

Projects and Customer's Information:



MEDUPI POWER STATION

South Africa

Contract Number

N° 4650008582

Space for Stamping (Review and Validation status - if needed)

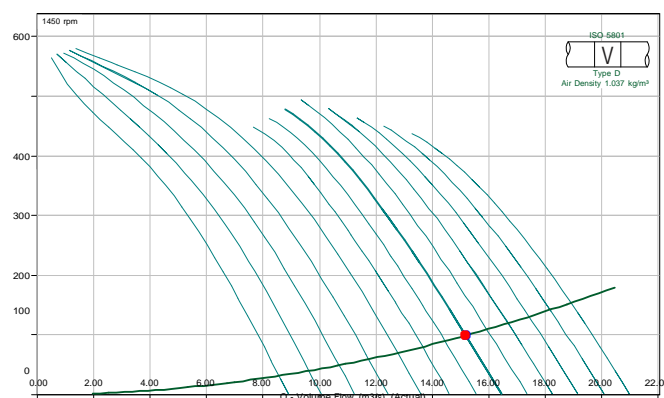
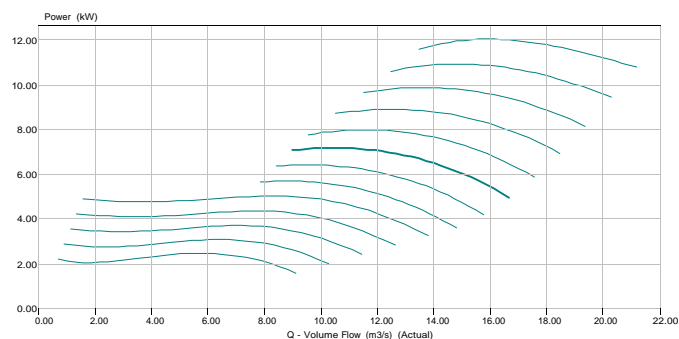
Rev	Revision Date	Created by	Checked by	Approved by	Description	Status
A	24/08/09	M.Louw	C.Chantry	J.McClinton	Draft	Review
B	21/10/09	M.Louw	C.Chantry	J.McClinton	First issue	Review
C	26/07/10	W.Reddy	C.Chantry	J.McClinton	SAA to SAT – Fan duties revised	Review
D	29-11-10	N.Pereira	S.Porobich	J.McClinton	Updated numbering – latest set	Review
E	03-09-12	N.Pereira	T.Venter	J.McClinton	Updated additional Smokex Fan	Released
F	11-10-13	N.Pereira	W.Reddy	J.McClinton	Technical Data amended	Released
G	15-11-13	N.Pereira	W.Reddy	J.McClinton	Revised per Eskom Comment	Released
H	01-03-14	N.Pereira	W.Reddy	J.McClinton	Revised per Eskom Comment	Released
J	20-04-15	N.Pereira	W.Reddy	D.Crosthwaite	Voltage corrected	Released

Cross checked

Department		Name		Date		Signature	
Main Contractor							
Scale N/A							
Unit 16		Discipline M		KKS SAT20AN015 & AN028 - 030		ESKOM Document ID 200-75813	
Replaces				ALSTOM Document Code MDI/16/M/SAT-- --S01/DS/020			
Responsible dept. SQM		Created by N.Pereira		Checked by W.Reddy		Approved by D.Crosthwaite	
						Format A4	
Originator		Document Type		Status			
Actom – Mechanical equipment		Fan & Motor Data Sheet		Electronically Released			
		Title, Subtitle, Project		Identification number			
		TURBINE HALL – ROOF FANS SMOKEK		MDI/16/M/SAT-- --S01/DS/020			
		"Medupi Power Plant Project"		Rev. J	Date 20-04-2015	Lang. En	Sheet 1/4

Date: : 06/04/2011
Fan Code : DVA100JM/25/4/6/22HT
Item Reference: : RU1 – SAT20AN015 &
SAT20AN028 - 030

Air Density	1.037 kg/m³/ 20 °C/ 0 m/ 50% RH
Smoke Venting	Smoke Venting - 300°C for 2 Hours



