

DRYING AND HEATING CHAMBERS

Series ED: Drying and heating chambers Classic.Line with natural convection

The strengths of a ED series drying chamber include routine drying and sterilization tasks up to 300 °C. Thanks to the natural convection, all thermal processes which use this drying chamber are highly efficient. The ED series ensures fast, uniform drying.

Features:

- Temperature range: room temperature +5 °C to 300 °C
- Natural convection
- Adjustable exhaust air flap
- Controller with timer functions
- Class 2 independent adjustable temperature safety device (DIN 12880) with visual alarm
- RS 422 interface (only with ED400)



ED 023



ED 400

Technical data:

	ED023	ED400
Article Number	9010-0190	9010-0075
Performance Data Temperature		
Temperature range 5 °C above ambient temperature to [°C]	300	300
Temperature variation at 150 °C [± K]	2,8	3
Temperature fluctuation at 150 °C [± K]	0,5	0,5
Heating-up time to 150 °C [min]	28	71
Recovery time after 30 seconds door open at 150 °C [min]	5	31
Electrical data		
Rated Voltage [V]	230	400
Power frequency [Hz]	50 / 60	50 / 60
Nominal power [kW]	0,8	3,4
Unit fuse [A]	10	3 x 16
Phase (Nominal voltage) [ph]	1 ~	3 ~
Outer dimensions		
Width net [mm]	435	1235
Height net [mm]	495	1025
Depth net [mm]	520	765
Wall clearance back [mm]	100	160
Wall clearance sidewise [mm]	100	100
Doors		
Unit doors	1	2
Internal Dimensions		
Width [mm]	222	1000
Height [mm]	330	800
Depth [mm]	300	520
Further Dimension		
Interior volume [L]	20	400
Net weight of the unit (empty) [kg]	27	125
Permitted load [kg]	25	90
Load per rack [kg]	12	35
Environment-specific data		
Energy consumption at 150 °C [Wh/h]	148	672
Fixtures		
Number of shelves (std./max.)	2 / 4	2 / 10

* All technical data is specified for unloaded units with standard equipment at an ambient temperature of +22 °C ±3 °C and a power supply voltage fluctuation of ±10%. The temperature data is determined in accordance to BINDER factory standard following DIN 12880, observing the recommended wall clearances of 10 % of the height, width, and depth of the inner chamber. All indications are average values, typical for units produced in series. We reserve the right to change technical specifications at any time.

Series ED: Drying and heating chambers Avantgarde.Line with natural convection

The strengths of a ED series drying chamber include routine drying and sterilization tasks up to 300 °C. Thanks to the natural convection, all thermal processes which use this drying chamber are highly efficient. The ED series ensures fast, uniform drying.

Features:

- Temperature range: ambient temperature +5 °C to 300 °C
- High temperature accuracy thanks to APT.line™ technology
- Natural convection
- Controller with LCD display
- Electromechanical control of the exhaust air flap
- 2 chrome-plated racks
- Units up to 115 L are stackable
- Class 2 independent temperature safety device (DIN 12880) with visual temperature alarm
- Ergonomic handle design
- USB port for recording data



ED 056



ED 56

Technical data:

	ED056	ED115	ED260	ED720
	230V *	230V *	230V *	400V *
Article Number	9010-0333	9010-0335	9010-0339	9010-0341
Performance Data Temperature				
Temperature range 5 °C above ambient temperature to [°C]	300	300	300	300
Temperature variation at 150 °C [± K]	2,3	1,5	1,8	3,2
Temperature fluctuation at 150 °C [± K]	0,4	0,4	0,8	0,8
Heating-up time to 150 °C [min]	50	45	50	85
Recovery time after 30 seconds door open at 150 °C [min]	19	16	20	25
Electrical data				
Rated Voltage [V]	230	230	230	400
Power frequency [Hz]	50 / 60	50 / 60	50 / 60	50 / 60
Nominal power [kW]	1,05	1,25	2,25	4,1
Unit fuse [A]	6,3	6,3	12,5	16
Phase (Nominal voltage) [ph]	1~	1~	1~	1~
Outer dimensions				
Width net [mm]	560	710	810	1165
Height net [mm]	625	705	940	1590
Depth net [mm]	565	605	760	870
Wall clearance back [mm]	160	160	160	160
Wall clearance sidewise [mm]	100	100	100	100
Doors				
Unit doors	1	1	1	2
Internal Dimensions				
Width [mm]	360	510	610	960
Height [mm]	420	530	760	1280
Depth [mm]	380	425	550	605
Further Dimension				
Interior volume [L]	57	114	255	743
Net weight of the unit (empty) [kg]	42	57	84	161
Permitted load [kg]	70	150	270	315
Load per rack [kg]	30	30	40	45
Environment-specific data				
Energy consumption at 150 °C [Wh/h]	180	245	355	700
Fixtures				
Number of shelves (std./max.)	2 / 4	2 / 5	2 / 8	2 / 16

