

Model: **IV-095 - INDUSTRIAL RANGE**

400/230 V - THREE-PHASE | 1.500 R.P.M. | 50 Hz

Genset with manual control panel.

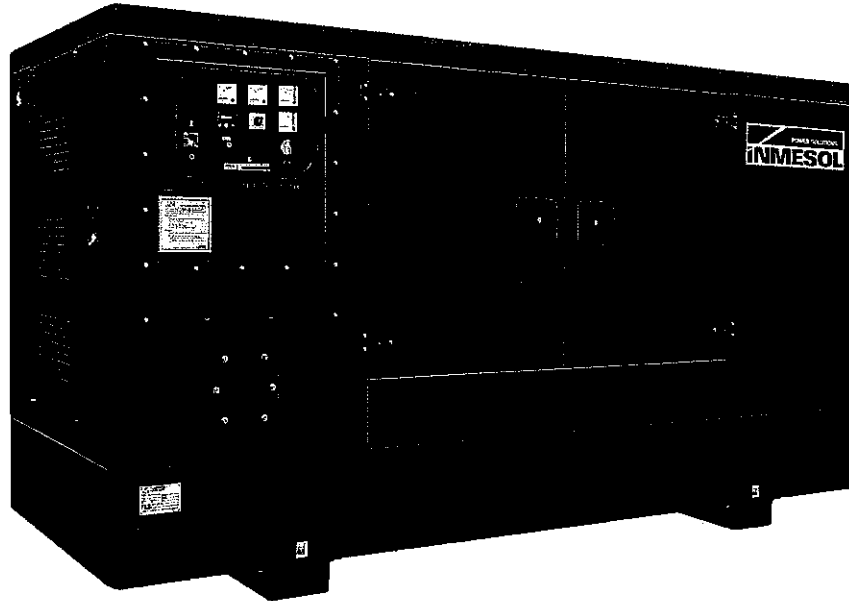


Image for guidance purposes.

PRP

CONTINUOUS POWER: 85 kVA

PRP "Prime Power" norma ISO 8528-1

LTP

STAND-BY POWER: 95 kVA

LTP "Limited Time Power" norma ISO 8528-1

ENGINE

MAKE	MODEL
VOLVO	TAD 530 GE

ALTERNATOR

MAKE	MODEL
MECC-ALTE	ECP 34-1S / 4

VOLTAGE	HZ	PHASE	COS Ø	PRP kVA/kW	LTP kVA/kW	AMP. (LTP)
400/230	50	3	0,8	84,6/67,7	93,5/74,8	135,12

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ENGINE CHARACTERISTICS

MAKE	MODEL
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VOLVO

TAD 530 GE

General Data

Power PRP (kWm)	74
Power LTP (kWm)	83
No. cylinders	4
Cylinder capacity (L)	4.76
Diameter per stroke (mm)	108 x 130
Compression ratio	18
Cooling system	LIQUID
Injection	DIRECT
Suction	TURBO-INTERC.
Series regulator	-
Fly wheel coupling	3-11,5

Lubrication system

Oil capacity (L)	13
Oil consumption (%)	0.41
Min. alarm oil pressure (bar)	2

Ventilation system

Air cooling flow (m ³ /h)	7200
Combustion air flow (m ³ /h)	307.20
Max. back pressure for fan (mbar)	0

Exhaust system

Exhaust gas flow (m ³ /h)	894
Exhaust back pressure (mbar)	50
Temp. exhaust gases (°C)	527

Electrical system

VDC (V)	12
Battery (Ah)	96
Engine start-up (kW)	3.10

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ALTERNATOR CHARACTERISTICS

MAKE	MODEL
MECC-ALTE	ECP 34-1S / 4

General Data

Power PRP (kVA)	85
Power LTP (kVA)	93.50
Efficiency Alt. 3/4 %	91.90
Efficiency Alt. 4/4 %	91.50
No. Poles	4
Voltage regulator	DSR
No. wires	12
Insulation	H
Xd (%)	325
X'd (%)	22.30
X	7.40
Degree of protection	IP23

GENERATOR SET CONSUMPTION

% POWER USED	LITRES/HOUR
50%	10
75%	15
100%	19

DIMENSIONS, CAPACITIES, APPROXIMATE WEIGHT

LENGTH	Dimensions (mm)	
	WIDTH	HEIGHT
2950	1100	1759
FUEL TANK (LITRES)		WEIGHT (KG)
220		1680

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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**.



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 n° 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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IN **INDUSTRIAL**
RANGE

Scope of supply

Engine/alternator monobloc directly connected and installed via silent blocks on a frame made from high tensile electro welded steel profiles that are treated with degreasing liquids and aplicated with a phosphate coat and polyester (QUALICOAT) paint.

