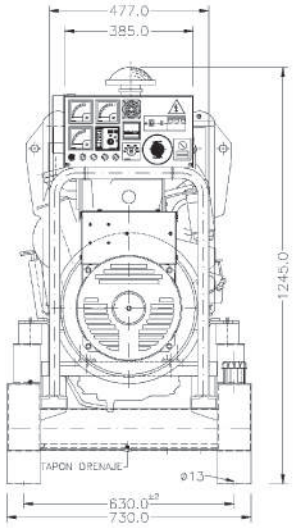
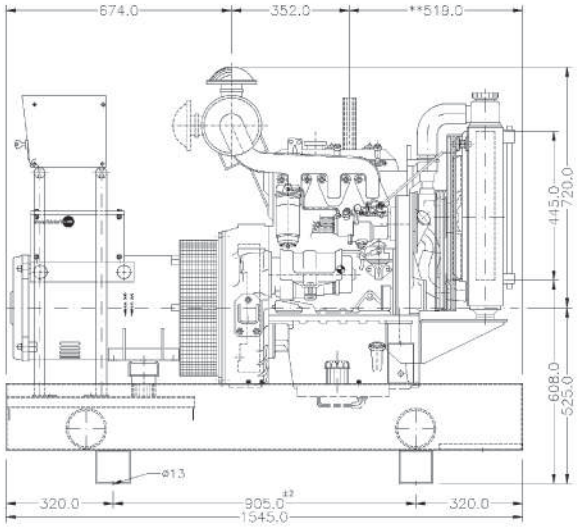
Version
Open skid version

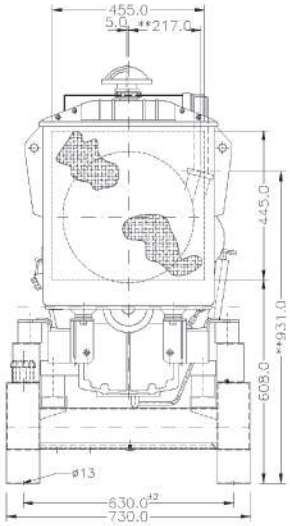
Weight : 705 Kg.
Dimensions : 1.545 x 730 x 1.245 mm
Fuel tank capacity : 67 Lts.

HIW 30 • 33 kVA at 50 Hz - 39 kVA at 60 Hz

Tor







GENERATING SET PERFORMANCE		50 Hz		60 Hz	
SERVICE		*Max.Standby Power (F.S.P.)* [3]	*Prime Power (P.R.P.)* [1] *-(L.T.P.)* [2]	*Max.Standby Power (F.S.P.)* [3]	*Prime Power (P.R.P.)* [1] *-(L.T.P.)* [2]
Rated output	kVA	33	30	39	35
Active power output at 0,8 p.f.	kW	26	24	31	28
Rated speed	r.p.m.	1.500		1.800	
Standard voltage	V	400		440	
Voltage available	V	380/220 to 415/240 - 220/127 to 480/277			

Ambient reference conditions: *1.000 mbar, 27°C, 30% relative humidity.*
** The indicated performance may change according to the alternator model.*

PRIME MOVER PERFORMANCE		1.500 r.p.m.		1.800 r.p.m.	
SERVICE		*Max.Standby Power (F.S.P.)**	*Prime Power (P.R.P.) -(L.T.P.)**	*Max.Standby Power (F.S.P.)**	*Prime Power (P.R.P.) -(L.T.P.)**
Rated output	kW	32	29	36	33
	CV	43	39	49	45
BMEP	kg/cm²	8,9	8,06	8,4	7,7
	MPa	0,87	0,79	0,82	0,76
Mean piston speed	m/s	5,8		6,9	
	ft./sec.	18,9		22,6	
Flywheel housing		SAE 3 / 11"1/2			

Ambient reference conditions: *1.000 mbar, 25°C, 30% relative humidity. Rating according to ISO 3046.*
** Net performance at flywheel with tolerance of ± 3% and available after ~ 50 hours running.*

(1) *Prime Power (P.R.P.) - ISO 8528: prime power is the maximum power available during a variable power sequence, which may be run for an unlimited number of hours per year, between stated maintenance intervals. The permissible average power output during a 24 hours period shall not exceed 80% of the prime power. 10% overload available for governing purposes only.*

(2) *Limited Time Running Power (L.T.P.) - ISO 8528: the limited time running power is the maximum power which a generating set is capable of delivering for up to 500 h per year of which a maximum of 300 h is continuous running, between stated maintenance intervals..*
10% overload available for governing purposes only.