* All technical data is specified for unloaded units with standard equipment at an ambient temperature of +22 °C ±3 °C and a power supply voltage fluctuation of ±10%. The temperature data is determined in accordance to BINDER factory standard following DIN 12880, observing the recommended wall clearances of 10 % of the height, width, and depth of the inner chamber. All indications are average values, typical for units produced in series. We reserve the right to change technical specifications at any time.

Series ED-S: Drying and heating chambers Solid.Line with natural convection

The new products in the Solid.Line impress with their tried-and-tested BINDER quality and reliability. They are suited to drying and heating. The attributes of the Solid.Line are geared towards the application in question and therefore used in research and quality assurance.

Features:

- Temperature range: ambient temperature plus 7 °C to 250 °C
- APT.line™ preheating chamber technology
- Natural convection
- Adjustable exhaust air flap
- Controller with timer function
- 1 chrome-plated rack, incl. shelf supports
- Class 2 independent temperature safety device (DIN 12880) with visual temperature alarm



ED-S 056



ED-S 115

Technical data:

	ED-S056	ED-S115
Article Number	9090-0014	9090-0020
Performance Data Temperature		
Temperature range 7 °C above ambient temperature to [°C]	250	250
Temperature variation at 150 °C [± K]	2,8	2,8
Temperature fluctuation at 150 °C [± K]	0,8	0,8
Heating-up time to 150 °C [min]	60	55
Electrical data		
Rated Voltage [V]	230	230
Power frequency [Hz]	50 / 60	50 / 60
Nominal power [kW]	1,05	1,25
Unit fuse [A]	6,3	6,3
Phase (Nominal voltage) [ph]	1~	1~
Outer dimensions		
Width net [mm]	614	764
Height net [mm]	625	735
Depth net [mm]	577	616
Wall clearance back [mm]	160	160
Wall clearance sidewise [mm]	100	100
Doors		
Unit doors	1	1
Internal Dimensions		
Width [mm]	400	550
Height [mm]	440	550
Depth [mm]	350	390
Further Dimension		
Interior volume [L]	62	118
Net weight of the unit (empty) [kg]	36	53
Permitted load [kg]	30	75
Load per rack [kg]	15	20
Environment-specific data		
Energy consumption at 150 °C [Wh/h]	180	310
Fixtures		
Number of shelves (std./max.)	1 / 3	1 / 5

* All technical data is specified for unloaded units with standard equipment at an ambient temperature of +22 °C ±3 °C and a power supply voltage fluctuation of ±10%. The temperature data is determined in accordance to BINDER factory standard following DIN 12880, observing the recommended wall clearances of 10 % of the height, width, and depth of the inner chamber. All indications are average values, typical for units produced in series. We reserve the right to change technical specifications at any time.

Series FD: Drying and heating chambers Classic.Line with forced convection

A FD series heating oven is always used when fast drying and sterilization is required. Thanks to its fully homogeneous temperature distribution, quick dynamics and powerful fan, this heating oven saves valuable time.