Canopy of steel sheet sound proofed with fireproof rockwool, and treated with degreasing liquids and aplicated with a phosphate coat and polyester (QUALICOAT) paint.

Sealed chassis

Fuel tank integrated in the base frame provided with fuel level jauge and fuel connections to the engine.

Engine with mechanical engine driven pusher fan.

Residential silencer with -35 db(A) noise reduction with exhaust tube and protection cap.

Electric control cubicle with control module including protection and reading of electrical meassures engine instrumentation fuel level and engine running hours, etc. remote start possibility

Termal and magnetic circuit breaker and termal and magnetic circuit breaker and earth fault relay.

Battery charge alternator.

Starter battery complete with cables to the engine and pole protection.

Installation prepared for earthing spike (spike not included).

Security protection for heat and moving parts as well as live electrical components.

External emergency stop push button.

Manual engine oil extraction pump.

Self excited and auto regulated alternator.

Integrated lifting hook for single point lifting with crane, gensets up to 450 kVA (Except in swing-out cover model)

Base frame is prepared for trailer kit installation.

Standard electronic speed governor on engines from 220 kVA (LTP) and up.

Horizontal outlet for hot air (till canopy 4200x1600x2245)

OPTIONS

Battery charger

Coolant preheating

AMF/ATS panel to turn a manual gen set to automatic version

Integral additional socket panel from 20 kVA till 400 kVA PRP

Residential silencer

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DSE 3110 MANUAL CONTROL PANEL

MANUAL CONTROL, PROTECTION AND DISTRIBUTION panel, assembled on the generator set in metal cabinet with a DSE 3110 engine protection unit.

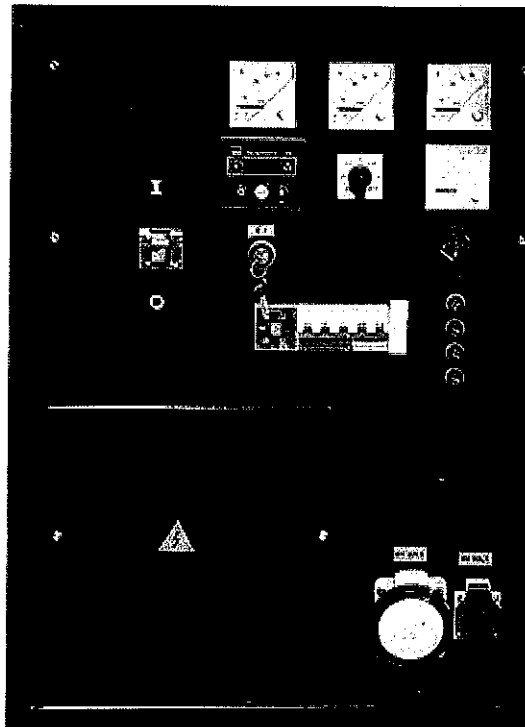


Image for guidance purposes.

It has the following:

1. STARTER SWITCH

2. EMERGENCY STOP PUSHBUTTON

3. MEASURING INSTRUMENTS:

Analogue(s) ammeter(s)

Fuel level indicator.

Analogue voltmeter

Digital Hz display and hour meter (DSE 3110)

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MANUAL CONTROL PANEL

4. SET CONTROL AND ENGINE PROTECTION: DSE 3110, allows:

START AND STOP the set MANUALLY.

Possibility of doing it AUTOMATICALLY via START ON SIGNAL

Digital readings of the operating hours and the Frequency

Controls the main characteristics of the engine, causing an alarm or stopping the machine:

- Low and High Voltage (STOP)
- Low and High Frequency and Speed (STOP)
- Low Oil Pressure and High Coolant Temperature (STOP)
- Failure of the Alternator Battery-Charger (ALARM)
- Low fuel level (ALARM)

5. PROTECTIONS

MAGNETO. PROTECTION (A)	EARTH LEAK PROTECTION	DISTRIBUTION
125A, 4P	Electronic, adjustable	CEE5P16A+Schuko+power terminals

OPTIONS

OPTIONAL 1:

AUTOMATIC PANEL FOR MANUAL GENERATOR: ATS DSE 334

This panel provides the manual control generator with a reserve operation from the Mains, as the ATS sends the command to start and stop the generator, when it detects a supply failure and when the Mains is restored.

