

Integrated intelligence  
for enhanced control

# PLC + DRIVE IN ONE

3G3MV-P10CDT

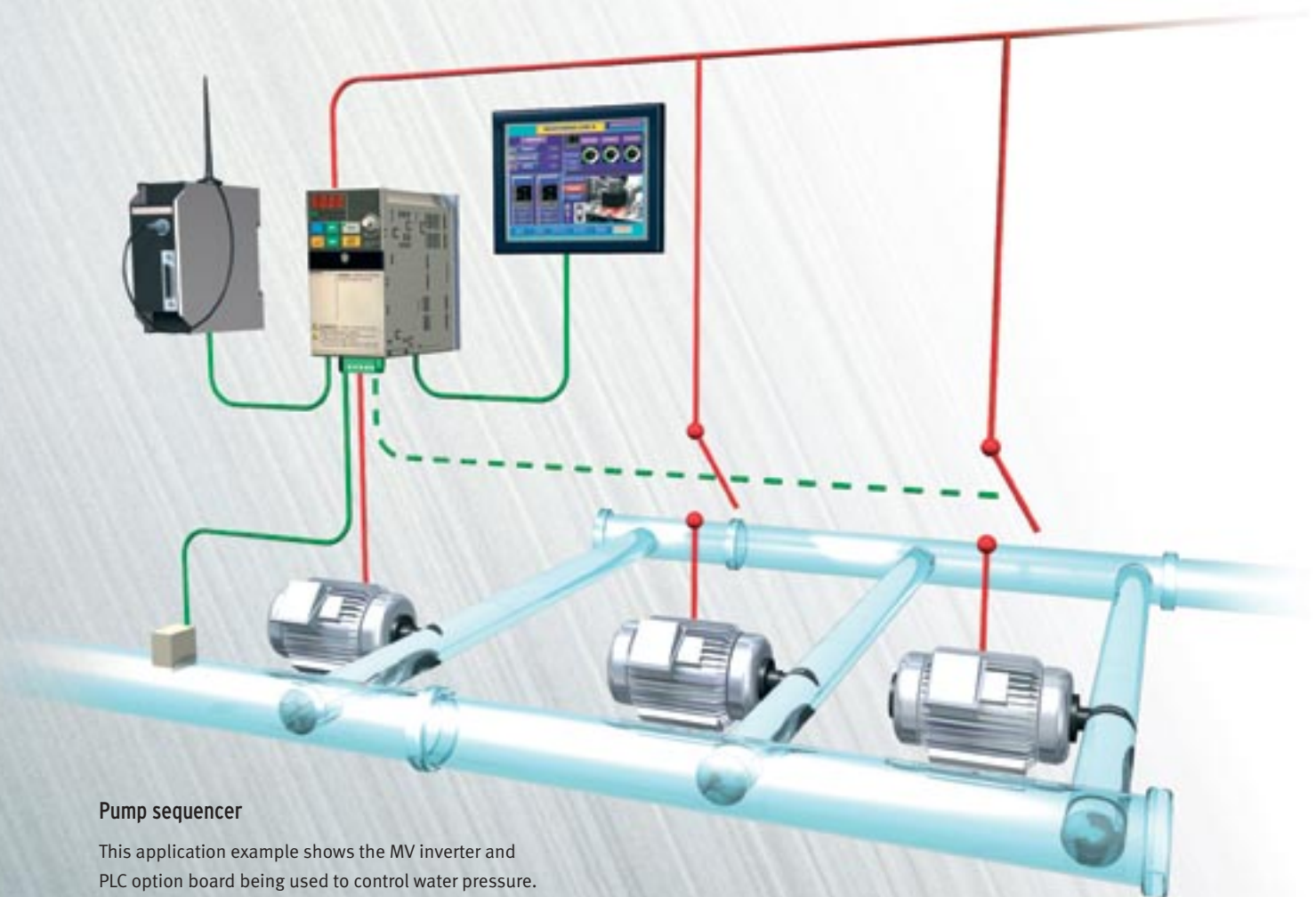


Advanced Industrial Automation

OMRON

With Omron's combined frequency inverter and PLC option board, you can bring more intelligence to your system by enhancing the speed and positioning control of your application. The PLC option board offers the features of an Omron PLC embedded in an MV inverter. This inverter-based architecture provides wireless installation and seamless access to the inverter parameters and analogue/digital inputs and outputs. Standard Omron tools are used for programming and commissioning.

