

Julabo
THE TEMPERATURE CONTROL COMPANY

DYNEO™
Refrigerated and Heating Circulators



ENGLISH

DYNEO™. The best for your laboratory.

Circulators are an important part of daily operations in many laboratories of research institutions and industrial companies worldwide. The JULABO DYNEO circulators have been developed with pioneering technologies for these laboratories and are manufactured to the highest quality standards in Germany.

With the DYNEO series we offer our customers the ideal instruments for internal and external applications in a wide working temperature range of -50 °C to +200 °C. The modern instrument is designed for easy and time-saving operation and provides quick access to all relevant functions via a central rotary dial. Thanks to the proven JULABO premium quality, all models meet the highest standards in terms of precision, reliability, and functionality.

With a wide selection of accessories, all DYNEO instruments can be adapted to customer-specific applications in a modular and individual way. Modern interfaces and an integrated programmer complete the intelligent design of the DYNEO models.



DYNEO – the laboratory circulators

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DYNEO. Everything you need. The advantages at a glance.



Wide range.

Refrigerated and heating circulator in various combinations, circulator in various sizes. Maximum flexibility through a large selection of accessories.



Brilliance. In color.

Large color display with vivid luminance is easy to read, even from a large distance.



Temperature. Under control.

External Pt100 sensor connection for precise measurement and control directly in the external application.



Fill level. Monitored.

Fill level indicator on the display for heat-transfer liquid.



Information. Everything clear.

Information in plain text on a large color screen.



Multi-lingual.

Operation in multiple languages.



Process stability.

Early warning - visual and acoustic - of critical states increases process stability.



Process. Under control.

Full regulation of the dynamics control, access to all important control parameters for individual process optimization.



Turn. Push. Go.

Easy operation of all parameters using the central controller.



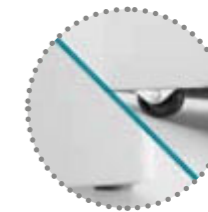
Programmer. Integrated.

The integrated internal programmer makes it possible to automatically run temperature time profiles.



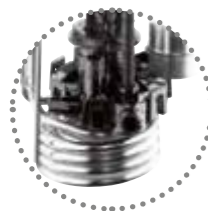
ATC3. Calibration.

'Absolute Temperature Calibration' for compensating a physically caused temperature difference, 3-point calibration.



Stable. Mobile.

Rubber feet keep JULABO Circulators standing firm. Larger and more powerful units also have integrated rollers for easy handling.



Powerful. Adjustable.

Strong pressure pump, continuously adjustable.



USB.

Remote control made easy using the integrated USB interface.



Condensation protection.

Superb design solution. Integrated ventilation directs air over the bath lid and minimizes condensation.



For higher demands

PID Temperature control with drift compensation and adjustable parameters, improved temperature stability for external applications, temperature stability ± 0.01 °C internal, $< \pm 0.1$ °C external.



RS232.

Connection using the optional RS232 interface.



Analog I/O.

Analog interfaces for integration into process control systems (optional).



Connection. Easy.

Inclined pump connections (M16x1) facilitate the connection of applications. Each unit includes 2 barbed fittings of 8/12 mm diameter each.



Space saving. Free up space.

Place your JULABO Circulator right next to an application, another unit, or wall. That saves space. This is made possible by eliminating vents and connections on the sides.



Refrigerated Circulators

Refrigerated circulators of the DYNEO series are robust, reliable, and efficient. Thanks to their wide working temperature range, they are flexible enough for internal and external applications in laboratories and technical facilities worldwide.



Refrigerated Circulators

DYNEO DD refrigerated circulators

for working temperatures from -50 °C to +200 °C

Refrigerated circulators of the DYNEO series distinguish themselves with a great price-performance ratio. The instruments offer high heating/cooling capacities for short heat-up and cool-down times. The refrigerated circulators work precisely and reliably even at higher ambient temperatures up to +40 °C. Whether in basic research, in material testing or in technical systems – the DYNEO refrigerated circulators offer functional solutions for every requirement and budget.

- Models suitable for internal and external applications
- Optimized cooling coil design provides more space in the bath
- Continuously adjustable, powerful pressure pump
- Flow rate 23 l/min, supply pressure 0.6 bar
- Easy change-over from internal to external circulation and vice versa
- Large color TFT display, multi-lingual user interface
- Ease of use via central rotary dial
- Integrated programmer
- External Pt100 sensor connection
- USB data port
- RS232 interface or analog interfaces (optional)
- Built-in drain tap for easy and safe drainage



DYNEO™ DD-200F		
Order No.	9 021 701	
Working temperature range °C	-20 ... +200	
Temperature stability °C	±0.01	
Heating capacity kW	2	
Cooling capacity kW	20 °C	0 °C
	0.2	0.15
	-10 °C	-20 °C
	0.1	0.02
Pump capacity flow rate / Pump capacity flow pressure	l/min	bar
	8 ... 23	0.1 ... 0.6
Usable bath opening cm	W × L / D	
	13 × 15 / 15	
Filling volume l	3 ... 4	
Dimensions cm	W × L × H	
	23 × 39 × 65	

DYNEO™ DD-201F		
Order No.	9 021 702	
Working temperature range °C	-20 ... +200	
Temperature stability °C	±0.01	
Heating capacity kW	2	
Cooling capacity kW	20 °C	0 °C
	0.2	0.15
	-10 °C	-20 °C
	0.1	0.02
Pump capacity flow rate / Pump capacity flow pressure	l/min	bar
	8 ... 23	0.1 ... 0.6
Usable bath opening cm	W × L / D	
	13 × 15 / 15	
Filling volume l	3 ... 4	
Dimensions cm	W × L × H	
	44 × 41 × 44	

DYNEO™ DD-300F		
Order No.	9 021 703	
Working temperature range °C	-25 ... +200	
Temperature stability °C	±0.01	
Heating capacity kW	2	
Cooling capacity kW	20 °C	0 °C
	0.3	0.27
	-10 °C	-20 °C
	0.19	0.08
Pump capacity flow rate / Pump capacity flow pressure	l/min	bar
	8 ... 23	0.1 ... 0.6
Usable bath opening cm	W × L / D	
	13 × 15 / 15	
Filling volume l	3 ... 4	
Dimensions cm	W × L × H	
	24 × 42 × 66	

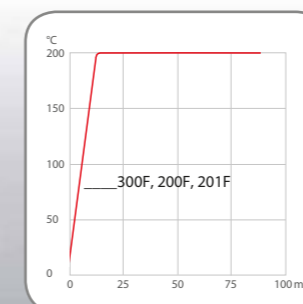


DYNEO. Intelligent, simple control.

