Code: IDRN0165540T7310400M

Model: IDRN5-165 - RENTAL RANGE | 400/230 V - THREE-PHASE | 1.500 R.P.M. | 50 Hz

RENTAL Genset with manual control panel.

Image for guidance purposes.

STAGE V

PRP

CONTINUOUS POWER: 150 kVA

PRP "Prime Power" norma ISO 8528-1

LTP

STAND-BY POWER: 165 kVA

LTP "Limited Time Power" norma ISO 8528-1

ENGINE

MAKE	MODEL
DEUTZ	TCD6.1L6-SV

ALTERNATOR

MAKE	MODEL
LEROY-SOMER	TAL044-J

VOLTAGE	HZ	PHASE	COS Ø	PRP kVA/kW	LTP kVA/kW	AMP. (LTP)
400/230	50Hz	3	0,8	150,0/120,0	165,0/132,0	238,16

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POWER GENERATORS INMESOL

Code: IDRN0165540T7310400M

Model: IDRN5-165 - RENTAL RANGE | 400/230 V - THREE-PHASE | 1.500 R.P.M. | 50 Hz

ENGINE CHARACTERISTICS

MAKE	MODEL
DEUTZ	TCD6.1L6-SV

General Data

Power PRP (kWm)	131.7
Power LTP (kWm)	147
No. cylinders	6
Cylinder capacity (L)	6.1
Diameter per stroke (mm)	101 x 126
Compression ratio	18
Cooling system	LIQUID
Injection	COMMON RAIL
Suction	TURBO-INTERC.
Series regulator	ELECTRONIC
Fly wheel coupling	3-11.5

Lubrication system

Oil capacity (L)	
Oil consumption (%)	0.1
Min. alarm oil pressure (bar)	1.5

Ventilation system

Air cooling flow (m^3/h)	
Combustion air flow (m^3/h)	561
Max. back pressure for fan (mbar)	

Exhaust system

Exhaust gas flow (m^3/h)	1460
Exhaust back pressure (mbar)	
Temp. exhaust gases (°C)	481

Electrical system

VDC (V)	24
Battery (Ah)	2 x 110
Engine start-up (kW)	4

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POWER GENERATORS
INMESOL

Code: IDRN0165540T7310400M

Model: IDRN5-165 - RENTAL RANGE | 400/230 V - THREE-PHASE | 1.500 R.P.M. | 50 Hz

ALTERNATOR CHARACTERISTICS

MAKE	MODEL
LEROY-SOMER	TAL044-J

General Data

Power PRP (kVA)	150
Power LTP (kVA)	165
Efficiency Alt. 100 %	92.4
Efficiency Alt. 110 %	92
No. Poles	4
Voltage regulator	AREP+ R180
No. wires	6
Insulation	H
Xd (%)	359
X'd (%)	17
X	10.2
Degree of protection	IP23

GENERATOR SET CONSUMPTION

% POWER USED	LITRES/HOUR
50%	18.6
75%	27
100%	37.7

DIMENSIONS, CAPACITIES, APPROXIMATE WEIGHT

Dimensions (mm)		
LENGTH	WIDTH	HEIGHT
3640	1200	2295

FUEL TANK (LITRES)	WEIGHT (KG)
1100	3000

NOISE LEVEL (dB (A))
67+/-2dB(A)@7m

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INMESOL GENERATOR SET

GENERAL DESCRIPTION

The “INMESOL” generator set is an electrical energy generating machine which is used in places where there is **no mains supply** or when there is a MAINS failure.

The mobile elements, distribution belt, fan, etc., and those parts which reach high temperatures during operation, exhaust manifold, etc, include their corresponding protections, in compliance with the requirements of the Machinery Directive **2006/42**.

ISO 9001 BUREAU VERITAS Certification

INMESOL S.L company with ISO 9001 quality certification system for the:

Design, manufacture, marketing and technical assistance of power GENSETS, lighting towers, welding GENSETS, tractor with PTO GENSET and hybrid generation systems.

Europe regulations:

Inmesol power GENSET sets comply with European legislation and were given the CE marking which includes the following directives:

- 2006/42/EC on machinery safety.
- 2005/88/EC on NOISE EMISSIONS by equipment for outdoor use (amends the 2000/14/EC).
- 2014/30/UE on Electromagnetic Compatibility.
- 2014/35/UE on electrical safety, electrical equipment designed to be used within certain voltage limits

International regulations:

Upon request, INMESOL can supply equipment that complies with the International Legislation and Regulations:

- “Technical Regulation on Safety of Machinery & Equipment” No. 753, repealing GOST R standards for exports to Russia.
- Resolution nº 90708 dated August 30th 2013 “Reglamento Técnico de Instalaciones Eléctricas RETIE” issued by the Ministry of Mining and Energy, Section 20.21 Engines and power generators, for exports to Colombia.

Information:

The power ratings are for reference to environmental conditions: barometric pressure 100 kPa, 25°C and 30% relative humidity. These are defined by ISO 8528 and ISO 3046.

PrimePower (PRP) “Main Service” is applicable for power GENSETs that function as main electric power source. It may be overloaded by 10% in limited time points, maximum once every 12 hours.

StandbyPower (LTP) “Emergency Service” applies to power GENSETs that run during Electrical Grid failure. This power may NOT BE OVERLOADED.

