

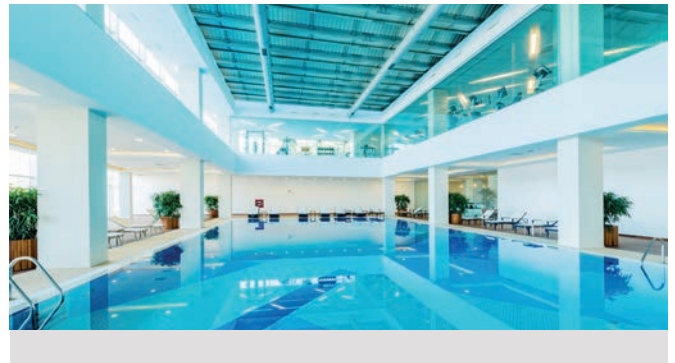


## POOL AIR HANDLING UNITS

# DEHUMIDIFICATION WITH HEAT RECOVERY



**DELTA 4**



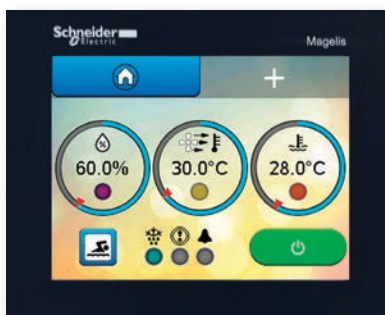
### Features

- Dynamic heat pump heat recovery to pool and air
- Self-regulating fresh air control with heat recovery
- Automatic control of exhaust air volume to match pool usage
- Free-cooling (Delta 1-2)
- Free-cooling and heat pump air cooling (Delta 4-16)
- Integral LPHW heat exchangers for pool and air
- Speed controllable EC/inverter fans in all models
- PLC control with 5.7" touchscreen user interface
- Remote monitoring/control

### Remote monitoring/control

As standard the following remote connectivity is available:

- Screen mirroring to Android/iOS mobile devices using third-party app
- Screen mirroring to web browser with ActiveX
- BMS interfaces for Modbus, BACnet IP and BACnet MS/TP
- Wired remote control interfaces



**DELTA TOUCHSCREEN**

### Applications

- Health clubs and wellness centres
- Holiday parks and campsites
- Hotel and spa pools
- Leisure centres
- Water parks

