

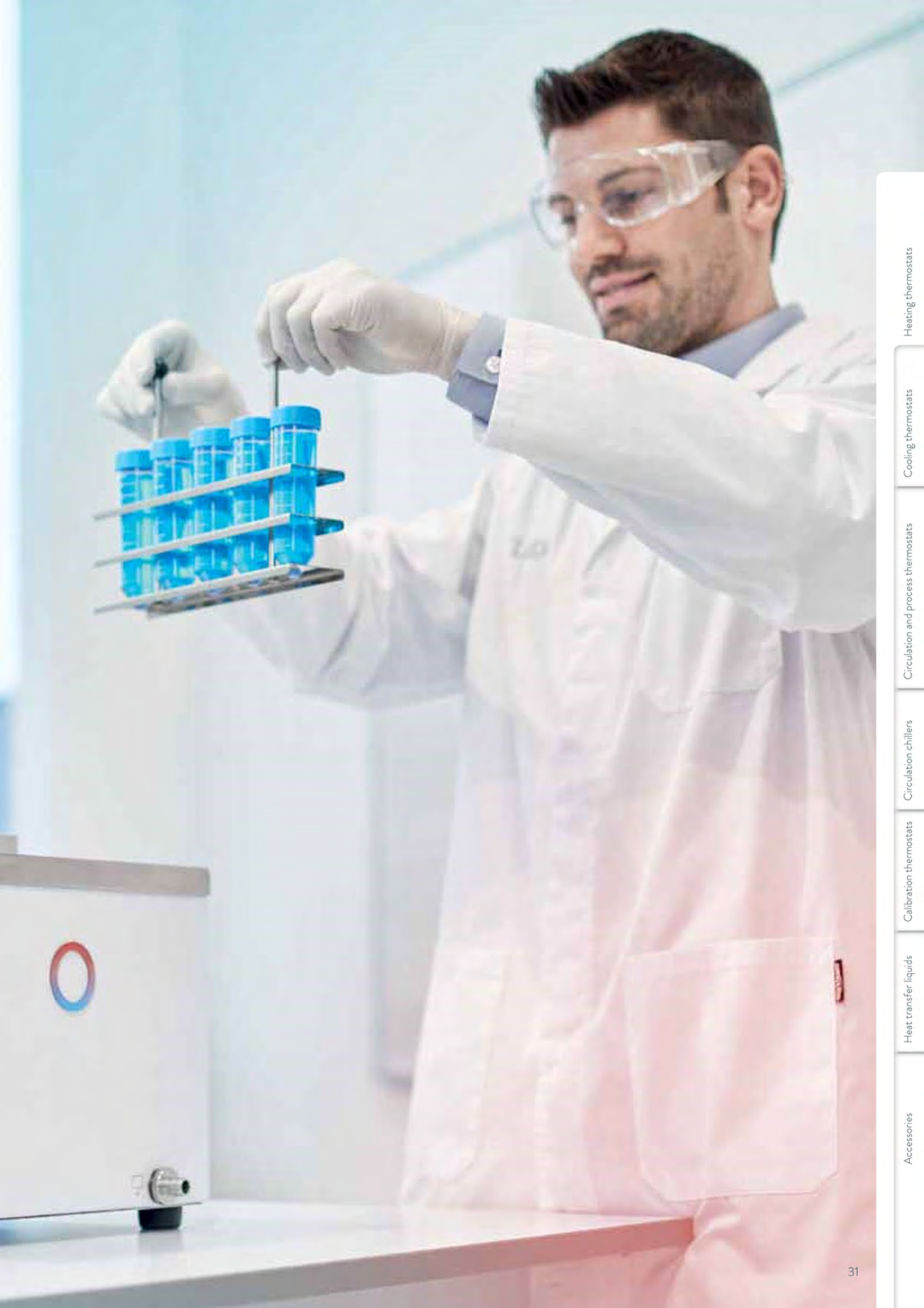
LAUDA

HEATING THERMOSTATS

Specific application examples

- Sample preparation for chemical and pharmaceutical analysis
- Medical serology
- Biotechnology
- Material testing





LAUDA Alpha

Heating thermostats from 25 to 100 °C for cost-effective temperature control thermostating in the lab



Cost-effective thermostats with reliable technology incorporated into a modern design
LAUDA Alpha is the most cost-effective choice when it comes to premium-quality LAUDA thermostats. These reliable and user-friendly thermostats, with features optimized for essential use, can be operated with non-flammable liquids and are suitable for both internal and external temperature control tasks.



