

INVERTER

**New Product RELEASE** No.16-3E

# Release of the enhanced vibration resistance model of the FR-A800-CRN inverter for crane applications

The enhanced vibration resistance model (with dedicated specifications) is added to the FR-A800-CRN series inverter.

**Features**

Vibration resistance of the inverter is enhanced since a vibration may occur in some operating conditions, for example, during traveling of the crane.

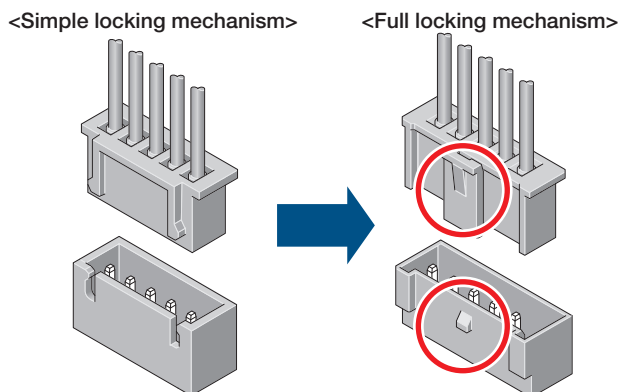
**(1) Enhanced adhesion of the circuit board components**

Components on the circuit board are fixed with adhesive for enhanced vibration resistance.



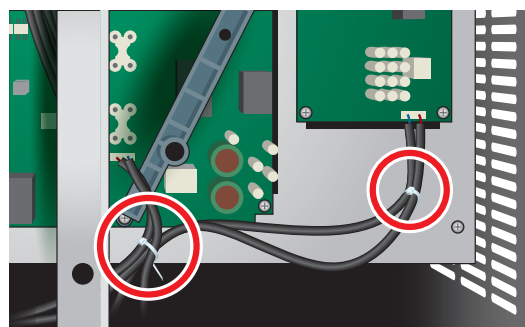
**(2) Enhanced countermeasure of connector coming-off prevention**

Instead of the simple locking mechanism, the full locking mechanism is adopted for cable connectors.



**(3) Adoption of cable ties**

Cables are bound and fixed to avoid contact with conductive components inside the inverter in case of strong vibrations.



# Lineup

●: Released model

## • Standard model

**FR - A 8 2 0 - 0.4K - 1 - 61 CRN**

Symbol	Voltage class	Symbol	Structure/function	Capacity <sup>*3</sup>	Description	Symbol	Type	Symbol	Circuit board coating (IEC60721-3-3 3C2/3S2 compatible)	Plated conductor	Enhanced vibration resistance	Symbol	Dedicated function
2	200 V class	0	Standard model	0.4K to 280K	Inverter ND rated capacity (kW)	-1	FM	61	With	Without	With	CRN	Functions for crane applications
4	400 V class					-2	CA <sup>*2</sup>	16 <sup>*3</sup>		With			
								60		Without			
								06 <sup>*3</sup>		With			

Three-phase 200 V class FR-A820-□ <sup>*3</sup>	00046	00077	00105	00167	00250	00340	00490	00630	00770	00930	01250	01540	01870	02330	03160	03800	04750
	0.4K	0.75K	1.5K	2.2K	3.7K	5.5K	7.5K	11K	15K	18.5K	22K	30K	37K	45K	55K	75K	90K
	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Three-phase 400 V class FR-A840-□ <sup>*3</sup>	00023	00038	00052	00083	00126	00170	00250	00310	00380	00470	00620	00770	00930	01160	01800	02160	02600
	0.4K	0.75K	1.5K	2.2K	3.7K	5.5K	7.5K	11K	15K	18.5K	22K	30K	37K	45K	55K	75K	90K
	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	03250	03610	04320	04810	05470	06100	06830										
	110K	132K	160K	185K	220K	250K	280K										
	●	●	●	●	●	●	●										

## • Separated converter type

**FR - A 8 4 2 - 315K - 1 - 61 CRN**

Symbol	Voltage class	Symbol	Structure/function	Capacity <sup>*3</sup>	Description	Symbol	Type	Symbol	Circuit board coating (IEC60721-3-3 3C2/3S2 compatible)	Plated conductor	Enhanced vibration resistance	Symbol	Dedicated function
4	400 V class	2	Separated converter type	315K to 500K	Inverter ND rated capacity (kW)	-1	FM	61	With	Without	With	CRN	Functions for crane applications
						-2	CA <sup>*2</sup>	16		With			
								60		Without			
								06		With			

Three-phase 400V class FR-A842-□	07700	08660	09620	10940	12120
	315K	355K	400K	450K	500K
	●	●	●	●	●

\*1 Models can be alternatively indicated with the inverter rated current (SLD rating).

\*2 Specification differs by the type as follows.

Symbol	Type	Motor output	Built-in EMC filter	Initial setting		
				Control logic	Rated frequency	Base frequency voltage (Pr.19)
-1	FM	Terminal FM (pulse train output) Terminal AM (analog voltage output (0 to 10 VDC))	OFF	Sink logic	60 Hz	9999 (same as the power supply voltage)
-2	CA	Terminal CA (analog current output (0 to 20 mA)) Terminal AM (analog voltage output (0 to 10 VDC))	ON	Source logic	50 Hz	8888 (95% of the power supply voltage)

\*3 Available for the 5.5K or higher.

\*4 For the 75K or higher inverter, or whenever a 75 kW or higher motor is used, always connect a DC reactor (FR-HEL), which is available as an option.

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