



Technical Datasheet for Mahniroo Alternators DSG36 M2-4

Generator data

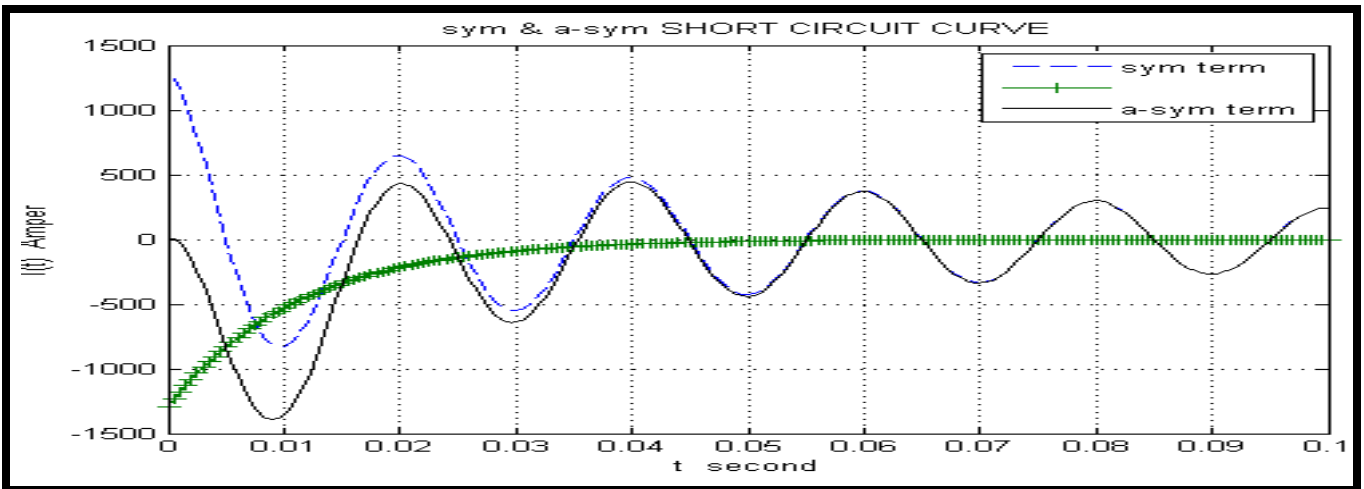
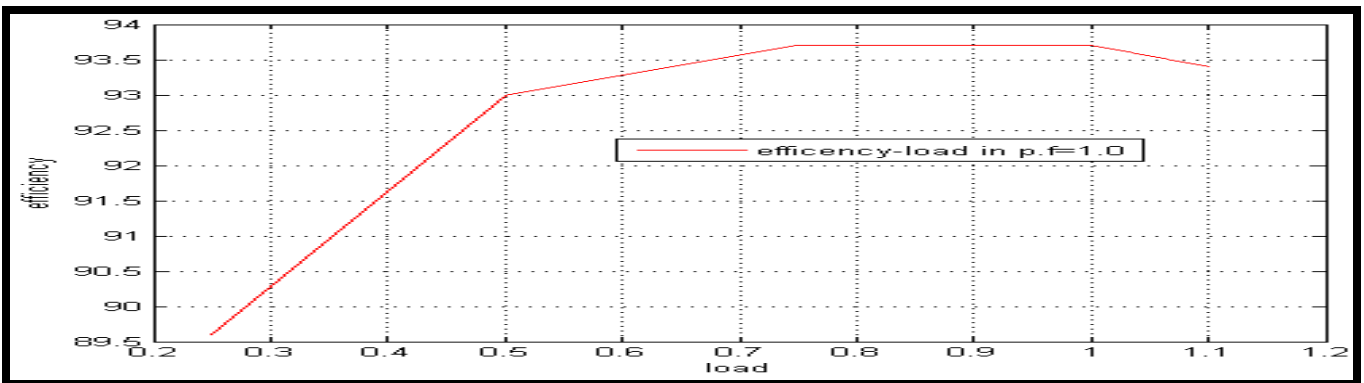
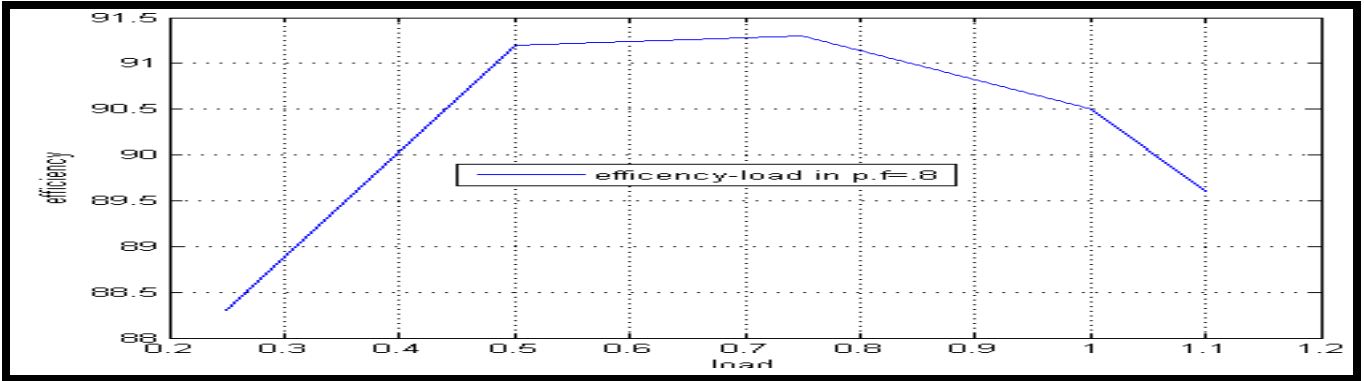
| | | | | | | |
|---------------------------------|--|--|------------------------|-----------------|------------|-----|
| Generator : | DSG36 M2-4 | poles: | 4 | Standard: | IEC60034 | |
| Rated power : | 83 KVA | Rated Current: | 119.5 A | Rated Voltage: | 400 V | |
| Active Power : | 66 Kwatt | Reactive Power: | 49.8 kvar | Power Factor: | 0.8 | |
| Speed: | 1500 rpm | Freq: | 50 HZ | Mech Power: | 73.4 kwatt | |
| Voltage range/ferquency range : | | Zone A according IEC 60034-1 (dU=+/-5%,df=+/-2%) | | | | |
| Insulation class: | stator: Class H | Rotor: Class H | Temperature Rise: | H | | |
| Winding Pitch: | 2/3 | | | | | |
| Ambient Temperature : | 40°C | Site altitude : | 1000 m | Enclosure: IP23 | | |
| Enviroment: Standard Enviroment | | | | | | |
| Cooling: | 1C 01-Open-circuit ventilation | Cooling Air Vol: | 18 m ³ /min | | | |
| Weight: | 335 Kg | Momment of Inertia: | 0.85 Kg/m ² | | | |