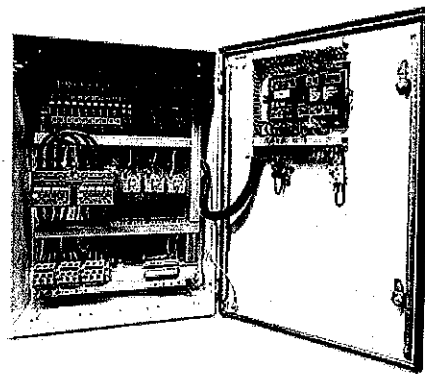
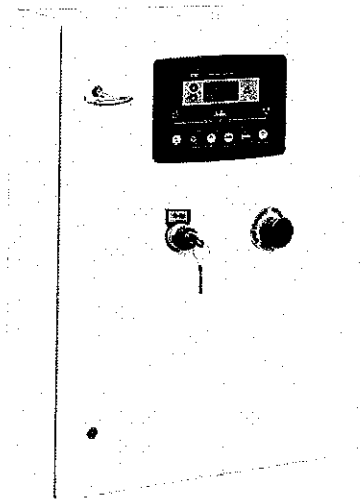


Image for guidance purposes.

It has the following:

Change over switch made up of two contactors with mechanical and electrical latching.

Battery charger

Fuses

Mains and group input and charge output connection terminal block.

DSE 334 Automatic Transfer Control Module, providing the following functions and features:

- | | |
|---|---|
| • Output to voltage free relay. | • LED indicators. |
| • Automatic supply failover. | • Four-line screen |
| • Real time clock | • Input for generator set failure. |
| • 10 inputs and 5 outputs can be customised | • Electric current monitoring (optional) |
| • Events log | • Voltage levels can be adjusted to mains failure |
| • Customisable timers | • Generator availability indicator. |
| • Setup can be completed through PC and/ or through the panel itself. | • Start signal to the engine |

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OPTIONS

OPTION 2:

FAILOVER TO DSE 6110 MKII MANUAL DIGITAL CONTROL MODULE

LCD SCREEN:

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

ENGINE:	ALTERNATOR AND CHARGE:
Coolant temperature	Voltages between phases and between phases and neutral.
Oil pressure	Intensities
Turning speed (rpm)	Frequency
Fuel level	
Battery voltage	
Battery alternator voltage	
Operating hours	
Number of start-ups	

CONTROL OF THE SET:

START AND STOP the set MANUALLY.

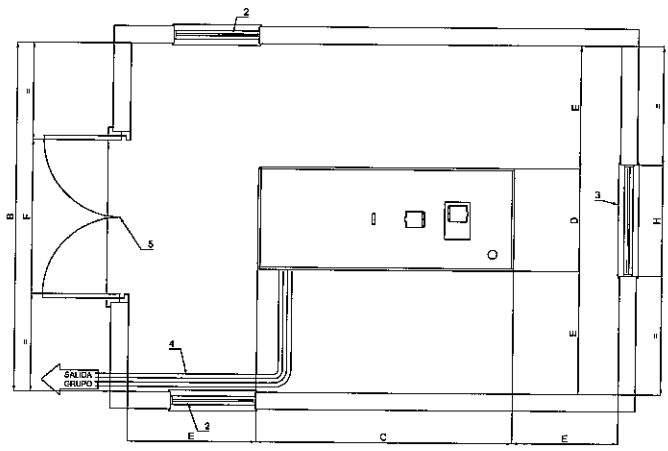
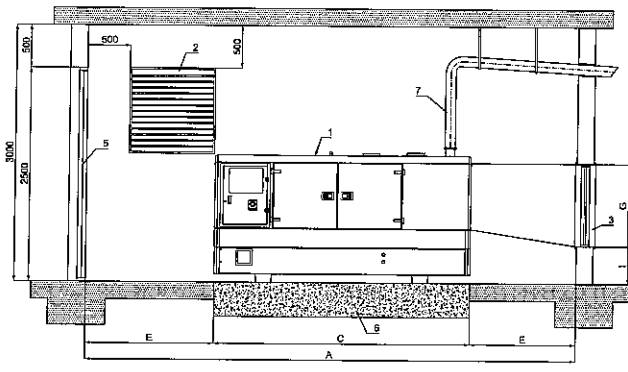
Possibility of doing it AUTOMATICALLY via START ON SIGNAL.

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 Intensity (A)
Failure of the alternator to charge batteries	
Low fuel level..	

OTHER CHARACTERISTICS:

The real-time clock records the last 50 events.s.	Fully configurable via software and PC.
Configurable inputs and outputs.	Communication via USB cable for remote control
Configurable alarms and timers.	Programmable clock with multiple maintenance events which can be configured for optimal motor functioning. Weekly and/or monthly programming for up to 8 startups and shutdowns per week.
USB connectivity	ALTERNATIVE CONFIGURATIONS, which open up the working possibilities.



