



Einführung

Aksa is committed to providing the most effective solution to the Data Center industry with the power it takes from engineering, production, distribution, and customer-oriented experience and knowledge. We are constantly improving designs, products and infrastructure to offer the highest level of reliability for Emergency Power Systems. While serving the industry in hundreds of countries Globally, we design our products and systems in line with the needs of Data Center practitioners at the center of our focus. Aksa generator group provides continuity, reliability and ideal performance for Data Centers.

Leistung

3 Phase, 50 Hz, PF 0.8

Spannung (V)	Bereitschaftsleistung (ESP)		DCC-Leistung (DCP)		DCC-Strom (A)
	kW	kVA	kW	kVA	
400 / 231	1515,5	1894,4	1440.56	1800.7	2734

Bereitschaftsleistung (ESP) : Anwendbar für die Versorgung einer variablen elektrischen Last für die Dauer einer Unterbrechung der Stromversorgung durch eine zuverlässige Energiequelle. ESP entspricht der ISO 8528-1. Überlast ist nicht zulässig.

Data Center Continuous (DCP) : Die Leistung eines Rechenzentrums ist definiert als die maximale Leistung, die ein Stromerzeugungsaggregat bei der Versorgung einer variablen oder kontinuierlichen elektrischen Last und während unbegrenzter Betriebsstunden liefern kann.

*Datentoleranz $\pm 5\%$

Allgemeine Charakteristiken

Modellname	AP 1878
Frequenz (Hz)	50
Treibstoffart	Diesel
Motor Marke und Modell	Perkins 4012-46TAG3A (DATA CENTER)
Marke und Modell des Generators	Stamford S7L1D-G4
Steuerung Modell	DSE 7320
Schalldämmhaube	OpenGenset

Motorspezifikationen

Allgemeine Daten

Hersteller	Perkins
Motor Modell	4012-46TAG3A (DATA CENTER)



Anzahl der Zylinder	12 cylinders - V type
Bohrung (mm)	160
Hub (mm.)	190
Hubraum (lt.)	45.842
Kompressionsrate	13.0:1
Motorumdrehungen (U/min)	1500
Standby-Leistung (kW/PS)	1643/2203
DCC-Leistung (PRP)	1500/2012
Kühlwasservorwärmung Anzahl	2
Kühlwasservorwärmung (Watt)	3000
Drehzahlregelung	Electronic
Luftfilter	Dry Type
Ansaugung	Turbo Charged

Schmiersystem

Ölkapazität (lt)	177
Max. Öltemperatur (°C)	105

Kraftstoffsystem

Treibstoffart	Diesel
Injektionsart und -system	Direct
Typ der Kraftstoffpumpe	Mechanical

Elektrisches System

Betriebsspannung (Vdc)	24 Vdc
Batterie und Kapazität (Menge/Ah)	4x143
Lichtmaschine	40

Kühlsystem

Kühlungsmethode	Water Cooled
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Abgassystem

Abgasstrom (m³/min.)	350
Abgasgegendruck (kPa)	5
Abgastemp. (C)	480
Wärmeabgabe an das Abgas	1219

Kühler

Luftstrom des Kühlgebläses (m³/min.)	1905
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Externe Einschränkung des Kühlluftstroms (Pa) 120

Kraftstoffverbrauch

Kraftstoffverbrauch @100% DCC Last l/h (kg/h)	362
Kraftstoffverbrauch @75% DCC Last l/h (kg/h)	272
Kraftstoffverbrauch @50% DCC Last l/h (kg/h)	183

Eigenschaften des Generators

Hersteller	Stamford
Generatormodell	S7L1D-G4
Frequenz (Hz)	50
Leistung (kVA)	2080
Spannung (V)	400
Phase	3
Regler	MX341
Spannungsregulierung	1
Isoliersystem	H
Schutz	IP23
Nennleistungsfaktor	0,8
Gewicht kompletter Generator (kg)	3637
Temperaturerhöhungs-Klasse	H
Kühlungsluft (m³/min)	143,4