Features:

- Temperature range: room temperature plus 5 °C to 300 °C
- APT.line™ preheating chamber technology
- Forced convection
- Adjustable exhaust air flap
- Controller with timer functions
- 2 chrome-plated racks
- Class 2 independent adjustable temperature safety device (DIN 12880) with visual alarm



FD 023

Technical data:

	FD023
	230V *
Article Number	9010-0194
Performance Data Temperature	
Temperature range 5 °C above ambient temperature to [°C]	300
Temperature variation at 150 °C [± K]	2,5
Temperature fluctuation at 150 °C [± K]	0,3
Heating-up time to 150 °C [min]	25
Recovery time after 30 seconds door open at 150 °C [min]	6
Air change data	
Air change (approx.) at 150 °C [x/h]	64
Electrical data	
Rated Voltage [V]	230
Power frequency [Hz]	50 / 60
Nominal power [kW]	0,8
Unit fuse [A]	10
Phase (Nominal voltage) [ph]	1~
Outer dimensions	
Width net [mm]	435
Height net [mm]	495
Depth net [mm]	520
Wall clearance back [mm]	160
Wall clearance sidewise [mm]	100
Doors	
Unit doors	1
Internal Dimensions	
Width [mm]	222
Height [mm]	330
Depth [mm]	300
Further Dimension	
Interior volume [L]	20
Net weight of the unit (empty) [kg]	27
Permitted load [kg]	25
Load per rack [kg]	12
Environment-specific data	
Energy consumption at 150 °C [Wh/h]	300
Fixtures	
Number of shelves (std./max.)	2 / 4

* All technical data is specified for unloaded units with standard equipment at an ambient temperature of +22 °C ±3 °C and a power supply voltage fluctuation of ±10 %. The temperature data is determined in accordance to BINDER factory standard following DIN 12880, observing the recommended wall clearances of 10 % of the height, width, and depth of the inner chamber. Technical data refers to 100 % fan speed. All indications are average values, typical for units produced in series. We reserve the right to change technical specifications at any time.

Series FD: Drying and heating chambers Avantgarde.Line with forced convection

A FD series Avantgarde.Line heating oven is always used when fast drying and sterilization is required. Thanks to its fully homogeneous temperature distribution, quick dynamics and powerful fan, this heating oven saves valuable time.

Features:

- Temperature range: ambient temperature +10 °C to 300 °C (FD 720: +12 °C to 300 °C)
- High temperature accuracy thanks to APT.line™ technology
- Forced convection
- Controller with LCD display
- Electromechanical control of the exhaust air flap
- 2 chrome-plated racks
- Units up to 115 L are stackable
- Class 2 independent temperature safety device (DIN 12880) with visual temperature alarm
- Ergonomic handle design
- USB port for recording data



FD 056



FD 056

Technical data:

	FD056	FD115	FD260	FD720
	230V *	230V *	230V *	400V *
Article Number	9010-0303	9010-0305	9010-0309	9010-0311
Performance Data Temperature				
Temperature range 10 °C (12 °C) above ambient temperature to [°C]	300	300	300	300
Temperature variation at 150 °C [± K]	1,7	1,7	1,9	2,5
Temperature fluctuation at 150 °C [± K]	0,3	0,3	0,4	0,6
Heating-up time to 150 °C [min]	15	18	19	25
Recovery time after 30 seconds door open at 150 °C [min]	4	4	5	6
Electrical data				
Rated Voltage [V]	230	230	230	400
Power frequency [Hz]	50 / 60	50 / 60	50 / 60	50 / 60
Nominal power [kW]	1,1	1,3	2,3	4,5
Unit fuse [A]	6,3	6,3	12,5	3x16
Phase (Nominal voltage) [ph]	1~	1~	1~	3~
Outer dimensions				
Width net [mm]	560	710	810	1165
Height net [mm]	625	735	940	1590
Depth net [mm]	565	605	825	870
Wall clearance back [mm]	160	160	160	160
Wall clearance sidewise [mm]	100	100	100	100
Doors				
Unit doors	1	1	1	2
Internal Dimensions				
Width [mm]	400	550	650	1000
Height [mm]	440	550	780	1300
Depth [mm]	345	385	515	570
Further Dimension				
Interior volume [L]	60	116	259	741
Net weight of the unit (empty) [kg]	39	54	85	166
Permitted load [kg]	70	150	270	315
Load per rack [kg]	30	30	40	45
Environment-specific data				
Energy consumption at 150 °C [Wh/h]	290	340	410	800
Sound-pressure level [dB(A)]	43	43	43	43
Fixtures				
Number of shelves (std./max.)	2 / 4	2 / 5	2 / 8	2 / 16

