

## Ürün Hakkında

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.

## Güç

3 Phase, 50 Hz, PF 0.8

| Voltaj (V) | STANDBY GÜÇ(ESP) |      | PRIME GÜÇ (PRP) |      | STANDBY AKIM (A) |
|------------|------------------|------|-----------------|------|------------------|
|            | kW               | kVA  | kW              | kVA  |                  |
| 400 / 231  | 1320,0           | 1650 | 1200.0          | 1500 | 2382             |

STANDBY RATING (ESP) Güvenilir bir şebeke kaynağının güç kesintisi süresince değişken elektrik yüküne güç sağlamak için geçerlidir. ESP, ISO 8528-1'e uygundur. Aşırı yüklemeye izin verilmez.

PRIME RATING (PRP) Değişken elektrik yüküne sınırsız saat boyunca güç sağlamak için geçerlidir. PRP, ISO 8528-1'e uygundur. %10 aşırı yük kapasitesi, 12 saatlik çalışma süresi içinde 1 saatlik bir süre için kullanılabilir.

## Genel Özellikler

|                                |                         |
|--------------------------------|-------------------------|
| Model Adı                      | APD 1650 M              |
| Frekans (Hz)                   | 50                      |
| Yakıt Tipi                     | Diesel                  |
| Motor Marka ve Modeli          | Mitsubishi S12R-PTAA2   |
| Alternatör Marka ve Modeli     | Mecc Alte ECO 46-1S/4 A |
| Kontrol Panel Modeli           | DSE 7320                |
| Kabin Modeli                   | AK 99                   |
| Ses Seviyesi @1m , @7m (dB(A)) | 89.6 / 81.5             |

## Motor Özellikleri

### Genel Bilgiler

|                        |                       |
|------------------------|-----------------------|
| Üretici                | Mitsubishi            |
| Motor Modeli           | S12R-PTAA2            |
| Silindir Sayısı / Tipi | 12 cylinders - V type |
| Bore mm (in)           | 170                   |



|                          |                                |
|--------------------------|--------------------------------|
| Stroke mm (in)           | 180                            |
| Hacim I (cu. In)         | 49.03                          |
| Sıkıştırma Oranı         | 13.5:1                         |
| Motor Hızı (rpm)         | 1500                           |
| Standby Güç (kW/hp)      | 1441/1932                      |
| Prime Güç (kW/hp)        | 1314/1761                      |
| Blok Isıtıcı (Adt)       | 2                              |
| Blok Isıtıcı Gücü (Watt) | 3000                           |
| Governor Sistemi         | Electronic                     |
| Hava Filtresi            | Dry Type                       |
| Hava Emiş                | Turbo Charged and After Cooled |

#### Yağlama Sistemi

|                            |     |
|----------------------------|-----|
| Yağ Kapasitesi I (qal)     | 180 |
| Maks. Yağ Sıcaklığı °C (F) | 110 |

#### Yakıt Sistemi

|                  |                            |
|------------------|----------------------------|
| Yakıt Tipi       | Diesel                     |
| Enjeksiyon Tipi  | Direct                     |
| Yakıt Pompa Tipi | Mitsubishi PS6x2 (In-Line) |

#### Elektrik Sistemi

|                          |        |
|--------------------------|--------|
| Çalışma Voltajı (Vdc)    | 24 Vdc |
| Akü ve Kapasite (Adt/Ah) | 4x143  |
| Şarj Alternatörü (A)     | 30     |

#### Soğutma Sistemi

|                                                 |              |
|-------------------------------------------------|--------------|
| Soğutma Metodu                                  | Water Cooled |
| Soğutma Suyu Kapasitesi (yalnızca motor)I (gal) | 125          |

#### Egzoz Sistemi

|                              |      |
|------------------------------|------|
| Egzoz Gaz Debisi (m³/dk)     | 343  |
| Egzoz Geçen Isı kW (BTU/min) | 1205 |

#### Radyatör

|                                          |      |
|------------------------------------------|------|
| Toplam Soğutma Suyu Kapasitesi (I)       | 317  |
| Soğutma Fan Hava Debisi m³/min (ft³/min) | 1800 |
| Soğutma Havası Harici Direnç (Pa)        | 125  |

