



## Technical Datasheet for Mahniroo Alternators DSG29 L1-4

### Generator data

Generator :	DSG29 L1-4	poles:	4	Standard:	IEC60034	
Rated power :	44 KVA	Rated Current:	63.5 A	Rated Voltage:	230 V	
Active Power :	35 Kwatt	Reactive Power:	26.4 kvar	Power Factor:	0.8	
Speed:	1500 rpm	Freq:	50 HZ	Mech Power:	123 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:	35 m <sup>3</sup> /min			
Weight:	240 Kg	Momment of Inertia:	0.4 Kg/m <sup>2</sup>			
Temperature Air inlet	40°C	Cooling Water Quantity:	n/a			
Losses(enviroment):	4.5 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)

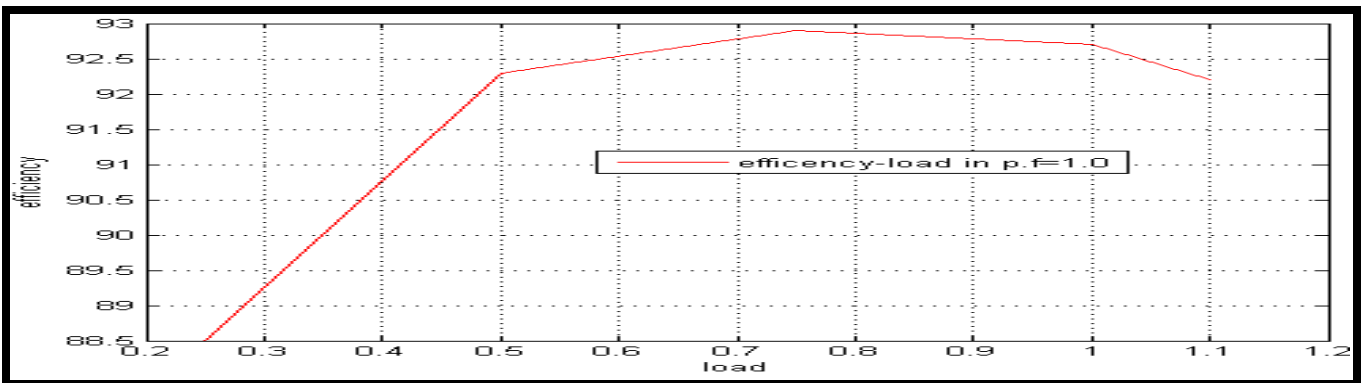
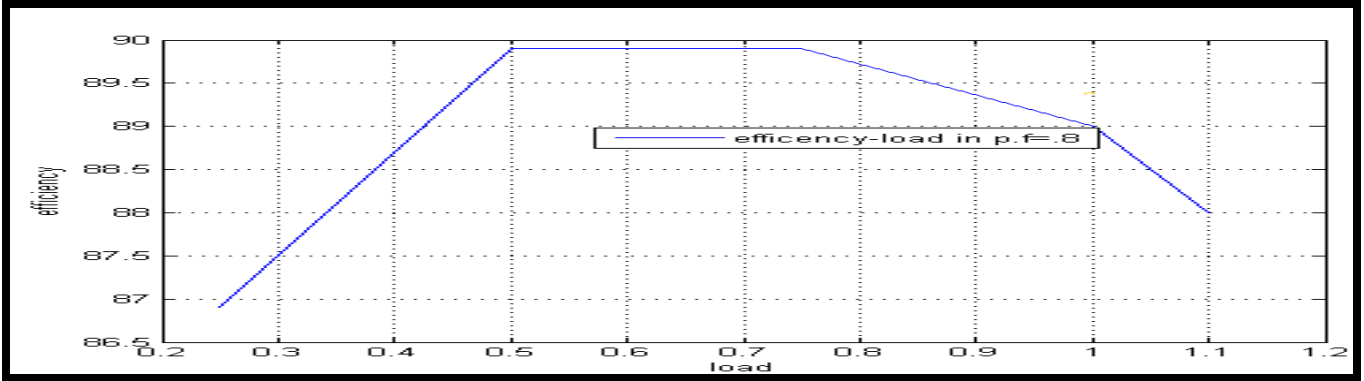
Efficiencies	110%	100%	75%	50%	25%
P.F 0.8	88	89	89.9	89.9	86.9
P.F 1.0	92.2	92.7	92.9	92.3	88.5

