MITSUBISHI ELECTRIC

TECHNICAL BULLETIN

FA-A-0485-A

Change in Specifications of Overload Protection Function for the I/O Modules

■Date of Issue

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■Relevant Models

MELSEC-Q series and CC-Link remote I/O modules

Thank you for your continued support of Mitsubishi Electric programmable controllers.
This technical bulletin informs you of change in the specifications of the overload protection function for the MELSEC-Q series and CC-Link remote I/O modules. Due to this change, we will also revise the relevant manuals.
These changes are related to the operation of the overload protection function and do not affect normal use of the applicable models.
We appreciate your kind understanding.

1 APPLICABLE MODELS

The following table lists the applicable models.

Series	Type	Model	Serial No.
MELSEC-Q series	Output module	QY40P	We will notify you as soon as the transition date is confirmed.
		QY40P-TS	
		QY41P	
		QY81P	
		QY82P	
	I/O combined module	QH42P	
		QX41Y41P	
CC-Link remote I/O module	Output module	AJ65SBTCF1-32T	
		AJ65MBTL1N-16T	
	I/O combined module	AJ65SBTCF1-32DT	
		AJ65VBTCE32-32DT	
		AJ65MBTL1N-16DT	

2 REASON FOR THE CHANGES

Due to a change in the components used in applicable models following the discontinuation of previously used electronic components.

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3 DETAILS ON THE CHANGES

The operation of the overload protection function will change as shown below.

Function	Before change	After change
Overload protection function	If the overload protection function is activated, the current is limited to a certain value and continues to flow.	If the overload protection function is activated, the voltage may be output in a periodic cycle of H → L → H.

4 UPDATES TO THE MANUALS

The following table summarizes how the relevant manuals are updated.

Series	Manual No.	Description
MELSEC-Q series	SH-080042	We will not revise the manual since this change does not affect the content of the manual.
CC-Link remote I/O module	SH-4007	We will revise the descriptions of the overload protection function in the manual. For details of the revisions, refer to Section 4.1.
CC-Link embedded I/O adapter	SH-080324E	We will revise the descriptions of the overload protection function in the manual. For details of the revisions, refer to Section 4.2.

4.1 CC-Link Remote I/O Modules

The following table summarizes the revisions.

Before change

No.	Description	Applicable model
1	When the output module detects an overcurrent, the current limiter*1 is activated to limit the output current.	-
2	The overload protection function is activated under the condition of 1 to 3A per point and limits the output current.	AJ65SBTB1-8TE, AJ65SBTB1-16TE, AJ65VBTCE2-8T, AJ65VBTCE2-16T, AJ65VBTCE3-16TE, AJ65VBTCU2-8T, AJ65VBTCU2-16T, AJ65SBTCF1-32T, AJ65VBTCE32-16DT, AJ65VBTCE3-16DTE, AJ65VBTCE32-32DT, AJ65VBTCE3-32DTE, AJ65SBTCF1-32DT, AJ65VBTCF1-32DT1, AJ65VBTCFJ1-32DT1
3	The overload protection function is activated under the condition of 1 to 6A per point and limits the output current.	AJ65SBTB1-8T, AJ65SBTB2-8T, AJ65SBTB1-16T, AJ65SBTB2-16T, AJ65SBTB1-32T, AJ65SBTC1-32T, AJ65FBTA2-16T, AJ65SBTB32-8DT, AJ65SBTB1-16DT, AJ65SBTB1-16DT1, AJ65SBTB32-16DT, AJ65SBTB1-32DT, AJ65SBTB1-32DT1, AJ65SBTC4-16DT, AJ65SBTC1-32DT, AJ65SBTC1-32DT1, AJ65FBTA42-16DT, AJ65SBTW4-16DT
4	The overload protection function is activated under the condition of 5 to 14A per point and limits the output current.	AJ65FBTA2-16TE, AJ65FBTA42-16DTE
5	The overload protection function is automatically reset when the load current drops to the rated value.	-

*1 The limiter is a function that limits an overcurrent to a certain current value to keep it flowing.

