



## Einführung

Aksa power generation system, providing optimum performance, and reliability, for stationary standby, prime power, and continuous duty applications. All generator sets are factory build, and production tested.

## Leistung

3 Phase, 50 Hz, PF 0.8

| Spannung (V) | Bereitschaftsleistung (ESP) |     | Primärleistung |     | Standby-Strom |
|--------------|-----------------------------|-----|----------------|-----|---------------|
|              | kW                          | kVA | kW             | kVA |               |
| 400 / 231    | 88,0                        | 110 | 80.00          | 100 | 159           |

„STANDBY-RATING (ESP) Gilt für die Stromversorgung wechselnder elektrischer Lasten für die Dauer einer Stromunterbrechung einer zuverlässigen Versorgungsquelle. ESP entspricht ISO 8528-1. Überlast ist nicht erlaubt.“

PRIME RATING (PRP) Gilt für die Stromversorgung unterschiedlicher elektrischer Lasten für unbegrenzte Stunden. PRP entspricht ISO 8528-1. 10 % Überlast ist für einen Zeitraum von 1 Stunde innerhalb eines 12-stündigen Betriebszeitraums verfügbar.

## Allgemeine Charakteristiken

|                                 |                |
|---------------------------------|----------------|
| Modellname                      | APD 110 A      |
| Frequenz (Hz)                   | 50             |
| Treibstoffart                   | Diesel         |
| Motor Marke und Modell          | Aksa A4CRX46TI |
| Marke und Modell des Generators | Aksa AK 480    |
| Steuerung Modell                | DSE 6120       |
| Schalldämmhaube                 | ACP 6          |
| Lärmpegel @1m./@7m. (dB(A))     | 88 / 78.,5     |

## Motorspezifikationen

### Allgemeine Daten

|                     |                       |
|---------------------|-----------------------|
| Hersteller          | Aksa                  |
| Motor Modell        | A4CRX46TI             |
| Anzahl der Zylinder | 4 cylinders - in line |



|                             |                                              |
|-----------------------------|----------------------------------------------|
| Bohrung (mm)                | 110                                          |
| Hub (mm.)                   | 125                                          |
| Hubraum (lt.)               | 4,58                                         |
| Kompressionsrate            | 17:1                                         |
| Motorumdrehungen (U/min)    | 1500                                         |
| Standby-Leistung (kW/PS)    | 102/138.68                                   |
| Prime Leistung (kW/PS)      | 93/126.44                                    |
| Kühlwasservorwärmung Anzahl | 1                                            |
| Kühlwasservorwärmung (Watt) | 1000                                         |
| Drezahlregelung             | Electronic                                   |
| Luftfilter                  | Dry Type                                     |
| Ansaugung                   | Turbo Charged and Intercooled (Water to Air) |

#### Schmiersystem

|                        |     |
|------------------------|-----|
| Ölkapazität (lt)       | 14  |
| Max. Öltemperatur (°C) | 115 |

#### Kraftstoffsystem

|                           |         |
|---------------------------|---------|
| Treibstoffart             | Diesel  |
| Injektionsart und -system | Direct  |
| Typ der Kraftstoffpumpe   | PM pump |

#### Elektrisches System

|                                   |        |
|-----------------------------------|--------|
| Betriebsspannung (Vdc)            | 24 Vdc |
| Batterie und Kapazität (Menge/Ah) | 2x60   |

#### Kühlsystem

|                 |              |
|-----------------|--------------|
| Kühlungsmethode | Water Cooled |
|                 | 6            |

#### Abgassystem

|                       |        |
|-----------------------|--------|
| Abgasstrom (m³/min.)  | 18,527 |
| Abgasgegendruck (kPa) | 6      |

#### Kühler

|                                               |     |
|-----------------------------------------------|-----|
| Gesamtkühlmittelkapazität (lt)                | 24  |
| Luftstrom des Kühlgebläses (m³/min.)          | 132 |
| Externe Einschränkung des Kühlluftstroms (Pa) | 125 |

#### Kraftstoffverbrauch

Der Hersteller behält sich das Recht vor, ohne vorherige Ankündigung Änderungen an Modell, technischen Spezifikationen, Farbe, Ausstattung und Zubehör vorzunehmen.

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|                                                    |    |
|----------------------------------------------------|----|
| Kraftstoffverbrauch Prime mit 100 % Leistung (l/h) | 23 |
|----------------------------------------------------|----|

## Eigenschaften des Generators

|                                   |        |
|-----------------------------------|--------|
| Hersteller                        | Aksa   |
| Generatormodell                   | AK 480 |
| Frequenz (Hz)                     | 50     |
| Leistung (kVA)                    | 100    |
| Spannung (V)                      | 400    |
| Phase                             | 3      |
| Regler                            | SX460  |
| Spannungsregulierung              | 1      |
| Isoliersystem                     | H      |
| Schutz                            | IP22   |
| Nennleistungsfaktor               | 0.8    |
| Gewicht kompletter Generator (kg) | 406    |
| Kühlungsluft (m³/min)             | 30,84  |

## Abmessungen des offenen Aggregates

|                  |      |
|------------------|------|
| Länge (mm)       | 2168 |
| Breite (mm)      | 1004 |
| Höhe (mm)        | 1390 |
|                  | 1200 |
| Tankinhalt (lt.) | 155  |

## Eigenschaften der Schalldämmhaube

|                      |      |
|----------------------|------|
| Länge (mm)           | 2390 |
| Breite (mm)          | 1058 |
| Höhe (mm)            | 1681 |
| Trockengewicht (kg.) | 1410 |
| Tankinhalt (lt.)     | 155  |

