# ATP Baudouin - Leroy Somer Series


## ATP350-BDN/LS

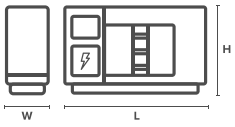
### Main Features

| | | | |
|---|---|---|---|
| T | Three-phase | Hz | 50 Hz |
| | Diesel | | 1500 r.p.m. |
| | Baudouin / 6M16G350/5 | V | 400V |
| | Leroy somer / TAL-A46-G | cosφ | 0,8 |
| | Deepsea 6120 | | ABB / 4x630 A |

| | | |
|---|---|---|
| Standby Power (STP) | 350 kVA | 280 kW |
| Continuous Power (PRP) | 320 kVA | 256 kW |
| Continuous Power (COP) | - kVA | - kW |

### Soundproof

| | |
|---|---|
| Length (L) | 3950 mm |
| Height (H) | 2070 mm |
| Width (W) | 1350 mm |
| Weight | 3350 kg |
| Daily deposit | 500 L |




| | 50Hz |
|---|---|
| Sound pressure level @1m | 79 ± 3 dB(A) |
| Sound pressure level @7m | 66 ± 3 dB(A) |

### Installation in room

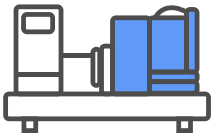
| Exhaust System | 50Hz | | |
|---|---|---|---|
| | COP | PRP | STP |
| Max. Exhaust Temperature After Turbocharger (°C) | - | - | 550 |
| Exhaust Gas Flow ($m^3$/min) | - | N/A | 58,2 |
| Heat Evacuated (kW) | - | - | - |
| Max. Exhaust Backpressure (mBar) | 110 | | |
| Max. Bending Moment of the Exhaust Outlet Flange (Nm) | 10 | | |
| Outlet Diameter (mm) | 100 | | |

| Ventilation System | 50Hz | | |
|---|---|---|---|
| | COP | PRP | STP |
| Recommended Airflow ($m^3$/min) | - | N/A | 20,8 |
| Min. Intake Pipe Diameter (mm) | | | 100 |
| Intake Air Temperature Rise (°C) | | | ≤15 |

| Radiation Heat | 50Hz | | |
|---|---|---|---|
| | COP | PRP | STP |
| Total Heat Dissipation (kJ/s) | - | - | 481,8 |
| Heat Radiated to the Environment (kJ/s) | - | - | - |

## Engine specifications

| General specifications | 50 Hz |
|---|---|
| Model | 6M16G350/5 |
| Emissions | Not applicable |
| Performance Grade | G2 |
| Operating Method | Four-stroke |
| Fuel Type | Diesel |
| Cooling System | Liquid (water + 50% antifreeze) |
| Aspiration System | Turbocharged and aftercooled |
| Injection System | Direct |
| Number and Arrangement of Cylinders | V6 |
| Displacement (L) | 9,726 |
| Cylinder diameter (mm) | 126 |
| Cylinder stroke (mm) | 130 |
| Compression ratio | 17:1 |
| Regulation | Electronic |
| Rotation speed | 1500 |
| Piston speed (m/s) | 6,5 |
| Gross power COP (kWm) | - |
| Gross power PRP (kWm) | 291 |
| Gross power STP (kWm) | 320 |
| Fan power supply (kW) | 13,4 |
| Net power COP (kWm) | - |
| Net power PRP (kWm) | 276 |
| Net power STP (kWm) | 305 |



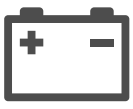
| Consumptions | | 50Hz | |
|---|---|---|---|
| Fuel consumption | Burden | lt/h | g/kWh |
| STP | 100% | 78,4 | 205,8 |
| PRP | 100% | 70,5 | 204 |
| | 75% | 52,3 | 201,7 |
| | 50% | 35,4 | 204,5 |
| COP | - | - | - |
| | - | - | - |
| | - | - | - |
| Fuel Consumption Tolerance | | +3% | |
| **Reference conditions** | | | |
| Temperature (°C) | | 25 | |
| Atmospheric temperature (kPa) | | 100 | |
| **Capacity** | | | |
| Coolant Capacity (L) | | 9,4 | |
| Low / high oil capacity (L) | | 22/26 | |
| **Starting system** | | | |
| Voltage (V) | | 24 | |
| Power (kW) | | 8,5 | |
| Battery (Ah) | | 80 | |

## Alternator specifications

| General specifications | |
|---|---|
| Model | TAL-A46-G |
| Number of Phases | Three-phase |
| Protection | IP23 |
| Insulation | H |
| Heating | H |
| Telephone R.F.I interference 50 Hz | THF<2% |
| Telephone R.F.I interference 60 Hz | TIF<50 |
| Coupling | Flex plate |
| Support | Monopalier |

| | |
|---|---|
| No-load waveform distortion | < 2% |
| Load waveform distortion | < 5% |
| Number of windings | 6 |
| Excitation (standard / option) | SHUNT / AREP |
| AVR Model (standard / option) | R120 / R180 |
| Voltage Regulation (standard / option) | ± 1 % / ± 1 % |

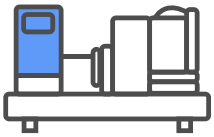
## Starter Battery



| | |
|---|---|
| Battery voltage | 12V |
| Battery Capacity | 80aH |
| Amount | 2 pieces |
| Battery type | Maintenance-free, sealed lead-acid type |

