

Industrial Chiller Range

High-precision and high-energy efficiency industrial chillers
R513A Refrigerant



At The Heart of Technology

There are numerous reasons to choose nVent HOFFMAN cooling systems

An attention to detail, a huge range of optional accessories and impressive reliability are the key characteristics which set nVent HOFFMAN chillers apart.





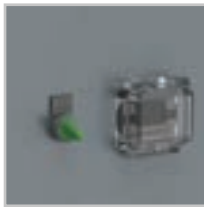
EC FANS

The entire standard chiller range can be provided with electronically commutated EC fans that ensure extremely high performance levels and low energy use.



MICROCHANNEL CONDENSERS

The standard chiller range was developed with the use of all-aluminium microchannel condensers, a technology that maximises efficiency and reduces the amount of refrigerant.



FLEXIBILITY

The standard chiller range is designed for over 40 configuration options, whether UL-certified electrical cabinet or stainless steel framework. We ensure customers maximum flexibility and customisation capabilities for the required solution.



SIMPLE AND COMPACT LAYOUT

The standard chiller range has been designed with a small footprint. By utilizing vertical space, it leaves customers more space for their application



COOLING PRECISION

Our experience in high-precision applications has led us to develop two kits, mainly created for laser applications, where a precision of $\pm 1^{\circ}\text{F}$ ($\pm 0.5^{\circ}\text{C}$) can be achieved.



NON-FERROUS LIQUID CIRCUIT (STAINLESS STEEL AND BRASS)

All the liquid circuits of our industrial chillers are equipped as standard with pumps, unions and collection tanks in materials not subject to corrosion, primarily stainless steel and brass. This allows us to guarantee the maximum cleanliness and protection of your cooling circuits.

TCW-TAL

Industrial water chillers

TCW-TAL water chillers provide precision and reliability in a compact and modular design. There are a variety of options to meet a wide range of application requirements. The large range of accessories allows multiple chiller configurations.



Table of Contents

Industrial water chillers	6
TCW08–19 Minichiller	6
TCW31–41 Minichiller HP	9
TAL24–37 Size 1	12
TAL29–A0 Size 1 Three-phase.....	15
TALA3-A5 Size 2	18
TALB0-B9 Size 3	21
TALC6-E6 Size 4.....	24
TALF9-M0 Size 5	27



TCW08-19 Minichiller

Industrial water chillers



COOLING CAPACITY

900-1100-1600-1900-2200-2550 W

STRUCTURE

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

COMPRESSOR

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

REFRIGERATION CIRCUIT

Complete with charging port, drier filter, expansion valve, high and low pressure safety pressure switch, R513A refrigerant.

EVAPORATOR

Brazed stainless-steel plate model.

AIR CONDENSER

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

AXIAL FAN

Axial fan, complete with electrical protection and safety grille.

LIQUID CIRCUIT

Liquid circuit composed entirely of non-ferrous material in contact with the liquid to prevent contamination. Standard liquid circuit with open reservoir and pump, protective flow switch, pressure gauge, regulation sensor. Peripheral electric pump with 4.5 bar available head. Plastic storage tank complete with drain valve and visual level indicator.

ELECTRICAL PANEL

With main breaker, fused motor protection with LED visual fault indicator, voltage presence light.

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. Control disconnect switch for switching on the machine.

PAINT/COATING

Standard color: RAL 7035 textured.

MAIN OPTIONS

BA-Mechanical bypass valve protecting the pump

BM-Manual bypass valve protecting the pump

LE-Level indicator

LTA-Operation at low ambient temperatures

FP-Polyurethane air filter

RU-Castors

TD-Differential fluid temperature management (two sensors)

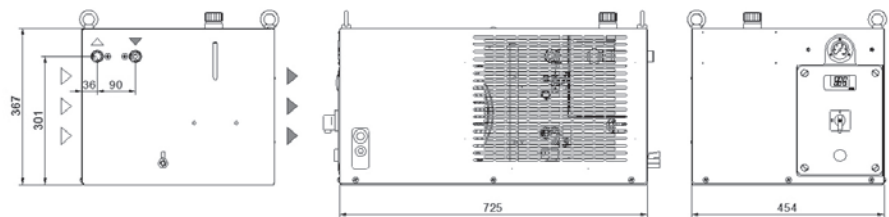
BGC-Hot gas bypass for +/-1 K temperature precision

LS-Stainless steel liquid circuit for laser application

-HIGH-pressure pump

-Satin AISI 304 stainless steel framework

DIMENSIONS



TCW08–19 Minichiller

Industrial water chillers

Model	(Metric)	TCW08		TCW12		TCW19	
		50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz
Rated Cooling Capacity*	W	900	1100	1600	1900	2200	2550
Ambient temperature operating limits	°C	+15–+45					
Settable fluid temperature range	°C	+8–+25					
Fluid type		Water					
Temperature precision	K	+/-2					
Refrigerant gas	HFC	R513A					
Power supply							
Supply voltage	V ph Hz	230 V (+/-10%) 1 ph 50/60 Hz					
Secondary supply voltage	V	N.A.					
Digital thermostat		TX110					
Compressor							
Compressor type		Reciprocating					
Quantity–Number of circuits	no.	1–1					
Axial Fan							
Fan type		Axial					
Quantity	no.	1		1		1	
Air flow rate	m³/h	1000		1000		1000	
Max. power draw	W	130	160	130	160	130	160
Standard Pump							
Pump type		Peripheral					
Nominal/max fluid flow rate	l/min	3.0–20.0		5.0–20.0		6.5–20.0	
Nominal available head	bar	5.4	7.6	4.6	6.7	4	6
High-Pressure Pump (optional)							
Pump type		Peripheral					
Quantity	no.	1		1		1	
Nominal available head	bar	6.5	8.4	6	7.9	5.8	7.6
Storage tank capacity	l	10					
IN/OUT liquid connections	in	1/2"					
Net weight	kg	52		54		55	
Width–Depth–Height	mm	725–454–367					
Sound pressure level**	dB(A)	56		56		56	

* Data relating to operation under the following conditions: intake/outlet temperature 20/15°C, water without glycol, ambient temperature 32°C. Cooling power refers to the evaporator unit.

** Sound pressure level at 50 Hz, measured in a free hemispherical field at a distance of 1 m from the machine and 1.5 metres from the ground, per ISO 3746.

Correction factors for calculating the cooling power (Metric)										
Water outlet temperature	Fw	°C				8	10	15	20	25
		factor				0.86	0.92	1	1.05	1.12
Ambient temperature	Fa	°C				15	20	25	32	35 40 45
		factor				1.16	1.1	1.05	1	0.97 0.91 0.84
Percentage glycol by weight	Fg	%	0	10	15	20	25	30	35	40
		factor	1	0.99	0.98	0.97	0.96	0.94	0.92	0.89
Cooling power = Nominal cooling power x Fw x Fa x Fg										
*2550 W is the maximum achievable cooling capacity for TCW minichillers.										

TCW08–19 Minichiller

Industrial water chillers

Model	(Imperial)	TCW08		TCW12		TCW19	
		50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz
Rated Cooling Capacity*	BTU/hr	3070	3750	5460	6480	7500	8700
Ambient temperature operating limits	°F	+59–+113					
Settable fluid temperature range	°F	+46–+77					
Fluid type		Water					
Temperature precision	°F	+/-3.6					
Refrigerant gas	HFC	R513A					
Power supply							
Supply voltage	V ph Hz	230 V (+/-10%) 1 ph 50/60 Hz					
Secondary supply voltage	V	N.A.					
Digital thermostat		TX110					
Compressor							
Compressor type		Reciprocating					
Quantity–Number of circuits	no.	1–1					
Axial Fan							
Fan type		Axial					
Quantity	no.	1		1		1	
Air flow rate	cfm	235		235		235	
Max. power draw	W	130	160	130	160	130	160
Standard Pump							
Pump type		Peripheral					
Nominal/max fluid flow rate	gpm	0.8–5.3		1.3–5.3		1.7–5.3	
Nominal available head	psi	78	110	66	97	58	87
High-Pressure Pump (optional)							
Pump type		Peripheral					
Quantity	no.	1		1		1	
Nominal available head	psi	94	122	87	114	84	110
Storage tank capacity	gal	2.6					
IN/OUT liquid connections	in	1/2					
Net weight	lbs	114		119		121	
Width–Depth–Height	in	28.5–17.9–14.4					
Sound pressure level**	dB(A)	56		56		56	

* Data relating to operation under the following conditions: intake/outlet temperature 68/59°F, water without glycol, ambient temperature 90°F. Cooling power refers to the evaporator unit.

