

Industrial Range

POWER (PRP / ESP):
98 / 108 kVA (78 / 86 kW)



V 400/230V







1. General technical data

1.1. Version, dimensions and weight

Version	Open	Soundproofed
Dimensions	3K	CK1
L (mm)	2100	2777
W (mm)	940	1162
H (mm)	1734	1698
Weight with liquids and without fuel (kg)	1285	1775

1.2. Main technical data

Engine	BAUDOUIN 4	IM10G6D0/S
Alternator	STAMFOR	D UCI274C
Fuel	Die	esel
Type of execution	G	3
Control panel	DSE 60	20 MKII
Tank (I)	330	260
Sound level-Lp(A) (dB(A)@1m) ¹	N/A (Indoor)	78
Sound level-Lp(A) (dB(A)@7m) ¹	N/A (Indoor)	70
Sound power-LW(A) (dB(A))	N/A (Indoor)	97

¹The sound levels may vary depending on the measurement conditions.

Voltage	PRP ² (KVA/KW)	ESP ² (KVA/KW)	PRP Amperage (A)	ESP Amperage (A)
400/230V	98 / 78	108 / 86	141,5	155,9

'PRP: Continuous power ("Prime Power"). ESP: Emergency Standby Power according to ISO8528-1.

Tolerance of maximum active power (kW) ±5%

i Directives and Regulations

ENVIRONMENTAL CONDITIONS STANDARD ISO 8528-1:2018: 25°C, 100kPa and 30% relative humidity:

- Prime Power (PRP): Data on electrical power available at variable load without limit of hours per year. An overload of 10% is allowed for 1h out of 12. According to ISO 8528-1:2018.
- Emergency Standby Power (ESP): Data on electrical capacity available at variable load in case of emergency according to ISO 8528-1:2018.

The DAGARTECH Generator bears the CE marking which includes the following directives:

- 2006/42/EC. Machine Safety Directive.
- EN ISO 8528-13:2016. Part 13: Safety. Alternating current generators powered by reciprocating internal combustion engines.
- 2014/30/EU. Electromagnetic Compatibility Directive.
- 2000/14/EC. Noise Emissions Directive. Sound power levels evaluated in accordance with the procedure laid down in the directive.
- Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS 2).



260



2. Engine specifications

400/230V · 50Hz (1500 rpm)		DGB 110 ST	DGBS 110 ST
2.1. Version	Version	Open	Soundproofed
technical data	Make and model	BAUDOUIN 4	M10G6D0/S
of the engine	Emissions	EU Stage 0	
	r.p.m.	150	00
	Maximum ESP power (kWm)	9	6
Power PRP (kWm)		86	
	Fuel	Diesel	
	No. of cylinders 4		1
	Cylinder capacity (c.c.)	4087	
	Compression ratio	17,	5:1
	Cooling system	Water-	cooled
	Type of regulation	Electronic	
	Type of engine/injection/suction	Diesel / direct /	Turbocharged
2.2. Fuel	Type of fuel	Die	sel

2.3. Consumption and autonomy

Tank capacity

			Οķ	en	Sound	proofed
Consumption (I/h)		Autonomy (h)		Autonomy (h)		
	PRP	ESP	PRP	ESP	PRP	ESP
50%	10,6	-	31,2	-	24,6	-
75%	16	-	20,6	-	16,2	-
100%	21,2	24,4	15,5	13,5	12,2	10,6

330

Cooling system

Open	Soundproofed
175	175
50	50
2,5	
23,6	
14	
≤ 0,1	
	175 50 2 23

Lubrication system

Intake system

2.5.

2.6.

Combustion air intake flow (m³/min)

6,9



400/230V · 50Hz (1500 rpm)		DGB 110 ST	DGBS 110 ST
2.7. Starter system	Version	Open	Soundproofed
•	No. of batteries	1	<u> </u>
	Battery characteristics	12V 60Ah	
	Start-up voltage (V)	12	VV

2.8. Exhaust system

Common data	for both versions
19 [PRP]	21,6 [ESP]
700 [PRP]	700 [ESP]
Open	Soundproofed
3" (Ø 76,2)	3" (Ø 76,2)
-10	-35
	50
	19 [PRP] 700 [PRP] Open 3" (Ø 76,2) -10

Radiator level sensor not available for Baudouin 4M06 series engines.

