

Controller

Quick Link
H237



NJ-Series Machine Automation Controllers

- Integration of Motion, Logic and Vision in one controller
- Up to 64 axes motion control
- New PLC Logic and Motion cores, 100% Omron quality
- IEC 61131-3 programming languages
- EtherCAT and EtherNet/IP ports built in
- Certified PLCopen Function Blocks for Motion Control
- Reuse with most the CJ-Series I/O units

Servos and Inverters



Quick Link
F354

Accurax G5-Series Servo Drives

- Speed loop frequency response of 2 kHz
- Built-in safety conforming IEC61800-5-2 (STO), EN 954-1 (CAT3), EN61508 SIL2, and ISO13849-1 (PLC-d)
- High resolution serial encoder for greater accuracy provided by 20 bit encoder
- External encoder input for full closed loop
- Real time auto-tuning



Quick Link
F356

Accurax G5-Series Servo Motors

- Power range from 50 W to 15 kW
- IP67 protection
- Low cogging torque
- Peak torque 300% of rated torque for 3 seconds or more depending on model
- High resolution 20-bit encoder enables precise and accurate motor control



Quick Link
D228

MX2-Series AC Drives

- V/Hz or Sensorless vector control
- 200% starting torque at 0.5 Hz
- Double rating VT 120% for 1 min and CT 150% for 1 min
- Speed range up to 1000 Hz
- Torque control in open loop
- Simple positioning functionality
- Safety embedded compliant with ISO13849-1 (double input circuit and external device monitor EDM)

Vision Sensor



Quick Link
G455

FQ-M-Series Vision Sensors

- Camera, vision controller and network connectivity in one
- Compact vision sensor
- Designed for high-speed Pick and Place
- Encoder tracking and smart calibration function
- Fast and powerful object recognition

Sysmac NJ Machine Automation Controllers (continued)

Distributed I/O



Quick Link
K246

EtherCAT®

GX-Series EtherCAT Remote I/O

- Wide variety of Block I/O: digital, analog and encoder I/O units
- Removable I/O terminal for easy servicing
- Easy set-up: automatic and manual address setting
- Real-time control synchronizes performance between slaves at 1 μs max
- Built-in 2-port Ethernet switch reduces costs by easily connecting to multiple blocks