** Sound pressure level at 50 Hz, measured in a free hemispherical field at a distance of 1 m from the machine and 1.5 metres from the ground, per ISO 3746.

Correction factors for calculating the cooling power (Imperial)										
Water outlet temperature	Fw	°F				46	50	59	68	77
		factor				0.86	0.92	1	1.05	1.12
Ambient temperature	Fa	°F				59	68	77	90	95 104 113
		factor				1.16	1.1	1.05	1	0.97 0.91 0.84
Percentage glycol by weight	Fg	%	0	10	15	20	25	30	35	40
		factor	1	0.99	0.98	0.97	0.96	0.94	0.92	0.89
Cooling power = Nominal cooling power x Fw x Fa x Fg										
*8700 BTU/hr is the maximum achievable cooling capacity for TCW minichillers.										

TCW31-41 Minichiller HP

Industrial water chillers



COOLING CAPACITY

3000–3450–3900–4450 W

STRUCTURE

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

COMPRESSOR

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

REFRIGERATION CIRCUIT

Complete with charging port, drier filter, expansion valve, high- and low-pressure safety pressure switch, thermostatic valve. R513A refrigerant.

EVAPORATOR

Brazed stainless-steel plate model.

AIR CONDENSER

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

AXIAL FAN

Axial fan, complete with electrical protection and safety grille.

LIQUID CIRCUIT

Liquid circuit composed entirely of non-ferrous material in contact with the liquid to prevent contamination. Standard liquid circuit with open reservoir and pump, protective flow switch, pressure gauge, regulation sensor. Peripheral electric pump with 4.5 bar available head. Plastic storage tank complete with drain valve and visual level indicator.

ELECTRICAL PANEL

With main breaker, fused motor protection with LED visual fault indicator, voltage presence light.

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. Control disconnect switch for switching on the machine.

PAINT/COATING

Standard color: RAL 7035 textured.

MAIN OPTIONS

BA–Mechanical bypass valve protecting the pump

BM–Manual bypass valve protecting the pump

LE–Electrical level indicator

LTA–Operation at low ambient temperatures

FP–Polyurethane air filter

RU–Castors

TD–Differential fluid temperature management (two sensors)

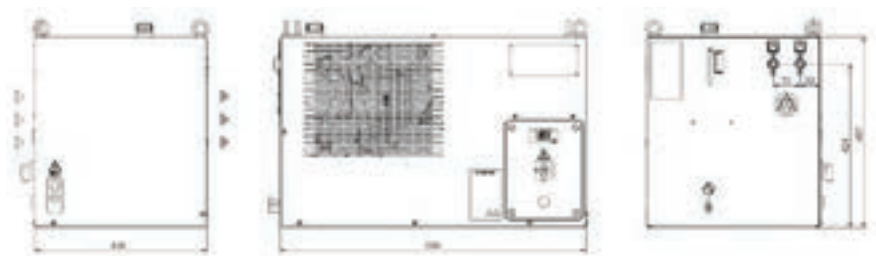
BGC–Hot gas bypass for +/-1 K temperature precision

–HIGH-pressure pump

–Non-standard paint/coating

–Satin AISI 304 stainless steel framework

DIMENSIONS



TCW31-41 Minichiller HP

Industrial water chillers

Model	(Metric)	TCW31		TCW41	
		50 Hz	60 Hz	50 Hz	60 Hz
Rated Cooling Capacity*	W	3000	3450	3900	4450
Ambient temperature operating limits	°C	+15--+45			
Settable fluid temperature range	°C	+8--+25			
Fluid type		Water			
Temperature precision	K	+/-2			
Refrigerant gas	HFC	R513A			
Power supply					
Supply voltage	V ph Hz	230 V (+/-10%) 1 ph 50/60 Hz			
Secondary supply voltage	V	N.A.			
Digital thermostat		TX110			
Compressor					
Compressor type		Rotary		Reciprocating	
Quantity-Number of circuits	no.	1-1			
Max. power draw	kW	1	1.2	1.4	1.8
Max. current draw	A	4.3	5.3	7.5	8.5
Axial Fan					
Fan type		Axial			
Quantity	no.	1		1	
Air flow rate	m³/h	2300	2650	2300	2650
Max. power draw	W	180	250	180	250
Max. current draw	A	0.81	1.1	0.81	1.1
Standard Pump					
Pump type		Peripheral			
Quantity	no.	1		1	
Nominal/max fluid flow rate	l/min	6.5-20		11-20	
Nominal available head	bar	4	6	2.8	4
Available power draw	kW	0.6	0.95	0.6	0.95
Max. current draw	A	3	4	3	4
High-Pressure Pump (optional)					
Pump type		Peripheral			
Quantity	no.	1		1	
Nominal available head	bar	5.8	7.6	4.9	6.6
Max. power draw	kW	1.29	1.29	1.29	1.29
Max. current draw	A	5	6	5	6
Storage tank capacity	l	10			
IN/OUT liquid connections	in	1/2"			
Net weight (approximate)***	kg	74		75	
Width-Depth-Height	mm	800-450-495			
Sound pressure level**	dB(A)	57	60	57	60
IP rating	IP	44			

* Data relating to operation under the following conditions: intake/outlet temperature 20/15°C, water without glycol, ambient temperature 32°C. Cooling power refers to the evaporator unit.

** Sound pressure level at 50 Hz, measured in a free hemispherical field at a distance of 1 m from the machine and 1.5 metres from the ground, 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.

Correction factors for calculating the cooling power (Metric)										
Water outlet temperature	Fw	°C				8	10	15	20	25
		factor				0.86	0.92	1	1.05	1.12
Ambient temperature	Fa	°C				15	20	25	32	35 40 45
		factor				1.16	1.1	1.05	1	0.97 0.91 0.84
Percentage glycol by weight	Fg	%	0	10	15	20	25	30	35	40
		factor	1	0.99	0.98	0.97	0.96	0.94	0.92	0.89
Cooling power = Nominal cooling power x Fw x Fa x Fg										
*4450 W is the maximum achievable cooling capacity for TCW minichillers HP.										

