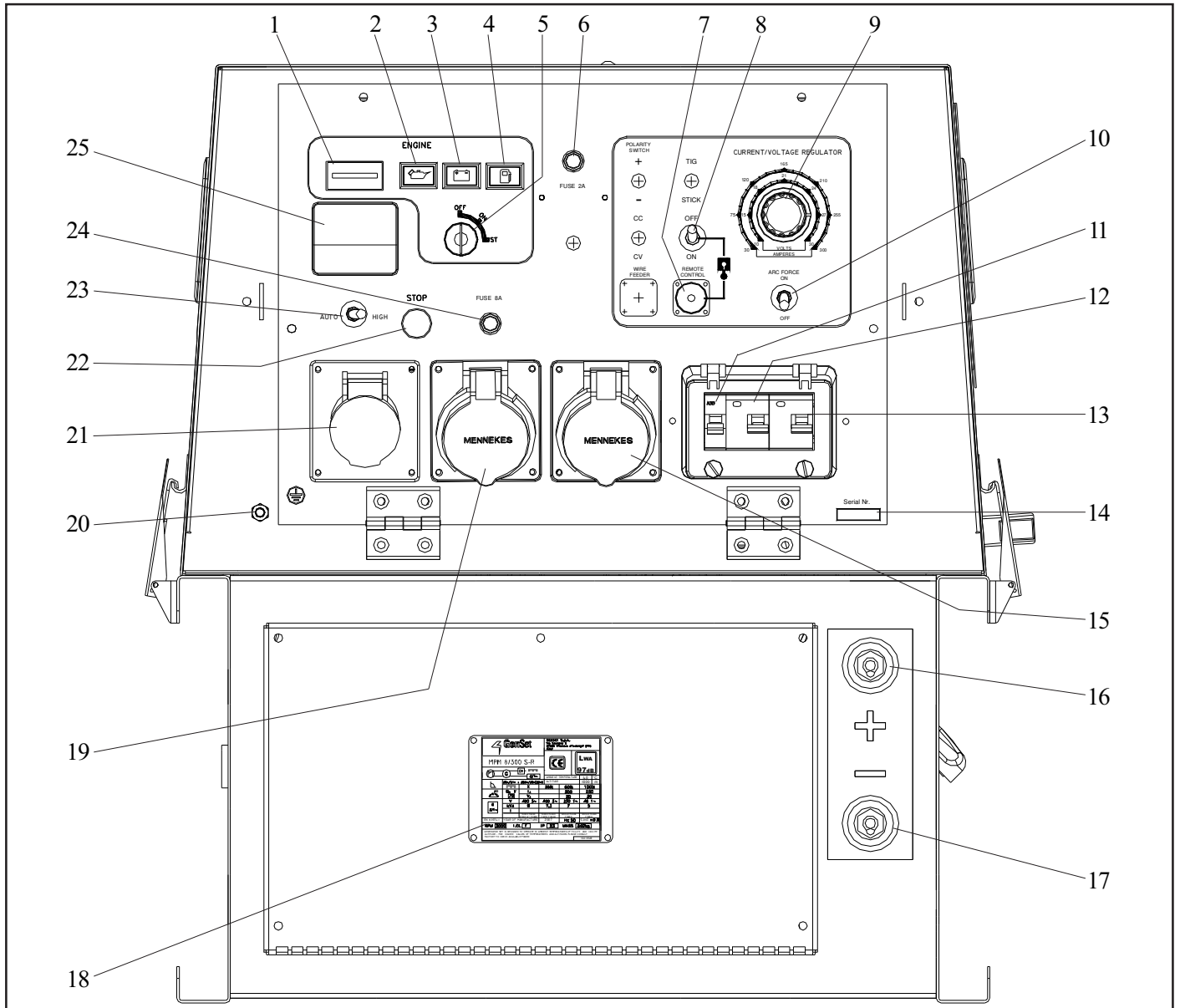
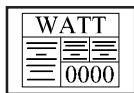