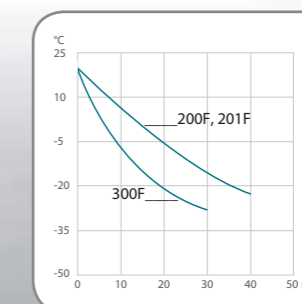
The DYNEO series offers a simple, modern control option with the unique rotary dial. The entire menu, all functions and settings are controlled directly via the central rotary dial on the front of the circulator.

The user receives tactile feedback on his inputs via the rotary dial. DYNEO's new, sophisticated operating concept allows easier, faster and more convenient access to all functions.

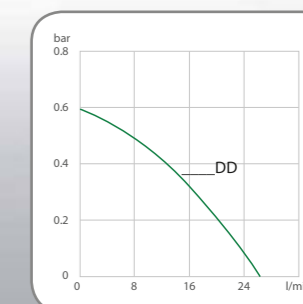
Heat-up time
Bath fluid: Thermal



Cool-down time
Bath fluid: Ethanol



Pump capacity
Bath fluid: Water





DYNEO™ DD-600F	
Order No.	9 021 704
Working temperature range °C	-35 ... +200
Temperature stability °C	±0.01
Heating capacity kW	2
Cooling capacity kW	20 °C 0 °C -10 °C
	0.6 0.5 0.33
	-20 °C -30 °C -40 °C
	0.19 0.07 -
Pump capacity flow rate / Pump capacity flow pressure	l/min bar 8 ... 23 0.1 ... 0.6
Usable bath opening/cm	W × L / D 22 × 15 / 15
Filling volume l	5 ... 7.5
Dimensions cm	W × L × H 33 × 47 × 69



DYNEO™ DD-601F	
Order No.	9 021 705
Working temperature range °C	-35 ... +200
Temperature stability °C	±0.01
Heating capacity kW	2
Cooling capacity kW	20 °C 0 °C -10 °C
	0.6 0.5 0.33
	-20 °C -30 °C -40 °C
	0.19 0.07 -
Pump capacity flow rate / Pump capacity flow pressure	l/min bar 8 ... 23 0.1 ... 0.6
Usable bath opening/cm	W × L / D 22 × 20 / 15
Filling volume l	8 ... 10
Dimensions cm	W × L × H 36 × 46 × 74



DYNEO™ DD-900F	
Order No.	9 021 706
Working temperature range °C	-38 ... +200
Temperature stability °C	±0.01
Heating capacity kW	2
Cooling capacity kW	20 °C 0 °C -10 °C
	0.9 0.8 0.52
	-20 °C -30 °C -40 °C
	0.31 0.11 -
Pump capacity flow rate / Pump capacity flow pressure	l/min bar 8 ... 23 0.1 ... 0.6
Usable bath opening/cm	W × L / D 26 × 20 / 35
Filling volume l	21 ... 30
Dimensions cm	W × L × H 39 × 62 × 75



DYNEO™ DD-1000F	
Order No.	9 021 707
Working temperature range °C	-50 ... 200
Temperature stability °C	±0.01
Heating capacity kW	2
Cooling capacity kW	20 °C 0 °C -10 °C
	1 0.9 0.73
	-20 °C -30 °C -40 °C
	0.5 0.3 0.13
Pump capacity flow rate / Pump capacity flow pressure	l/min bar 8 ... 23 0.1 ... 0.6
Usable bath opening/cm	W × L / D 18 × 13 / 15
Filling volume l	5 ... 7.5
Dimensions cm	W × L × H 42 × 49 × 70



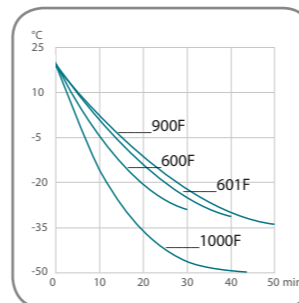
DYNEO™ DD-1001F	
Order No.	9 021 708
Working temperature range °C	-38 ... +100
Temperature stability °C	±0.01
Heating capacity kW	2
Cooling capacity kW	20 °C 0 °C -10 °C
	1 0.85 0.6
	-20 °C -30 °C -40 °C
	0.32 0.12 -
Pump capacity flow rate / Pump capacity flow pressure	l/min bar 8 ... 23 0.1 ... 0.6
Usable bath opening/cm	W × L / D 35 × 30 / 41
Filling volume l	42 ... 56
Dimensions cm	W × L × H 45 × 64 × 95



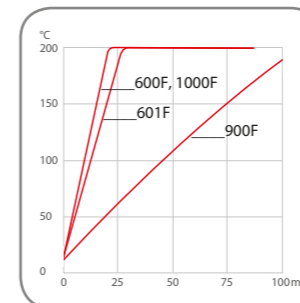
Applications

Temperature control of samples in a circulator bath or of an external application. For example: measuring cells, refractometers, polarimeters, photometers, viscometers, fermenters, electrophoresis chambers, chromatography columns, rotary evaporators, rheometers, and more.

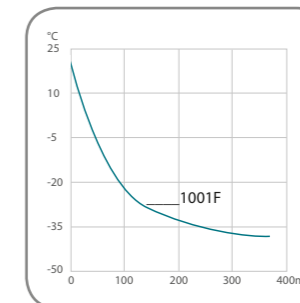
Cool-down time
Bath fluid: Ethanol



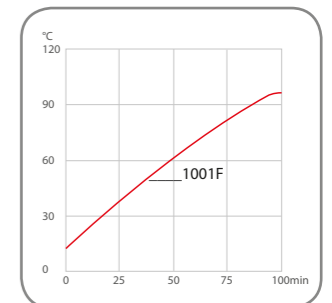
Heat-up time
Bath fluid: Thermal



Cool-down time
Bath fluid: Ethanol



Heat-up time:
Bath fluid: Thermal



Refrigerated Circulator Accessories

JULABO Thermal bath fluids

JULABO Thermal bath fluids have been carefully chosen after long-term testing. They are highly suitable for all of your temperature control applications guaranteeing safe and reliable operation.

Choosing the proper bath fluid is critical for high performance temperature control. The viscosity and heat conductivity of the Thermal fluids are specifically selected for use with JULABO DYNEO temperature control instruments.

