

DG SET SPECIFICATION & SCOPE

SUPERNOVA Genset, Model **SV500** powered by heavy duty Industrial, internal combustion Diesel Engine coupled with A.C. Generator, so as to generate 500KVA / 400 KW , 415 V, 3 Phase, 0.8 pf, 50 Hz at standard reference conditions & further as per following :-

DIESEL ENGINE :

Imported **VOLVO PENTA** 4-stroke, vertical, inline 6 (six) Cylinder, Water-Cooled, Turbocharged Diesel Engine Model TAD1641GE developing 600 BHP at 1500 rpm prime-power rating as per ISO-3046, BS-5514 with a provision of 10% overload for 1 hour in any 12 hour running under std. reference conditions. Governing performance in accordance with class-A1 as per ISO-3046, BS-5514, DIN 6271 and can be operated upto 1500M. Altitude without any deration. There shall be no deration for ambient temperature or humidity.

The Engine shall be complete with the following:

- Lubrication System
- Fuel System
- Intake & Exhaust System
- Cooling System
- Starting System
- Switches & Sensors
- Engine Control Panel
- Instruments & Monitors
- Protections & Annunciations

Genset Model	SV 500
Engine Model	TAD 1641 GE
Type	4 Cycle, Radiator cooled, 1500 RPM
No. of Cylinder & Arrangement	6 Nos in-line.
Governor	Electronic/EMS 2
Bore x Stroke (mm x mm)	144 X 165
Compression Ratio	16.5 : 1
Starting	24 V DC Electric Starting
Battery	2 Nos. x 180 AH
Fuel Tank	8 hours running capacity.
Engine Water incl. Radiator	60 Litres
Sump Capacity	42 Litres
Lub. Oil Consumption (Lit / h)	0.10

A.C.GENERATOR :

STAMFORD/CROMPTON make Industrial A.C.Generator, Brushless, synchronous, self excited, self regulated, Screen Protected Drip Proof, 500 KVA / 400 KW, 3 phase, 4 wire, 415V, 0.8 p.f., 1500 rpm, 50 Hz, Enclosure - IP23, Class of Insulation 'H',

Voltage regulation of (+/-)1%. It shall be Horizontal foot mounted single bearing type confirming to BS5000, IS4722.

MOUNTING :

The engine and A.C. Generator described above shall be directly coupled, aligned and mounted on rigid M.S. Fabricated Base Frame.

CONTROL PANEL

The Control panel shall be designed fitted with Imported Microprocessor based, State-of-art, latest technology 'D.G. Set -Controller' for complete control of DG Set which comprises of Control, Monitoring & Protection of Engine & Alternator.

The Panel shall be fabricated from processed 16 gauges CRCA Sheet Metal, suitable for outdoor/ indoor application.

The panel shall be powder coated/ painted after the seven tank process of degreasing, de-rusting. The Doors and covers are provided with Neoprene Gasket to ensure dust & vermin proof as per IP 52. The gland plate/s is provided at bottom for termination of input and output Power / control Cable.

Options :

AMF panel (Auto Start but without Change-over facility)

AMF - Auto Start, Auto change-over panel.

Auto Start, Auto Synchronizing, Auto load sharing panels.

ACOUSTIC ENCLOSURE. (Model SW30VCS0500.O.P)

- A thoughtfully crafted art-piece.
- Enables reduction of 25dbA, thus at 1 Mtr. Distance under free field conditions, it measures 75 dbA.
- Structure/Profile made out of high quality CRCA Sheet Steel
- Roof, Side wall, integral partition and doors are all sandwich design made out of high quality CRCA Sheet steel.
- Is natural cooled and maintain t (temperature difference with Air ambient) of 5 – 7 Cent. If need arises articulated ventilation are also considered.
- Sound absorption material is Rock Wool of relevant thickness and density.
- Provide sufficient access for maintenance work.
- Control panel is mounted inside the Enclosure (except Synchronizing panel)
- Fuel tank of 8 hours running capacity with arrangement of e-filling, Air-vent, Drain, Supply & return connection provided.
- Arrangement of Power cable connection
- Residential exhaust silencers
- Suction Louvers
- Discharge Louvers

- Openable and lockable doors
- Interior lighting arrangement

Canopy Dimension: L x W x H (5900 x 2200 x 3200)

PERIPHERALS:

- M.S. Fabricated Fuel Storage Day Tank with Level Indicator for 8 hours operation capacity.
- Heavy Duty Industrial Silencer
- Exhaust Flexible expansion Pipe
- Fuel Pre-filter with Element & Water Separator
- Dry Batteries with Leads. (Qty. 2 Nos., 180 AH)

DOCUMENTS:

- D.G.Set Test Certificate
- Engine/A.C. Generator
 - O & M Manuals
 - Parts Catalogue
- Alternator Test Certificate