

# TCO15-36 Size 1

Industrial oil chillers

## COOLING CAPACITY

1600-1900 - 2200-2550 - 3300-3900 W



### AXIAL FAN

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

### HYDRAULIC CIRCUIT

Hydraulic circuit with gear pump without tank, with maximum available pressure 20 bar, pressure limiting valve calibrated at 10 bar, 0-25 bar pressure gauge, regulation temperature sensor. Hydraulic safety with safety low- and high-pressure pressure switch.

### 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 hydraulic 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 - Oil 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
- FL - Customer flow switch
- Non-standard paint/coating
- Satin AISI 304 stainless steel framework

### STRUCTURE

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

### COMPRESSOR

Hermetic reciprocating compressor, cooled by the refrigerant, complete with electrical protection.

### REFRIGERATION CIRCUIT

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

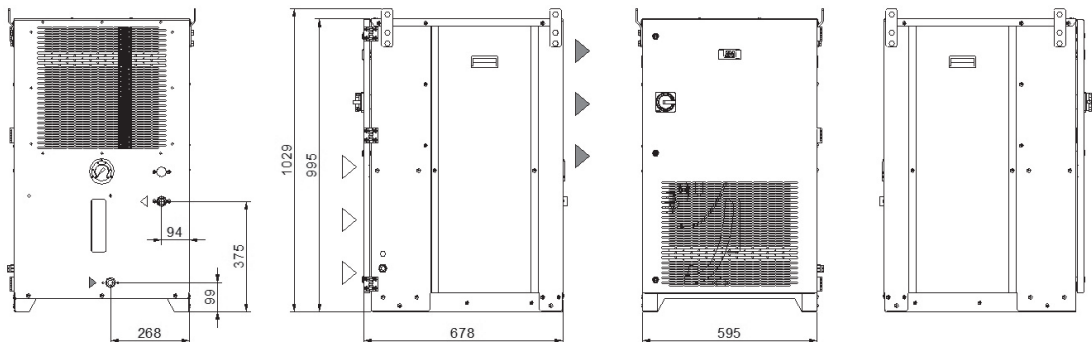
### EVAPORATOR

Brazed stainless-steel plate model.

### AIR CONDENSER

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

## Dimensions



Model		TCO15		TCO22		TCO36	
		50Hz	60Hz	50Hz	60Hz	50Hz	60Hz
<b>Rated Cooling Capacity*</b>	W	1600	1900	2200	2550	3300	3900
Ambient temperature operating limits	°C	+15 - +45					
Settable oil temperature range	°C	+25 - +40					
Fluid type		ISO VG 32					
Temperature precision	K	+/-2					
Refrigerant gas	HFC	R134a					
<b>Power supply</b>							
Supply voltage	V ph Hz	230V (+/-10%) 1ph 50/60Hz					
Secondary supply voltage	V AC	230					
Digital thermostat		TX110					
<b>Compressor</b>							
Compressor type		Reciprocating					
Quantity - Number of circuits	no.	1 - 1					
Max. power draw	kW	1.03	1.06	1.15	1.5	1.73	2.2
Max. current draw	A	5.6	5.8	6.1	8.1	9.4	12
<b>Axial Fan</b>							
Fan type		Axial					
Quantity	no.	1					
Air flow rate	m³/h	2300 - 2650		2300 - 2650		2300 - 2650	
Max. power draw	kW	0.18	0.25	0.18	0.25	0.18	0.25
Max. current draw	A	0.81	1.1	0.81	1.1	0.81	1.1
<b>Centrifugal Fan (optional)</b>							
Fan type		Centrifugal					
Quantity	no.	1					
Air flow rate	m³/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
<b>Standard Pump</b>							
Pump type		Gear pump					
Quantity	no.	1		1		1	
Nominal fluid flow rate	l/min	10		10		10	
Nominal available head	bar	20		20		20	
Max. power draw	kW	0.55		0.55		0.55	
Max. current draw	A	4.0	4.2	4.0	4.2	4.0	4.2
Storage tank capacity (optional)	l	30					
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 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  $\cos \phi = 0.8$ .

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												