

# Standby Generator 40kVA



## DESIGN SPECIFICATIONS

### ENGINE

- Heavy duty diesel engine
- Four stroke, water cooled,
- Direct injection fuel system
- 12 V D.C. starter and charge alternator
- Replaceable fuel filter, oil filter and dry element air filter
- Cooling radiator and fan
- Starter battery (with lead acid) including Rack and Cables
- Flexible fuel connection hoses and manual oil sump drain valve
- Industrial capacity exhaust silencer and steel bellows
- Jacket water heater (at automatic models)
- Manual for use and installation

### ALTERNATOR

- Brushless, single bearing system, flexible disc, 4 poles
- Insulation class H
- Standard degree of protection IP21
- Self-exciting and self-regulating
- Impregnation with tropicalised epoxy varnish
- Solid state Automatic Voltage Regulator

### CHASSIS

- The complete generator set is mounted as whole on a heavy-duty fabricated, steel base frame. Antivibration pads are fixed between the engine / alternator feet and the base frame.
- Base frame design incorporates an integral fuel tank.
- The generating set can be lifted or carefully pushed / pulled by the base frame
- Dial type fuel gauge and drain plug on the fuel tank
- Forklift pockets within base frame

### CANOPY

- All canopy parts are designed with modular principles
- Without welding assembly
- Doors on each side
- All metal canopy parts are painted by electrostatic polyester powder paint
- Thermally insulated engine exhaust system
- Emergency stop push button is installed outside of canopy
- Easy lifting and moving
- Easy maintenance and operation

### CONTROL SYSTEM

Control supervision and protection panel is mounted on the genset base frame. The control panel is equipped as follows:

#### 1) Auto. Mains Failure Control Panel - P 200

##### Panel equipments:

- Control with model AMF 4 module
- Static battery charger
- Emergency stop push button.

#### a) Generating set control module AMF 4 features:

- The module is used to monitor a mains supply and automatically start a standby generating set.
- Micro-processor based design
- Automatic control of mains and generator contactors.
- Monitors engine performance and AC power output
- LED alarm indication
- Front panel configuration of timers and alarm trip points
- Easy push button control.

#### STOP/RESET - MANUAL - AUTO - TEST - START

#### b) Metering via five-3 digit, 7 segment LED Display:

- Generator Volts (L-L / L-N)
- Generator Ampere (L1,L2,L3)
- Generator Frequency (Hz)
- Engine hours run
- Engine oil pressure (PSI)
- Engine temperature (°C)
- Plant battery volts
- Mains Volts (F-F / F-N) • Mains Frequency

#### c) Automatic shutdown on fault conditions

- Over and Under Speed
- Start and Stop failure
- Over Current / Overload
- Low Oil Pressure
- High engine temperature
- Low and high battery volt
- Charge fail
- Under / over generator voltage
- Under / over mains voltage
- Emergency stop

#### d) LED Indications:

- Mains available • Generator available
- Mains on load
- Generator on load

#### 2) Power Outlet Terminal Board Mounted on the Genset Baseframe

# Standby Generator 40kVA

Diesel Generating Set 400 / 230 V - 50 Hz

## Output Rating

Power	Pf. 0.8
<b>STANDBY</b>	40 kVA 32 kW
<b>Prime</b>	36 kVA 28.8 kW

## Diesel Engine

Engine Make	AKSA
Model	YT 3105Z
Gross engine power output at rated rpm	45kW 61hp
Aspiration and Cooling	Turbo Charged
Total Displacement	3.1Lt
Cylinders and Build	3 - inline
Engine Speed	1500 rpm
Bore and Stroke	105 x 120mm
Compression Ratio	17:01
Governor	Mechanical

Fuel Consumption at full load	Load	Full
	L/hr	10.5

Fuel Tank Capacity	82L
Oil Capacity	11L
Coolant Capacity	18L
Radiator Cooling Air	107 m <sup>3</sup> /min

Air Intake - Engine	3.2 m <sup>3</sup> /min
Exhaust Gas Flow	9.5 m <sup>3</sup> /min
Exhaust Gas Temperature	550°C

## OPEN TYPE

Dimensions (length x width x height)	1730 x 900 x 1100
Dry weight	930

## SOUND ATTENUATED TYPE

Canopy Model	ASM 3C
Dimensions (length x width x height)	2260 x 970 x 1300mm
Dry weight	1170 kg

## UPSPEC OPTIONS

### Diesel Engine

- Remote Radiator
- Engine oil heater

### Alternator

- 3 pole output circuit breaker
- Anti condensation heater
- Over sized alternator

### Accessories

- Bulk Fuel Tank
- Automatic Fuel filling system
- Fuel warter seperator filter
- Residential silencer
- Sound Proof Canopy
- Manual fuel filling system
- Low fuel alarm
- 4 Pole contactor
- Electrical oil drain pump

## GO CUSTOMISED

- Skid Mount Options
- External Switches
- Lifting Frames & Fabrication
- Custom Paint