04.2 CONTROL PANEL DESCRIPTION



LEGEND

- | | |
|--|--|
| 1. Hourmeter | 17. Current socket: Negative |
| 2. Low oil pressure alarm lamp | 18. Data plate |
| 3. Battery charger failure alarm lamp | 19. 110 V 32 A single-phase EEC socket |
| 4. Low fuel level alarm lamp | 20. Earth clamp |
| 5. Starting key | 21. 110 V 16 A single-phase EEC socket |
| 6. 2A fuse | 22. Stop tie rod |
| 7. Remote control connector | 23. AUTO/HIGH switch |
| 8. Remote control switch | 24. 8A fuse |
| 9. Current/voltage regulator | 25. Voltmeter |
| 10. Arc force control switch | |
| 11. 16 A 1 pole circuit breaker | |
| 12. 20 A 2 poles earth leakage circuit breaker | |
| 13. 25 A 2 poles earth leakage circuit breaker | |
| 14. Machine serial number | |
| 15. 240 V 32 A single-phase EEC socket | |
| 16. Current socket: Positive | |



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05.1 DEFINITIONS

DUTY CYCLE

The duty cycle of a welding generator is the time that a welding generator can be used at a given amperage without causing damage to the materials making up the unit.

This time is indicated as a percentage of a ten-minute period. If the welding generator is designed to work at 400 A and 60% duty cycle, that means that the unit can provide 400 A for a period of 6 minutes, while for the remaining 4 minutes in a 10 minutes period the unit must operate at no load.

WELDING VOLTAGE

WELDING AT NO LOAD

The voltage at no load is the voltage at the welding receptacles when the engine is running at the rated speed and no load is connected to the unit.

NOMINAL VOLTAGE UNDER LOAD

The nominal voltage under load must comply with precise regulations (as indicated by standard IEC60974-1), and in particular:



CC welding (constant current):

$$V = (I \times 0,04) + 20$$

For current values higher than 600 A:

$$V = 44 \text{ V}$$



CV welding (constant voltage):

$$V = (I \times 0,05) + 14$$

For current values higher than 600 A:

$$V = 44 \text{ V}$$



TIG welding:

$$V = (I \times 0,04) + 10$$

For current values higher than 600 A:

$$V = 34 \text{ V}$$

Where V is the voltage at the welding receptacles and I is the welding current selected.

05.2 GENERATOR

Type	Asynchronous
Single phase power	6 kVA - 240 V (according to DIN 6271)
Single phase power	2,5 kVA - 110 V (according to DIN 6271)
Frequency	50 Hz
Power factor	0,8
Insulation class	F
Degree of protection	IP 23

05.3 D.C. WELDING

Welding at 60% duty cycle	300 A - 20 V
Welding at 100% duty cycle	250 A - 30 V
Range of continuous control	30 ÷ 300 A
OCV	70 V
Electrodes diameter	6 mm

