

# Technical data

		015	020	031	051	081	101	121	161	201	251	301	351	381	401	402	502	602	702	802
Cooling capacity (1)	Tons	1.71	2.01	3.19	4.5	7.5	9.8	11.9	13.7	15.8	18.1	21.0	23.3	28.7	32.7	29.6	34.1	39.5	48.1	57.5
Total absorbed power (1)	kW	2.38	2.65	4.28	6.14	10.0	11.5	14.4	17.7	19.7	23.2	25.7	31.2	34.3	38.9	41.4	47.8	53.6	60.1	69.9
EER (7)	-	8.62	9.12	8.96	8.83	8.94	10.22	9.97	9.32	9.68	9.35	9.85	8.95	10.07	10.08	8.59	8.56	8.85	9.62	9.88

## Compressor

Cooling circuits	N°	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2
Compressors for each circuit	N°	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2
Capacity control	%	0-100	0-100	0-100	0-100	0-100	0-100	0-100	0-100	0-50-100	0-50-100	0-50-100	0-50-100	0-50-100	0-50-100	0-25-50-75-100				

## Electrical power supply (2)

Power	V/Ph/Hz	460Y/266V/3Ph/60Hz																		
Auxiliary	V/Ph/Hz	24/1/60; 230/1/60																		

## Condensers

Condenser number	N°	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2
Ranks number	N°	2	4	2	4	4	4	5	5	4	5	5	5	4	5	3	4	5	3	4
Total frontal surface	ft²	3.33	3.33	6.78	6.78	11.8	11.8	11.8	11.8	23.2	23.2	23.2	23.2	32.2	32.2	45.2	45.2	45.2	62.4	62.4

## Axial fans

Fans number	N°	1	1	1	1	1	2	2	2	2	2	3	3	2	2	2	2	2	3	3
Total airflow	cfm	2795	2470	4530	3590	5825	9945	9415	9415	11535	11415	15625	15625	25662	24367	25895	25070	24285	43967	42378
Nominal power (each)	kW	0.45	0.45	0.76	0.76	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	2.5	2.5	2.5	2.5	2.5	2.5	2.5

## Hydraulic group

Water flow rate P3 (3)	gal/min	2.1/21.2	2.1/21.2	4.1/21.2	5.8/21.2	11.1/42.3	13.3/42.3	16.4/83.2	20.1/83.2	21.8/83.2	25.5/83.2	29.2/105.7	33.9/105.7	39.5/220.1	43.9/220.1	42.3/211.3	49.7/211.3	56.4/211.3	69.2/220.1	81.3/220.1
Available pump head pressure P3 (4)	p.s.i.	44.9/25.2	44.9/25.2	44.0/28.5	43.2/29.7	42.6/22.2	42.0/25.8	42.4/24.1	42.1/25.0	42.2/29.4	41.9/29.4	59.5/23.2	58.1/22.4	54.4/31.9	54.3/31.9	48.7/17.7	48.9/17.7	48.9/17.7	62.9/40.8	61.8/40.8
Nominal power P3	kW	0.75	0.75	0.75	0.75	0.90	0.90	1.85	1.85	1.85	1.85	2.20	2.20	4.0	4.0	4.0	4.0	4.0	5.5	5.5
Water flow rate P5 (3)	gal/min	2.1/26.4	2.1/26.4	4.1/26.4	5.8/26.4	11.1/66.1	13.3/66.1	16.4/66.1	20.1/66.1	21.8/132.1	25.5/132.1	29.2/132.1	33.9/132.1	39.5/220.1	43.9/220.1	42.3/211.3	49.7/211.3	56.4/211.3	69.2/378.6	81.3/378.6
Available pump head pressure P5 (4)	p.s.i.	85.6/44.8	85.6/44.8	84.1/50.5	82.5/49.2	86.8/50.0	86.1/56.8	84.9/56.8	83.3/57.5	72.9/20.4	72.2/20.4	71.4/20.6	70.2/19.4	84.0/56.2	83.8/56.2	79.4/39.5	78.8/39.5	78.3/39.5	70.2/43.5	70.0/43.5
Nominal power P5	kW	1.50	1.50	1.50	1.50	3.00	3.00	3.00	3.00	4.00	4.00	4.00	4.00	7.5	7.5	7.50	7.50	7.50	11.0	11.0
Tank volume	gal	15.9	15.9	30.4	30.4	37.0	67.4	67.4	67.4	92.5	92.5	92.5	92.5	108.0	108.0	132.1	132.1	132.1	179.0	179.0
Max pressure	psi	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87
Water connections	NPT	3/4"	3/4"	1"	1"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	2"	2"	2"	2"	2 1/2"	2 1/2"	2 1/2"	2 1/2"	2 1/2"	3"	3"

