

**-T1+T1-T2+T2-T3+T3**



**PTC sensors**



**USB**



**Peltier  
element**



**Output  
voltage**



**Synchropulse**



**5A**

**Input voltage thermo-emf of ingots № 1 - № 12**



**Cooling fan**



**Pump hot**



**Pump cold**