Quick Link
K224

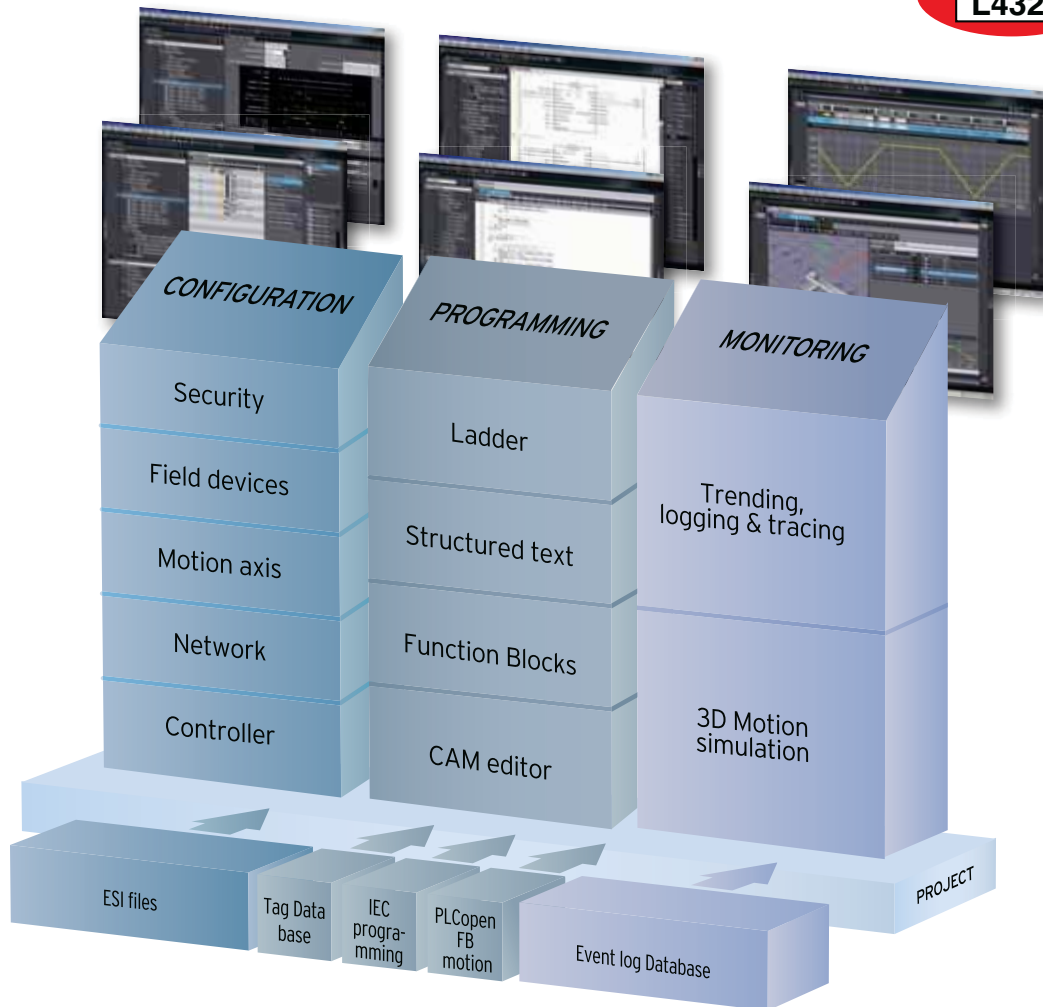
GRT1-Series SmartSlice I/O

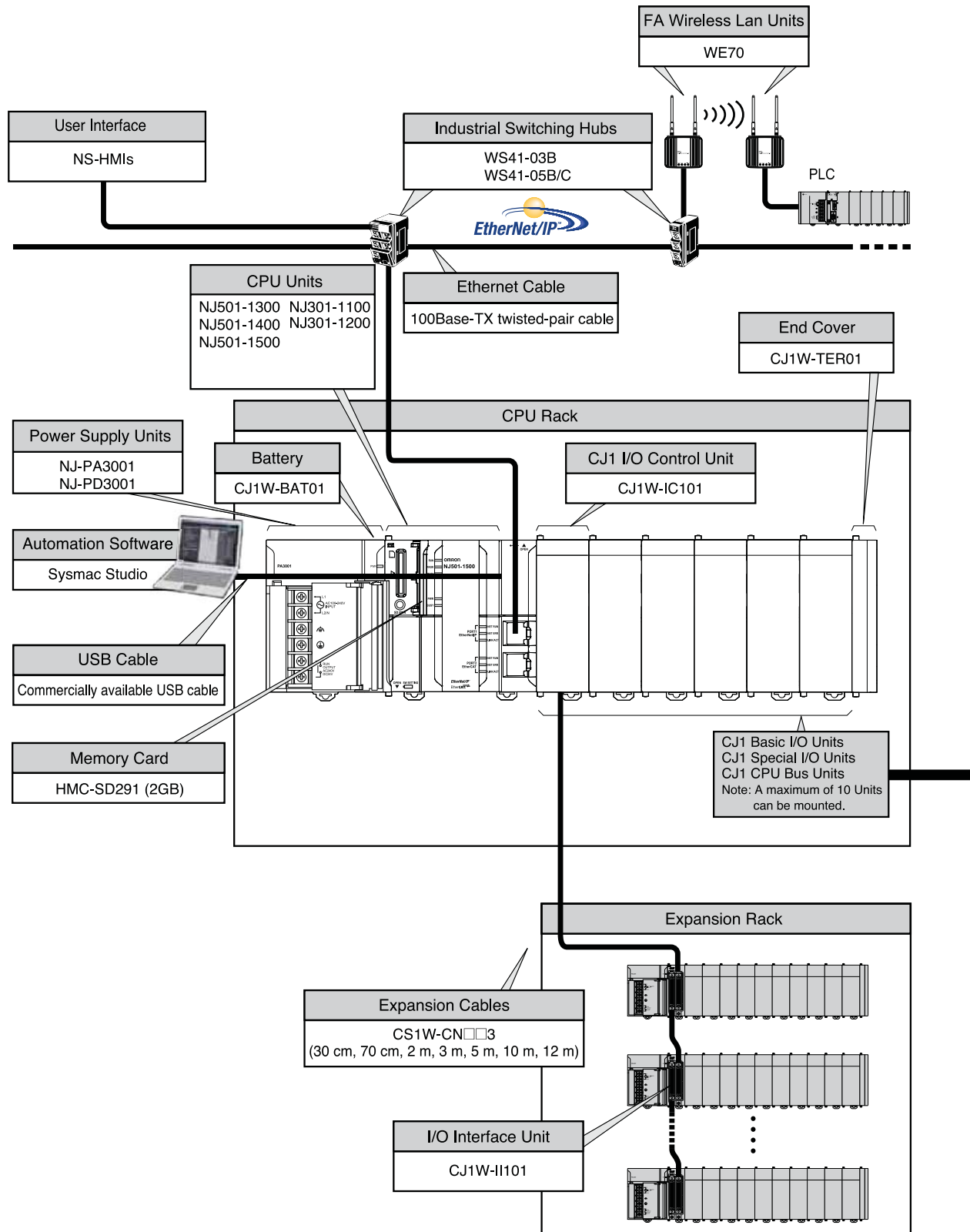
- Diagnostics and preventive maintenance data at I/O level
- Detachable terminal blocks allow hot-swapping without rewiring
- 3-wire connection with “push-in” technology, no screwdriver required for installation
- Easy setup, backup and restore functions
- Expand up to 64 stations

