TCU15-36 Size 1

Industrial chillers for contaminated or dirty fluids

COOLING CAPACITY | **1600-1900 - 2200-2550 - 3300-3900 W**

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

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

REFRIGERATION CIRCUIT
Complete with charging port, drier filter, thermostatic valve, high- and low-pressure safety pressure switch, R134a refrigerant.

EVAPORATOR
Tube evaporator with mantle, steel heads and copper heat exchanger tubes, with anti-freezing protection.

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.

FLUID POWER CIRCUIT
Fluid power circuit with centrifugal pump without tank, with maximum available pressure 3 bar, dual oil safety pressure switch, 0-10 bar oil pressure gauge, regulation sensor.

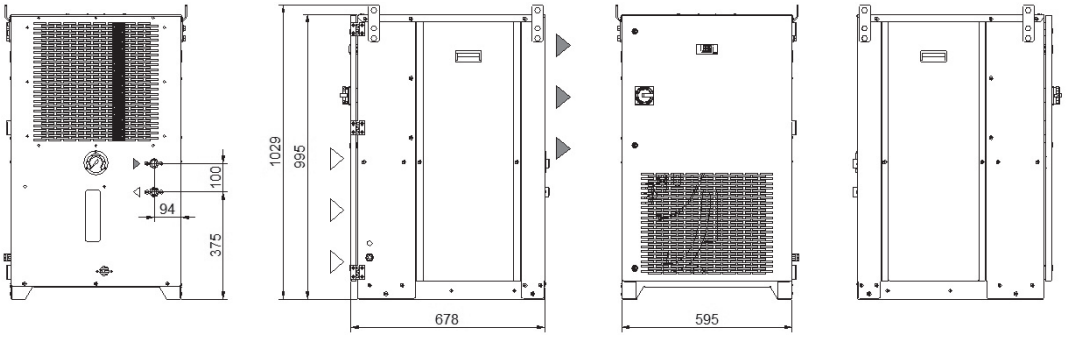
ELECTRICAL PANEL
With main disconnect switch, relay motor protection, phase sequence relays.

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 fluid power circuit. An on-off contact allows the machine to be switched on remotely. Control disconnect switch for switching on the machine.

PAINT/COATING
Standard colour: RAL 7035 textured.

MAIN ACCESSORIES (ref. page 189)
HR - Fluid heating element
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
- Non-standard paint/coating
- Satin AISI 304 stainless steel framework

Dimensions



Model		TCU15		TCU22		TCU36	
		50Hz	60Hz	50Hz	60Hz	50Hz	60Hz
Rated Cooling Capacity*	W	1600	1900	2200	2550	3300	3900
Ambient temperature operating limits	°C	+15 - +45					
Settable fluid temperature range	°C	+25 - +40					
Fluid type		Dirty fluids (oil and mineral oil emulsions)					
Maximum oil impurity size	µm	150					
Temperature precision	K	+/-2					
Refrigerant gas	HFC	R134a					
Power supply							
Supply voltage	V ph Hz	230V (+/-10%) 1ph 50/60Hz					
Secondary supply voltage	V	230					
Digital thermostat		TX110					
Compressor							
Compressor type		Reciprocating					
Quantity - Number of circuits	no.	1 - 1					
Max. power draw	kW	1.03	1.06	1.15	1.5	1.73	2.22
Max. current draw	A	5.6	5.8	6.1	8.1	9.4	12
Axial Fan							
Fan type		Axial					
Quantity	no.	1		1		1	
Air flow rate	m_3/h	2300 - 2650		2300 - 2650		2300 - 2650	
Max. power draw	W	180	250	180	250	180	250
Max. current draw	A	0.81	1.1	0.81	1.1	0.81	1.1
Centrifugal Fan (optional)							
Fan type		Centrifugal					
Quantity	no.	1		1		1	
Air flow rate	m_3/h	2100 - 2400		2100 - 2400		2100 - 2400	
Available head	Pa	250					
Max. power draw	kW	0.15	0.21	0.15	0.21	0.15	0.21
Max. current draw	A	0.35	0.37	0.35	0.37	0.35	0.37
Centrifugal Pump							
Pump type		Centrifugal					
Quantity	no.	1		1		1	
Nominal/max fluid flow rate	l/min	14 - 55		14 - 55		18 - 55	
Nominal available head	bar	3.2		3.2		3.0	
Max. power draw	kW	0.67		0.67		0.67	
Max. current draw	A	4.9		4.9		4.9	
IN/OUT liquid connections	inch	3/4"					
Net weight (approximate)***	kg	130		132		132	
Width	mm	595					
Depth	mm	678					
Height	mm	995					
Sound pressure level**	dB(A)	57 - 60		57 - 60		57 - 60	
IP rating	IP	44					

* Data relating to operation under the following conditions: intake/outlet temperature 40/30°C, ISO VG 32 mineral oil, ambient temperature 32°C. Cooling power refers to the evaporator unit.

** Sound pressure level at 50Hz, 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, without storage tank and axial fans.

**** The electrical data refer to cos φ = 0.8.

Correction factors for calculating the cooling power												
Oil outlet temperature	**Fo**	°C	**20**	**25**	**30**	**35**						
		factor	0.82	0.92	1	1.05						
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
Oil type	**Ft**	type	**ISO VG 10**		**ISO VG 22**		**ISO VG 32**		**ISO VG 46**		**ISO VG 68**	
		factor	1.15		1.1		1		0.9		0.82	

Cooling power = Nominal cooling power x Fo x Fa x Ft