



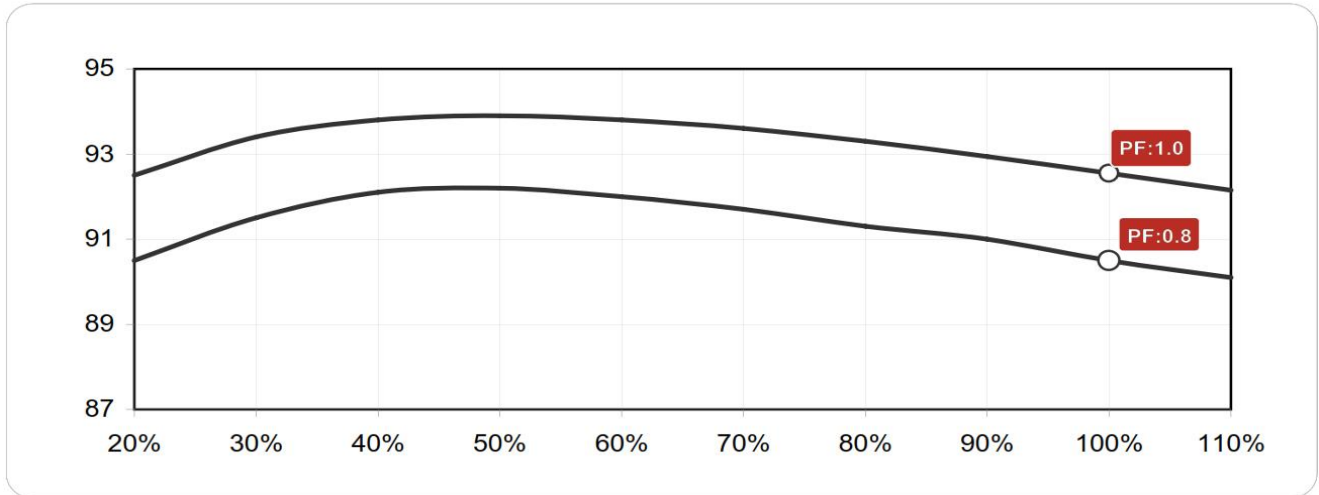
GNT125

CONT 113 kVA

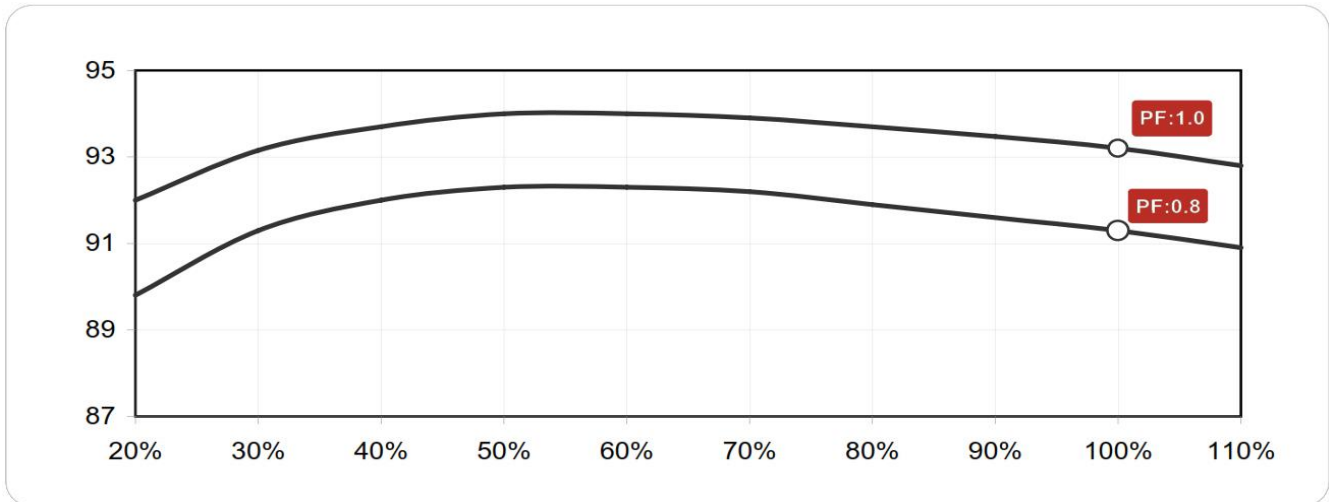


Efficiency and Motor Starting

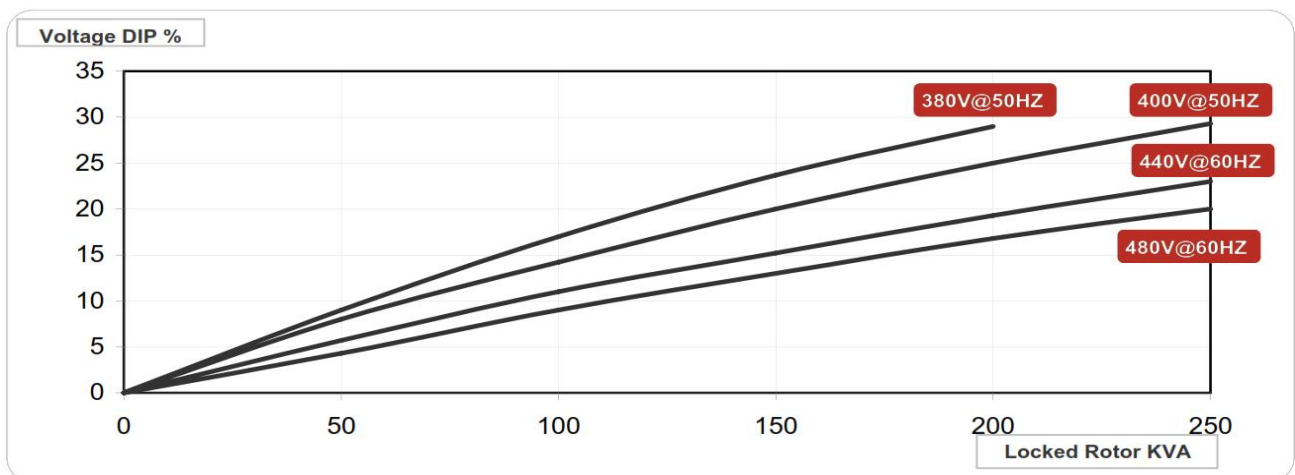
Efficiency Curve @ 50 Hz, 400V



Efficiency Curves @ 60 Hz, 480V



Motor Starting Curves @ 50 Hz, 60 Hz Locked Rotor



Technical Data Sheet

| | STANDARD(S) | OPTIONAL(O) | INFORMATION (I) | SPECIFICATION |
|----------------------|----------------|-------------|-----------------|--|
| EXCITATION SYSTEM | SELF-EXCITED | S | | SUSTAINED SHORT-CIRCUIT: NOT AVAILABLE |
| | ARAP | | | |
| | PMG | | | |
| AVR | SX460 | S | | REGULATION PRECISION : +/-1,0 % |
| | SX440 | O | | REGULATION PRECISION : +/-1,0 % |
| | MX341 | | | |
| | MX321 | | | |
| WINDING INSULATION | H | S | | |
| | F | | | |
| WINDING PITCH | 2/3 | S | | HIGHER FLEXIBILITY IN USE,BETTER MOTOR STARTING ABILITY |
