ESD-500
TECHNICAL SPECIFICATIONS

GENERATOR SET		
MODEL		ESD-500
STAND BY POWER	kVA	500
	kW	400
	A	720
PRIME POWER	kVA	455
	kW	364
	A	524

STAND-BY POWER: This is the power to operate for a limited time under variable load. It is used as backup power in case of mains power outages. Overloading is not permitted.

PRIME POWER: Continuous operating power under variable load. According to ISO 3046, a 10% overload is permitted in 12 hours of operation.

DIESEL ENGINE

BRAND		SHANGAI PREMIUM
Model		SC13H516
Motor Gücü-Stand By kW		450
Motor Power - Prime kW		409
Engine Speed (rpm)		1500
Number of Cylinders - Regulation		6-ROW
Cylinder Volume (liters)		13,74
Diameter x Stroke (mm)		135x160
Compression Ratio		17;1
Governor Tipi		ELECTRONIC
Air Intake System		TURBO-INT
Spray System		DIRECT
Cooling System		WATER-COOLED
Engine Oil Capacity (liters)		45
Coolant Capacity (liters)		65
Fuel Tank Capacity (liters)		440
Fuel Consumption (lt/kWh)		200
Fuel Consumption (liters/hour)	%100	90,4
	%75	67,8
	%50	45,2

ALTERNATOR

Output Voltage (V)	400/230
Power factor	0,8
Number of Poles	4
Frequency (Hz)	50
Voltage Regulation	±%0,5
Connection Type	STAR

Water Cooled
Easy Maintenance
Control System
3 Faz
Fuel Level Sensor
Modular Soundproof Cabin
50 Hz
Diesel

GALVANIZED CABINET

Our cabins are manufactured from 1.5 mm thick galvanized sheet metal.
Galvanized steel is more expensive than black steel cabins, but it does not rust and is much more resistant to external environmental conditions.

LARGE AND CLEANABLE FUEL TANK

Cleanable steel fuel tanks suitable for all kVA ratings are preferred. Plastic or rigid tanks can lead to sediment buildup and fuel problems over time.
It does not cause sediment or fuel problems with long-term use.
Steel fuel tanks with a minimum fuel capacity of 8 hours are used.

ROBUST CHASSIS & VIBRATION DAMPENING

Our chassis are 4 mm thick and heavy-duty. This construction reduces vibration and extends the life of the engine and alternator.
Vibration dampers are standard on all our generators and are not an optional extra.

ELECTRICAL INFRASTRUCTURE & CONTROL SYSTEM

Each generator is equipped with 9 fuses for detailed and secure protection. A domestically produced, world-renowned DATAKOM Control Panel is used.
In this way:

- There will be no spare parts issues.
- Technical support is fast.
- It remains relevant for many years.

STANDARD EQUIPMENT

✓ Water level sensor,
✓ Temperature sensor,
✓ Oil pressure sensor,
✓ Mechanical + electronic float valve,
✓ External fuel filling,
✓ Vacuum door locks,
✓ Door system that stays fixed when doors are opened,
✓ Chassis vibration dampers,
✓ Battery, oil, antifreeze and muffler.

Designed for continuous and standby use in harsh environmental conditions.
It offers high reliability, durability, and conforms to international standards.

CONTROL PANEL SPECIFICATIONS / DATACOM D-300 Mk3

Generator Control and AMF Panel

The Datakom D-300 series control unit is an advanced microprocessor-based generator control unit developed for the automatic control, monitoring, and protection of diesel and gas generator sets. It offers a solution compliant with industrial standards in AMF and ATS applications.

Basic Functions

- AMF (Automatic Mains Failure) kontrolü
- ATS (Grid/Generator Transfer) control
- Automatic / Manual / Test operating modes
- Remote operation feature
- Load shedding and dummy load control
- Multiple timer parameters

Electrical Measurements

- Generator phase-to-phase and phase-to-neutral voltages
- Mains voltage measurement
- Phase currents (3 phase)
- Frequency (Hz)
- Active power (kW)
- Apparent power (kVA)
- Reactive power (kVAr)
- Power factor (cosφ)
- Energy meters (kWh, kVArh)
- 4-quartile energy measurement

Engine Parameter Monitoring

- Oil pressure
- Engine temperature
- Battery voltage
- Fuel level (with optional sensor)
- Engine operating hours

Protective Functions

- Over/under voltage protection
- Over/under frequency protection
- Overcurrent and overload protection
- Reverse power protection
- Phase sequence and phase imbalance protection.
- Low oil pressure
- High engine temperature
- Battery failure and charging error.

