

Picture may not show the actual product due to presence or absence of optional items



Generating set model 15K/1100TNE

Standard features:

Engine:

24V electric starting system

Radiator incorporating air-to-air charge cooler and designed for ambients up to 50°C

Turbine inlet temperature protection

High coolant temperature protection switch

Low oil pressure protection switch

Full flow spin-on fuel filters

Full flow spin-on lube oil filter

Air filter element

Electronic control module (ECM)

Protection grids for rotating parts

Industrial muffler

Alternator:

4P, three phase, single bearing, brushless, self excited Automatic voltage regulator, digital type

Structural steel base:

Vibration dampers between engine/alternator monoblock and the base

Set mounted control panel

<u>4P magneto-thermal circuit bre</u>aker

Documentation:

- Generating set use and maintenance manual
- Engine use and maintenance manual
- Alternator use and maintenance manual
- Generating set controller instruction manual
- Wiring diagram
- **EC** Declaration

Regulations and Standards:

Generating set is designed in compliance with the following regulations and standards:

- ISO 8528
- 2006/42/EC (Machinery) and subsequent amendments
- 2014/30/EU (Electromagnetic Compatibility) and subsequent amendments
- 2014/35/EU (Low Voltage) and subsequent amendments
- 2000/14/EC (Noise Emission in the Environment) and subsequent amendment 2005/88/EC
- EN 61439-1

Optional extras:

Engine:

Oil suction pump (soundproof sets only)

Fuel transfer pump

Immersion heater (for sets in standby to the mains only)

Silencer:

Residential silencer for open sets designed to reduce noise level by $\leq 28 / 30 \, dB(A)$

Residential silencer for open sets designed to reduce noise level by $\leq 18/20 \, dB(A)$

Control panel:

Remote ATS system for set mounted automatic control panel

AMF+ATS control panel

Differential protection

Oil pressure reading

Enclosure:

30' HC soundproof container designed to achieve 75 \pm 3 dB(A)

Drop over enclosure designed to achieve 75 \pm 3 dB(A) @ 7m

Remote fuel tank supplied loose

Generating set designed and manufactured in facilities certified to ISO 9001









Generating set	
Prime power output (PRP)	1000 / 800 (KVA / kW)
Standby output (STP)	1100 / 880 (KVA / kW)
Power factor	0.8
Voltage	400 (V)
Frequency	50 (Hz)
Rated speed	1500 (RPM)
Current @ PRP	1443.37 (A)

Fuel consumption	
Fuel	Diesel EN590
Consumption @ full load	215 l/h
Consumption @ 75% of PRP	162 l/h
Consumption @ 50% of PRP	111 l/h

General features	
Battery capacity	2 x 180 Ah
Voltage	24Vdc
Cooling air flow (min)	22,5 m³/sec
Combustion air flow @ STP	80,5 m³/min
Exhaust gas temperature (max)	465 °C
Exhaust gas flow (max)	200 m³/min

Approx overall dims and weight			
L (cm)	(W) (cm)	H (cm)	Dry weight (Kg)
505	205	220	7250

Standard operating environmental conditions	
Temperature	25°C
Barometric pressure	100 kPA
Relative humidity	30%

Engine	
Manufacturer	Perkins
Model	4008-TAG2A
Emissions	Stage 0
Cooling	Water
Aspiration	Turbocharged, air-to-air charge cooled
Combustion system	Direct injection
Compression ratio	13,6:1
Regulation	Electronic
Speed control conforms to	ISO 8528-5 class G2
Cycle	Diesel, 4 strokes
Cylinders (number and configuration)	8, vertical in line
Bore x Stroke	160 x 190 (mm)
Displacement	30,561
Standby mechanical power (net)	858 kWm
Alternator	40 A / 28 V
Starter motor	8,2 kW / 24 V
Recommended lube oil	API CG4 15W40
MAX oil capacity (in sump)	153
Coolant capacity (engine + radiator)	149
Oil consumption @ PRP	0,52 g/kWh

Alternator	
Manufacturer	Mecc-Alte
Model	ECO43 1M/4 A
Rated power	1025 kVA
Insulation class	Н
Mechanical protection	IP23
Regulator	DER-1, digital
Accuracy	±0,5 %
Execution	Brushless
Efficiency at full load	95,5 %
Short circuit current	>300 %
Overload per 20 sec	300 %
Waveform Distortion (THD) at f. load (LL/LN)	1,9 / 2,2 %
MAX Overspeed	2250 RPM
Air flow	90 m³/min

Rating definitions

Prime Power (PRP)

Unlimited hours usage with an average load factor of 80% of the published Prime Power over each 24 hours period. A 10% overload is available for 1 hour in every 12 hours operation.

Standby Power (STP)

Limited to 500 hours annual usage with an average load factor of 80% of the published Standby Power rating over each 24 hour period. Up to 300 hours of annual usage may be run continuously. No overload is permitted on Standby Power.







Manual control panel

Set mounted

InteliNano Plus digital controller

Ammeter switch for three phase current reading

Emergency stop pushbutton



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InteliNano Plus - Manual mode

The InteliNano Plus is a manual and automatic controller for single gen-set applications which offers outstanding protection, monitoring and control

Features:

128x64 pixel graphic display showing engine and generator parameters and alarms

License-free PC software

Event Log (10 events)

Easy and user-friendly installation / operation

"Zero" power consumption mode

Icon menu, no text

Single phase generator protection

True RMS voltage measurement

True RMS current measurement

Configurable analogue inputs

Configurable analogue outputs

Configurable timers and alarms

Glow plug control

USB and CAN interface (J1939 only)



Digital parameters:

Generator: three phase voltage, frequency, single phase

Engine: fuel level, battery voltage, running hours, engine speed, coolant temperature

Indications and shutdown: Low oil pressure, high engine temperature, low fuel level.

