TECHNICAL DATA

Date	28/10/2015	**Rev. Date**	28/10/2015
Project No	2210	**Proj.Trace No**	
Project Name	SWAN PROJECT		
AHU Name	AHU-01	AHUSEL V.	2.2.3.9
AHU Model	TKS 12X16	Page	4/6

TEKNOGEN® SIMPLY THE BEST HVAC SOLUTIONS SYSTEMS

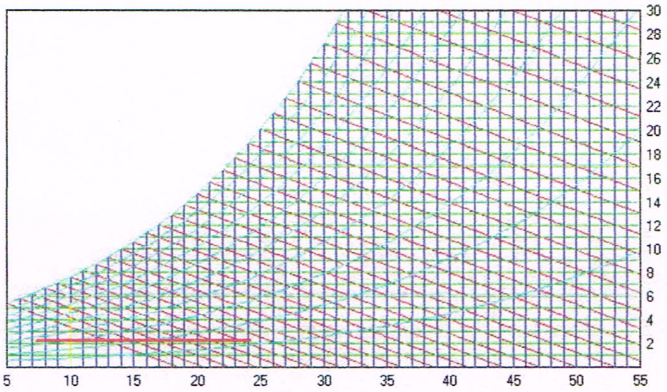
COIL (Heating) (M9)

Airflow	Capacity	Sensible Cap.Ratio	Face Vel.	Quantity	Connection Size	Tube Mat.	Fin Mat.	Section Weigh
36,000 m³/h	213.67 kW	100.00 %	2.50 m/s	1	48.3 mm	Copper	Aluminium	172 kg

Coil Code
Friterm-32 x 28 12 56T 1R 2250A 2.1P 28NC-Right

Droplet Elimin. / Press. Drop	Condensation Pan

Fluid Type	Fluid In / Out
Water	80/60 °C
External Air Drybulb Temperat	**Internal Air Drybulb Temperat**
7.27 °C	
External Air Wetbulb Temperat	**Internal Air Wetbulb Temperat**
1.99 °C	
External Air Relative Humidity	**Internal Air Relative Humidity**
35.44 %	
Air Inlet Drybulb Temperature	**Air Outlet Drybulb Temperatur**
7.27 °C	24.19 °C
Air Inlet Wetbulb Temperatur	**Air Outlet Wetbulb Temperatu**
1.99 °C	10.42 °C
Air Inlet Relative Humidity	**Air Outlet Relative Humidity**
35.44 %	11.98 %
Air Inlet - Outlet Enthalpy	**Fluid Flow Rate**
12.91 - 30.01 kj/kg	9,164 kg/h
Air Side Press. Drop	**Fluid Side Press. Drop**
17 Pa	16.94 kPa



Fresh Air Percentage	Return Air Percentage
100 %	%

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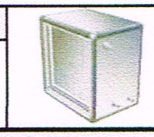


PLATE TYPE HEAT RECOVERY (M1)

Model	Quantity	Section Weight
Heatex-HA1000-2428-105-2EOO-2-2-0-2428	1	830 kg

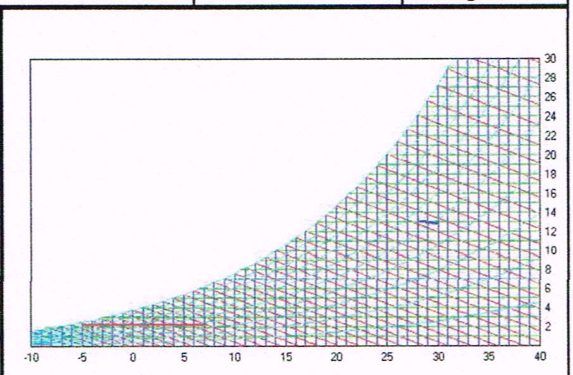
	Fresh Air	Exhaust
Airflow	36,000 m³/h	36,000 m³/h
Air Vel.	4.05 m/s	4.46 m/s
Efficienc	Summer	Winter
	45.68 %	45.44 %

Capacity	Summer	Winter
	23.50 kW	157.70 kW

Pressure Drop (Pa)	Fresh Air		Exhaust	
	Sum	Winte	Sum	Winte
	278	278	285	285

Air Inlet / Outlet		Summer				Winter			
		Fresh Air		Exhaust		Fresh Air		Exhaust	
		Inlet	Outlet	Inlet	Outlet	Inlet	Outlet	Inlet	Outlet
	DT	30.00	28.17	26.00	27.83	-5.00	7.27	22.00	9.73
	WT	21.63	21.29	18.71	19.44	-5.44	1.99	15.43	9.73
	RH	48.00	54.53	50.00	45.67	90.00	35.44	50.00	100.00

