



Technical Datasheet for Mahniroo Alternators DSG43 L1-4

Generator data

Generator :	DSG43 L1-4	poles: 4 IEC60034	Standard:	
Rated power :	205 KVA	Rated Current:	295.2 A	Rated Voltage: 400 V
Active Power :	164 Kwatt	Reactive Power:	123 kvar	Power Factor: 0.8
Speed:	1500 rpm	Freq:	50 HZ	Mech Power: 177 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 ³ /min	
Weight:	720 Kg	Momment of Inertia:	2.4 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	Operation mode	Parallel	yes

Electrical Data (aac,IEC)

Efficiencies	110%	100%	75%	50%	25%
P.F 0.8	91.6	92.5	93.3	93.4	91.2
P.F 1.0	94.6	95.1	95.3	94.9	92.2
Reactances (p.u.) and time constants (second)					
$X_d^{\text{saturated}}$	2.37	$X_q^{\text{saturated}}$	1.1	$T_{d0'}$	1.14 s
$X_{d'}^{\text{saturated}}$	0.202	$X_{q''}^{\text{saturated}}$	0.152	$T_{d'}$	0.098 s
$X_{d''}^{\text{saturated}}$	0.122	$X_0^{\text{saturated}}$	0.051	$T_{d''}$	0.007 s
$X_2^{\text{saturated}}$	0.136			T_a	0.0155 s
$X_{1s}^{\text{saturated}}$	n.a.			$T_{q'}$	0.0088 s