| | 5/6 | O | | COST-EFFECTIVE POWER SUPPLY SCHEME |
| WINDING PROTECTION | STANDARD | S | | |
| | "ANTI-HARSH" | O | | SPECIAL TREATMENT OF WINDING TO AGINST HASRH ENVIROMENT |
| | SPACE HEATER | O | | TO HEAT UP AIR TO REMOVE THE HUMMINITY AROUND WINDING |
| | THERMAL SENSOR | O | | TO DETECT THE WINDING TEMPERATURE OR BEARING'S |
| PARALLEL OPERATION | CT100 | O | | |
| | CT200 | | | |
| | CT400 | | | |
| | CT600 | | | |
| | CT1000 | | | |
| WINDING LEADS | 12 | S | | 12 LEADS OF WINDING ENDS, |
| | 6 | O | | 6 LEADS OF WINDING ENGS |
| MACHINE PROCTIION | IP23 | S | | STANDARD MACHINE PROTECTION |
| | IP44 | O | | TO AGINST : 1mm OBJECT AND SPLASHING WATER |
| | IP54 | | | |
| POWER FACTOR | 1 | O | | |
| | 0,8 | S | | |
| CONNECTION TO ENGINE | SINGLE BEARING | S | | |
| | DOUBLE BEARING | O | | |
| | BELT DRIVE | O | | |
| | VERTICAL | | | |
| OVERSPEED | | | I | MAX ROTATING SPEED : 2250 RPM |
| ATTITUDE | <=1000m | | I | DERATING IS NO NEED |
| | >1000m | | I | DERATING NEEDED, REFERS TO RATING BOOK |
| ELECTIRICAL FEATRUES | TDF/THC | | I | NO LOAD < 1,5 %, NON DISTORATING BALANCED LINEAR LOAD< 5,0 % |
| | TIF | | I | <50 |
| | THF | | I | <2% |
| BEARING | DRIVE -END | | I | BALL 6309 - 2RS DOUBLE BEARING CONF. ONLY |
| | NON DRIVE END | | I | BALL 6306 - 2RS |
| WEIGHT | NET | | I | SINGLE BEARING 394 KG DOUBLE BEARING : 422KG |
| | GROSS | | I | SINGLE BEARING 429 KG DOUBLE BEARING : 457KG |
| PACKING SIZE | | | I | SINGLE B. : 1100 x680x890 mm DOUBLE B. : 1100x680X890mm |

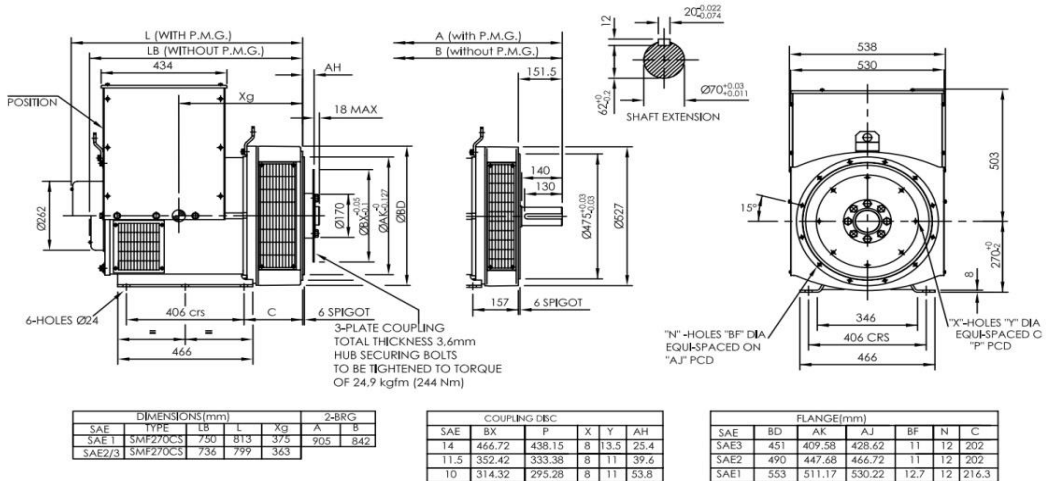
Technical Data Sheet

STANDARD(S) OPTIONAL(O) INFORMATION (I)