	Sound Spectrum (Hz)								Overall	
	63	125	250	500	1k	2k	4k	8k	Lw*	LpA @ 3 m**
Inlet*	100	97	96	95	95	94	91	87	105	80
Outlet*	101	97	96	95	95	95	91	89	105	80
Breakout*	91	74	68	68	68	66	70	66	91	55

* Lw dB re 10⁻¹² W ** dBA re 2x10⁻⁵ Pa

Fläkt Woods Acoustic Evaluation

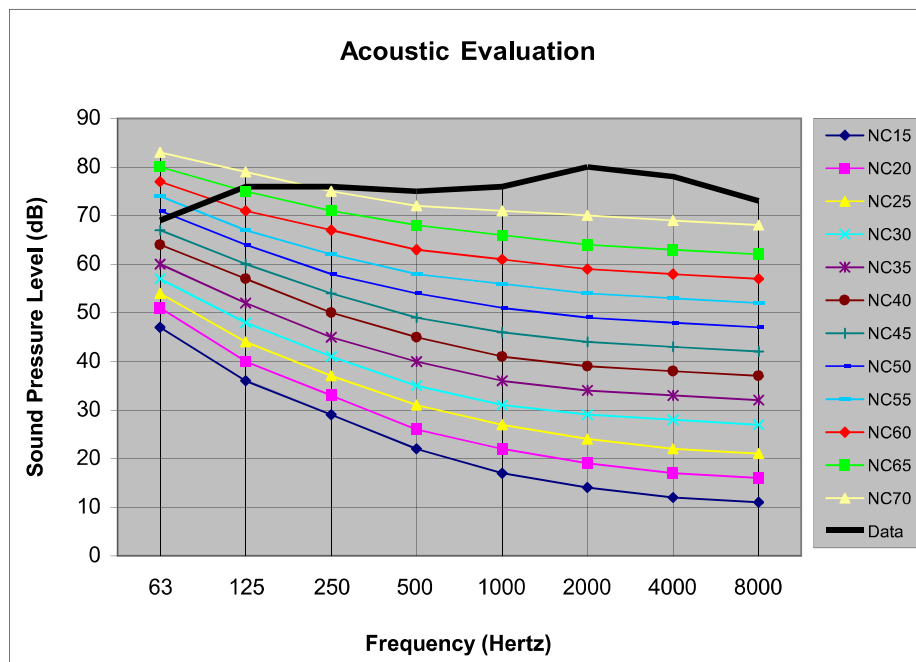


COMPANY : Alstom Power
PROJECT : Medupi Turbine Hall
DISTANCE : 1 meter

FREQUENCY (Hz)	63	125	250	500	1K	2K	4K	8K	SPL's ADDED
RU1 - SAA20AN028 - 030									
DVA100JM/25/4/6/22 7.5kW	100	97	96	96	95	94	91	87	105 dB
Silencer 1.0D with Pod	-5	-5	-11	-18	-19	-15	-14	-13	
RESULTANT:	95	92	85	78	76	79	77	74	97 dB
A weighting	-26	-16	-9	-3	0	1	1	-1	
RESULTANT	69	76	76	75	76	80	78	73	85 dBA (LwA)
DISTANCE:	-11	-11	-11	-11	-11	-11	-11	-11	
RESULTANT	58	65	65	64	65	69	67	62	74 dBA (LpA) at 1 metre

Note : Estimate is based on free field conditions.