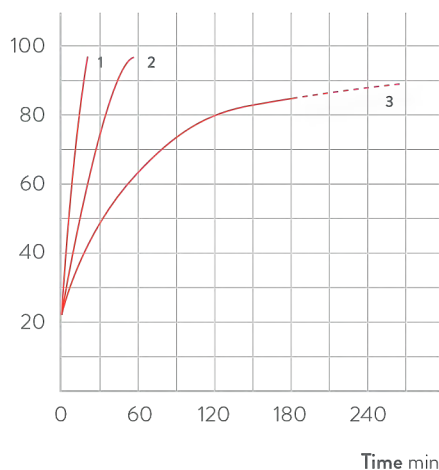
Simple and intuitive menu navigation with three-button operation using a large, clearly legible LED display



Screw clamp allows easy change to different bath vessels with a maximum wall thickness of 30 mm

HEATING PERFORMANCE Water, bath closed

Bath temperature °C



1 A6
2 A12
3 A24

Important functions

- Deep-drawn stainless steel bath vessels
- Integrated timer function allows automatic device shutdown
- Low-level and overtemperature protection for operation with non-flammable liquids

Included accessories

Screw clamp, attachment nozzle in two sizes

Further accessories

Pump circulation set, cooling coil, bath cover set

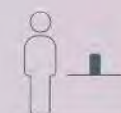
All technical data and power supply variants can be found in the ›Technical data‹ section.

More at www.lauda.de/1724



LAUDA Alpha

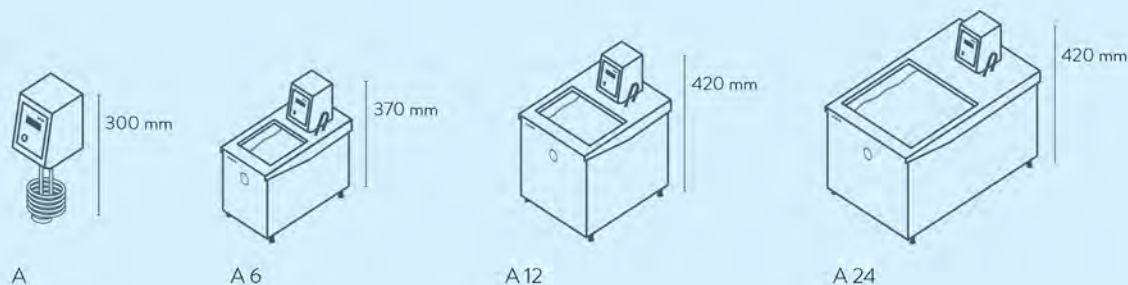
Heating thermostats A 6, A 12 and A 24 work in the temperature range between 25 and 100 °C. Cooling coil, pump circulation set and bath cover set are available as accessories for all thermostats.



