

### Firmware Upgrade for the FR-A800, A800 Plus, F800 Series General-Purpose Inverters and the FR-B, B3 Series Inverters (FR-A800 Specification) for Pressure-Resistant Explosion-Proof Motors

Thank you for your continued patronage of Mitsubishi Electric drive control products.

The firmware of the FR-A800, A800 Plus, F800 series general-purpose inverters and the FR-B, B3 series inverters (FR-A800 specification) for pressure-resistant explosion-proof motors will be upgraded to improve functionality.

#### 1. Products Affected

FR-A800 (not including the FR-A800-P), FR-A800 Plus (FR-A800-CRN/LC), FR-F800, FR-B, B3 series inverters

#### 2. Details of the Change

##### (1) Cooling fan operation selection during test operation

When P.H106 = "1" or Pr.244 = "1000, 1001, or 1101 to 1105", the cooling fan can be set to always OFF during the test operation\*1.

Pr.	Name	Initial value	Setting range	Description
244	Cooling fan operation selection	1	1000	Cooling fan ON/OFF control is disabled. (The cooling fan is always ON at power ON.) The cooling fan operates at power ON.
			1001	Cooling fan ON/OFF control is enabled. The fan is always ON while the inverter is running. During a stop, the inverter status is monitored and the fan switches ON/OFF according to the temperature.
			1101 to 1105	Cooling fan ON/OFF control is enabled. Set the cooling fan stop waiting time within 1 to 5 seconds.
H100	Cooling fan operation selection	1	0	Cooling fan ON/OFF control is disabled. (The cooling fan is always ON at power ON.) The cooling fan operates at power ON.
			1	Cooling fan ON/OFF control is enabled. The fan is always ON while the inverter is running. During a stop, the inverter status is monitored and the fan switches ON/OFF according to the temperature.
			101 to 105	Cooling fan ON/OFF control is enabled. Set the cooling fan stop waiting time within 1 to 5 seconds.
H106	Cooling fan operation selection	0	0	The cooling fan operates according to the H100 setting during test operation*1.
			1	The cooling fan can be set to always OFF during test operation*1.

\*1 Vector control test operation or PM sensorless vector control test operation for the FR-A800 series inverters, and PM motor test operation for the FR-F800 series inverters.

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## (2) DriveControl writing restriction selection for communication options manufactured by HMS

The command source to change the DriveControl writing settings (including Netctrl bit and Netref bit) can be selected.

Pr.	Name	Initial value	Setting range	Description
349	Communication reset selection/Ready bit status selection	0	0, 1, 100, 101, 1000, 1001, 1100, 1101, <b>10000, 10001, 10100, 10101, 11000, 11001, 11100, 11101</b>	Use this parameter to select the error reset operation, Ready bit status, inverter reset operation when a fault is cleared, and DriveControl writing restriction.
N242	DriveControl writing restriction selection	0	0	DriveControl writing is not restricted.
			1	DriveControl writing is restricted. The command source to change the DriveControl settings can be restricted to only the command source selected by Pr.550 NET mode operation command source selection.

The command source to change the DriveControl settings can be restricted to only the command source selected by Pr.550 NET mode operation command source selection.

Setting value					Description					
Pr.349	N010	N240	N241	N242	Communication reset selection*1		Ready bit status selection*2		Reset selection after inverter faults are cleared	DriveControl writing restriction selection
					NET operation mode	Other than NET operation mode	Main circuit: power-ON	Main circuit: power-OFF*3		
10000	0	0	0	1	Reset enabled	Reset enabled	Ready bit: ON	Ready bit: ON	Reset enabled	Restricted*4
10001	1	0	0	1	Reset enabled	Reset disabled	Ready bit: ON	Ready bit: ON	Reset enabled	Restricted*4
10100	0	1	0	1	Reset enabled	Reset enabled	Ready bit: ON	Ready bit: OFF	Reset enabled	Restricted*4
10101	1	1	0	1	Reset enabled	Reset disabled	Ready bit: ON	Ready bit: OFF	Reset enabled	Restricted*4
11000	0	0	1	1	Reset enabled	Reset enabled	Ready bit: ON	Ready bit: ON	Reset disabled*4	Restricted*4
11001	1	0	1	1	Reset enabled	Reset disabled	Ready bit: ON	Ready bit: ON	Reset disabled*4	Restricted*4
11100	0	1	1	1	Reset enabled	Reset enabled	Ready bit: ON	Ready bit: OFF	Reset disabled*4	Restricted*4
11101	1	1	1	1	Reset enabled	Reset disabled	Ready bit: ON	Ready bit: OFF	Reset disabled*4	Restricted*4

\*1 The operation mode affects the availability of communication reset.

\*2 The ON/OFF state of the power supply affects the ON/OFF state of Ready bit.

\*3 When 24 V external power is available for control circuit or power is input only to control circuit.

\*4 Available when the HMS network option is installed.

## (3) Inverter parts life display

The degree of deterioration of the relay contacts of terminals A1, B1, and C1 is displayed in Pr.507, and that for terminals A2, B2, and C2 is displayed in Pr.508.

Pr.	Name	Initial value	Setting range	Description
507 E706	Display/reset ABC1 relay contact life	100%	(0 to 100%)	Displays the degree of deterioration of the relay contacts of terminals A1, B1, and C1.
508 E707	Display/reset ABC2 relay contact life	100%	(0 to 100%)	Displays the degree of deterioration of the relay contacts of terminals A2, B2, and C2.

Setting "249, 250, 349, or 350" in Pr.313 to Pr.319 and "249 or 349" in Pr.320 to Pr.322 enables the output of the ABC1 relay contact life (Y249) signal and ABC2 relay contact life (Y250) signal when the relay contacts of relevant terminals have reached the life alarm output level.

## (4) BACnet network port (for FR-F800 series inverters only)

The BACnet network port will be added.

### 3. Date of Change

Country of origin	Date of change
MADE IN JAPAN	The change will be sequentially applied to the May 2020 production or later.
MADE IN CHINA	The change will be sequentially applied to the June 2020 production 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).