Advantages

- Wide temperature ranges
- Low viscosity
- High stability
- Good heat conductivity
- Minimum odor
- Long fluid life



Thermal G	
Order No. 5 liters	8 940 125
Order No. 10 liters	8 940 124
Working temperature °C	-30 ... +80
Flash point °C	not determinable
Fire point °C	not determinable
Viscosity (kinematic at +20 °C) mm ² /s	4.07
Density (at +20 °C) g/cm ³	1.08
Pour point °C	-70
Boiling point °C	+108
Ignition temperature °C	+430
Color	light yellow



Thermal H5	
Order No. 5 liters	8 940 107
Order No. 10 liters	8 940 106
Working temperature °C	-50 ... +105
Flash point °C	+124
Fire point °C	+142
Viscosity (kinematic at +20 °C) mm ² /s	5.66
Density (at +20 °C) g/cm ³	0.92
Pour point °C	-100
Boiling point °C	+288
Ignition temperature °C	+350
Color	clear



Thermal H10	
Order No. 5 liters	8 940 115
Order No. 10 liters	8 940 114
Working temperature °C	-40 ... +180
Flash point °C	> +170
Fire point °C	+220
Viscosity (kinematic at +20 °C) mm ² /s	10.8
Density (at +20 °C) g/cm ³	0.94
Pour point °C	< -60
Boiling point °C	+288
Ignition temperature °C	+370
Color	clear



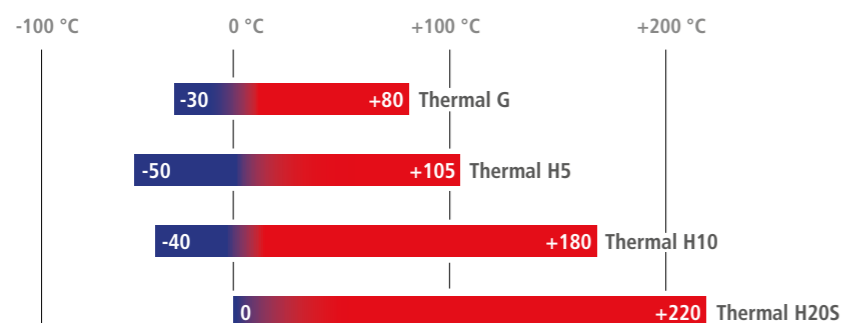
Thermal H20S	
Order No. 5 liters	8 940 109
Order No. 10 liters	8 940 108
Working temperature °C	0 ... +220
Flash point °C	+230
Fire point °C	+264
Viscosity (kinematic at +20 °C) mm ² /s	22.3
Density (at +20 °C) g/cm ³	0.95
Pour point °C	-70
Boiling point °C	+424
Ignition temperature °C	+385
Color	light brown



Makes routine laboratory work easier

JULABO Thermal bath fluids are delivered in containers with a handy drain tap.

Working temperature ranges



JULABO Thermal bath fluids based on silicone ...

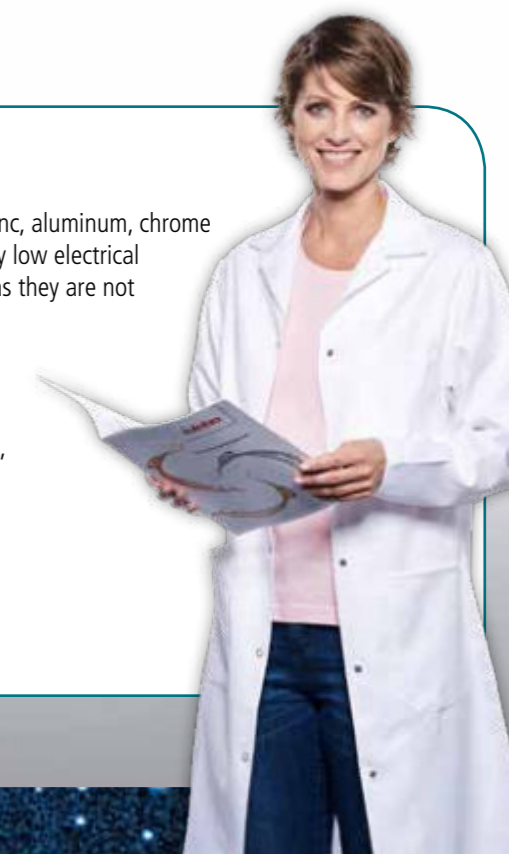
... are chemically inert substances which do not affect metals like iron, copper, zinc, aluminum, chrome or nickel. Compared to other fluids, JULABO Thermal fluids have an extraordinarily low electrical conductivity. When properly stored, the fluids will last for 12 months and longer as they are not susceptible to climatic influences.

JULABO Thermal bath fluids based on water-glycol ...

... (monoethyleneglycol with anti-corrosion additives) have excellent thermal characteristics and a low viscosity. In addition, they provide anti-freeze protection, i.e. they can be applied at temperatures below the freezing point of water.

More information on JULABO Thermal bath fluids ...

... in our brochure 'Thermal Bath Fluids' at www.julabo.com.



Refrigerated Circulator Accessories



Water protective media to prevent formation of algae and bacteria and Descaling agent

Order no.	Description	Suitable for
8 940 006	Aqua Stabil, 6 bottles, 100 ml each	DD
8 940 012	Aqua Stabil, 12 bottles, 100 ml each	DD
9 940 200	Descaling agent, 1 liter	DD



Hollow balls to reduce heat loss, evaporation, oxygen input, odors, action of light

Order no.	Description	Suitable for
8 970 010	Hollow balls, Polypropylene®, 20 mm dia., 1000 pcs (up to +100 °C, for water only)	DD



Heat exchangers / Cooling installations

Order no.	Description	Suitable for
9 970 240	Bath lid with built-in heat exchanger	DD-200F, DD-300F, DD-201F
9 970 242	Bath lid with built-in heat exchanger	DD-600F, DD-1000F, DD-601F



CR® tubing (-30 °C ... +120 °C)

Order no.	Description	Suitable for
8 930 008	1 m, 8 mm ID	DD
8 930 010	1 m, 10 mm ID	DD
8 930 012	1 m, 12 mm ID	DD



Viton® tubing (-35 °C ... +200 °C)

Order no.	Description	Suitable for
8 930 108	1 m, 8 mm ID	DD
8 930 110	1 m, 10 mm ID	DD
8 930 112	1 m, 12 mm ID	DD



PTFE tubing (-60 °C ... +180 °C)

Order no.	Description	Suitable for
8 930 140	PTFE tubing 8 mm ID × 10 mm OD per meter	DD
8 930 142	PTFE tubing 12 mm ID × 14 mm OD per meter	DD



Tubing insulation (-50 °C ... +100 °C)

Order no.	Description	Suitable for
8 930 410	1 m, for tubing 8-10 mm ID	CR® / Viton® tubing
8 930 412	1 m, for tubing 12 mm ID	CR® / Viton® tubing



Tube clamps

Order no.	Description	Suitable for
8 970 480	2 Tube clamps, size 1	CR® / Viton® tubing 8 mm ID
8 970 481	2 Tube clamps, size 2	CR® / Viton® tubing 10 - 12 mm ID



Metal tubing flexible, insulated, (-50 °C ... +200 °C)

Order no.	Description	Suitable for
8 930 220	0.5 m metal tubing, 2 fittings M16×1 female	DD
8 930 221	1.0 m metal tubing, 2 fittings M16×1 female	DD
8 930 222	1.5 m metal tubing, 2 fittings M16×1 female	DD
8 930 223	3.0 m metal tubing, 2 fittings M16×1 female	DD



