



## 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:	230 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/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:	18 m <sup>3</sup> /min			
Weight:	335 Kg	Momment of Inertia:	0.85 Kg/m <sup>2</sup>			
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)

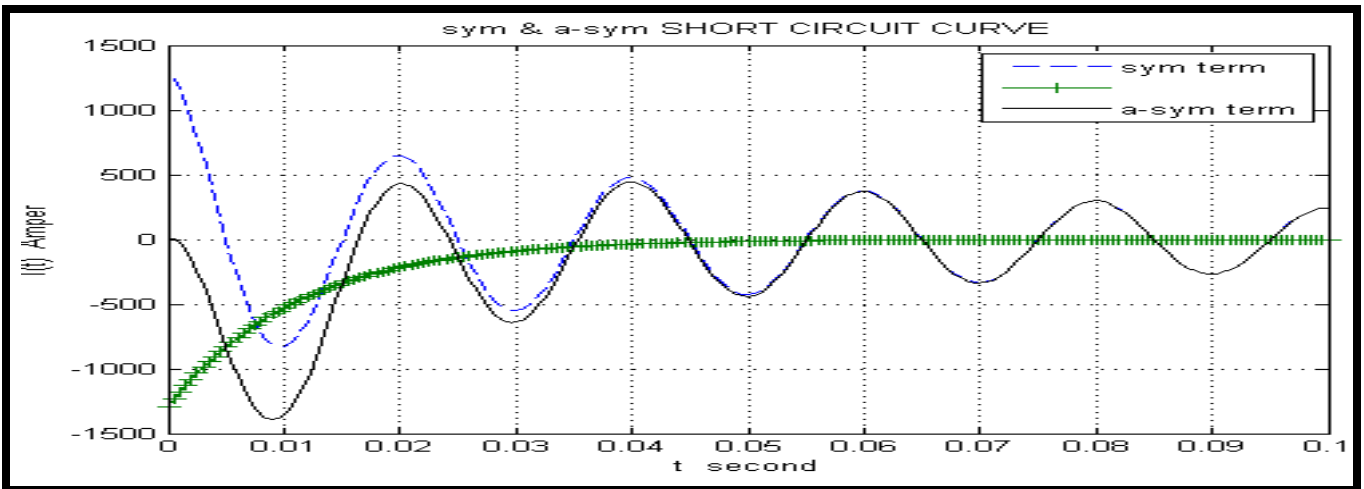
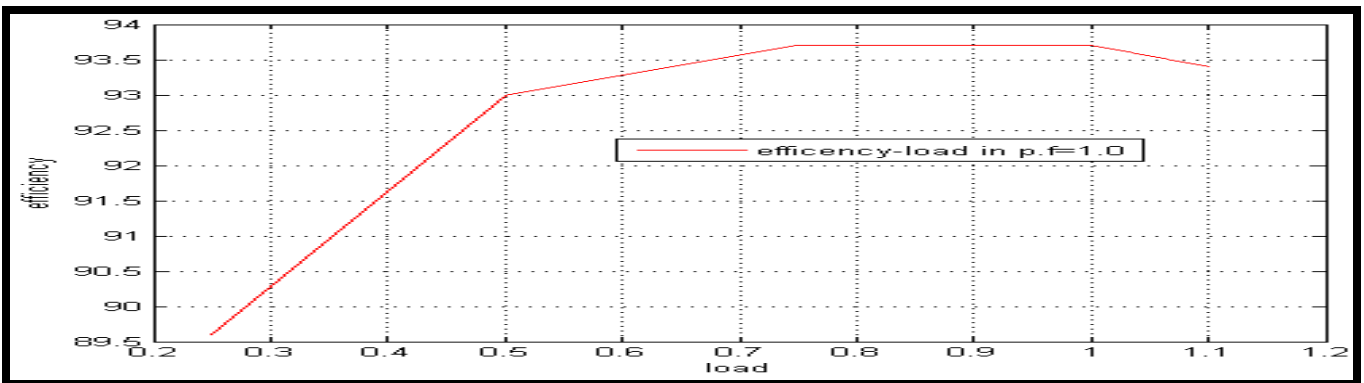
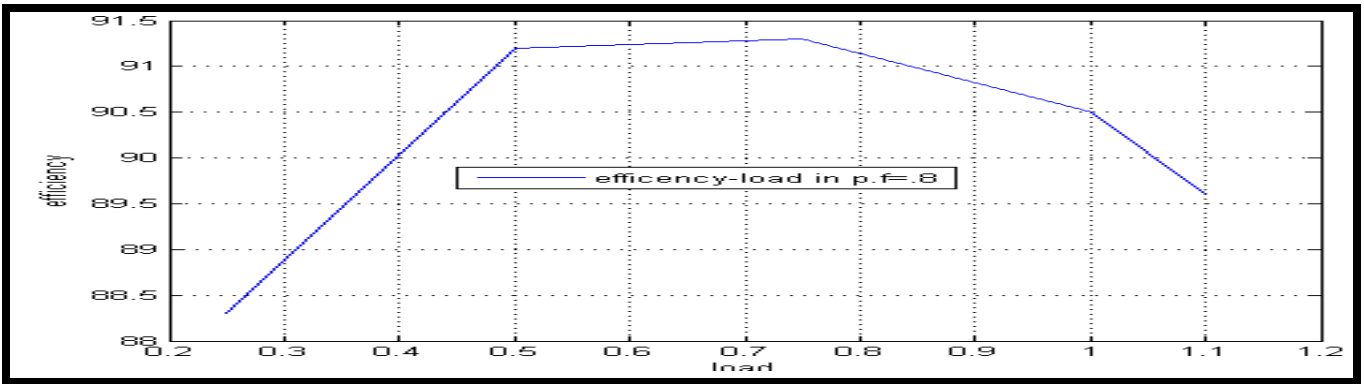
Efficiencies	110%	100%	75%	50%	25%
P.F 0.8	89.6	90.5	91.3	91.2	88.3
P.F 1.0	93.4	93.7	93.7	93	89.6

### 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



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General Arrangement for Mahniroo  
Alternators DSG36 M2-4

