



DGVR 670 ST

Rental Plus Range



⚡ POWER (PRP / ESP):
670 / 738 kVA (536 / 590 kW)

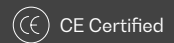
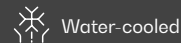
⚡ FREQUENCY
50Hz

V VOLTAGE
400/230V

⚖️ WEIGHT WITH LIQUIDS AND WITHOUT FUEL:
6500kg

📏 DIMENSIONS (GGK-EU5):
L: 4956 mm
W: 2056 mm
H: 2650 mm

Indicative technical plan and indicative images. Dagartech reserves the right to modify the data in this technical sheet without prior notice.



1. General technical data

1.1. Main technical data

Engine	VOLVO TWD1683GE
Alternator	STAMFORD S5L1D-F
Fuel	Diesel
Type of execution	G3
Control panel	DSE 7420 MKII
Tank (l)	995
Sound level-Lp(A) (dB(A)@1m) ¹	82
Sound level-Lp(A) (dB(A)@7m) ¹	72
Sound power-LW(A) (dB(A))	102

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	670 / 536	738 / 590	967,1	1065,2

¹PRP: 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).

EU5 Regulation (EU) 2016/1628 on the Emissions of Pollutant Gases and Particles.

2. Engine specifications

400/230V · 50Hz (1500 rpm)

VOLVO TWD1683GE | STAMFORD S5L1D-F

2.1. General technical data of the engine

Make and model	VOLVO TWD1683GE
Emissions	EU Stage V
r.p.m.	1500
Maximum ESP power (kWm)	627
Power PRP (kWm)	570
Fuel	Diesel
No. of cylinders	6
Cylinder capacity (c.c.)	16120
Compression ratio	16,8:1
Cooling system	Water-cooled
Type of regulation	Electronic
Type of engine/injection/suction	Diesel / direct / Turbocharged

2.2. Fuel

Type of fuel	Diesel
Tank capacity	995

2.3. Consumption and autonomy

	Consumption (l/h)		Autonomy (h)	
	PRP	ESP	PRP	ESP
50%	67,5	-	14,7	-
75%	97,2	-	10,2	-
100%	129,6	144,1	7,7	6,9

DEF (AdBlue®) - Tank: 160 L

Load	Consumption DEF (l/h)	Autonomy DEF (h)
	PRP	PRP
50%	3,5	45,6
75%	6,8	23,5
100%	8,6	18,7

2.4. Cooling system

Fan flow (m³/s)	11
Radiator back pressure (Pa)	100
Fan power consumption (kW)	20
Total refrigerant capacity (l)	155

2.5. Lubrication system

Oil capacity (l)	48
Oil consumption (N/A)	N/A

2.6. Intake system

Combustion air intake flow (m³/min)	45
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400/230V · 50Hz (1500 rpm)

VOLVO TWD1683GE | STAMFORD S5L1D-F

2.7. Starter system	No. of batteries	2
	Battery characteristics	12V 44Ah
	Start-up voltage (V)	24V

2.8. Exhaust system	Exhaust gas flow (m ³ /min)	99 [PRP]	104 [ESP]
	Exhaust gas temperature (°C)	434 [PRP]	464 [ESP]
	Exhaust outside diameter (mm)	6" (Ø 152,4)	
	Exhaust attenuation level (dB(A))	0	
	Max. exhaust back pressure (kPa)	20	

3. Alternator specifications

3.1. General technical data of the alternator

Make and model	STAMFORD S5L1D-F
No. of poles	4
Insulation class	H
No. of threads	12
Mechanical protection index	IP23
Voltage Regulator (AVR)	PMG+MX341
Voltage regulation	±1%
ESP power 27°C (kVA)	738
Power PRP 40°C (kVA)	670
No. of phases	3
Power factor (cos φ)	0,8


 WITH PMG
 IN ITS STANDARD SUPPLY RANGE.

Performance η (%)			
50%	75%	100%	110%
95,4%	95,5%	95,0%	94,6%

Standard regulations that the alternator meets:

AS 1359 | IEC 34-11 | BS EN 60034-1 | VDE 0530 | BS 5000 | CAN/CSA-C22.2-100 | NEMA MG1-32

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)

VOLVO TWD1683GE | STAMFORD S5L1D-F

4. Bench Specifications

- Unit mounted on **electro-welded high-resistance steel bench**, painted with epoxy-polyester powder paint. Includes a **retention bath**.
- 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

- **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** 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 RENTAL PLUS 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**.

