



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:	230 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	
Winding Pitch:		2/3				
Ambient Temperature :		40°C		Site altitude :	1000 m	
Enviroment:		Standard Enviroment				
Cooling:	1C 01-Open-circuit ventilation		Cooling Air Vol:	35	m ³ /min	
Weight:	540 Kg	Momment of Inertia:	1.8	Kg/m ²		
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			[	Single	yes
Voltage regulator:	Cosimat C /MN				Parallel	yes
			Operation mode			

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)

$X_d^{\text{saturated}}$	2.37	$X_q^{\text{saturated}}$	1.1	$T_{d0'}$	1.01 s
$X_{d'}^{\text{saturated}}$	0.222	$X_{q''}^{\text{saturated}}$	0.169	$T_{d'}$	0.096 s
$X_{d''}^{\text{saturated}}$	0.136	$X_0^{\text{saturated}}$	0.06	$T_{d''}$	0.0075 s
$X_2^{\text{saturated}}$	0.152			T_a	0.0144 s
$X_{1s}^{\text{saturated}}$	n.a.			$T_{q'}$	0.0096 s

