

Universal Ovens, Memmert

BASIC:

with microprocessor PID temperature controller with integral autodiagnostic system for rapid fault identification, 1 high-grade Pt100 sensor DIN Class A in 4-wire-circuit, digital timer to switch off heating (1 min. up to 99 h 59 min), incl. digital LED-display of set and actual temperature as well as residual time; double overtemperature protection - in case of a faulty sensor or the total breakdown of the controller the heating is switched off approx. 10°C above the set temperature and additionally at approx. 10°C above the max. oven temperature by the mechanical temperature limiter TB protection class 1.

EXCELLENT:

with fuzzy-supported microprocessor PID controller with integral autodiagnostic system for rapid fault identification, 2 high-grade Pt100 sensors DIN Class A in 4-wire circuit, mutually monitoring and taking over the performance, digital 7-day-program timer with real time clock with group function (e.g. weekdays) for one set value or in combination with the integrated digital timer (with residual time) for ramp operating with max. 4 segments: DELAYED ON, HEATING UP, HOLD or HOLD set-temperature-dependent (guaranteeing the hold period), COOLING DOWN - each segment adjustable from 1 min to 999 hours. Integrated long-term documenting (ring store) of all relevant data, GLP-conforming as data logger - 1024 kB as well as serial computer interface RS232 with software „Celsius“. Triple overtemperature protection: in case of overtemperature due to failure, the heating is switched off at approx. 10°C above the set temperature (fixed value), digitally adjustable electronic overtemperature controller, TWW, protection class 3.1, and mechanical temperature limiter, TB, protection class 1, switching the heating off at approx. 10°C above max. oven temperature. Works calibration certificate for one temperature, 160°C (chamber center).

PERFECT:

adaptive, fuzzy-supported, multifunctional and digital microprocessor PID-controller and integral autodiagnostic system for rapid fault identification, 2 high-grade Pt100 sensor DIN Class A in 4-wire-circuit, mutually monitoring and taking over the performance, digital 7-day-program timer with real time clock with group function (e.g. weekdays), integrated timer (with residual time) for thermostating profiles of up to 40 ramps, each segment adjustable from 1 min. up to 999 hours (residual time); air flap adjustable in 10% steps, on UF models fan speed adjustable in 10% steps, as well as setpoint dependent operation easily programmable, via set-up) visualizing also all set parameters. Integrated long-term documenting (ring store) of all relevant data, GLP-conforming as data logger - 1024 kB (protected against manipulation); parallel printer interface with real-time clock for all Pcl3-compatible ink-jet printers, serial interface RS232 (upon request - without extra charge - RS485) incl. software „Celsius“ as well as MEMORY Card with 32 kB. Multiple overtemperature protection with audible and visual alarm, digitally adjustable electronic microprocessor overtemperature controller TWW protection class 3.1 - maximum value for overtemperature - minimum value for undertemperature, additionally adjustable auto-safety-function „ASF“ for over-and undertemperature automatically following the set value at a preset tolerance range; audible alarm is activated in case of over- or undertemperature, heating is switched off in case of overtemperature, additional mechanical temperature limiter, TB, protection class 1, switching the heating off at approx. 10°C above max. oven temperature. Work calibration certificate for one temperature, 160°C (chamber center).

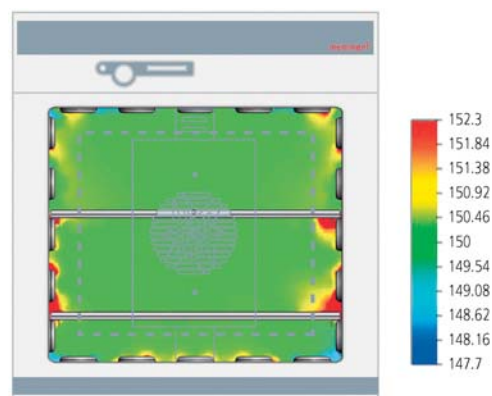
Technical data:

Interior:	made of stainless steel No. 1.4301 (ASTM 304), high stability by deep-drawn ribbing, easy to clean and drip-water proof.
Housing (exterior):	textured stainless steel, rear zinc-plated steel: (UNE/UFE/UNP/UFP 800 on lockable castors).
Temperature ranges:	basic equipment from 30°C (however, at least 5°C above room temperature) up to 220°C (BASIC) up to 250°C (EXCELLENT and PERFECT). Special equipment up to 300°C (only for EXCELLENT and PERFECT) at extra cost.
Temperature deviations:	at 150°C accuracy BASIC/EXCELLENT and PERFECT better than $\pm 0.5^\circ\text{C}$, uniformity at 150°C BASIC/EXCELLENT and PERFECT better than $\pm 2.7^\circ\text{C}/2.2^\circ\text{C}$
Electrical supply:	230 V ($\pm 10\%$) up to model size 600, from model size 700 three-phase current 400 V 3 ph N (CEE plug, 16-A version). Other voltages to special order.

Available models and sizes with fully insulated stainless steel door with double locking:



①



Wärmeverteilung UFE 400 bei 150°C $\pm 1,3^\circ\text{C}$



②



Series UNB^{1), 2)}

With natural air circulation and electronic PID control.

Type	Outer W x D x H mm	Inner W x D x H mm	Vol. approx. l	Wght approx. kg	P rating approx. W	Order No.
UNB 100	470x325x520	320x175x240	14	20	600	41 26 00100
① UNB 200	550x400x600	400x250x320	32	28	1100	41 26 00200
UNB 300	630x400x600	480x250x320	39	30	1200	41 26 00300
UNB 400	550x480x680	400x330x400	53	35	1400	41 26 00400
UNB 500	710x550x760	560x400x480	108	50	2000	41 26 00500

Series UNE^{1), 2)}

With natural air circulation and electronic PID control with fuzzy support.

