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.

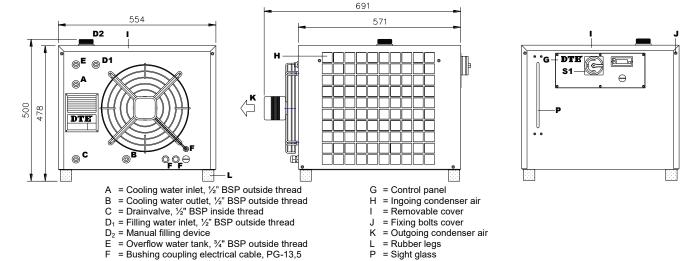
Furthermore, the warm air produced by the condenser does not remain in the CoolMaster, but is blown out directly by a powerful axial fan.

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

- √ 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 make 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

1 x 220-240V / 50Hz Range: K2

Dimensions in mm.



Options

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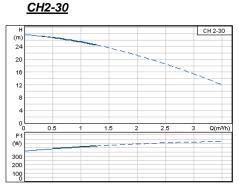
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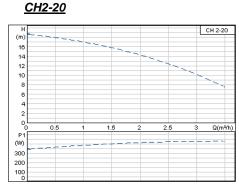
- full compliance with the country dependent standards and regulations,
- ✓ adaptation to all voltages and frequencies,
- ✓ housing fitted with wheels instead of rubber legs,
- ✓ adaptation to extreme environmental conditions,
- ✓ temperature adjustment and/or readable by remote control,
- ✓ protection 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	Y
	Watt	Watt	V/Hz	l/h	kW	Amp.	Amp.	litres	m³/h	~ kg
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.





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

Range: S1

Water Cooler with Tank and Pump

Automatic & Manual Filling



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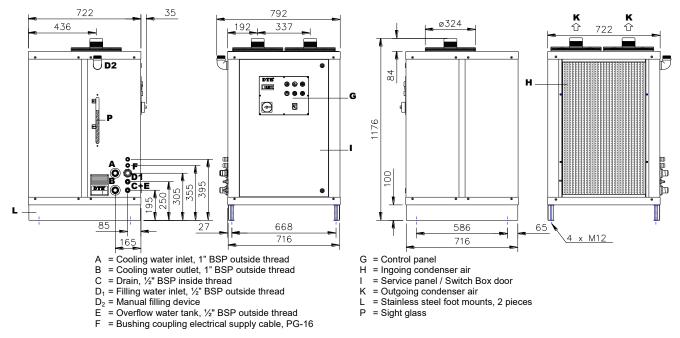
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The insulated stainless steel water tank in the CoolMaster is sealed tight to prevent any possible algal growth caused by the incidence of light.

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.

- 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 make 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,
- connection for external start/stop (Volts-Free Contact).



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,
- \checkmark a circulation pump of a different capacity,
- ✓ adaptation to all voltages and frequencies,
- housing fitted with wheels,
- ✓ adaptation to extreme environmental conditions,
- √ temperature adjustment and/or readable by remote control,
- $\checkmark\,$ extra feature for outdoor use with frost protection,
- ✓ 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 at ∆p 2,5 bar	** Rated power input	** Rated current	* Maximum current	Water- tank volume	Air quantity	Y
	Watt	Watt	V/Hz	l/h	kW	Amp.	Amp.	litres	m³/h	~ kg
K-004.7	4.690	3.140	220-240 / 380-415/50	670	1,64	8,39	11,89	45	2.600	160
K-005.5	5.470	3.930	220-240 / 380-415/50	780	1,71	8,54	12,04	45	2.600	160
K-007.6	7.630	5.410	220-240 / 380-415/50	1.090	2,54	6,98	9,04	45	2.600	176

- * Maximum permissible load.
- ** At an ambient temperature of 27°C.

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Conversion values: 1 W = 1 J/s = 0,86 kcal/h Technical specifications under subject to change.

