

| | | | |
|-------------------------|---|---------|--------------------------|
| CONTROL SYSTEM | SELF EXCITED | | |
| A.V.R. | SX440 | | MX341 |
| VOLTAGE REGULATION | ± 1.0 % | ± 0.5 % | With 4% ENGINE GOVERNING |
| SUSTAINED SHORT CIRCUIT | SERIES 4 CONTROL DOES NOT SUSTAIN A SHORT CIRCUIT CURRENT | | |

| | |
|------------------------|---|
| INSULATION SYSTEM | CLASS H |
| PROTECTION | IP22 |
| RATED POWER FACTOR | 0.8 |
| STATOR WINDING | DOUBLE LAYER LAP |
| WINDING PITCH | TWO THIRDS |
| WINDING LEADS | 12 |
| STATOR WDG. RESISTANCE | 0.0037 Ohms PER PHASE AT 22°C SERIES STAR CONNECTED |
| ROTOR WDG. RESISTANCE | 2.16 Ohms at 22°C |
| R.F.I. SUPPRESSION | BS EN 61000-6-2 & BS EN 61000-6-4,VDE 0875G, VDE 0875N. refer to factory for others |
| WAVEFORM DISTORTION | NO LOAD < 1.5% NON-DISTORTING BALANCED LINEAR LOAD < 5.0% |
| MAXIMUM OVERSPEED | 2250 Rev/Min |
| BEARING DRIVE END | BALL. 6220 (ISO) |
| BEARING NON-DRIVE END | BALL. 6314 (ISO) |

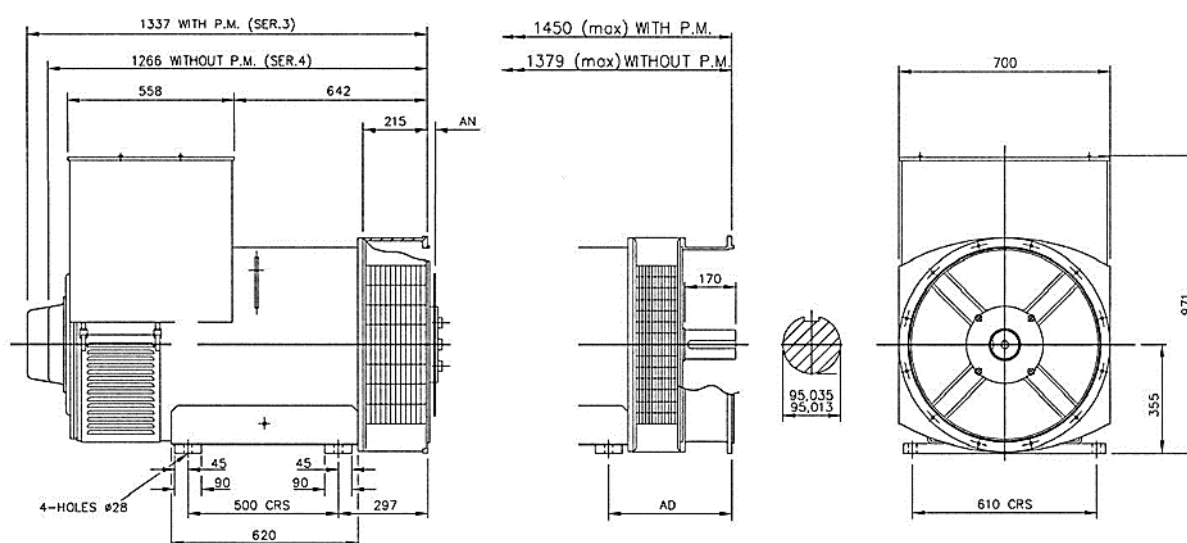
| | 1 BEARING | 2 BEARING |
|-----------------------------|-------------------------|-------------------------|
| WEIGHT COMP. GENERATOR | 1393 kg | 1395 kg |
| WEIGHT WOUND STATOR | 657 kg | 657 kg |
| WEIGHT WOUND ROTOR | 563 kg | 535 kg |
| WR ² INERTIA | 8.0068 kgm ² | 7.7289 kgm ² |
| SHIPPING WEIGHTS in a crate | 1485 kg | 1485 kg |
| PACKING CRATE SIZE | 136 x 79 x 113(cm) | 136 x 79 x 113(cm) |

