

ENTRY NO: CM08
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Machine Name: 370V
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History

Designed by: Sumitomo Heavy Industries, Ltd.

Construction Dates: 1995

First Beam Date: 1996

Characteristic Beams

ions	energy(MeV/N)	current(pps)	power(w)
p	2	5micro-ampere	
p	17	50micro-ampere	
d	9	40micro-ampere	
4He2+	4.5	5micro-ampere	
3He2+	8	10micro-ampere	

Transmission Efficiency (source to extracted beam)

Typical (%):

Best (%):

Emittance

Emittance Definition:

Vertical (pi mm mrad):

Horizontal (pi mm mrad):

Longitudinal (dE/E[%] x RF[deg.]):

USES

Basic Research (%):

Development (%):

Therapy (%):

Isotope Production (%):

Other Application (%):

Maintenance (%):

Beam Tuning (%):

Total Time (h/year):

TECHNICAL DATA

(a)Magnet

Type: compact

Kb (MeV):

Kf (MeV):

Average Field (min./max. T): 16.6/5.5

Number of Sectors: 4

Hill Angular Width (deg.):

Spiral (deg.):

Pole Diameter (m):

Injection Radius (m):

Extraction Radius (m): 0.37

Hill Gap (m): 0.07

Valley Gap (m): 0.12

Trim Coils

Number: 5x2

Maximum Current (A-turns):

Harmonic Coils

Number: 1xNsectorsx2

Maximum Current (A-turns):

Main Coils

Number: 1x2

Total Ampere Turns:

Maximum Current (A):

Stored Energy (MJ):

Total Iron Weight (tons):

Total Coil Weight (tons):

Power

Main Coils (total KW):

Trim Coils (total, maximum, KW):

Refrigerator (cryogenic, KW):

(b)RF

Acceleration

Frequency Range (MHz): 17-38

Harmonic Modes: 1/3

Number of Dees: 1

Number of Cavities: 1

Dee Angular Width (deg.):180

Voltage

At Injection (peak to ground, KV): 32

At Extraction (peak to ground, KV): 32

Peak (peak to ground, KV): 32

Line Power (max, KW):

Phase Stability (deg.):

Voltage Stability (%):

(c)Injection

Ion Source: Livingston

Source Bias Voltage (kV):

External Injection:

Buncher Type:

Injection Energy (MeV/n):

Component:

Injection Efficiency (%):

Injector:

(d)Extraction

Elements, Characteristic:

Typical Efficiency (%):

Best Efficiency (%):

(e)Vacuum

Pumps: one diffusion pump

Achieved Vacuum (Pa):

REFERENCES

EXPERIMENTAL FACILITIES

COMMENTS