /h | 2160 |
| Køleluftstrøm             | m <sup>3</sup> /s | 21   |
| Generatorblæser luftstrøm | m <sup>3</sup> /s | 0,9  |

| Startsystem            |            |        |
|------------------------|------------|--------|
| Starter                | kW         | 8      |
| Starter                | CV         | 10,88  |
| Anbefalet batteri      | Ah         | 75 x 2 |
| Ekstraudstøvs spænding | Vdc        | 24     |
| Startstrøm             | Peak       | 800 A  |
| Startstrøm             | Intensitet | 250 A  |

| Brændstofsysteem            |   |        |
|-----------------------------|---|--------|
| Brændstof oliespecifikation |   | Diesel |
| Brændstoftank               | L | 500    |



## Dimensioner



| 10ft | Vægt og dimensioner                |                |          |
|------|------------------------------------|----------------|----------|
| (L)  | Længde                             | mm             | 2.991    |
| (H)  | Højde                              | mm             | 2.591    |
| (W)  | Bredde                             | mm             | 2.438    |
|      | Maksimal forsendelsesvolumen       | m <sup>3</sup> | 18,89    |
| (*)  | Vægt med væsker i køler og bundkar | kg             | 7.400    |
|      | Brændstoftank kapacitet            | L              | 500      |
|      | Autonomi                           | Timer          | 6        |
|      | Lydtryksniveau                     | dB(A)@7m       | 63 ± 2,4 |

(\*) (med standardudstyr)

STANDARD VERSION (Stål tank)

Himoinsa forbeholder sig ret til ændringer uden varsel.  
 Vægte og dimensioner er baseret på standardprodukter. Illustrationer kan inkludere ekstraudstyr.  
 Tekniske data som beskrevet er gældende på tidspunktet for trykning.  
 Industrielt design er patenteret.

Lokal forhandler



## 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] sesibility [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.





## 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.**





## Generatorsæt standard og ekstraudstys funktioner

### Motor

- STAGE 3A
- Dieselmotor
- 4-takt
- Vandkølet
- 24V Elektrisk system
- Vandudskiller dekanteringsfilter (synligt niveau)
- Tørluftfilter
- Fjernmonteret køler
- ATA lamper
- BPA lamper
- Kølevæskensniveau sender
- Elektronisk regulator
- Beskyttelse mod varme dele
- Beskyttelse mod bevægelige dele

### Generator

- Selvmagnetiseret og selvreguleret
- IP23-beskyttelsesklasse
- Isolering H-klasse

### Container version

- Lydtæt isolering fremstillet af tung vulkansk Rockwool
- Høj mekanisk modstand
- Lavt emissionsniveau
- Indvendigt belysningsystem
- Dør med vindue for styrepanel, alarmer og måleværdier
- Forstærkede løftepunkter for løft med kran, samt lommer for gaffeltruck
- Lokal lyddæmper fremstillet af stål, med -35dB dæmpning og spjæld på udstødning
- Anti-vibrations støddæmpere
- Stålkassis
- Manuel olieudledningspumpe
- Robust konstruktion designet for kontinuerlige- og nødbrug
- Beslag i rustfrit stål



## Generatorsæt standard og ekstraudstys funktioner

### Container version

- Nødstop
- Nem adgang til strømtilslutning
- Forstærket ekstra kraftigt chassis
- Nem adgang til rengøring af chassis
- Silent-block med anti-korrosions beskyttelse mellem genset og chassis
- Nem adgang til påfyldning af køler gennem taget
- Automatisk smøreoliepåfyldning med 50L tank
- 10 fod ISO Container
- Ekstern tilslutning til brændstoftank
- 3 vejs ventil for fyldning (leveres i 1/2" og 3/8")

### Container Elektrisk system

- Styrepanel og nødstopknap
- Batterilader
- Forvarmningsmodstand
- Effektpanel
- Batterilader generator med jordforbindelse
- Startbatteri/er monteret og tilsluttet til motor (beslag medfølger)
- Jordforbindelse elektrisk installation med tilslutning klar til jordspyd (medfølger ikke)
- 4-polet fejlstrømsrelæ
- Effektpanel med sikkerhed på udgangsterminalers boks (åben termisk magnetisk beskyttelse og alarm)
- Vedligeholdelsesfrit batteri og anti-blast batteri
- Batteriisolator



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## PDF opsummering

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Side 1. Genset data

Side 2. Motorspecifikationer. Generatorspecifikationer.

Side 3. Installationsdata

Side 4. Dimensioner

Side 5. Synchronizing Panel & Controller

Side 6. Controller

Side 7. Controller Alarms & Readings

Side 8. Controller Protections & Operating Mode

Side 9. Generatorfunktioner

Side 10. Generatorfunktioner

Side 11. PDF opsummering

