LCW45-70 Size 3

Negative temperature liquid chillers

COOLING CAPACITY | **6500 - 10450 W**

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

COMPRESSOR
Hermetic scroll compressor (connected in tandem for model 70), cooled by the refrigerant, complete with thermal cut-out. Case heating element for oil. Electronic management coolant injection valve.

REFRIGERATION CIRCUIT
Complete with charging port, drier filter, liquid receiver, thermostatic valve, solenoid valve, liquid viewing port, high- and low-pressure pressure switch, intake oil separator, R404A refrigerant. Solenoid valve for liquid injection. High- and low-pressure gas pressure gauge.

EVAPORATOR
With brazed stainless-steel plates with 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. Fan adjustment step pressure switch.

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, 0-10 bar pressure gauge, protective flow switch, regulation sensor.

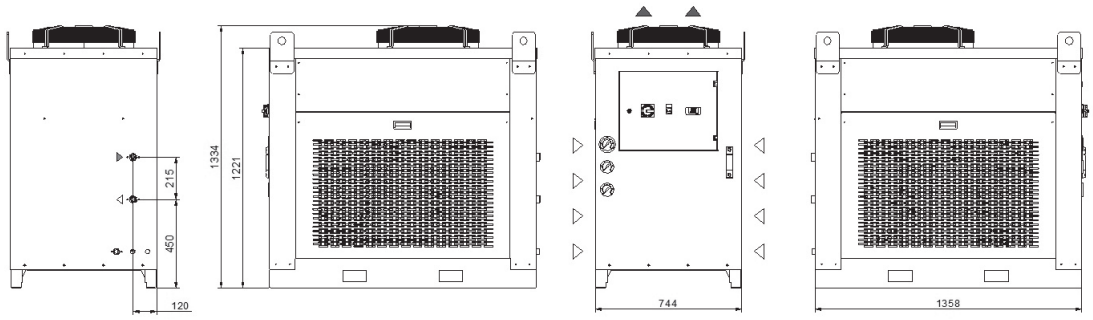
ELECTRICAL PANEL
With main disconnect switch, relay motor protection, phase sequence relays.

MANAGEMENT AND CONTROL
The 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 colour: RAL 7035 textured.

MAIN ACCESSORIES (ref. page 181)
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)
- HIGH-pressure pump version "H" - 5 bar.
- Non-standard paint/coating
- Satin AISI 304 stainless steel framework

Dimensions



Model		LCW45	LCW70
Rated Cooling Capacity*	W	6500	10450
Ambient temperature operating limits	°C	+15 - +48	
Settable fluid temperature range	°C	-30 - -5	
Fluid type		Water + Ethylene Glycol 50%	
Temperature precision	K	+/-2	
Refrigerant gas	HFC	R404A	
Power supply			
Supply voltage	V ph Hz	400V (+/-10%) 3ph 50Hz	
Secondary supply voltage	V	24 V AC	
Digital thermostat		TX200	
Compressor			
Compressor type		Scroll	
Quantity - Number of circuits	no.	1 - 1	2 - 1
Max. power draw	kW	14.0	22.0
Max. current draw	A	23.5	37.4
Axial Fan			
Compressor type		Axial	
Quantity	no.	1 - 1	
Air flow rate	m_3/h	5700	
Max. power draw	kW	0.7	
Max. current draw	A	1.4	
Centrifugal Fan (optional)			
Fan type		Centrifugal	
Quantity	no.	1	1
Air flow rate	m_3/h	5700	5700
Available head	Pa	220	220
Max. power draw	kW	1.5	1.5
Max. current draw	A	3.0	3.0
Standard Pump			
Pump type		Centrifugal	
Quantity	no.	1	
Nominal/max fluid flow rate	l/min	25.0 - 80.0	35.0 - 80.0
Nominal available head	bar	3.7	3.5
Available power draw	kW	1.2	
Max. current draw	A	2.4	
High-Pressure Pump (optional)			
Pump type		Centrifugal	
Quantity	no.	1	
Nominal available head	bar	5.1	4.9
Max. power draw	kW	2.6	
Max. current draw	A	5.1	
Storage tank capacity	l	60	
IN/OUT liquid connections	inch	1"	
Net weight (approximate)***	kg	350	380
Width	mm	744	
Depth	mm	1358	
Height	mm	1334	
Sound pressure level**	dB(A)	67	68
IP rating	IP	44	

* Data relating to operation under the following conditions: intake/outlet temperature -20/-25°C, water with 50% 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	**-30**	**-28**	**-26**	**-25**	**-22**	**-20**	**-18**	**-16**	**-14**	**-12**	**-10**	**-5**
		factor	0.75	0.85	0.95	1.00	1.1	1.20	1.30	1.42	1.54	1.64	1.76	1.80
Ambient Temperature	**Fa**	°C					**15**	**20**	**25**	**32**	**35**	**40**	**48**	
		factor					1.16	1.10	1.05	1.00	0.97	0.91	0.84	
Percentage glycol by weight	**Fg**	%										**50**		
		factor										1.00		

Cooling power = Nominal cooling power x Fw x Fa x Fg