



AP90D5

50 Hz Diesel Generator

3

Phase

89

kVA Standby

81

kVA Prime

50

Hz

400

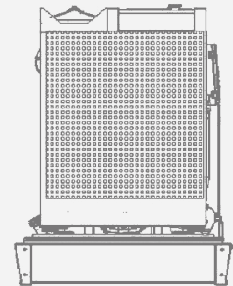
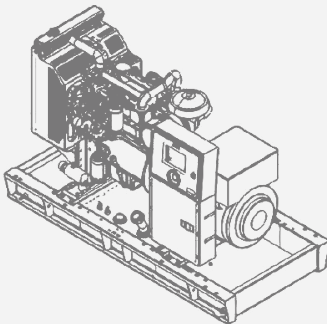
V



*Image for illustration purposes only, actual product may differ

| Output Power | kVA | kW |
|---------------------|-----|----|
| Standby Power (ESP) | 89 | 71 |
| Prime Power (PRP) | 81 | 65 |

| Size | L x W x H (mm) | Weight (kg) | Fuel Tank (lt) | Noise dB(A) @ 7m |
|-----------|-------------------|-------------|----------------|------------------|
| Canopied | 2650 x 950 x 1450 | 1318 | 160 | 71 |
| Open Skid | 2000 x 950 x 1230 | 1004 | 160 | N/A |



Continuous Power

The rated power of a generating set represents the maximum continuous power it can deliver while providing a constant electrical load. The average load can reach 100%. However, it is crucial not to overload the generator to ensure its optimal performance and longevity.

Standby Power

The maximum available power during a variable electrical power sequence, under specified operating conditions, refers to the generating set's capacity to deliver power in the event of a utility power outage.

Prime Power

The rated power of a generating set represents the utmost capacity it can consistently deliver while accommodating a variable electrical load. It is recommended to maintain an average load of 70% for optimal performance. However, the generator can handle brief overloads of up to 10% for a duration of 1 minute.

VIEW ONLINE



14 Lanthwaite Business Park,
South Kirkby, Pontefract,
WF9 3AP, UK



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ade-power.com
enquiries@ade-power.com
+44 (0) 1977 658 100





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Engine

| | |
|------------------------------------|--------------------------|
| Manufacturer | Perkins |
| Model | 1104A-44TG2 |
| Cylinder Configuration | Inline |
| No of Cylinders | 4 |
| Displacement | 4.4 lt |
| Stroke | 127 mm |
| Bore | 105 mm |
| Compression Ratio | 17.25:1 |
| Aspiration | Turbocharged |
| Governor Type | Mechanical |
| Cooling System | Water |
| Coolant Capacity | 13 lt |
| Lubrication Oil Capacity | 8 lt |
| Electrical System | 12 VDC |
| Speed / Frequency 50 Hz | 1500 rpm / 50 Hz |
| Engine Gross Power (Standby 50 Hz) | 80.7 kW |
| Fuel Consumption %110 ESP 50 Hz | 20.5 lt/h |
| Fuel Consumption %100 PRP 50 Hz | 18.7 lt/h |
| Fuel Consumption %75 PRP 50 Hz | 14 lt/h |
| Fuel Consumption %50 PRP 50 Hz | 9.7 lt/h |
| Exhaust Outlet Temperature 50 Hz | 580 °c |
| Exhaust Gas Flow 50 Hz | 13.3 m ³ /min |
| Combustion Air Flow 50 Hz | 5.14 m ³ /min |
| Cooling Air Flow 50 Hz | 89 m ³ /min |

Alternator

| | |
|----------------------|--|
| No of Phases | 3 |
| Power Factor | 0.8 |
| No of Bearings | Single |
| No of Poles | 4 |
| No of Leads | 6-12 |
| Insulation Class | H-F |
| Degree of Protection | IP23 |
| Excitation System | AVR (Automatic Voltage Regulator), Brushless |





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Standard Equipments

Engine

ADE generators exclusively employ industry-leading engine brands that boast cutting-edge technology and full compliance with ISO 8528, ISO 3046, BS 5514, and DIN 6271 standards. These engines are specifically designed for low fuel consumption while offering precise speed control and seamless integration with the fuel pump. Furthermore, they are equipped with either mechanic or electronic type governors to suit diverse operational requirements.

Alternator

We use leading alternator brands with state-of-the-art technology, high quality, and durability. All alternators meet rigorous international standards, such as EC 60034-1, CEI EN 60034-1, BS 4999-5000, VDE 0530, NF 51-100,111, OVE M-10, and NEMA MG 1.22. They feature maintenance-free bearing systems and electronic voltage regulators for precise voltage setting.

Control Panel

ADE generator sets feature a standard control panel for comfortable and safe usage. The panel allows easy monitoring of measurements, statistics, operating modes, alerts, and generator condition. Its metal body, made of steel sheet, contains an electronic control module and an emergency stop button, coated with electrostatic powder paint. ADE offers quality standard panels and can also customize designs to meet specific customer requirements.

