DEVELOPMENT AND CONSTRUCTION OF BINARY GEOTHERMAL POWER PLANT IN RUSSIA
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World Pioneer Binary Geothermal Power Plant
Built in the Kamchatka (1967)

Installed Power 2.5 MW,
Input Water Temperature 120 °C
Outlet Water Temperature 63 °C
Thermal Water Consumption 120 kg/s
Cooling Water Consumption 1500 m³/hour

Technical Characteristics of the Station:
Working Fluid (WF) ................. R-12
Power Supply to the Customers .... 500 kW
Generator Power ................... 725 kW
Water Well Temperature .......... 190 °C
Heating Water Flow Rate .......... 300 m³/hr
Cooling Water Temperature ......... 70 °C
Cooling Water Flow Rate .......... 1000 m³/hr
R-12 Pressure at the Turbine inlet ... 14 at.
R-12 Pressure at the Turbine Outlet ... 0.1 at.
Internal Power Efficiency of the Turbine ... 0.8

Flow diagram

R-134a

KAMCHATKA. Pauzhetsky Binary Geothermal Power Plant, 2.5 MW, Pilot Project

More than 200 kg/s of Separated Water is Discharged to Pauzhetska River

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2,5 MW
 Inst.

Russian Geothermal Power Engineering