DIMENSIONES MINIMAS DE SALA SEGUN POTENCIA

POTENCIA (Kva)	A	B	C	D	E	F	G	H	I	PESO	SECCION HUECO ENTRADA AIRE
B-15 ABATIBLE	3385	2800	1365	600	1000	900	700	850	450		2x0.50 m2
10-15	3600	2800	1600	900	1000	1100	700	850	450	804	2x0.50 m2
20-30	4000	2950	2000	850	1000	1200	750	850	450	980	2x0.50 m2
40-60-75	4500	3100	2500	1100	1000	1400	900	1100	450	1680	2x0.80 m2
85-105-130	5000	3200	3000	1200	1000	1400	900	1100	450	2120	2x1.00 m2
150-180-200-250	5800	3350	3600	1350	1000	1550	1150	1300	500	2340	2x2.60 m2
300-400	6200	3600	4200	1650	1000	1800	1250	1600	650	6340	2x3.00 m2
450-470-500-510-630-650	6600	4000	4800	2000	1000	2200	1300	1800	725	6900	2x3.50 m2

- NOMENCLATURA**
- 1.- GRUPO ELECTROGENO
 - 2.- HUECO ENTRADA DEL AIRE
 - 3.- TUNEL EXPULSION DEL AIRE
 - 4.- BANDEJA PASACABLES
 - 5.- PUERTA DE ACCESO
 - 6.- BASE HORMIGON ARMADO H-175
 - 7.- TUBO DE ESCAPE

CALCULO ESPESOR LOSA DE HORMIGON

$$E = \frac{W}{d \times D \times C}$$

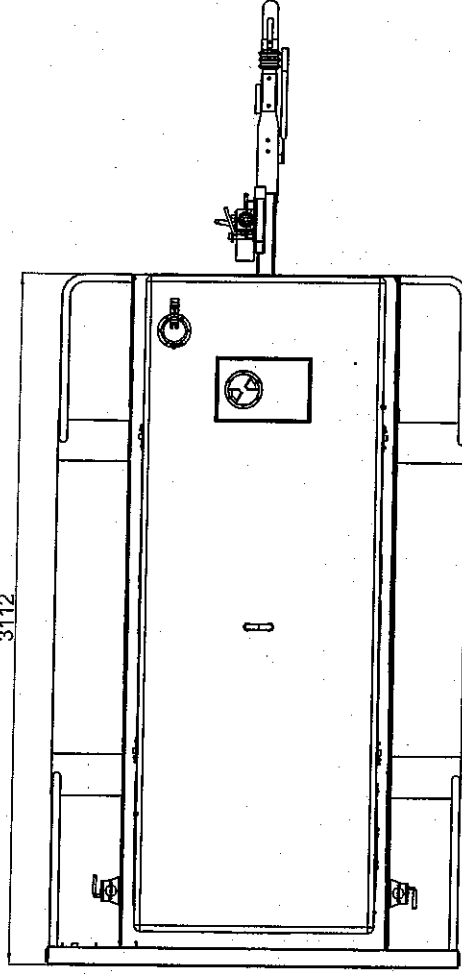
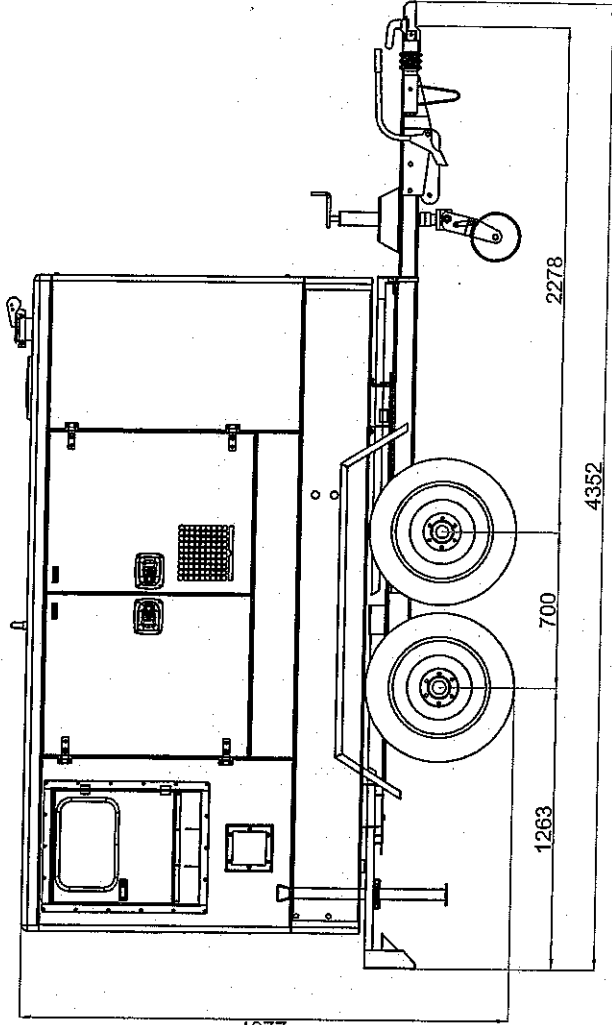
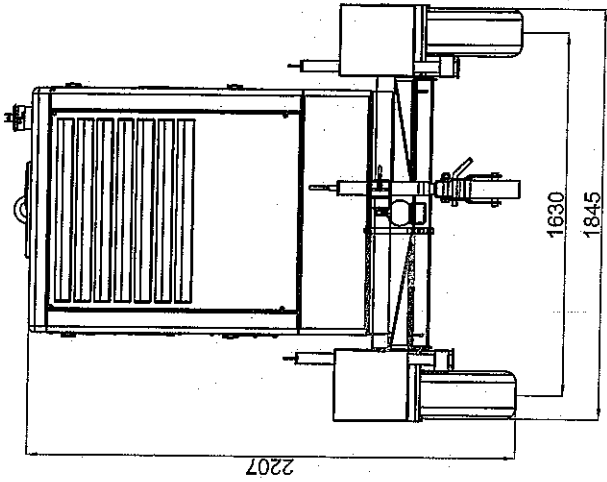
E = altura bloque de hormigón
 W = peso total grupo electrogeno
 d = densidad del hormigón (2400 kg/m³)
 D = anchura bloque de hormigón (m)
 C = longitud bloque de hormigón (m)