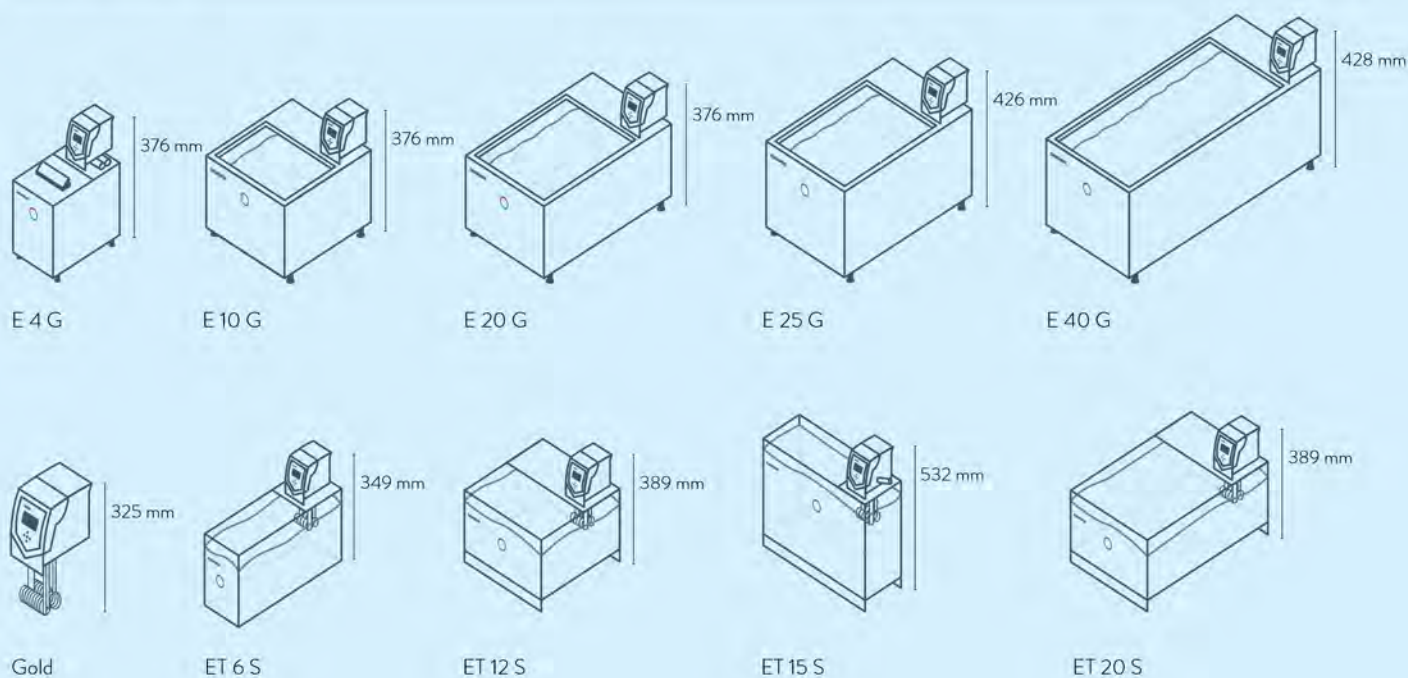
LAUDA Heating thermostats

Device type overview

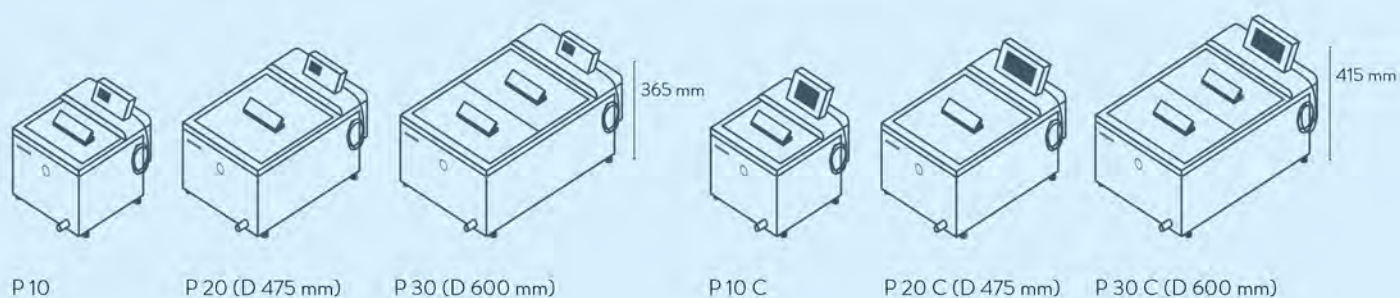
LAUDA Alpha / Page 32



LAUDA ECO / Page 34



LAUDA PRO / Page 36



LAUDA Heating thermostats

Interfaces

	Pt 100 (1)	Pt 100 (2)	USB	Ethernet	RS 232 / 485	Analog	Namur contact	Sub-D contact	Profibus	EtherCat M8	EtherCat RJ 45	Number of module slots, large	Number of module slots, small
LAUDA Alpha / Page 32	-	-	-	-	-	-	-	-	-	-	-	-	-
LAUDA ECO / Page 34	Z	-	S	Z	Z	Z	Z	Z	Z	Z	Z	1	1
LAUDA PRO / Page 36	S	-	S	S	Z	Z	Z	Z	Z	Z	Z	1	-
LAUDA Proline Master	S	-	-	Z	Z	Z	Z	Z	Z	Z	Z	2	-
LAUDA Proline Command	S	-	-	Z	S	Z	Z	Z	Z	Z	Z	2	-

