



Einführung

The GreenTech Series is a sustainable generator solution designed to reduce environmental impact through alternative fuel compatibility, low emission levels, and reduced noise output. With HVO fuel support and advanced exhaust and safety systems, it ensures compliance with environmental standards and significantly reduces carbon emissions. The GreenTech Series offers lifecycle performance certified by EPD and LCA. Through the use of recycled and bioplastic materials, hybrid-ready infrastructure, and environmentally conscious production processes, the GreenTech Series contributes to long-term sustainability goals. (Image is for illustrative purposes only.)

Leistung

3 Phase, 50 Hz, PF 0.8

Spannung (V)	Bereitschaftsleistung (ESP)		Primärleistung		Standby-Strom
	kW	kVA	kW	kVA	
400 / 231	360,0	450	328.00	410	650

„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 450 - GTS
Frequenz (Hz)	50
Treibstoffart	Diesel
Motor Marke und Modell	Perkins 2206A-E13TAG3
Marke und Modell des Generators	Mecc Alte ECO 40-2S/4 C
Steuerung Modell	DSE 7320
Schalldämmhaube	GTS 20
Lärmpegel @1m./@7m. (dB(A))	86.3 / 79.2

Motorspezifikationen

Allgemeine Daten

Hersteller	Perkins
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Motor Modell	2206A-E13TAG3
Anzahl der Zylinder	6 cylinders - in line
Bohrung (mm)	130
Hub (mm.)	157
Hubraum (lt.)	12.5
Kompressionsrate	16.3:1
Motorumdrehungen (U/min)	1500
Standby-Leistung (kW/PS)	412.5/552,94
Prime Leistung (kW/PS)	368.4/493,83
Kühlwasservorwärmung Anzahl	1
Kühlwasservorwärmung (Watt)	3000
Drezahlregelung	ECM
Luftfilter	Dry Type
Ansaugung	Turbo Charged and Charge Air Cooled

Schmiersystem

Ölkapazität (lt)	40
Max. Öltemperatur (°C)	113

Kraftstoffsystem

Treibstoffart	Diesel
Injektionsart und -system	Direct
Typ der Kraftstoffpumpe	MEUI

Elektrisches System

Betriebsspannung (Vdc)	24 Vdc
Batterie und Kapazität (Menge/Ah)	2x120
Lichtmaschine	70

Kühlsystem

Kühlungsmethode	Water Cooled
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Abgassystem

Abgasstrom (m³/min.)	64,8
Abgasgegendruck (kPa)	10 (1800rpm için)
Abgastemp. (C)	630
Wärmeabgabe an das Abgas	245,3

Kühler



Gesamtkühlmittelkapazität (lt)	51.4
Luftstrom des Kühlgebläses (m³/min.)	654
Externe Einschränkung des Kühlluftstroms (Pa)	125

Kraftstoffverbrauch

Kraftstoffverbrauch Prime mit 100 % Leistung (l/h)	81
Kraftstoffverbrauch Prime mit 75 % Leistung (l/h)	62
Kraftstoffverbrauch Prime mit 50 % Leistung (l/h)	42

Eigenschaften des Generators

Hersteller	Mecc Alte
Generatormodell	ECO 40-2S/4 C
Frequenz (Hz)	50
Leistung (kVA)	450
Spannung (V)	400
Phase	3
Regler	DER1
Spannungsregulierung	0.5
Isoliersystem	H
Schutz	IP23
Nennleistungsfaktor	0.8
Gewicht kompletter Generator (kg)	1131
Kühlungsluft (m³/min)	54

Abmessungen des offenen Aggregates

Länge (mm)	3205
Breite (mm)	1550
Höhe (mm)	2103
	3260
Tankinhalt (lt.)	850

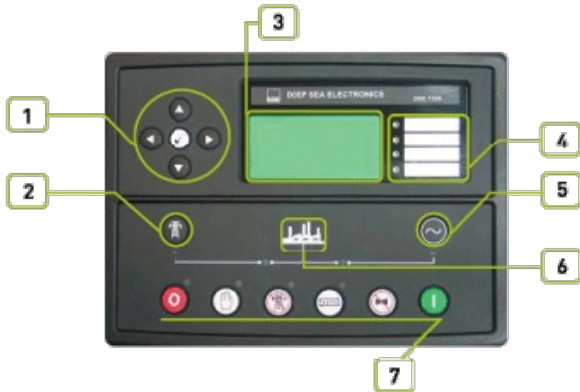
Eigenschaften der Schalldämmhaube

Länge (mm)	5000
Breite (mm)	2200
Höhe (mm)	2468
Trockengewicht (kg.)	4400
Tankinhalt (lt.)	850



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

Abschaltung

- Fail to start
- Emergency stop
- Low oil pressure
- High engine temperature
- Low coolant level

Warnungen

- Charge failure
- Battery under voltage
- Fail to stop
- Low fuel level (opt.)
- kW over load



-Engine maintenance due

-Under/over speed
-Under/over generator frequency
-Under/over generator voltage
-Oil pressure sensor open
-Phase rotation

-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



- 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
- 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