



## Technical Datasheet for Mahniroo Alternators DSG52 M0-4

### Generator data

Generator :	DSG52 M0-4	poles:	4	Standard:	IEC60034	
Rated power :	300 KVA	Rated Current:	432 A	Rated Voltage:	230 V	
Active Power :	240 Kwatt	Reactive Power:	180 kvar	Power Factor:	0.8	
Speed:	1500 rpm	Freq:	50 HZ	Mech Power:	261 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:	65 m <sup>3</sup> /min			
Weight:	990	Momment of Inertia:	4.8 Kg/m <sup>2</sup>			
Temperature Air inlet	40°C	Cooling Water Quantity:	n/a			
Losses(enviroment):	21 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)

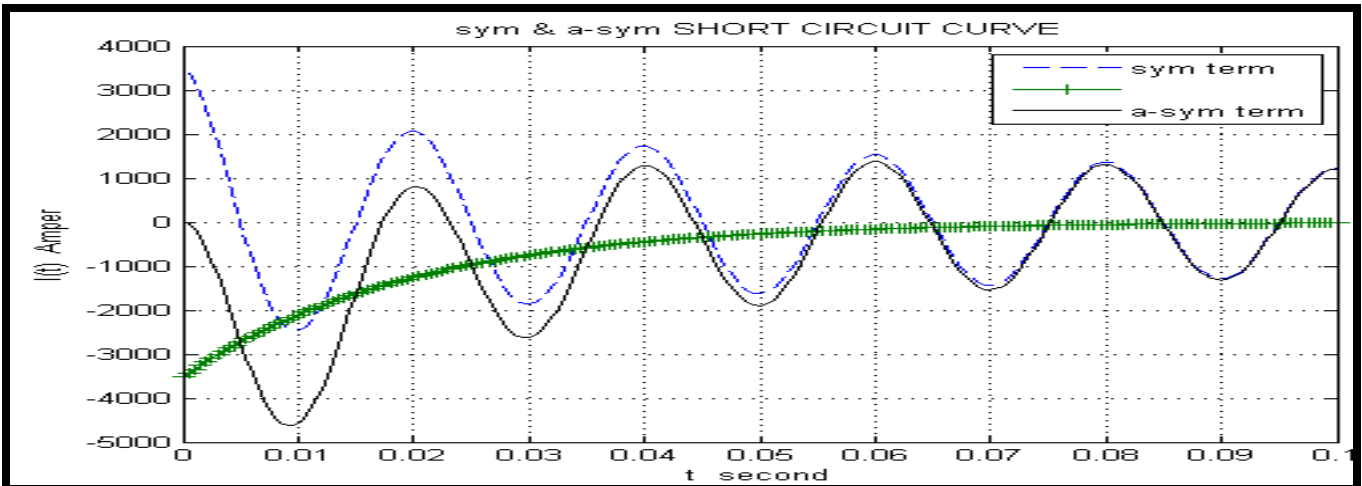
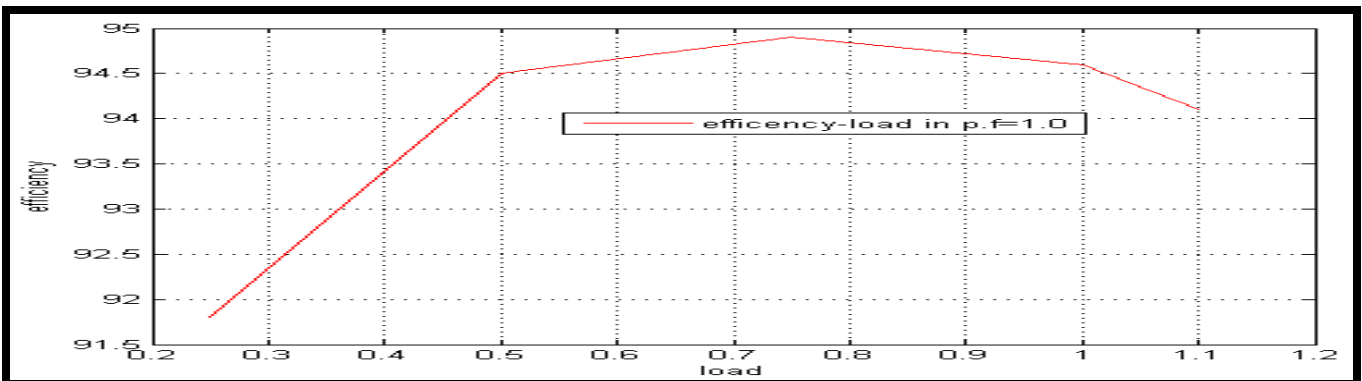
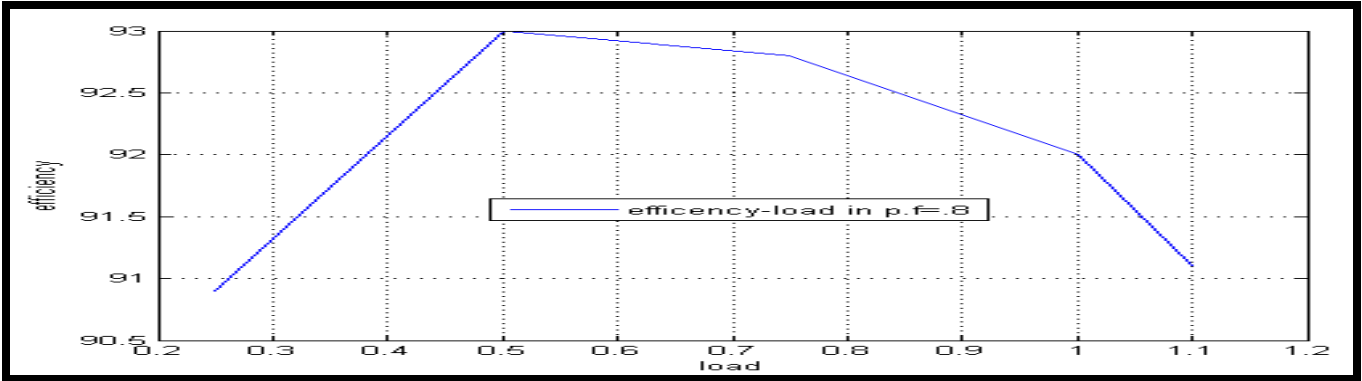
Efficiencies	110%	100%	75%	50%	25%
P.F 0.8	91.1	92	92.8	93	90.9
P.F 1.0	94.1	94.6	94.9	94.5	91.8