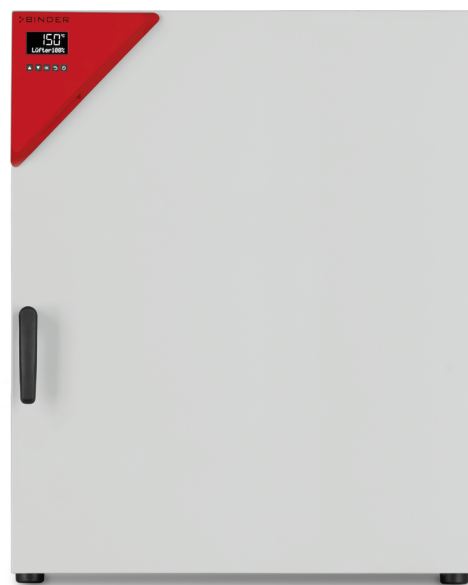
* All technical data is specified for unloaded units with standard equipment at an ambient temperature of +22 °C ±3 °C and a power supply voltage fluctuation of ±10 %. The temperature data is determined in accordance to BINDER factory standard following DIN 12880, observing the recommended wall clearances of 10 % of the height, width, and depth of the inner chamber. Technical data refers to 100 % fan speed. All indications are average values, typical for units produced in series. We reserve the right to change technical specifications at any time.

Series FED: Drying and heating chambers Avantgarde.Line with forced convection and enhanced timer functions

Heating chambers of the FED Avantgarde.Line series provide almost unlimited capacity and are particularly adaptable. With advanced timing functions and a controllable fan, temperature and convection conditions are easily controlled.

Features:

- Temperature range +10 °C upto 300 °C (FED 720: +12 °C to 300 °C)
- High temperature accuracy thanks to APT.line™ technology
- Adjustable fan speed
- Controller with LCD display
- Electromechanical control of the exhaust air flap
- 2 chrome-plated racks
- Units up to 115 L are stackable
- Class 2 independent temperature safety device (DIN 12880) with visual temperature alarm
- Ergonomic handle design
- Ethernet interface
- USB port for recording data



FED 260



FED 720

Technical data:

	FED056	FED115	FED260	FED720
	230V *	230V *	230V *	400V *
Article Number	9010-0295	9010-0293	9010-0299	9010-0301
Performance Data Temperature				
Temperature range 10°C above ambient temperature to [°C]	300	300	300	-
Temperature range 12°C above ambient temperature to [°C]	-	-	-	300
Temperature variation at 150 °C [± K]	1,4	1,2	1,6	2,0
Temperature fluctuation at 150 °C [± K]	0,3	0,3	0,4	0,6
Heating-up time to 150 °C [min]	15	18	19	25
Recovery time after 30 seconds door open at 150 °C [min]	4	4	5	6
Electrical data				
Rated Voltage [V]	230	230	230	400
Power frequency [Hz]	50 / 60	50 / 60	50 / 60	50 / 60
Nominal power [kW]	1,1	1,3	2,3	4,5
Unit fuse [A]	6,3	6,3	12,5	3x16
Phase (Nominal voltage) [ph]	1~	1~	1~	3~
Outer dimensions				
Width net [mm]	560	710	810	1165
Height net [mm]	625	735	965	1590
Depth net [mm]	565	605	760	870
Wall clearance back [mm]	160	160	160	160
Wall clearance sidewise [mm]	100	100	100	100
Doors				
Unit doors	1	1	1	2
Internal Dimensions				
Width [mm]	400	550	650	1000
Height [mm]	440	550	780	1300
Depth [mm]	345	385	515	570
Further Dimension				
Interior volume [L]	60	116	259	741
Net weight of the unit (empty) [kg]	41	57	84	162
Permitted load [kg]	70	150	270	315
Load per rack [kg]	30	30	40	45
Environment-specific data				
Energy consumption at 150 °C [Wh/h]	290	340	410	800
Sound-pressure level [dB(A)]	43	43	43	43
Fixtures				
Number of shelves (std./max.)	2 / 4	2 / 5	2 / 8	2 / 16

