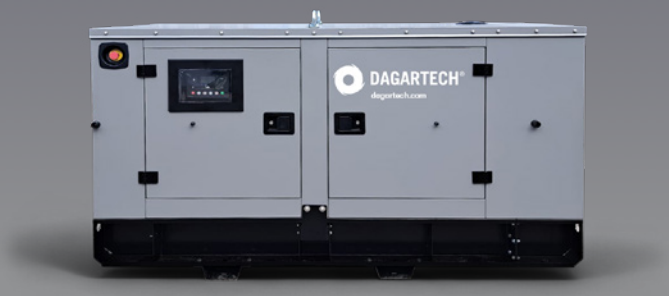
Complit Range NEW

CGBS 110 ME



POWER (PRP / ESP):
99 / 110 kVA (79 / 88 kW)

EU Stage 0

CE Certified

FREQUENCY
50Hz

VOLTAGE
400/230V

WEIGHT WITHOUT LIQUIDS AND WITHOUT FUEL (KG):
1760kg

DIMENSIONS (CKC):
L: 2668 mm
W: 1156 mm
H: 1677 mm

Indicativa image. Dagartech reserves the right to modify the specifications in this technical datasheet without prior notice.

1. General technical data

1.1. Version, dimensions and weight

Version	**Insonorizado**
Dimensions	**CKC**
L (mm)	2668
W (mm)	1156
H (mm)	1677
Weight without liquids and without fuel (kg)	1760

1.2. Main technical data

Engine	**BAUDOUIN 4M10G6D0/S**
Alternator	**MECCALTE ECP34 2S4 C**
Fuel	Diesel
Type of execution	G3
Control panel	DSE 6120 MKIII
Tank (l)	175
Sound level-Lp(A) (dB(A)@1m)[1]	80
Sound level-Lp(A) (dB(A)@7m)[1]	72
Sound power-LW(A) (dB(A))	97

[1]The 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	**99** / 79	**110** / 88	142,9	158,8

[2]PRP: Continuous power ("Prime Power"). ESP: Emergency Standby Power according to ISO8528-1.
Tolerance of maximum active power (kW) ±5%

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).

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up to 330 kVA of power

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2. Engine specifications

2.1. General technical data of the engine

Make and model	**BAUDOUIN 4M10G6D0/S**
Emissions	EU Stage 0
r.p.m.	1500
Maximum ESP power (kWm)	96
Power PRP (kWm)	86
Fuel	Diesel
No. of cylinders	4
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	Diesel
Tank capacity	175

2.3. Consumption and autonomy

	Consumption (l/h)		Autonomy (h)	
	PRP	**ESP**	**PRP**	**ESP**
50%	10,6	-	16,5	-
75%	16	-	10,9	-
100%	21,3	24,4	8,2	7,2

2.4. Cooling system

Fan flow (m^3/min)	175
Radiator back pressure (Pa)	50
Fan power consumption (kW)	2,5
Total refrigerant capacity (l)	23,6

2.5. Lubrication system

Oil capacity (l)	14
Oil consumption (%)	≤ 0,1

2.6. Intake system

Combustion air intake flow (m^3/min)	6,9

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400/230V · 50Hz (1500 rpm)	BAUDOUIN 4M10G6D0/S | MECCALTE ECP34 2S4 C

2.7. Starter system

No. of batteries	1
Battery characteristics	12V 60Ah
Start-up voltage (V)	12V

2.8. Exhaust system

Exhaust gas flow (m^3/min)	19 [PRP]	21,6 [ESP]
Exhaust gas temperature (°C)	700 [PRP]	700 [ESP]
Exhaust outside diameter (mm)	4" (Ø 102)	
Exhaust attenuation level (dB(A))	-30	
Max. exhaust back pressure (mBar)	50	

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

3. Alternator specifications

3.1. General technical data of the alternator

Make and model	**MECCALTE ECP34 2S4 C**
No. of poles	4
Insulation class	H
No. of threads	12
Mechanical protection index	IP23
Voltage Regulator (AVR)	DSR
Voltage regulation	±1%
ESP power 27°C (kVA)	110
Power PRP 40°C (kVA)	100
No. of phases	3
Power factor (cos φ)	0,8

Performance η (%)			
50%	**75%**	**100%**	**110%**
92,6%	92,6%	92,0%	91,7%

ⓘ Standard regulations that the alternator meets:

CEI 2-3 | IEC 34-1 | EN 60034-1 | VDE 0530 | BS 4999-5000 | CAN/CSA-C22.2-No 100-95.