Adapters and connectors

Order no.	Description	Suitable for
8 970 446	2 Barbed fittings for tubing 8 mm ID	DD
8 970 447	2 Barbed fittings for tubing 10 mm ID	DD
8 970 445	2 Barbed fittings for tubing 12 mm ID	DD
8 970 443	1 Adapter M16×1 male to M16×1 male	DD
8 970 490	2 Collar nuts M16×1 female	DD
8 970 442	2 Elbow fittings 90°, M16×1 female/male	DD
8 890 004	2 Adapters M16×1 female to NPT 1/4" male	DD
8 890 005	2 Adapters M16×1 female to NPT 1/4" female	DD
8 890 006	2 Adapters M16×1 female to NPT 3/8" male	DD
8 890 007	2 Adapters M16×1 female to NPT 3/8" female	DD
8 890 008	2 Adapters M16×1 female to NPT 1/2" male	DD
8 890 009	2 Adapters M16×1 female to NPT 1/2" female	DD
8 890 010	2 Adapters M16×1 male to NPT 1/4" female	DD
8 891 008	1 Adapter M16×1 male to BSP 1/2" female	DD
8 891 009	1 Adapter M16×1 male to BSP 3/4" female	DD
8 890 011	2 Adapters M16×1 female to tube 1/4" male	DD
8 890 012	2 Adapters M16×1 female to tube 3/8" male	DD
8 890 013	2 Adapters M16×1 female to tube 1/2" male	DD
8 890 024	2 Adapters M16×1 female to M16×1 female	DD



Shut-off valves for loop circuit

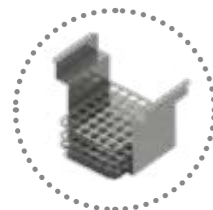
Order no.	Description	Suitable for
8 970 456	Shut-off valve (-10 °C ... +100 °C), M16×1	DD
8 970 457	Shut-off valve (-30 °C ... +200 °C), M16×1	DD



Distributing adapters

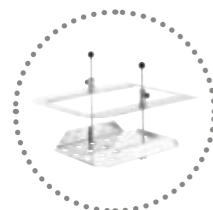
Order no.	Description	Suitable for
8 970 470	Twin distributing adapter with barbed fittings	Tubing 8 mm ID
8 970 471	Twin distributing adapter with barbed fittings	Tubing 12 mm ID
8 970 472	Twin distributing adapter with barbed fittings	Tubing 10 mm ID
8 970 473	Twin distributing adapter M16×1 female to 2 × M16×1 male	DD

Refrigerated Circulator Accessories



Test tube racks made out of stainless steel, up to +150 °C

Order no.	Description	Suitable for
9 970 320	Test tube rack for 30 tubes 100 × 17 mm dia.	DD-200F, DD-201F, DD-300F
9 970 321	Test tube rack for 42 tubes 75 × 12/13 mm dia.	DD-200F, DD-201F, DD-300F
9 970 322	Test tube rack for 42 tubes 40 × 10/11 mm dia.	DD-200F, DD-201F, DD-300F
9 970 323	Test tube rack for 10 Falcon tubes 50 ml	DD-200F, DD-201F, DD-300F



Immersion-height adjustable platforms

Order no.	Description	Suitable for
9 970 506	Immersion-height adjustable platform	DD-900F



Connection plugs

Order no.	Description	Suitable for
8 980 131	External Pt100 sensor plug	DD
8 980 133	STANDBY plug, 3-pin	DD with analog interfaces (option)
8 980 135	Alarm plug, 5-pin	DD with analog interfaces (option)
8 980 136	REG-EPROG plug 6-pin	DD with analog interfaces (option)



Software and hardware for instrument control, data recording, and visualization, interfaces

Order no.	Description	Suitable for
8 901 102	EasyTEMP Software (free of charge at www.julabo.com)	DD
8 901 105	EasyTEMP Professional Software, incl. USB Dongle	DD
9 900 110	USB cable 2 m, type A-B	DD
9 900 112	USB 2.0 repeater extension cable, length = 5 m	DD
9 900 114	USB 2.0 repeater extension cable, length = 10 m	DD
8 980 073	RS232 interface cable, length 2.5 m with 9-pin plug/9-pin socket	DD with RS232 interface (option)
8 980 074	RS232 interface cable, length 5 m with 9-pin plug/9-pin socket	DD with RS232 interface (option)
8 980 031	Ethernet / RS232 interface converter for temperature control instruments with RS232	DD with RS232 interface (option)
8 980 032	Ethernet / RS232 interface converter for up to 4 JULABO instruments using RS232 interface cable (8980074). Connection to an existing network via RJ45 cable (8980071).	DD with RS232 interface (option)
8 980 033	Ethernet / RS232 interface converter for up to 8 JULABO instruments using RS232 interface cable (8980074). Connection to an existing network via RJ45 cable (8980071)	DD with RS232 interface (option)



Calibration and testing certificates

Order no.	Description	Suitable for
8 902 901	1-point manufacturer's calibration certificate	DD
8 902 903	3-point manufacturer's calibration certificate	DD
8 902 905	5-point manufacturer's calibration certificate	DD
8 903 025	Manufacturer's testing certificate for JULABO refrigeration units (with up to 1 kW cooling capacity at +20 °C)	Refrigerated Circulators



IQ/OQ Documentation for equipment qualification

Order no.	Description	Suitable for
2 310 110	IQ/OQ documentation, category 2	DD refrigerated circulators



Preventative Maintenance Contracts

Order no.	Description	Suitable for
2 350 100	Preventative Maintenance Contract Standard includes the following services: Visual inspection, technical diagnostics, read-out of error memory, testing of tube connections and bath fluid, thorough cleaning of performance-reducing contaminations, testing of control behavior (temperature stability), sensor calibration as needed, testing/measuring of pump and cooling capacity (depending on model) and firmware update (if no hardware adjustment is required)	DD
2 350 110	Preventative Maintenance Contract Premium includes all services listed above as well as spare and wear parts and labor required for installation and replacement	DD



DYNEO **heating circulators** feature professional technology for demanding laboratory tasks. The portfolio permits a wide range of applications and includes heating immersion circulators and heating circulators.

Heating Circulators



Heating Circulators

DYNEO DD heating immersion circulators and heating circulators

for working temperatures from +20 °C to +200 °C

DYNEO heating circulators feature professional technology for demanding applications. These instruments facilitate internal temperature control in the bath or control of externally connected applications. The closed bath tanks are high-quality insulated.