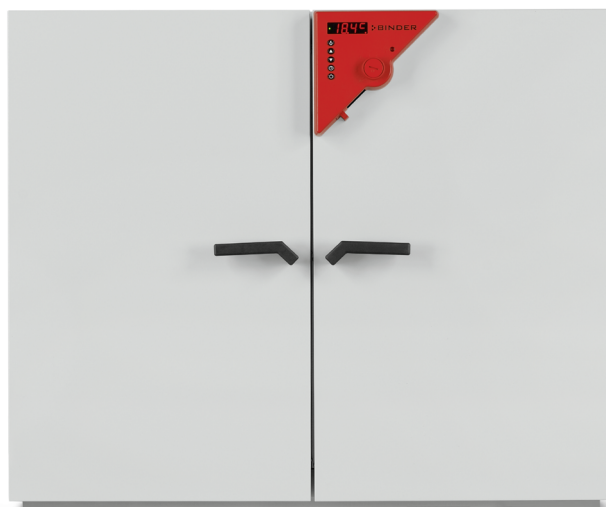
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Series FED: Drying and heating chambers Classic.Line with forced convection and enhanced timer functions

Heating chambers of the FED series provide almost unlimited capacity and are particularly adaptable. With advanced timing functions and 2 adjustable fans, temperature and convection conditions are easily controlled.

Features:

- Temperature range: room temperature +5 °C to 300 °C
- APT.line™ preheating chamber technology
- Adjustable fan speed
- Adjustable exhaust air flap
- Controller with expanded timer functions
- 2 chrome-plated racks
- Class 2 independent adjustable temperature safety device (DIN 12880) with visual alarm
- Computer interface: RS 422



FED 400

Technical data:

	FED400
	400V *
Article Number	9010-0216
Performance Data Temperature	
Temperature range 5 °C above ambient temperature to [°C]	300
Temperature variation at 150 °C [± K]	3,8
Temperature fluctuation at 150 °C [± K]	0,7
Heating-up time to 150 °C [min]	29
Recovery time after 30 seconds door open at 150 °C [min]	6
Air change data	
Air change (approx.) at 150 °C [x/h]	18
Electrical data	
Rated Voltage [V]	400
Power frequency [Hz]	50 / 60
Nominal power [kW]	3,4
Unit fuse [A]	3x16
Phase (Nominal voltage) [ph]	3~
Outer dimensions	
Width net [mm]	1235
Height net [mm]	1025
Depth net [mm]	765
Wall clearance back [mm]	160
Wall clearance sidewise [mm]	100
Doors	
Unit doors	2
Internal Dimensions	
Width [mm]	1000
Height [mm]	800
Depth [mm]	510
Further Dimension	
Interior volume [L]	400
Net weight of the unit (empty) [kg]	145
Permitted load [kg]	90
Load per rack [kg]	35
Environment-specific data	
Energy consumption at 150 °C [Wh/h]	1200
Fixtures	
Number of shelves (std./max.)	2 / 10

* All technical data is specified for unloaded units with standard equipment at an ambient temperature of +22 °C ±3 °C and a power supply voltage fluctuation of ±10 %. The temperature data is determined in accordance to BINDER factory standard following DIN 12880, observing the recommended wall clearances of 10 % of the height, width, and depth of the inner chamber. Technical data refers to 100 % fan speed. All indications are average values, typical for units produced in series. We reserve the right to change technical specifications at any time.

Series FP: Drying and heating chambers Avantgarde.Line with forced convection and program functions

A material test chamber with mechanical convection of the FP series provides reliably short drying times and particularly fast heating – even for chambers under full loads.

Features:

- Temperature range: room temperature +10 °C to 300 °C
- Adjustable fan speed
- Electromechanical control of the exhaust air flap
- Controller with interval and real-time programming
- 2 chrome-plated racks
- Class 2 independent adjustable temperature safety device (DIN 12880) and class 3.1 independent temperature safety device (DIN 12880) with visual/acoustic alarm available for selection on the controller
- Failsafe function
- Computer interface: Ethernet



FP 056



FP 720

Technical data:

	FP056	FP115	FP260	FP720
	230V *	230V *	230V *	400V *
Article Number	9010-0363	9010-0364	9010-0365	9010-0366
Performance Data Temperature				
Temperature range 5 °C above ambient temperature to [°C]	300	300	300	300
Temperature variation at 150 °C [± K]	1,4	1,4	1,7	2,4
Temperature fluctuation at 150 °C [± K]	0,4	0,3	0,4	0,6
Heating-up time to 150 °C [min]	15	19	19	25
Recovery time after 30 seconds door open at 150 °C [min]	4	5	6	6
Air change data				
Air change (approx.) at 150 °C [x/h]	80	32	9	5
Electrical data				
Rated Voltage [V]	230	230	230	400
Power frequency [Hz]	50 / 60	50 / 60	50 / 60	50 / 60
Nominal power [kW]	1,2	1,4	2,5	4,5
Unit fuse [A]	10	10	16	3 x 16
Phase (Nominal voltage) [ph]	1~	1~	1~	3~
Outer dimensions not incl. fittings and connections				
Width net [mm]	560	710	810	1160
Height net [mm]	622	732	962	1590
Depth net [mm]	596	636	786	816
Wall clearance back [mm]	160	160	160	160
Wall clearance sidewise [mm]	100	100	100	100
Internal Dimensions				
Width [mm]	400	550	650	1000
Height [mm]	400	550	780	1300
Depth [mm]	342	383	512	574
Further Dimension				
Interior volume [L]	60	116	259	741
Net weight of the unit (empty) [kg]	44	62	96	194
Permitted load [kg]	70	150	270	315
Load per rack [kg]	30	30	40	45
Environment-specific data				
Energy consumption at 150 °C [Wh/h]	290	370	465	880
Fixtures				
Number of shelves (std./max.)	2 / 5	2 / 5	2 / 8	2 / 16

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Series M: Drying and heating chambers Classic.Line with forced convection and advanced program functions

With a maximum of 300 °C and various programming options the M series material test chambers are ideal for material and aging tests. With a high air flow, the powerful fans ensure rapid heating.

Features:

- Temperature range: room temperature +5 °C to 300 °C
- APT.line™ preheating chamber technology
- Adjustable fan speed
- Program-controlled ventilation flap
- Color LCD controller with time-segment programming
- 2 chrome-plated racks
- Class 2 independent adjustable temperature safety device (DIN 12880) with visual alarm
- Computer interface: RS 422



M 053

M 720

Technical data:

	M053	M115	M240	M400	M720
	230V *	230V *	230V *	400V *	400V *
Article Number	9010-0201	9010-0202	9010-0203	9010-0204	9010-0205
Performance Data Temperature					
Temperature range 5 °C above ambient temperature to [°C]	300	300	300	300	300
Temperature variation at 150 °C [± K]	1,3	1,5	1,5	1,5	1,9
Temperature fluctuation at 150 °C [± K]	0,3	0,3	0,3	0,3	0,3
Heating-up time to 150 °C [min]	15	16	19	18	21
Recovery time after 30 seconds door open at 150 °C [min]	3	3	3	3	3
Air change data					
Air change (approx.) at 150 °C [x/h]	192	96	60	54	36
Electrical data					
Rated Voltage [V]	230	230	230	400	400
Power frequency [Hz]	50 / 60	50 / 60	50 / 60	50 / 60	50 / 60
Nominal power [kW]	1,2	1,6	2,7	3,4	5
Phase (Nominal voltage) [ph]	1~	1~	1~	3~	3~
Outer dimensions					
Width net [mm]	635	835	1035	1235	1235
Height net [mm]	780	865	985	1190	1690
Depth net [mm]	575	645	745	795	865
Wall clearance back [mm]	160	160	160	160	160
Wall clearance sidewise [mm]	100	100	100	100	100
Internal Dimensions					
Width [mm]	400	600	800	1000	1000
Height [mm]	400	480	600	800	1200
Depth [mm]	340	410	510	510	610
Further Dimension					
Interior volume [L]	53	115	240	400	720
Net weight of the unit (empty) [kg]	61	89	131	173	203
permitted load [kg]	40	50	70	90	120
Load per rack [kg]	15	20	30	35	45
Environment-specific data					
Energy consumption at 150 °C [Wh/h]	300	544	850	1200	1320
Fixtures					
Number of shelves (std./max.)	2 / 5	2 / 6	2 / 7	2 / 10	2 / 16

* All technical data is specified for unloaded units with standard equipment at an ambient temperature of +22 °C ±3 °C and a power supply voltage fluctuation of ±10 %. The temperature data is determined in accordance to BINDER factory standard following DIN 12880, observing the recommended wall clearances of 10 % of the height, width, and depth of the inner chamber. Technical data refers to 100 % fan speed. All indications are average values, typical for units produced in series. We reserve the right to change technical specifications at any time.