SPECIFICATION

| | | | | | | | | |
|--|---------|------|------|-----|------|------|------|------|
| SERIES STAR (V) | 380 | 400 | 415 | 440 | 416 | 440 | 460 | 480 |
| PARALLEL STAR (V) | 190 | 200 | 208 | 220 | 208 | 220 | 230 | 240 |
| SERIES DELTA (V) | 220 | 230 | 240 | 254 | 240 | 254 | 266 | 277 |
| Xd - Direct axis synchro. Reactance unsaturated | 2.17 | 2.06 | 1.82 | — | 2.52 | 2.36 | 2.16 | 2.11 |
| X'd - Direct axis transient reactance saturated. | 0.18 | 0.18 | 0.16 | — | 0.21 | 0.20 | 0.18 | 0.17 |
| X''d - Direct axis sub transient reactance saturated | 0.12 | 0.11 | 0.10 | — | 0.15 | 0.14 | 0.13 | 0.12 |
| Xq - Qadro. Axis synchro.reactance unsaturated. | 1.39 | 1.32 | 1.17 | — | 1.49 | 1.39 | 1.28 | 1.25 |
| X''q - Quadro. Axis sub transient reactance saturated. | 0.16 | 0.16 | 0.14 | — | 0.21 | 0.20 | 0.18 | 0.17 |
| X2 - Negative sequence reactance unstrated | 0.14 | 0.13 | 0.12 | — | 0.17 | 0.16 | 0.15 | 0.14 |
| Xo -Zero sequence reactance unsaturated. | 0.09 | 0.08 | 0.07 | — | 0.10 | 0.09 | 0.09 | 0.08 |
| T'd- Short - Circuit transient time constant | 0.031s | | | | | | | |
| T''d - Sub Transient time constant | 0.01s | | | | | | | |
| T'do- Open circuit time constant | 0.85s | | | | | | | |
| Ta- Armature time constant | 0.0073s | | | | | | | |
| Kcc - Short Circuit Ratio | 1/Xd | | | | | | | |

Outline Drawing



Gentech designs, manufactures and markets the alternators which comply with the national and international standards. The alternator can be broadly used in the all-purposed application, such as backup, rental, telecom and marine, and also can be used in a.

Compliant with Standards

Other certifications can be considered on request.

Electrical Features

Automatic Voltage Regulator (AVR)

The high efficiency semiconductors of the AVR ensure positive build-up from initial low levels of residual voltage.

2/3 Winding Pitch

Effectively eliminates the effect of the third harmonics so as to avoid excessive neutral currents.

Variable Voltage Output

Standard voltage output can be achieved through the reconnectable 12 wire, and the beyond-the-standard voltage might be achieved by optional winding.

Overload Capability

Be capable of running at constant load limited to the insulation class with the possibility of overload up to 10% for 1 hour every 12 hours.(Continuous Duty -S1).

High Efficiency and Motor Starting Capacity

Optimizing design greatly improves the efficiency and motor starting capacity.

Mechanical Features

Bracket + Flexible Disc

The combination of casting bracket and flexible disc makes product to be coupled with any brand of engine whose interface is international design

Terminal Box

Metal-made and accessed easily, it also can be customized on requests.

Shaft and Key

Rotors assembly is dynamically balanced under ISO8528 and BS5000 regulation, and double-bearing is balanced with half-key.

Bearing

Bearing is greased in the factory for life, and regreaseable bearing is available on request.

Machine Protection

The standard protection is IP23, and IP44 is optional

Insulation and Impregnation

H-class Insulation

Materials used in the insulation system is classed "H", specially the copper wire applied is able to withstand 200°C

Vacuum Pressure Impregnation (VPI)

The advanced impregnation equipment is applied to ensure the electrical insulation and mechanical strength.

Winding Protection

Standard:

The winding is protected against relative humidity < 95%.

Optional:

The special-treated winding ("ANTI-HARSH") is recommended to apply for the environment humidity > 95%, or harsh