#### Yakıt Tüketimi



|                                            |       |
|--------------------------------------------|-------|
| %100 Prime Yükte Yakıt Tüketimi l/h (kg/h) | 308   |
| %75 Prime Yükte Yakıt Tüketimi l/h (kg/h)  | 234.2 |
| %50 Prime Yükte Yakıt Tüketimi l/h (kg/h)  | 163.3 |

### Alternator Özellikleri

|                               |               |
|-------------------------------|---------------|
| Üretici                       | Mecc Alte     |
| Alternatör Model              | ECO 46-1S/4 A |
| Frekans (Hz)                  | 50            |
| Güç (kVA)                     | 1500          |
| Voltaj (V)                    | 400           |
| Faz                           | 3             |
| A.V.R.                        | DER1          |
| Voltaj Regülasyon             | 0.5           |
| Yalıtım Sınıfı                | H             |
| Koruma Sınıfı                 | IP23          |
| Nominal Güç Faktörü           | 0.8           |
| Toplam Generator Ağırlık (kg) | 3010          |
| Soğutma Havası (m³/dk)        | 135           |

### Açık Jeneratör Boyutları

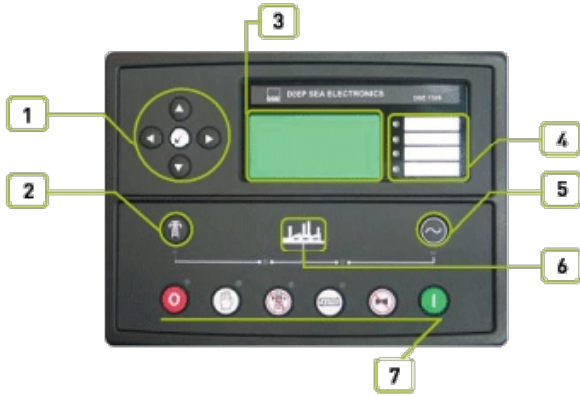
|                                    |       |
|------------------------------------|-------|
| Uzunluk mm                         | 4970  |
| Genişlik mm                        | 2212  |
| Yükseklik mm                       | 3022  |
| Açık Gen.Set Brüt Ağırlık, Kuru kg | 11400 |
| Yakıt Tank Kapasitesi (l)          | 2000  |

### Kabin Özellikleri

|                           |       |
|---------------------------|-------|
| Uzunluk mm                | 9000  |
| Genişlik mm               | 2800  |
| Yükseklik mm              | 3457  |
| Kuru Ağırlık kg           | 15450 |
| Yakıt Tank Kapasitesi (l) | 2200  |

### Kontrol Paneli

|                      |          |
|----------------------|----------|
| Üretici              | DSE      |
| Kontrol Modül Modeli | DSE 7320 |
| İletişim Portları    | 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

### Standart Cihazlar

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

### Kontrol Ünitesi

- 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.

### Yapım ve Boya

- 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

### Montaj

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

### Durdurma

- 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

### Uyarılar

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

### Jeneratör

### Ön-Alarmlar

### Elektrik Açma



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

### Şebeke

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

### Genişleme Modülleri

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

### Opsiyonlar

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

### Kontrol Paneli Uyumluluk Listesi

- 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

### Statik Akü Şarj Cihazı

- 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.

### Standart Ekipmanlar

- 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



## Opsiyonel Ekipmanlar

### Motor

- Fuel-Water Separator Filter
- Oil heater

### Kontrol Paneli

- 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

### Yardımcı Ekipmanlar

- 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)

### Kabin

- Galvanized Coating
- ISO Container
- Marine Grade Paint

### Alternatör

- Anti-Condensation Heater
- Over sized alternator
- PMG excitation + AVR
- Main line circuit breaker

### Transfer Panosu

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

### Egzoz

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

### Opsiyonel Alternatör ve Kontrol Paneli

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

## Aksa Sertifikalar

### Direktifler

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

### Standartlar

- 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