- Models for internal and external applications from 3 to 26 liters
- Continuously adjustable, powerful pressure pump
- Flow rate 23 l/min, supply pressure 0.6 bar
- Easy change-over from internal to external circulation and vice versa
- Large color TFT display, multi-lingual user interface
- Ease of use via central rotary dial
- Integrated programmer
- External Pt100 sensor connection
- USB data port
- RS232 interface or analog interface (optional)
- Built-in drain tap for easy and safe drainage
- High-quality thermal insulation of the bath tank
- To adapt the DYNEO heating circulators to your individual application, we offer a comprehensive range of accessories (racks, bath lids, tubing, adapters, and more).



DYNEO™ DD	
Order No.	9 021 000
Working temperature range °C ¹⁾	+20 ... +200
Temperature stability °C	±0.01
Heating capacity kW	2
Pump capacity flow rate / Pump capacity flow pressure	l/min bar 8 ... 23 0.1 ... 0.6
Dimensions cm	W × L × H 13.2 × 16 × 35.5



DYNEO™ DD-BC4	
Order No.	9 021 504
Working temperature range °C ¹⁾	+20 ... +200
Temperature stability °C	±0.01
Heating capacity kW	2
Pump capacity flow rate / Pump capacity flow pressure	l/min bar 8 ... 23 0.1 ... 0.6
Usable bath opening cm	W × L / D 13 × 15 / 15
Filling volume l	3 ... 4.5
Dimensions cm	W × L × H 23 × 41 × 42



DYNEO™ DD-BC6	
Order No.	9 021 506
Working temperature range °C ¹⁾	+20 ... +200
Temperature stability °C	±0.01
Heating capacity kW	2
Pump capacity flow rate / Pump capacity flow pressure	l/min bar 8 ... 23 0.1 ... 0.6
Usable bath opening cm	W × L / D 13 × 20 / 15
Filling volume l	4.5 ... 6
Dimensions cm	W × L × H 24 × 44 × 47



DYNEO™ DD-BC12	
Order No.	9 021 512
Working temperature range °C ¹⁾	+20 ... +200
Temperature stability °C	±0.01
Heating capacity kW	2
Pump capacity flow rate / Pump capacity flow pressure	l/min bar 8 ... 23 0.1 ... 0.6
Usable bath opening cm	W × L / D 22 × 20 / 15
Filling volume l	8.5 ... 12
Dimensions cm	W × L × H 33 × 49 × 47



DYNEO™ DD-BC26	
Order No.	9 021 526
Working temperature range °C ¹⁾	+20 ... +200
Temperature stability °C	±0.01
Heating capacity kW	2
Pump capacity flow rate / Pump capacity flow pressure	l/min bar 8 ... 23 0.1 ... 0.6
Usable bath opening cm	W × L / D 26 × 20 / 35
Filling volume l	19 ... 26
Dimensions cm	W × L × H 39 × 62 × 48

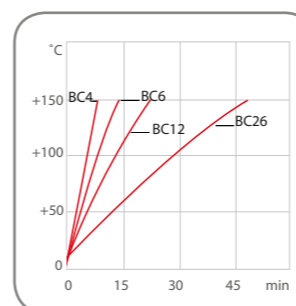
Applications

External temperature applications, e.g., in combination with jacketed reaction vessels, distillation apparatuses, mini-plant applications, photometers, refractometers, and more. Temperature control applications of samples and objects in the internal bath.



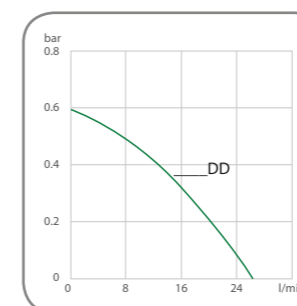
Heat-up time

Bath fluid: Thermal



Pump capacity

Bath fluid: Water



¹⁾ For temperature applications near or below ambient temperature: use a cooling coil or JULABO immersion cooler.

Heating Circulator Accessories

JULABO Thermal bath fluids

JULABO Thermal bath fluids have been carefully chosen after long-term testing. They are ideally suited for all of your temperature applications in heating circulators, guaranteeing safe and reliable operation.

Choosing the proper bath fluid is critical for optimum temperature control results. The viscosity and heat conductivity of the Thermal fluids are specifically selected for use with JULABO DYNEO temperature control instruments.

Advantages

- Wide temperature ranges
- Low viscosity
- High stability
- Good heat conductivity
- Minimum odor
- Long fluid life



Makes routine laboratory work easier

JULABO Thermal bath fluids are delivered in containers with a handy drain tap.



Thermal HS

Order No. 5 liters	8 940 103
Order No. 10 liters	8 940 102
Working temperature °C	+50.0 ... +250
Flash point °C	+270
Fire point °C	+360
Viscosity (kinematic at +20 °C) mm ² /s	55
Density (at +20 °C g/cm ³)	0.96
Pour point °C	< -60
Boiling point °C	> 300
Ignition temperature °C	> +400
Color	light brown



Thermal H10

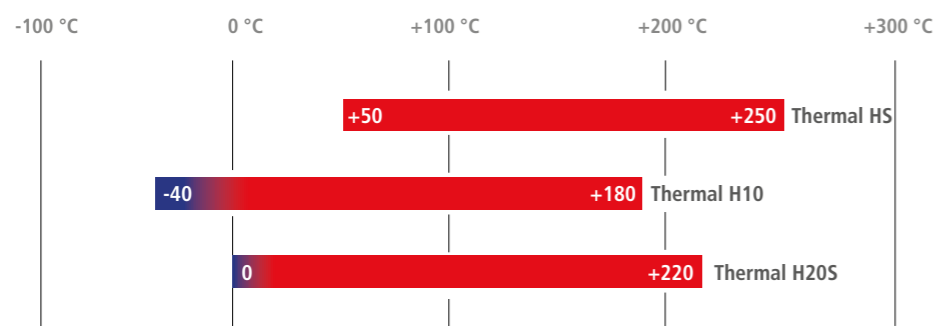
Order No. 5 liters	8 940 115
Order No. 10 liters	8 940 114
Working temperature °C	-40.0 ... +180
Flash point °C	> +170
Fire point °C	+220
Viscosity (kinematic at +20 °C) mm ² /s	10.8
Density (at +20 °C g/cm ³)	0.94
Pour point °C	< -60
Boiling point °C	+288
Ignition temperature °C	+370
Color	clear



Thermal H20S

Order No. 5 liters	8 940 109
Order No. 10 liters	8 940 108
Working temperature °C	+0.0 ... +220
Flash point °C	+230
Fire point °C	+264
Viscosity (kinematic at +20 °C) mm ² /s	22.3
Density (at +20 °C g/cm ³)	0.95
Pour point °C	-70
Boiling point °C	+424
Ignition temperature °C	+385
Color	light brown

Working temperature ranges



JULABO Thermal bath fluids based on silicone ...