3. Alternator specifications

3.1. General technical data of the alternator

Version	Open	Soundproofed	
Make and model	STAMFOR	D UCI274C	
No. of poles	4	1	
Insulation class	ŀ	1	
No. of threads	1:	2	
Mechanical protection index	IP23		
Voltage Regulator (AVR)	AS ₄	AS440	
Voltage regulation	±1	±1%	
ESP power 27°C (kVA)	110		
Power PRP 40°C (kVA)	100		
No. of phases		3	
Power factor (cos φ)	0	8	
	D ((0/)	

Performance η (%)			
50%	75%	100%	110%
92,2%	91,5%	90,3%	89,8%

i Standard regulations that the alternator meets:

Low wave distortion: THD (100% load) = 2% | THF < 2%

Complies with: EN61000-6-3, EN61000-6-2 regarding radio interference.



400/230V · 50Hz (1500 rpm) DGB 110 ST DGBS 110 ST

4. Bench Specifications

- Unit mounted on electro-welded high-resistance steel bench, painted with epoxy-polyester powder paint.
- Connection of the assembly to the bench by means of anti-vibration dampers.
- Fuel tank located on the bench itself. The engine is equipped with a measuring gauge and fuel system.
- Tested in a salt spray chamber according to ASTM B-117-09, resistance 500h.

5. Soundproof Canopy Specifications



- (i) The canopy is part of the scope of supply of the soundproof generator sets.

 Open generators do not include a canopy.
- Electro-welded canopy made of high resistance galvanized steel painted with electrostatic epoxy-polyester powder
- Interior soundproofing by means of a lining with soundproofing material.
- Efficient attenuation silencer -35dB(A) for the evacuation of gases to the outside with protective cover.
- Tested in a salt spray chamber according to ASTM B-117-09, resistance 720H. IP44 mechanical protection degree.

THE CANOPIES OF THE INDUSTRIAL RANGE ARE MADE OF HIGH-RESISTANCE GALVANIZED STEEL AND ARE ELECTRO-WELDED AND PAINTED WITH ELECTROSTATIC EPOXY-POLYESTER POWDER PAINT.



In addition, they are equipped with a **rigid panel** made of glass wool with an outer textile covering. We also incorporated an efficient **silencer attenuation device for the evacuation of gases to the outside**, featuring a rain cap.

Our canopies are tested in a salt spray chamber according to standard **ASTM B-117-09** (resistance 720H. **IP44 mechanical protection** grade).



6. Control panel

6.1. Main elements of the control panel

- Protection panel, distribution with automatic control module which allows you to work in manual, automatic or signal mode.
- Push button for emergency stop.
- Deep Sea Electronics battery charger, designed to be permanently connected to the battery and maintain 100% of the charge. The charger switches to float mode when charging is complete:

Model DSE 9150 12V, 3A

Protections:

- 4-pole magnetothermic protection against overloads and short circuits.
- Protection fuses for the control set.

6.2. Circuit breaker

Model

Schneider EasyPact 160A 4P

6.3. Control module



- 1. Alarm indicator
- **2.** Transfer to the generator (manual mode)
- 3. Start engine (manual mode)
- 4. Silence alarm
- 5. Automatic mode
- 6. Test mode

- 7. Manual mode
- 8. Genset stop
- **9.** MAIN NETWORK transfer (manual mode)
- 10. Navigation keyboard
- 11. Main status and instrument display

Model DSE 6020 MKII

DSE 6020 MKII DEEP SEA control card, with mains grid monitor. The genset will automatically start up when detecting a fault in the electric power network and it will turn off automatically as well, when the electrical supply is re-established.