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

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

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400/230V · 50Hz (1500 rpm) BAUDOUIN 4M10G6D0/S | MECCALTE ECP34 2S4 C

4. Bench Specifications

- Unit mounted on **electro-welded high-resistance steel bench**, painted with epoxy-polyester powder paint. **Includes 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**.
- **Attenuation silencer -30dB(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 COMPLIT 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 **coating with noise-insulating material** (NBR / PVC). We also incorporated a **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).*

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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**.
- **AKSA SmartGen 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	AKSA SmartGen BAC06A 12V, 6A

Protections:

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

6.2. Circuit breaker

Model	ABB XT2N160 EKIP-LS/I 160 FF 4P

6.3. Control module

1. Transfer to the generator (manual mode)
2. Start engine (manual mode)
3. Silence alarm
4. Automatic mode
5. Test mode
6. Manual mode
7. Genset stop
8. MAIN NETWORK transfer (manual mode)
9. Navigation keyboard
10. Main status and instrument display

Model	DSE 6120 MKIII

DEEP SEA, DSE 6020 MKII control board automatically switches the genset on when an outage is detected in the electrical grid and automatically switches off when the supply of electricity is restored.

It can also operate in manual and signal mode. Makes it possible to monitor a large number of engine parameters and to display information, status and alarm alerts.

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

Equipped with a 132x64 pixels LCD illuminated display with 4 lines of text, 5 menu navigation keys, programmable clocks and alarms, parameter reading and display with RMS values.

The entire module can be easily set up from a PC using the specific DSE settings software.

Different operating modes: AUTOMATIC mode, MANUAL mode, SIGNAL mode and TEST mode.

Other alternative settings available on request extending the options available as part of the work system.

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)

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6.3. Control module

Standard ✓

Model	DSE 6120 MKIII
Operating modes	
STOP mode	✓
MANUAL mode	✓
TEST mode	✓
AUTO mode	✓
Module configuration options	
PC	✓
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)	◉
Network load ph-N (kW / kVA / kVAr)	◉
Total network load (kW / kVA / kVAr)	◉
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) | BAUDOUIN 4M10G6D0/S | MECCALTE ECP34 2S4 C

6.3. Control module

Standard ✓

Model	DSE 6120 MKIII
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	✓
Low load operation warning	◉
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 6120 MKIII
Communications	
RS232	✕
RS485	✕
USB communication port	✓
Modbus IP	◉ DSE 855/890/891
Modbus RS 485	◉ DSE 855/890/891
PC Software (Mimic)	✓
GSM/GRPS MODEM	◉ DSE 890
Remote display < 1km	✕
Remote monitoring	◉ DSE 855/890
Input expansion	◉ DSE 2130 8 inputs
Input expansion (Thermocouple)	◉ DSE 2133
Output expansion	◉ DSE 2152/2157 8 inputs
Status LED expansion	◉ DSE 2548
SNMP protocol	◉ DSE 892
Services	
Configurable alarm history	250
External start	✓
Start-up inhibition	◉
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	◉ 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	✕

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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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.
- Residential exhaust silencer of -30 dB(A).
- 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

MECCALTE ECP34 2S4 C ALTERNATOR OF 12 WIRES AND 4 POLES, BRUSHLESS AND WITH ELECTRONIC VOLTAGE REGULATION TYPE AVR (DSR).

- 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.

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400/230V · 50Hz (1500 rpm) BAUDOUIN 4M10G6D0/S | MECCALTE ECP34 2S4 C

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 bedplate itself. Equipped with cleaning record to facilitate maintenance work. Includes retention bath.
- 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 coating with noise-insulating material (NBR / PVC).
- 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 6120 MKIII 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.
- **AKSA SmartGen BAC06A 12V, 6A AKSA SmartGen battery charger.**
- **Protections:**
  - 4-pole magnetothermic protection against overloads and short circuits.
  - Protection fuses for the control set.

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7. Detailed supply scope

Other equipment

- Engine heater.
- Mechanised fuel nozzle outside with key.
- Prepared for maintenance intervals every 500 hours*.
- Push button for emergency stop.
- Reinforced pole.
- Thermal sleeves.
- Readings and Alarm Kit:
  - Radiator level alarm sensor.
  - Temperature alarm sensor.
  - Oil pressupre alarm sensor.
  - Oil pressure reading sensor.
  - Temperature reading sensor.

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

8. Available options

Opt 1: Engine preheating glow plugs.

Opt 2: High-performance fuel filter – PARKER FG 500.

Opt 3: Manual oil drain pump.

Opt 4: Automatic fuel filling system.

Available from 90 kVA of power (CKC platform).

Opt 5: Spring isolators.

Opt 6: DSE 890 MKII DSEWebNet® / IoT Gateway Module - 4G (GSM/Ethernet).