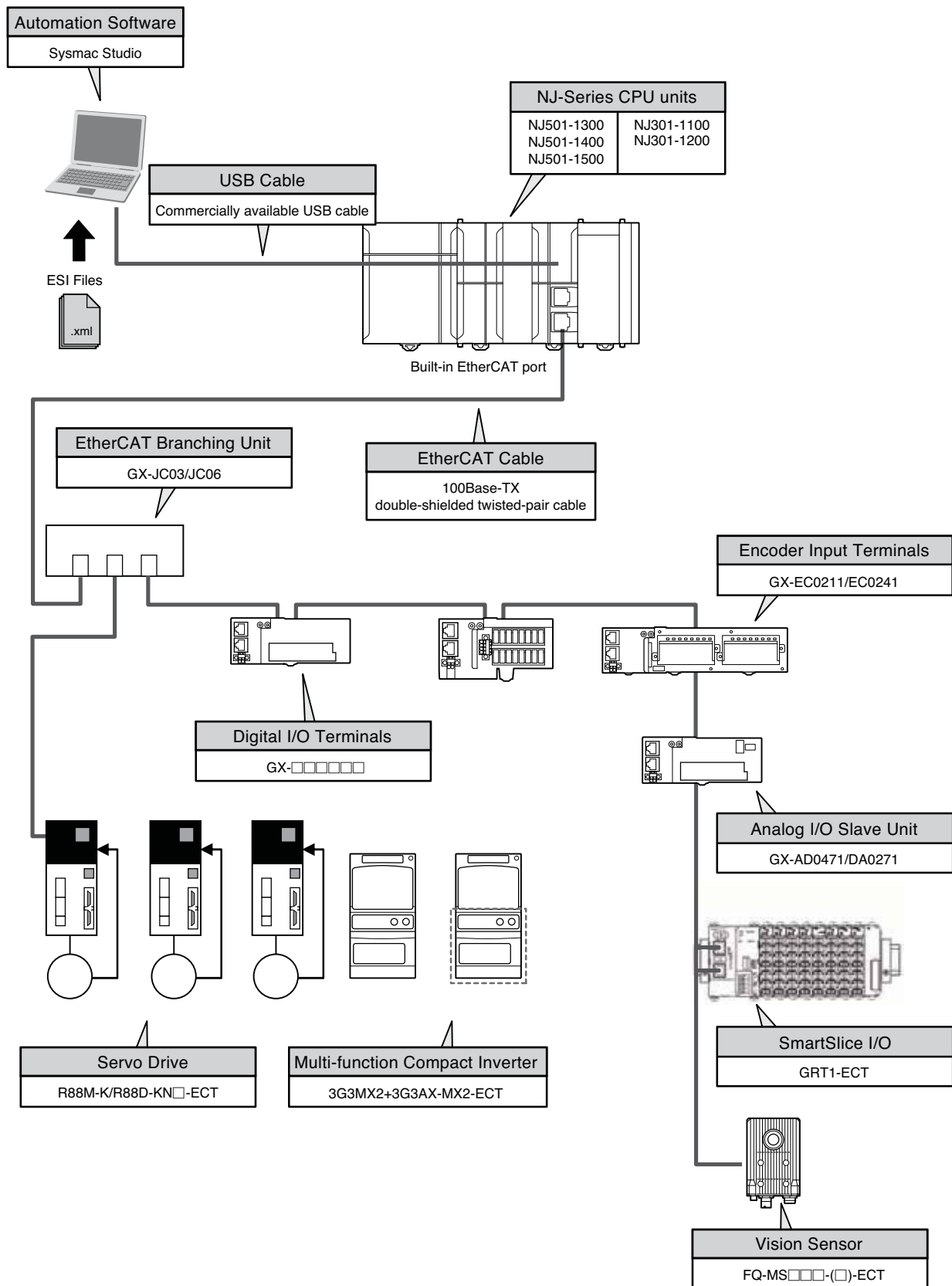
Automation Software

Sysmac Studio Software

Quick Link
L432







NJ Series

NJ501/301 Machine Automation Controller



A

Complete and Robust Machine Automation

The NJ-Series is designed to meet extreme machine control requirements in terms of motion control speed and accuracy, communication, security and robustness.

- Up to 64 axes motion control
- EtherCAT and EtherNet/IP ports embedded
- Architecture based on new Intel CPU (600 MHz and 1.6 GHz)
- Standard IEC 61131-3 programming
- Certified PLCopen function blocks for motion control with parts 1, 2, 4



- Linear, circular, and helical* interpolation (*available soon)
- Power supplies available for AC and DC voltage
- Store data on 2GB SD memory card

Sysmac NJ CPUs

Description	Program capacity	I/O capacity	Maximum number of units	Flash memory port	Built-in network ports	Motion control axes	Model
CPU Unit	5 MB	2,560 points max. plus EtherCAT slave I/O capacity	10 per CPU or expansion rack; 40 total per CPU	Yes	EtherCAT, EtherNet/IP	4	NJ301-1100
	20 MB					8	NJ301-1200
						16	NJ501-1300
						32	NJ501-1400
						64	NJ501-1500

Power Supplies

Description	Input supply voltage	Output current		Output capacity	Built-in feature	Model
		5 VDC	24 VDC			
AC power supply unit	100 to 240 VAC	6.0 A	1.0 A	30 W	RUN output	NJ-PA3001
DC power supply unit	24 VDC					NJ-PD3001

SD Memory Card

Description	Specifications	Model
SD memory card	Flash memory 2 GB	HMC-SD291