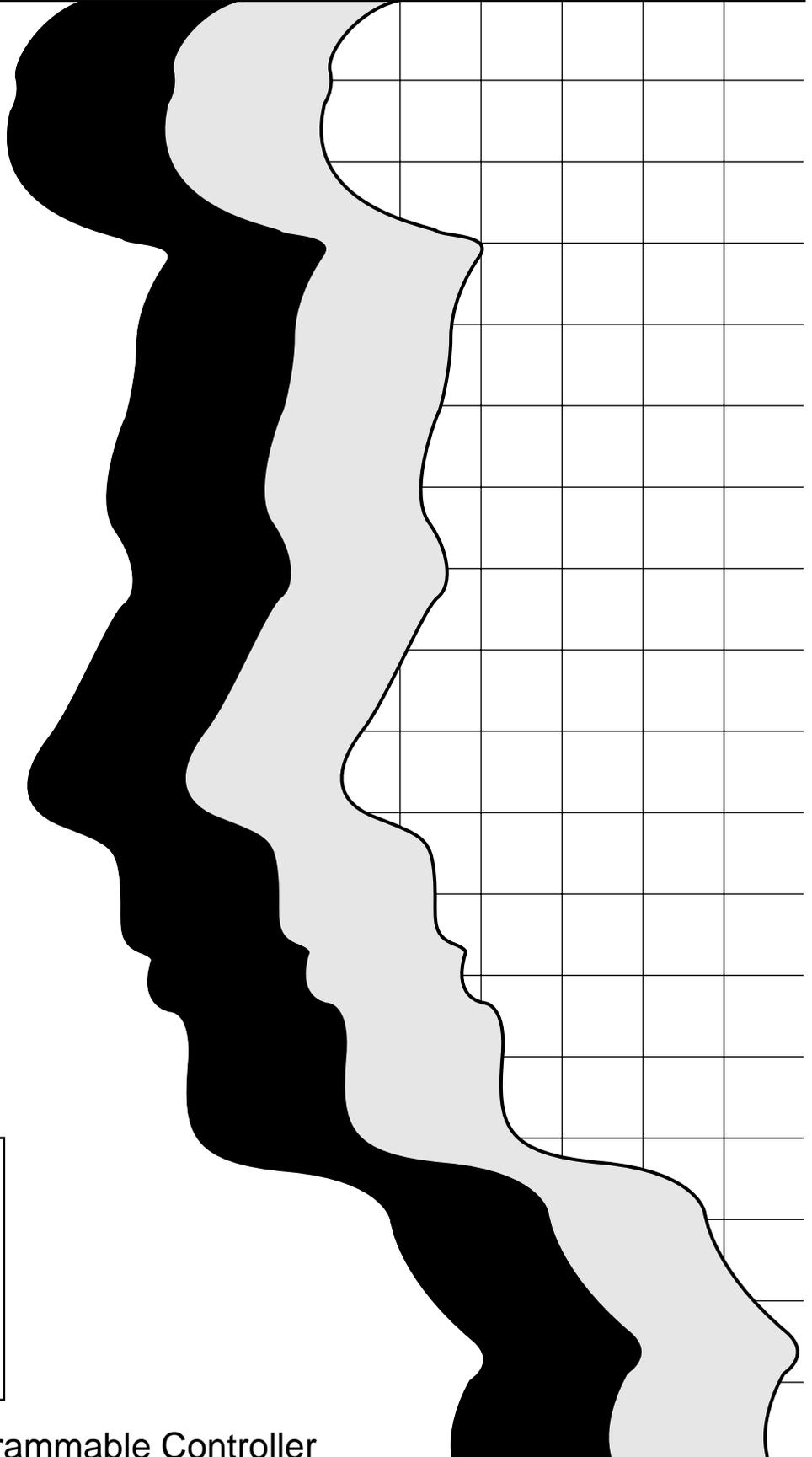


MITSUBISHI

MELSEC-A series programmable controllers
(UL standard approved equipment)

User's Manual



Mitsubishi Programmable Controller

REVISIONS

※The manual number is given on the bottom left of the back cover.

Print Date	*Manual Number	Revision
Jul., 1989	IB (NA) 66204-A	First edition

INTRODUCTION

Thank you for choosing the Mitsubishi MELSEC-A Series of General Purpose Programmable Controllers (UL Standard approved equipment).

Please read this manual carefully so that the equipment is used to its optimum. A copy of this manual should be forwarded to the end user.

CONTENTS

1. INTRODUCTION	1
2. LIST OF UL STANDARD APPROVED EQUIPMENT	2
3. SPECIFICATIONS	3

POINT

The UL Standard approved equipment seal must not be removed from the equipment. Without this seal, any equipment is not regarded as UL approved.

1. INTRODUCTION

This manual only gives differences in specifications between the UL Standard approved equipment and standard equipment of the Mitsubishi MELSEC-A series general-purpose programmable controllers. For handling and other information, please read the following manuals:

- A2NCPU user's manual
- A3NCPU user's manual
- Building block type I/O module user's manual
- ACPU programming manual

2. LIST OF UL STANDARD APPROVED EQUIPMENT



2. LIST OF UL STANDARD APPROVED EQUIPMENT

The Mitsubishi MELSEC-A series general-purpose programmable controllers indicated below have been approved by UL Standards U.S.A.