## Certifications

## Control Panel



| Generator | DSE6110/20 |
|---|---|
| Tension (F-F / F-N) | ★ / ★ |
| Intensity | ★ |
| Frequency | ★ |
| RMS values | ★ |
| Generator phase sequence | ★ |
| Generator ground current [1] | ■ |
| Number of events registered | 250 |
| Integrated clock | ★ |
| PIN protection | ★ |
| kWh, kVAr, kVAh, kVArh, cos Ø | ★ |
| Synchronoscope (m) | ★ |
| Number of available departures [2] | 6 |
| Engine running hours | ★ |
| Alarm i ndication on LCD | ★ |
| Total number of LED indicators | 8 |
| No. of LED alarms | [X] |
| Acoustic alarm signaling | ■ |
| Programmer | ★ |
| Fuel level | ★ |
| **Engine** | **DSE6110/20** |
| Engine speed | ★ |
| Low oil pressure protection | ★ |
| Oil pressure reading [3] | ■ |
| High engine temperature protection | ★ |
| Engine temperature reading[3] | ■ |
| Battery voltage | ★ |
| Battery Intensification [4] | ■ |
| Fuel consumption [5] | ★ |
| Low water level in radiator [6] | ■ |
| Scheduled maintenance for engine | ★ |
| **Communication** | **DSE6110/20** |
| USB Type B Female Port (Max. 6m) | ★ |
| [ 7] USB Type A Female Port (n) | [X] |
| CAN port (Max. 40m) | ★ |
| PLC function | ★ |

| Grid | DSE6110/20 |
|---|---|
| Tension (F-F / F-N) | ★ |
| Intensity [1] | [X] |
| Frequency | ★ |
| kVA,kW, cos Ø (a) | [X] |
| Network-group switching control | ★ |
| **Protections and alarms** | **DSE6110/20** |
| High/low battery voltage | 🔔 |
| Battery charging alternator failure | 🔔 |
| Stop failure | 🔔 / ⊗ |
| Boot failure | 🔔 / ⊗ |
| Low fuel level | 🔔 / ⊗ |
| Overload | 🔔 / ⊗ |
| Ground fault | 🔔 / ⊗ |
| Asymmetry between phases | 🔔 / ⊗ |
| Maintenance | 🔔 / ⊗ |
| High/Low Generator Frequency | 🔔 / ⊗ |
| Engine overspeed | 🔔 / ⊗ |
| Low engine speed | 🔔 / ⊗ |
| Surge | 🔔 / ⊗ |
| Low voltage in generator | 🔔 / ⊗ |
| ECU Alert (if applicable) | 🔔 / ⊗ |
| Low oil pressure | 🔔 / ⊗ |
| Low water l evel in radiator [f] | 🔔 / ⊗ |
| High engine temperature | 🔔 / ⊗ |
| Fuel leak/theft | 🔔 |
| **Aplications** | **DSE6110/20** |
| Automatic or manual start | ★ |
| Remote start by dry contact NA | ★ |
| Automatic due to network failure | ★ |
| Alternation with distributed time | [X] |
| Multi-generators in synchronism with load (Max 32 generators) (m) | [X] |
| Generator-grid i n synchronism and with load sharing (1 generator and 1 grid) (m) | [X] |
| **Optional Expansions** | **DSE6110/20** |
| DSE2130 (8 digital inputs) I I G-IOM (8 digital inputs/outputs + 4 analog inputs)I G-08 ( 8 ent. dig.) | ★ |
| DSE2157 I I -RB8 I G-06 (8 relay outputs) | ★ |
| DSE2548 I IGL-RA15 I - (expansion with 8 Additional LEDs | ★ |
| DSE2510/20 (mirror controller, max distance 1km) | ★ |
| **Rules** | |
| Working temperature | -30 -> 70°C |
| Protection index (when mounted with sealing gasket) | IP65 |
| Maximum humidity level (for 48 h) | 93% / 40°C |

## Legend

| | |
|---|---|
| ★ | Available |
| ■ | Optional |
| ☒ | Not available |
| 🔔 | Warning alarm |
| ⊗ | Stop alarm |
| [1] | Need an additional IT |
| [2] | Number of outputs available for standard configuration. Outputs do not include relays or additional wiring to terminals. |
| [3] | If the information is not provided by the engine ECU, an additional sensor needs to be included. |

| | |
|---|---|
| [4] | Needs an additional ammeter |
| [5] | If the information is provided by the engine ECU |
| [6] | Requires an additional sensor |
| [7] | Need to include an additional IL-NT-S-USB module |
| [8] | Need to include an additional IL-NT-RS232-485 module |
| [9] | DeepSea: Needs to include an additional DSE891 module/ComAp: Needs to include an additional IB-LITE module |
| [10] | DeepSea: Needs to include an additional DSE890 module/ComAp: Needs to include an additional IL-NT-GPRS module |
| [11] | DeepSea: Needs to include an additional DSE892 module/ComAp: Needs to include an additional IB-LITE module |

**Emergency Standby Power (ESP)**

Emergency standby power is the maximum power available to a variable load during a main power grid failure. The average load factor over 24 hours of operation must not exceed 70% of the motor's ESP rated power. Typical motor operating hours are 200 hours per year, with a maximum usage of 500 hours per year.

This includes an annual maximum of 25 hours per year at the ESP power rating. Overload capability is not permitted. The motor must not be used for sustained utility parallel applications.

**Main Power (PRP)**

Prime Power is the maximum power available for unlimited hours of use in a variable load application. The average load factor must not exceed 70% of the motor's PRP rating during any 24-hour period. A 10% overload capability is available; however, it is limited to 1 hour within each 12-hour period.

1. All ratings are based on operating conditions according to ISO 8528-1, ISO 3046, DIN6271. Performance tolerance ±5%.
2. Test conditions: 100 kPa, 25°C air inlet temperature, 30% relative humidity, with fuel density of 0.84 kg/L. Derating may be required for conditions outside these, contact factory for details.
3. Power output curves are based on engine operation with fuel system, water pump and lubricating oil pump; battery charging alternator, fan and optional equipment are not included.