Option: Differ	ent tensions
3x200V/50Hz	3x400V/50Hz
3x200V/60Hz	3x415V/50Hz
3x220V/50Hz	3x440V/60Hz
3x220V/60Hz	3x460V/50Hz
220-380V/60Hz	3x460V/60Hz
3x380V/50Hz	3x480V/60Hz
3x380V/60Hz	3x575V/60Hz

Range: S2

Water Cooler with Tank and Pump

Automatic & Manual Filling



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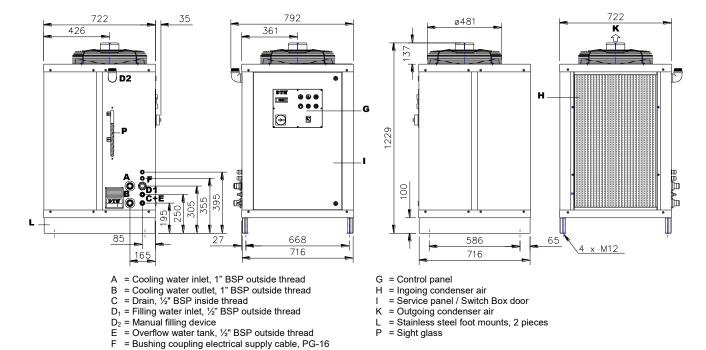
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The insulated stainless steel water tank in the CoolMaster is sealed tight to prevent any possible algal growth caused by the incidence of light.

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*.

- ✓ 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,
- an industrial axial fan which directly blows the hot condenser air horizontally to outside,
- a closed water tank make 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,
- connection for external start/stop (Volts-Free Contact).



Options

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- √ full compliance with the country dependent standards and regulations,
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- ✓ housing fitted with wheels,
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- √ condenser for external set-up,
- ✓ integration of water-cooled condenser instead of an air cooled condenser,
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TYPE- NUMBER	**Cooling capacity at 15°C	**Cooling capacity at 5°C	Tension / Frequency	Circulation cooling water at ∆p 2,5 bar	** Rated power input	** Rated current	* Maximum current	Water- tank volume	Air quantity	Y
	Watt	Watt	V/Hz	l/h	kW	Amp.	Amp.	litres	m³/h	~ kg
K-008.9	8.950	6.370	220-240 / 380-415/50	1.280	3,60	6,69	8,75	45	5.210	197
K-012.1	12.140	8.110	220-240 / 380-415/50	1.730	4,25	7,95	11,35	45	5.210	200
K-014.5	14.530	10.100	220-240 / 380-415/50	2.080	4,67	8,35	11,75	45	5.210	200

* Maximum permissible load.

Alle types

** At an ambient temperature of 27°C.

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Conversion values: 1 W = 1 J/s = 0,86 kcal/h Technical specifications under subject to change.

Option: Differe	ent tensions
3x200V/50Hz	3x400V/50Hz
3x200V/60Hz	3x415V/50Hz
3x220V/50Hz	3x440V/60Hz
3x220V/60Hz	3x460V/50Hz
220-380V/60Hz	3x460V/60Hz
3x380V/50Hz	3x480V/60Hz
3x380V/60Hz	3x575V/60Hz

Range: L1

Water Cooler with Tank and Pump

Automatic & Manual Filling



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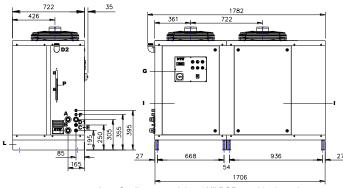
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- heat exchanger (evaporator) made of stainless steel corrugated plates,
- digital temperature controller with adjustable limitation and display for reading out measured values,
- a pressure limited thermostatic expansion valve,
- an industrial multi-stage 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 make 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),
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- connection for external start/stop (Volts-Free Contact).
- All connections on the back of the machine, no hoses or cables are visual



