

UP  DATE

PLC integration for inverter drives

DRIVE + PLC OPTION

distributed intelligence at work



Advanced Industrial Automation

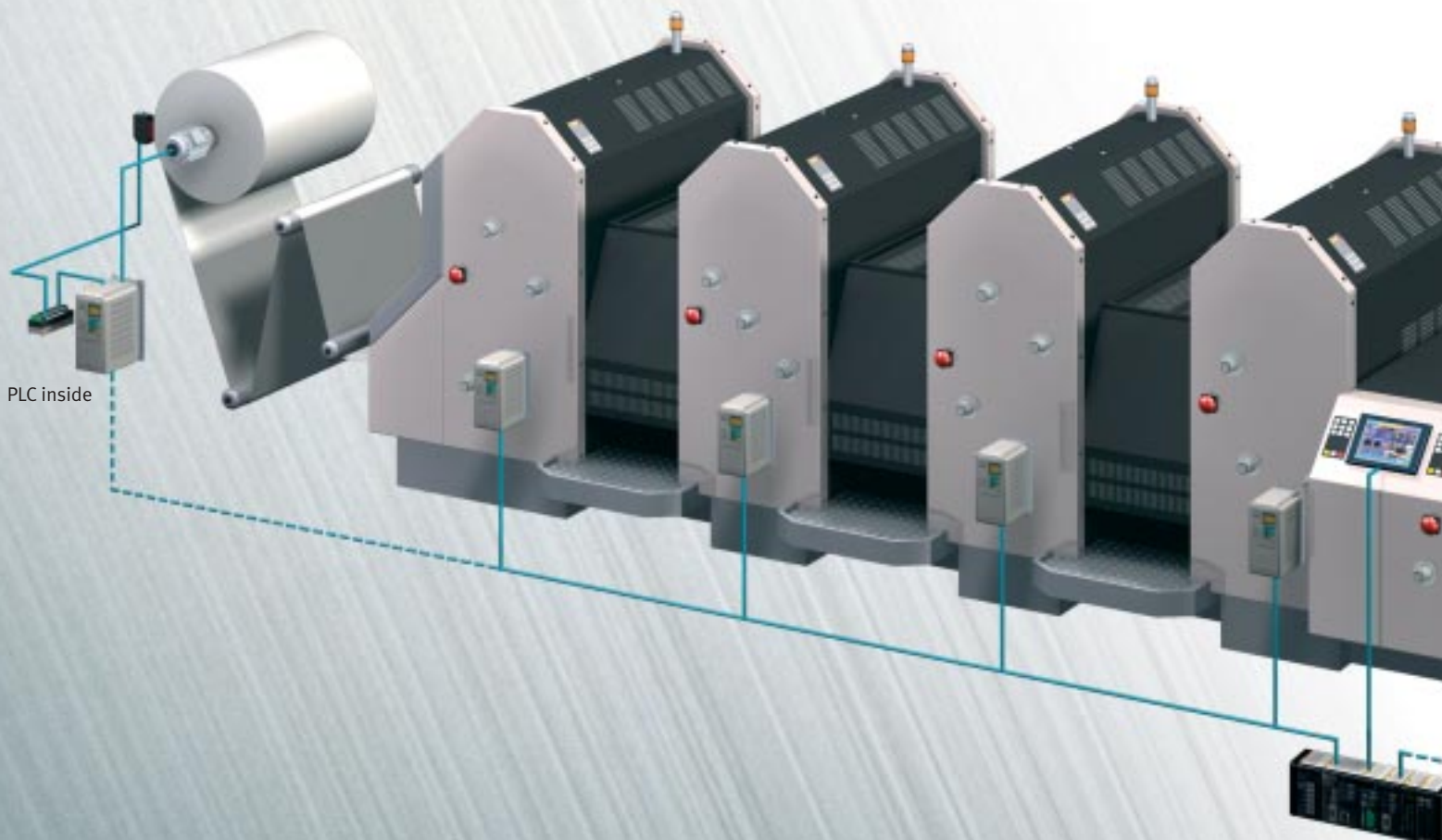
OMRON

By combining your Omron inverter with a PLC option board, you open up new possibilities of distributed intelligence and functionality for your system. The PLC option board offers all the features you would expect from Omron's market leading PLC technology, including control of up to 256 I/O, plus a 50KHz counter, ideal for positioning applications. The PLC option board simply plugs into any of Omron F7/ E7 or L7 inverters. In addition, the PLC option board allows for connection to a DeviceNet network and the PLC option board is programmed and commissioned via Omron's standard tools.

Bringing PLC functionality into the drive

Winding/Unwinding

The use of the PLC option board simplifies this application through local control of the wind/ unwind station, and direct connection to the main machine via DeviceNet.