It can also work in manual mode and by signal. It allows you to monitor a wide range of generator parameters and display information alerts, status and alarms.

The module includes USB communication ports, 4 configurable digital inputs, 3 analog inputs, 6 configurable outputs, emergency stop button, 8-35 V battery charger.

It has 132x64p illuminated LCD display with 4 lines of text, 5-key navigation through menus, programmable clocks and alarms, reading and displaying parameter values, including RMS values.

The entire module is easily configurable via PC using the DSE specific software configuration. Different operating modes: AUTOMATIC mode, MANUAL mode, SIGNAL mode and TEST mode.

Other alternative configurations are available upon request to extend the capabilities of the operation modes.

i Environmental Tests that the module passes:

BS EN 61000-6-2 (electromagnetic compatibility) | BS EN 61000-6-4 (electromagnetic compatibility) | BS EN 60950 (electrical safety) | BS EN 61000-6-2 (temperature) | BS EN 60068-2-6 (vibrations) | BS EN 60068-2-27 (shock)





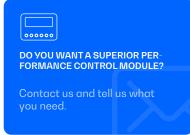
BAUDOUIN 4M10G6D0/S | STAMFORD UCI274C

6.3. Control module		· · · · · · ·
	$\mathbf{Standard} \mathbf{ \boldsymbol{ \otimes}}$	Option
Model	DSE 6020 MKII	DSE 7320 MKII
Operating modes		
STOP mode	\otimes	\otimes
MANUAL mode	\otimes	\otimes
TEST mode	\otimes	\otimes
AUTO mode	\otimes	\otimes
Module configuration options		
PC	\otimes	\otimes
Generator readings		
Generator voltage (F-F)	\otimes	\otimes
Generator voltage (F-N)	\otimes	\otimes
Generator current (A)	\otimes	\otimes
Generator frequency	\otimes	\otimes
Generator load F-N (kW / kVA / kVAr)	\otimes	\otimes
Total generator load (kW / kVA / kVAr)	\otimes	\otimes
Average generator power factor	\otimes	\otimes
Accumulated generator load (kW, kVAh, kWh, kVAh)	\otimes	\otimes
Network readings		
Network voltages (ph-N)	\otimes	\otimes
Network voltages (ph-ph)	\otimes	\otimes
Grid frequency	\otimes	\otimes
Network current (A)	•	•
Network load ph-N (kW / kVA / kVAr)	•	•
Total network load (kW / kVA / kVAr)	•	•
Engine readings		
Coolant temperature	\otimes	\otimes
Oil pressure	\otimes	\otimes
Engine fuel level	\otimes	\otimes
Engine battery volts	\otimes	\otimes
Engine speed	\otimes	\otimes
Engine run time	\otimes	\otimes

Caption	
	OptionalConsult
Readings available a Confirm the availabil for this generator an	

Ask us for further readings in

generating sets equipped with electronically managed engines and DSE 7320MKII control module.





BAUDOUIN 4M10G6D0/S | STAMFORD UCI274C

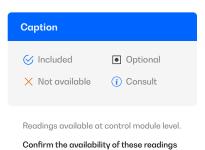
6.3.	
Control	
module	





Standard ⊗	Option •
DSE 6020 MKII	DSE 7320 MKII

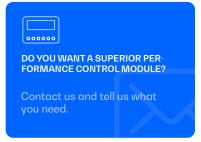
Model	DSE 6020 MKII	DSE 7320 MKII
Engine protections		
High water temperature	\otimes	\otimes
Low oil pressure	\otimes	\otimes
Low water level	\otimes	\otimes
Fuel reserve by sensor	\otimes	\otimes
Second fuel tank control	\otimes	\otimes
Shutdown failure	\otimes	\otimes
Battery voltage failure	\otimes	\otimes
Battery charge alternator failure	\otimes	\otimes
Overspeed	\otimes	\otimes
Underfrequency	\otimes	\otimes
Failure to start	\otimes	\otimes
Emergency stop	\otimes	\otimes
Maintenance notice	\otimes	\otimes
Maintenance Alert	\otimes	\otimes
Alternator protections		
High frequency	\otimes	\otimes
Low frequency	\otimes	\otimes
High voltage	\otimes	\otimes
Low voltage	\otimes	\otimes
Short circuit	×	\otimes
Asymmetry between phases	×	•
Incorrect phase sequence	×	\otimes
Reverse power	×	\otimes
Breaker Trip 4 poles	•	•
Overpressure alarm	\otimes	\otimes
Counters		



for this generator and engine.