TCW31-41 Minichiller HP

Industrial water chillers

Model	(Imperial)	TCW31		TCW41	
		50 Hz	60 Hz	50 Hz	60 Hz
Rated Cooling Capacity*	BTU/hr	10230	11770	13310	15180
Ambient temperature operating limits	°F	+59–+113			
Settable fluid temperature range	°F	+46–+77			
Fluid type		Water			
Temperature precision	°F	+/-3.6			
Refrigerant gas	HFC	R513A			
Power supply					
Supply voltage	V ph Hz	230 V (+/-10%) 1 ph 50/60 Hz			
Secondary supply voltage	V	N.A.			
Digital thermostat		TX110			
Compressor					
Compressor type		Rotary		Reciprocating	
Quantity-Number of circuits	no.	1-1			
Max. power draw	kW	1	1.2	1.4	1.8
Max. current draw	A	4.3	5.3	7.5	8.5
Axial Fan					
Fan type		Axial			
Quantity	no.	1		1	
Air flow rate	cfm	1350	1560	1350	1560
Max. power draw	W	180	250	180	250
Max. current draw	A	0.81	1.1	0.81	1.1
Standard Pump					
Pump type		Peripheral			
Quantity	no.	1		1	
Nominal/max fluid flow rate	gpm	1.7-5.3		2.9-5.3	
Nominal available head	psi	58	87	40	58
Available power draw	kW	0.6	0.95	0.6	0.95
Max. current draw	A	3	4	3	4
High-Pressure Pump (optional)					
Pump type		Peripheral			
Quantity	no.	1		1	
Nominal available head	psi	84	110	71	96
Max. power draw	kW	1.29	1.29	1.29	1.29
Max. current draw	A	5	6	5	6
Storage tank capacity	gal	2.6			
IN/OUT liquid connections	in	1/2"			
Net weight (approximate)***	lbs	163		165	
Width-Depth-Height	in	31.5-17.7-19.5			
Sound pressure level**	dB(A)	57	60	57	60
IP rating	IP	44			

* Data relating to operation under the following conditions: intake/outlet temperature 68/59°F, water without glycol, ambient temperature 90°F. Cooling power refers to the evaporator unit.

** Sound pressure level at 50 Hz, measured in a free hemispherical field at a distance of 1 m from the machine and 1.5 metres from the ground, 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.

Correction factors for calculating the cooling power (Imperial)										
Water outlet temperature	Fw	°F				46	50	59	68	77
		factor				0.86	0.92	1	1.05	1.12
Ambient temperature	Fa	°F				59	68	77	90	95 104 113
		factor				1.16	1.1	1.05	1	0.97 0.91 0.84
Percentage glycol by weight	Fg	%	0	10	15	20	25	30	35	40
		factor	1	0.99	0.98	0.97	0.96	0.94	0.92	0.89
Cooling power = Nominal cooling power x Fw x Fa x Fg										
*15.180 BTU/hr is the maximum achievable cooling capacity for TCW minichillers HP.										

TAL24-37 Size 1

Industrial water chillers



COOLING CAPACITY

2300-2700-3600-4200 W

STRUCTURE

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

COMPRESSOR

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

REFRIGERATION CIRCUIT

Complete with charging port, drier filter, expansion valve, high-pressure pressure switch, R513A refrigerant.

EVAPORATOR

Brazed stainless-steel plate model.

AIR CONDENSER

Microchannel 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 peripheral electric pump, storage tank made of plastic material complete with integrated visual level indicator, pressure gauge, protective flow switch, regulation sensor.

ELECTRICAL PANEL

With main disconnect switch, fused motor protection.

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.

PAINT/COATING

Standard color: RAL 7035 textured.

MAIN OPTIONS

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-Stainless steel liquid circuit for laser application

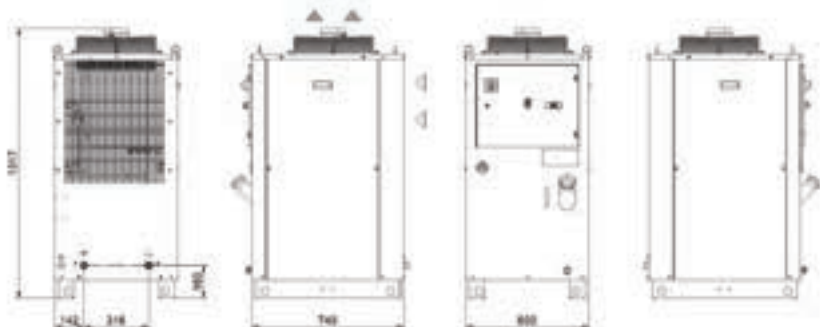
UL1-Electrical panel and UL-certified components

LTW-Water temperature range -10/+5°C

-HIGH-pressure pump version "H"-5 bar, version "R"-7 bar.

-Outdoor installation options

DIMENSIONS



TAL24-37 Size 1

Industrial water chillers

Model	(Metric)	TAL24		TAL37	
		50 Hz	60 Hz	50 Hz	60 Hz
Rated Cooling Capacity*	W	2300	2700	3600	4200
Ambient temperature operating limits	°C	+15-+45			
Settable fluid temperature range	°C	+8-+25			
Fluid type		Water			
Temperature precision	K	+/-2			
Refrigerant gas	HFC	R513A			
Power supply					
Supply voltage	V ph Hz	230 V (+/-10%) 1 ph 50/60 Hz			
Secondary supply voltage	V	N.A.			
Digital thermostat		TX110			
Compressor					
Compressor type		Rotary		Reciprocating	
Quantity-Number of circuits	no.	1-1			
Nominal power draw	kW	0.8	1	1.1	1.6
Axial Fan					
Fan type		Axial			
Quantity	no.	1		1	
Air flow rate	m³/h	1250-1650		1550-2050	
Centrifugal Fan (optional)					
Fan type		Centrifugal			
Quantity	no.	1			
Air flow rate	m³/h	2100-2400		2100-2400	
Available head	Pa	250			
Standard Pump					
Pump type		Peripheral			
Quantity	no.	1			
Nominal/max fluid flow rate	l/min	7-18		10-18	
Nominal available head	bar	3.8	5.8	3.1	4.5
High-Pressure Pump (optional)					
Pump type		Peripheral			
Quantity	no.	1			
Nominal available head	bar	5.6	7.5	5	6.8
Storage tank capacity	l	50			
IN/OUT liquid connections	in	3/4"			
Net weight (approximate)**	kg	151		153	
Width-Depth-Height	mm	600-740-1317			
Sound pressure level**	dB(A)	57	60	57	60

* Data relates to operation under the following conditions: inlet/outlet temp. 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, 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.

Correction factors for calculating the cooling power (Metric)												
Water outlet temperature	Fw	°C				8	10	15	20	25		
		factor				0.69	0.77	1	1.22	1.44		
Ambient temperature	Fa	°C				15	20	25	32	35	40	45
		factor				1.26	1.2	1.11	1	0.95	0.87	0.8
Percentage glycol by weight	Fg	%	0	10	15	20	25	30	35	40		
		factor	1	0.96	0.95	0.94	0.93	0.91	0.9	0.88		
Cooling power = Nominal cooling power x Fw x Fa x Fg												
*4200 W is the maximum achievable cooling capacity for Size 1 single phase chillers.												

TAL24-37 Size 1

Industrial water chillers

Model	(Imperial)	TAL24		TAL37	
		50 Hz	60 Hz	50 Hz	60 Hz
Rated Cooling Capacity*	BTU/hr	7850	9210	12280	14330
Ambient temperature operating limits	°F	+59-+113			
Settable fluid temperature range	°F	+46-+77			
Fluid type		Water			
Temperature precision	°F	+/-3.6			
Refrigerant gas	HFC	R513A			
Power supply					
Supply voltage	V ph Hz	230 V (+/-10%) 1 ph 50/60 Hz			
Secondary supply voltage	V	N.A.			
Digital thermostat		TX110			
Compressor					
Compressor type		Rotary		Reciprocating	
Quantity-Number of circuits	no.	1-1			
Nominal power draw	kW	0.8	1	1.1	1.6
Axial Fan					
Fan type		Axial			
Quantity	no.	1		1	
Air flow rate	cfm	735-970		910-1200	
Centrifugal Fan (optional)					
Fan type		Centrifugal			
Quantity	no.	1			
Air flow rate	cfm	1230-1410		1230-1410	
Available head	psi	0.036			
Standard Pump					
Pump type		Peripheral			
Quantity	no.	1			
Nominal/max fluid flow rate	gpm	1.8-4.8		2.6-4.8	
Nominal available head	psi	55	84	45	65
High-Pressure Pump (optional)					
Pump type		Peripheral			
Quantity	no.	1			
Nominal available head	psi	81	109	73	99
Storage tank capacity	gal	13.2			
IN/OUT liquid connections	in	3/4"			
Net weight (approximate)**	lbs	332		337	
Width-Depth-Height	in	23.6-29.1-51.9			
Sound pressure level**	dB(A)	57	60	57	60

* Data relates to operation under the following conditions: inlet/outlet temp. 68/59°F, water without glycol, ambient temperature 90°F.