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

$X_d^{\text{saturated}}$	2.66	$X_q^{\text{saturated}}$	1.25	$T_{d0}^T$	1.52 s
$X_{d'}^{\text{saturated}}$	0.255	$X_{q''}^{\text{saturated}}$	0.186	$T_{d'}$	0.147 s
$X_{d''}^{\text{saturated}}$	0.159	$X_0^{\text{saturated}}$	0.071	$T_{d''}$	0.0083 s
$X_2^{\text{saturated}}$	0.172			$T_a$	0.0194 s
$X_{1s}^{\text{saturated}}$	n.a.			$T_{q'}$	0.0116 s

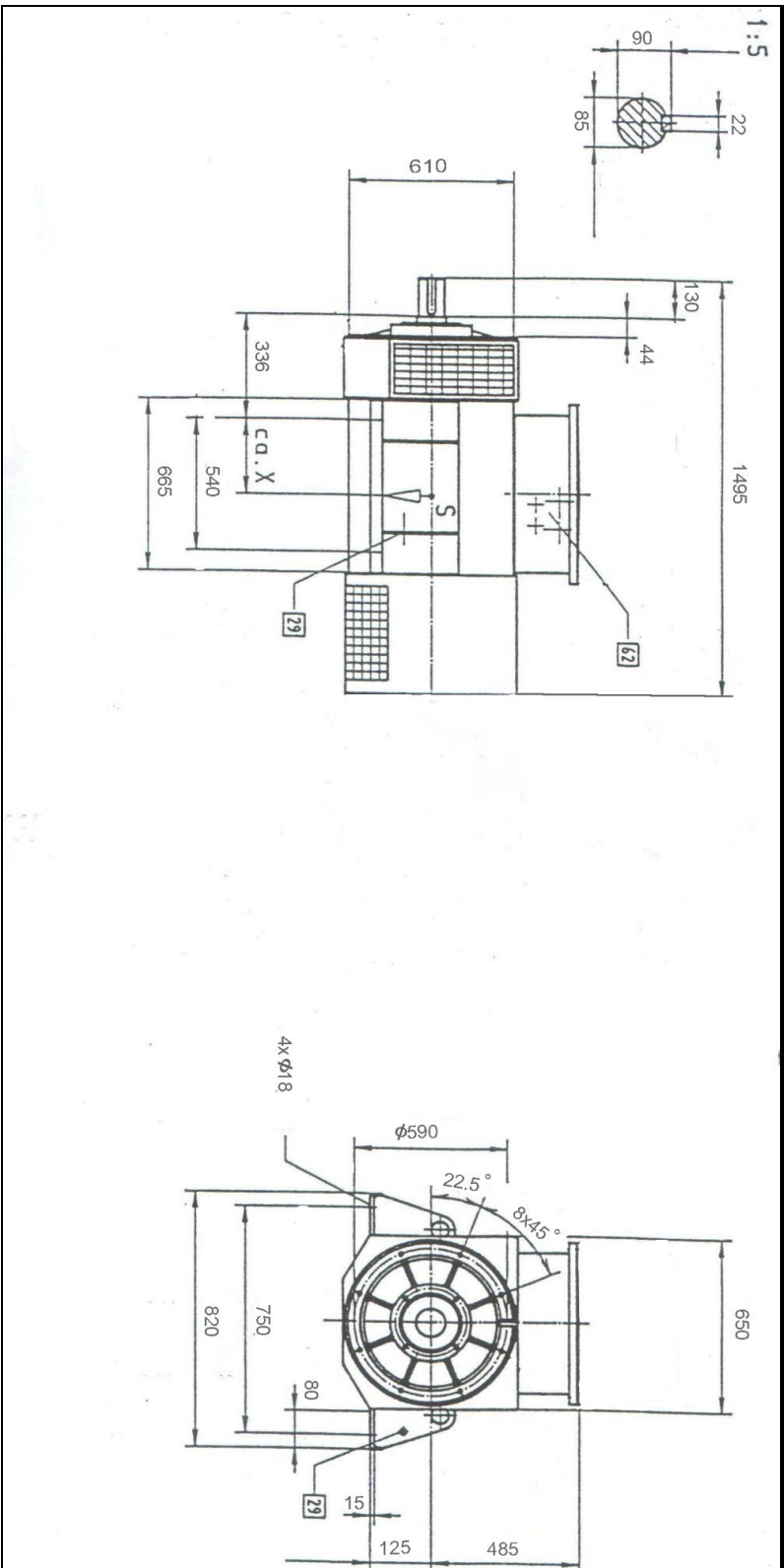


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General Arrangement for Mahniroo  
Alternators DSG52 M0-4



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