Ask us for further readings in

generating sets equipped with electronically managed engines and DSE 7320MKII control module.



Hour meter

Kilowatt meter

Starter counter

 \otimes

 \otimes

 \otimes

 \otimes

 \otimes

(/



6.3. Control module





 \otimes

 \otimes

(/

 \otimes

 \otimes

■ DSE 890

 \otimes

 \otimes

</l></l></l></l></l></

 \otimes

 \otimes

		•••••
	$\mathbf{Standard} \mathbf{ \boldsymbol{ \scriptstyle \hspace*{2cm} \hspace*{2cm$	Option •
Model	DSE 6020 MKII	DSE 7320 MKII
Communications		
RS232	×	\otimes
RS485	×	\otimes
USB communication port	\otimes	\otimes
Modbus IP	■ DSE 855/890/891	■ DSE 855/890/891
Modbus RS 485	■ DSE 855/890/891	\otimes
PC Software (Mimic)	\otimes	\otimes
GSM/GRPS MODEM	■ DSE 890	■ DSE 890
Remote display < 1km	×	■ DSE 2520
Remote monitoring	■ DSE 855/890	■ DSE 855/890
Input expansion	×	■ DSE 2130 8 inputs
Output expansion	×	■ DSE 2157 8 inputs
SNMP protocol	■ DSE 892	● DSE 892
Services		
Configurable alarm history	50	250
External start	\otimes	\otimes
Start-up inhibition	•	•
Network Failure Start	\otimes	\otimes
Activation of group counter	\otimes	\otimes
Activation of grid and group counter	\otimes	\otimes
Control of fuel transfer	\otimes	\otimes

 \otimes

 \otimes

8

⊗⊗

Symbols

■ DSE 890

 \otimes

 \otimes

 \otimes

8

 \otimes

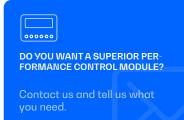
Caption	
	Optional
× Not available	(i) Consult

Readings available at control module level.

Confirm the availability of these readings for this generator and engine.

Ask us for further readings in

generating sets equipped with electronically managed engines and DSE 7320MKII control module.



CUSTOM ENERGY SOLUTIONS

Motor temperature control

Free programmable alarms

Free programmable outputs

DSE configuration suite via PC

Front panel module configuration with PIN

Special applications

Calendar scheduler

GPS localisation

Alternative work

Programmable PLC

Alternative configurations

Dummy load control / load shedding

Power save mode

Multilingual

Group start function in test mode

Forced group operation



BAUDOUIN 4M10G6D0/S | STAMFORD UCI274C

7. Detailed supply scope

Engine

BAUDOUIN 4M10G6D0/S, EU STAGE 0, 1500 RPM, WATER-COOLED, WITH ELECTRONIC REGULATION ENGINE.

- 4-cylinder inline Diesel engine, 4-stroke with Electronic fuel regulation by means of a fuel pump, original from the manufacturer.
- direct injection and Turbocharged suction system. Original manufacturer's particle separator filter.
- Industrial exhaust gas silencer of -10 dB(A). 🚨 🛭 🗀 NOLLUDED
- Efficient high-attenuation exhaust silencer of -35 dB(A). 📋 ⊗ INCLUDED
- Refrigeration through cooling liquid, fully distributed in the closed circuit run by an engine driven pump, tropicalised radiator, original from the engine manufacturer.
- Crankshaft-driven pump lubrication system. The filter is a full-flow insert cartridge, front housing, original from the engine manufacturer.
- Air intake system for turbo-fed combustion with two-stage filter, original from the engine manufacturer.
- Electric motor starting system, battery (no maintenance) with disconnector and load alternator driven by the 12V starter, original elements from the engine manufacturer.
- Protection from hot and moving parts.