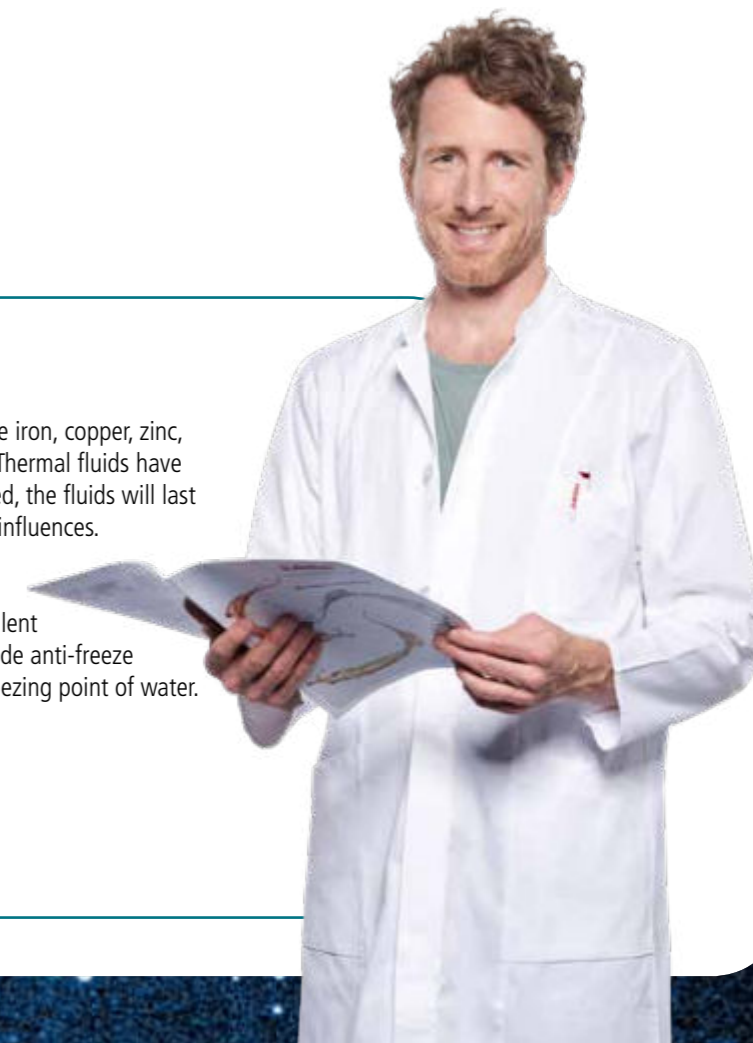
... are chemically inert substances which do not affect metals like iron, copper, zinc, aluminum, chrome or nickel. Compared to other fluids, JULABO Thermal fluids have an extraordinarily low electrical conductivity. When properly stored, the fluids will last for 12 months and longer as they are not susceptible to climatic influences.

JULABO Thermal bath fluids based on water-glycol ...

... (monoethyleneglycol with anti-corrosion additives) have excellent thermal characteristics and a low viscosity. In addition, they provide anti-freeze protection, i.e. they can be applied at temperatures below the freezing point of water.

More information on JULABO Thermal bath fluids ...

... in our brochure 'Thermal Bath Fluids' at www.julabo.com.

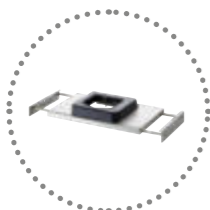


Heating Circulator Accessories



Water protective media to prevent formation of algae and bacteria and **Descaling agent**

Order no.	Description	Suitable for
8 940 006	Aqua Stabil, 6 bottles, 100 ml each	DD
8 940 012	Aqua Stabil, 12 bottles, 100 ml each	DD
9 940 200	Descaling agent, 1 liter	DD



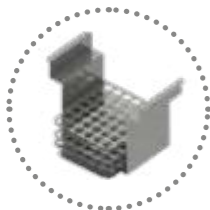
Assembly frames

Order no.	Description	Suitable for
9 970 201	Telescopic bridge, adjustable from 330 mm to 680 mm	DD



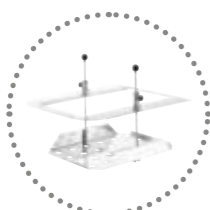
Hollow balls to reduce heat loss, evaporation, oxygen input, odors, action of light

Order no.	Description	Suitable for
8 970 010	Hollow balls, Polypropylene®, 20 mm dia., 1000 pcs (up to +100 °C, for water only)	DD



Test tube racks made out of stainless steel, up to +150 °C

Order no.	Description	Suitable for
9 970 320	Test tube rack for 30 tubes 100 × 17 mm dia.	DD-BC4, DD-BC6
9 970 321	Test tube rack for 42 tubes 75 × 12/13 mm dia.	DD-BC4, DD-BC6
9 970 322	Test tube rack for 42 tubes 40 × 10/11 mm dia.	DD-BC4, DD-BC6
9 970 323	Test tube rack for 10 Falcon tubes 50 ml	DD-BC4, DD-BC6



Immersion-height adjustable platforms

Order no.	Description	Suitable for
9 970 506	Immersion-height adjustable platform	DD-BC26



Universal bath attachment clamp

Order no.	Description	Suitable for
9 970 420	Bath attachment clamp for wall thickness up to 30 mm	DD



Pump set for external temperature applications

Order no.	Description	Suitable for
9 970 141	Pump set (pump connections M16×1)	DD



Stand attachment for laboratory stands

Order no.	Description	Suitable for
9 970 022	Stand attachment with rod 200x12 mm dia.	DD



Heat exchangers / Cooling installations

Order no.	Description	Suitable for
9 970 240	Bath lid with built-in heat exchanger	DD-BC4, DD-BC6
9 970 242	Bath lid with built-in heat exchanger	DD-BC12
9 970 100	Installation cooling coil for counter-cooling with cooling water for installation into the existing assembly frame	DD
9 970 101	Add-on cooling coil for counter-cooling with cooling water for mounting on circulator head and use with the universal bath attachment clamp (without assembly frame)	DD



CR® tubing (-30 °C ... +120 °C)

Order no.	Description	Suitable for
8 930 008	1 m, 8 mm ID	DD
8 930 010	1 m, 10 mm ID	DD
8 930 012	1 m, 12 mm ID	DD



Viton® tubing (-35 °C ... +200 °C)

Order no.	Description	Suitable for
8 930 108	1 m, 8 mm ID	DD
8 930 110	1 m, 10 mm ID	DD
8 930 112	1 m, 12 mm ID	DD



PTFE tubing (-60 °C ... +180 °C)

Order no.	Description	Suitable for
8 930 140	PTFE tubing 8 mm ID × 10 mm OD per meter	DD
8 930 142	PTFE tubing 12 mm ID × 14 mm OD per meter	DD