S = Series standard
Z = Available as an accessory



LRZ 912
Analog module



LRZ 913
RS 232/485 interface



LRZ 914
Contact module with single input and single output (NAMUR)



LRZ 915
Contact module with 3 inputs and 3 outputs



LRZ 917
Profibus module



LRZ 918
Pt100/Li bus module, small cover



LRZ 921
Ethernet module



LRZ 922
EtherCAT module with M8 connection

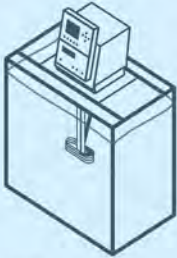


LRZ 923
EtherCAT module with RJ45 connection

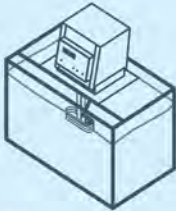


LRZ 925
External Pt100/LiBus-module, large cover

LAUDA Proline bridge thermostat / Page 38



PB C
PBD C

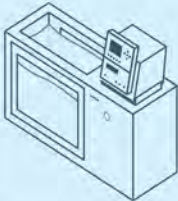


PB
PBD

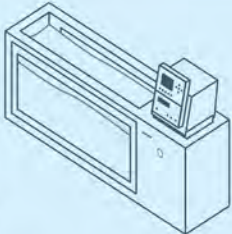
LAUDA Proline clear-view thermostat / Page 40



PV 15 C
PVL 15 C



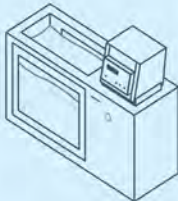
PV 24 C
PVL 24 C



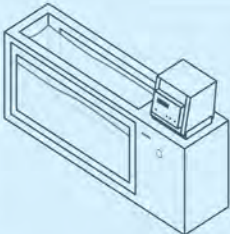
PV 36 C



PV 15
PVL 15



PV 24
PVL 24



PV 36

LAUDA Heating thermostats

Function overview

Operating element	Alpha	ECO S	ECO G	PRO Base	PRO Command Touch	Proline Master	Proline Command
Display	7-Segment	LCD mono	TFT	OLED	TFT	7-Segment	LCD mono
Mode of operation	3-button	3-button softkey	Cursor softkey	Cursor softkey	Multi-touch	4-button	Cursor softkey
Removable control	-	-	-	✓	✓	-	✓
User management	-	-	-	-	✓	-	-
Data logging, export to USB stick	-	-	-	-	✓	-	-
1-point calibration	✓	✓	✓	✓	✓	✓	✓
2-point calibration	-	-	-	✓	✓	-	-
Programmer, programs/segments	-	1 / 20	5 / 150	1 / 20	100 / 5000	-	5 / 150
Programmer, tolerance range function	-	✓	✓	✓	✓	-	✓
Ramp function	-	-	-	-	✓	-	✓
Timer function	-	-	-	-	✓	-	✓
Countdown function	✓	-	-	-	✓	-	✓
Graphic temperature profile display	-	-	✓	-	✓	-	✓
Adjustable bypass	-	-	-	-	-	✓	✓
Level indicator (digital)	-	-	-	✓	✓	✓	✓
Standby timer	-	✓	✓	✓	✓	✓	✓
Low-level alarm	✓	✓	✓	✓	✓	✓	✓
Drain tap	-	✓	✓	✓	✓	✓	✓
Drain screw	✓	-	-	-	-	-	-

LAUDA Heating thermostats

Technical data according to DIN 12876 standard

Device type	Working temperature range °C	Working temperature range with water cooling °C	Operating temperature range °C	Temperature stability ±K	Safety fittings	Heater power max. kW	Pump type	Pump pressure max. bar	Pump suction max. bar	Pump flow max. pressure L/min	Pump flow max. suction L/min	Pump connection thread mm	Nipples Øe	Bath volume min. L
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LAUDA Alpha / Page 32