Alternator

STAMFORD UCI274C ALTERNATOR OF 12 WIRES AND 4 POLES, BRUSHLESS AND WITH ELECTRONIC VOLTAGE REGULATION TYPE AVR (AS440).

- With IP23 protection class and H insulation class.
- Brushless 4-pole alternator. Robust mechanical structure with easy access to connections and components. Hinsulation class, coil pitch 2/3 and self-excited AVR. IP23 protection degree.
- Protection with premium epoxy resins. High voltage parts are impregnated under vacuum, which always means very good insulation.

Do you have any queries about the supply? Get in touch with us.













BAUDOUIN 4M10G6D0/S | STAMFORD UCI274C

Bench

- Bench made of high-strength electro-welded steel.
- Painted with electrostatic epoxy-polyester powder paint.
- Anti-vibration dampers from the engine block to the bedplate.
- Fuel tank included on the bench itself. Equipped with cleaning record to facilitate maintenance work.
- With measuring gauge and installation of fuel to the engine.
- Liquid drainage connection to the outside.
- Bench tested in a salt spray chamber according to ASTM B-117-09 (500h resistance).

Soundproofed canopy (not included in open models)

- Electro-welded canopy of high resistance galvanized steel.
- Painted with electrostatic epoxy-polyester powder paint.
- Interior soundproofing by means of a rigid panel made of glass wool with an exterior textile covering.
- With IP44 mechanical protection level.
- Canopy tested in salt spray chamber according to ASTM B-117-09 (resistance 720h).

Control panel

- DeepSea Electronics automatic control module, DSE 6020 MKII which allows you to work in manual, automatic or signal mode.
 - It offers multiple event logging and is fully configurable through DeepSea Electronics' free-access specific configuration software.
 - Three-phase network and group detection with measurement for configurations upon network failure.
- DSE 9150 12V, 3A DeepSea Electronics battery charger.
 - Designed to be permanently connected to the battery and maintain 100% of the charge. The charger switches to float mode when charging is complete.
- Protections:
 - 4-pole magnetothermic protection against overloads and short circuits.
 - · Protection fuses for the control set.





BAUDOUIN 4M10G6D0/S | STAMFORD UCI274C

7. Detailed supply scope

Other equipment

- · Mechanised fuel nozzle outside with key.
- Tropicalised Radiator for work at 50 °C*
- Prepared for maintenance intervals every 500 hours*.
- Push button for emergency stop.
- Reinforced pole centrally-mounted (Optional for models below 90kVA in open version).

8. Featured options available



Monitor and control your generating set via PC or mobile phone with the DSE 890 module

Including this module, the device connects to the

switchboard server via ethernet or GPRS (GSM or 3G) connection. It also includes the GPS function (satellite tracking).

A DSE GSM antenna is required for the correct operation of the DSE890.



If your generating set is going to be installed outdoors or subjected to high humidity conditions...

We recommend that you choose to manufacture it in stainless steel or add special treatments such as C5-M painting.



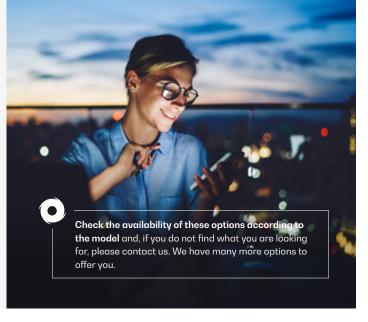
OPTION AVAILABLE IN SOUNDPROOF GENERATOR SETS



Do you need to scale up the power of your installation by synchronising several generating sets?

