



#### ISO8528

This generator set has been designed to meet ISO 8528 regulation.

#### SZUTEST

This generator set is manufactured in facilities certified to ISO 9001.



This generator set is available with CE certification.

#### 2000/14/EC

Enclosed product is tested according to EU noise legislation 2000/14/EC

#### 3 Phase Ratings, 60 Hz, PF 0,8

Voltage	Standby Rating (ESP)		Prime Rating (PRP)		
	kVA	kw	kVA	kw	Amp
480/277		78,00		71,00	107,00
380/220		75,00		68,00	129,00
208/120		77,00		69,00	239,00

**Standby Rating (ESP):** Applicable for supplying power to varying electrical load for the duration of power interruption of a reliable utility source. ESP is in accordance with ISO 8528. Overload is not allowed.

**Prime Rating (PRP):** Applicable for supplying power to varying electrical load for unlimited hours. PRP is in accordance with ISO 8528. 10 % overload capability is available for a period of 1 hour within 12-hour period of operation, in accordance with ISO 3046.

#### STANDARD SPECIFICATIONS

- 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

#### OPTIONAL EQUIPMENTS

##### ENGINE

- Remote Radiator Cooling
- Electronic governor control
- Fuel-Water Separator Filter
- Low water level alarm
- Oil heater

##### ALTERNATOR

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

##### CONTROL SYSTEM

- Remote annunciator panel
- Remote relay output
- Alarm output relays
- Remote communication with modem
- Earth fault, single set
- Charge Ammeter

##### OTHER ACCESSORIES

- Automatic or manual fuel filling system
- Manual oil drain pump
- Electrical oil drain pump
- Low and high fuel level alarm
- Residential silencer
- Enclosure: weather protective or sound attenuated
- Duct adapter ( on radiator)
- Inlet and outlet motorised louvers
- Inlet and outlet acoustic baffles
- Trailer
- Tool kit for maintenance
- Double wall chassis
- Supplied with oil and coolant - 30 °C
- Battery isolating switch
- Battery heater
- Main Fuel Tank
- Automatic transfer switch

##### TRANSFER SWITCH

- Three Pole Contactor
- Four Pole Contactor

## ➤ DIESEL ENGINE SPECIFICATIONS

Manufacturer		John Deere	تولید کننده		
Model		4045 TF220	مدل		
No. of Cylinders and Build		4 Cylinder, In Line	تعداد سیلندرها و نوع آرایش آنها		
Aspiration and Cooling		Turbo Charged	سیستم تنفس و خنک کاری		
Maximum Standby Power		1800 rpm	توان Standby		
		86,00 kw[HP]			
Total Displacement	L	4,500	جابه جایی کل		
Bore and Stroke	mm	106 X 127	قطر سیلندر و کورس پیستون		
Compression Ratio		17.0:1	نسبت تراکم		
Rated Speed (rpm)	rpm	1800	سرعت مجاز		
Governor		Mechanical	گاورنر		
Oil Capacity	L	13,20	ظرفیت روغن		
Coolant Capacity	L	32,00	ظرفیت خنک کننده		
Intake Air Flow	m <sup>3</sup> /min.	6,80	جریان هوای مصرفی		
Exhaust Gas Flow	m <sup>3</sup> /min.	18,40	جریان گاز خروجی از اگزوز		
Exhaust Gas Temperature	° C	566,00	دمای گاز خروجی از اگزوز		
Start System		12 V d.c.	استارتر		
Fuel Consumption	Load	%100	%75	%50	مصرف سوخت
	L/h	22,70	17,20	11,60	

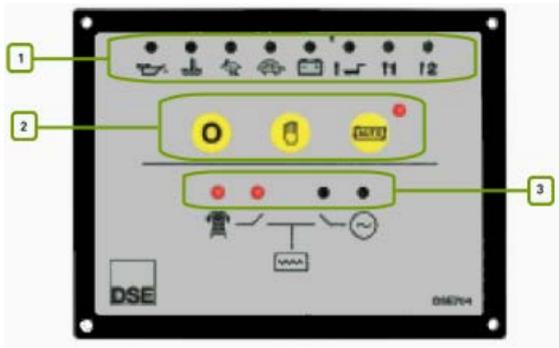
## ➤ ALTERNATOR SPECIFICATIONS

Make		Stamford	تولید کننده
Model		UCI 224G	مدل
Frequency	Hz	60	فرکانس
Power	kw	83,00	توان
Design		Brushless, 4 poles	طراحی
Cos Phi		0,80	کسینوس فی
Phase		3	فاز
Voltage	V	480/277	ولتاژ
Current	A	125,00	جریان
Insulation Class		H	کلاس عایق بندی
Temperature		H	دما
Stator		2 / 3 steps	استاتور
Rotor		Single Bearing System, Flexible Disc	روتور
Excitation System		Electronic ( AVR )	سیستم تحریک