** Sound pressure level, measured in a free parallelepiped field at a distance of 1 m, per ISO 3746.

*** Weight includes pallets and packaging (where provided for), with refrigerant charge, storage tank empty, axial fans.

The electrical data refer to $\cos \varphi = 0.8$.

Correction factors for calculating the cooling power (Imperial)													
Water outlet temperature	Fw	°F					46	50	59	68	77		
		factor					0.69	0.77	1	1.22	1.44		
Ambient temperature	Fa	°F					59	68	77	90	95	104	113
		factor					1.26	1.2	1.11	1	0.95	0.87	0.8
Percentage glycol by weight	Fg	%	0	10	15	20	25	30	35	40			
		factor	1	0.96	0.95	0.94	0.93	0.91	0.9	0.88			

Cooling power = Nominal cooling power x Fw x Fa x Fg
 *14.300 BTU/hr is the maximum achievable cooling capacity.

TAL29-A0 Size 1 Three-phase

Industrial water chillers



COOLING CAPACITY

2900–3600–4550–6000
8100–9550–10900 W

STRUCTURE

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

COMPRESSOR

Hermetic Rotary, Reciprocating, or Scroll compressor, cooled by the refrigerant, complete with thermal cut-out.

REFRIGERATION CIRCUIT

Complete with charging port, drier filter, expansion or thermostatic valve, high-pressure pressure switch, R513A refrigerant.

EVAPORATOR

Brazed stainless-steel plate model.

AIR CONDENSER

Microchannel 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, storage tank made of plastic material complete with integrated visual level indicator, 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.

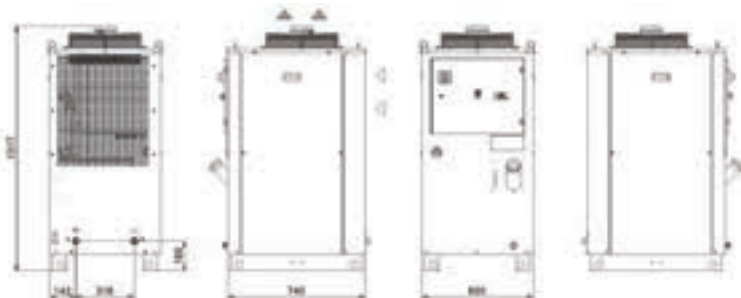
PAINT/COATING

Standard color: RAL 7035 textured.

MAIN OPTIONS

- 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–Stainless steel liquid circuit for laser application
- UL1–Electrical panel and UL-certified components
- LTW–Water temperature range -10/+5°C
- HIGH-pressure pump version “H”–5 bar, version “R”–7 bar.
- Outdoor installation options

DIMENSIONS



TAL29–A0 Size 1 Three-phase

Industrial water chillers

Model	(Metric)	TAL29	TAL37	TAL46	TAL57	TAL76	TAL93	TAL A0
Rated Cooling Capacity*	W	2900	3600	4550	6000	8100	9550	10900
Ambient temperature operating limits	°C	+15–+45						
Settable fluid temperature range	°C	+8–+25						
Fluid type		Water						
Temperature precision	K	+/-2						
Refrigerant gas	HFC	R513A						
Power supply								
Supply voltage	V ph Hz	400/460 V (+/-10%) 3 ph 50/60 Hz						
Secondary supply voltage	V	230						
Digital thermostat		TX110						
Compressor								
Compressor type		Rotary	Reciprocating	Scroll				
Quantity–Number of circuits	no.				1–1			
Nominal power draw	kW	0.8	1.2	1.5	1.9	2.1	2.6	2.8
Axial Fan								
Fan type		Axial						
Quantity	no.	1						
Air flow rate	m³/h	1550	1550	1800	1800	3150	3350	4400
Centrifugal Fan (optional)								
Fan type		Centrifugal						
Quantity	no.	1						
Air flow rate	m³/h	2100–2400						
Available head	Pa	250						
Standard Pump								
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	31.5–70
Nominal available head	bar	3	2.9	2.8	2.7	3.1	3	2.8
High-Pressure Pump (optional)								
Pump type		Centrifugal						
Quantity	no.	1						
Nominal available head	bar	5.1	4.9	4.8	4.6	5.5	5.3	5.1
Storage tank capacity	l	50						
IN/OUT liquid connections	in	3/4"						
Net weight (approximate)***	kg	151	153	155	160	165	170	175
Width–Depth–Height	mm	600–740–1317						
Sound pressure level**	dB(A)	57						

* Data relates to operation under the following conditions: inlet/outlet temp. 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, 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.

Correction factors for calculating the cooling power (Metric)										
Water outlet temperature	Fw	°C				8	10	15	20	25
		factor				0.69	0.77	1	1.22	1.44
Ambient temperature	Fa	°C				15	20	25	32	35 40 45
		factor				1.26	1.2	1.11	1	0.95 0.87 0.8
Percentage glycol by weight	Fg	%	0	10	15	20	25	30	35	40
		factor	1	0.96	0.95	0.94	0.93	0.91	0.9	0.88
Cooling power = Nominal cooling power x Fw x Fa x Fg										
*10.900 W is the maximum achievable cooling capacity for Size 1 three phase chillers.										

TAL29–A0 Size 1 Three-phase

Industrial water chillers

Model	(Imperial)	TAL29	TAL37	TAL46	TAL57	TAL76	TAL93	TALAO
Rated Cooling Capacity*	BTU/hr	9900	12300	15500	20500	27600	32600	37200
Ambient temperature operating limits	°F	+59–+113						
Settable fluid temperature range	°F	+46–+77						
Fluid type		Water						
Temperature precision	°F	+/-3.6						
Refrigerant gas	HFC	R513A						
Power supply								
Supply voltage	V ph Hz	400/460 V (+/-10%) 3 ph 50/60 Hz						
Secondary supply voltage	V	230						
Digital thermostat		TX110						
Compressor								
Compressor type		Rotary	Reciprocating	Scroll				
Quantity–Number of circuits	no.	1–1						
Nominal power draw	kW	0.8	1.2	1.5	1.9	2.1	2.6	2.8
Axial Fan								
Fan type		Axial						
Quantity	no.	1						
Air flow rate	cfm	910	910	1060	1060	1850	1970	2590
Centrifugal Fan (optional)								
Fan type		Centrifugal						
Quantity	no.	1						
Air flow rate	cfm	1230–1410						
Available head	in. H ₂ O	1						
Standard Pump								
Pump type		Centrifugal						
Quantity	no.	1						
Nominal/max fluid flow rate	gpm	2.1–10.5	2.6–10.5	3.3–10.5	4.2–10.5	5.5–18.5	6.8–18.5	8.3–18.5
Nominal available head	psi	43	42	40	39	45	43	40
High-Pressure Pump (optional)								
Pump type		Centrifugal						
Quantity	no.	1						
Nominal available head	psi	74	71	70	67	80	77	74
Storage tank capacity	gal	13.2						
IN/OUT liquid connections	in	3/4"						
Net weight (approximate)***	lbs	333	337	342	353	364	375	386
Width–Depth–Height	in	23.6–29.1–51.9						
Sound pressure level**	dB(A)	57						

* Data relates to operation under the following conditions: inlet/outlet temp. 68/59°F, water without glycol, ambient temperature 90°F.

** Sound pressure level, measured in a free parallelepiped field at a distance of 1 m, 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.