Condensation Pan	By Pass Damper



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Designer:

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FILTER (M3)

Filter Type	Initial / Final / Design P.Drop	Air Velocity	Size / Quantity	Size / Quantity	Size / Quantity	Section Weight
G-4	71 Pa / 160 Pa / 115 Pa	2.38 m/s	592x592x48/12			138 kg
Filter Type	**Initial / Final / Design P.Drop**	**Air Velocity**	**Size / Quantity**	**Size / Quantity**	**Size / Quantity**	**Spare Filter**
						☐

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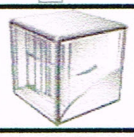


EMPTY SECTION (M5)

Airflow	Pressure Drop	Section Weight
36,000 m³/h	0 Pa	319 kg

ACCESSORIES



EMPTY SECTION (M4)

Airflow	Pressure Drop	Section Weight
36,000 m³/h	0 Pa	292 kg

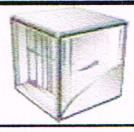
ACCESSORIES



FILTER (M2)

Filter Type	Initial / Final / Design P.Drop	Air Velocity	Size / Quantity	Size / Quantity	Size / Quantity	Section Weight
G-4	71 Pa / 160 Pa / 115 Pa	2.38 m/s	592x592x48/12			138 kg
Filter Type	**Initial / Final / Design P.Drop**	**Air Velocity**	**Size / Quantity**	**Size / Quantity**	**Size / Quantity**	**Spare Filter**
						☐

ACCESSORIES



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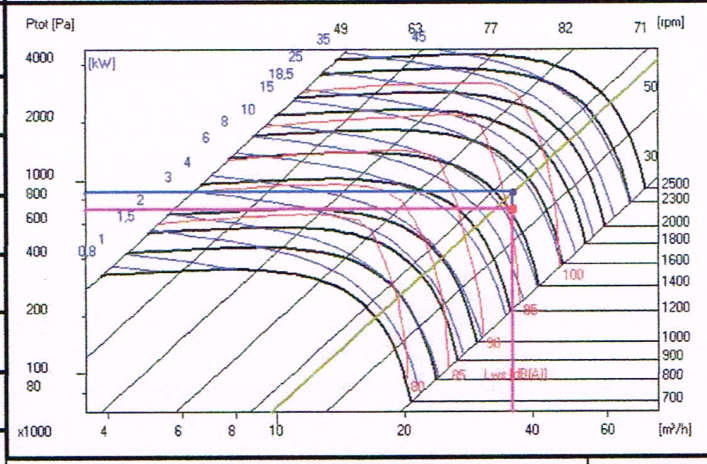
AHU Model	TKS 12X16				

EXHAUST FAN (M8)

Airflow	**Motor Type**	**Fan Model**	**Section Weight**
36,000 m³/h	GM 160 L-4	NICOTRA-RDH 630 R	751 kg

Internal Static Pressure	**Motor Power/Volt./Freq.**
410 Pa	15.00 kW/380 V/50 Hz
External Static Pressure	**Motor Speed**
300 Pa	1500 rpm
Total Static Pressure	**Fan Pulley**
710 Pa	SPB 180x2+2012 Ø40
Total Pressure	**Motor Pulley**
866 Pa	SPB 180x2+2012 Ø42
Total Efficiency	**Belt**
65.62 %	2xSPB 2200 mm
Shaft Power	☐ Frequency Inverter
13.21 kW	
Absorbed Power	**Absorbed Pow.With VFD**
16.39 kW	17.38 kW
Fan Speed	**Running Frequency**
1473 rpm	50 HZ
Fan Outlet Air Velocity	
15.59 m/s	



Sound Power Level (dB)								**LwA-tot**	
Hz	**125**	**250**	**500**	**1000**	**2000**	**4000**	**8000**		
SPLa - Inlet Side	93.2	98.2	94.6	89.3	85.8	80.4	75.2	96.0	**dBA**
SPLm - Outlet Side	100.7	99.9	97.6	94.5	88.4	83.2	77.3	99.4	**dBA**

Energy Efficiency Class E

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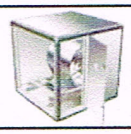

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