A	25 ... 100	20 ... 100	-25 ... 100	0.05	I, NFL	1.5	D	0.2	-	15.0	-	N/A	-	-
A 6	25 ... 100	20 ... 100	-25 ... 100	0.05	I, NFL	1.5	D	0.2	-	15.0	-	N/A	-	2.5
A 12	25 ... 100	20 ... 100	-25 ... 100	0.05	I, NFL	1.5	D	0.2	-	15.0	-	N/A	-	8.0
A 24	25 ... 100	20 ... 100	-25 ... 100	0.05	I, NFL	1.5	D	0.2	-	15.0	-	N/A	-	18.0

LAUDA ECO / Page 34

SILVER	20 ... 200	20 ... 200	-20 ... 200	0.01	III, FL	2.0	V	0.6	-	22.0	-	N/A	-	-
ET 6 S	20 ... 100	20 ... 100	-20 ... 100	0.01	III, FL	2.0	V	0.6	-	22.0	-	N/A	-	5.0
ET 12 S	20 ... 100	20 ... 100	-20 ... 100	0.01	III, FL	2.0	V	0.6	-	22.0	-	N/A	-	9.5
ET 15 S	20 ... 100	20 ... 100	-20 ... 100	0.01	III, FL	2.0	V	0.6	-	22.0	-	N/A	13	13.5
ET 20 S	20 ... 100	20 ... 100	-20 ... 100	0.01	III, FL	2.0	V	0.6	-	22.0	-	N/A	-	15.0
E 4 S	20 ... 200	20 ... 200	-20 ... 200	0.01	III, FL	2.0	V	0.6	-	22.0	-	N/A	13	3.0
E 10 S	20 ... 200	20 ... 200	-20 ... 200	0.01	III, FL	2.0	V	0.6	-	22.0	-	N/A	-	7.5
E 20 S	20 ... 200	20 ... 200	-20 ... 200	0.01	III, FL	2.0	V	0.6	-	22.0	-	N/A	-	13.0
E 25 S	20 ... 200	20 ... 200	-20 ... 200	0.01	III, FL	2.0	V	0.6	-	22.0	-	N/A	-	16.0
E 40 S	20 ... 200	20 ... 200	-20 ... 200	0.01	III, FL	2.0	V	0.6	-	22.0	-	N/A	-	32.0
GOLD	20 ... 200	20 ... 200	-20 ... 200	0.01	III, FL	2.6	V	0.6	-	22.0	-	N/A	-	-
ET 6 G	20 ... 100	20 ... 100	-20 ... 100	0.01	III, FL	2.6	V	0.6	-	22.0	-	N/A	-	5.0
ET 12 G	20 ... 100	20 ... 100	-20 ... 100	0.01	III, FL	2.6	V	0.6	-	22.0	-	N/A	-	9.5
ET 15 G	20 ... 100	20 ... 100	-20 ... 100	0.01	III, FL	2.6	V	0.6	-	22.0	-	M16×1	-	13.5
ET 20 G	20 ... 100	20 ... 100	-20 ... 100	0.01	III, FL	2.6	V	0.6	-	22.0	-	N/A	-	15.0
E 4 G	20 ... 200	20 ... 200	-20 ... 200	0.01	III, FL	2.6	V	0.6	-	22.0	-	M16×1	-	3.0
E 10 G	20 ... 200	20 ... 200	-20 ... 200	0.01	III, FL	2.6	V	0.6	-	22.0	-	N/A	-	7.5
E 20 G	20 ... 200	20 ... 200	-20 ... 200	0.01	III, FL	2.6	V	0.6	-	22.0	-	N/A	-	13.0
E 25 G	20 ... 200	20 ... 200	-20 ... 200	0.01	III, FL	2.6	V	0.6	-	22.0	-	N/A	-	16.0
E 40 G	20 ... 200	20 ... 200	-20 ... 200	0.01	III, FL	2.6	V	0.6	-	22.0	-	N/A	-	32.0

