

NW-R Series Powered by RicardoEngines

NWR / 22



Ratings

| Output Ratings | Prime Power Standby Power | | |
|----------------------|---------------------------|------------------|--|
| Output Kattiigs | 20 kVA / 16 kW | 22 kVA / 17,6 kW | |
| Frekans-Engine Speed | 50hz-1 | 500 d/d | |

Ratings at 0.8 power factor

- 1) Ambient reference conditions: 1,000 mbar, 27°C, 30% relative humidity;
- 2) Standby Power Standby duty, operation under variable load, without over load;
- 3) Prime Power-Continuous duty operation, under variable load 24/24h-10% over load permissible 1 hour/12 hours;

Performance Data

| Engine Brand & Model | | Ricardo & 495D | |
|--------------------------|----------------------|--------------------|--|
| Alternator Bran | d & Model | Newpower & NW/N 22 | |
| Control S | ystem | DKG309 | |
| Standard Noise Level @ 7 | 7m (Soundproof Sets) | 70 dBA | |
| Circuit Breal | ker Type | 3 Pole MCCB | |
| Frequency & Phase | | 50 Hz & 3 PH | |
| Engine Spee | d (RPM) | 1500 | |
| Tank (L) | Open Sets | 100 | |
| Talik (L) | Soundproof Sets | 100 | |
| | 100% Load | 10 | |
| Fuel Consumption (l/hr) | 75% Load | 7.5 | |
| | 50% Load | 5 | |
| | 25% Load | 2.5 | |

Dimensions and Weights

| Content | | Open Sets | Soundproof Sets |
|-----------------|---|-----------|-----------------|
| | L | 1800 | 2120 |
| Dimensions (mm) | W | 800 | 900 |
| | Н | 1300 | 1700 |
| Weights (kg) | | 500 | 800 |



Engine Brand / Model : Ricardo / 495 D

Typical Engine Data

| No. Of Cylinders / Alignment | 4 / In Line | Gross Engine Power | Prime | 26,5 |
|------------------------------|------------------|--------------------|---------|-------|
| Cycle | 4 Stroke | Gross Engine Power | Standby | 29,6 |
| Bore / Stroke | 100 mm / 115 | Compression Ratio | | 17:1 |
| Induction | TCA | Displacement (L) | | 3.86 |
| Cooling Method | Water | Governing Type | | M & E |
| Lubricant Oil | 15W40-CF4Upgrade | Net Weight (kg) | | 380 |

Exhaust System Exhaust outlet size (internal) (mm) **Lubrication system** Total system capacity Minimum sump capacity (liters) Lubricating oil pressure At rated speed (kPa) Minimum @ 80°C (kPa) Oil filter screen spacing (microns) Oil consumption Prime power after running in (typically after 250 hours) (g/kWhr) Oil flow rate from pump (liters / sec) **Fuel System** Injection system Fuel injection pipe Injector pressure (Mpa) Fuel delivery (I/hr) **Cooling system** Electro unit (engine only) (liters) Maximum pressure in crankcase water jacket (kPa) Maximum top tank temperature (standby) (°C) Maximum static pressure on pump (kPa) **Electric System** Alternator output (A) Maximum air intake restriction on engine: Clean filter (kPa) Dirty filter (kPa)



Alternator Brand / Model: Newpower & NW/N 22

| | **** |
|--|--------------------------|
| Rated Output | 20 kVA |
| Rated Output | Brushless |
| THF(BS EN60034 – 1) | <2% |
| Bearing Number | Single |
| Windings | 100% Copper |
| Silicon Steel Core Processing | One Piece Punching |
| Insulation Class | H |
| Winding Pitch | |
| Amortisseur Winding | Full |
| A.V.R. Model | AS480 |
| Voltage Regulation (no load – full load) | ±1.0% |
| Under speed Protection | Standard |
| Protection | |
| Phase Sequence | $A(U)$, $B(V)$, $C(W)$ |
| TIF(NEMA MG 1-22) | <50 |
| Excitation System | Self-excited, SHUNT |
| Ambient Temp | 50 °C |
| Stator Rated Temp | 125 °C |

Control System:



DSE3110

The DSE3110 can be utilised as a Manual or Auto StartModule for single gen-set applications and forms part of DSE's next generation of controlmodules. The module has been designed to work with electronic and non electronic engines providing advanced engine monitoring and protection features. The DSE3110 includes a backlit LCD display which clearly shows the status of the engine at all times. The module monitors engine speed, frequency, voltage and run hours and also displays the warning and shutdown status of the engine.

