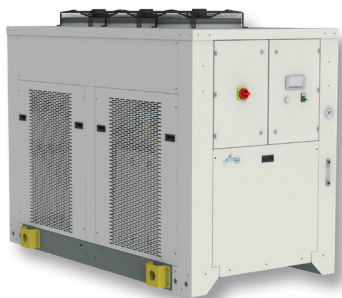


TCWD4-G8 Size 5

Industrial water chillers

COOLING CAPACITY

41400 - 46100 - 56600 - 65600 - 75200 W



EVAPORATOR

With brazed stainless-steel plates and temperature sensor for protection against freezing.

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

Liquid circuit composed entirely of non-ferrous material in contact with the liquid to prevent contamination. Stainless-steel centrifugal pump with 3 bar available head. Stainless-steel storage tank complete with drain valve, electrical level and visual level indicator, protective flow switch, 0-10 bar pressure gauge, regulation sensor.

ELECTRICAL PANEL

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

MANAGEMENT AND CONTROL

The TX400 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. Dual remote ON-OFF. RS485 connection. Possibility of remote display for machine regulation.

STRUCTURE

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

COMPRESSOR

Hermetic scroll compressor (connected in tandem for E0 and E4 models), cooled by the refrigerant, complete with thermal cut-out.

REFRIGERATION CIRCUIT

Complete with charging port, safety valve, liquid receiver, drier filter, liquid inspection port, solenoid valve, thermostatic valve, high- and low-pressure pressure switch, R410A refrigerant. Stepped cooling power regulation, 2 steps on models TCW E0-E4-F7-G8.

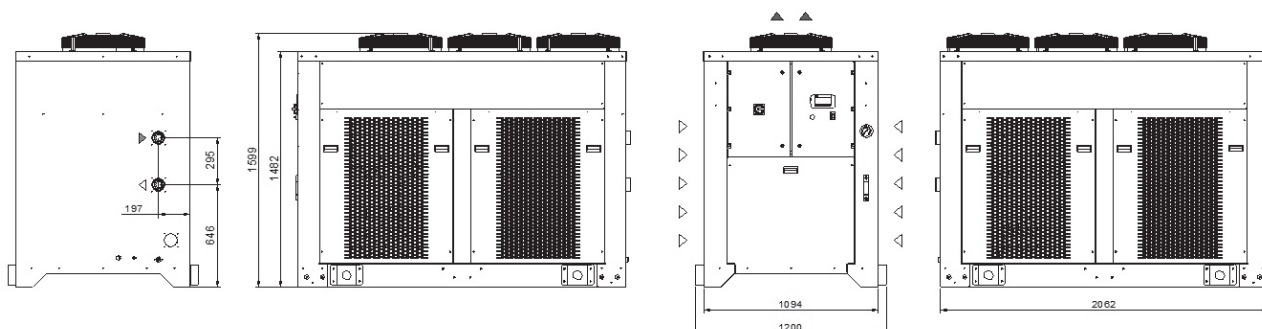
PAINT/COATING

Standard colour: RAL 7035 textured.

MAIN ACCESSORIES (ref. page 189)

- BA - Mechanical bypass valve protecting the pump
- HR - Fluid heating element
- LTA - Operation at low ambient temperatures
- FP - Polyurethane air filter
- RU - Castors
- TD - Differential fluid temperature management (two sensors)
- LS - Liquid circuit for laser application
- HIGH-pressure pump version "H" - 5 bar, version "R" - 7 bar.
- Non-standard paint/coating
- Satin AISI 304 stainless steel framework
- Temperature Precision +/- 1 K

Dimensions



Model		TCWD4	TCWE0	TCWE4	TCWF7	TCWG8
Rated Cooling Capacity*	W	41400	46100	56600	65600	75200
Ambient temperature operating limits	°C	+15 - +45				
Settable fluid temperature range	°C	+8 - +25				
Fluid type		Water				
Temperature precision	K	+/-2				
Refrigerant gas	HFC	R410A				
Power supply						
Supply voltage	V ph Hz	400V (+/-10%) 3ph 50Hz				
Secondary supply voltage	V	24 V AC				
Digital thermostat		TX400				
Compressor						
Compressor type		Scroll				
Quantity - Number of circuits	no.	1 - 1	2 - 1		2 - 2	
Max. power draw	kW	14.8	16.7	20.2	23.2	26.6
Max. current draw	A	25.3	29.8	34.5	37.6	46.0
Axial Fan						
Fan type		Axial				
Quantity	no.	3	3	3	3	3
Air flow rate	m ³ /h	17000	17000	17000	17000	17000
Max. power draw	kW	2.1	2.1	2.1	2.1	2.1
Max. current draw	A	4.2	4.2	4.2	4.2	4.2
Centrifugal Fan (optional)						
Fan type		Centrifugal				
Quantity	no.	3	3	3	3	3
Air flow rate	m ³ /h	17000	17000	17000	17000	17000
Available head	Pa	260	260	260	230	230
Max. power draw	kW	4.5	4.5	4.5	4.5	4.5
Max. current draw	A	9.0	9.0	9.0	9.0	9.0
Standard Pump						
Pump type		Centrifugal				
Quantity	no.	1	1	1	1	1
Nominal/max fluid flow rate	l/min	115.0 - 210.0	130.0 - 210.0	160.0 - 210.0	185.0 - 400.0	215.0 - 400.0
Nominal available head	bar	3.6	3.4	3.2	3.2	3.0
Max. power draw	kW	2.3	2.3	2.3	3.0	3.0
Max. current draw	A	4.9	4.9	4.9	6.2	6.2
High-Pressure Pump (optional)						
Pump type		Centrifugal				
Quantity	no.	1	1	1	1	1
Nominal available head	bar	5.6	5.5	5.3	5.0	4.8
Max. power draw	kW	3.7	3.7	3.7	5.5	5.5
Max. current draw	A	6.3	6.3	6.3	11.0	11.0
Storage tank capacity	l	250				
IN/OUT liquid connections	inch	2 1/2"	2 1/2"	2 1/2"	2 1/2"	2 1/2"
Net weight (approximate)***	kg	600	640	680	730	750
Width	mm	1094				
Depth	mm	2062				
Height	mm	1599				
Sound pressure level**	dB(A)	72	72	72	72	72
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, 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													
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													