You can include island units and network sync

with the Synchro Kit DSE 8610MKII (includes 4P motorisation + harting connectors + 10 meters of connecting cable between sets + ground contactor + PMG).



* Confirm the scope of supply depending on the model. Maintenance intervals may vary. Refer to the engine manufacturer's recommendations.



9. Even more options



24 hour tank



External ROTH tanks DUO SYSTEM

AUTONOMY OPTIONS

Increase the autonomy of your generator up to 48 hours, including special tanks

You can choose between different integrated tanks to increase the autonomy of the unit up to 48 hours of operation. You can also incorporate automatic fuel transfer systems for supply from external tanks.

External tanks:

- External tank 400 I (ROTH DUO SYSTEM).
- External tank 620 I (ROTH DUO SYSTEM).
- External tank 1,000 I (ROTH DUO SYSTEM).
- External tank 1,500 I (ROTH DUO SYSTEM).



Engine heating system



Fuel particle separator filter

ENGINE - ALTERNATOR OPTIONS

You can choose between different integrated tanks to increase the autonomy of the unit up to 48 hours of operation. You can also incorporate automatic fuel transfer systems for supply from external tanks.

- Electronic engine regulation/management (for models with mechanical regulation).
- Engine heating system.
- Fuel particle separator filter.
- Manual oil drainage pump.
- 6-way fuel valve kit.
- Super Silent kit (includes heavy mass alternator + high attenuation exhaust -50dB(A))



- Alternator anti-condensation heaters.
- Superior generator impregnation systems.
- AVR MX341 + PMG ± 1% STAMFORD.
- AVR MX321 + PMG ± 0.5% STAMFORD.

Caption:











BAUDOUIN 4M10G6D0/S | STAMFORD UCI274C



MECHANICAL OPTIONS

- Retention bath (see change of dimensions).
- Sensor on retention bath (requires retention bath).
- · Lapas SilentBlocks for levelling.
- Damping anti-vibration springs.
- Complete stainless steel canopy (304).
- Galvanized bench.
- Non-standard RAL colour.





DSF 2157



DSE 334 network surveillance

COMMUNICATION OPTIONS

- DSE 7320 MKII control card extra price (for models with the DSE 6020 MKII control board in the standard scope of supply).
- DSE 2157 8 potential free output (requires DSE 7320MKII).
- DSE 2130 8 inputs (requires DSE 7320MKII).
- DSE 2548 8 LED diodes (requires DSE 7320MKII).
- DSE 855.
- DSE 890 webnet.
- DSE 7420 module.
- DSE 334 network surveillance.



POWER OPTIONS

- Differential protection.
- As an option, you can include a switch cabinet attached to the generating set.
- Switching with Schneider contactors. 25 to 125 A.
- Socomec motorised switches: ≥ 125A.

Caption:

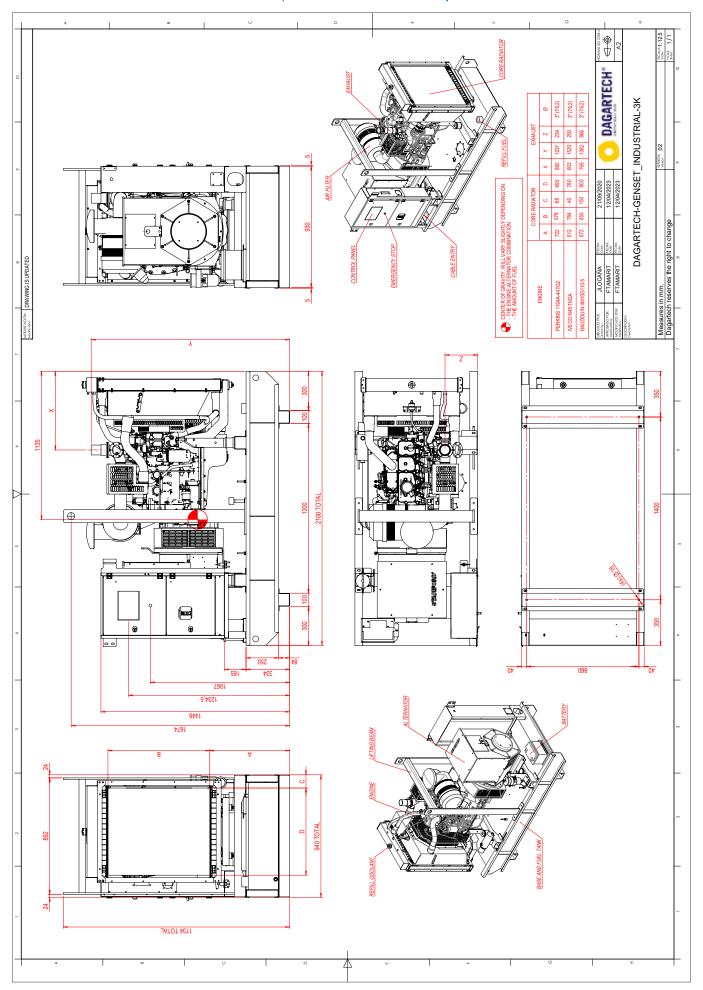






AVAILABLE IN SILENT GENERATOR SETS







¿Necesitas el plano de instalación de la **versión 24 horas**?

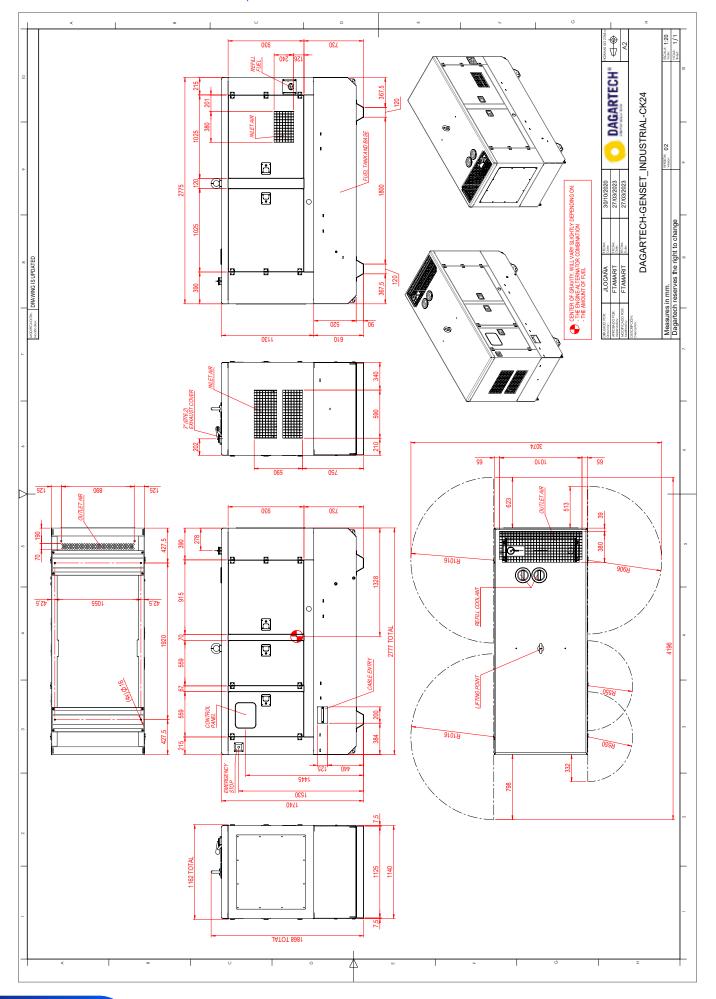
Do you need the technical drawing for the 24-hour version?

Avez-vous besoin du plan d'installation pour la version 24 heures ?

Necessita de plano de instalação em versão com depósito de 48 horas?

Brauchen Sie die Installationszeichnung für die

T+34 976 141 655 info@dagartech.com





info@dagartech.com

T+34 976 141 655



dagartech.com