Design of Dedicated Proton Synchrotron for PRAgue Radiation Oncology Center (PRAROC), K. PROKESH, "Oncology 2000" Foundation, Prague; S.I. KUKARNIKOV, V.K. MAKOVEEV, V.PH. MINASHKIN, A.YU. MOLODOZHENTSEV, Y.PH. SHEVTSOV, A.I. SIDOROV, G.I. SIDOROV, JINR - The dedicated proton synchrotron (PRAgue Medical Synchrotron) is a part of PRAgue Radiation Oncology Center. PRAMES has been developing exclusively for the third-order slow extraction of proton beam. In this case the maximum final energy should be at least 220 MeV to provide cancer treatment depth about 30 cm. The average current in the energy range should be about 10 nA, which corresponds to the irradiation dose of 2 Gy/1liter/1min. A 12 MeV RFQ/DTL linac is chosen to inject the proton beam using the single-turn injection. The slow extraction of the accelerated particles is analyzed. In the paper, general parameters of the PRAMES and main systems are presented. Results of lattice study, injection, acceleration and extraction are furnished.