

FX3UC

Compact PLC

High-End and Ultra-Compact with maximum flexibility



Ultra-compact size saves up to 70 % on space



Standardized system wiring minimizes wiring efforts, space and cost



Fully compatible with the FX3U series



All special function modules of the FX family can be used

Greater flexibility and increased performance



For control applications with limited space the new FX3UC is the right choice.

All of the FX3UC base units have the same CPU and the same performance features, they differ only in the number of integrated inputs/outputs.

Ultra-compact dimensions save space

The new FX3UC complements the popular FX3U high-end compact PLC and is the ideal choice for applications where there is not much space for the controller hardware. Its technical specifications are virtually identical. The smallest base unit with 8 digital inputs and 8 transistor outputs takes up just 27 % of the space required for a comparable FX3U unit – and yet the FX3UC incorporates all the features of the FX3U.

Powerful performance

The new MELSEC FX3UC CPU brings greater flexibility and more performance to applications which do not have space for traditional style PLC's. Like all other members of the FX family, each FX3UC PLC consists of a fully-integrated base unit that contains all the necessary PLC components, from the CPU to memory and the I/O controller.

Enormous power reserves

Are you looking for a control solution with power to spare? Then the FX3UC may be what you are looking for with:

- an execution cycle period of just 0.065 μ s per logical instruction
- up to 40,768 data registers
- up to 7,680 internal relay coils/flexs
- 210 commands
- memory for up to 64 k of PLC program steps

This makes the FX3UC one of the fastest and most powerful PLC systems in its class. In fact, it puts quite a few larger modular controller systems in the shade.



Maximum performance in a compact housing

To the new adapter expansion bus on the left hand side of the FX3UC PLC, additional analog and temperature units as well as communications modules can be added.

High-speed system bus

The FX3UC design has increased the opportunity to configure the PLC directly for your needs. Following the standard FX Family configuration, the FX3UC CPU can be expanded to the right hand side using a wide range of options. The FX3UC has an enhanced communications bus that automatically switches into high speed mode for communication with new FX3U or FX3UC expansion modules. Full compatibility is still available with FX2N, FX0N and FX2NC expansion blocks, and when these are configured the FX3UC automatically reduces the bus speed to suit.

Maximum flexibility

The FX3UC base units all have a 24V DC power supply and are available in versions with 16, 32, 64 or 96 I/Os. They can be expanded up to a maximum configuration of 384 I/Os by adding expansion modules and networked I/O points.

The MELSEC FX3UC controllers are particularly well suited for applications in areas, where installation space is very limited or decentralization is needed.



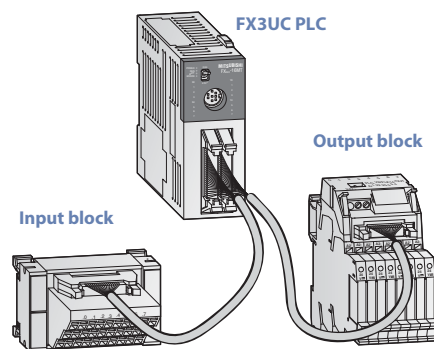
Decentralized installation and networking is one benefit of the FX3UC.

Wiring made easy

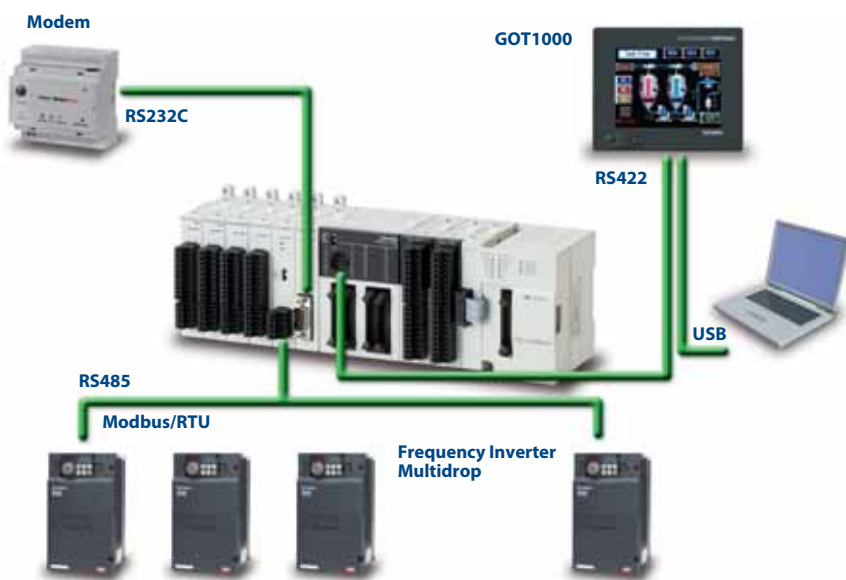
The connections for the FX3UC inputs and outputs can be wired with ribbon cable connectors. Remote I/O interface modules with digital inputs, removable 6 A relay outputs or 2 A triac outputs or simple 1to1 connections with optional system cabling sets are available for the ribbon cable connectors.