05.4 ENGINE

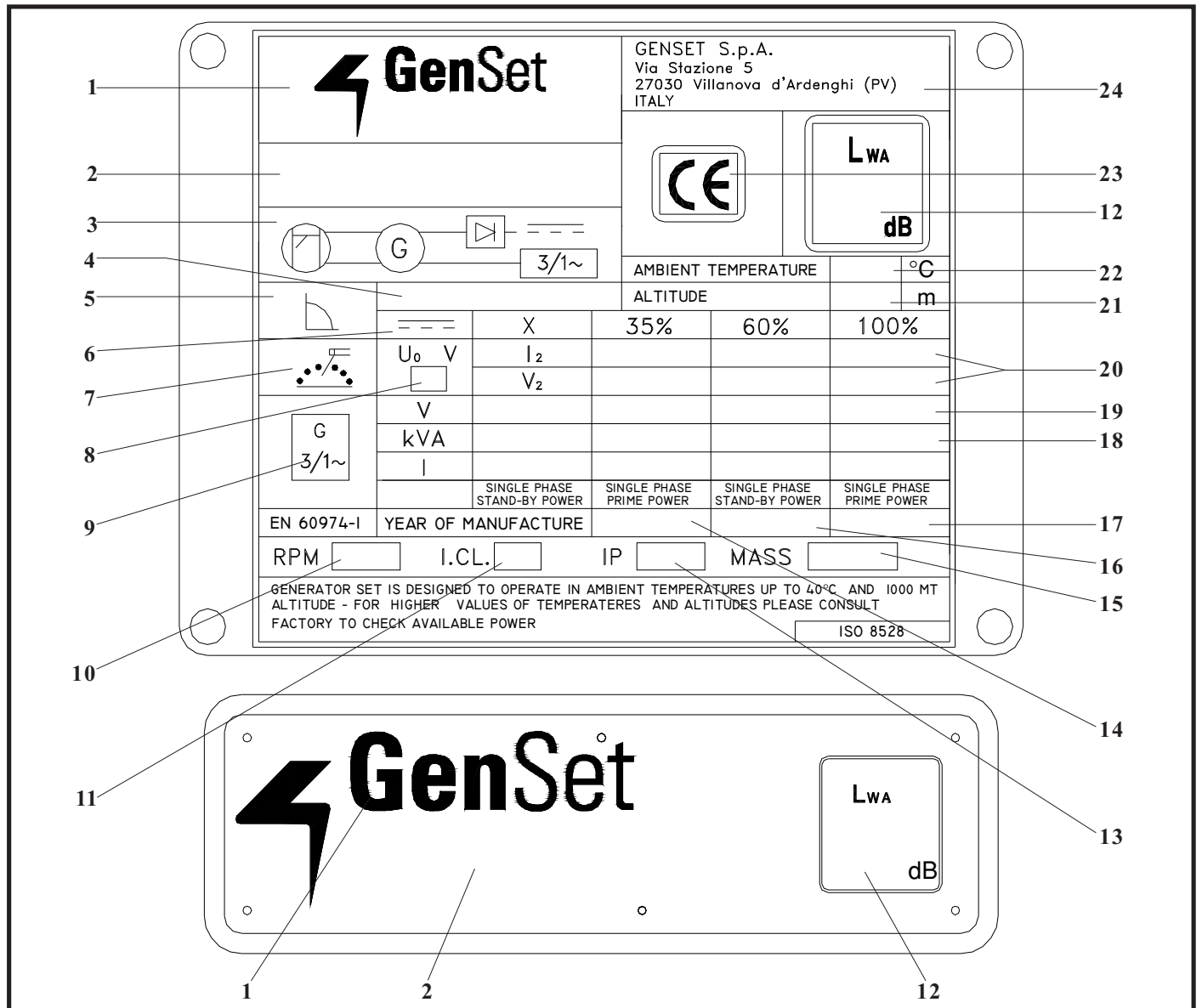
Engine type	Lombardini 12LD477/2
Number of cylinders	2
Displacement	954 cm ³
Power (emergency service)	20 hp (14,7 kWm)
Engine speed	3000 rpm
Cooling system	Air
Fuel type	Diesel
Oil tank capacity	2,7 l
Starting system	Electric
Consumption per hour (at 75% of continuous service)	3,3 l/h

05.5 GENERAL SPECIFICATIONS

Noise power emission level	L _{wa} 97
Battery	12 V - 44 Ah
Fuel tank capacity	30 l
Operating range at 75% of continuous service power	9 h ~
Dry weight	340 Kg
Dimensions (L x W x H)	1305 x 731 x 844