Type	Outer W x D x H mm	Inner W x D x H mm	Vol. approx. l	Wght approx. kg	P rating approx. W	Order No.
UNE 200	550x400x600	400x250x320	32	28	1100	41 26 10200
UNE 300	630x400x600	480x250x320	39	30	1200	41 26 10300
② UNE 400	550x480x680	400x330x400	53	35	1400	41 26 10400
UNE 500	710x550x760	560x400x480	108	50	2000	41 26 10500
UNE 600	950x650x920	800x500x640	256	87	2400	41 26 10600
UNE 700	1190x650x1080	1040x500x800	416	121	4000	41 26 10700
UNE 800	1190x750x1620	1040x600x1200	749	170	4800	41 26 10800

Series UNP^{1), 2)}

With natural air circulation and multifunctional PID Process controller with fuzzy support.

Type	Outer W x D x H mm	Inner W x D x H mm	Vol. approx. l	Wght approx. kg	P rating approx. W	Order No.
UNP 200	550x400x600	400x250x320	32	28	1100	41 26 20200
UNP 300	630x400x600	480x250x320	39	30	1200	41 26 20300
UNP 400	550x480x680	400x330x400	53	35	1400	41 26 20400
UNP 500	710x550x760	560x400x480	108	50	2000	41 26 20500
UNP 600	950x650x920	800x500x640	256	87	2400	41 26 20600
UNP 700	1190x650x1080	1040x500x800	416	121	4000	41 26 20700
UNP 800	1190x750x1620	1040x600x1200	749	170	4800	41 26 20800

Series UFB^{1), 2)}

With enforced air circulation and electronic PID control.

Type	Outer W x D x H mm	Inner W x D x H mm	Vol. approx. l	Wght approx. kg	P rating approx. W	Order No.
UFB 400	550x480x680	400x330x400	53	35	1400	41 26 30200
UFB 500	710x550x760	560x400x480	108	50	2000	41 26 30300

Series UFE^{1), 2)}

With enforced air circulation and electronic PID control with fuzzy support.

Type	Outer W x D x H mm	Inner W x D x H mm	Vol. ap- prox. l	Wght approx. kg	P rating approx. W	Order No.
UFE 400	550x480x680	400x330x400	53	35	1400	41 26 40400
③ UFE 500	710x550x760	560x400x480	108	50	2000	41 26 40500
UFE 600	950x650x920	800x500x640	256	87	2400	41 26 40600
UFE 700	1190x650x1080	1040x500x800	416	121	4000	41 26 40700
UFE 800	1190x750x1620	1040x600x1200	749	170	4800	41 26 40800

Series UFP^{1), 2)}

With enforced air circulation and multifunctional PID process controller with fuzzy support.

Type	Outer W x D x H mm	Inner W x D x H mm	Vol. ap- prox. l	Wght approx. kg	P rating approx. W	Order No.
UFP 400	550x480x680	400x330x400	53	35	1400	41 26 50400
UFP 500	710x550x760	560x400x480	108	50	2000	41 26 50500
④ UFP 600	950x650x920	800x500x640	256	87	2400	41 26 50600
UFP 700	1190x650x1080	1040x500x800	416	121	4000	41 26 50700
UFP 800	1190x750x1620	1040x600x1200	749	170	4800	41 26 50800

1) External dimensions: Depth without door handle, depth of door handle 38 mm.

2) Inner dimensions (Depth): On models with air turbine the depth is reduced through the air duct in the middle of the back wall: up to size 600: 30 mm, size 700/800: 45 mm

All universal ovens are designed acc. to DIN 12880:2007-05 and standard units carry the marks: EMV / VDE / GS / CE / GOST



③



④



Accessories for models BASIC-, EXCELLENT- and PERFECT

Stainless steel shelves, perforated

for type	Qty max.	Order No.	for type	Qty max.	Order No.
100	2	41 26 00010	500	5	41 26 00050
200	3	41 26 00020	600	7	41 26 00060
300	3	41 26 00030	700	9	41 26 00070
400	4	41 26 00040	800	14	41 26 00080

Stainless steel shelves, non-perforated, non-tipping, 15 mm rim

for type	Qty max.	Order No.	for type	Qty max.	Order No.
100	2	41 26 10010	500	5	41 26 10050
200	3	41 26 10020	600	7	41 26 10060
300	3	41 26 10030	700	9	41 26 10070
400	4	41 26 10040	800	14	41 26 10080

Special equipment only for models EXCELLENT- and PERFECT

Checklists with works test data for oven as support for validation by customer.

Article	Order No.
IQ checklist with works test data as support for validation by customer.	41 26 11011
OQ checklist (size 200 and 300) with works test data, incl. a selectable temp. distribution measurement for 9 measuring points acc. to DIN 12880:2007-05	10 26 01016
OQ checklist (size 400 up to 800) with works test data, incl. a selectable temp. distribution measurement for 27 measuring points acc. to DIN 12880:2007-05	10 26 01017
USB interface instead of RS232	10 26 01014

Special equipment only for model PERFECT

Article	Order No.
Celsius FDA-Edition Software conforming to FDA	41 26 11013
Oven-related user authorization card prevents undesired manipulation by unauthorized third parties	41 26 11021
Ethernet interface instead of RS232 incl. software „Celsius Ethernet Edition“	10 26 01015

Further special equipment for EXCELLENT and PERFECT Class, such as full-sight glass door, temperature-range up to 300°C, entry ports, Pt 100 for external temperature recording, a.s.o. upon request.

We reserve the right to make changes in technical specifications. Dimensions subject to confirmation.

