

INDUSTRIAL DIESEL GENSET

DLWS 20

POWER RATING	1500 rpm/50 Hz	1800 rpm/60 Hz
Prime	17.4 kVA, 13.9 kW	21.8 kVA, 17.5 kW
Standby	19.3 kVA, 15.5 kW	24.2 kVA, 19.3 kW

Generator set consisting of engine and alternator mounted on fabricated steel profile baseframe, painted with phosphate primer and top coat.

The alternator is coupled directly to the engine flywheel housing, to SAE standards. The rotor is fixed to the flywheel using steel discs for flexibility. Perfect alignment and the absence of vibrations are thus guaranteed.

The unit is fixed to the baseframe using anti-vibration dampeners.

The set is supplied with a SOUNDPROOFED METAL CANOPY in all versions. This canopy is covered on the inside with soundproofing material which added to the silencer gives a noise level of 64 db(A) at 7 mts.

ENGINE

Type.....4-stroke diesel with direct injection.
Manufacturer Lombardini
Model.....LDW 2004
No. of cylinders.....4
Engine capacity 2068 cc
Bore 88 mm
Stroke 85 mm
Compression ratio 22:1
Aspiration.....Atmospheric
Engine speed.....1500 / 1800 rpm
Prime power DIN 6271 25/31,25HP
Fuel consume 5,88/7,3ltr/h 100%load
Fuel tank capacity 1500/1800rpm 40 litres
Approx. runtime w/o refill 6,8 / 5,5 h
Noise level 1500/1800rpm... 68,7 / 72dB(A) at 7m

Cooling system

Liquid cooled with axial fan.
Cooling air flow 1500 / 1800 rpm 64 / 76,8 m3/min

Lubrication system

Forced lubrication via rotating pump. External oil filter.
Oil sump capacity 4.5 litres
Consumption 0.032kg/h

Air intake system

Naturally aspirated via dry air filter.
Combustion air flow 1500 / 1800 rpm 1.55 / 1.86 m3/min

Injection system

Indirect injection. Fuel filter

Electric system

12 V electric starting system. Axial starter motor. 70 A.h. battery. Battery charging alternator. Oil pressure and engine temperature sensors.

Protection system

Automatic engine shutdown for low oil pressure, low fuel level, high temperature and battery charge defect.

Exhaust system

Manifold silencer.

ALTERNATOR

Synchronous, three phase and brushless. Electronic regulation on all three phases. Class "H" insulation. All windings are impregnated with polyester resin, making them resistant to acids and oil. IP 23 protection.

Electrical characteristics to IEC.34.1, CEI 2-3, VDE 0530 and BS 4999-5000. Radio interference suppression to grade G of VDE 0875.

Manufacturer Mecc Alte
Model.....ECN 28 LC
Power rating 22 kVA
Voltage(*).....220/380 V three phase
Frequency.....50/60 Hz
Speed 1500 / 1800 rpm
Regulation Electronic
Nominal current.....33,4 A

(*) Other voltages: PLEASE CONSULT.

VERSIONS

The DLWS 20 may be supplied in the following versions:

STATIONARY, MOBILE AND AUTOMATIC

STATIONARY VERSION

DLWS 20

In the STATIONARY version, the generator set is supplied on a skidbase with a control panel operated manually using an ignition key.

Length x Width x Height: 2025 x 830 x 1310 mm
Weight: 670 kgs

Metal canopy

Ideal for outdoor use, it is finished with a phosphate coating and a long lasting top coat of paint

Control panel

In metal cabinet, equipped with:

- Thermo-magnetic circuit breaker.
- Earth fault relay.
- Ammeter
- Frequency meter.
- Voltmeter.
- Hours run meter.
- Fuel gauge.
- Three phase output terminals
- On light.
- Heater button.

Control card featuring: ignition key, start-stop pushbuttons and indicator lights for low oil pressure, battery charge, high temperature and low fuel level.

MOBILE VERSION

DLWS 20-M

Set on baseframe mounted on independent trailer. Incorporates soundproofed metal canopy housing the control panel which is operated manually via an ignition key.

Length Width Height: 2735 mm x 1240 mm x 1707 mm
Weight: 820 kgs

Metal canopy

Ideal for outdoor use, it is finished with a phosphate coating and a long lasting top coat of paint

Trailer

Wheels with tyres, DIN towing eye, rubber axle suspension and support leg. Jockey wheel on request.

Control panel

In metal cabinet, equipped with:

- Thermo-magnetic circuit breaker.
- Earth fault relay.
- Ammeter
- Frequency meter.
- Voltmeter.
- Hours run meter.
- Fuel gauge.
- Three phase output terminals
- On light.
- Heater button.

Control card featuring: ignition key, start-stop pushbuttons and indicator lights for low oil pressure, battery charge, high temperature and low fuel level.

AUTOMATIC VERSION

DLWS 20-N

The automatic version generator set is supplied on a skidbase with an automatic start / stop panel for mains failure.

Length x Width x Height: 2025 mm x 830 mm x 1310 mm
Weight: 670 kgs

Metal canopy

Ideal for outdoor use, it is finished with a phosphate coating and a long lasting top coat of paint

Control panel

Mounted in metal cabinet with IP 54 protection and supplied loose for wall mounting. Includes monitoring and control, measuring and handling and changeover systems.

Monitoring and control system

- Automatically monitors the mains, and if the mains fails connects the consumers to the generator set via contactors which are mechanically and electronically activated. When the mains is restored, the load is reconnected to the mains, the set idles and then stops.
- No. of start-up attempts: 3
- Selector switch for Disconnect, Automatic Service, Manual Service and Test.
- The generator set may be set to run manually or automatically. When running manually, start-up, shutdown and changeover are performed using a selector switch.
- Three phase voltage monitor with adjustable values.

Measuring and handling equipment

Consists of the following items:

- 1 Ammeter
- 1 Voltmeter
- 1 Mains-generator set voltmeter selector switch.
- 1 Frequency meter
- 1 Battery voltmeter.
- Off button.
- Battery maintenance system.
- Battery indicator light.
- Battery charge light.
- Large emergency stop push button.
- Audible and visual alarm for low fuel level. (Shown as "ALARMS NO STOP").
- Alarm system disconnecting generator, shutdown, audible alarm and visual signal for:
 - Start-up failure
 - Low oil pressure
 - High water/engine body temperature
 - Overload
- Protection fuse
- Thermo-magnetic circuit breaker.

Transfer system

Made up of two mechanically and electrically interlocking contactors. WORKING VOLTAGE: 400/230 V

Heater

In this version, the set incorporates a heater which aids diesel engine start-up and response. It consists of a tank connected to the engine cooling system and a heating element with an adjustable thermostat.