Tubing insulation (-50 °C ... +100 °C)

Order no.	Description	Suitable for
8 930 410	1 m, for tubing 8 - 10 mm ID	CR® / Viton® tubing
8 930 412	1 m, for tubing 12 mm ID	CR® / Viton® tubing



Tube clamps

Order no.	Description	Suitable for
8 970 480	2 Tube clamps, size 1	CR® / Viton® tubing 8 mm ID
8 970 481	2 Tube clamps, size 2	CR® / Viton® tubing 10 - 12 mm ID

Heating Circulator Accessories



Metal tubing flexible, insulated, (-50 °C ... +200 °C)

Order no.	Description	Suitable for
8 930 220	0.5 m metal tubing, 2 fittings M16×1 female	DD
8 930 221	1.0 m metal tubing, 2 fittings M16×1 female	DD
8 930 222	1.5 m metal tubing, 2 fittings M16×1 female	DD
8 930 223	3.0 m metal tubing, 2 fittings M16×1 female	DD



Adapters and connectors

Order no.	Description	Suitable for
8 970 446	2 Barbed fittings for tubing 8 mm ID	DD
8 970 447	2 Barbed fittings for tubing 10 mm ID	DD
8 970 445	2 Barbed fittings for tubing 12 mm ID	DD
8 970 443	1 Adapter M16×1 male to M16×1 male	DD
8 970 490	2 Collar nuts M16×1 female	DD
8 970 442	2 Elbow fittings 90°, M16×1 female/male	DD
8 890 004	2 Adapters M16×1 female to NPT 1/4" male	DD
8 890 005	2 Adapters M16×1 female to NPT 1/4" female	DD
8 890 006	2 Adapters M16×1 female to NPT 3/8" male	DD
8 890 007	2 Adapters M16×1 female to NPT 3/8" female	DD
8 890 008	2 Adapters M16×1 female to NPT 1/2" male	DD
8 890 009	2 Adapters M16×1 female to NPT 1/2" female	DD
8 890 010	2 Adapters M16×1 male to NPT 1/4" female	DD
8 891 008	1 Adapter M16×1 male to BSP 1/2" female	DD
8 891 009	1 Adapter M16×1 male to BSP 3/4" female	DD
8 890 011	2 Adapters M16×1 female to tube 1/4" male	DD
8 890 012	2 Adapters M16×1 female to tube 3/8" male	DD
8 890 013	2 Adapters M16×1 female to tube 1/2" male	DD
8 890 024	2 Adapters M16×1 female to M16×1 female	DD



Shut-off valves for loop circuit

Order no.	Description	Suitable for
8 970 456	Shut-off valve (-10 °C ... +100 °C), M16×1	DD
8 970 457	Shut-off valve (-30 °C ... +200 °C), M16×1	DD



Distributing adapters

Order no.	Description	Suitable for
8 970 470	Twin distributing adapter with barbed fittings	Tubing 8 mm ID
8 970 471	Twin distributing adapter with barbed fittings	Tubing 12 mm ID
8 970 472	Twin distributing adapter with barbed fittings	Tubing 10 mm ID
8 970 473	Twin distributing adapter M16×1 female to 2 × M16×1 male	DD



Connection plugs

Order no.	Description	Suitable for
8 980 131	External Pt100 sensor plug	DD
8 980 133	STANDBY plug, 3-pin	DD with analog interfaces (option)
8 980 135	Alarm plug, 5-pin	DD with analog interfaces (option)
8 980 136	REG-EPROG plug 6-pin	DD with analog interfaces (option)



Software and hardware for instrument control, data recording, and visualization, interfaces

Order no.	Description	Suitable for
8 901 102	EasyTEMP Software (free of charge at www.julabo.com)	DD
8 901 105	EasyTEMP Professional Software, incl. USB Dongle	DD
9 900 110	USB cable 2 m, type A-B	DD
9 900 112	USB 2.0 repeater extension cable, length = 5 m	DD
9 900 114	USB 2.0 repeater extension cable, length = 10 m	DD
8 980 073	RS232 interface cable, length 2.5 m with 9-pin plug/9-pin socket	DD with RS232 interface (option)
8 980 074	RS232 interface cable, length 5 m with 9-pin plug/9-pin socket	DD with RS232 interface (option)
8 980 031	Ethernet/RS232 interface converter for temperature control instruments with RS232	DD with RS232 interface (option)
8 980 032	Ethernet/RS232 interface converter for up to 4 JULABO instruments using RS232 interface cable (8980074). Connection to an existing network via RJ45 cable (8980071).	DD with RS232 interface (option)
8 980 033	Ethernet/RS232 interface converter for up to 8 JULABO instruments using RS232 interface cable (8980074). Connection to an existing network via RJ45 cable (8980071).	DD with RS232 interface (option)



Calibration and testing certificates

Order no.	Description	Suitable for
8 902 901	1-point manufacturer's calibration certificate	DD
8 902 903	3-point manufacturer's calibration certificate	DD
8 902 905	5-point manufacturer's calibration certificate	DD
8 903 015	Manufacturer's testing certificate for JULABO instruments without integrated refrigeration unit (up to 1 kW cooling capacity at +20 °C)	DD



IQ/OQ Documentation for equipment qualification

Order no.	Description	Suitable for
2 310 110	IQ/OQ documentation, category 1	DD immersion and heating circulators



Preventative Maintenance Contracts

Order no.	Description	Suitable for
2 350 100	Preventative Maintenance Contract Standard includes the following services: Visual inspection, technical diagnostics, read-out of error memory, testing of tube connections and bath fluid, thorough cleaning of performance-reducing contaminations, testing of control behavior (temperature stability), sensor calibration as needed, testing/measuring of pump and cooling capacity (depending on model) and firmware update (if no hardware adjustment is required)	DD
2 350 110	Preventative Maintenance Contract Premium includes all services listed above as well as spare and wear parts and labor required for installation and replacement	DD

The **Julabo** advantages at a glance.

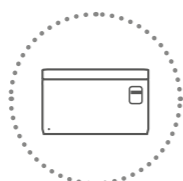
JULABO temperature control solutions – high-precision and speed

JULABO products include high-quality temperature control solutions to cover the temperature range -95 °C to +400 °C.



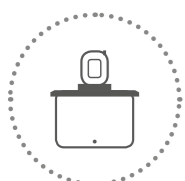
Refrigerated Circulators

The JULABO Refrigerated Circulators are suitable for internal and external applications and can be used within the temperature range -95 °C to +200 °C.



Water Baths and Shaking Water Baths

JULABO Water Baths and Shaking Water Baths can be used for a variety of applications within the temperature range +18 °C to +99.9 °C.



Heating Circulators

Heating Circulators are available in various designs including Heating Immersion Circulators, Open Heating Bath Circulators, or Heating Circulators and cover the temperature range +20 °C to +300 °C.