Description		Type	Remarks	
CPU module		A2NCPU-UL A3NCPU-UL	512 I/O points 2048 I/O points	
Memory cassette		A3NMCA0-UL A3NMCA2-UL A3NMCA4-UL A3NMCA8-UL A3NMCA16-UL A3NMCA24-UL A3NMCA40-UL	Without IC-RAM memory With 16K byte IC-RAM memory With 32K byte IC-RAM memory With 64K byte IC-RAM memory With 128K byte IC-RAM memory With 192K byte IC-RAM memory With 320K byte IC-RAM memory	
Input module		AX10-UL AX20-UL AX40-UL AX41-UL AX70-UL AX80-UL	16 points, 110-120V AC 16 points, 220-240V AC 16 points, 12/24V DC, sink type 32 points, 12/24V DC, sink type 16 points, 5/12/24V DC, sink/source type (for sensor) 16 points, 12/24V DC, source type	
Output module		AY10A-UL AY11-UL AY40-UL AY41-UL AY50-UL AY51-UL AY60S-UL AY70-UL	16 points, relay independent contact 16 points, relay, with surge suppression 16 points, transistor, 12/24V DC, 0.1A 32 points, transistor, 12/24V DC, 0.1A 16 points, transistor, 12/24V DC, 0.5A 32 points, transistor, 12/24V DC, 0.5A 16 points, transistor, 12/24V DC 16 points, TTL, CMOS 5/12V DC	
Power supply module		A61P-UL	Input 110-120/ 220-240V AC	Output 5V DC, 8A
Base unit	Main base unit	A38B-UL A35B-UL A32B-UL	8 I/O modules can be loaded. 5 I/O modules can be loaded. 2 I/O modules can be loaded.	
	Extension base unit	A68B-UL A65B-UL A58B-UL A55B-UL	8 I/O modules can be loaded. 5 I/O modules can be loaded. 8 I/O modules can be loaded. 5 I/O modules can be loaded.	
Extension cable		AC06B-UL AC12B-UL AC30B-UL	600mm length 1200mm length 3000mm length	For connecting base units

POINT

The relays and fuses used in the power supply and output modules are also UL Standard approved equipment. Hence, use the following types for replacement.

Description	Type	Applicable Model
Fuse	MP20 MP50 GTH4	AY50-UL AY60S-UL A61P-UL
Relay	JY101-K-UL	AY11-UL

3. SPECIFICATIONS



3. SPECIFICATIONS

The MELSEC-A series UL Standard approved equipment have the same specifications as the MELSEC-A series standard equipment with the exception of the following differences.

3.1 Common Specifications

The following specifications are common to all UL Standard approved equipment:

- (1) The type name of each equipment has -UL after that of the corresponding standard equipment.
- (2) The I/O module wire terminal specifications are different from those of the standard equipment as follows:

Item		Model	UL Standard Approved Equipment	Standard Equipment
Wire terminal	Terminal screw size	Input module Output module	M3.5 × 7	M3 × 6
	Terminal screw color		Silver	Brass
	Applicable wire size		18 to 14 AWG	0.75 to 2mm ²

3.2 CPU Modules

The CPU modules have the same performance and specifications as the standard ones (A2N, A3NCPUs) with the exception of the type names.

3.3 Memory Cassettes

The memory cassettes have the same performance and specifications as the standard ones (A3NMCA0 to A3NMCA40) with the exception of the type names.

3. SPECIFICATIONS



3.4 Input Modules

The input modules have the same performance and specifications as the standard ones (AX10, AX20, AX40, AX41, AX70, AX80) with the exception of the type names and the wire terminal specifications indicated in Section 3.1, (2).

Item	Model	UL Standard Approved Equipment	Standard Equipment
*Rated input voltage/input current	AX10-UL	110-120V AC 11-12mA	100V AC 10mA
	AX20-UL	220-240V AC 11-12mA	200V AC 10mA
*Operating voltage range	AX70-UL	(SW ON) 5V DC (SW OFF) 12/24V DC	(SW ON) 4.5 to 5.5V DC (SW OFF) 10.2 to 26.4V DC
External supply power	AX40-UL AX41-UL AX70-UL AX80-UL	Class 2 power supply specified by the UL Standard must be used.	No restriction

REMARKS

The UL Standard approved equipment for the U.S. have the same performance as the standard equipment but are expressed slightly differently as to *the rated input voltage/input current and operating voltage range.

3.5 Output Modules

The output modules have the same performance and specifications as the standard ones (AY10A, AY11, AY40, AY41, AY50, AY51, AY60S, AY70) with the exception of the type names, the wire terminal specifications indicated in Section 3.1, (2), and the following specifications.

Item	Model	UL Standard Approved Equipment	Standard Equipment
*Rated load voltage	AY60S-UL	24/(12)V DC	24/(12/48)V DC
External supply power	AY40-UL AY41-UL AY50-UL AY51-UL AY60S-UL AY70-UL	Class 2 power supply specified by the UL Standard must be used.	No restriction

REMARKS

The UL Standard approved equipment for the U.S. have the same performance as the standard equipment but are expressed slightly differently as to *the rated load voltage.

3

3. SPECIFICATIONS

MELSEC-A

3.6 Power Supply Module

The power supply module has the same specifications and performance as the A61P with the exception of the type name and the wire terminal specifications indicated in Section 3.1, (2).

3.7 Other Equipment

The base units, extension cables, etc. have the same specifications as the standard ones with the exception of their type names.

MELSEC-A series programmable controllers
(UL standard approved equipment)

User's Manual

MODEL	MELSEC-A-UL-USERS-E
MODEL CODE	13J764
IB(NA)66204-A(8907)MEE	

 **mitsubishi electric corporation**

HEAD OFFICE : MITSUBISHI DENKI BLDG MARUNOUCHI TOKYO 100-0005 TELEX : J24532 CABLE MELCO TOKYO
NAGOYA WORKS : 1-14, YADA-MINAMI 5, HIGASHI-KU, NAGOYA, JAPAN

When exported from Japan, this manual does not require application to the Ministry of International Trade and Industry for service transaction permission.

Specifications subject to change without notice.