Communication Features

- USB
- RS-232 / RS-485 ports
- Modbus RTU support
- Modbus TCP/IP (optional)
- GSM/GPRS modem support (optional)
- Remote monitoring and SCADA integration

User Interface

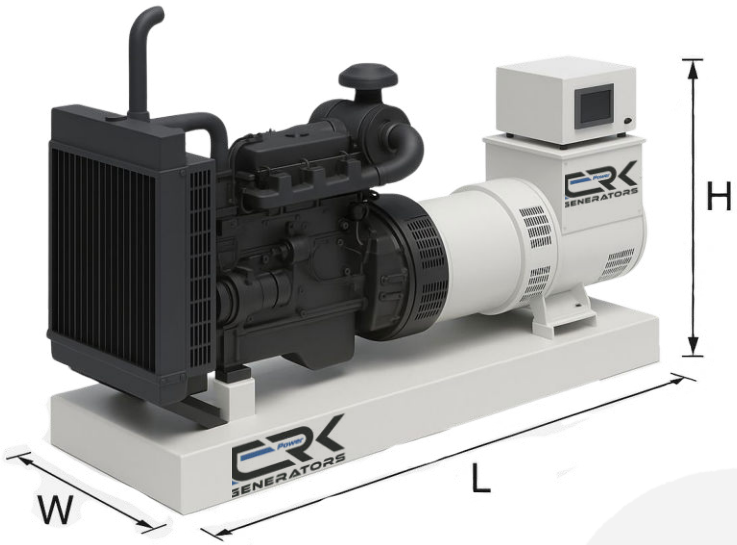
- 128x64 graphic LCD screen
- Multilingual support
- Parameter adjustment via the front panel.
- 400+ event logs
- Encrypted access levels

General Technical Specifications

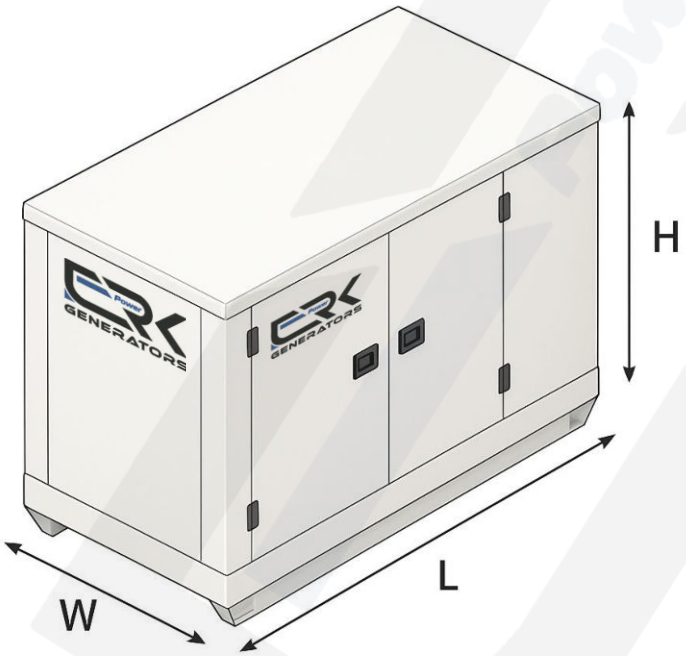
- Microprocessor-controlled architecture
- 12/24 VDC system compatibility.
- IP65 front panel protection (sealed mounting)
- Design in accordance with IEC and related generator contro standards.

Datakom D-300 control units, used in Erk Power generator systems, are designed to provide high reliability and stable performance in industrial operating conditions.

DIMENSIONS - WEIGHT



CABINETLESS GENERATOR DIMENSIONS		
Length (L)	mm	3600
Width (W)	mm	1500
Height (H)	mm	1900
Weight	kg	3087
Fuel Tank Capacity	L	440



CABINET GENERATOR DIMENSIONS		
Length (L)	mm	3600
Width (W)	mm	1500
Height (H)	mm	2100
Weight	kg	3551
Fuel Tank Capacity	L	440

Please contact us for more detailed information.

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