



Technical Datasheet for Mahniroo Alternators DSG52 L1-4

Generator data

Generator :	DSG52 L1-4	poles:	4	Standard:	IEC60034	
Rated power :	460 KVA	Rated Current:	622.4 A	Rated Voltage:	400 V	
Active Power :	368 Kwatt	Reactive Power:	376 kvar	Power Factor:	0.8	
Speed:	1500 rpm	Freq:	50 HZ	Mech Power:	394 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:	10 m ³ /min			
Weight:	1290	Momment of Inertia:	7.1 Kg/m ²			
Temperature Air inlet	40°C	Cooling Water Quantity:	n/a			
Losses(enviroment):	34 Kwatt	Losses(cooling):	n/a			
Wires:	4 terminals, starpoint connected in terminal box] Operation mode	Single	yes
Voltage regulator:	Cosimat C /MN				Parallel	yes

Electrical Data (aac,IEC)

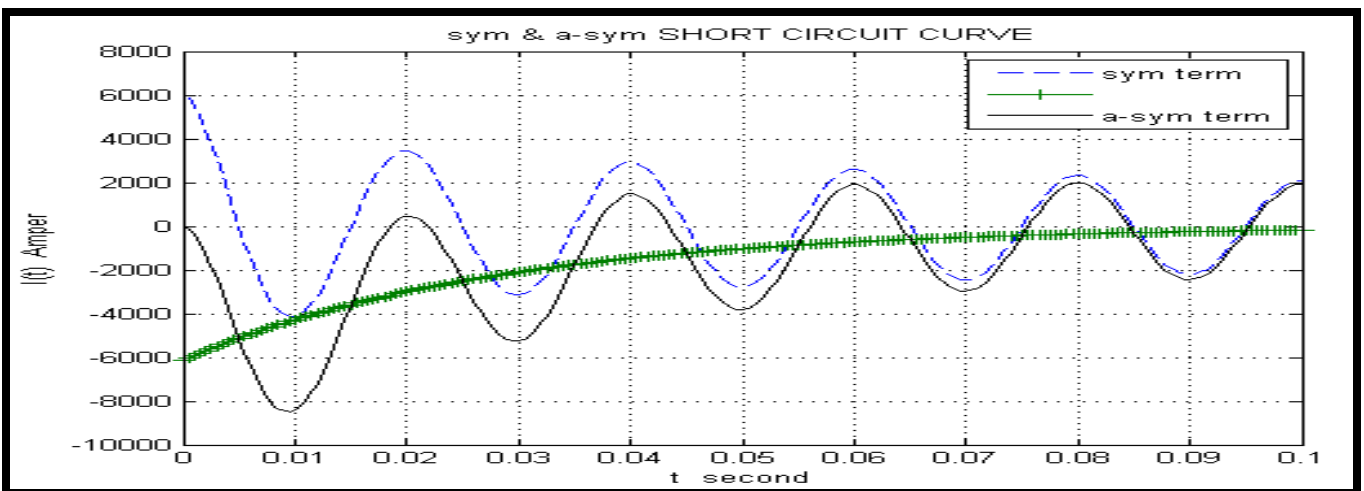
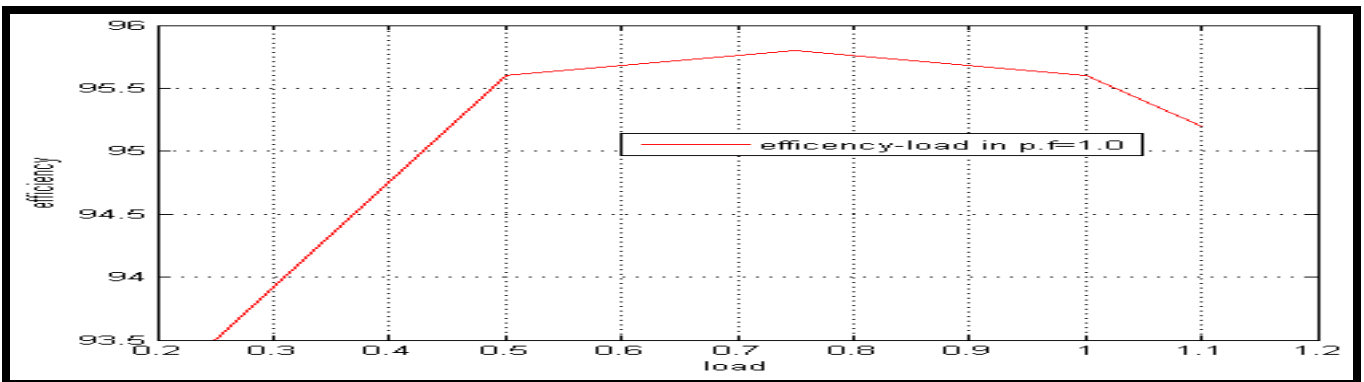
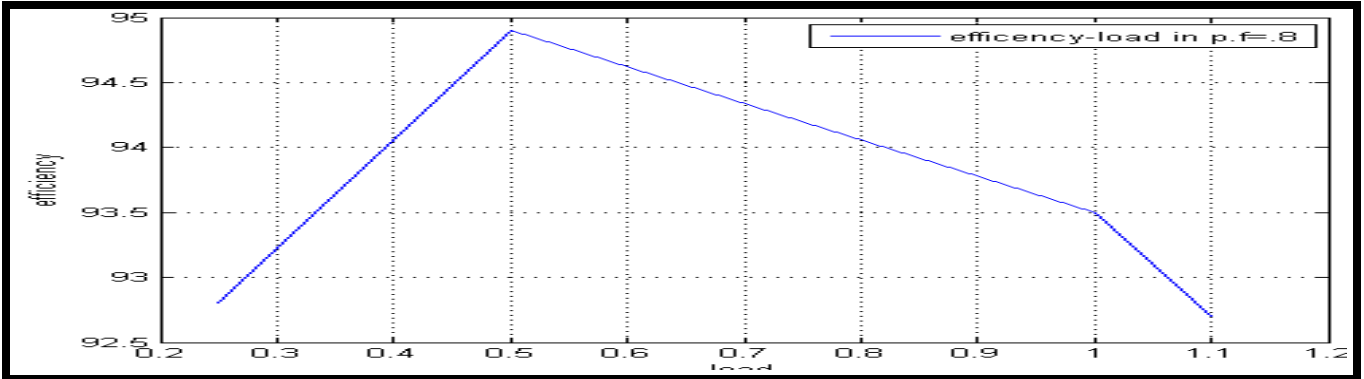
Efficiencies	110%	100%	75%	50%	25%
P.F 0.8	92.7	93.5	94.2	94.9	92.8
P.F 1.0	95.2	95.6	95.8	95.6	93.5

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

$X_d^{\text{saturated}}$	2.59	$X_q^{\text{saturated}}$	1.22	T_{d0}'	1.77 s
$X_{d'}^{\text{saturated}}$	0.218	$X_{q''}^{\text{saturated}}$	0.159	$T_{d'}$	0.155 s
$X_{d''}^{\text{saturated}}$	0.132	$X_0^{\text{saturated}}$	0.063	$T_{d''}$	0.0075 s
$X_2^{\text{saturated}}$	0.143			T_a	0.0208 s
$X_{1s}^{\text{saturated}}$	n.a.			$T_{q'}$	0.0099 s



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General Arrangement for Mahniroo
Alternators DSG52 L1-4

