

# Cryogen Free Measurement System (5 9 Tesla)

## Specification

Magnet	5T
Central homogeneity over 10mm dsv	0.1%
Ramp rate	1T / Min
Expected decay rate in persistent mode	10ppm/hr
Sample space	25mm
Total height (inc. cryocooler and VTI)	1000mm
Cooldown Time	<12 hrs

Cryocooler/compressor combinations, water chiller and power requirements for Cryogen-Free Measurement Systems

Max. field and cold-head type	Cryocooler/compressor combination	Compressor power consumption (steady/max) at 50 Hz, KW	Power requirement, KVA	Recommended water chiller	Chiller power requirement, KW	Total consumed power, KW	UPS requirement, KVA
5T PT	SP-062/F50	6.5/7.2	12	TAE-EVO 020	4	11.2	19
9T PT	SP-082/F70	7.2/8.5	14	TAE-EVO 020	4	12.5	21
9T GM	RDK415/F50	6.5/7.2	12	TAE-EVO 020	4	11.2	19
10T PT	SP-082/F70	7.2/8.5	14	TAE-EVO 020	4	12.5	21
10T GM	RDK415/F50	6.5/7.2	12	TAE-EVO 020	4	11.2	19
12T PT	SP-082/F70	7.2/8.5	14	TAE-EVO 020	4	12.5	21
12T GM	RDK415/F50	6.5/7.2	12	TAE-EVO 020	4	11.2	19
14T PT	PT415/CP1010	9.2/10.5	18	TAE-EVO 031	6	16.5	27.5
14T GM	RDK415/F50	6.5/7.2	12	TAE-EVO 020	4	11.2	19
16T PT	2xPT415/CP1010	18.4/21	36	TAE-EVO 081	11	32	53
16T GM	2xRDK415/F50	13/14.2	24	TAE-EVO 051	8	22.2	37
18T PT	2xPT415/CP1010	18.4/21	36	TAE-EVO 081	11	32	53

PT = Pulse Tube

GM = Gifford-McMahon

SP-062, SP082, RDK415 manufactured by Sumitomo Heavy Industries, Ltd

PT415 manufactured by Cryomech, Inc