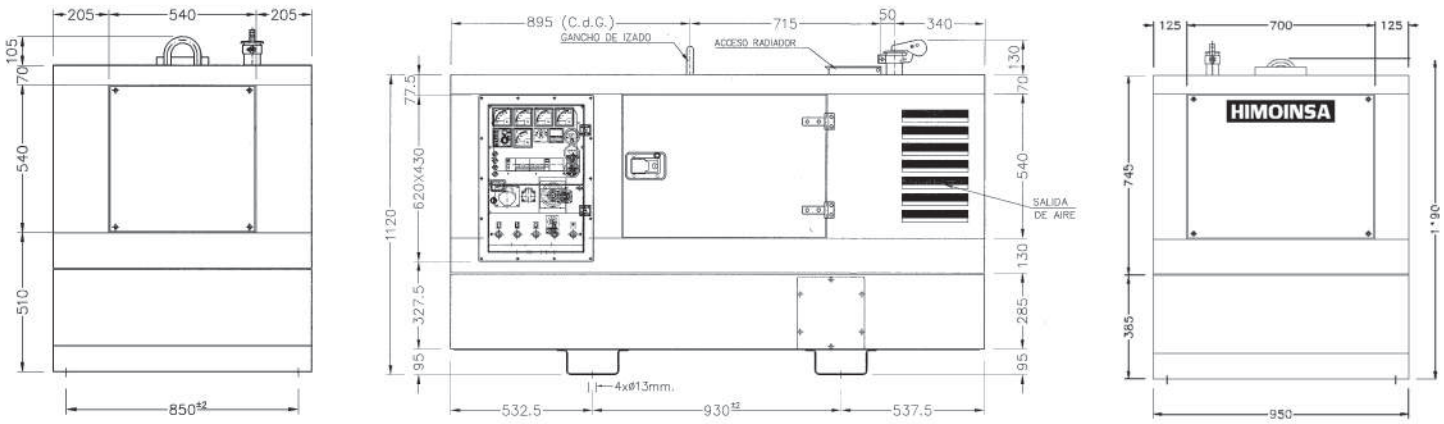
(3) *Max Stand-by power (ISO 3046 Fuel Stop power): power available for use at variable loads for limited annual time (500h), within the following limits of maximum operating time:*
100% loads 25 h per year - 90% loads 200 h per year
No overload available. Applicable in case of failure of the main in areas of reliable electrical network.

Soundproofed version

Weight : 1.050 Kg.
Dimensions : 2.000 x 950 x 1.190 mm
Fuel tank capacity : 110 Lts
dB(A) : 63,5

HIW 30 • 33 kVA at 50 Hz - 39 kVA at 60 Hz

Tor



PRIME MOVER DATA		
Manufacturer		**IVECO** *aifo*
Model		8031 i 06
Diesel 4 stroke - Injection type		direct
Aspiration type		naturally aspirated
Cylindres, number and arrangement		3 in line
Bore x stroke	mm • in	104 x 115 • 4,09 x 4,53
Total displacement	L • In^3	2,9 • 177
Cooling system		liquid coolant
Lube oil specifications		MIL-L2104E (ACEA E3-96)
Specific fuel consumption (prime) [4]	g/kWh	(50 Hz) 225 • (60 Hz) 227
Specific fuel consumption (at full load)		0,8% max.of fuel consumption
Speed governor	type • class	mechanical • A1
Air filter		dry

4) Fuel consumption values (g/kWh), with ± 5% tolerance, refer to a run-in engine fed with Diesel fuel having a net calorific value of 42.840 kj/kg (10.200 kcal/kg)