Correction factors for calculating the cooling power (Imperial)										
Water outlet temperature	Fw	°F				46	50	59	68	77
		factor				0.69	0.77	1	1.22	1.44
Ambient temperature	Fa	°F				59	68	77	90	95 104 113
		factor				1.26	1.2	1.11	1	0.95 0.87 0.8
Percentage glycol by weight	Fg	%	0	10	15	20	25	30	35	40
		factor	1	0.96	0.95	0.94	0.93	0.91	0.9	0.88
Cooling power = Nominal cooling power x Fw x Fa x Fg										
*37.200 BTU/hr is the maximum achievable cooling capacity for Size 1 three phase chillers.										

TALA3-A5 Size 2

Industrial water chillers



COOLING CAPACITY

12400–17800 W

STRUCTURE

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

COMPRESSOR

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

REFRIGERATION CIRCUIT

Complete with charging port, liquid receiver, drier filter, thermostatic valve, high- and low-pressure switch, R513A refrigerant.

EVAPORATOR

Brazed stainless-steel plate model.

AIR CONDENSER

Microchannel 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 stainless steel centrifugal electric pump, storage tank made of plastic material complete with integrated visual level indicator, electrical level indicator, pressure gauge, differential pressure switch protecting the water flow, regulation sensor.

ELECTRICAL PANEL

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

MANAGEMENT AND CONTROL

The TX200 control unit manages the operation of the chiller and provides complete operator alarm diagnostics. An on-off contact allows the machine to be switched on remotely. Illuminated control selector. Possibility of remote display for machine regulation.

PAINT/COATING

Standard color: RAL 7035 textured.

MAIN OPTIONS

BA–Mechanical bypass valve protecting the pump

FL–Flow switch with alarm contact

FP–Polyurethane air filter

RU–Castors

TD–Differential fluid temperature management (two sensors)

BGC–Hot gas bypass for ± 1 K temperature precision

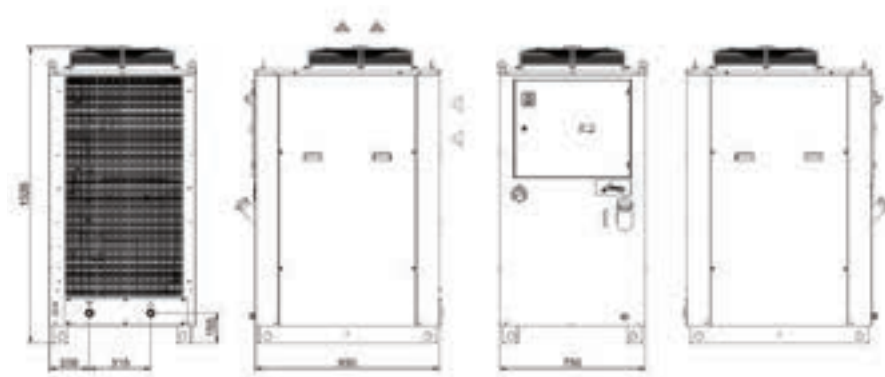
LS–Stainless steel liquid circuit for laser application

HP/HS–Harting-type connector

–HIGH-pressure pump version “H”–5 bar, version “R”–7 bar

–Outdoor installation options

DIMENSIONS



TALA3-A5 Size 2

Industrial water chillers

Model	(Metric)	TALA3	TALA5
Rated Cooling Capacity*	W	12400	17800
Ambient temperature operating limits	°C	+15--+45	
Settable fluid temperature range	°C	+8--+25	
Fluid type		Water	
Temperature precision	K	+/-2	
Refrigerant gas	HFC	R513A	
Power supply			
Supply voltage	V ph Hz	400/460 V (+/-10%) 3 ph 50/60 Hz	
Secondary supply voltage	V AC	230 - 24	
Digital thermostat		TX200	
Compressor			
Compressor type		Scroll	
Quantity-Number of circuits	no.	1-1	
Nominal power draw	kW	3.3	4.2
Axial Fan			
Fan type		Axial	
Quantity	no.	1	
Air flow rate	m³/h	6500	
Centrifugal Fan (optional)			
Fan type		Centrifugal	
Quantity	no.	1	
Air flow rate	m³/h	6500	
Available head	Pa	250	
Standard Pump			
Pump type		Centrifugal	
Quantity	no.	1	
Nominal/max fluid flow rate	l/min	35-70	50-70
Nominal available head	bar	3.5	2.8
High-Pressure Pump (optional)			
Pump type		Centrifugal	
Quantity	no.	1	
Nominal available head	bar	5	5
Storage tank capacity	l	130	
IN/OUT liquid connections	in	1"	
Net weight (approximate)***	kg	200	235
Width-Depth-Height	mm	750-950-1620	
Sound pressure level**	dB(A)	67	

* Data relates to operation under the following conditions: inlet/outlet temp. 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, per ISO 3746.

*** Weight includes pallets and packaging (where provided for), with refrigerant charge, storage tank empty, axial fans.

The electrical data refer to $\cos \varphi = 0.8$.

Correction factors for calculating the cooling power (Metric)												
Water outlet temperature	Fw	°C				8	10	15	20	25		
		factor				0.76	0.83	1	1.20	1.43		
Ambient temperature	Fa	°C				15	20	25	32	35	40	45
		factor				1.20	1.14	1.08	1	0.96	0.90	0.83
Percentage glycol by weight	Fg	%	0	10	15	20	25	30	35	40		
		factor	1	0.96	0.95	0.94	0.93	0.91	0.9	0.88		
Cooling power = Nominal cooling power x Fw x Fa x Fg												
*17.800 W is the maximum achievable cooling capacity for Size 2 chillers.												

TALA3-A5 Size 2

Industrial water chillers

Model	(Imperial)	TALA3	TALA5
Rated Cooling Capacity*	BTU/hr	42300	60700
Ambient temperature operating limits	°F	+59–+113	
Settable fluid temperature range	°F	+46–+77	
Fluid type		Water	
Temperature precision	°F	+/-3.6	
Refrigerant gas	HFC	R513A	
Power supply			
Supply voltage	V ph Hz	400/460 V (+/-10%) 3 ph 50/60 Hz	
Secondary supply voltage	V AC	230 - 24	
Digital thermostat		TX200	
Compressor			
Compressor type		Scroll	
Quantity–Number of circuits	no.	1–1	
Nominal power draw	kW	3.3	4.2
Axial Fan			
Fan type		Axial	
Quantity	no.	1	
Air flow rate	cfm	3820	
Centrifugal Fan (optional)			
Fan type		Centrifugal	
Quantity	no.	1	
Air flow rate	cfm	3820	
Available head	in. H ₂ O	1	
Standard Pump			
Pump type		Centrifugal	
Quantity	no.	1	
Nominal/max fluid flow rate	gpm	9.2–18.5	13.2–18.5
Nominal available head	psi	51	41
High-Pressure Pump (optional)			
Pump type		Centrifugal	
Quantity	no.	1	
Nominal available head	psi	72	72
Storage tank capacity	gal	34.3	
IN/OUT liquid connections	in	1"	
Net weight (approximate)***	lbs	441	518
Width–Depth–Height	in	29.5–37.4–63.8	
Sound pressure level**	dB(A)	67	

* Data relates to operation under the following conditions: inlet/outlet temp. 68/59°F, water without glycol, ambient temperature 90°C.

** Sound pressure level, measured in a free parallelepiped field at a distance of 1 m, per ISO 3746.

*** Weight includes pallets and packaging (where provided for), with refrigerant charge, storage tank empty, axial fans.

The electrical data refer to $\cos \varphi = 0.8$.