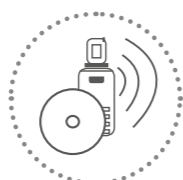
Additional Products

In addition, the JULABO product portfolio offers instruments for special requirements such as Calibration Baths, Visco Baths, Beer Forcing Test Baths, Immersion / Flow-Through Coolers, Temperature Controllers and Refrigerators for Chemicals.



Highly Dynamic Temperature Control Systems

The Highly Dynamic Temperature Control Systems from JULABO can be used for demanding temperature applications ranging from -92 °C to +400 °C. The PRESTO series offers unique high-performance specifications to meet these requirements.



Wireless Communication & Software Solutions

JULABO facilitates the automation of applications. The temperature control instruments can be comfortably controlled and monitored via PC.



Recirculating Coolers

JULABO Recirculating Coolers are highly efficient and therefore offer an environmentally friendly and economic alternative to tap water cooling in the temperature range -25 °C to +130 °C.



Accessories

The extensive range of instrument accessories ensures JULABO products are adaptable for research and industry use.



JULABO. Quality.

Highest quality standards to ensure a long product life.



Green technology.

Deliberately engineered with environmentally friendly materials and technologies.



Satisfied customers.

11 subsidiaries and more than 100 partners worldwide guarantee fast and qualified JULABO support.



100 % checked.

100 % testing. 100 % quality. Every JULABO product is shipped to customers after a successful final inspection.



Quick start.

Individual JULABO consultation and comprehensive manuals at your disposal.



Services 24/7.

Around the clock availability. You can find suitable accessories, data sheets, manuals, case studies and more at www.julabo.com.

Comprehensive service and on-site support

JULABO takes pride in offering customers expert advice for pairing the proper JULABO temperature control solution to their specific application. JULABO service and support options include installation and calibration, equipment qualification documentation and application training. These invaluable services ensure customer confidence in the operation and maintenance of any JULABO unit.

Individual requirements – individual products

JULABO's wide product range offers a solution for almost any application. However, if a specific application needs more than a standard product can offer, the JULABO specialists will work out an individual solution with you.

Voltage options

Model	Order No.	Available mains voltages / Heating capacity in kW						
		230 V 50 Hz	208-230 V 60 Hz	208-230 V 50-60 Hz	100-115 V 50-60 Hz	115V 60 Hz	100 V 50 - 60 Hz	200 V 50 - 60 Hz
DD-200F	9 012 701	-	-	1.6 ... 2	0.8 ... 1	1	0.8	-
DD-200F	9 012 701.D	-	-	1.6 ... 2	0.8 ... 1	1	0.8	-
DD-200F	9 012 701.A	-	-	1.6 ... 2	0.8 ... 1	1	0.8	-
DD-201F	9 012 702	-	-	1.6 ... 2	0.8 ... 1	1	0.8	-
DD-201F	9 012 702.D	-	-	1.6 ... 2	0.8 ... 1	1	0.8	-
DD-201F	9 012 702.A	-	-	1.6 ... 2	0.8 ... 1	1	0.8	-
DD-300F	9 012 703	2	2	-	0.8 ... 1	1	0.8	-
DD-300F	9 012 703.D	2	2	-	0.8 ... 1	1	0.8	-
DD-300F	9 012 703.A	2	2	-	0.8 ... 1	1	0.8	-
DD-600F	9 012 704	-	-	1.6 ... 2	0.8 ... 1	1	0.8	1.5
DD-600F	9 012 704.D	-	-	1.6 ... 2	0.8 ... 1	1	0.8	1.5
DD-600F	9 012 704.A	-	-	1.6 ... 2	0.8 ... 1	1	0.8	1.5
DD-601F	9 012 705	-	-	1.6 ... 2	0.8 ... 1	1	0.8	1.5
DD-601F	9 012 705.D	-	-	1.6 ... 2	0.8 ... 1	1	0.8	1.5
DD-601F	9 012 705.A	-	-	1.6 ... 2	0.8 ... 1	1	0.8	1.5
DD-900F	9 012 706	-	-	1.6 ... 2	0.8 ... 1	1	-	1.5
DD-900F	9 012 706.D	-	-	1.6 ... 2	0.8 ... 1	1	-	1.5
DD-900F	9 012 706.A	-	-	1.6 ... 2	0.8 ... 1	1	-	1.5
DD-1000F	9 012 707	-	-	1.6 ... 2	0.8 ... 1	1	-	1.5
DD-1000F	9 012 707.D	-	-	1.6 ... 2	0.8 ... 1	1	-	1.5
DD-1000F	9 012 707.A	-	-	1.6 ... 2	0.8 ... 1	1	-	1.5
DD-1001F	9 012 708	-	-	1.6 ... 2	0.8 ... 1	-	-	1.5
DD-1001F	9 012 708.D	-	-	1.6 ... 2	0.8 ... 1	-	-	1.5
DD-1001F	9 012 708.A	-	-	1.6 ... 2	0.8 ... 1	-	-	1.5
DD	9 012 000	-	-	1.6 ... 2	0.8 ... 1	-	-	1.5
DD	9 012 000.D	-	-	1.6 ... 2	0.8 ... 1	-	-	1.5
DD	9 012 000.A	-	-	1.6 ... 2	0.8 ... 1	-	-	1.5
DD-BC4	9 012 504	-	-	1.6 ... 2	0.8 ... 1	-	-	1.5
DD-BC4	9 012 504.D	-	-	1.6 ... 2	0.8 ... 1	-	-	1.5
DD-BC4	9 012 504.A	-	-	1.6 ... 2	0.8 ... 1	-	-	1.5
DD-BC6	9 012 506	-	-	1.6 ... 2	0.8 ... 1	-	-	1.5
DD-BC6	9 012 506.D	-	-	1.6 ... 2	0.8 ... 1	-	-	1.5
DD-BC6	9 012 506.A	-	-	1.6 ... 2	0.8 ... 1	-	-	1.5
DD-BC12	9 012 512	-	-	1.6 ... 2	0.8 ... 1	-	-	1.5
DD-BC12	9 012 512.D	-	-	1.6 ... 2	0.8 ... 1	-	-	1.5
DD-BC12	9 012 512.A	-	-	1.6 ... 2	0.8 ... 1	-	-	1.5
DD-BC26	9 012 526	-	-	1.6 ... 2	0.8 ... 1	-	-	1.5
DD-BC26	9 012 526.D	-	-	1.6 ... 2	0.8 ... 1	-	-	1.5
DD-BC26	9 012 526.A	-	-	1.6 ... 2	0.8 ... 1	-	-	1.5

Unless otherwise indicated, all data relates to the operation at nominal voltage and frequency and +20 °C ambient temperature. Cooling capacity measured according to DIN12876-2.



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