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

$X_d^{saturated}$	1.99	$X_q^{saturated}$	0.92	$T_{d0}^T$	0.56 s
$X_{d'}^{saturated}$	0.156	$X_{q''}^{saturated}$	0.119	$T_{d'}$	0.04 s
$X_{d''}^{saturated}$	0.094	$X_0^{saturated}$	0.039	$T_{d''}$	0.0036 s
$X_2^{saturated}$	0.106			$T_a$	0.0085 s
$X_{1s}^{saturated}$	n.a.			$T_{q'}$	0.0044 s

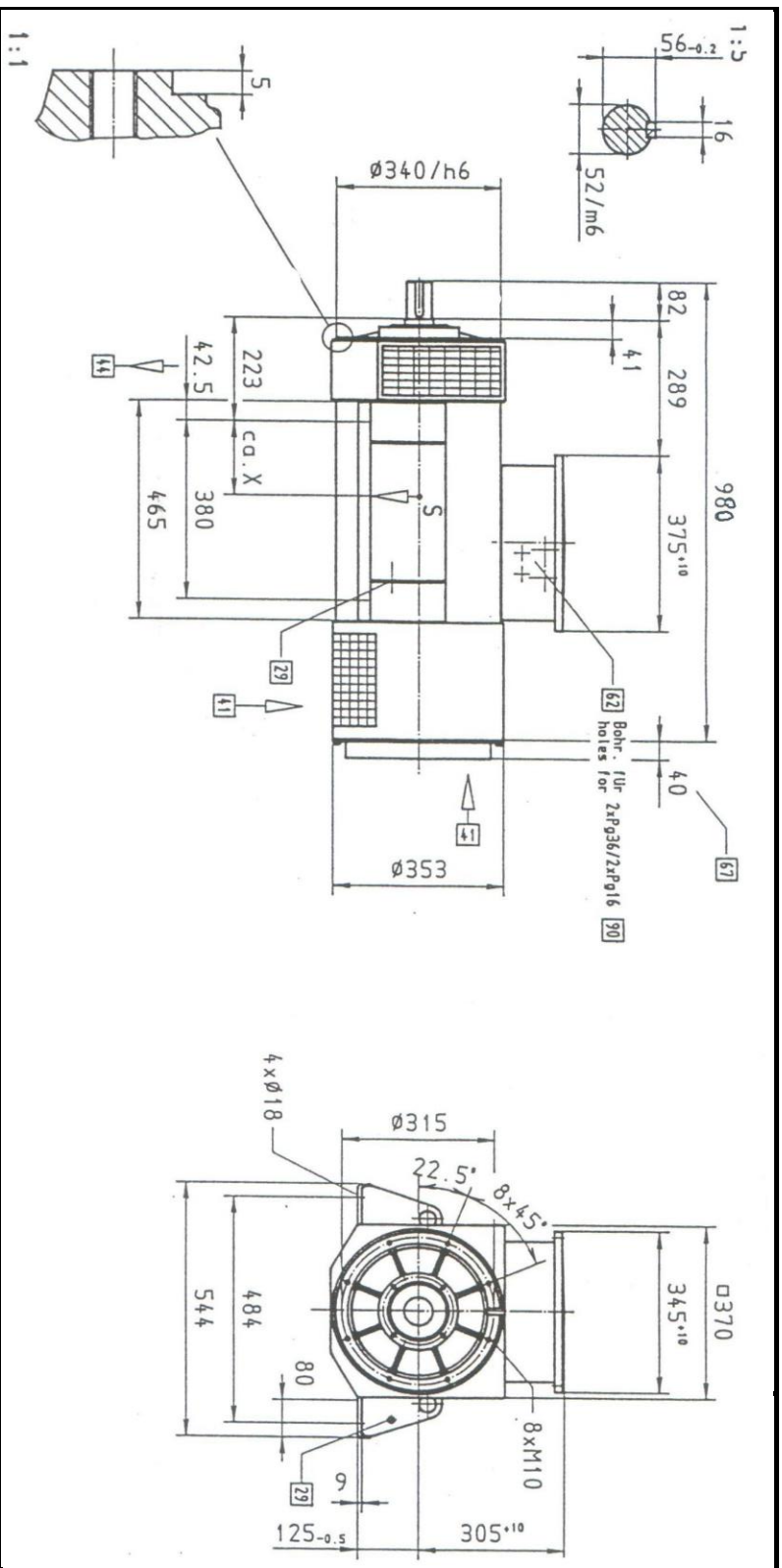


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General Arrangement for Mahniroo  
 Alternators DSG29 L1-4



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