## Steuerung

|                          |          |
|--------------------------|----------|
| Hersteller               | DSE      |
| Steuerungsmodul Modell   | DSE 6120 |
| Kommunikationsanschlüsse | CANBUS   |

1. Menu navigation buttons
2. Close mains button



3. Main Status and instrumentation display
4. Alarm LED's
5. Close generator button
6. Status LED's
7. Operation selecting buttons

## Standardgeräte

DSE model 6120, Auto Mains Failure control module, Static battery charger input 198-264 volt, output 27,6V 5A (24V) or 13,8 Volt 5A (12V), fuses for control circuits. This Control Module is suitable for a wide variety of single gen-set applications

## Steuergerät

- The DSE 6120 module has been designed to monitor generator frequency, volt, current, engine oil pressure, coolant temperature running hours and battery volts.
- Module monitors the mains supply and control the switch over to the generator when the mains power fails.
- The DSE6120 also indicates operational status and fault conditions, Automatically shutting down the Gen. Set and giving true first up fault condition of Gen. Set failure. The LCD display indicates the fault.

## Bau und Fertigstellung

Components installed in sheet steel enclosure. Phosphate chemical, pre-coating of steel provides corrosion corrosion-resistant surface. Polyester composite powder topcoat forms a high gloss and extremely durable finish. Lockable and hinged panel door provides easy access to components.

## Installation

Control panel is mounted on baseframe with steel stand. Located at the right side of the generator set (When you look at the Gen.Set. from Alternator side)

## Motor

- Engine speed
- Oil pressure
- Coolant temperature
- Run time
- battery volts
- Configurable timing

## Abschaltung

- Fail to start
- Emergency stop
- Low oil pressure
- High coolant temperature
- Over /Under speed
- Under/over generator frequency
- Under/over generator voltage
- Oil pressure sensor open
- Coolant temperature sensor open

## Warnungen

- Charge failure
- Battery Low/High voltage
- Fail to stop.
- Low /High generator voltage
- Under /Over generator frequency
- Over /Under speed
- Low oil pressure
- High coolant temperature

## Generator

- Voltage (L-L, L-N)

## Elektrische Auslösung



- Current (L1-L2-L3)
- Frequency
- Gen. Set ready
- Gen. Set enabled

- Generator over current

## Netz

- Mains ready
- Mains enabled

## Optionen

- Flexible sensor can be controlled with temperature, pressure, percentage (warning/shutdown/electrical trip)
- Local setting parameters and monitoring from PC to control module with USB connection (max 6 mt).

## Compliance-Liste des Control Panels

- Electrical Safety / Electro Magnetic Compatibility (EMC)
- BS EN 60950 Electrical Safety
- BS EN 61000-6-2 EMC Generic Immunity Standard
- BS EN 61000-6-4 EMC Generic Emission Standard

## Statisches Batterieladegerät

- Battery charger is manufactured with switching-mode and SMD technology and it has high efficiency.
- Battery charger models' output V-I characteristic is very close to square and output is 5 amper, 13,8 V for 12 volt and 27,6 V for 24 V . Input 198 - 264 volt AC.
- The charger is fitted with a protection diode across the output.
- Connect charge fail relay coil between positive output and CF output.
- They are equipped with RFI filter to reduce electrical noise radiated from the device.
- Galvanically isolated input and output typically 4kV for high reliability.

## Standard Ausrüstung

- Water cooled, Diesel engine
- Radiator with mechanical fan
- Protective grille for rotating and hot parts
- Electric starter and charge alternator
- Starting battery (with lead acid) including rack and cables
- Engine coolant heater
- Base frame design incorporates an integral fuel tank and anti-vibration isolators
- Flexible fuel connection hoses
- Single bearing, class H alternator
- Industrial exhaust silencer and steel bellows supplied separately(for open sets)
- Static battery charger
- Manual for application and installation

## Optionale Ausrüstung

### Motor

- Fuel-Water Separator Filter
- Oil heater

### Generator

- Anti-Condensation Heater
- Over sized alternator
- PMG excitation + AVR



### Steuerung

- Automatic synchronising and power control system (Multi gen-set Parallel)
- Parallel system with mains
- Transition synchronization with mains
- Alarm output relays
- Earth fault, single set
- Parallel system with mains
- Remote relay output
- Remote communication with modem
- Charge Ammeter

### Zusatzausrüstung

- Main Fuel Tank
- Automatic or manual fuel filling system
- Electrical or manual oil drain pump
- Low and high fuel level alarm
- Inlet and outlet motorized louvers
- Inlet and outlet acoustic baffles
- Tool kit for maintenance
- 1500/3000 hours maintenance kit
- Supplied with oil and coolant (-30°C)

### Gehäuse

- Galvanized Coating
- ISO Container
- Marine Grade Paint

- Main line circuit breaker

### Transferpanel

- Three or four pole contactor
- Three or four pole motor operated circuit breaker

### Auspuff

- Residential Silencer
- Silencer Spark Arrester
- Critical Silencer
- Catalytic Converter

### Optionales Generatorsteuerfeld

Please contact to your reseller for additional Alternator, Control Panel and Breaker Switch options.

## Aksa-Zertifikate

### Richtlinie

- 2006/42/EC : Machinery Safety Directive
- 2014/30/EU : Electromagnetic Compatibility Directive
- 2014/35/EU : Low Voltage Directive

### Standards

- TS ISO 8528-5:2022 / TS EN ISO 8528-13:2018 : Reciprocating internal combustion engine-driven alternating current generating sets- Part:13: Safety

### Quality Management Systems

ISO 9001:2015  
ISO 14001:2015  
ISO 45001:2018  
ISO 50001:2018  
ISO 27001:2013  
ISO 10002:2018