## ➤ DIEMENSIONS AND WEIGHT

Open Type	Dry Weight	Lenght	Width	Height	Tank Capacity
	kg.	mm.	mm.	mm.	L
AJD 78-6	1160,00	2150,00	1050,00	1459,00	240,00
Canopy	Dry Weight	Lenght	Width	Height	Tank Capacity
	kg.	mm.	mm.	mm.	L
AK 40	1510	3100	1113	1741	240

## 1 P 70 - Control System



- 1 Alarm LED's
- 2 Operation selecting buttons
- 3 Status LED's

## 1 Devices

DSE, model 704 Auto Mains Failure control module  
Voltmetre, 0 - 500 Vac, 72 x 72 mm  
Ammeter, 72 x 72 mm  
Hour runmeter,  
Static battery charger 5A, 220/240 volt  
Emergency stop push button and fuses for control circuits  
Mains and Generator transfer contactors between electrical lock with load terminals

## 1 Construction and Finish

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

## 1 Installation

Control panel is separate from generating set and wall (installing) type  
Control cables is connected between genset and control panel.

## 1 Generating Set Control Unit

The DSE 704 control module is a standard addition to our gas powered generator sets up to 17kVA and it have been designed to start and stop gas generating sets. The DSE 704 module has been designed to automatically start the generator when the mains (utility) power fails.

Switch over to the generator when the mains power fails. As soon as mains power is restored the modul transfers the load back to the mains supply

The DSE 704 also indicates operational status and fault conditions, automatically shutting down the generating set and indicating faults by means of its LED indicators on the front panel.

Standard Specifications

Microprocessor controlled  
LED indicators,  
Transfer between mains (utility) and generator power  
On-site module configuration  
User-friendly set-up and button layout  
Front panel programming  
Remote start  
Controls: Stop/Reset, Manual, Auto, buttons.

## ➤ Instruments

### ENGINE

- Run time

### GENERATOR

- Voltage (L-L)

- Current (L-L)

## ➤ Options

High oil temperature, shutdown

Low fuel level, shutdown

Low fuel level, alarm

High fuel level, alarm

Low coolant level, shutdown

## ➤ Static Battery Charger

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 and output is 5 amper, 12 volt DC. Input 198 - 260 volt AC.

1205 has fully output short circuit protection and it can be used as a current source.

1205 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.

## ➤ Protection Circuits

### WARNING

- Battery charge failure

### SHUTDOWNS

- Fail to start

- Emergency stop

- Low oil pressure

- Under/over speed

## ➤ Standards

BS EN 61000-6-2 EMC immunity standard

BS EN 61000-6-4 EMC emission standard for the industrial environment

## AK 40 - Canopy



- 1 Steel structures
- 2 Emergency stop push button
- 3 Control panel is right side of the set.
- 4 Corrosion-resistant locks and hinges
- 5 Sump drains valves
- 6 Sound proof foam metarial
- 7 Lifting Points

## Introduction

Sound-attenuated and Weather-protective Enclosures Sound-attenuated and weather protective enclosures for generating sets from abyaran, meet event the sound requirements and provide optimum protection from inclement weather and development by our specialist acoustic engineers. Our modular designed sound insulated canopies provide ease of access for servicing and general maintenance and interchangeable components permitting on-site repair. Enclosures are designed to optimize genset cooling performance, providing you with confidence that genset ratings and ambient capability.

## Standard Specifications

- Compact footprint, low profile design.
- Enclosure, generator set, exhaust system and fuel tank are pre-ssembled, pre-integrated and shipped as one package
- Body made from steel components treated with polyester powder coating
- Fire retardant foam insulation
- Easy access to all service points
- Exhaust system inside canopy
- Large doors on each side
- Control panel viewing window in a lockable access door
- Emergency stop push button mounted on enclosure exterior
- Cooling fan and battery charging alternator fully guarded
- Fuel fill and battery can only be reached via lockable access doors.
- Lifting points on the top of canopy and base frame
- Customer options available to meet your applications needs. abyaran makes its generating sets' noise level tests in accordance with directive 2000/14/EC validation of the noise level test has been aproved by the notified body Szutest

Width	mm.	1113
Lenght	mm.	3100
Height	mm.	1741
Fuel Tank Capacity	L	240