



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

PACKAGE AIR HANDLING UNIT FOR SUBSTATION

DOCUMENT NO. : 1205-00-HV-DSH-020

TOTAL PAGES : 2 (Excluding Cover & Revision Index Sheets and attachments)

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

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Eng. Phase		Purpose Of Distribution (POD)		Purpose Of Issue (POI)		Owner's Action
00	15.10.2016	ISSUED FOR ENGINEERING		M.Mashayekh	M.Momenaie	A.Moadeli
Rev.	Date	Description		Prepared by	Checked by	Approved by
						Project



Data Sheet for Package Air Handling Unit for Substation

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	Data Sheet for Package Air Handling Unit for Substation		PROJ. NO. : 89/S-G/102
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NO.	GENERAL				
1	Tag No. PAHU-0030 A/B				
2	Quantity (Working + Standby) 1+1				
3	Service Building SUBSTATION				
4	Manufacturer / Model * / *				
5	Overall Size	l x w x h	m x m x m	*	
6	Operating Weight	Kg		*	
7	Installation / Type Outdoor / Horizontal				
8					
9	DESIGN DATA			SITE CONDITION	
10	Winter Room Temperature	°F	73.4	Location / Latitude	Assaluyeh / 28.5° N
11	Relative Humidity	%	50±5	Altitude	m 34
12	Summer Room Temperature	°F	77	Summer Design Temp.	D / W °F 118.4 / 91.4
13	Relative Humidity	%	50±5	Winter Design Temp.	D / W °F 41 / 41
14					
15	COMPRESSOR SECTION			COMPRESSOR MOTOR DATA	
16	Type	* Semi Hermetic		Qty.	*
17	No. of Compressor	* 2		Mfg. / Model No.	* / *
18	Make / Origin	* / *		Input Power (each)	Kw *
19	Model No.	*		Speed	rpm *
20	No. of Stage(s)	*		Insulation Class / Temperature Rise	* / *
21	Compressor Speed	rpm	*	Power Supply	V/Ph/Hz 400 / 3 / 50
22	Minimum of Capacity Control Steps	3		Degree of Protection	IPW 54
23	Refrigerant Charge	lb	*	System Full Load Current	*
24	Octave Bands/Noise Data	dB	*	System Power Factor	*
25	Vibration Isolator	Required		Hazardous Classification	Unclassified
26				Motor Efficiency	% *
27	COOLING SECTION DATA				
28	Type			Evaporating Temperature	°F *
29	Coil / Fin / Frame Material	Copper / Al. / *		Fresh Air Quantity	cfm 1642
30	Total Cooling Capacity (Actual)	MBH	635.8	Control	Required
31	Total Sensible Cooling Cap. (Actual)	MBH	554.5	Bypass Factor	*
32	Air Flow Rate	cfm	25265	Fins / Tubes Coating Material	* Blygold or Heresite
33	Face Velocity	fpm	*	Refrigerant	R134a
34	Fins Per Inch	*		Pressure Drop	in.w.g *
35	Face Area	ft²	*	Number of Circuits	*
36	Coil Entering Air Temperature D / W	°F / °F	94.3 / 77.3	Number of Rows	*
37	Coil Leaving Air Temperature D / W	°F / °F	72.0 / 70.3	Tubes Diameter	*
38					
39	FAN SECTION			FAN MOTOR DATA	
40	Type	Centrifugal		Qty.	*
41	No. of Fan	*		Make / Origin	* / *
42	Make / Origin	* / *		Model	*
43	Model	*		Input Power	Kw *
44	Total Air Flow Rate	cfm	25265	Speed	rpm *
45	Static Pressure (Int. + Ext.)	in.w.g	* + 1.65	Insulation Class / Temperature Rise	* / *
46	Fan Speed / Tip Speed	rpm / fpm	* / *	Power Supply (each)	V/Ph/Hz 400 / 3 / 50
47	Fan Efficiency	%	*	Degree Of Protect	IP 55
48	Fan Shaft Power	Kw	*	System Full Load Current	*
49	Type of drive	Belt drive		System Power Factor	*
50	Belt guard	Required		Hazardous Classification	Unclassified
51	Vibration isolation	Required		Motor Efficiency	% *
52	Fan Discharge	Top		Terminal Box Degree Of Protection	IPW 55
53	Material	Casing	*		
54		Impeller	*		
55		Shaft	*		
56					
57					
58					