SYNCHRONOUS GENERATOR *		
Poles	Nº	4
Phases	Nº	3 + N
(Standard) winding connections		Star-series
Frame mounting		B 2
Cooling		by ventilating fan
Windings treatment	type	for humid and saline climates
Insulation	class	H
Damper windings		for parallel
Enclosure (according to IEC 34-5)		IP21
Waveform distorsion		no more than 5%
Overexcitation device (option)		per Icc ≥ 3 In
Exciter		brushless exciter design with solid state
Voltage regulator		static electronic design
Steady voltage precision		Within ±1,5% from no load to full with cos ϕ=0,8÷1

**Alternators used by HIMOINSA Gensets meet the requirements of following Standars: ISO 8528; IEC 34-1; CEI 2-3; VDE 0530; BS 4999-5000; NF 51-100*
**** Ambient reference conditions:** 1.000 mbar, 27ºC, 30% relative humidity.*

GENERATING SET INSTALLATION DATA

EXHAUST SYSTEM		50 Hz	60 Hz
Max. exhaust temperature at full load	°C	530	530
	°F	986	986
Exhaust gas flow	Kg/h	145	175
	lb/h	319	385
Heat rejected to exhaust	kcal/ kWh	640	636
Maximum allowable back pressure	mm H_2O	1.500	
	in H_2O	59	

ENGINE ROOM AIR REQUIREMENT		50 Hz	60 Hz
Fan air flow	m^3/s	0,6	1
	ft^3/s	21	35
Air requirement for combustion at 100% load /rated speed	m^3/h	120	145
	ft^3/min	69	83,5
Heat radiated to ambient (engine and generator)	kcal/ kWh	310	320

COOLING SYSTEM		50 Hz	60 Hz
ATB (without canopy) - nominal rating	°C	50	
	°F	122	
Heat rejected to coolant (water+oil)	kcal / kWh	595	615

ELECTRIC STARTING SYSTEM		
Breakaway current	A	1060
Cranking motor rating	kW	3
Minimum recommended battery capacity	Ah	92
Auxiliary voltage	Vcc	12

LIQUID CAPACITY (REFILL)			
Lube oil total system including sump, filters etc.		kg	~ 8
		l	~ 8,8
		qts	~ 9,3
Jacket water engine only		l	~ 5
		qts	~ 5,25
Oil capacity off standard sump		kg	~ 5
	at minimum level	l	~ 5,5
		qts	~ 5,8
		kg	~ 7
	at maximum level	l	~ 7,7
		qts	~ 8,2

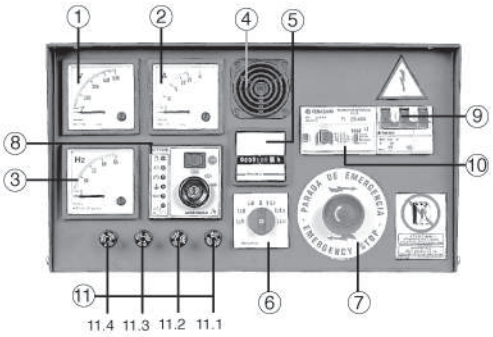
GENERATING SET TRANSPORT DATA

Basic data Open skid genset		
Shipping volume seaworthy packing	m^3	3,1
	ft^3	109,5
Dry weight (with standard accessories)	kg	≈ 705
	lb	≈ 1.551

Basic data Soundproofed genset		
Shipping volume seaworthy packing	m^3	4,3
	ft^3	151,9
Dry weight (with standard accessories)	kg	≈ 1.050
	lb	≈ 2.310

