



## DG SET SPECIFICATION & SCOPE

**SUPERNOVA Genset, Model SV280** powered by heavy duty Industrial, internal combustion Diesel Engine coupled with A.C. Generator, so as to generate 280KVA / 224 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 TAD940GE developing 344 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 1100 M. Altitude and No deration on account of Ambient Air Temperature.

### **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	SV280
Engine Model	TAD 940 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)	120 x 138
Compression Ratio	17.2:1
Starting	24 V DC Electric Starting
Battery	2 Nos. x 135 AH
Fuel Tank	8 hours running capacity.
Engine Water incl. Radiator	41 Litres
Sump Capacity	30 Litres
Lub. Oil Consumption (Lit / h)	0.03

### **A.C. GENERATOR :**

**STAMFORD/CROMPTON** make Industrial A.C. Generator, Brushless, synchronous, self excited, self regulated, Screen Protected Drip Proof, 280 KVA / 224 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 SW20VCS0280.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 (4900 x 2000 x 2700)**

**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., 135 AH)

**DOCUMENTS:**

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