## Bringing intelligence into your system



### Pump sequencer

This application example shows the MV inverter and PLC option board being used to control water pressure. The 3G3MV-P10CDT provides a continuous closed loop control of the first pump, plus ON/OFF control on the others. The system also allows remote supervision and the sending of SMS warnings to maintenance personnel.

## The 3G3MV-P10CDT is the perfect solution for:

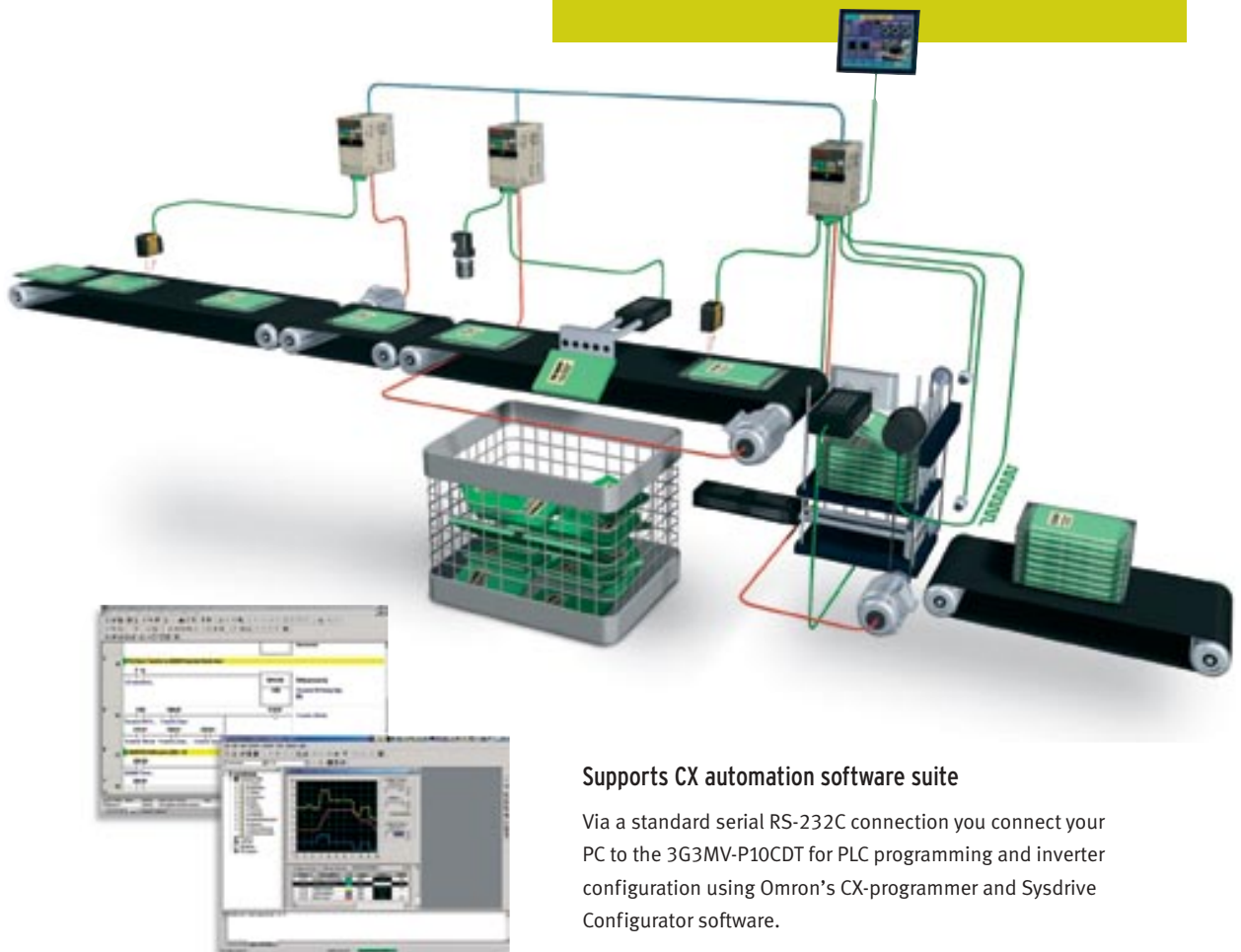
- door control
- vertical axis control
- pump sequencing
- industrial washing machines
- intelligent conveyor
- general positioning

### Key features

- Fully featured Omron PLC embedded into the inverter
- Direct connection to MV inverter via Dual Port RAM
- Complete control of inverter parameters
- Encoder Input, Interrupt inputs and Pulse outputs
- Real-time clock and calendar available
- Control of inverter hardware (analog input, digital I/O)
- Mechatronics functions (counter, PID, filter etc.)
- Single-point programming
- Programmed using the standard Omron PLC software
- RS-422/485 serial port available

### Distributed control

In this application example a series of 3G3MV-P10CDTs provide distributed control over the whole line. The PLC/inverter combination gives you precise control over all processes in the transfer line. And because the 3G3MV-P10CDT is modular in concept, your system grows as your needs do.



