



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/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	Enclosure: IP23
Weight:	240 Kg	Momment of Inertia:	0.4 Kg/m ²		
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)					
$X_d^{\text{saturated}}$	1.99	$X_q^{\text{saturated}}$	0.92	$T_{d0'}$	0.56 s
$X_{d'}^{\text{saturated}}$	0.156	$X_{q''}^{\text{saturated}}$	0.119	$T_{d'}$	0.04 s
$X_{d''}^{\text{saturated}}$	0.094	$X_0^{\text{saturated}}$	0.039	$T_{d''}$	0.0036 s
$X_2^{\text{saturated}}$	0.106			T_a	0.0085 s
$X_{1s}^{\text{saturated}}$	n.a.			$T_{q'}$	0.0044 s