Correction factors for calculating the cooling power (Imperial)										
Water outlet temperature	Fw	°F				46	50	59	68	77
		factor				0.76	0.83	1	1.20	1.43
Ambient temperature	Fa	°F				59	68	77	90	95 104 113
		factor				1.20	1.14	1.08	1	0.96 0.90 0.83
Percentage glycol by weight	Fg	%	0	10	15	20	25	30	35	40
		factor	1	0.96	0.95	0.94	0.93	0.91	0.9	0.88
Cooling power = Nominal cooling power x Fw x Fa x Fg										
*60.700 BTU/hr is the maximum achievable cooling capacity for Size 2 Chillers.										

TALB0-B9 Size 3

Industrial water chillers



COOLING CAPACITY

20100–24800–29000 W

STRUCTURE

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

COMPRESSOR

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

REFRIGERATION CIRCUIT

Complete with charging port, liquid receiver, drier filter, thermostatic valve, high- and low-pressure pressure switch, R513A refrigerant.

EVAPORATOR

Brazed stainless-steel plate model.

AIR CONDENSER

Microchannel 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 stainless steel centrifugal electric pump, storage tank made of plastic material complete with integrated visual level indicator, electrical level indicator, bar pressure gauge, differential pressure switch protecting the water flow, automatic by-pass and regulation sensor.

ELECTRICAL PANEL

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

MANAGEMENT AND CONTROL

The TX200 control unit manages the operation of the chiller and provides complete operator alarm diagnostics. An on-off contact allows the machine to be switched on remotely. Illuminated control selector. Possibility of remote display for machine regulation.

PAINT/COATING

Standard color: RAL 7035 textured.

MAIN OPTIONS

BA–Mechanical bypass valve protecting the pump

FL–Flow switch with alarm contact

FP–Polyurethane air filter

RU–Castors

TD–Differential fluid temperature management (two sensors)

BGC–Hot gas bypass for ± 1 K temperature precision

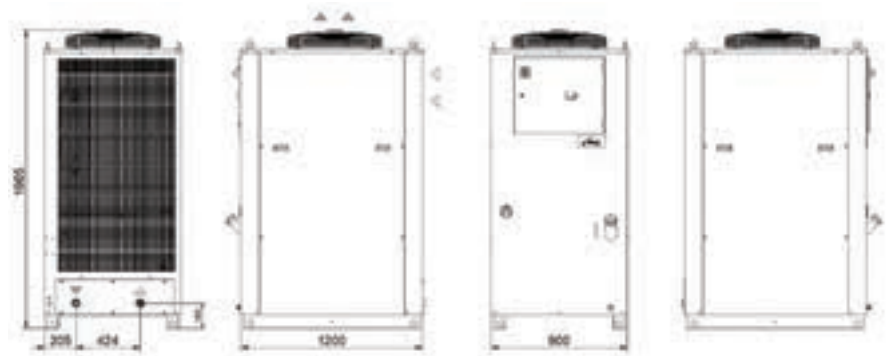
LS–Stainless steel liquid circuit for laser application

HP/HS–Harting-type connector

–HIGH-pressure pump version “H”–5 bar, version “R”–7 bar.

–Outdoor installation options

DIMENSIONS



TALB0-B9 Size 3

Industrial water chillers

Model	(Metric)	TALB0	TALB5	TALB9
Rated Cooling Capacity*	W	20100	24800	29000
Ambient temperature operating limits	°C	+15–+45		
Settable fluid temperature range	°C	+8–+25		
Fluid type		Water		
Temperature precision	K	+/-2		
Refrigerant gas	HFC	R513A		
Power supply				
Supply voltage	V ph Hz	400/460 V (+/-10%) 3 ph 50/60 Hz		
Secondary supply voltage	V AC	230 - 24		
Digital thermostat		TX200		
Compressor				
Compressor type		Scroll		
Quantity–Number of circuits	no.	1–1		
Nominal power draw	kW	5	6.5	8.7
Axial Fan				
Fan type		Axial		
Quantity	no.	1		
Air flow rate	m³/h	6500	8300	9700
Centrifugal Fan (optional)				
Fan type		Centrifugal		
Quantity	no.	1		
Air flow rate	m³/h	6500	8300	9700
Available head	Pa	250	370	180
Standard Pump				
Pump type		Centrifugal		
Quantity	no.	1		
Nominal/max fluid flow rate	l/min	58–70	79–150	92–150
Nominal available head	bar	2.5	3.5	3.2
High-Pressure Pump (optional)				
Pump type		Centrifugal		
Quantity	no.	1		
Nominal available head	bar	4.2	5.4	5.1
Storage tank capacity	l	130		
IN/OUT liquid connections	in	1 1/2"		
Net weight (approximate)***	kg	260		
Width–Depth–Height	mm	900–1200–1965		
Sound pressure level**	dB(A)	67		

* Data relates to operation under the following conditions: inlet/outlet temp. 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, per ISO 3746.

*** Weight includes pallets and packaging (where provided for), with refrigerant charge, storage tank empty, axial fans.

The electrical data refer to $\cos \varphi = 0.8$.

Correction factors for calculating the cooling power (Metric)												
Water outlet temperature	Fw	°C				8	10	15	20	25		
		factor				0.76	0.82	1	1.21	1.45		
Ambient temperature	Fa	°C				15	20	25	32	35	40	45
		factor				1.19	1.14	1.08	1	0.96	0.90	0.83
Percentage glycol by weight	Fg	%	0	10	15	20	25	30	35	40		
		factor	1	0.96	0.95	0.94	0.93	0.91	0.9	0.88		
Cooling power = Nominal cooling power x Fw x Fa x Fg												
*29.000 W is the maximum achievable cooling capacity for Size 3 chillers.												

TALB0-B9 Size 3

Industrial water chillers

Model	(Imperial)	TALB0	TALB5	TALB9
Rated Cooling Capacity*	BTU/hr	68500	84600	99000
Ambient temperature operating limits	°F	+59–+113		
Settable fluid temperature range	°F	+46–+77		
Fluid type		Water		
Temperature precision	°F	+/-3.6		
Refrigerant gas	HFC	R513A		
Power supply				
Supply voltage	V ph Hz	400/460 V (+/-10%) 3 ph 50/60 Hz		
Secondary supply voltage	V AC	230 - 24 V AC		
Digital thermostat		TX200		
Compressor				
Compressor type		Scroll		
Quantity–Number of circuits	no.	1–1		
Nominal power draw	kW	5	6.5	8.7
Axial Fan				
Fan type		Axial		
Quantity	no.	1		
Air flow rate	cfm	3822	4880	5704
Centrifugal Fan (optional)				
Fan type		Centrifugal		
Quantity	no.	1		
Air flow rate	cfm	3822	4880	5704
Available head	in. H ₂ O	1	1.48	0.72
Standard Pump				
Pump type		Centrifugal		
Quantity	no.	1		
Nominal/max fluid flow rate	gpm	15.3–18.5	21–39.6	24.3–39.6
Nominal available head	psi	36.3	50.8	46.4
High-Pressure Pump (optional)				
Pump type		Centrifugal		
Quantity	no.	1		
Nominal available head	psi	60.9	78.3	74.0
Storage tank capacity	gal	34.3		
IN/OUT liquid connections	in	1 1/2"		
Net weight (approximate)***	lbs	573	573	573
Width–Depth–Height	in	35.4–47.2–77.3		
Sound pressure level**	dB(A)	67		

* Data relates to operation under the following conditions: inlet/outlet temp. 68/59°F, water without glycol, ambient temperature 90°F.

** Sound pressure level, measured in a free parallelepiped field at a distance of 1 m, per ISO 3746.

*** Weight includes pallets and packaging (where provided for), with refrigerant charge, storage tank empty, axial fans.

The electrical data refer to $\cos \varphi = 0.8$.

Correction factors for calculating the cooling power (Imperial)										
Water outlet temperature	Fw	°F				46	50	59	68	77
		factor				0.76	0.82	1	1.21	1.45
Ambient temperature	Fa	°F				59	68	77	90	95 104 113
		factor				1.19	1.14	1.08	1	0.96 0.90 0.83
Percentage glycol by weight	Fg	%	0	10	15	20	25	30	35	40
		factor	1	0.96	0.95	0.94	0.93	0.91	0.9	0.88
Cooling power = Nominal cooling power x Fw x Fa x Fg										
*99.000 BTU/hr is the maximum achievable cooling capacity for Size 3 chillers.										