1229 9 65

- A = Cooling water inlet, 11/4" BSP outside thread
- B = Cooling water outlet, 1½" BSP outside thread C = Drain, ½" BSP inside thread
- D_1 = Filling water inlet, $\frac{1}{2}$ " BSP outside thread
- D₂ = Manual filling device
- E = Overflow water tank, ½" BSP outside thread
- = Bushing coupling electrical supply cable, PG-29

- G = Control panel H = Ingoing condenser air
- = Service panel / Switch Box door
- = Outgoing condenser air
- = Stainless steel foot mounts, 2 pieces
- = Sight glass

Options

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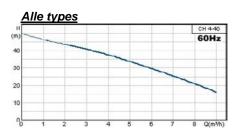
- full compliance with the country dependent standards and regulations,
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TYPE- NUMBER	**Cooling capacity at 15°C	**Cooling capacity at 5°C	Tension / Frequency	Circulation cooling water at ∆p 2,5 bar	** Rated power input	** Rated current	* Maximum current	Water- tank volume	Air quantity	Y
	Watt	Watt	V/Hz	l/h	kW	Amp.	Amp.	litres	m³/h	~ kg
K-019.3	19.260	13.530	220-240 / 380-415/50	2.750	5,51	13,21	21,51	140	10.420	392
K-023.4	23.370	16.320	220-240 / 380-415/50	3.340	6,46	14,61	24,51	140	10.420	394
K-027.8	27.790	19.890	220-240 / 380-415/50	3.970	7,84	16,41	21,51	140	10.420	392
K-032.1	32.110	23.370	220-240 / 380-415/50	4.590	9,64	19,31	24,51	140	10.420	394

^{*} Maximum permissible load.

^{**} At an ambient temperature of 27°C.



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Option: Differe	ent tensions
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Range: X1

Water Cooler with Tank and Pump

Automatic & Manual Filling



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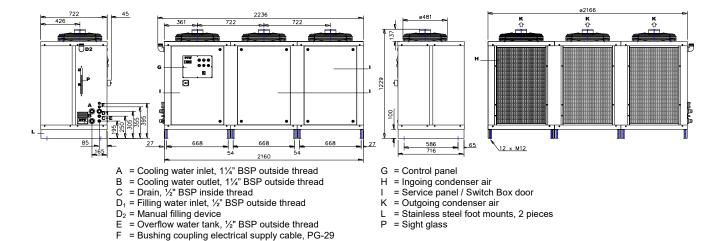
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- Water tank level alarm, (machine will switch off),
- a **switch box** provided with all necessary **protections**,
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Options

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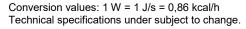
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K-044.7	44.740	31.470	220-240 / 380-415/50	6.390	12,23	26,87	45,97	140	15.630	613
K-050.5	50.530	36.840	220-240 / 380-415/50	7.220	15,77	30,37	39,77	140	15.630	608

- * Maximum permissible load.
- ** At an ambient temperature of 27°C.



50Hz
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CH 12-20
60Hz
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 Option: Different tensions

 3x200V/50Hz
 3x400V/50Hz

 3x200V/60Hz
 3x415V/50Hz

 3x220V/50Hz
 3x440V/60Hz

 3x220V/60Hz
 3x460V/50Hz

 220-380V/60Hz
 3x460V/60Hz

 3x380V/50Hz
 3x480V/60Hz

 3x380V/60Hz
 3x575V/60Hz

BOE-THERM A/S • INDUSTRIVÆNGET 1 • DK 5610 ASSENS • TEL.: +45 6471 2375 • <u>WWW.BOE-THERM.DK</u> • <u>INFO@BOE-THERM.DK</u>
NORDEA • DK 5000 ODENSE C • BIC CODE: NDEADKKK • KONTO:2005- 0747992770 • VAT: DK20665882
DKK IBAN: DK722000747992770 • EUR IBAN: DK1020005036489792 • USD IBAN: DK2020005036489806 • GBP IBAN: DK9520005036489814