### Supports CX automation software suite

Via a standard serial RS-232C connection you connect your PC to the 3G3MV-P10CDT for PLC programming and inverter configuration using Omron's CX-programmer and Sysdrive Configurator software.



## Technical specifications

|                                | 3G3MV-P10CDT-E                                                  |
|--------------------------------|-----------------------------------------------------------------|
| Inputs                         | 6 (1 bi-directional pulse input 5 kHz or unidirectional 20 kHz) |
| Outputs                        | 4 (1 relay / 3 transistor)                                      |
| I/O LED signaling              | Yes                                                             |
| Programming tool               | CX-Programmer                                                   |
| Basic programming capabilities | Word arithmetics, timers, counters, PID functions               |
| Direct HMI connection          | Yes                                                             |
| Communication ports            | RS232C (and RS422/485 optional)                                 |
| Real time clock                | Optional                                                        |
| Instruction execution time     | <8µs                                                            |
| Ambient operating temperature  | -10 to 50°C                                                     |
| Power supply voltage           | No external power supply needed                                 |
| External dimensions            | 68 x 128 x 38 mm (W x H x D)                                    |
| Power range 3G3MV              | Up to 7.5 kW                                                    |
| Performance type 3G3MV         | Advanced, open-loop flux vector frequency inverter              |

**OMRON EUROPE B.V.** Wegalaan 67-69, NL-2132 JD, Hoofddorp, The Netherlands. Tel: +31 (0) 23 568 13 00 Fax: +31 (0) 23 568 13 88 [www.eu.omron.com](http://www.eu.omron.com)

### Austria

Tel: +43 (0) 1 80 19 00  
[www.omron.at](http://www.omron.at)

### Belgium

Tel: +32 (0) 2 466 24 80  
[www.omron.be](http://www.omron.be)

### Czech Republic

Tel: +420 267 31 12 54  
[www.omron.cz](http://www.omron.cz)

### Denmark

Tel: +45 43 44 00 11  
[www.omron.dk](http://www.omron.dk)

### Finland

Tel: +358 (0) 9 549 58 00  
[www.omron.fi](http://www.omron.fi)

### France

Tel: +33 (0) 1 49 74 70 00  
[www.omron.fr](http://www.omron.fr)

### Germany

Tel: +49 (0) 2173 680 00  
[www.omron.de](http://www.omron.de)

### Hungary

Tel: +36 (0) 1 399 30 50  
[www.omron.hu](http://www.omron.hu)

### Italy

Tel: +39 02 32 681  
[www.omron.it](http://www.omron.it)

### Netherlands

Tel: +31 (0) 23 568 11 00  
[www.omron.nl](http://www.omron.nl)

### Norway

Tel: +47 (0) 22 65 75 00  
[www.omron.no](http://www.omron.no)

### Poland

Tel: +48 (0) 22 645 78 60  
[www.omron.com.pl](http://www.omron.com.pl)

### Portugal

Tel: +351 21 942 94 00  
[www.omron.pt](http://www.omron.pt)

### Russia

Tel: +7 095 745 26 64  
[www.russia.omron.com](http://www.russia.omron.com)

### Spain

Tel: +34 913 777 900  
[www.omron.es](http://www.omron.es)

### Sweden

Tel: +46 (0) 8 632 35 00  
[www.omron.se](http://www.omron.se)

### Switzerland

Tel: +41 (0) 41 748 13 13  
[www.omron.ch](http://www.omron.ch)

### Turkey

Tel: +90 (0) 216 474 00 40  
[www.omron.com.tr](http://www.omron.com.tr)

### United Kingdom

Tel: +44 (0) 870 752 0861  
[www.omron.co.uk](http://www.omron.co.uk)

For the Middle East, Africa and other countries in Eastern Europe, Tel: +31 (0) 23 568 13 22 [www.eu.omron.com](http://www.eu.omron.com)

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- Safety relays
- Safety sensors

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