

Immersion chillers E



INDUSTRIAL COOLING AND HEATING



Industrial cooling and heating.

Partner of the industry for over 40 years.

Since 1971 **DELTATHERM®** has belonged to **Hirmer GmbH**, a family business with its headquarters in Much near Cologne, one of the leading German manufacturers of cooling and temperature control systems. In three plants, 120 employees produce and distribute about 10,000 chillers, temperature control units, heating and cooling equipment and cooling components per year. All plants are located in the greater Cologne area. **DELTATHERM®** has a plant of its own for manufacturing casings and cabinets. We also have our own software development and build our own control electronics. Working closely together with our customers, our engineers are happy to develop special solutions and individual designs. 120 service partners support our plant customer service in 60 countries on 6 continents. We always have 95% of all replacement parts in stock, ready for dispatch within 24 hours. Quality, process safety, ease of maintenance and user-friendliness are our top priorities.

The safety of your production plants and of the production process are, to a large extent, dependent upon how well and how reliably your processes are temperature-controlled or cooled. At **DELTATHERM®**, qualified specialists - from trained tradespeople to master craftsmen and engineers - ensure the optimal mixture of planning, project engineering, diligent manufacturing methods and thorough quality control. Our planning and construction department, the building of our own control electronics and software development as well as our own plant for metal working all ensure that we have almost the entire vertical range of manufacture for temperature control units in-house. Purchased components such as pumps, valves, relays etc. are acquired from market-leading or renowned manufacturers.

All devices and systems are subject to a comprehensive functional test before dispatch. Because we are fully aware of what a plant standstill and the resulting production downtimes can cost our customers, we offer:

- Global plant service
- Service hotline to our experts, in German and English
- All standard components in stock and available globally in the shortest time by express mail
- Replacement part availability > 95%
- More than 120 service partners with locations on 6 continents – in Europe, North America, South America, Africa, Asia and Australia
- 24-hour online service, through which we can check and maintain your systems
- Ensuring the productivity of your **DELTATHERM®** machines





Series type E

Standard immersion chillers for mounting in the capacity range 1.7 kW to 115 kW.

Type E standard equipment

- Submersible part made from high-quality stainless steel frame
- Base plate made from high-quality stainless steel
- Pipe coil evaporator made from stainless steel
- Pipe coil mounting made from PE or stainless steel
- Cabinet, protection class at least IP 54
- All standard systems approved for up to 42 °C ambient temperature
- The most modern compressor technology with efficient and low-noise scroll compressors
- Condenser with copper pipes and pressed-on aluminium lamellae
- Temperature control via digital thermostat with temperature hysteresis ± 1.0 K
- TÜV-tested high and low pressure limiter in the cooling circuit
- Environmentally-friendly and CFC-free coolant
- CE-compliant / ISO 9001 / EN 60204
- Air vacuum filter
- Flat evaporator for low medium level

Type E options

- DC control voltage
- Piping for better heat exchange
- Winter starting device
- Collective fault message
- Potential-free fault message
- Special voltages
- Frequency 60 Hz
- Medium temperature max + 40 °C
- Wire marking
- Harting plug or other connector
- Coolant R 134 a
- Temperature hysteresis from ± 0.3 K
- System able to be switched off by temperature alarm
- Special piping for highly viscous oils
- Ambient temperature > 45 °C
- Differential control
- Water-cooled condensers
- Radial fan for external air compression
- UL-/CSA-compliant
- IP 65
- Special immersion dimensions
- Labels in multiple languages
- Remote monitoring via internet

Due to the wide range of versions of our products the images only represent a few examples. The actual devices can differ substantially.

