

# ESR Electron Cooler



## electron beam parameters

energy	5–250 keV
current	1 mA – 1 A
diameter	50.8 mm
gun perveance	1.95 $\mu\text{P}$
collection efficiency	>0.9998
temperature	
transverse	0.11 eV
longitudinal	$\sim 0.1$ meV

## magnetic field

strength	0.05 – 0.2 T
straightness	$1 \times 10^{-4}$

**vacuum**  $2 \times 10^{-11}$  mbar