Bath volume max. L	Bath opening (W × D) mm	Bath depth mm	Usable depth mm	Height top of bath mm	Dimensions (W × D × H) mm	Weight kg	Power supply V; Hz	Loading max. kW	Cat. No.	Device type
50.0	-	150	100	-	125×150×300	3.5	230 V; 50/60 Hz	1.5	L000618	A
5.5	145×161	150	130	212	181×332×370	6.2	230 V; 50/60 Hz	1.5	L000619	A 6
12.0	235×161	200	180	262	270×332×420	7.5	230 V; 50/60 Hz	1.5	L000620	A 12
25.0	295×374	200	180	262	332×535×420	10.5	230 V; 50/60 Hz	1.5	L000621	A 24
-	-	150	-	-	130×135×325	3.0	230 V; 50/60 Hz	2.1	L001076	SILVER
6.0	130×285	160	140	169	143×433×349	4.1	230 V; 50/60 Hz	2.1	L001096	ET 6 S
12.0	300×175	160	140	208	322×331×389	6.4	230 V; 50/60 Hz	2.1	L001097	ET 12 S
15.0	275×130	310	290	356	428×148×532	6.4	230 V; 50/60 Hz	2.1	L001098	ET 15 S
20.0	300×350	160	140	208	322×506×389	7.6	230 V; 50/60 Hz	2.1	L001099	ET 20 S
3.5	135×105	150	130	196	168×272×376	6.6	230 V; 50/60 Hz	2.1	L001084	E 4 S
11.0	300×190	150	130	196	331×361×376	8.6	230 V; 50/60 Hz	2.1	L001085	E 10 S
19.0	300×365	150	130	196	331×537×376	11.8	230 V; 50/60 Hz	2.1	L001087	E 20 S
25.0	300×365	200	180	246	331×537×426	13.1	230 V; 50/60 Hz	2.1	L001088	E 25 S
40.0	300×613	200	180	248	350×803×428	17.2	230 V; 50/60 Hz	2.1	L001089	E 40 S
-	-	150	-	-	130×135×325	3.4	230 V; 50/60 Hz	2.7	L001077	GOLD
6.0	130×285	160	140	169	143×433×349	4.5	230 V; 50/60 Hz	2.7	L001100	ET 6 G
12.0	300×175	160	140	208	322×331×389	6.8	230 V; 50/60 Hz	2.7	L001101	ET 12 G
15.0	275×130	310	290	356	428×148×532	6.8	230 V; 50/60 Hz	2.7	L001102	ET 15 G
20.0	300×350	160	140	208	322×506×389	8.0	230 V; 50/60 Hz	2.7	L001103	ET 20 G
3.5	135×105	150	130	196	168×272×376	7.0	230 V; 50/60 Hz	2.7	L001090	E 4 G
11.0	300×190	150	130	196	331×361×376	9.0	230 V; 50/60 Hz	2.7	L001091	E 10 G
19.0	300×365	150	130	196	331×537×376	12.2	230 V; 50/60 Hz	2.7	L001093	E 20 G
25.0	300×365	200	180	246	331×537×426	13.5	230 V; 50/60 Hz	2.7	L001094	E 25 G
40.0	300×613	200	180	248	350×803×428	17.6	230 V; 50/60 Hz	2.7	L001095	E 40 G