Series type E		E2	E3	E4	E5	E6	E7	E8	E9	E10	E11
Cooling capacity at medium temperature	kW										
+10°C		1,1	2,3	3,8	4,3	5,2	6,2	7,3	9,0	11,6	15,0
+15°C		1,5	2,8	4,5	5,5	6,5	7,6	9,0	11,0	14,0	18,3
+20°C		1,7	3,1	5,2	6,4	7,8	9,2	11,0	13,4	16,6	22,3
Ambient temperature in	°C	32	32	32	32	32	32	32	32	32	32
Compressor drive	kW	0,9	1,5	1,3	1,5	1,7	2,0	2,4	2,9	3,5	4,8
Number of fans		1	1	1	1	1	1	1	1	1	2
Air power	m³/h	2250	2250	2250	2250	2250	3280	5640	5640	5640	11280
Total connection capacity	kW	1,0	1,7	1,5	1,7	1,9	2,2	3,1	3,5	4,1	6,3
Width (W)	mm	785	785	785	785	785	785	785	785	785	1085
Length (L)	mm	785	785	785	785	785	785	785	785	785	1085
Total height (H)	mm	982	982	982	982	1597	1597	1597	1597	1597	2035
Cover height (H1)	mm	482	482	482	482	1127	1127	1127	1127	1127	1435
Submersible part length (L2)	mm	715	715	715	715	715	715	715	715	715	1000
Submersible part width (W2)	mm	715	715	715	715	715	715	715	715	715	1000
Immersion depth (H2)	mm	470	470	470	470	470	470	470	470	470	600
Min. medium level emulsion flat evaporator (M)	mm	30	60	60	90	90	90	120	150	180	210
Min. medium level oil flat evaporator (M)	mm	60	90	120	150	180	210	240	300	360	360
Weight approx.	kg	98	110	120	130	140	150	160	165	190	270
Electrical connection		230 V 50 Hz	230 V 50 Hz	400 V 50 Hz	400 V 50 Hz	400 V 50 Hz	400 V 50 Hz	400 V 50 Hz	400 V 50 Hz	400 V 50 Hz	400 V 50 Hz
Series type E		E12	E13	E14	E15	E16	E17	E18	E19	E20	E21
Cooling capacity at medium temperature	kW										
+10°C		16,0	19,0	20,7	25,0	28,0	30,0	36,0	47,0	59,0	72,0
+15°C		19,5	23,0	25,2	30,0	34,0	37,0	43,0	57,0	72,0	88,0
+20°C		23,9	27,0	30,0	35,5	41,0	45,0	52,0	69,0	87,0	107,0
Ambient temperature in	°C	32	32	32	32	32	32	32	32	32	32
Compressor drive	kW	5,5	5,6	6,2	7,9	8,2	9,3	11,2	14,7	18,4	22,2
Number of fans		2	2	2	2	4	4	4	4	6	6
Air power	m³/h	11280	11280	11280	11280	16920	16920	22560	22560	33840	33840
Total connection capacity	kW	6,9	7,0	7,6	8,7	11,0	12,5	14,0	17,5	23,5	27,1
Width (W)	mm	1085	1085	1085	1085	1085	1085	1085	1085	1085	1085
Length (L)	mm	1085	1085	1085	1085	2085	2085	2085	2085	2085	2085
Total height (H)	mm	2035	2035	2035	2035	2227	2227	2227	2227	3230	3230
Cover height (H1)	mm	1435	1435	1435	1435	1477	1477	1477	1477	2230	2230
Submersible part length (L2)	mm	1000	1000	1000	1000	2000	2000	2000	2000	2000	2000
Submersible part width (W2)	mm	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Immersion depth (H2)	mm	600	600	600	600	750	750	750	750	1000	1000
Min. medium level emulsion flat evaporator (M)	mm	330	330	360	270	300	330	390	330	420	390
Min. medium level oil flat evaporator (M)	mm	300	300	330	390	450	510	390	510	480	600
Weight approx.	kg	320	330	340	350	450	470	630	910	1500	1700
Electrical connection		400 V 50 Hz	400 V 50 Hz	400 V 50 Hz	400 V 50 Hz	400 V 50 Hz	400 V 50 Hz	400 V 50 Hz	400 V 50 Hz	400 V 50 Hz	400 V 50 Hz



„We focus on only one thing: customer satisfaction. We achieve satisfaction through our high product quality, 24-hour service and the highest level of flexibility, through which we find individual solutions for all requirements. And we live out this claim - every day, for 40 years.“

Sascha and Mario Hirmer
Managing Directors

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Further products from our product range



Industrial series cooling towers with open or closed circuits from 80 to 18,000 kW cooling capacity



Dry and hybrid coolers for water, oil or emulsion from 0.5 to 15,000 kW cooling capacity



Rack chillers in the capacity range from 0.2 to 5 kW cooling capacity



Industrial cooling machines for water, oil and emulsion from 0.2 to 5,000 kW cooling capacity



Heating systems for water up to 160 °C and oil up to 350 °C



Immersion chillers for water, oil and emulsion from 1.7 to 115 kW cooling capacity

Technical modifications and errors reserved.

