MITSUBISHI ELECTRIC Inverter
Sales and Service

Firmware Upgrade for the FR-A800-R2R (FR-A800 Plus Series) Inverters and the FR-B4 Series Inverters for Pressure-Resistant Explosion-Proof Motors

Thank you for your continued patronage of Mitsubishi Electric drive control products.
The firmware of the FR-A800-R2R (FR-A800 plus series) inverters and the FR-B4 series inverters for pressure-resistant explosion-proof motors will be upgraded to improve functionality.

1. Products Affected

FR-A800-R2R inverters (FR-A800 Plus series)

FR-B4 series inverters

2. Details of the Change

(1) Change of the initial value for Pr.353 Line speed command gain

Pr.	Pr. group	Name	Initial value	Setting range	Description
353	R213	Line speed command gain	**0 m/min**	0 to 6553.4 m/min, 9999	Set the line speed command gain value for analog input.

(2) Setting the upper and lower limits of the PID manipulated amount (Pr.1134, Pr.1135)

The upper and lower limits of the PID manipulated amount can be set.

Pr.	Pr. group	Name	Initial value	Setting range	Description
1134	A605	PID upper limit manipulated amount	100%	0% to 100%	Set the upper limit of PID action. The upper limit of the manipulated amount is the frequency obtained by adding the value resulting from frequency conversion of Pr.1134 to the line speed frequency.
1135	A606	PID lower limit manipulated amount	100%	0% to 100%	Set the lower limit of PID action. The lower limit of the manipulated amount is the frequency obtained by subtracting the value resulting from frequency conversion of Pr.1135 from the line speed frequency.

(3) Signed winding diameter compensation torque command selection (Pr.1140)

The availability of negative values for torque command during tension sensor feedback torque control or after PID compensation can be set.

Pr.	Pr. group	Name	Initial value	Setting range	Description
1140	R334	Signed winding diameter compensation torque command selection	0	0	Signed value. When the calculation result of command torque after PID compensation is a negative value, the value is used as the torque command value.
				9999	Unsigned value. When the calculation result of command torque after PID compensation is a negative value, the torque command will be "0".

(4) Addition of a method to set the speed limit value

The speed command will be given by analog input via terminal 1 when the speed limit mode is set to 2, 3, or 4 ("0, 1, or 2" is set in Pr.1113 Speed limit method selection) and when Pr.807 Speed limit selection is set to "2".

Pr.1113 setting	Speed limit method	Speed limit value
0 (initial value)	Speed limit mode 2	Speed limit Pr.807 = 0: Speed command under speed control Pr.807 = 1: Pr.808 setting **Pr.807 = 2: Analog input via terminal 1** Reverse speed limit Pr.809 setting (Pr.808 setting when Pr.809 = "9999")
1	Speed limit mode 3	
2	Speed limit mode 4	

3. Date of Change

The change will be sequentially applied to the products manufactured in July 2019 or later.

4. Product Identification

The SERIAL (determined by date of production) can be checked on the product's rating plate.

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Symbol Year Month Control number

SERIAL

The SERIAL consists of one symbol, two characters indicating the production year and month, and six characters indicating the control number.

The last digit of the production year is indicated as the Year, and the Month is indicated by 1 to 9, X (October), Y (November), or Z (December).