TALC6-TALE6 Size 4

Industrial water chillers



COOLING CAPACITY

35800–40000–47000–55000 W

STRUCTURE

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

COMPRESSOR

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

REFRIGERATION CIRCUIT

Complete with charging port, liquid receiver, drier filter, thermostatic valve, high- and low-pressure pressure switch, R513A refrigerant. Optional 2-step cooling power regulation.

EVAPORATOR

Brazed stainless-steel plate model.

AIR CONDENSER

Microchannel 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 stainless steel centrifugal electric pump, storage tank made of plastic material complete with drain valve, electrical level indicator, bar pressure gauge, differential pressure switch protecting the water flow, automatic by-pass and regulation sensor.

ELECTRICAL PANEL

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

MANAGEMENT AND CONTROL

The TX350C control unit manages the operation of the chiller and provides complete operator alarm diagnostics. An on-off contact allows the machine to be switched on remotely. Illuminated control selector. RS485 connection. Possibility of remote display for machine regulation.

PAINT/COATING

Standard color: RAL 7035 textured.

MAIN OPTIONS

FL–Flow switch with alarm contact

HR–Fluid heating element

OM–Unit built for outdoor operation down to -10°C ambient temp.

OML–Unit built for outdoor operation down to -20°C ambient temp.

FP–Polyurethane air filter

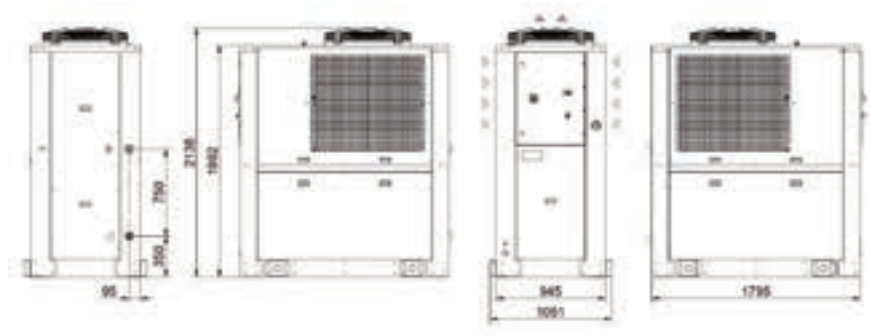
TD–Differential fluid temperature management (two sensors)

BGC–Hot gas bypass for $\pm 1\text{ K}$ temperature precision

LS–Stainless steel liquid circuit for laser application

–HIGH-pressure pump version "H"–5 bar

DIMENSIONS



TALC6-TALE6 Size 4

Industrial water chillers

Model	(Metric)	TALC6	TALD0	TALD9	TALE6
Rated Cooling Capacity*	W	35800	40000	47000	55000
Ambient temperature operating limits	°C	+15--+45			
Settable fluid temperature range	°C	+8--+25			
Fluid type		Water			
Temperature precision	K	+/-2			
Refrigerant gas	HFC	R513A			
Power supply					
Supply voltage	V ph Hz	400/460 V (+/-10%) 3 ph 50/60 Hz			
Secondary supply voltage	V AC	230 - 24			
Digital thermostat		TX350C			
Compressor					
Compressor type		Scroll			
Quantity-Number of circuits	no.	2 - 1			
Nominal power draw	kW	4.6	5	5.5	6.5
Axial Fan					
Fan type		Axial			
Quantity	no.	1			
Air flow rate	m³/h	11500	12600	14400	16000
Centrifugal Fan (optional)					
Fan type		Centrifugal			
Quantity	no.	1			
Air flow rate	m³/h	11500	12600	14400	16000
Available head	Pa	100	570	350	200
Standard Pump					
Pump type		Centrifugal			
Quantity	no.	1			
Nominal/max fluid flow rate	l/min	100-150	115-230	135-230	158-230
Nominal available head	bar	3.0	3.8	3.6	4.6
High-Pressure Pump (optional)					
Pump type		Centrifugal			
Quantity	no.	1			
Nominal available head	bar	4.9	6.5	6.2	6.7
Storage tank capacity	l	200			
IN/OUT liquid connections	in	1 1/2"			
Net weight (approximate)***	kg	580	580	600	600
Width-Depth-Height	mm	945-1795-2270			
Sound pressure level**	dB(A)	75			

* Data relates to operation under the following conditions: inlet/outlet temp. 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, 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.

Correction factors for calculating the cooling power (Metric)												
Water outlet temperature	Fw	°C				8	10	15	20	25		
		factor				0.76	0.82	1	1.21	1.45		
Ambient temperature	Fa	°C				15	20	25	32	35	40	45
		factor				1.19	1.14	1.09	1	0.96	0.90	0.83
Percentage glycol by weight	Fg	%	0	10	15	20	25	30	35	40		
		factor	1	0.96	0.95	0.94	0.93	0.91	0.9	0.88		

Cooling power = Nominal cooling power x Fw x Fa x Fg
 *55.000 W is the maximum achievable cooling capacity for Size 4 chillers.

TALC6-TALE6 Size 4

Industrial water chillers

Model	(Imperial)	TALC6	TALD0	TALD9	TALE6
Rated Cooling Capacity*	BTU/hr	122150	136500	160400	187700
Ambient temperature operating limits	°F	+59–+113			
Settable fluid temperature range	°F	+46–+77			
Fluid type		Water			
Temperature precision	°F	+/-3.6			
Refrigerant gas	HFC	R513A			
Power supply					
Supply voltage	V ph Hz	400/460 V (+/-10%) 3 ph 50/60 Hz			
Secondary supply voltage	V AC	230 - 24			
Digital thermostat		TX350C			
Compressor					
Compressor type		Scroll			
Quantity–Number of circuits	no.	1–1			
Nominal power draw	kW	9.2	10	11	13.1
Axial Fan					
Fan type		Axial			
Quantity	no.	1			
Air flow rate	cfm	6769	7420	8480	9420
Centrifugal Fan (optional)					
Fan type		Centrifugal			
Quantity	no.	1			
Air flow rate	cfm	6769	7420	8480	9420
Available head	in. H ₂ O	0.4	2.3	1.4	0.8
Standard Pump					
Pump type		Centrifugal			
Quantity	no.	1			
Nominal/max fluid flow rate	gpm	26.4–39.6	30.4–60.8	35.7–60.8	41.7–60.8
Nominal available head	psi	44	55	52	66
High-Pressure Pump (optional)					
Pump type		Centrifugal			
Quantity	no.	1			
Nominal available head	psi	71	94	90	97
Storage tank capacity	gal	52.8			
IN/OUT liquid connections	in	1 1/2"			
Net weight (approximate)***	lbs	1279	1279	1323	1323
Width–Depth–Height	in	37.2–70.7–89.4			
Sound pressure level**	dB(A)	75			

* Data relates to operation under the following conditions: inlet/outlet temp. 68/59°F, water without glycol, ambient temperature 90°F.

** Sound pressure level, measured in a free parallelepiped field at a distance of 1 m, per ISO 3746.

*** Weight includes pallets and packaging (where provided for), with refrigerant charge, storage tank empty, axial fans.

The electrical data refer to $\cos \varphi = 0.8$.

Correction factors for calculating the cooling power (Imperial)										
Water outlet temperature	Fw	°F				46	50	59	68	77
		factor				0.76	0.82	1	1.21	1.45
Ambient temperature	Fa	°F				59	68	77	90	95 104 113
		factor				1.19	1.14	1.09	1	0.96 0.90 0.83
Percentage glycol by weight	Fg	%	0	10	15	20	25	30	35	40
		factor	1	0.96	0.95	0.94	0.93	0.91	0.9	0.88
Cooling power = Nominal cooling power x Fw x Fa x Fg										
*187.700 BTU/hr is the maximum achievable cooling capacity for Size 4 chillers.										

