



PETROCHEMICAL INDUSTRIES
DESIGN & ENGINEERING CO.

PROJ. NO. : 1205



DENA METHANOL PLANT

شرکت صنایع پتروشیمی دنا
Dena Petrochemical Industries Co.

COVER SHEET

OWNER :

SABALAN PETROCHEMICAL INDUSTRIES CO.

PROJ. NO. : 89/S-G/102

DATA SHEET

For

FRESH AIR FAN & FILTER UNIT FOR SUBSTATION

DOCUMENT NO. : 1205-00-HV-DSH-023

TOTAL PAGES : 1 (Excluding Cover & Revision Index Sheets and attachments)

Note: For relevant records of the document, reference can be made to Sabalan Methanol Project documentation.

ED		EXT		IFE		A	
Eng. Phase		Purpose Of Distribution (POD)		Purpose Of Issue (POI)		Owner's Action	
01	28.01.2017	ISSUED FOR ENGINEERING (Partially Revised)		M.Mashayekh	M.Momenaie	A.Moadeli	N.Jafarpour
00	15.10.2016	ISSUED FOR ENGINEERING		M.Mashayekh	M.Momenaie	A.Moadeli	N.Jafarpour
Rev.	Date	Description		Prepared by	Checked by	Approved by	Project



Data Sheet for Fresh Air Fan & Filter Unit for Substation

Doc. No.: 1205-00-HV-DSH-023

Rev. : 01

OWNER :

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	PETROCHEMICAL INDUSTRIES DESIGN & ENGINEERING CO.		DENA METHANOL PLANT			OWNER :
			Data Sheet for Fresh Air Fan & Filter Unit for Substation			SABALAN PETROCHEMICAL INDUSTRIES CO.
	PROJ. NO. : 1205		Doc. No.: 1205-00-HV-DSH-023	Rev. : 01		PROJ. NO. : 89/S-G/102

NO.	GENERAL								
1	Tag No.	FTU-0031 A/B			01				
2	Manufacturer	*				Duty	Permanent		
3	Quantity (Working + Standby)	1+1				Operating Weight	Kg	*	
4	Service Building	SUBSTATION				Installation	Outdoor		
5	Service Equipment	PAHU-0030 A/B				Overall Size	l x w x h	m x m x m	*
6	SITE CONDITION								
7	Location / Latitude	Assaluyeh / 28.5° N				Altitude	m	34	
8	Ambient Air Temperature	Max / Min °F	118.4 / 41				Wet Bulb Temp	°F	91.4
9	OPERATING CONDITIONS								
10	Gas Composition	Air				Air Flow Rate (Normal / Rated)	cfm	1725 / 1900	
11	Molecular Weight	29				Internal Pressure Drop	in.w.g	*	
12	Relative Humidity at Suction	Max	%	65			External Pressure Drop	in.w.g	0.16
13	Suc. Temp.	Max / Min °F	118.4 / 41				Differential Pressure	in.w.g	* + 0.16 Note 4
14	FAN SECTION					FAN MOTOR DATA			
15	No. of Required Units	1				Each Unit Motor Qty.	*		
16	Each Unit Fan Qty.	*				Make/Origin	* / *		
17	Make/Origin	* / *				Model No.	*		
18	Model No.	*				Each Motor Input Power	Kw	*	
19	Fan Diameter	m	*				Speed	rpm	*
20	Speed	rpm	*				Insulation Class / Temperature Rise	* / *	
21	Material	Casing	C.S.				Power Supply (each)	V/Ph/Hz	400 / 3 / 50
22		Impeller	Hot Deep Galv. Steel				Degree Of Protection	IP 55 Motor, IPW 55 Term. Box	
23		Shaft	C.S.				System Full Load Cur. / Power Factor	A / %	* / *
24	Fan Efficiency	%	*				Hazardous Classification	Unclassified	
25	CASING								
26	Frame	Material	*				Casing Finishing	As Project Panting Spec.	
27		Profile & Size	*				Access Door Required	Yes	
28	Panel	Material	*				Duct Connection Type	Flanged Rectangular	
29		Thickness	mm	*				Air In / Out Duct Connection Size	* / *
30	Base	Material	*				Damper Required	Note 2	
31		Profile & Size	*				Vibration Isolator	Required	
32	SAND TRAP LOUVER								
33	Material	*				Face Velocity	fpm	*	
34	Efficiency	%	90 (Note 3)				Max Press. Drop	in.w.g	*
35	Air In / Out Duct Connection Type	Flanged Rectangular				Air In Duct Connection Size	*		
36	PRE-FILTER					MAIN FILTER			
37	Type / Material	Aluminum Washable Filter				Type / Material / Thick.	mm	Pleated / * / *	
38	Thickness	mm	*				Thickness	mm	*
39	Face Velocity	fpm	*				Face Velocity	fpm	*
40	Max. Press. Drop / Location	in.w.g	*/ After Sand Trap Louver				Max. Press. Drop / Location	in.w.g	* / After Pre-filter
41	Test Method	Gravimetric Method Of ASHRAE Std. 52.1				Test Method	Dust Spot Method of ASHRAE Std. 52.1		
42	Efficiency	%	60				Efficiency	%	65
43	ACCESSORIES								
44	Air Flow Switch / Model No.	Required / *				Make / Origin	* / *		
45	LOCAL CONTROL STATION								
46	Required	No				Installation Location	-		
47	On / Off / Trip Indicating Lights	-				Degree Of Protection	-		
48	Start/Stop Push Buttons	-				Hazardous Classification	-		
49	Miscellaneous Requirements	-				Mounting	-		
50	ACOUSTIC DATA								
51	Hz	63	125	250	500	1000	2000	4000	8000
52	Db	*	*	*	*	*	*	*	*

REMARKS:

- * To be filled by vendor.
- Inlet : Motorized Block Damper & Outlet : Flange Volume Damper
- 90% efficiency for particles from 150 to 170 µm at 1 m/s of face air velocity.
- The fan DP is equal to sand trap louver, metal filter, and all other filters PD, that will be specified by vendor plus a.m. external PD.
- N.A. Not Applicable.
- IPW 55 protection for junction boxes, motor terminal boxes, control stations, panel boards, and auxiliary equipment should be considered.