LAUDA Heating thermostats

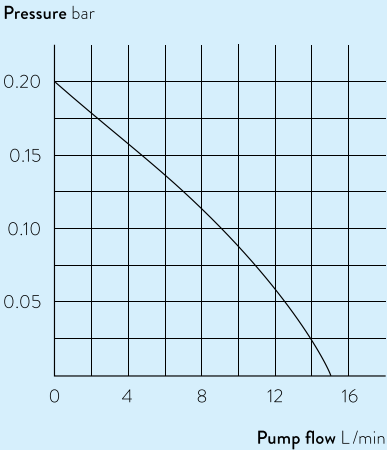
Power supply variants

Device type	Power supply V; Hz	Heater power max. kW	Loading max. kW	Plug code*	Cat. No.	Device type	Power supply V; Hz	Heater power max. kW	Loading max. kW	Plug code*	Cat. No.
LAUDA Alpha / Page 32											
A	100 V; 50/60 Hz	1.0	1.0	14	L000634	A 12	100 V; 50/60 Hz	1.0	1.0	14	L000636
A	115 V; 60 Hz	1.2	1.2	14	L000630	A 12	115 V; 60 Hz	1.2	1.2	14	L000632
A 6	100 V; 50/60 Hz	1.0	1.0	14	L000635	A 24	100 V; 50/60 Hz	1.0	1.0	14	L000637
A 6	115 V; 60 Hz	1.2	1.2	14	L000631	A 24	115 V; 60 Hz	1.2	1.2	14	L000633
LAUDA ECO / Page 34											
SILVER	100 V; 50/60 Hz	1.0	1.1	14	L001082	E 40 S	100 V; 50/60 Hz	1.0	1.1	14	L001225
SILVER	115 V; 60 Hz	1.3	1.4	14	L001080	E 40 S	115 V; 60 Hz	1.3	1.4	14	L001196
SILVER	220 V; 60 Hz	1.9	2.0	3	L001078	E 40 S	220 V; 60 Hz	1.8	2.1	3	L001176
ET 6 S	100 V; 50/60 Hz	1.0	1.1	14	L001232	GOLD	100 V; 50/60 Hz	1.0	1.1	14	L001083
ET 6 S	115 V; 60 Hz	1.3	1.4	14	L001203	GOLD	115 V; 60 Hz	1.3	1.4	14	L001081
ET 6 S	220 V; 60 Hz	1.8	2.0	3	L001183	GOLD	220 V; 60 Hz	2.4	2.5	3	L001079
ET 12 S	100 V; 50/60 Hz	1.0	1.1	14	L001233	ET 6 G	100 V; 50/60 Hz	1.0	1.1	14	L001236
ET 12 S	115 V; 60 Hz	1.3	1.4	14	L001204	ET 6 G	115 V; 60 Hz	1.3	1.4	14	L001207
ET 12 S	220 V; 60 Hz	1.8	2.7	3	L001184	ET 6 G	220 V; 60 Hz	2.4	2.5	3	L001187
ET 15 S	100 V; 50/60 Hz	1.0	1.1	14	L001234	ET 12 G	100 V; 50/60 Hz	1.0	1.1	14	L001237
ET 15 S	115 V; 60 Hz	1.3	1.4	14	L001205	ET 12 G	115 V; 60 Hz	1.3	1.4	14	L001208
ET 15 S	220 V; 60 Hz	1.8	2.7	3	L001185	ET 12 G	220 V; 60 Hz	2.4	2.5	3	L001188
ET 20 S	100 V; 50/60 Hz	1.0	1.1	14	L001235	ET 15 G	100 V; 50/60 Hz	1.0	1.1	14	L001238
ET 20 S	115 V; 60 Hz	1.3	1.4	14	L001206	ET 15 G	115 V; 60 Hz	1.3	1.4	14	L001209
ET 20 S	220 V; 60 Hz	1.8	2.7	3	L001186	ET 15 G	220 V; 60 Hz	2.4	2.5	3	L001189
E 4 S	100 V; 50/60 Hz	1.0	1.1	14	L001220	ET 20 G	100 V; 50/60 Hz	1.0	1.1	14	L001239
E 4 S	115 V; 60 Hz	1.3	1.4	14	L001191	ET 20 G	115 V; 60 Hz	1.3	1.4	14	L001210
E 4 S	220 V; 60 Hz	1.8	2.1	3	L001171	ET 20 G	220 V; 60 Hz	2.4	2.5	3	L001190
E 10 S	100 V; 50/60 Hz	1.0	1.1	14	L001221	E 4 G	100 V; 50/60 Hz	1.0	1.1	14	L001226
E 10 S	115 V; 60 Hz	1.3	1.4	14	L001192	E 4 G	115 V; 60 Hz	1.3	1.4	14	L001197
E 10 S	220 V; 60 Hz	1.8	2.1	3	L001172	E 4 G	220 V; 60 Hz	2.4	2.5	3	L001177
E 20 S	100 V; 50/60 Hz	1.0	1.1	14	L001223	E 10 G	100 V; 50/60 Hz	1.0	1.1	14	L001227
E 20 S	115 V; 60 Hz	1.3	1.4	14	L001194	E 10 G	115 V; 60 Hz	1.3	1.4	14	L001198
E 20 S	220 V; 60 Hz	1.8	2.1	3	L001174	E 10 G	220 V; 60 Hz	2.4	2.5	3	L001178
E 25 S	100 V; 50/60 Hz	1.0	1.1	14	L001224	E 10 G	100 V; 50/60 Hz	1.0	1.1	14	L001227
E 25 S	115 V; 60 Hz	1.3	1.4	14	L001195	E 10 G	115 V; 60 Hz	1.3	1.4	14	L001198
E 25 S	220 V; 60 Hz	1.8	2.1	3	L001175	E 10 G	220 V; 60 Hz	2.4	2.5	3	L001178