05.6 RATING PLATE DESCRIPTION

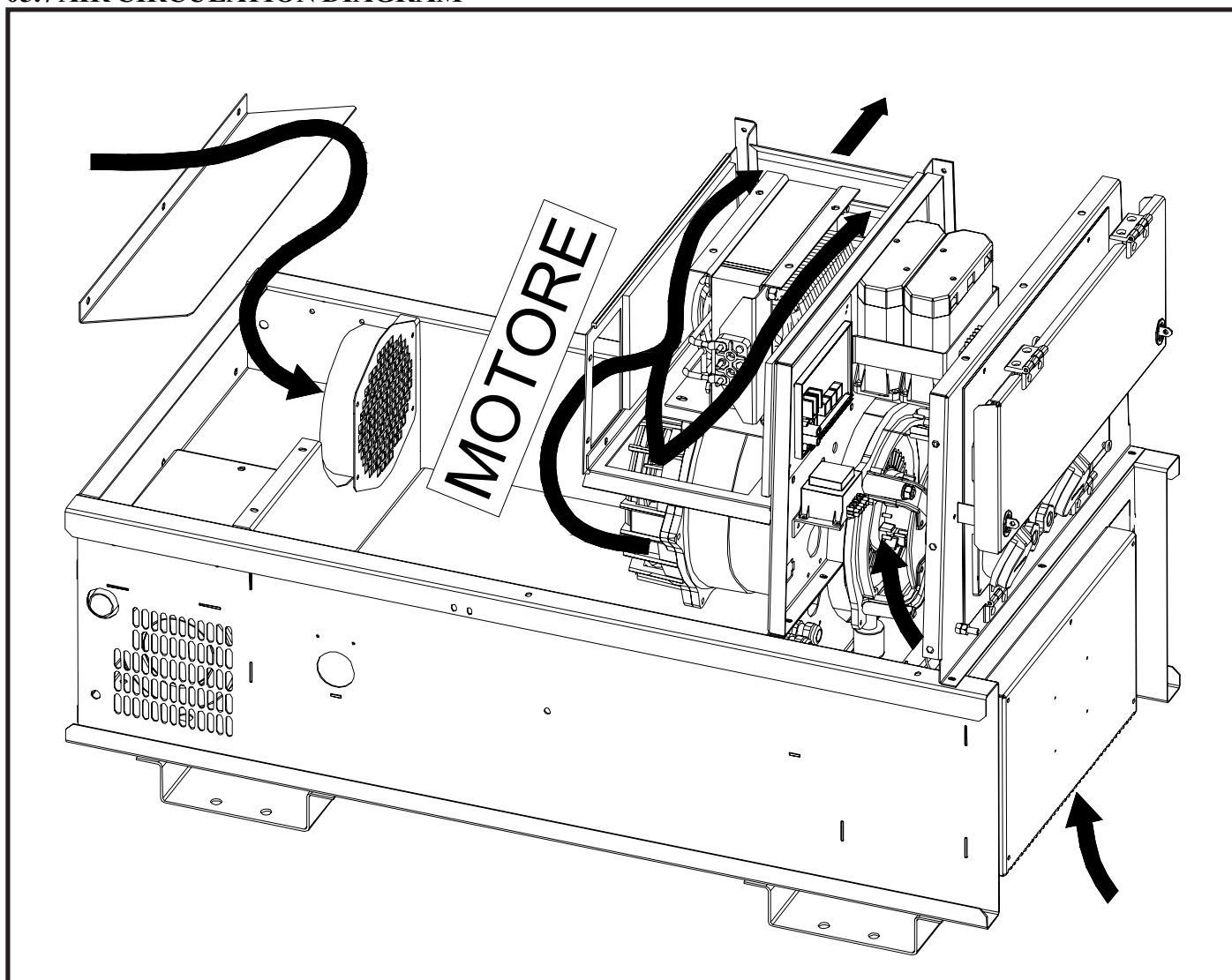
A rating plate showing the operation capabilities and performance limits is provided on the unit.



LEGEND

- | | |
|--|----------------------------|
| 1. Manufacturer's logo | 14. Manufacture year |
| 2. Generator model | 15. Weight |
| 3. Welding symbol | 16. Rated frequency |
| 4. Welding current / voltage range | 17. Power factor |
| 5. Static characteristic curve symbol | 18. Rated power kVA |
| 6. Welding direct current | 19. Rated voltage values |
| 7. Welding processes | 20. Welding values |
| 8. OCV - Open circuitry voltage (at no load) | 21. Altitude reference |
| 9. Three/Single-phase voltage generator | 22. Ambient temperature |
| 10. Engine speed | 23. EC mark |
| 11. Insulation class | 24. Manufacturer's address |
| 12. Noise level | |
| 13. Unit's degree of protection | |

05.7 AIR CIRCULATION DIAGRAM



05.8 OVERALL DIMENSIONS

