

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.



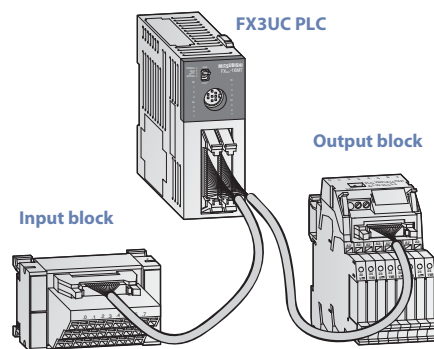
Decentralized installation and networking is one benefit of the FX3UC.

Wiring made easy

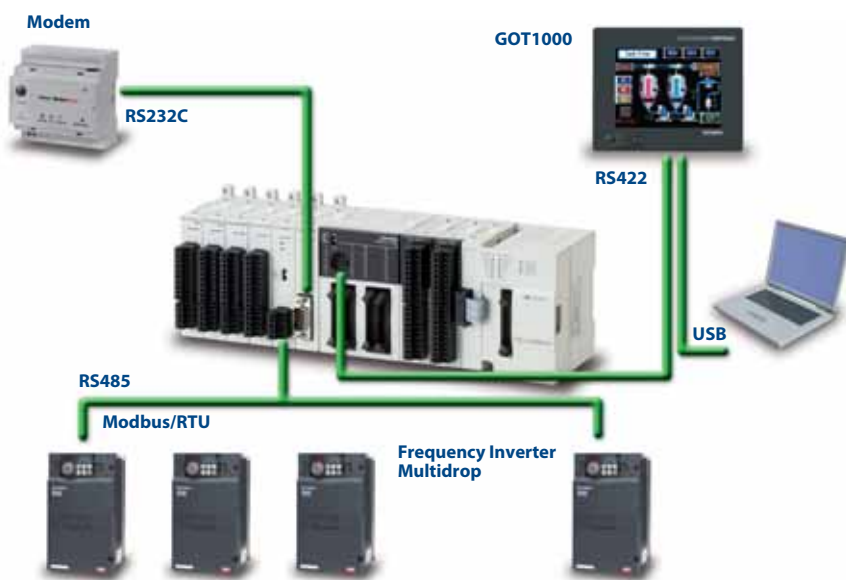
The connections for the FX3UC inputs and outputs can be wired with ribbon cable connectors. Remote I/O interface modules with digital inputs, removable 6 A relay outputs or 2 A triac outputs or simple 1to1 connections with optional system cabling sets are available for the ribbon cable connectors.

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.

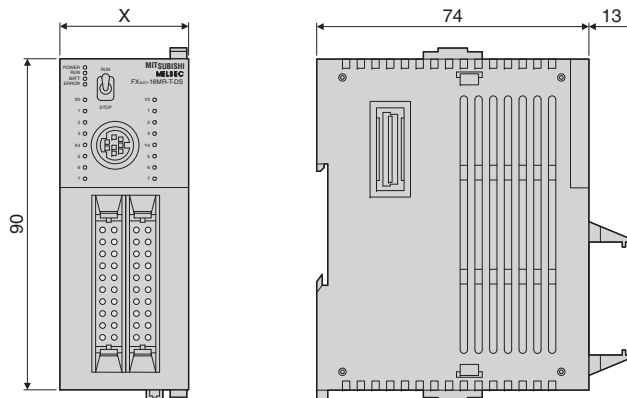
Specifications ///

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



EUROPEAN BRANCHES

MITSUBISHI ELECTRIC EUROPE B.V. 25, Boulevard des Bouvets F-92741 Nanterre Cedex Phone: +33 (0)1 / 55 68 55 68	FRANCE
MITSUBISHI ELECTRIC EUROPE B.V. Gothaer Straße 8 D-40880 Ratingen Phone: +49 (0)2102 / 486-0	GERMANY
MITSUBISHI ELECTRIC EUROPE B.V. Westgate Business Park, Ballymount IRL-Dublin 24 Phone: +353 (0)14198800	IRELAND
MITSUBISHI ELECTRIC EUROPE B.V. Viale Colleoni 7 I-20041 Agrate Brianza (MI) Phone: +39 039 / 60 53 1	ITALY
MITSUBISHI ELECTRIC EUROPE B.V. Carrera de Rubi 76-80 E-08190 Sant Cugat del Vallés (Barcelona) Phone: +34 93 / 565 3131	SPAIN
MITSUBISHI ELECTRIC EUROPE B.V. Travelers Lane UK-Hatfield, Herts. AL10 8XB Phone: +44 (0)1707 / 27 61 00	UK