KEY START CONTROL

Key start control panel for **open skid** version



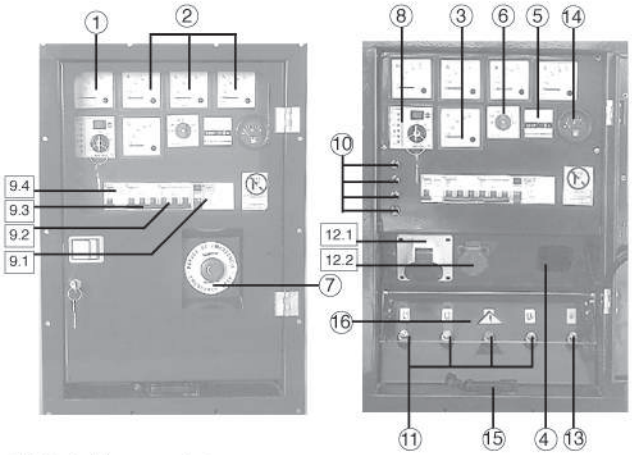
"ME"

(Control panel mounted on supports above alternator)

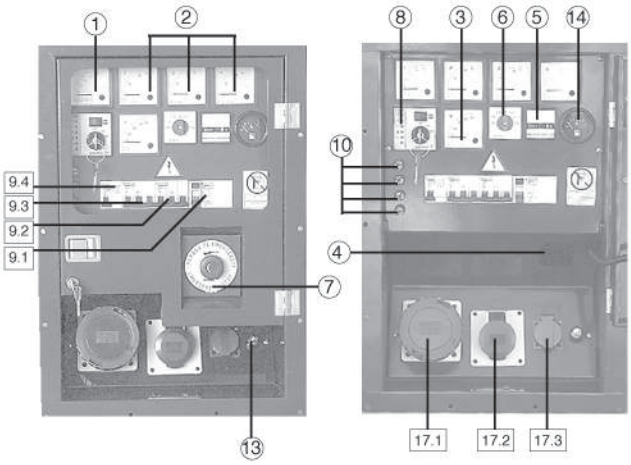
1.- Voltmeter 72x72 (0-500V).
2.- Ammeter.
3.- Frequency meter 45Hz-65Hz 220V.
4.- Acoustic alarm 12-24V.
5.- Hour meter 230V.
6.- Voltmeter selector switch (L1-LN; L2-LN; L3-LN; L1-L2; L2-L3; L3-L1).
7.- Emergency stop button.
8.- Key start Switchboard 12/24 CTME 01 without overspeed control
9.- Thermal magnetic protection three poles.
10.- Differential 3 Poles + Neutral
11.- Protection fuses (from right to left)
- 11.1 Protect the electronic switchboard
- 11.2 Protect the W Phase
- 11.3 Protect the V Phase
- 11.4 Protect the U Phase

Key start control panel for **soundproofed** version

MC Output terminal



MC Output bases and plugs



"MC"

(Control and protection panel fitted at canopy lateral side)

1.- Voltmeter 72x72 (0-500V)
2.- 3 Ammeters.
3.- Frequency meter 45Hz-65Hz 220V.
4.- Acoustic alarm 12-24V.
5.- Hour meter 230V.
6.- Voltmeter selector switch (L1-LN; L2-LN; L3-LN; L1-L2; L2-L3; L3-L1).
7.- Emergency stop button.
8.- Key start Switchboard 12/24 CTME 01 without overspeed control
9.- **Thermal magnetic protections**
- 9.1. Differential 4P
- 9.2. Thermal magnetic protection three poles.

Secondary protections
- 9.3. Thermal magnetic protection 16 A., 3P, for protected plug of industrial use standard CEI EN 60309-1-2, 3P+N+Ground.
- 9.4. Magneto thermal differential automatic breaker, 1P, 16A, for protected plug of industrial single phase + ground.

10.- Protection fuses:
- 10.1. Protect the electronic switchboard
- 10.2. Protect the U Phase
- 10.3. Protect the V Phase
- 10.4. Protect the W Phase

11.- Output terminal
12.- Auxiliary plugs.
- 12.1. 16A Plug, 3P+N+G.
- 12.2. 16A Shucko plug, 2P+G.

13.- Earth connection
14.- Fuel level gauge.
15.- Flexible lock for fixing cables.
16.- Protection plastic glass
17.- Output bases and plugs.
- 17.1 63A base, 3P+N+G
- 17.2 16A plug, 3P+N+G
- 17.3 16A Shucko plug, 2P+G

OPTIONAL:
12V Gauges, 1 Water Temperature & 1 Oil Pressure.