| Temperature Air inlet | 40°C | Cooling Water Quantity: | n/a | | | |
| Losses(enviroment): | 7.4 Kwatt | Losses(cooling): | n/a | | | |
| Wires: | 4 terminals, starpoint connected in terminal box | | | [| Single | yes |
| Voltage regulator: | Cosimat C /MN | Operation mode | Parallel | | yes | |

Electrical Data (aac,IEC)

| | | | | | |
|--------------|------|------|------|------|------|
| Efficiencies | 110% | 100% | 75% | 50% | 25% |
| P.F 0.8 | 89.6 | 90.5 | 91.3 | 91.2 | 88.3 |
| P.F 1.0 | 93.4 | 93.7 | 93.7 | 93 | 89.6 |

Reactances (p.u.) and time constants (second)

| | | | | | |
|-----------------------|-------|-----------------------|-------|------------|----------|
| $X_d^{saturated}$ | 2.28 | $X_q^{saturated}$ | 1.05 | T_{d0}^T | 0.81 s |
| $X_{d'}^{saturated}$ | 0.195 | $X_{q''}^{saturated}$ | 0.149 | $T_{d'}$ | 0.07 s |
| $X_{d''}^{saturated}$ | 0.12 | $X_0^{saturated}$ | 0.052 | $T_{d''}$ | 0.0075 s |
| $X_2^{saturated}$ | 0.133 | | | T_a | 0.0112 s |
| $X_{1s}^{saturated}$ | n.a. | | | $T_{q'}$ | 0.0095 s |





General Arrangement for Mahniroo
Alternators DSG36 M2-4