The module includes six digital inputs and four outputs. Two of the outputs are configurable. The module can either be

Themodule includes six digital inputs and four outputs. Two of the outputs are configurable. The module can either be programmed using the front panel or by using the DSE Configuration Suite PC software. Themodule is available in two variants: Magnetic Pick-up and Canbus.



DSE8610

The DSE8610 is an easy to use multi-generator loadshare system, designed to synchronise up to 32 generators including electronic and non-electronic engines.

The DSE8610 monitors the generator and indicates operational status and fault conditions, automatically starting or stopping the engine on load demand or fault condition.

System alarms are annunciated on the LCD screen (multiple language options available), illuminated LED and audible sounder.

The event log will record 250 events to facilitate easy maintenance. An extensive number of fixed and flexible monitoring, metering and protection features are included as well as comprehensive communication and system expansion options.



DKG309

The DKG-309 is a comprehensive AMF unit for single genset standby or dual genset mutual standby operations. The unit is available with MPU or CANBUS versions. The CANBUS version connects to ECU controlled electronic engines providing engine control, protection and instrumentation without extra senders. The ECU alarms are displayed in text. The unit provides a comprehensive set of digitally adjustable timers, threshold levels, input and output configurations, operating sequences and engine types. All programs may be modified via front panel pushbuttons, and do not require an external unit.Last 100 faults are stored in the event log file. The event log includes not only the date-time information, but also a comprehensive list of measured genset parameters at the time that the fault has occurred. The WINDOWS based RAINBOW program allows remote monitoring and control. The unit offers multiple language support.



Optional

| Engine | Alternator | Generator | Fuel System | Canopy |
|--|--|---|--|--|
| Water Jacket Preheater Oil Preheater | Winding Temperature Measuring Instrument Alternator Preheater PMG Anti –damp and anti-corrosion treatment Anti-condensation heater | Toolkit with the machine | Low fuel level alarm Automatic fuel feeding system Fuel T-valves | Trailer Galvanized |
| Lubricating System | Exhaust System | Cooling System | Control System | Voltages |
| Oil with the machine | Protection board from hotness | Front heat protection Coolant (-30°C) | Remote control panel ATS | 415/240V400/230V380/220V |

The following lists are optional by the needs of customers.

| 4BTA Series 1000 Hour Maintaining List | | | | | |
|--|----------------------|----------|-----|--------|--|
| No. | Part Name | Part No. | Qty | Remark | |
| 1 | OIL FILTER | | 6 | | |
| 2 | FUEL FILTER | | 3 | | |
| 3 | AIR FILTER | | 2 | | |
| 4 | BELT | | 2 | | |
| 5 | CYLINDER HEAD GASKET | | 1 | | |
| 6 | HEAD COVER GASKET | | 3 | | |
| 7 | OIL SEAL-AIR GATE | | 8 | | |
| 8 | FRONT OIL SEAL | | 1 | | |
| 9 | REAR OIL SEAL | | 1 | | |
| 10 | THERMOSTAT | | 1 | | |
| 11 | PISTON RING | | 1 | | |
| 12 | INJECTOR | | 4 | | |
| 13 | WATER PUMP | | 1 | | |
| 14 | START MOTOR | | 1 | | |
| 15 | ALTERNATOR | | 1 | | |
| 16 | WATER SEP SENSOR | | 1 | | |
| 17 | OIL PRESSURE SENSOR | | 1 | | |

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We reserve the right to make changes in model, technical specification, color, configuration and accessories without prior notice. Please contact us before ordering.

