# memmert

# Peltier-cooled incubator IPP410ecoplus

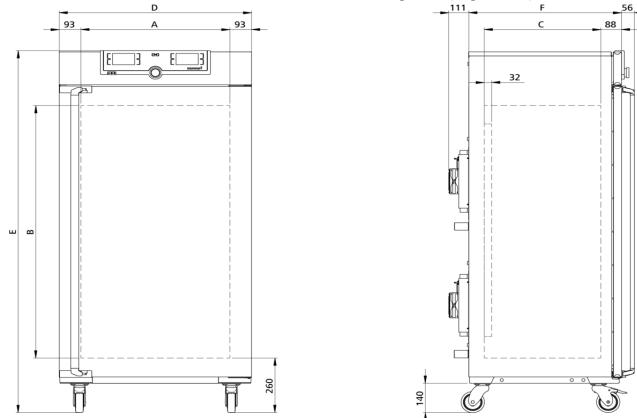
cool-down and recovery times.

Sets eco standards for cultivation below room temperature: unmatched energy efficiency, best values for heat-up,



With the help of our model selection, dimensional model sketches and extensive technical data for download, you will find your perfect Peltier-cooled incubator. Flexibility and technical features of our appliances meet all possible needs. Put us to the test!

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# Temperature

Setting temperature range	0 to +70 °C
Working temperature range	with light: +10 to +40 °C
Working temperature range	without light: from 0 (at least 20 below ambient temperature) to +70°C
Setting accuracy temperature	0.1 °C
Temperature sensor	2 Pt100 sensors DIN Class A in 4-wire-circuit for mutual monitoring, taking over functions in case of an error

# **Control technology**

ControlCOCKPIT	TwinDISPLAY. Adaptive multifunctional digital PID-microprocessor controller with 2 high-definition TFT-colour displays.
Language setting	German, English, Spanish, French, Polish, Czech, Hungarian
Timer	Digital backwards counter with target time setting, adjustable from 1 minute to 99 days
Function HeatBALANCE	adapting the distribution of the heating performance of the upper and lower heating circuit from -50 $\%$ to +50 $\%$
Function SetpointWAIT	the process time does not start until the set temperature is reached
Calibration	three freely selectable temperature values
adjustable parameters	temperature (Celsius or Fahrenheit), programme time, time zones, summertime/wintertime

#### Ventilation

Convection	forced ventilation by Peltier fan

Communication	
Documentation	programme stored in case of power failure
Programming	AtmoCONTROL software on a USB stick for programming, managing and transferring programmes via Ethernet interface or USB port
Safety	
Temperature control	over- and undertemperature monitor TWW, protection class 3.3 or adjustable temperature limiter TWB, protection class 2, selectable on display
AutoSAFETY	additionally integrated over- and undertemperature protection "ASF", automatically following the setpoint value at a preset tolerance range, alarm in case of over- or undertemperature, heating function is switched off in case of overtemperature, cooling function in case of undertemperature
Autodiagnostic system	for fault analysis
Alarm	visual and acoustic

# **Heating concept**

Peltier	Heating and cooling performance distribution by individual control of the Peltier elements in the upper and lower row
Peltier	energy-saving Peltier heating-/cooling system integrated in the rear (heat pump principle)

# Standard equipment

Works calibration certificate	for +10 °C, +25 °C and +40 °C
Door	fully insulated stainless steel door with 2-point locking (compression door lock)
Internals	2 stainless steel grid(s), electropolished
Door	inner glass door

#### **Stainless steel interior**

Dimensions	w <sub>(A)</sub> x h <sub>(B)</sub> x d <sub>(C)</sub> : 640 x 1200 x 500 mm (d less 32 mm for fan - Peltier)
Volume	384 I
Max. number of internals	14
Max. loading of chamber	200 kg
Max. loading per internal	20 kg

### Textured stainless steel casing

Dimensions	w <sub>(D)</sub> x h <sub>(E)</sub> x d <sub>(F)</sub> : 824 x 1720 x 655 mm (d +56mm door handle & +111mm Peltier element)
Installation	on lockable castors
Housing	rear zinc-plated steel

#### **Electrical data**

Voltage Electrical load	230 V, 50/60 Hz approx. 600 W	
Voltage Electrical load	115 V, 50/60 Hz approx. 600 W	

# **Ambient conditions**

Set Up	The distance between the wall and the rear of the appliance must be at least 15 cm. The clearance from the ceiling must not be less than 20 cm and the side clearance from walls or nearby appliances must not be less than 5 cm.
Ambient temperature	16 °C to 40 °C
Humidity rh	max. 70 %, non-condensing
Altitude of installation	max. 2,000 m above sea level
Overvoltage category	II
Pollution degree	2

# Packing/shipping data

Transport information	The appliances must be transported upright
Customs tariff number	8419 8998
Country of origin	Federal Republic of Germany
WEEE-RegNo.	DE 66812464
Dimensions approx incl. carton	w x h x d: 930 x 1930 x 930 mm
Net weight	approx. 139 kg
Gross weight carton	approx. 190 kg

# Standard units are safety-approved and bear the test marks

CE