

HC900 Hybrid Controller

When you need more than just discrete control

HC900 Release 4.X Performance Samples – Product Note

C30, C50 CPU

Total FBs	Normal Scan		Fast Scan		Recipes Profiles	Config. Memory	Dynamic Memory	Normal Scan Time	FastScan Time	% CPU Used	% Fast CPU Used
	Basic FB Qty	Complex FB Qty (~PID)*	Basic FB Qty	Complex FB Qty**							
230***	130	40	50	10	99	7.37%	2.13%	.507 sec	.027 sec	25.50%	24.72%
495	300	75	100	20	99	9.21%	4.14%	0.773 sec	0.027sec	33.35%	49.44%
630	300	75	225	30	99	9.64%	4.48%	.533 sec	.053 sec	48.36%	44.25%
1015	500	100	375	40	99	11.66%	6.24%	1.067sec	.067sec	34.85%	52.93%
1360	700	100	500	60	99	13.41%	7.19%	1.067 sec	.107 sec	40.73%	46.64%
1975	1000	125	750	100	99	16.78%	9.91%	1.600 sec	.133 sec	35.57%	59.00%
1975					1000	68.21%					

***C30 CPU same as C50

C70 CPU

Total FBs	Normal Scan		Fast Scan		Recipes (Profiles)	Config. Memory	Dynamic Memory	Normal Scan Time	FastScan Time	% CPU Used	% Fast CPU Used
	Basic FB Qty	Complex FB Qty (~PID)*	Basic FB Qty	Complex FB Qty**							
230	130	40	50	10	99	7.37%	2.13%	.507 sec	.027 sec	19.15%	18.72%
495	300	75	100	20	99	9.21%	4.14%	0.507 sec	0.027 sec	38.24%	37.44%
630	300	75	225	30	99	9.64%	4.48%	.533 sec	.053 sec	36.33%	33.58%
1015	500	100	375	40	99	12.12%	6.23%	.800 sec	.053 sec	34.91%	50.28%
1360	700	100	405	150	99	13.94%	7.19%	.800 sec	.067 sec	40.15%	56.66%
1975	1000	125	750	100	99	17.45%	9.91%	1.067 sec	.107 sec	40.10%	55.96%
1975					1000	70.93%					

C70R CPU

Total FBs	Normal Scan		Fast Scan		Recipes (Profiles)	Config. Memory	Dynamic Memory	Normal Scan Time	FastScan Time	% CPU Used	% Fast CPU Used
	Basic FB Qty	Complex FB Qty (~PID)*	Basic FB Qty	Complex FB Qty**							
230	130	40	50	10	99	7.66%	6.39%	.507 sec	0.053 sec	24.23%	12.36%
495	300	75	100	20	99	9.57%	12.41%	0.533 sec	0.053 sec	48.36%	24.72%
630	300	75	225	30	99	10.02%	13.43%	0.533 sec	0.053 sec	48.36%	44.25%
1015	500	100	375	40	99	12.12%	18.71%	0.8 sec	0.067sec	46.47%	52.93%
1360	700	100	405	150	99	13.99%	21.64%	1.067 sec	0.107 sec	40.07%	46.89%
1975	1000	125	750	100	99	17.70%	30.09%	1.6 sec	0.133 sec	35.57%	59.20%
1975					1000	71.17%					

* Complex Normal Scan blocks include PID, Setpoint Programs, Setpoint Schedules and similar class blocks.

** Complex fast scan blocks include 8 channel I/O blocks, Sequencer, Boolean type blocks.

Note: The above configurations do not include Signals, Variables, extensive wire connections, text or other memory consuming functions. Your actual configuration will typically use more memory than is indicated.

It is recommended you input the typical data for your actual configuration into HC Designer and use the Statistics Page to view actual controller resource consumption and expected performance.