h = 20/100 mm

EL Ø DE LA TUBERIA DE EXTENSION DEL ESCAPE PUEDE SER EL MISMO QUE EL DEL SILENCIADOR HASTA 5 m. PARA DISTANCIAS MAYORES DE 5 m, DEBE AUMENTARSE. EL Ø DE LA TUBERIA 10 mm POR CADA 10 m MAS DE DISTANCIA ENTRE EL GRUPO ELECTROGENO Y LA SALIDA EXTERIOR

INMESOL		GRUPO INSONORIZADO			
<small> Este es un proyecto de obra de carácter técnico. No se garantiza su exactitud ni su validez legal. El usuario es responsable de su uso. </small>	<small> MODIFICADO: A.AGUILAR 03/09/2015 MATERIAL: </small>				
<small> DISEÑADO: J.G.BEJAR 27/04/2008 TOLERANCIA GENERAL: </small>	<small> COMPROBADO: J.L.SOLANO 04/06/2012 </small>				
<small> PESO: </small>	<small> DENOMINACION: GRUPO INSONORIZADO DIMENSIONES DE SALA </small>	<small> EXPEDIENTE: </small>	<small> N° PLANO: </small>	<small> MARCA: </small>	
<small> ESCALA: </small>					

Tillegg om ønskelig- Mobil løsning 80km/t vogn med Boggi-



DATOS ORIENTATIVOS
 INMESOL SE RESERVA EL DERECHO A
 MODIFICAR LOS DATOS SUMINISTRADOS

GENSET MODELS BUILT INSIDE THIS CANOPY	
ENGINE	FREQUENCY
	50 Hz.
IVECO	II-083 II-080 II-110 II-066 II-100 II-105 II-125
PERKINS	IP-080 IP-115 IP-105
DEUTZ	ID-085 ID-110 ID-100 ID-120
VOLVO	IV-085 IV-110 IV-100 IV-120



Las características técnicas de este equipo se detallan en el manual de instrucciones que acompaña al equipo. Este manual debe ser leído y entendido antes de utilizar el equipo. El usuario debe leer y comprender el manual de instrucciones antes de utilizar el equipo.

PROYECTO:		KIT MOVIL HOMOLOGADO 2 EJES 80-130 KVA LANZA RIG.	
MODIFICADO	J.G. BEAER	26-03-2017	MATERIAL
DISEÑADO	J.G. BEAER	26-03-2017	TOLERANCIA GENERAL
COMPROBADO	J.L. SOLANO	26-03-2017	UNID.
DESIGNACION:	KIT MOVIL HOMOLOGADO 2 EJES 80-130 KVA		
CODIGO	DIMENSIONES GENERALES		
PESO			
ESCALA			
Nº MOD.	EXPEDIENTE:		
Nº PLANO	MARCA		