

# BOE-THERM

1 x 220-240V / 50Hz

Range: K2

## Water Cooler with Tank and Pump

### *Automatic & Manual Filling*



**FOR A PERFECT COOLING  
IN INDUSTRIAL PROCESS  
WATER SYSTEMS**

**CFK and HCFK-free**

The CoolMaster is a complete and plug-in type of DTE product which fully meets all European directives, safety, and quality standards, such as CE, EN 292, EN 1050, EN 60204, EN 378 and PED directive 97/23/EG. All DTE products are developed and constructed in accordance with ISO 9001. Standard documentation supplied with all machines: Pressure test certificate, refrigeration charge/evacuation certificate, leakage testing approval, system check certificate, instruction card and a machine operating and maintenance manual.

All certificates issued in conformance with European and local laws governing construction of refrigeration.



The **CoolMaster** consists of components from the standard production range of well-known suppliers. All building elements are fitted in such a way that they are not only easily accessible but also easily exchangeable. Careful selection, calculation and set-up of the components is achieved using computer programmes DTE designed especially for this purpose. In this way DTE houses the maximum cooling capacity in a minimum of space.

In the **CoolMaster** only durable materials are used. DTE leaves nothing to chance and chooses knowingly for a robust housing fitted with rubber legs. These legs are easily removable to enable direct mounting onto customers steelwork.

The insulated stainless steel water tank in the **CoolMaster** is sealed tight to prevent any possible algal growth caused by the incidence of light.

Furthermore, the warm air produced by the condenser does not remain in the **CoolMaster**, but is blown out directly by a powerful axial fan.

These important DTE constructional features guarantee the long life of the **CoolMaster**.

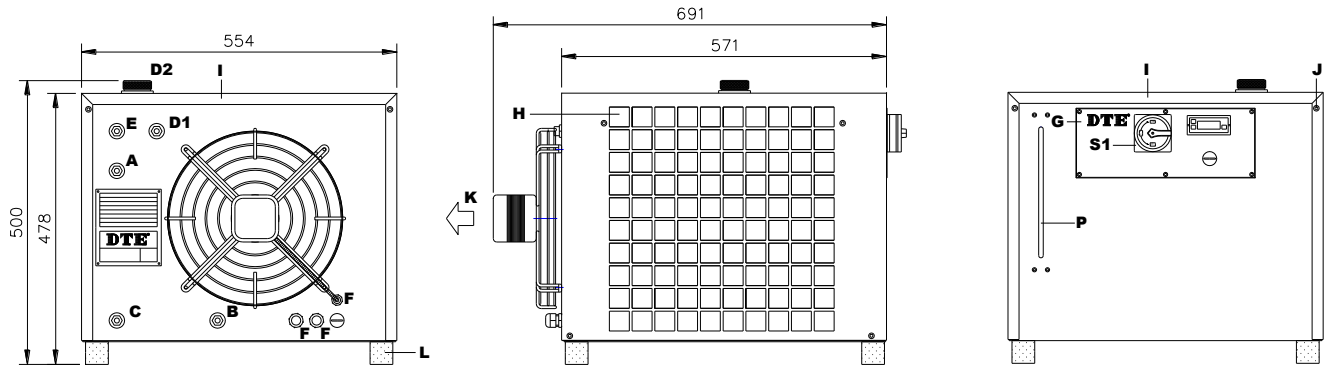
### The **CoolMaster** includes the following components:

- ✓ **Tube-coil heat exchanger** (evaporator) made of **stainless steel**,
- ✓ digital **temperature controller** with adjustable limitation and display for reading out measured values,
- ✓ a pressure limited **thermostatic expansion valve**, (except. K-001.0 en de K-001.7 capillaire injection)
- ✓ an industrial **multi-stage centrifugal pump** with impellers, shaft and other key components made of **stainless steel**,
- ✓ **by-pass** for water pump protection,
- ✓ hermetically sealed and suction gas cooled **compressor**,
- ✓ an air-cooled **condenser** specially designed by DTE, fitted with copper pipes and aluminium fins,
- ✓ an industrial **axial fan** which directly blows the hot condenser air horizontally to outside,
- ✓ a closed **water tank** made of **stainless steel**, which also has been provided with **insulation**, a **float** for automatically refilling, **manual filling device**, and **sight glass**,
- ✓ a **switch box** provided with all necessary **protections**,
- ✓ connection for **external start/stop** (Volts-Free Contact).
- ✓ All **connections** on the back of the machine, no hoses or cables are visual

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**Dimensions in mm.**



- A = Cooling water inlet, 1/2" BSP outside thread
- B = Cooling water outlet, 1/2" BSP outside thread
- C = Drainvalve, 1/2" BSP inside thread
- D<sub>1</sub> = Filling water inlet, 1/2" BSP outside thread
- D<sub>2</sub> = Manual filling device
- E = Overflow water tank, 3/4" BSP outside thread
- F = Bushing coupling electrical cable, PG-13,5
- G = Control panel
- H = Ingoing condenser air
- I = Removable cover
- J = Fixing bolts cover
- K = Outgoing condenser air
- L = Rubber legs
- P = Sight glass

**Options**

Besides the **CoolMaster** standard programme, **DTE** also offers customized **CoolMaster's** which are calculated and built according to your specifications. The modular construction of the **CoolMaster** allows fast and simple adaptation to your specifications. **DTE** has almost all components for extra features available from stock.