After change

No.	Description	Applicable model
1	When the output module detects an overcurrent, the system will perform either the current limiter operation*1 or the intermittent operation*2.	-
2	The overload protection function acts as a current limiter, limiting the output current under the condition of 1.0A or higher per point.	AJ65SBTB1-8TE, AJ65SBTB1-16TE, AJ65VBTCE2-8T, AJ65VBTCE2-16T, AJ65VBTCE3-16TE, AJ65VBTCU2-8T, AJ65VBTCU2-16T, AJ65VBTCE32-16DT, AJ65VBTCE3-16DTE, AJ65VBTCE3-32DTE, AJ65VBTCF1-32DT1, AJ65VBTCFJ1-32DT1, AJ65SBTB1-8T, AJ65SBTB2-8T, AJ65SBTB1-16T, AJ65SBTB2-16T, AJ65SBTB1-32T, AJ65SBTC1-32T, AJ65FBTA2-16T, AJ65SBTB32-8DT, AJ65SBTB1-16DT, AJ65SBTB1-16DT1, AJ65SBTB32-16DT, AJ65SBTB1-32DT, AJ65SBTB1-32DT1, AJ65SBTC4-16DT, AJ65SBTC1-32DT, AJ65SBTC1-32DT1, AJ65FBTA42-16DT, AJ65SBTW4-16DT
3	The overload protection function acts as a current limiter, limiting the output current under the condition of 5.0A or higher per point.	AJ65FBTA2-16TE, AJ65FBTA42-16DTE
4	The operation of the overload protection function varies depending on the serial number*3 of the module. (Current limiter operation or intermittent operation)	AJ65SBTCF1-32DT*4, AJ65SBTCF1-32T*4, AJ65VBTCE32-32DT*4
5	The overload protection function is automatically reset when the load current drops to the rated value.	-

*1 The limiter is a function that limits an overcurrent to a certain current value to keep it flowing.
*2 If an overcurrent is detected, the system will interrupt the current. This will reset automatically after a short period of time. However, if the overcurrent condition persists, the current will be interrupted again. A cycle of interruption → auto-reset will be repeated until the overcurrent is resolved.
*3 The first six digits of the serial number (16 digits) in the rating plate.
*4 For details, refer to the table below.

Applicable model	Overload protection function			
	Current limiter operation		Intermittent operation	
	Serial No.	Overcurrent detection value	Serial No.	Overcurrent detection value
AJ65SBTCF1-32DT	****** or earlier	1.0A or higher per point	****** or later	Higher than 1.0A per point
AJ65SBTCF1-32T	****** or earlier	1.0A or higher per point	****** or later	Higher than 1.0A per point
AJ65VBTCE32-32DT	****** or earlier	1.0A or higher per point	****** or later	Higher than 1.0A per point

4.2 CC-Link Embedded I/O Adapters

The following table summarizes the revisions.

Before change

No.	Description
1	The overload protection function is activated under the condition of 1 to 3A per point.
2	The overload protection function is automatically reset when the load current drops to the rated value.

After change

No.	Description	Applicable model
1	When the output module detects an overcurrent, the system will perform either the current limiter operation*1 or the intermittent operation*2. The operation of the overload protection function varies depending on the serial number*3 of the module.	AJ65MBTL1N-16T*4, AJ65MBTL1N-32T*4, AJ65MBTL1N-16DT*4
2	The overload protection function is automatically reset when the load current drops to the rated value.	-

*1 The limiter is a function that limits an overcurrent to a certain current value to keep it flowing.
*2 If an overcurrent is detected, the system will interrupt the current. This will reset automatically after a short period of time. However, if the overcurrent condition persists, the current will be interrupted again. A cycle of interruption → auto-reset will be repeated until the overcurrent is resolved.
*3 The first six digits of the serial number (16 digits) in the rating plate.
*4 For details, refer to the table below. In all models with a "-" in the "Serial No." column of the table below, the current limiter operation will be performed.

Applicable model	Overload protection function			
	Current limiter operation		Intermittent operation	
	Serial No.	Overcurrent detection value	Serial No.	Overcurrent detection value
AJ65MBTL1N-16T	****** or earlier	1.0A or higher per point	****** or later	Higher than 1.0A per point
AJ65MBTL1N-32T	-	1.0A or higher per point	-	-
AJ65MBTL1N-16DT	****** or earlier	1.0A or higher per point	****** or later	Higher than 1.0A per point

5 PRECAUTIONS

Depending on the device on the load side being connected, an inrush current may occur, which could prevent the device from turning on properly.
When the type of device described above is used, take measures to minimize the effects of the inrush current, such as connecting a resistor or inductor to the output circuit.
For details, refer to the user's manual of each model.

Series	Manual No.	Section in the manual
MELSEC-Q series	SH-080042	1.2.2 (2) Load for connection
CC-Link remote I/O module	SH-4007	1.3.2 (2) Load for connection
CC-Link embedded I/O adapter	SH-080324E	1.3 (4)

REVISIONS

Version	Date of Issue	Revision
A	June 2026	First edition

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