Protections:

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

6.2. Circuit breaker

Model

Schneider ComPact 1250A 4P

6.3. Control module



Model

DSE 7420 MKII

DSE 7420 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 communication ports USB, RS232, RS485, Ethernet, as well as DSENet[®] for system expansion. The modules also feature SNMP functionality for connection to SNMP systems.

The entire module is easily configurable via PC using the DSE specific software configuration.

It has 132x64p illuminated LCD display with 4 lines of text, 5-key navigation through menus, 9 configurable outputs and 8 configurable inputs, programmable clocks and alarms, reading and displaying parameter values, including RMS values.

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.

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)

400/230V - 50Hz (1500 rpm)

VOLVO TWD1683GE | STAMFORD S5L1D-F

6.3. Control module



Standard

Model DSE 7420 MKII

Operating modes

STOP mode	
MANUAL mode	
TEST mode	
AUTO mode	

Module configuration options

PC	
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Generator readings

Generator voltage (F-F)	
Generator voltage (F-N)	
Generator current (A)	
Generator frequency	
Generator load F-N (kW / kVA / kVAr)	
Total generator load (kW / kVA / kVAr)	
Average generator power factor	
Accumulated generator load (kW, kVAh, kWh, kVAh)	

Network readings

Network voltages (ph-N)	
Network voltages (ph-ph)	
Grid frequency	
Network current (A)	<input type="checkbox"/>
Network load ph-N (kW / kVA / kVAr)	<input type="checkbox"/>
Total network load (kW / kVA / kVAr)	<input type="checkbox"/>

Engine readings

Coolant temperature	
Oil pressure	
Engine fuel level	
Engine battery volts	
Engine speed	
Engine run time	

Caption

- Included Optional
- Not available Consult

Readings available at control module level.

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

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400/230V - 50Hz (1500 rpm)

VOLVO TWD1683GE | STAMFORD S5L1D-F

6.3.
Control
module



Standard ✓

Model **DSE 7420 MKII**

Engine protections

High water temperature	✓
Low oil pressure	✓
Low water level	✓
Fuel reserve by sensor	✓
Second fuel tank control	✓
Shutdown failure	✓
Battery voltage failure	✓
Battery charge alternator failure	✓
Overspeed	✓
Underfrequency	✓
Failure to start	✓
Emergency stop	✓
Maintenance notice	✓
Maintenance Alert	✓

Alternator protections

High frequency	✓
Low frequency	✓
High voltage	✓
Low voltage	✓
Short circuit	✓
Asymmetry between phases	□
Incorrect phase sequence	✓
Reverse power	✓
Breaker Trip 4 poles	□
Overpressure alarm	✓

Counters

Hour meter	✓
Kilowatt meter	✓
Starter counter	✓

Caption

- ✓ Included □ Optional
- ✗ Not available ⓘ Consult

Readings available at control module level.

























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

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6.3. Control module



Standard 

Model	DSE 7320 MKII
Communications	
RS232	
RS485	
USB communication port	 1 port + 1 host
Modbus IP	<input type="checkbox"/> DSE 855/890/891
Modbus RS 485	
PC Software (Mimic)	
GSM/GRPS MODEM	<input type="checkbox"/> DSE 890
Remote display < 1km	<input type="checkbox"/> DSE 2520
Remote monitoring	<input type="checkbox"/> DSE 855/890
Input expansion	<input type="checkbox"/> DSE 2130 _{8 inputs} / DSE 2131 _{10 inputs} / DSE 2133 _{8 inputs}
Output expansion	<input type="checkbox"/> DSE 2152 _{6 outputs} / DSE 2157 _{8 outputs} / DSE 2548 _{8 outputs}
SNMP protocol	<input type="checkbox"/> DSE 892
Services	
Configurable alarm history	250
External start	
Start-up inhibition	<input type="checkbox"/>
Network Failure Start	
Activation of group counter	
Activation of grid and group counter	
Control of fuel transfer	
Motor temperature control	
Forced group operation	
Free programmable alarms	
Group start function in test mode	
Free programmable outputs	
Multilingual	
Special applications	
GPS localisation	<input type="checkbox"/> DSE 890
Calendar scheduler	
DSE configuration suite via PC	
Front panel module configuration with PIN	
Alternative work	
Programmable PLC	
Power save mode	
Alternative configurations	
Dummy load control / load shedding	 5 Stage dummy load

Caption

-  Included
- Optional
-  Not available
-  Consult

Readings available at control module level.