Abmessungen des offenen Aggregates

Länge (mm)	5320
Breite (mm)	2220
Höhe (mm)	2790
Tankinhalt (lt.)	2000

Steuerung

Hersteller	DSE
Steuerungsmodul Modell	DSE 7320
Kommunikationsanschlüsse	MODBUS

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 7320, Auto Mains Failure control module, with a highly sophisticated level of new features and functions
Static battery charger, Fuses for control circuits

Steuergerät

- The DSE 7320 control module is a standard addition to our generator sets from 220 kVA upwards and it has been designed to start and stop diesel and gas generating sets that include electronic and non electronic engines.
- The DSE 7320 includes the additional capability of being able to monitor a mains (utility) supply and is therefore suitable for controlling a standby generating set in conjunction with an automatic transfer switch.
- The DSE7320 also indicates operational status and fault conditions, automatically shutting down the generating set and indicating faults by means of its LCD display on the front panel.

Bau und Fertigstellung

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

Installation

The Control panel is mounted at the generating set baseframe on robust steel stand or power module. Located at side of generating set with properly panel visibility.

Motor

- Engine speed
- Oil pressure
- Coolant temperature
- Run time
- Battery volts
- Engine maintenance due

Abschaltung

- Fail to start
- Emergency stop
- Low oil pressure
- High engine temperature
- Low coolant level
- Under/over speed
- Under/over generator frequency
- Under/over generator voltage
- Oil pressure sensor open
- Phase rotation

Warnungen

- Charge failure
- Battery under voltage
- Fail to stop
- Low fuel level (opt.)
- kW over load
- Negative phase sequence
- Loss of speed signal

Generator

Warnung

Elektrische Auslösung

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

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- Voltage (L-L, L-N)
- Current (L1-L2-L3)
- Frequency
- Earthcurrent
- kW
- Pf
- kVA_r
- kWh, kVAh, kVA_rh
- Phasesequence

- Low oil pressure
- High engine temperature
- Low engine temperature
- Under/over speed
- Under/over generator frequency
- Under/over generator voltage
- ECU warning

- Earth fault
- kW over load
- Generator over current
- Negative phase sequence

Netz

- Voltage (L-L, L-N)
- Frequency

Erweiterungen

- Additional LED module (2548)
- Expansion relay module (2157)
- Expansion input module (2130)

Optionen

- High oil temperature shut down
- Low fuel level shut down
- Low fuel level alarm
- High fuel level alarm

Compliance-Liste des Control Panels

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

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
- 2405 has fully output short circuit protection and it can be used as a current source.
- 2405 charger has high efficiency, long life, low failure rate, light-weight and low heat radiated in accordance with linear alternatives.
- The charger is fitted with a protection diode across the output.
- Charge fail output is available.
- Connect charge fail relay coil between positive output and CF output.
- Input: 196-264V.
- Output: 27,6V 5A or 13,8V 5A.

Standard Ausrüstung

- Water cooled diesel engine
- Radiator and electrical motor driven fan
- Protective cage to prevent rotating and touching hot parts
- Output breaker
- Electric starter and charge alternator
- Battery (lead acid), cables and stand
- Automatic synchronization and power control system (multiple parallel generator)
- Circulation pump (for engine block heater)
- Engine block water heater
- Steel chassis and anti-vibration wedges
- Fuel tank separate from the group
- Flexible fuel connection hoses
- Alternator with single bearing and H insulation class



- Industrial capacity muffler and flexible steel compensator
- Electronic battery charger
- Operating and installation instructions

Optionale Ausrüstung

Motor

- Fuel-Water Separator Filter
- Oil heater
- Air filter

Generator

- Anti-Condensation Heater
- Over sized alternator
- PMG excitation + AVR
- Main line circuit breaker
- 5% derate when air inlet filters are fitted

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

Transferpanel

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

Zusatzausrüstung

- Main Fuel Tank
- Automatic or manual fuel filling system
- Electrical 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)

Auspuff

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

Gehäuse

- Galvanized Coating
- ISO Container
- Marine Grade Paint

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