EUROPEAN REPRESENTATIVES

GEVA Wiener Straße 89 AT-2500 Baden Phone: +43 (0)2252 / 85 55 20	AUSTRIA	AutoCont C.S., s.r.o. Technologická 374/6 CZ-708 00 Ostrava-Pustkovec Phone: +420 595 691 150	CZECH REPUBLIC	UTECO A.B.E.E. 5, Mavrogenous Str. GR-18542 Piraeus Phone: +30 211 / 1206 900	GREECE	Beijer Electronics UAB Savanoriu Pr. 187 LT-02300 Vilnius Phone: +370 (0)5 / 232 3101	LITHUANIA	ELEKTROSTILY Rubzovskaja nab. 4-3, No. 8 RU-105082 Moscow Phone: +7 495 / 545 3419	RUSSIA	INEA d.o.o. Stegne 11 SI-1000 Ljubljana Phone: +386 (0)1 / 513 8100	SLOVENIA
TEHNIKON Oktyabrskaya 16/5, Off. 703-711 BY-220030 Minsk Phone: +375 (0)17 / 210 46 26	BELARUS	B:TECH, a.s. Na Ostrove 84 CZ-580 01 Havlickuv Brod Phone: +420 (0)569 / 408 841	CZECH REPUBLIC	MELTRADE Ltd. Fertő utca 14. HU-1107 Budapest Phone: +36 (0)1 / 431-9726	HUNGARY	INTEHISIS srl bld. Traian 23/1 MD-2060 Kishinev Phone: +373 (0)22 / 66 4242	MOLDOVA	ICOS Ryazanskij Prospekt, 8A, Office 100 RU-109428 Moscow Phone: +7 495 / 232 0207	RUSSIA	Beijer Electronics AB Box 426 SE-20124 Malmö Phone: +46 (0)40 / 35 86 00	SWEDEN
Koning & Hartman B.V. Woluweaan 31 BE-1800 Vilvoorde Phone: +32 (0)2 / 257 02 40	BELGIUM	B:TECH, a.s. Headoffice, U Borové 69 CZ-580 01 Havlickuv Brod Phone: +420 569 777 777	CZECH REPUBLIC	ILAN & GAVISH Ltd. 24 Shenkar St., Kiryat Arie IL-49001 Petah-Tiqva Phone: +972 (0)3 / 922 18 24	ISRAEL	Koning & Hartman B.V. Sverdlöva 11A RU-620027 Ekaterinburg Phone: +7 343 / 353 2745	NETHERLANDS	NPP "URALELEKTRA" Toplicna str.4 lok 6 RU-620027 Ekaterinburg Phone: +7 343 / 353 2745	RUSSIA	ECONOTEC AG Hinterdorfstr. 12 CH-8309 Nürensdorf Phone: +41 (0)44 / 838 48 11	SWITZERLAND
AKHNATON 4 Andrej Ljapchev Blvd. Pb 21 BG-1756 Sofia Phone: +359 (0)2 / 97 44 05 8	BULGARIA	Beijer Electronics A/S Lautruphøj 1-3 DK-2750 Ballerup Phone: +45 (0)70 / 26 46 46	DENMARK	TEXEL Electronics Ltd. 2 Ha 'umanut, P.O.B. 6272 IL-42160 Netanya Phone: +972 (0)3 / 863 08 91	ISRAEL	Beijer Electronics AS Postboks 487 NO-3002 Drammen Phone: +47 (0)32 / 24 30 00	NORWAY	CRAFT Cons. & Eng. d.o.o. Toplicna str.4 lok 6 SER-1800 Nis Phone: +381 (0)18 / 292-24-4/5, 523962	SERBIA	GTS Danulaceze Cad. No. 43 KAT. 2 TR-34384 Okmeydani-Istanbul Phone: +90 (0)212 / 320 1640	TURKEY
INEA CR d.o.o. Losinjska 4 a HR-10000 Zagreb Phone: +385 (0)1 / 36 940- 01/-02/-03	CROATIA	Beijer Electronics Eesti OÜ Pärnu mnt.1601 EE-11317 Tallinn Phone: +372 (0)6 / 51 81 40	ESTONIA	Kazpromautomatiks Ltd. 2, Scladskaya str. KAZ-470046 Karaganda Phone: +972 (0)9 / 863 08 91	KAZAKHSTAN	MPL Technology Sp. z o.o. Alieja Lucali Morici Nr. 3 PL-32-083 Balice Phone: +48 (0)12 / 630 47 00	POLAND	INEA SR d.o.o. Karadjordjeva 12/260 SER-113000 Smederevo Phone: +381 (0)16 / 617 163	SERBIA	CSC Automation Ltd. 15, M. Raskova St., Fl. 10, Office 1010 UA-02002 Kiev Phone: +380 (0)44 / 494 33 55	UKRAINE
AutoCont C.S., s.r.o. Jelinkova 59/3 CZ-721 00 Ostrava Svinov Phone: +420 (0)59 / 5691 150	CZECH REPUBLIC	Beijer Electronics OY Jaakonkatu 2 FIN-01620 Vantaa Phone: +358 (0)207 / 463 500	FINLAND	Beijer Electronics SIA Vestienis iela 2 LV-1035 Riga Phone: +371 (0)784 / 2280	LATVIA	Sirius Trading & Services srl Viale L. il Moro 3 RO-060841 Bucuresti, Sector 6 Phone: +40 (0)21 / 430 40 06	ROMANIA	CS MTrade Slovensko, s.r.o. Vajanského 58 SK-92101 Piestany Phone: +421 (0)33 / 7742 760	SLOVAKIA	CBI Ltd. Private Bag 2016 ZA-1600 Isando Phone: +27 (0)11 / 928 2000	SOUTH AFRICA



Mitsubishi Electric Europe B.V. /// FA - European Business Group /// Gothaer Straße 8 /// D-40880 Ratingen /// Germany
Tel.: +49(0)2102-4860 /// Fax: +49(0)2102-4861120 /// info@mitsubishi-automation.com /// www.mitsubishi-automation.com

Specifications subject to change /// Art. no. 211666-A /// 11.2007
All trademarks and copyrights acknowledged.