Heatstar Energy Technology Systems

ADVANCED SWIMMING POOL CLIMATE CONTROL SYSTEMS

35 YEARS OF INNOVATION AND EXCELLENCE

PROJECT ANALYSIS SUMMARY

Contact:		T	F
Company:			
Project Title / Ref:			

Selection : Phoenix 4000 Super Plus GSHP

Description :

Packaged Total Environmental Control unit purpose designed for indoor pool application
Hybrid system utilising both dehumidifying heat pump & heat recuperator
Single speed direct drive, forward curved, format air fan
Full rate fresh air ventilation capability
Complete heating of hall air and pool water via integral heat emitters
Plant room located - central ventilation principle with air ducting channels

Provisions :	✓	Ground source heat pump boiler temperatures compensated
Humidity control	✓	By Dehumidifying Heat Pump AND ventilation with fresh air
Energy recycling	✓	Back to room air & pool water via Dehumidifying Heat Pump
Heat recovery	✓	From expelled room air using 'Cross Flow' heat recuperator (permanent)
Room Air heating	✓	By integral multi-row LTHW heating coil
Pool Water heating	✓	By integral LTHW high capacity shell & tube heat exchanger coil
Fresh air ventilation	✓	Dilution provision & Full rate capability
Room Air cooling	✓	Dissipation of heat via induction of cooler fresh air (subject to temperature)
Controls package	✓	Digital Electronic
Ducting required	✓	Pool air intake, pool air supply, fresh air intake, exhaust air to outside

Design Criteria:

Pool Hall Air temperature:	30	°C
Pool water surface area:	83	m²
Pool water temperature:	29	°C
Uncovered Hrs. Norm/Max:	24 / 24	
No spa included		
Pool Hall Space Volume:	851	m³
Min. ambient temperature:	-1	°C
Hall structural heat loss:	13.5	kW
Fresh air heat loss:	2.4	kW
Water heat loss:	10.0	kW

Performance data:

Dehum via heatpump :		11.4 Kg/Hr.
Recirculation Air Flow :		6500 M³/Hr.
Exhaust/Fresh Air Flow:		2000 M³/Hr.
Air heating coil :	(LTHW)	27 kW
Pool Heat Exchanger :	(LTHW)	51 kW
Total required LTHW duty :		52 kW
Min. Flow Temperature :		55 °C
Electrical supply options :		
Single phase 230v 50Hz :		Not available
Three phase 400v 50Hz :		27 Amps/Ph

Annual Energy use analysis:

Probable Heat & Vent cost:	£
Source of heat energy:	Ground source Heat Pump
Energy consumption kWh:	
kG CO²:	

Building regulation compliance :

	Actual:	L2B Status:
Classification of project for regulations :		
L2B Existing building - non-domestic		
Dry heat extraction from expelled air >50%:	47	Fail
Variable speed fan drive included ? :	No	Fail

EX WORKS PRICE : £ 24,101

DELIVERY COST : £279

AVAILABILITY : Normally 4-6 weeks from Confirmation of Order & Final Specification

Payment terms : To be confirmed with AstralPool UK Ltd. A deposit may be required.
Prices include all discounts, are net ex works, and are subject to VAT at applicable rates.
This quotation is subject to the terms and conditions of sale of AstralPool UK Ltd and is valid for 90 days.
Delivery cost excludes carriage via Hi-ab or timed deliveries and is subject to confirmation at time of order.
Performance ratings are nominal. Annual energy use analysis is indication only and not intended to be binding. E&OE

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