



## Technical Datasheet for Mahniroo Alternators DSG36 M1-4

### Generator data

Generator :	DSG36 M1-4	poles:	4	Standard:	IEC60034	
Rated power :	68 KVA	Rated Current:	79 A	Rated Voltage:	400 V	
Active Power :	54 Kwatt	Reactive Power:	40.8 kvar	Power Factor:	0.8	
Speed:	1500 rpm	Freq:	50 HZ	Mech Power:	60.7 kwatt	
Voltage range/frequency 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 <sup>3</sup> /min			
Weight:	290	Momment of Inertia:	0.75 Kg/m <sup>2</sup>			
Temperature Air inlet	40°C	Cooling Water Quantity:	n/a			
Losses(enviroment):	6.7 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)

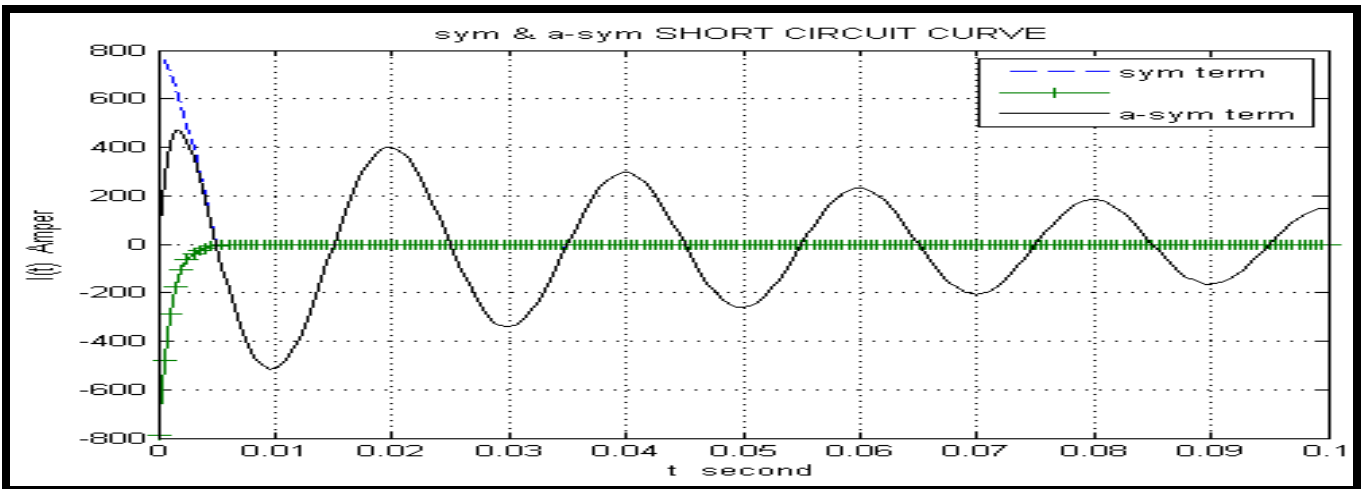
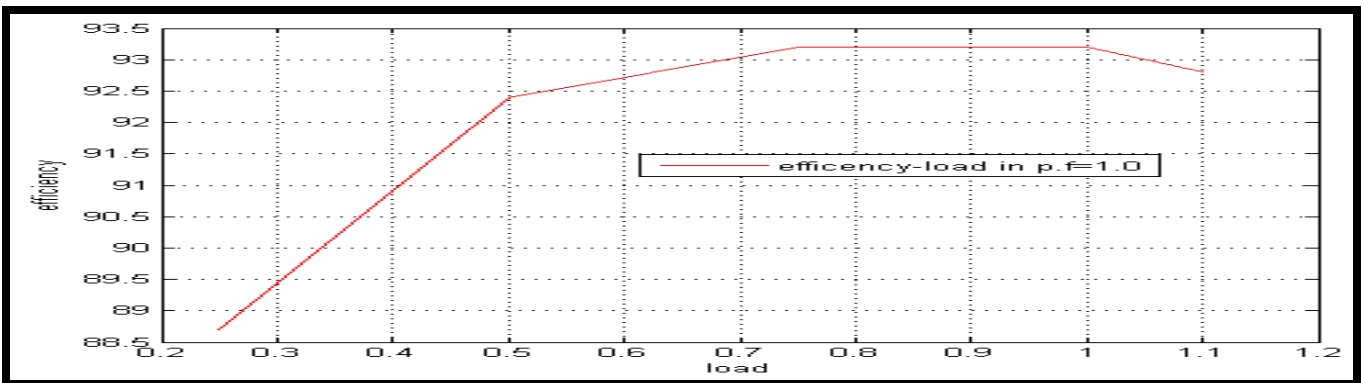
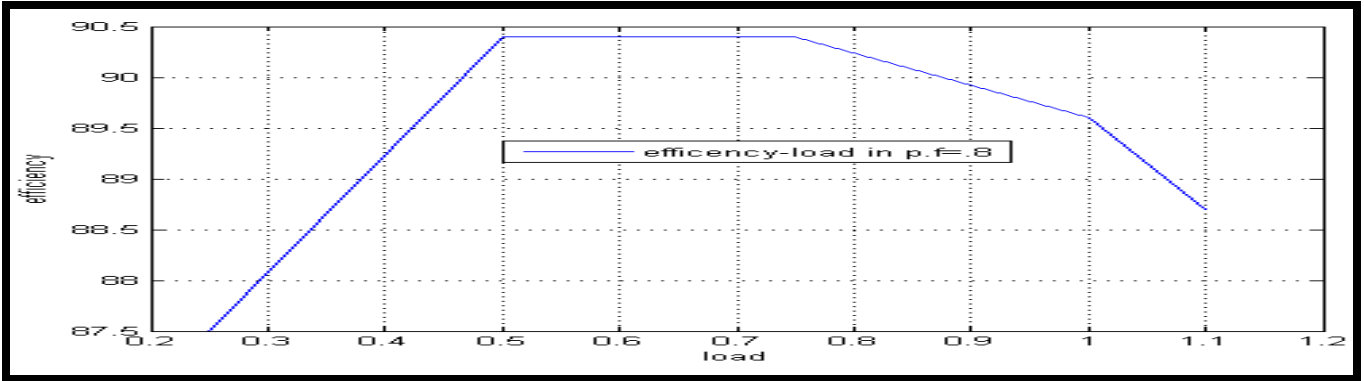
Efficiencies	110%	100%	75%	50%	25%
P.F 0.8	88.7	89.6	90.4	90.4	87.5
P.F 1.0	92.8	93.2	93.2	92.4	88.7

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

$X_d^{saturated}$	2.33	$X_q^{saturated}$	1.08	$T_{d0'}$	0.76 s
$X_{d'}^{saturated}$	0.209	$X_{q''}^{saturated}$	0.161	$T_{d'}$	0.069 s
$X_{d''}^{saturated}$	0.13	$X_0^{saturated}$	0.058	$T_{d''}$	0.0078 s
$X_2^{saturated}$	0.145			$T_a$	0.001 s
$X_{1s}^{saturated}$	n.a.			$T_{q'}$	0.01 s



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General Arrangement for Mahniroo  
Alternators DSG36 M1-4