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

400/230V - 50Hz (1500 rpm)

VOLVO TWD1683GE | STAMFORD S5L1D-F

7. Detailed supply scope

Engine

VOLVO TWD1683GE, EU STAGE V, 1500 RPM, WATER-COOLED, WITH ELECTRONIC REGULATION ENGINE.

- 6-cylinder inline Diesel engine, 4-stroke with Electronic fuel regulation by means of a fuel pump, original from the manufacturer.

 Equipped with a Selective Catalytic Reduction (SCR) system that treats exhaust gases with DEF additive.

- **Sensors and alarms:**

- Oil pressure alarm.
- Temperature alarm.
- Coolant level alarm.
- Oil pressure reading.
- Coolant temperature reading.

- Viscosfan*.

- With a direct injection and Turbocharged suction system. Original manufacturer's particle separator filter.

- 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 disconnecter and load alternator driven by the 24V starter, original elements from the engine manufacturer.

- Protection from hot and moving parts.

Alternator

STAMFORD S5L1D-F ALTERNATOR OF 12 WIRES AND 4 POLES, BRUSHLESS AND WITH ELECTRONIC VOLTAGE REGULATION TYPE AVR (PMG+MX341).

- With IP23 protection class and H insulation class.

- Brushless 4-pole alternator. Robust mechanical structure with easy access to connections and components. H insulation 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.



400/230V · 50Hz (1500 rpm)

VOLVO TWD1683GE | STAMFORD S5L1D-F

Bench

- Bench made of high-strength electro-welded steel. Includes a retention bath.
- 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

- 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 7420 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.
- **Protections:**
 - 4-pole magnetothermic protection against overloads and short circuits.
 - Protection fuses for the control set.

400/230V - 50Hz (1500 rpm)

VOLVO TWD1683GE | STAMFORD S5L1D-F

7. Detailed supply scope

Other equipment

- Mechanised fuel nozzle outside with key.
- Tropicalised Radiator for work at 50 °C*.
- High-performance original manufacturer fuel particle separator filter.
- Prepared for maintenance intervals every 500 hours*.
- Push button for emergency stop.
- Differential Protection.
- Reinforced pole centrally-mounted.
- Reinforced terminals.
- Stainless steel rain shield.
- Thermal sleeves.
- Spark arrestor.
- Glow plugs.
- Water deflector.
- Access door to the urea tank and other components.
- Document holder tray.



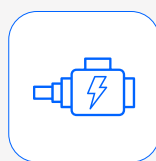
High-performance original manufacturer fuel particle separator filter

They maximise the separation of waste and particles from the fuel, thereby extending the service intervals of the generator set in optimal conditions.



Oil drain pump

Facilitates the extraction of engine oil for an oil change in a matter of minutes.



PMG in the alternator

With two-phase detection, powered by a permanent magnet generator (PMG), it provides protection against the effects of non-linear loads.

Power sockets

Different configurations depending on the model.

670 kVA
CB 50



Schuko		2
16A 2P+T (230V)		1
16A 3P+N+T		-
32A 3P+N+T		1
63A 3P+N+T		1
125A 3P+N+T		1

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

400/230V - 50Hz (1500 rpm)

VOLVO TWD1683GE | STAMFORD S5L1D-F

8. Featured options

KITS

- **Automation kit for mains failure operation** (includes engine heater, battery charger, AUTO selector with key, and programming).
- **Automation kit for start and stop by signal** (includes battery charger, AUTO selector with key, and programming).
- **External refueling kit** (includes external fuel connectors and 6-way fuel valve kit).
- **50 / 60 Hz kit** (includes 50 / 60 Hz selector, AVR in electrical panel, potentiometer, and programming).
- **AVR kit** (includes AVR in electrical panel and potentiometer).
- **Synchro Kit 1** (includes DSE 8610 MKII controller, motorized circuit breaker, Harting connector, 10 meters of cable, earth contactor, PMG, and testing) - available from 60kVA power.
- **Synchro Kit 2** (includes ComAp IntelliGen 4 200 controller, motorized switch, Harting connector, 10 meters of cable, earth contactor, PMG, and testing) - available from 60kVA power.
- **Extra Protection Kit for power sockets** (includes thermal-magnetic protection per socket - Curve C and differential protection per socket - Class A).
- **EU Kit** (includes thermal-magnetic protection per base - Curve B and differential protection per base - Class B).

ALTERNATOR OPTIONS

- Alternator impregnation system (spray).
- Alternator impregnation system (special barnish).