Nevertheless, to obtain long engine life, it is recommended that the active power average load (kW) connected to the power GENSET set in any period of 24 hours of operation does not exceed the following values:

- In Main Service 70% of the PRP power.
- In Emergency Service during Electrical Grid failure 80% of the LTP power.

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POWER GENERATORS
INMESOL

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RR **RENTAL** RANGE

Scope of supply

- Engine/alternator assembly, coupled and installed on a heavy electric wilded steel profile base frame through antivibration pad, then treated with rust removing products for zink layer application and Polyester (QUALICOAT) painting, “special treatment for external and corresive environment.”.
- Soundproof canopy treated with rust removing products for zink layer application and Polyester (QUALICOAT) painting, “special treatment for external and corresive environment.” Then lined with rock wool material of high density.
- Liquid cooled engine with integraed mechanical radiator and blower fan.
- Residential exhaust silencer with -35 dB(A) attenuation, plus industrial silencer in line, with gases release protected by a cap.
- Lifting hook crane.
- Fork lift pockets for easy lifting from the bottom.
- Hook for towing.
- Radiator water filling cover register.
- Easy acces to radiator cleaning, and replacement.
- Integrated metalic fuel tank of 24 hours autonomy with liquid leakage protection.
- Large fuel tank register for cleaning.
- Fuel draining plug.
- Protection of heat, mobile, and live comoponents.
- Manual oil sump pump.
- Baseframe prepared to be mounted on a trailer.
- External emergency stop push button.
- Heavy-duty engine starting battery complete with wires connection, terminal protection and on-off switch.
- Alternator battery charger with earth plug.
- Self excited and auto regulated alternator.
- Manual control panel with a mircroprocessor for control , protection and generating set reading parameters as voltage, amperage, working hours, etc.
- Circuit breaker 4P and regulable earth leakage.
- Prepared for earth stud installation (earth stud not included).
- Vertical warm air release, except in engines with exhaust gas after-treatment systems.
- On/off battery switch.
- Documents Bag.
- Door retainer.
- Cables lock for fixing the power cables.
- Special anti vibration mounts fitted between the alternator/engine block and the frame, to decrease the amount of vibrations that are transmitted to the frame and to absorb all mechanical chocks from transportation.
- Step/s for making easier the access to the lifting hook.

OPTIONS

- Coolant preheating resistor.
- Battery charger.
- Automatic/manual fuel trasnfer pump.
- Alternator with enhanced protection against harsh environments.
- Diferent colour.
- External linkbox for armound cables.
- Kit of 3-way valves for external fuel tank connection (optional single lever).
- Fast fuel plug connection between external and internal fuel tanks.
- AMF/ATS panel to turn a manual gen set to automatic version.
- Voltage and frequency change selector (50 Hz - 60 Hz), according the model.
- Sockets kits integrated in the canopy.
- Soundproof canopy auxiliary internal lighting.
- Upgrades to switchboards from other brands.
- Internal fuel filler cap with security locable key.
- Synchronising control panels, for paralleling in island mode or with the utility.

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DEIF AGC-150 STANDALONE MANUAL CONTROL PANEL

MANUAL CONTROL, PROTECTION AND DISTRIBUTION panel, built in a metal cabinet fitted on the generating set, with control unit DEIF AGC-150 STANDALONE.

Image for guidance purposes.

It has the following:

1. EMERGENCY STOP PUSHBUTTON

2. PROTECTIONS

Main circuit breaker.
Earth leakage protection.
Protection fuses for control unit.

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3. DEIF AGC-150 STANDALONE CONTROL UNIT

LCD SCREEN:

It has a digital LCD screen, which provides easy reading of the information regarding the ENGINE, ALTERNATOR and LOAD.

ENGINE	ALTERNATOR AND LOAD
Coolant temperature. *	Phase to phase and phase to neutral voltages.
Oil pressure. *	Currents.
Runing speed (rpm).	Frequency.
Fuel level.	Active power (kW).
Battery voltage.	Reactive power (kVAr).
Charge alternator voltage.	Apparent power (kVA).
Running hours.	Power factor (cos φ).
Number of starts.	Active energy meter (kW-h).

* In generating sets equipped with the corresponding sensor.

CONTROL OF THE SET:

STARTS AND STOPS the set MANUALLY.

Possibility of doing it AUTOMATICALLY via REMOTE START SIGNAL.

PROTECTION OF THE ENGINE AND ALTERNATOR, WITH THE ALARMS ACTIVATED:

ENGINE	ALTERNATOR
Low oil pressure.	Low and high voltage.
High coolant temperature.	Low and high frequency.
Low and high battery voltage	Overload due to current (A).
Charge alternator failure.	Overload due to power (kW-kVA).
Low fuel level.	Short-circuit.
Low load.	Negative phase sequence.

OTHER CHARACTERISTICS:

Fully configurable via PC software.	Real-time clock for an accurate record of events.
Extensive number of configurable inputs and outputs.	Programmer clock for the optimal maintenance of the set.
Configurable alarms and timers.	Data logging function.
USB connectivity.	PLC functionality.
RS485 port for MODBUS RTU.	Compatible with EU Stage V and EPA Tier 4 Final engines.
Ethernet port for MODBUS TCP/IP.	

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4. PROTECTIONS

MAGNETO. PROTECTION (A)	EARTH LEAK PROTECTION	DISTRIBUTION
400A, 4P	Electronic, adjustable	Power terminals

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