TALF9-M0 Size 5

Industrial water chillers



COOLING CAPACITY

67000–80000–94000–110000 W

STRUCTURE

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

COMPRESSOR

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

REFRIGERATION CIRCUIT

Complete with charging port, liquid receiver, drier filter, thermostatic valve, high- and low-pressure switch, R513A refrigerant. Stepped cooling power regulation.

EVAPORATOR

Brazed stainless steel plate model.

AIR CONDENSER

Microchannel 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 stainless steel centrifugal electric pump, storage tank made of plastic material complete with drain valve, electrical level indicator, electrical level indicator, pressure gauge, differential pressure switch protecting the water flow, automatic bypass and regulation sensor.

ELECTRICAL PANEL

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

MANAGEMENT AND CONTROL

The TX350C control unit manages the operation of the chiller and provides complete operator alarm diagnostics. An on-off contact allows the machine to be switched on remotely. Illuminated control selector. RS485 connection. Possibility of remote display for machine regulation.

PAINT/COATING

Standard color: RAL 7035 textured.

MAIN OPTIONS

FL–Flow switch with alarm contact

FP–Polyurethane air filter

HR–Fluid heating element

TD–Differential fluid temperature management (two sensors)

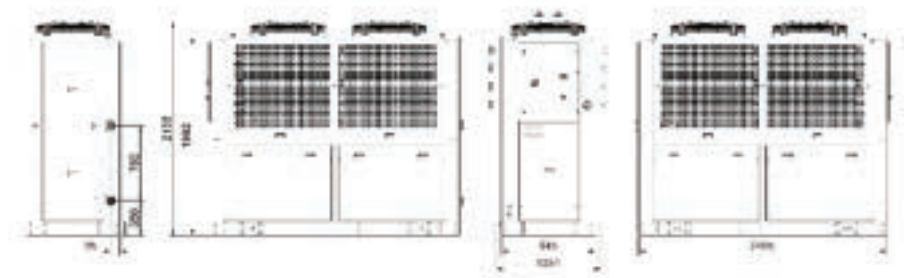
BGC–Hot gas bypass for ± 1 K temperature precision

LS–Stainless steel liquid circuit for laser application

–HIGH-pressure pump version "H"–5 bar, version "R"–7 bar

–Outdoor installation options

DIMENSIONS



TALF9-M0 Size 5

Industrial water chillers

Model	(Metric)	TALF9	TALG9	TALI4	TALM0
Rated Cooling Capacity*	W	67000	80000	94000	110000
Ambient temperature operating limits	°C	+15–+45			
Settable fluid temperature range	°C	+8–+25			
Fluid type		Water			
Temperature precision	K	+/-2			
Refrigerant gas	HFC	R513A			
Power supply					
Supply voltage	V ph Hz	400/460 V (+/-10%) 3ph 50/60 Hz			
Secondary supply voltage	V AC	230 - 24			
Digital thermostat		TX350C			
Compressor					
Compressor type		Scroll			
Quantity–number of circuits	no.	2–2		4–2	
Nominal power draw	kW	8.7	5	5.5	6.5
Axial Fan					
Fan type		Axial			
Quantity	no.	2			
Air flow rate	m³/h	24000	25200	28800	32000
Centrifugal Fan (optional)					
Fan type		Centrifugal			
Quantity	no.	2			
Air flow rate	m³/h	24000	25200	28800	32000
Available head	Pa	150	570	350	200
Standard Pump					
Pump type		Centrifugal			
Quantity	no.	1			
Nominal/max fluid flow rate	l/min	200–230	230–400	270–400	316–400
Nominal available head	bar	3.8	4.7	4.4	4
High-Pressure Pump					
Pump type		Centrifugal			
Quantity	no.	1			
Nominal available head	bar	5.7	6	5.5	5
Storage tank capacity	l	300			
IN/OUT liquid connections	in	2 1/2"			
Net weight	kg	730	730	750	750
Width–Depth–Height	mm	945–2495–2270			
Sound pressure level**	dB(A)	75	75	75	75

*Data relates to operation under the following conditions: inlet/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, 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.

Correction factors for calculating the cooling power (Metric)												
Water outlet temperature	Fw	°C				8	10	15	20	25		
		factor				0.76	0.82	1	1.21	1.45		
Ambient temperature	Fa	°C				15	20	25	32	35	40	45
		factor				1.19	1.14	1.09	1	0.96	0.90	0.83
Percentage glycol by weight	Fg	%	0	10	15	20	25	30	35	40		
		factor	1	0.96	0.95	0.94	0.93	0.91	0.9	0.88		
Cooling power = Nominal cooling power x Fw x Fa x Fg												
*110,000 W is the maximum achievable cooling capacity for Size 5 chillers.												

TALF9-M0 Size 5

Industrial water chillers

Model	(Imperial)	TALF9	TALG9	TALI4	TALM0
Rated Cooling Capacity*	BTU/hr	228600	273000	286600	375300
Ambient temperature operating limits	°F	+59–+113			
Settable fluid temperature range	°F	+46–+77			
Fluid type		Water			
Temperature precision	°F	+/-3.6			
Refrigerant gas	HFC	R513A			
Power supply					
Supply voltage	V ph Hz	400/460 V (+/-10%) 3ph 50/60 Hz			
Secondary supply voltage	V AC	230 - 24			
Digital thermostat		TX350C			
Compressor					
Compressor type		Scroll			
Quantity–number of circuits	no.	2–2		4–2	
Nominal power draw	kW	8.7	5	5.5	6.5
Axial Fan					
Fan type		Axial			
Quantity	no.	2			
Air flow rate	cfm	14126	14800	16900	18800
Centrifugal Fan (optional)					
Fan type		Centrifugal			
Quantity	no.	2			
Air flow rate	cfm	14126	14800	16900	18800
Available head	in. H ₂ O	0.6	2.3	1.4	0.8
Standard Pump					
Pump type		Centrifugal			
Quantity	no.	1			
Nominal/max fluid flow rate	gpm	58.8-60.7	60.8-105.7	71.3-105.7	83.5-105.7
Nominal available head	psi	55	68	64	58
High-Pressure Pump					
Pump type		Centrifugal			
Quantity	no.	1			
Nominal available head	psi	83	87	80	73
Storage tank capacity	gal	79.3			
IN/OUT liquid connections	in	2 1/2"			
Net weight	lbs	1609	1609	1653	1653
Width–Depth–Height	in	37.2–98.2–89.4			
Sound pressure level**	dB(A)	75	75	75	75

* Data relates to operation under the following conditions: inlet/outlet temp. 68/59°F, water without glycol, ambient temperature 90°F.

** Sound pressure level, measured in a free parallelepiped field at a distance of 1 m, per ISO 3746.

*** Weight includes pallets and packaging (where provided for), with refrigerant charge, storage tank empty, axial fans.

The electrical data refer to $\cos \varphi = 0.8$.

Correction factors for calculating the cooling power (Imperial)										
Water outlet temperature	Fw	°F				46	50	59	68	77
		factor				0.76	0.82	1	1.21	1.45
Ambient temperature	Fa	°F				59	68	77	90	95 104 113
		factor				1.19	1.14	1.09	1	0.96 0.90 0.83
Percentage glycol by weight	Fg	%	0	10	15	20	25	30	35	40
		factor	1	0.96	0.95	0.94	0.93	0.91	0.9	0.88
Cooling power = Nominal cooling power x Fw x Fa x Fg										
*375,300 BTU/hr is the maximum achievable cooling capacity for Size 5 chillers.										







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