



## Technical Datasheet for Mahniroo Alternators DSG43 M1-4

### Generator data

Generator :	DSG43 M1-4	poles:	4	Standard:	IEC60034
Rated power :	150 KVA	Rated Current:	217 A	Rated Voltage:	400 V
Active Power :	120 Kwatt	Reactive Power:	90 kvar	Power Factor:	0.8
Speed:	1500 rpm	Freq:	50 HZ	Mech Power:	132 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
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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: 540 Kg      Momment of Inertia: 1.8 Kg/m<sup>2</sup>

Temperature Air inlet 40°C      Cooling Water Quantity: n/a

Losses(enviroment): 13 Kwatt      Losses(cooling): n/a

Wires: 4 terminals, starpoint connected in terminal box

Voltage regulator: Cosimat C /MN	Operation mode	Single	yes
		Parallel	yes

### Electrical Data (aac,IEC)

Efficiencies	110%	100%	75%	50%	25%
P.F 0.8	90.3	90.9	92	90	89.6
P.F 1.0	93.6	94.2	94.4	93.9	90.7

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

$X_d^{saturated}$	2.37	$X_q^{saturated}$	1.1	$T_{d0}^T$	1.01 s
$X_{d'}^{saturated}$	0.222	$X_{q''}^{saturated}$	0.169	$T_{d'}$	0.096 s
$X_{d''}^{saturated}$	0.136	$X_0^{saturated}$	0.06	$T_{d''}$	0.0075 s
$X_2^{saturated}$	0.152			$T_a$	0.0144 s
$X_{1s}^{saturated}$	n.a.			$T_{q'}$	0.0096 s