ELECTRICAL AND COMMUNICATION OPTIONS

- DSE 890 MKII DSEWebNet[®] Module / IoT Gateway - 4G (GSM/Ethernet).
- Power Locks.
- Ground spike.



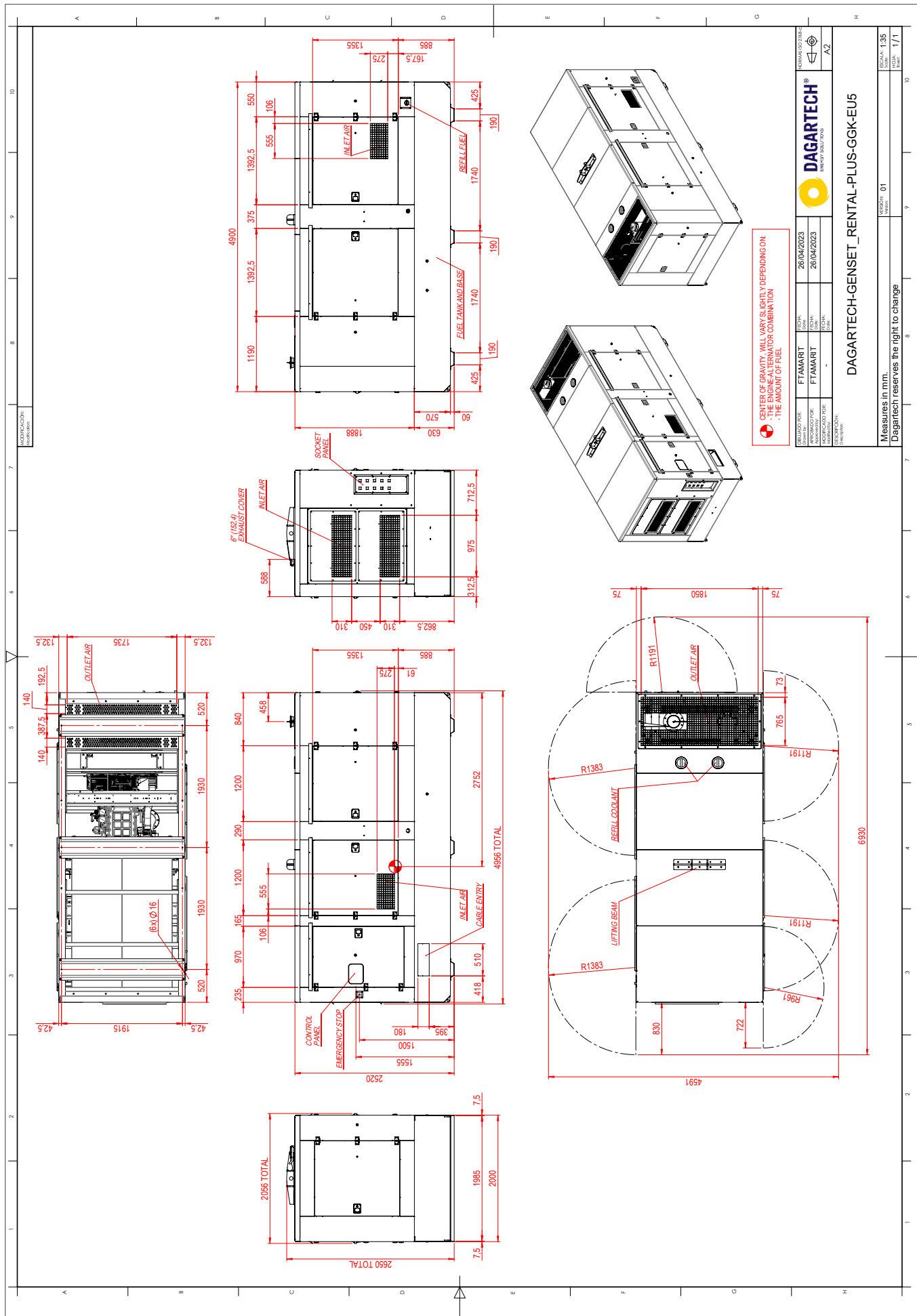
Capot completo de acero inoxidable (304)

MECHANICAL OPTIONS

- High capacity fuel tank.
- Sensor on retention bund warning when spillage.
- Hour meter
- Full stainless steel canopy (304).
- C5-M (Marine coating) paint on the canopy and baseframe.
- Galvanized base frame.
- Non-standard RAL color.

* Check the availability of these options based on the model.

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**BESPOKE
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