In addition, the following alarms can be displayed: emergency stop, under-/overvoltage, under-/overspeed, under-/overfrequency, failed start, failed stop, short circuit, phase rotation error





Available on request

Automatic control panel

Set mounted InteliLite AMF25 Digital controller Automatic battery charger Emergency stop pushbutton Arranged for remote transfer switch



InteliLite AMF25 is an Auto Mains Failure controller for single gen-set applications and has the ability to monitor a mains supply.

Monitoring engine speed, oil pressure, coolant temperature, frequency, voltage, current, power and fuel level, the module will give comprehensive engine and alternator protection, too.

It offers a number of advanced features to meet the most demanding on-site applications.

Features:

Intuitive user interface

Graphic 128 × 64 pixels display

Configurable display languages

Configurable analogue inputs

Configurable analogue outputs

Configurable timers and alarms

Setpoints adjustable via controller buttons or PC

Password protected setting

Automatic load transfer

3 Programmable maintenance alarms

Three phase mains sensor

Three phase gen-set & mains control

Dual mutual standby application

Glow plug control

Protections disabled ability

Engine exercise mode

Four key menu navigation

Magnetic pickup input

Buttons: Cyclic forward [OFF -> MAN -> AUT -> TEST] or backward [TEST -> AUT -> MAN -> OFF] selection, horn reset, fault reset, start, stop, MCB On/Off, GCB On/Off,

page scrolling, enter

LED and display alarm indication

Real time clock

Load shedding, dummy load



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Rear expansion slot for the connection of one of the following plug-in cards: RS232 communication, RS232 and RS485 communication, service USB communication, Ethernet communication, GSM/GPRS modem card, Gauge driver plug-in card, Configurable I/O plug-in card, Configurable I/O plug-in card with earth fault current measurement, Remote display software, Remote annunciator, I/O extension module, Internet communication bridge, External communication module

Leds: Mains available, mains failure, generating set available, generating set failure, mains circuit breaker closed, generating set circuit breaker closed

Periodic Test: adjustable

Digital parameters:

Generator: Voltage (L-L / L-N), Frequency, Current, Power Factor (total and per phase), active power (total and per phase), kWh (total), kVAhr (total)

Engine: Speed, Coolant Temperature, Engine Battery Volts, Run hours, Fuel Level, Number of engine starts

Mains: Voltage (L-L / L-N), Frequency, kWh (total), kVAhr (total)

Indications and shutdown: Low oil pressure, high engine temperature, low fuel level, overload, gen-set under-/overvoltage, under/overfrequency, failed starting, failed stop, battery under/overvoltage.



Remote ATS panel

Floor standing cabinet for remote installation with IP42 protection degree (IP55 on request) equipped with:

- Controller with following features:
 - three phase mains sensor
 - graphic display showing measures, alarms and functioning status
 - phase sequence control
 - **Key-lock function**
 - Mains/generating set automatic switching
 - Mains/generating set manual switching through push buttons
- Power section: 4P motorized changeover switch



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Soundproof container

Base: The base structure is made of a perimeter of spars and a series of cross-beams and stringers, and it is made of cold forged steel profiles. The container base will be made by chequered steel plates.

Walls: Walls are built by assembling corrugated steel sheet panels. The four corners are made of forged steel sheet, seam welded both at the spars.

Roof: On the top, the external profile of container is made of a border in cold-forged steel. Covering is in corrugated steel sheet, flattened on the perimeter, and seam welded to the border.

Noise level achieved: 75 dB(A) measured @ 7 meter distance in open space. ± 3dB(A) tolerance, This goal will be achieved by insulating walls and roof with rock wool of adequate density and thickness. Used materials will be Euroclass A1 fire reaction

Internal / External layout. Inside, the container will be divided into the following areas:

A: housing of exhaust mufflers and plenum for air expulsion

B: housing of generating set 0

Cooling system:

- Air intake: from side walls by means of grids protected by:
 - Fixed fins
 - o Bird mesh
 - Sound absorbing baffles
- Air ejection: through an opening on the roof protected by:
 - Bird mesh

Exhaust residential silencer: roof mounted

Doors: equipped with:

- pole fastener
- opening towards outside
- fastening to the container by means of galvanised steel hinges
- Sealing strips on the door shutters ensuring an excellent acoustic and water proofing

Painting inclusive of sandblasting

Lighting & electric system (220V):

- 5 fluorescent lamps (3 of which are equipped with emergency kit) 0
- 2 switches 0
- 2 sockets 0
- Cable trays are made of galvanized steel

Approx overall dims and weight Dry weight (W) L Н (mm) (mm) (mm) (Kg) 12192 2438 2896 16700



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Floor standing «drop over» canopy

Noise level achieved: 75±3 dB(A) measured at 7 meter distance in open space

Main frame: the structure is made of galvanized steel tubular

Walls: self-supporting modular panels made of galvanized steel sheets externally painted with polyester powder, while the inner surface is protected by a thin layer of fiberglass, held in with a galvanized micropierced sheet steel. The core is made of mineral wool matresses (Euroclass A1 fire reaction)

Roof: it made of self-supporting modular panels having same specifications as those used for the walls. Roof panels are finished with a layer of slate chips finishing

Exhaust silencer: included in our scope of supply and roof mounted.

Doors: realized on the container sides and equipped with recessed knobs

Container standard colour: RAL 7035 (grey)

Approx overall dimension	S	
Execution	With muffler	Without muffler
Dimensions (L x W x H mm)	Currently N/A	Currently N/A



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Technical data are not binding. They may be changed for technical improvements without prior notice