Open in all directions

Just like the FX3U, the FX3UC offers outstanding connectivity for all standard networks. It interfaces to your network through the communications modules of the FX3U and FX2N series for Ethernet, Profibus-DP, AS-Interface, CC-Link, CANopen, DeviceNet, Modbus/RTU and inexpensive proprietary networks. In addition to the integrated RS-422 port additional serial RS-232 and RS-485 ports are also available to satisfy all of the features and benefits of the FX3UC.



I/O terminal blocks with screw or spring terminals can be connected with standard ribbon cable connectors.



Versatile communication possibilities are covered by the FX3UC.

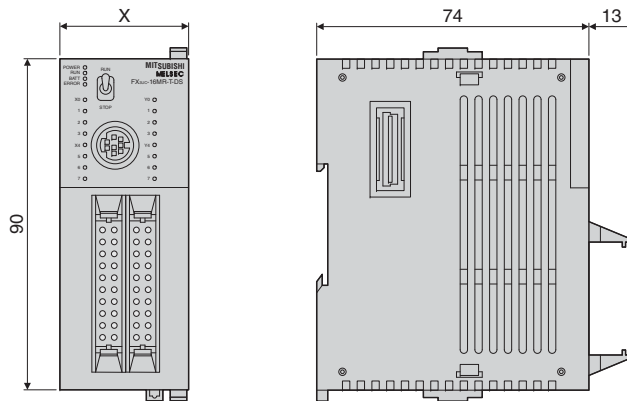
Specifications ///

Specifications	FX3UC-16MT/□	FX3UC-32MT/□	FX3UC-64MT/□	FX3UC-96MT/□
Total integrated inputs/outputs	16	32	64	96
Power supply	24 V DC (+20 %, -15 %)	24 V DC (+20 %, -15 %)	24 V DC (+20 %, -15 %)	24 V DC (+20 %, -15 %)
Max. input apparent power	6 W	8 W	11 W	14 W
Power supply internal bus (5 V DC)	600 mA	560 mA	480 mA	400 mA
Integrated inputs	8	16	32	48
Input impedance	X000–X005: 3.9 kΩ; X006–X007: 3.3 kΩ; X010 or more: 4.3 kΩ			
Input signal current	X000–X005: 6 mA/24 V DC; X006–X007: 7 mA/24 V DC; X010 or more: 5 mA/24 V DC			
ON input sensitivity current	X000–X005: >3.5 mA; X006–X007: >4.5 mA; X010 or more: >3.5 mA			
Input OFF current	1.5 mA or less			
Isolation	Photocoupler isolation between input terminals and PC power for all base units			
Response time	For all base units of the MELSEC FX3UC series: 10 ms (at time of shipment), X000 to X017 use adjustable digital filter values			
Integrated outputs	8	16	32	48
Output type	Transistor			
ON voltage (max.)	5 – 30 V DC			
Max. load	resistance	0.3 A (for Y000–Y0003) / 0.1 A (for all other outputs); max. 1.6 A for 16 outputs simultaneously		
	inductive	7.2 W (for Y000–Y0003) / 2.4 W (for all other outputs); max. 38.4 W for 16 outputs simultaneously		
Response time	< 0.2 ms (for Y000–Y0003) / 5 μs (for all other outputs)			
Environment	0 – 55 °C ambient temperature; 5 – 95 % relative humidity			

Dimensions

PLC	X
FX3UC-16MT/□	34
FX3UC-32MT/□	34
FX3UC-64MT/□	60
FX3UC-96MT/□	86

All dimensions in mm



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