

NJ vs. NX Machine Automation Controllers Comparison

Machine Automation Controller CPU

Description	Program capacity	I/O Capacity	Maximum local units	Built-in network ports	Cycle Time	EtherCAT Slaves	Motion control axes	Cam Tables	SQL	SECS/GEM	Robot	Model	
NJ-Series CPU Unit	3MB (60K step, 450 POU, 2.5MB Variable)	2,560 points local (8,960 with NX I/O)	10 per CPU or expansion rack; 40 total per CPU	EtherCAT, EtherNet/IP	1/2/4 ms	64	--	--	No	No	No	NJ101-9000	
							2	160	No	No	No	NJ101-1000	
	5MB (100K step, 750 POU, 2.5MB Variable)	2,560 points local (66,560 with NX I/O)			4	640	No	No	No	NJ301-1100			
					8		No	No	No	NJ301-1200			
	20MB (400K step, 3,000 POU, 6MB Variable)				16	No	192	No	No	No	NJ501-1300		
						Yes		No	No	No	NJ501-1320		
					No	Yes	No	No	NJ501-1340				
					No	No	Yes	No	NJ501-4300				
					No	No	1 only	No	NJ501-4310				
					32	No	No	No	NJ501-1400				
						Yes	No	No	NJ501-1420				
					64	No	No	Yes	NJ501-4400				
	Yes					No	No	NJ501-1500					
NX-Series CPU Unit	80MB (1,600K step, 6,000 POU, 260MB Variable)		64,000 with NX I/O	None *Future capability	EtherCAT, EtherNet/IP (x2)	.125/.25/.5/1/2/4/8 ms	512	128	640	No	No	No	NX701-1600
								256		No	No	No	NX701-1700

Power Supply

Description	Input supply voltage	Output Current		Output Capacity	Built-in Feature	Compatible Controllers	Model
		5 VDC	24 VDC				
NJ-Series AC power supply unit	100 to 240 VAC	6.0 A	1.0 A	30W	RUN output	NJ101, NJ301, NJ501	NJ-PA3001
NJ-Series DC power supply unit	24 VDC					NJ101, NJ301, NJ501	NJ-PD3001
NX-Series AC power supply unit	100 to 240 VAC	Unnecessary *future capability	90W	NX701		NX-PA9001	
NX-Series DC power supply unit	24 VDC		70W	NX701		NX-PA7001	