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NO.	CASING											
59	Frame	Mat.	*			Insulation Material / Thickness		mm	* / *			
60		Prof. & Size	mm	*			Supply Air Position / Dimension		mm	Top / *		
61	Panel	Double Skin	*			Return Air Position / Dimension		mm	Top / *			
62		Mat.	*			Fresh Air Position / Dimension		mm	End / *			
63		Prof. & Size	mm	*			Supply Air Damper Type		Motorized Block Damper			
64	Base	Mat.	*			Return Air Damper Type		Motorized Block Damper				
65		Prof. & Size	mm	*			Fresh Air Damper Type		Flanged Al. Volume Damper			
66	Finishing	As Project Painting Spec.										
67	HEATING SECTION DATA											
68	Type	Electrical				Fins Per Inch		*				
69	Coil / Fin / Frame Material		* / * / *			Coil Entering Air D.B.Temperature		°F	69.4			
70	Total Heating Capacity		Btu/hr	53754			Coil Leaving Air D.B.Temperature		°F	110		
71	Electrical Heater Qty. / Rating		Kw	* / *			No. of Rows		*			
72	Air Flow Rate / Fresh Air Quantity		cfm	25265 / 1642			Control / No. of Stage		Required / *			
73	Face Velocity		fpm	*			Make / Origin		* / *			
74	Face Area		ft²	*			Model		*			
75	Pressure Drop		in.w.g	*								
76												
77	THERMOSTAT					FILTER SECTION						
78	Location		On Return Duct			PREFILTER	Type / Thick.		in.w.g	Washable (AL) / 50		
79	Quantity		2 (For Summer & Winter)				Max. Press. Drop		in.w.g	*		
80	Other accessories		*				Efficiency		60% by grvm. Meth. Of ASHRAE Std. 52.1			
81	Make / Origin		* / *				Location		In Mixing Box			
82	Model		*				Face Velocity		fpm	*		
83	Degree Of Protection		IP 65				Flow Rate		cfm	25265		
84												
85												
86	HUMIDIFIER					MAIN FILTER 1	Type / Material / Thick.		in	Pleated / * / *		
87	Type		N.A.				Max. Press. Drop		in.w.g	*		
88	Water Flow Rate		Max.	lb/hr	N.A.		Efficiency		65% by dust spot method (EU 6)			
89	Connection Size		in	N.A.			Location		After Pre-filter			
90	Control Humidistat		N.A.				Face Velocity		fpm	*		
91	Make / Origin		N.A.			MAIN FILTER 2	Type / Thick.		in	N.A.		
92	Model		N.A.				Max. Press. Drop		in.w.g	-		
93							Efficiency		-			
94							Location		-			
95							Face Velocity		fpm	-		
96							Flow Rate		cfm	-		
97	ACCESSORIES											
98			REQUIRED	MAKE	ORIGIN	MODEL NO.	MORE DESCRIPTION					
99	Drift Eliminator		Yes	*	*	*	*					
100	Refrigerant Filters		Yes	*	*	*	*					
101	Safety / Control / Monitoring Devices Such as:											
102	Oil Differential Pressure Switches		Yes / IP 65	*	*	*	*					
103	High / Low Pressure Switches		Yes / IP 65	*	*	*	*					
104	Air Pressure Switch		Yes / IP 65	*	*	*	*					
105	High Pressure Indicator		Yes	*	*	*	*					
106	Oil Pressure Indicator		Yes	*	*	*	*					
107	Suction Pressure indicator		Yes	*	*	*	*					
108	ACOUSTIC DATA											
109	Hz	63	125	250	500	1000	2000	4000	8000			
110	Db	*	*	*	*	*	*	*	*			
111												

REMARKS:

- * To be filled by vendor.
- N.A. Not Applicable.
- IPW 55 protection for junction boxes, motor terminal boxes, control stations, panel boards, and auxiliary equipment should be considered.