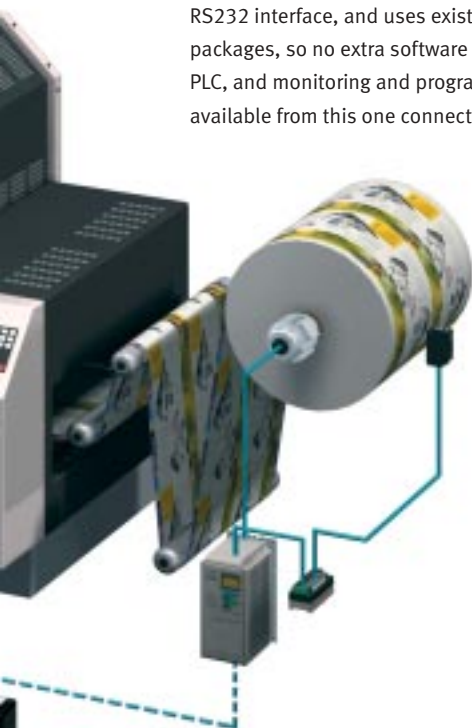
The 3G3RV-P10ST8-E is the perfect solution for use with the following Omron Inverters:

- F7Z - Open and Closed loop vector inverter
 - Winding/ Unwinding
 - Palletisers
 - Cranes (the black-box)
 - General positioning
- E7Z - Variable torque inverter
 - Pump sequencer
- L7Z - Specialist elevator inverter
 - Control of lift sequence



Supports CX-DRIVE and CX-Programmer

The 3G3RV-P10ST8-E is connected to the PC via a standard RS232 interface, and uses existing Omron programming packages, so no extra software is required. Programming of the PLC, and monitoring and programming of the inverter are all available from this one connection.



PLC inside

Key features

- Applicable to the F7, E7 and L7 series inverters
- Two versions: Standard I/O and DeviceNet
- Simply plugs in as an option board, no external power supply required
- Controls up to 256 I/O via Omron's Compubus/S network
- HMI can be connected to option board
- Single point programming using standard Omron programming tools
- Control of Inverter functions via PLC
- All PLC features available as:
 - Interrupt and counter inputs
 - Pulse outputs
 - Mechatronic functions [PWM, Pulse and Sync]
 - Encoder input [50KHz]

3G3MV-P10CDT-E

The 3G3RV-P10ST8-E PLC option board adds to Omron's growing developments in this important area of offering decentralised control to machine and plant designers. Following similar principles, the 3G3MV-P10CDT-E has proved very popular in providing PLC functionality to Omron's 3G3MV series of inverter, available in single and three phase versions, up to 4Kw and 7,5Kw respectively.



Technical specifications

	3G3RV-P10ST8-Exxx-x		3G3MV-P10CDT-x-E	
	3G3RV-P10ST8-E	3G3RV-P10ST8-DRT-E	3G3MV-P10CDT-E	3G3MV-P10CDT3-E
Digital inputs	6	6	6	6
Digital outputs	4 PNP transistor outputs	4 PNP transistor outputs	4, 1 relay / 3NPN transistor	4, 1 relay / 3 NPN transistor
Compobus/S master interface	Yes	Yes	No	No
Compobus/S input bits	128	128	-	-
Compobus/S output bits	128	128	-	-
DeviceNet slave	No	Yes	No	No
Encoder interface	50KHz TTL & 5KHz 24Vdc	50KHz TTL & 5KHz 24Vdc	5KHz 24Vdc	5KHz 24Vdc
Peripheral port / RS232 port	Yes			
RS422 port	Yes	Yes	No	Yes
Calendar clock	Yes	Yes	No	Yes
PLC core	CPM2CS	CPM2CS	CPM2CS	CPM2CS
Programming language	Ladder chart method	Ladder chart method	Ladder chart method	Ladder chart method
Programming capacity	4096 words	4096 words	4096 words	4096 words
Memory backup	FlashMemory and battery	FlashMemory and battery	FlashMemory and capacitor	FlashMemory and battery
Instruction types	Basic	14 types		
	Special	105 types, 185 instructions		
Processing speed	Basic	0,64 microsec.		
	Special	7,8 microsec.		
Programming capabilities	Word arithmetic, timers, counters, PID. Functions like Capturing, Mask, Comparison. Interrupt signal.			
Programming tool	CX-Programmer and CX-Drive			
Power supply voltage	No external power supply needed			
Applicable inverter family	F7Z, L7Z, E7Z		MV	
Power range	Up to 300Kw		Up to 7,5Kw	

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