| | 50 Hz | | | | 60 Hz | | | |
|--|------------------------------------|---------|---------|---------|------------------------------------|---------|---------|---------|
| TELEPHONE INTERFERENCE | THF<2% | | | | TIF<50 | | | |
| COOLING AIR | 1.035 m ³ /sec 2202 cfm | | | | 1.312 m ³ /sec 2780 cfm | | | |
| VOLTAGE SERIES STAR | 380/220 | 400/231 | 415/240 | 440/254 | 416/240 | 440/254 | 460/266 | 480/277 |
| VOLTAGE PARALLEL STAR | 190/110 | 200/115 | 208/120 | 220/127 | 208/120 | 220/127 | 230/133 | 240/138 |
| VOLTAGE SERIES DELTA | 220/110 | 230/115 | 240/120 | 254/127 | 240/120 | 254/127 | 266/133 | 277/138 |
| kVA BASE RATING FOR REACTANCE VALUES | 500 | 500 | 500 | 500 | 575 | 594 | 625 | 644 |
| X _d DIR. AXIS SYNCHRONOUS | 3.02 | 2.72 | 2.53 | 2.25 | 3.52 | 3.25 | 3.13 | 2.96 |
| X' _d DIR. AXIS TRANSIENT | 0.16 | 0.14 | 0.13 | 0.12 | 0.17 | 0.16 | 0.15 | 0.14 |
| X'' _d DIR. AXIS SUBTRANSIENT | 0.11 | 0.10 | 0.09 | 0.08 | 0.12 | 0.11 | 0.11 | 0.10 |
| X _q QUAD. AXIS REACTANCE | 2.48 | 2.24 | 2.08 | 1.85 | 2.87 | 2.65 | 2.55 | 2.41 |
| X'' _q QUAD. AXIS SUBTRANSIENT | 0.27 | 0.25 | 0.23 | 0.20 | 0.31 | 0.29 | 0.28 | 0.26 |
| XL LEAKAGE REACTANCE | 0.05 | 0.04 | 0.04 | 0.04 | 0.06 | 0.06 | 0.05 | 0.05 |
| X ₂ NEGATIVE SEQUENCE | 0.19 | 0.17 | 0.16 | 0.14 | 0.22 | 0.20 | 0.20 | 0.19 |
| X ₀ ZERO SEQUENCE | 0.10 | 0.09 | 0.08 | 0.07 | 0.10 | 0.09 | 0.09 | 0.08 |

| REACTANCES ARE SATURATED | VALUES ARE PER UNIT AT RATING AND VOLTAGE INDICATED |
|---|---|
| T' _d TRANSIENT TIME CONST. | 0.08s |
| T'' _d SUB-TRANSTIME CONST. | 0.012s |
| T' _{do} O.C. FIELD TIME CONST. | 2.5s |
| T _a ARMATURE TIME CONST. | 0.019s |
| SHORT CIRCUIT RATIO | 1/X _d |

RATINGS

| Class - Temp Rise | | Cont. F - 105/40°C | | | | Cont. H - 125/40°C | | | | Standby - 150/40°C | | | | Standby - 163/27°C | | | |
|-------------------|-------------------|--------------------|------|------|------|--------------------|------|------|------|--------------------|------|------|------|--------------------|------|------|------|
| 50 Hz | Series Star (V) | 380 | 400 | 415 | 440 | 380 | 400 | 415 | 440 | 380 | 400 | 415 | 440 | 380 | 400 | 415 | 440 |
| | Parallel Star (V) | 190 | 200 | 208 | 220 | 190 | 200 | 208 | 220 | 190 | 200 | 208 | 220 | 190 | 200 | 208 | 220 |
| | Series Delta (V) | 220 | 230 | 240 | 254 | 220 | 230 | 240 | 254 | 220 | 230 | 240 | 254 | 220 | 230 | 240 | 254 |
| | kVA | 450 | 495 | 450 | 450 | 500 | 550 | 500 | 500 | 515 | 575 | 515 | 515 | 550 | 590 | 550 | 550 |
| | kW | 630 | 396 | 360 | 360 | 400 | 440 | 400 | 400 | 412 | 460 | 412 | 412 | 440 | 472 | 440 | 424 |
| | Efficiency (%) | 94.8 | 94.7 | 95.0 | 95.1 | 94.5 | 94.3 | 94.8 | 94.9 | 94.4 | 94.1 | 94.7 | 94.9 | 94.1 | 94.0 | 94.5 | 94.8 |
| | kW Input | 380 | 418 | 379 | 379 | 423 | 467 | 422 | 421 | 436 | 489 | 435 | 434 | 468 | 502 | 466 | 447 |



DIMENSIONS

| Length (mm) | Width (mm) | Height (mm) |
|-------------|------------|-------------|
| 1360 | 700 | 971 |