

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	1320,0	1650	1200,0	1500	2382

„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	AP 1650
Frequenz (Hz)	50
Treibstoffart	Diesel
Motor Marke und Modell	Perkins 4012-46TAG2A
Marke und Modell des Generators	Mecc Alte ECO 46-1S/4 A
Steuerung Modell	DSE 7320
Schalldämmhaube	AK 98

Motorspezifikationen

Allgemeine Daten

Hersteller	Perkins
Motor Modell	4012-46TAG2A
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)	1459/1957
Prime Leistung (kW/PS)	1331/1785
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	55

Kühlsystem

Kühlungsmethode	Water Cooled
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Abgassystem

Abgasstrom (m³/min.)	320
Abgasgegendruck (kPa)	5
Abgastemp. (C)	455
Wärmeabgabe an das Abgas	1080

Kühler

Gesamtkühlmittelkapazität (lt)	195.7
Luftstrom des Kühlgebläses (m³/min.)	1762
Externe Einschränkung des Kühlluftstroms (Pa)	125



Kraftstoffverbrauch

Kraftstoffverbrauch Prime mit 100 % Leistung (l/h)	309
Kraftstoffverbrauch Prime mit 75 % Leistung (l/h)	236
Kraftstoffverbrauch Prime mit 50 % Leistung (l/h)	164

Eigenschaften des Generators

Hersteller	Mecc Alte
Generatormodell	ECO 46-1S/4 A
Frequenz (Hz)	50
Leistung (kVA)	1500
Spannung (V)	400
Phase	3
Regler	DER1
Spannungsregulierung	0.5
Isoliersystem	H
Schutz	IP23
Nennleistungsfaktor	0.8
Gewicht kompletter Generator (kg)	3010
Kühlungsluft (m³/min)	135

Abmessungen des offenen Aggregates

Länge (mm)	4920
Breite (mm)	2151
Höhe (mm)	2438
	10200
Tankinhalt (lt.)	2000

Eigenschaften der Schalldämmhaube

Länge (mm)	9000
Breite (mm)	2270
Höhe (mm)	2581
Trockengewicht (kg.)	14300
Tankinhalt (lt.)	1900

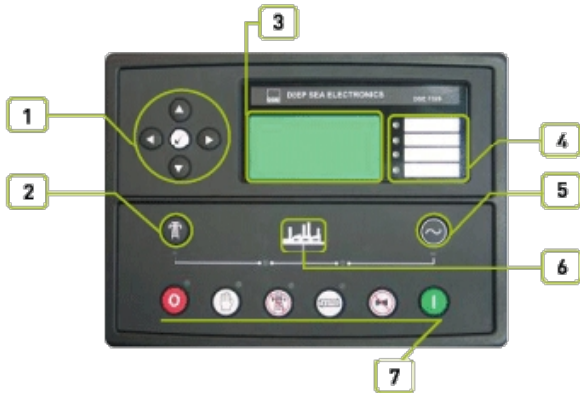
Steuerung

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**

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

Warnung

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

Elektrische Auslösung

- 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 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
- Steel base frame and anti-vibration isolators
- Spare external fuel tank
- 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
- Main line circuit breaker

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 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)

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