

SOLAR ENERGY AND EXTERNAL SOURCE STEAM COMPLEMENTARY POWER GENERATION APPARATUS

ABSTRACT

A solar energy and external source steam complementary power generation apparatus comprising a solar steam generation device, an external source steam regulator (15), a turboset (2) and a generator (1). A steam output end of the solar steam generation device is connected to a high-pressure steam inlet (3) of the turboset (2) through a first regulating valve (15); a steam output end of the external source steam regulator (15) is connected to the high-pressure steam inlet (3) of the turboset (2) through a second regulating valve (20) and a second switching valve (19). A low-pressure steam outlet (4) of the turboset (2) is connected to a circulating water input end of the solar steam generation device through a condenser (5), a deaerator (6), a water feed pump (7) and a first switching valve (16) in turn. An output end of the water feed pump (7) is connected to an external source steam water return bypass (11) through a fourth switching valve (23).

Fig. 2