ⓘ Check the availability of other communication modules.

Opt 7: DSE 2157 DSENet® Output Expansion Module (8).

Opt 8: Earth Leaking Protection.

* Confirm the scope of supply according to the model. Maintenance intervals may vary. Please refer to the engine manufacturer's recommendations.

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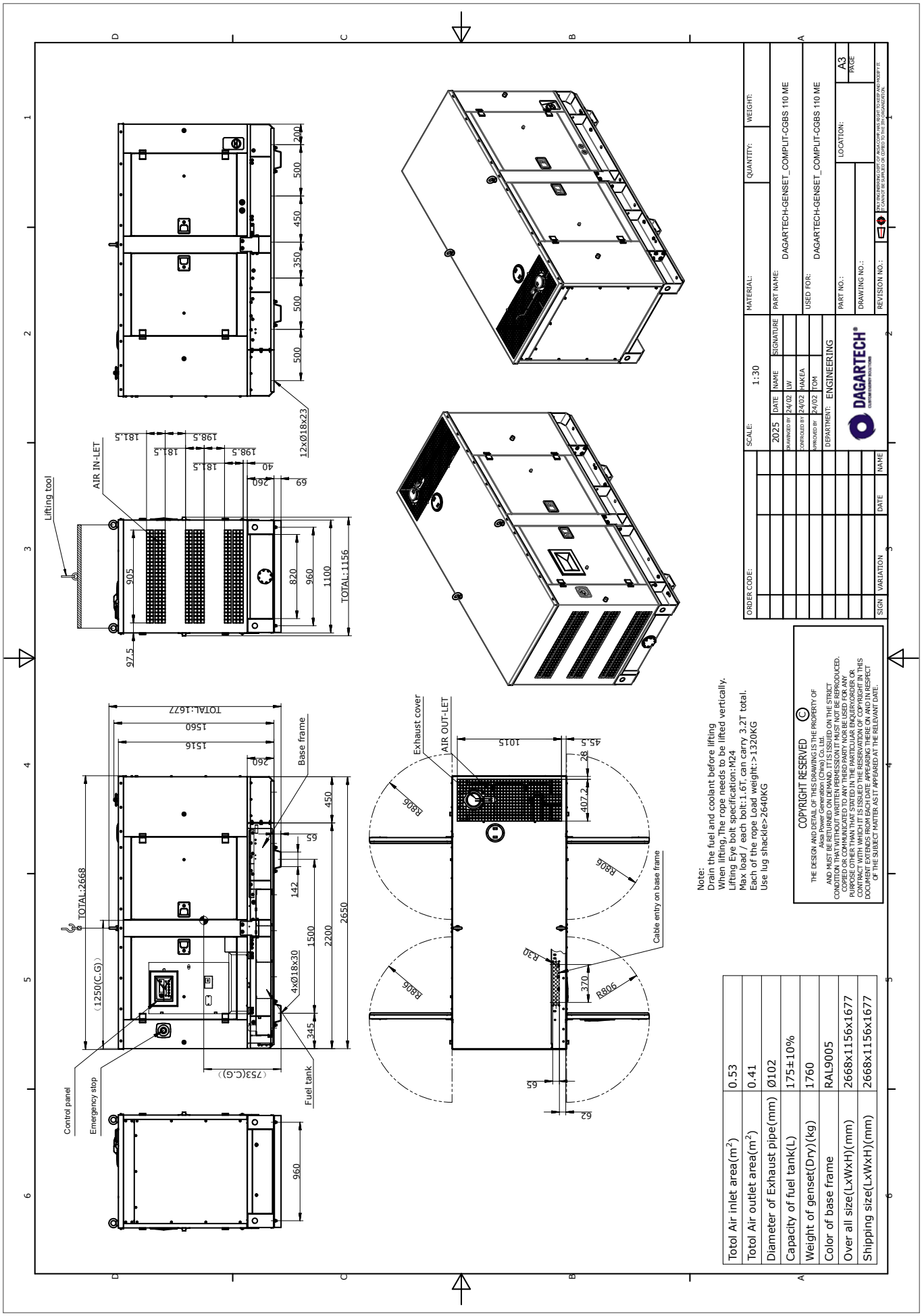

Totol Air inlet area(m^2)	0.53
Totol Air outlet area(m^2)	0.41
Diameter of Exhaust pipe(mm)	Ø102
Capacity of fuel tank(L)	175±10%
Weight of genset(Dry)(kg)	1760
Color of base frame	RAL9005
Over all size(LxWxH)(mm)	2668x1156x1677
Shipping size(LxWxH)(mm)	2668x1156x1677

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