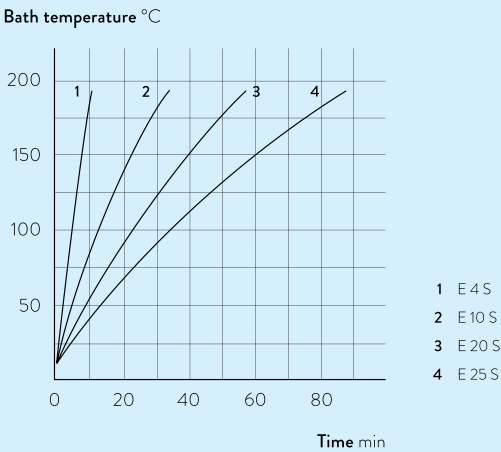
LAUDA Heating thermostats

More characteristics

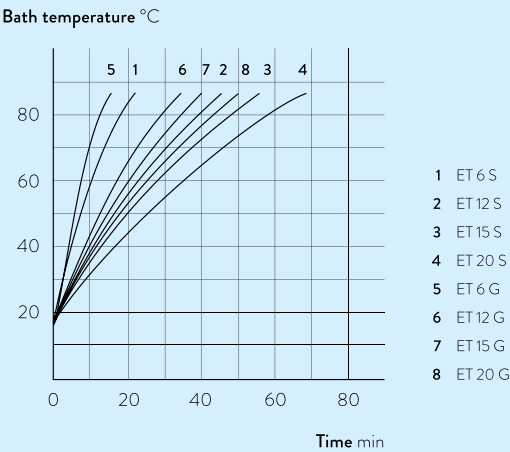
PUMP CHARACTERISTIC Water



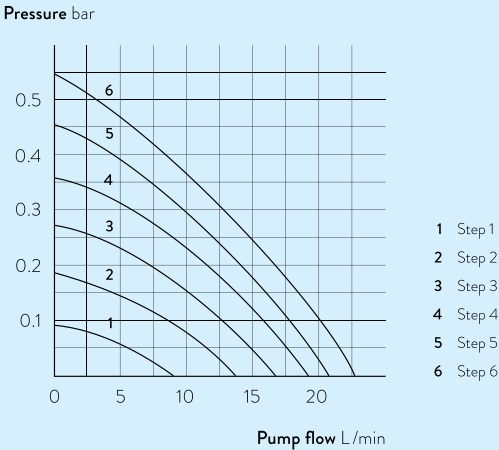
HEATING PERFORMANCE Heat transfer liquid: Therm 240, bath closed



HEATING PERFORMANCE Heat transfer liquid: Water, bath closed

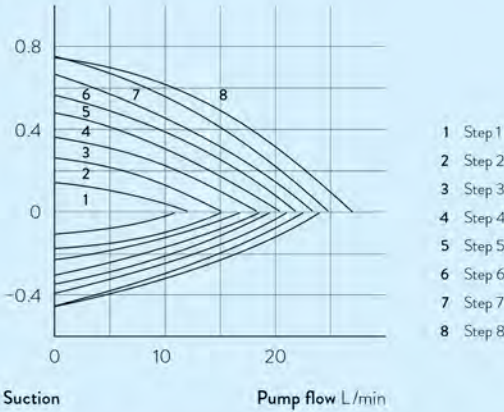


PUMP CHARACTERISTIC Water



PUMP CHARACTERISTIC for PB and PBC, Water

Pressure bar

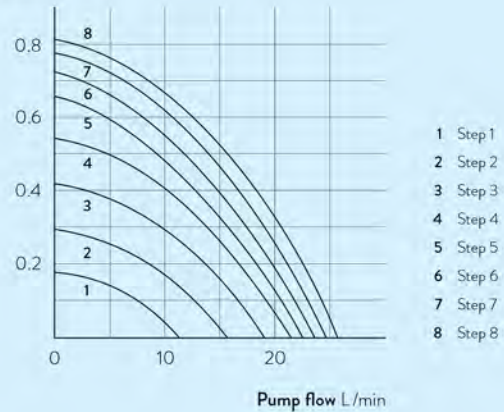


Suction

Pump flow L/min

PUMP CHARACTERISTIC for PBD and PBD C, Water

Pressure bar



Pump flow L/min