(FOR 1 FAN)



Originator	Identification Number	REV	Date	Lang	Page 3 of 4
Actom Mechanical/APC	MDI/16/M/SAT---S01/DS/020	K		-	

ENERGY		DATA SHEET					
Power Plants		LV MOTOR					
		Project : Medupi Turbine Hall Unit : 1 - 6					
1	CLIENT: Eskom					FUNCTIONAL CODE	
2	QUANTITY: 4 SMOKE						
3	MOTOR DESIGNATION: PAD25030				MANUFACTURER		Mfr's REFERENCE
4	DRIVEN MACHINE: AXIAL FAN – SAT20AN015 & SAT20AN028 TO AN030				WEG		
5	POWER SUPPLY NETWORK				CONSTRUCTION		
6	Type	: alternating - 3 phase			Rotor	: Die Cast aluminium	
7	Voltage between phases / variation	: 400V ± 10%			Stator winding	: Copper	
8	Frequency / variation	: 50Hz ± 2.5			- class of insulation	: H	
9	Neutral	: isolated / grounded			- winding impregnation	: Continuous Resin Flow	
10					temperature rise	: 80K	
11	ENVIRONMENT				Type construction	: B ... or V.....	
12	Installation area: non explosive –occasionally explosive				Frame	: 132M	
13	Nature of service ambient conditions : dry				Coupling type	: Direct	
14	Atmosphere : Dusty				Bearings		
15	Max - min - normal air temperature : 300°C/2hrs or 40 cont/-20/20				- on Drive End	: 6308-ZC3	
16	Relative maximum humidity : N/A				- on Non-Drive End	: 6207-ZC3	
17	Altitude : 1000m.a.s.l				- lubrication type	: GREASE: Polyrex EM	
18	Particular risks : N/A				DE		
19	Seismicity : N/A				- grease or oil flow or quantity per bearing : 10.4g / 6.1g		
20					grease or oil viscosity : N/A		
21	MOTOR CHARACTERISTICS				- oil inlet/outlet temperature : N/A		
22	Motor type : asynchronous				- grease or oil change every : 18594hrs		
23	Location : inside/outside						
24	Arrangement : horizontal/vertical				Cooling		
25	Rated voltage : 400V				- type	: TEAO	
26	Rated frequency : 50Hz				- ventilating air flow	: N/A	
27	Rated output : 7.5kW				- cooling water pressure	: N/A	
28	Synchronous speed : 1500rpm				- cooling water flow	: N/A	
29	Slip (4/4 load) : 2.33%				- water inlet/outlet temp rise	: N/A	
30	Rated current : 14.6A				- water inlet/outlet head losses	: N/A	
31	Starting current Id/In : 8.0PU				PAINTING: RAL 7032 : Modified Phenolic Resin		
32	Rated torque : 48.92 Nm						
33	Starting torque Cd/Cn : 2.3 PU				MATERIALS		
34	Max. torque Cmax/Cn : 2.3 PU					Standard	Grade
35	No load current : 5.6A				Stator winding	: Copper	Gen III
36		2/4	3/4	4/4	Stator bars	: Aluminium	N/A
37	Efficiency %	87.0	88.6	88.4	Frame	: Cast Iron	FC200
38	Power factor	0.75	0.84	0.88	Shaft	: Steel	AISI
39	Cyclic duration factor :				Insulation	: Class H	NMN
40	Motor inertia : 0.05298kg/m²				Impregnation	: RESIN	Epoxy
41	Starting time : 0.99sec				Terminal box	: Cast Iron	FC200
42	Number of successive startings : 3p/hour cold, 2p/hr hot				Rotor laminations	: Steel	Electrical
43	Max. permissible amplitudes of vibrations				Stator laminations	: Steel	Electrical
44	Noise level 1 m from the motor surface : Pressure 60dB(A)						
45	Protection class : IP55				WEIGHTS AND OVERALL DIMENSIONS		
46	Rotation viewed from coupling end : Bi-Directional				Axis height	: 145mm	
47	Clockwise/anticlockwise				Height	: 290mm	
48	Stator winding coupling : Star				Length	: 432mm	
49					Width	: 290mm	
50	Applicable standards				Shaft end diameter	: 38mm	
51	- design	: IEC60034			Net weight	: 62.8kg	
52	- construction	: IEC60034			Volume	: TBA	
53	- tests	: IEC60034					
Issue		REV I					
Date		20-04-2015					

Originator	Identification Number	REV	Date	Lang	Page 4 of 4
Actom Mechanical/APC	MDI/16/M/SAT---S01/DS/020	J	20-04-2015	EN	