## Sound levels (5)

Sound power	dB (A)	82.5	81.9	82.6	83.7	83.9	85.0	84.2	85.1	87.2	87.1	88.6	88.3	91.0	93.2	92.5	92.6	92.3	92.4	93.6
Sound pressure	dB (A)	54.5	53.9	54.6	55.7	55.9	57.0	56.2	57.1	59.2	59.1	60.6	60.3	63.0	65.2	64.5	64.6	64.3	64.4	65.6

## Dimensions and installed weight (6)

Width	inch	22.0	22.0	26.0	26.0	29.9	29.9	29.9	29.9	34.1	34.1	34.1	34.1	45.3	45.3	49.4	49.4	49.4	49.2	49.2
Length	inch	49.8	49.8	51.6	51.6	73.4	73.4	73.4	73.4	88.8	88.8	88.8	88.8	109.8	109.8	129.7	129.7	129.7	139.2	139.2
Height	inch	31.4	31.4	55.1	55.1	57.0	57.0	57.0	57.0	81.3	81.3	81.3	81.3	82.3	82.3	85.0	85.0	85.0	84.7	84.7
Weight without pump	lbs	423	434	686	736	1032	1382	1398	1433	2042	2225	2260	2284	3003	3191	3646	3754	3834	4879	4923
Weight with P3	lbs	452	463	714	765	1065	1415	1446	1482	2090	2273	2346	2370	3104	3291	3750	3858	3937	4998	5043
Weight with P5	lbs	459	470	721	772	1088	1439	1455	1490	2161	2344	2379	2403	3140	3328	3821	3929	4008	5048	5092

(1) Evaporator water inlet/outlet temperature 55/45 °F, external air temperature 95 °F.

(2) Protection class IP 44 (mod. 015-020); IP 54 (mod. 031-602).

(3) Minimum and maximum water flow pump.

(4) Available head pressure at outlet unit at the minimum and maximum water flow rate.

(5) Sound power: determined on the basis of measurements taken in accordance with the standard ISO 3744. Sound pressure at 32.8 ft: average value obtained in free field on a reflective surface at a distance of 32.8 ft from the side of the condenser coils and at a height of 5.2 ft from the unit support base. Values with tolerance +/- 2 dB. The sound levels refer to operation of the unit under full load in nominal conditions.

(6) The weights of the units are referred to the configuration with axial fans.

(7) EER  $\left[ \frac{\text{Btu/h}}{\text{W}} \right]$

For the performance of the dual-frequency version in 50 Hz see data table of the TAEvo Tech standard version in 50 Hz.

The capacity correction factors in the following table should be used as a guide only, for accurate selection at conditions differing from the above the selection software should be utilised.

Evaporator $\Delta T \neq 10$ °F [*]	°F	7	9	10	12	14	16	18
Correction factor	K2	0.993	1	1.003	1.009	1.015	1.021	1.025

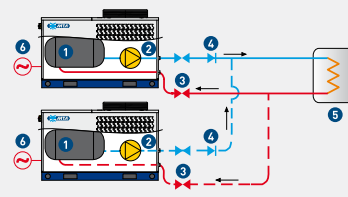
Ethylene glycol solutions	%	0	10	20	30	40	50
Correction factor - Cooling capacity	K4	1	0.99	0.98	0.97	0.96	0.93

[\*] Evaporator outlet water temperature being equal

## Typical configuration for users suitable for closed circuits

The below diagram shows a typical closed circuit lay-out. Pressurised closed circuit applications (5) always require an expansion vessel. TAEvo Tech units in standard (evaporator in tank) configurations are ideal for such applications, and offer a pressurised automatic fill kit including the expansion tank (as option). Pressurised closed circuit applications (5) can also feature TAEvo Tech units equipped with prismatic tank and plate type evaporator, with these featuring a pump and a tank kit (verify the height difference between the chiller and the user).

- 1 Accumulation tank
- 2 Pump
- 3 Valve
- 4 Non return valve
- 5 User
- 6 Expansion tank



## Typical configuration for users suitable for open circuit

The below diagram shows a typical open circuit lay-out. For atmospheric circuit applications featuring an open tank (4), the water is in contact with the ambient air, as such no expansion vessel is required. Such applications are suited to TAEvo Tech units in standard (evaporator in tank) configuration but without the tank kit and pump, given that the system typically features an external pump (2).

- 1 Accumulation tank
- 2 Pump
- 3 Valve
- 4 Open tank
- 5 User