**Some of these are:**

- ✓ full compliance with the country dependent standards and regulations,
- ✓ adaptation to all voltages and frequencies,
- ✓ housing fitted with wheels instead of rubber legs,
- ✓ adaptation to extreme environmental conditions,
- ✓ temperature adjustment and/or readable by remote control,
- ✓ protection against run-dry circulation pump,
- ✓ condenser for external set-up,
- ✓ integration of water-cooled condenser instead of an air cooled condenser,
- ✓ water piping in copper or stainless steel.

TYPE-NUMBER	**Cooling capacity at 15°C	**Cooling capacity at 5°C	Tension / Frequency	*** Circulation cooling water	** Rated power input	** Rated current	* Maximum current	Water-tank volume	Air quantity	~ kg
	Watt	Watt	V/Hz	l/h	kW	Amp.	Amp.	litres	m <sup>3</sup> /h	
K-001.0	990	710	1x220-240/50	CH2-20	0,85	4,35	5,05	23	1.180	80
K-001.7	1.720	1.270	1x220-240/50	CH2-20	0,87	4,42	5,17	23	1.180	80
K-003.6	3.550	2.520	1x220-240/50	CH2-30	1,33	6,27	8,47	23	1.180	81
K-004.9	4.850	3.510	1x220-240/50	CH2-30	1,90	9,07	11,47	23	1.180	89

\* Maximum permissible load.

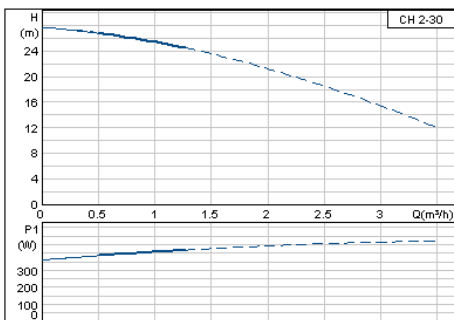
\*\* At an ambient temperature of 27°C.

\*\*\* For head pressure water pump, see pump graphic.

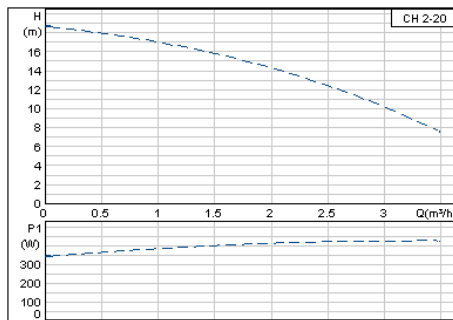
Conversion values: 1 W = 1 J/s = 0,86 kcal/h

Technical specifications under subject to change.

**CH2-30**



**CH2-20**



**Option**

**Different tensions**

- 1x200V/60Hz
- 3x110V/60Hz
- 3x220V/50Hz
- 3x220V/60Hz
- 220-240 / 380-415V/50Hz
- 3x440V/60Hz
- 3x460V/60Hz
- 3x480V/60Hz
- 1x230V/60Hz

# BOE-THERM 220-240V/380-415V/50Hz

Range: S1

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In the **CoolMaster** only durable materials are used. DTE leaves nothing to chance and chooses knowingly for a robust housing fitted with stainless steel foot mounts. These foot mounts are provided with M12 thread holes at the underside to enable direct mounting onto customer's steelwork.

The insulated stainless steel water tank in the **CoolMaster** is sealed tight to prevent any possible algal growth caused by the incidence of light.

Furthermore, the warm air produced by the condensers does not remain in the **CoolMaster**, but is blown out directly by powerful axial fans. These important DTE constructional features guarantee the long life of the **CoolMaster**.

### The **CoolMaster** includes the following components:

- ✓ **heat exchanger** (evaporator) made of **stainless steel** corrugated plates,
- ✓ digital **temperature controller** with adjustable limitation and display for reading out measured values,
- ✓ a pressure limited **thermostatic expansion valve**,
- ✓ an industrial **multi-stage centrifugal pump** with impellers, shaft and other key components made of **stainless steel**,
- ✓ **by-pass** for water pump protection,
- ✓ hermetically sealed and suction gas cooled **compressor**, protected at high and low pressure by a **pressostat**,
- ✓ an air-cooled **condenser** specially designed by DTE, fitted with copper pipes and aluminium fins,
- ✓ industrial **axial fans** which directly blows the hot condenser air horizontally to outside,
- ✓ a closed **water tank** made of **stainless steel**, which also has been provided with **insulation**, a **float** for automatically refilling, **manual filling device**, and **sight glass**,
- ✓ **Water tank level alarm**, (machine will switch off),
- ✓ a **switch box** provided with all necessary **protections**,
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# BOE-THERM 220-240V/380-415V/50Hz

Range: S2

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