

YE3 cooling parameters

	Units	YE3 periphery manifold	CSC cooling circuit ME4/2	CSC cooling circuit ME4/1	RPC cooling circuit RE3/2	RPC cooling circuit RE3/1	RPC cooling circuit RE4/2	RPC cooling circuit RE4/1	Disk circuit	VME/CRB circuit (minirack)	Rack cooling circuit (low flow)	Rack cooling circuit (high flow)
Tube/pipe OD	mm	48.3	9.5	9.5	8.0	8.0	8.0	~15	12.7	12.7	12.7	12.7
Tube/pipe wall	mm	1.7	0.8	0.8	1.0	1.0	1.0		1.2	1.2	1.2	1.2
Tube/pipe ID	mm	45.0	7.9	7.9	6.0	6.0	6.0	6.0	10.2	10.2	10.2	10.2
Tube/pipe Area	mm ²	1587	49	49	28	28	28	28	82	82	82	82
Flow rate	liter/min	209	2.3	4	2	2	2	2	2	4.7	4.7	9.5
Flow velocity	m/sec	2.2	0.8	1.4	1.2	1.2	1.2	1.2	0.4	1.0	1.0	1.9
Reynolds	unitless	95358	5973	10387	6838	6838	6838	6838	4014	9434	9434	19068
Heat removal/circuit	W	24363	360	780	34	23	34	23	400	550	1000	2700
Temperature rise	C	1.7	2.2	2.8	0.2	0.2	0.2	0.2	2.9	1.7	3.1	4.1
Number of circuits	ea	1	12	6	18	18	18	18	12	4	3	3
Total flow	liter/min	245	27.6	24	36	NA	36	36	24	18.8	14.1	28.5
Heat removed	W	24363	4320	4680	612	419	612	419		2200	3000	8100
Heat removal capacity	W								4800			
Pressure drop (measured)	bar											

Total flow	liter/min	209
Total Heat removed	W	24363
Total temperature rise	C	1.7

Modification made by I.Crotty 20 April 2017 are in Green.

ONE ENDCAP