



## Technical Datasheet for Mahniroo Alternators DSG29 M2-4

### Generator data

Generator :	DSG29 M2-4	poles:	4	Standard:	IEC60034	
Rated power :	36 KVA	Rated Current:	51.8 A	Rated Voltage:	230 V	
Active Power :	29 Kwatt	Reactive Power:	21.6 kvar	Power Factor:	0.8	
Speed:	1500 rpm	Freq:	50 HZ	Mech Power:	32.6 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:	200 Kg	Momment of Inertia:	0.33 Kg/m <sup>2</sup>			
Temperature Air inlet	40°C	Cooling Water Quantity:	n/a			
Losses(enviroment):	3.6 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	87.1	88.3	89.2	89.2	86
P.F 1.0	91.6	92.1	92.4	91.7	87.8

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

$X_d^{saturated}$	2.02	$X_q^{saturated}$	0.94	$T_{d0}^T$	0.53 s
$X_{d'}^{saturated}$	0.166	$X_{q''}^{saturated}$	0.127	$T_{d'}$	0.044 s
$X_{d''}^{saturated}$	0.101	$X_0^{saturated}$	0.043	$T_{d''}$	0.0037 s
$X_2^{saturated}$	0.114			$T_a$	0.0075 s
$X_{1s}^{saturated}$	n.a.			$T_{q'}$	0.0047 s



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