

## TENDER SPECIFICATIONST

### Black&White4 CTM PF/CTM PF RL

Hereafter referred to as BW4 CTM PF/CTM PF RL genannt

**Manufacturer** Thermoplan AG, Weggis

**Preparation** Coffee specialties, hot milk/foam  
cold milk/foam, chocolate beverages,  
flavored coffee and milk beverages, hot water, ambient water  
(in-cup temperature dependent on given tap water temperature)

**Capacity/h** 240 espressos/200 coffees/140 cappuccinos/120 teas/80 chocolate beverages  
Amount depends on cup size and machine setting

### Brief description

The fully automatic coffee machine BW4 CTM PF/CTM PF RL prepares coffee specialties as well as milk-based coffee beverages in constantly high quality. The cooling unit RL integrated on the left side holds a maximum of 9 liters of chilled milk in the plastic milk container. Alternatively, the milk supply can come from the original package. The powder and flavor unit is on the right. The powder unit has a capacity for up to 2 kg of chocolate powder for vending machines and is only 92 mm wide. The flavor unit holds up to 4 different syrup flavors. The flavor compartment is only 170 mm wide and contains numbering on the inside for simple flavor programming.

### Special features

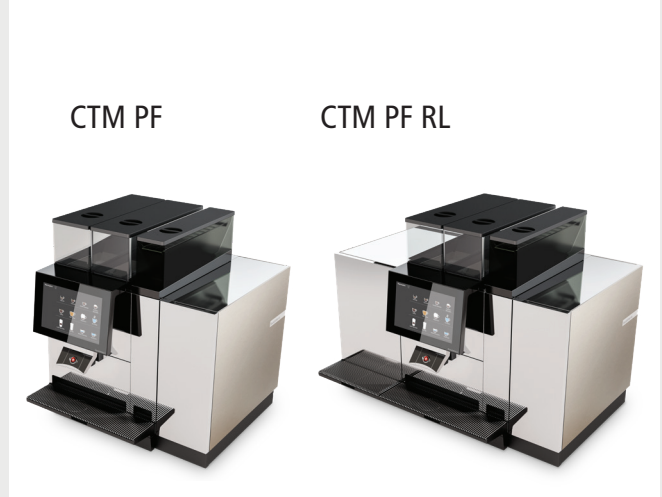
The superior coffee system delivers coffee excellence in portafilter quality at the push of a button. With the modular system is the coffee machine BW4 CTM PF/CTM PF RL equipped with the modular system developed by Thermoplan. The modules (mechanical and hydraulic module) can be exchanged and serviced in the shortest amount of time reducing downtimes to a minimum. The fully automatic machine is equipped with an innovative milk foam technology developed by Thermoplan. At the touch of a button, the BW4 CTM PF/CTM PF RL creates milk foam, which can be customised to individual needs (consistency and temperature is variable).

### Operation

Central operating and information unit is the capacitive 10" touchscreen display. The cover glass is made of 3mm-thick tempered glass and is resistant against scuffs and scratches. There are approximately 25 language versions of the software available in order to simplify operation of the machine. The four programmed user groups (self-service, barista, manager, technician) have different application authorisations and setting options which are regulated with access codes.

### Cleaning

The fully automatic coffee machine has an automatic cleaning system. The cleaning intervals are pre-programmed for simplification and to ensure quality of the beverages. A complete cleaning cycle lasts approximately 17 minutes. The cleaning process is performed for the coffee and milk foam system each in closed circuits. The use of cleaning keys simplifies handling and ensures exact cleaning agent dosing. The cleaning process for the powder and/or syrup unit must be performed after 7 days. Once this process is manually started it is automatically performed and a sequence of the cleaning steps which must be performed manually are shown on the display. If a coffee and/or milk foam system cleaning is necessary at the same time, the machine recognizes the different requirements and performs a complete cleaning. The outer surface of the fully automatic coffee machine can be cleaned with a conventional, mild cleaning agent, however.



- Overview of the advantages**
- Superior coffee system
  - Modular machine assembly
  - Innovative milk system technology
  - Straightforward, ergonomic design
  - Touchscreen with capacitive 10" display
  - Intuitive operation
  - Efficient tablet cleaning circuit cleaning system
  - Resource-saving operation

- Additional options**
- ThermoplanConnect telemetry system
  - Touchless order
  - Interface for payment connection (compatible with coin checker, coin exchanger, credit card payment, automatic beverage registration, etc.)
  - Customer-specific outer material and machine color
  - Lockable containers (bean hopper, refrigerator, powder front, aroma drawer, grounds drawer)
  - 2 types of milk
  - Water tank operation
  - 1 or 2 coffee grinders
  - Grounds chute

<b>Dimensions (W x D x H)</b>	CTM PF	580 x 600 x 646 mm	Weight	80 kg
	CTM PF RL	860 x 600 x 646 mm	Weight	105 kg

**Coffee outlet height** 85–172 mm (manually adjustable)  
96–192 mm (automatic)

**Bean hopper** ~1.7 kg each

**Refrigerator RL** 9 litre

**Powder unit** 2 kg

**Syrup unit** 1–4 syrup flavors

**Power connection** 220–240 volt/50–60 hz/13 amps/1 phase  
220–240 volt/50–60 hz/16 amps/1 phase  
220–240 volt/50–60 hz/32 amps/1 phase  
380–415 volt/50–60 hz/16 amps/3 phase

**Water connection** 3/8", pressure 2-4 bar/30-60 psi, no chlorine, TDS 70-200 ppm, hardness 5-8° dH (8-14° fH), pH 6.8-7.4, alkalinity < 100 ppm, iron < 0.25 ppm

### Placing

The coffee machine is installed and operated on horizontal, level and fireproof surfaces. The device must have a safety distance of at least 50 mm on all sides. There must be a minimum height clearance of at least 350 mm. The distance of the machine and the drain should be no more than 1 meter. The drain line must not sag, there must be no counter pressure in the water drain line and the end of the line must not be submerged in water.