Chassis and Fuel Tank

ADE generator sets feature robust steel chassis for superior durability, capable of bearing the generator's weight. Anti-vibration mounts minimise disturbances, ensuring smooth operation. Lifting lugs facilitate easy transportation and positioning. Custom solutions cater to specific customer preferences.

Generators below 1600 kVA have integrated fuel tanks, optimizing space, while larger sets have separate rectangular fuel tanks. All tanks include level indicators for convenient fuel monitoring. ADE's meticulous design approach guarantees reliable and high-performance generator sets.

Cooling System

The system comprises a high-quality industrial-type radiator, an expansion tank, and a cooler fan, meticulously designed to maintain the temperature of the generator set's components at a consistently optimal level. This thoughtful integration ensures the efficient and reliable performance of the generator set throughout its operational lifespan.



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Canopy Features

ADE standard canopies' default features are as follows;

- Compatible with 2000/14/EC directives, certified noise emission level,
- 2 or 4 points transport possibility according to cabin size,
- Hidden exhaust inside the canopy,
- Emergency stop button located on the canopy,
- Improved air suction channel to ensure homogenous cooling in the canopy,
- Radiator air outlet and exhaust designed to expel vertically.
- Easy-access cap to add water and antifreeze to the radiator.
- Amplified paint system against corrosion and rust,
- Improved performance in terms of sound insulation,
- Demountable parts that make transportation and maintenance easier.

In addition to our comprehensive standard range of canopies, ADE offers the flexibility to design tailor-made canopies, specifically catering to individual requirements for desired sound levels or dimensions on request. Our team of experts is dedicated to providing customized solutions that perfectly match your unique needs, ensuring a seamless and optimal performance for your generator set.

Optional Equipments

Some optional equipments that ADE provides with generator Sets;

- Medium voltage alternator,
- Remote radiator applications,
- Automatic fuel filling system,
- Fuel tank, oil pan, dashboard, alternator, coil heaters,
- Alternator with double AVR and PMG,
- Synchronization systems,
- The generator output breaker,
- Grid-generator transfer switches,
- Accordance with the specific volume of demand-insulated cabins,
- Seismic solutions,
- Trailer,
- Remote monitoring.





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Control Panel Features - DSE-7320

- 4-Line back-lit LCD text display
- Five key menu navigation
- Front panel editing with PIN protection
- Customisable status screens
- Power save mode
- Support for up to three remote display units
- 9 configurable inputs
- 8 configurable outputs
- Flexible sender inputs
- Configurable timers and alarms
- 3 configurable maintenance alarms
- Multiple date and time scheduler
- Configurable event log (250)
- Tier 4 CAN engine support
- Integral PLC editor
- Easy access diagnostic page
- CAN and Magnetic Pick-up/Mt. sensing
- Fuel usage monitor and low fuel alarms
- Charge alternator failure alarm
- Manual speed control (on compatible CAN engines)
- Manual fuel pump control
- Engine exerciser
- "Protections disabled" feature
- kW & kV k protection
- Reverse power (kW & kV k) LED and LCD alarm indication
- Power monitoring (kW h, kV h, kV Ah, kV k h)
- Load switching (load shedding and dummy load outputs)
- Automatic load transfer (DSE7320)
- Unbalanced load protection
- Independent Earth Fault trip
- USB connectivity
- Backed up real time clock
- Fully configurable via DSE Configuration Suite PC software
- Configurable display languages
- Remote SCADA monitoring via DSE Configuration Suite PC software
- User selectable RS232 and RS485 communications
- Configurable Gencomm pages
- Advanced SMS messaging (additional external modem required)
- Start & stop capability via SMS messaging
- Additional display screens to help with modem diagnostics
- Idle control for starting & stopping.
- DSENet® expansion compatible
- Heated display option available



DSE DEEP SEA ELECTRONICS

Functions

- AMF unit
- Remote start controller
- Manual start controller
- Engine controller
- Remote display & control unit
- CTs at genset or load side

Communications

- Web monitoring
- GSM-SMS (required externally modem)
- e-mail
- USB Device
- RS-232
- J1939-CANBUS

Topologies

- 2 phase 3 wires, L1-L2
- 2 phase 3 wires, L1-L3
- 3 phase 3 wires
- 3 phase 4 wires, star
- 3 phase 4 wires, delta
- 1 phase 2 wires

DSE DEEP SEA ELECTRONICS





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WARRANTY CERTIFICATE DURATION

Manufacturers warranty applies to new diesel generator sets to be free from defects in material and workmanship in production for 24 months or 1000 hours from the date of delivery to first user (which occurs first). Warranty period is limited by 30 months from the date of shipment ex-works.

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