

# TAL29-93 Size 1 Three Phase

Industrial water chillers

## COOLING CAPACITY

2900 - 3600 - 4550 - 6000 - 8100 - 9550 W



### AIR CONDENSER

Finned high-efficiency copper tube condensing coil, complete with safety grille.

### AXIAL FAN

Axial fan, complete with thermal cut-out and safety grille.

### LIQUID CIRCUIT

Non-ferrous liquid circuit composed of centrifugal electric pump, plastic storage tank complete with visual level indicator, 0-10 bar pressure gauge, protective flow switch, regulation sensor.

### ELECTRICAL PANEL

With main disconnect switch, relay motor protection, phase sequence relays.

### MANAGEMENT AND CONTROL

The TX110 control unit manages the chiller's operation, providing warnings including high/low temperature alarms and a general serious fault alarm, with the display indicating if this refers to the refrigeration or liquid circuit. An on-off contact allows the machine to be switched on remotely (pump included). Control disconnect switch for switching on the machine.

### STRUCTURE

In powder-coated steel sheet, RAL 7035 textured finish. Easily removed panels

### COMPRESSOR

Hermetic reciprocating or scroll compressor, cooled by the refrigerant, complete with thermal cut-out.

### REFRIGERATION CIRCUIT

Complete with charging port, drier filter, capillary or thermostatic valve, high-pressure safety pressure switch, R134a refrigerant.

### EVAPORATOR

Brazed stainless-steel plate model.

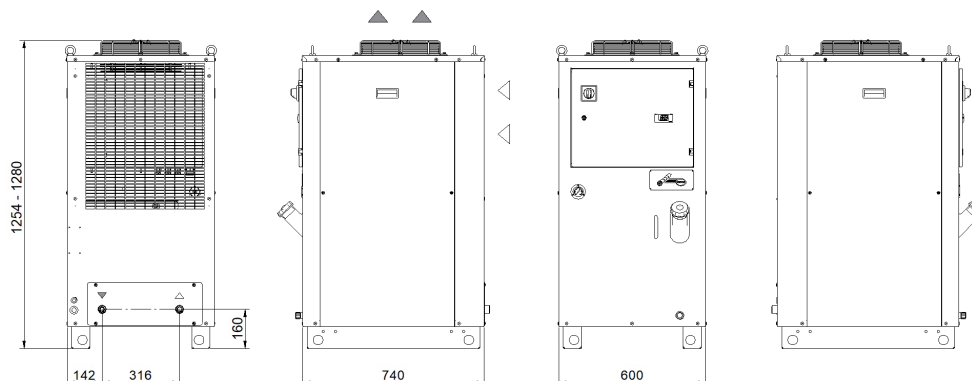
### PAINT/COATING

Standard colour: RAL 7035 textured.

### MAIN ACCESSORIES (ref. page 189)

- BA - Mechanical bypass valve protecting the pump
- LTA - Operation at low ambient temperatures
- FP - Polyurethane air filter
- RU - Castors
- TD - Differential fluid temperature management (two sensors)
- BGC - Hot gas bypass for +/- 1 K temperature precision
- BGP - Hot gas bypass for +/- 0.5 K temperature precision
- LS - Liquid circuit for laser application
- UL1 - UL certified electrical panel and components
- LTW - -10 - +5 water temperature range
- HIGH-pressure pump version "H" - 5 bar, version "R" - 7 bar.
- Outdoor installation optionals

## Dimensions



Model		TAL29	TAL37	TAL46	TAL57	TAL76	TAL93	
<b>Rated Cooling Capacity*</b>	W	2900	3600	4550	6000	8100	9550	
Ambient temperature operating limits	°C	+15 - +45						
Settable fluid temperature range	°C	+8 - +25						
Fluid type		Water						
Temperature precision	K	+/-2						
Refrigerant gas	HFC	R134a						
<b>Power supply</b>								
Supply voltage	V ph Hz	400V (+/-10%) 3ph 50Hz						
Secondary supply voltage	V	230 V AC						
Digital thermostat		TX110						
<b>Compressor</b>								
Compressor type		Reciprocating				Scroll		
Quantity - Number of circuits	no.	1/1						
Nominal power draw	kW	0.78	1.16	1.42	2.42	2.21	2.60	
<b>Axial Fan</b>								
Fan type		Axial						
Quantity	no.	1						
Air flow rate	m <sup>3</sup> /h	1550	1550	1800	1800	3150	3350	
<b>Centrifugal Fan (optional)</b>								
Fan type		Centrifugal						
Quantity	no.	1						
Air flow rate	m <sup>3</sup> /h	2100 - 2400	2100 - 2400	2100 - 2400	2100 - 2400	2100 - 2400	2100 - 2400	
Available head	Pa	250						
<b>Standard Pump</b>								
Pump type		Centrifugal						
Quantity	no.	1						
Nominal/max fluid flow rate	l/min	8 - 40	10 - 40	12.5 - 40	16 - 40	21 - 70	26 - 70	
Nominal available head	bar	3	2.9	2.8	2.7	3.1	3	
<b>High-Pressure Pump (optional)</b>								
Pump type		Centrifugal						
Quantity	no.	1						
Nominal available head	bar	5.1	4.9	4.8	4.6	5.5	5.3	
<b>Storage tank capacity</b>								
Storage tank capacity	l	50						
IN/OUT liquid connections	inch	3/4"						
Net weight (approximate)***	kg	151	153	155	160	165	170	
Width	mm	600						
Depth	mm	740						
Height	mm	1254			1280			
Sound pressure level**	dB(A)	57	57	57	57	57	57	
* Data relating to operation under the following conditions: intake/outlet temperature 20/15°C, water without glycol, ambient temperature 32°C.								
** Sound pressure level measured in a free parallelepiped field at a distance of 1 m from the machine per ISO 3746.								
*** Weight includes pallets and packaging (where provided for), with refrigerant charge, storage tank empty, axial fans.								
**** The electrical data refer to cos φ = 0.8.								
However, due to our continuous development and improvement of our products, all information is subject to change without notice.								

Correction factors for calculating the cooling power													
<b>Water outlet temperature</b>	<b>Fw</b>	°C					<b>8</b>	<b>10</b>	<b>15</b>	<b>20</b>	<b>25</b>		
		factor					0.69	0.77	1	1.22	1.44		
<b>Ambient Temperature</b>	<b>Fa</b>	°C					<b>15</b>	<b>20</b>	<b>25</b>	<b>32</b>	<b>35</b>	<b>40</b>	<b>45</b>
		factor					1.26	1.2	1.11	1	0.95	0.87	0.80
<b>Percentage glycol by weight</b>	<b>Fg</b>	%	<b>0</b>	<b>10</b>	<b>15</b>	<b>20</b>	<b>25</b>	<b>30</b>	<b>35</b>	<b>40</b>			
		factor	1	0.96	0.95	0.94	0.93	0.91	0.90	0.88			
Cooling power = Nominal cooling power x Fw x Fa x Fg													