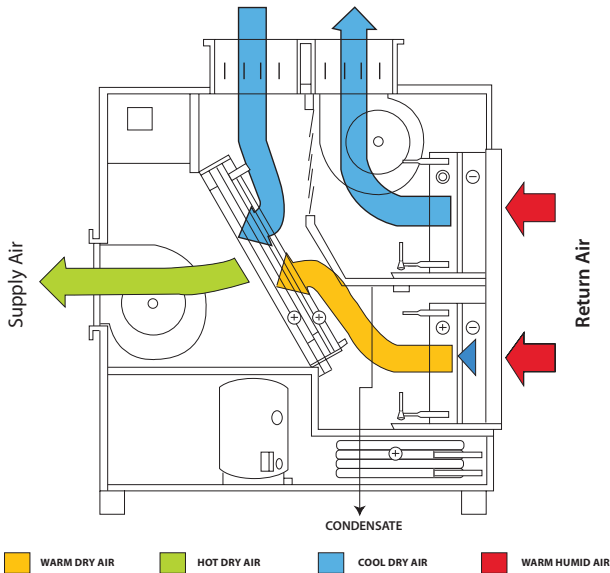


# POOL AIR HANDLING UNITS

## DEHUMIDIFICATION WITH HEAT RECOVERY

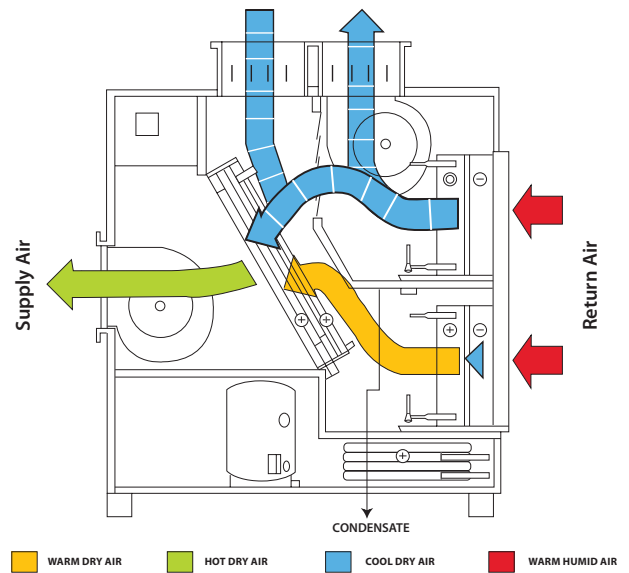
### How the air flows through the Delta

#### Full dehumidification and heat recovery



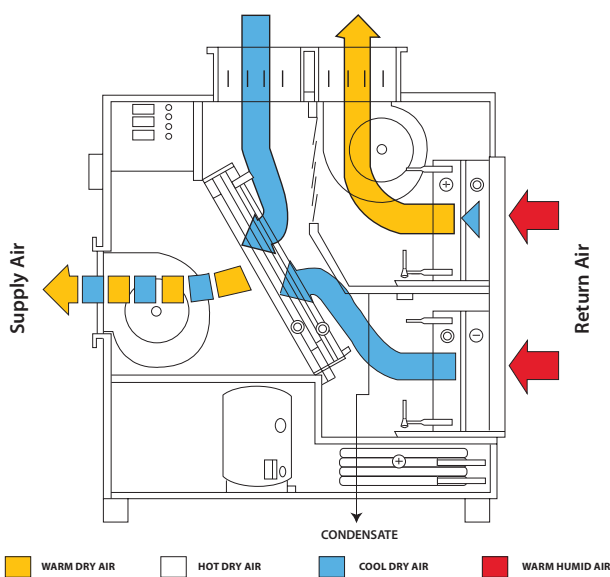
Delta operating on maximum dehumidification of pool air with full heat recovery to pool water and air. Available energy is removed from exhaust air stream. Supplementary heat, if required, supplied by LPHW (water or air).

#### Light dehumidification and heat recovery



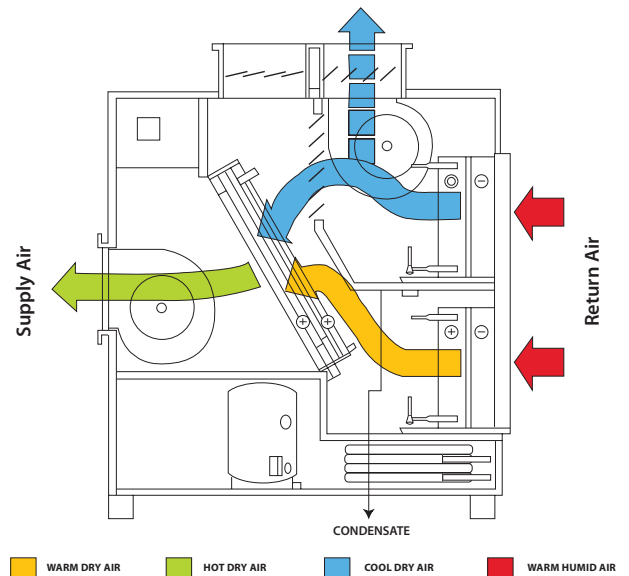
Delta operating on light dehumidification with full heat recovery and reduced fresh air stream – control system automatically selects correct operating mode and damper position. LPHW heat available when required.

#### Air-conditioning



Delta models 4 and above provide an air conditioning facility to minimise the effects of solar gain from larger glazed areas or very high usage. Automatic damper and mode control.

#### Night set back



Air temperature set back control is incorporated as standard in all Delta units and controlled by a time clock. Pool hall air is dropped to a lower temperature for maximum economy. Air recirculation is maintained, dampers allow low fresh air flow.

## POOL AIR HANDLING UNITS

# DEHUMIDIFICATION WITH HEAT RECOVERY

Specifications	Units	DT 1	DT 2	DT 4	DT 6	DT 8	DT 10	DT 12	DT 14	DT 16
Nominal recirculation air flow	m <sup>3</sup> /h	2500	2600	3000	4000	5000	6000	7000	10000	12000
Exhaust/fresh air flow (stepped control)	m <sup>3</sup> /h	120-1200	130-1300	150-1500	200-2000	250-2500	300-3000	350-3500	670-6700	850-8000
Total dehumidification @ 28°C/60% RH by heat pump and maximum fresh air	l/h	9.8	10.9	12.5	16.6	20.8	25.0	29.2	56.5	62.4
<b>Heat to air</b>										
Via heat pump (Mode B)	kW	3.8	4.9	5.1	6.6	8.0	10.0	12.1	30.0	35.0
Via standard LPHW @ 80°C	kW	20	22	25	30	35	38	42	85	90
Via upgraded LPHW @ 55°C	kW	17	19	21	26	30	32	36	72	77
Total Mode B + standard LPHW	kW	23.8	26.9	30.1	36.6	43.0	48.0	54.1	115.0	125.0
<b>Heat to pool water</b>										
Via heat pump (Mode A)	kW	4.0	5.5	5.8	8.0	10.0	12.5	15.0	35.0	43.0
Via LPHW @ 80°C	kW	23	23	33	33	33	40	40	65	65
Via LPHW @ 55°C	kW	11	11	16	16	16	20	20	32	32
Total Mode A + LPHW	kW	27.0	28.5	38.8	41.0	43.0	52.5	55.0	100.0	108.0
<b>Cooling duty</b>										
Total	kW	0	0	-4.2	-5.5	-6.7	-8.4	-10.1	-23.0	-28.0
Sensible	kW	0	0	-2.9	-3.9	-4.7	-5.9	-7.1	-13.0	-15.0
Nominal power consumed	kW	2.6	2.9	2.9	3.4	4.4	5.9	7.4	12.3	17.0
Width	mm	1740	1740	1840	1840	1840	1840	1840	2860	2860
Depth	mm	654	654	704	704	704	854	854	1126	1126
Height	mm	1685	1685	1970	1970	1970	1970	1970	2120	2120
Weight	kg	300	310	350	360	370	410	460	954	1020

### Options

- Delta 1-6 single or three phase
- Delta 8-16 three phase only
- Upgraded LPHW heat exchanger for air heating
- Left-hand or right-hand orientation (Delta 4-16)
- Top, side or bottom supply fan outlet
- Front or rear supply fan outlet (Delta 14-16)
- Rear exhaust and fresh air connections (Delta 14-16)