

V7 Low HP (0.1 - 4.0kW) High Carrier Frequency (14.5kHz) Software

Software Number: VSP015061

Part Number: CIMR-V7AMXXXX-025

1. Changes

1.1 The carrier frequency is selectable by parameter n080 up to 14.5kHz. (See the Table-1.1)

1.2 Default value of parameter n175 (reducing carrier frequency selection at low speed) changed to "1" (enabled).
For more detail, refer the instruction manual.

Note) The other Functions are same as standard software version VSP010022

2. Caution

When the carrier frequency is selected the higher setting than default carrier frequency, then pay attention the items below.

2.1 The continuous output current is reduced. (see the Table-2.1)

2.2 Reduce the MEMOBUS transmission speed (see the Table-2.2)

Table-1.1: Carrier frequency selection

Parameter #	Name	Description	Default value
n080	Carrier frequency	Setting 1: 2.5kHz Setting 2: 5.0kHz Setting 3: 7.5kHz Setting 4: 10.0kHz Setting 5: 12.5kHz Setting 7: 12 fout Setting 7: 24 fout Setting 7: 36 fout Setting 10: 13.0kHz Setting 11: 13.5kHz Setting 12: 14.0kHz Setting 13: 14.5kHz	Depending on the inverter capacity. See the instruction manual.

Table-2.1: The continuous output current

Voltage Class (V)	Inv. Capacity (kW)	Rated output current (A)	Carrier freq. Default value	Continuous current (A)		
				Fc = 10kHz	Fc = 12.5kHz	Fc = 13.0kHz or higher
200 2 phases 3 phases	0.1	0.8	10	--	0.74	0.7
	0.2	1.6	10	--	1.5	1.4
	0.4	3.0	10	--	2.8	2.6
	0.75	5.0	10	--	4.6	4.3
	1.5	8.0	7.5	7.0	6.5	6.0
	2.2	11.0	7.5	10.0	9.2	8.6
	4.0	17.5	7.5	16.5	15.5	14.0
400	0.2	1.2	7.5	1.0	0.9	0.8
	0.4	1.8	7.5	1.6	1.44	1.28
	0.75	3.4	7.5	3.0	2.6	2.2
	1.5	4.8	7.5	4.0	3.6	3.2
	2.2	5.5	7.5	4.8	4.32	3.84
	3.0	7.2	7.5	6.3	5.4	4.9
	4.0	8.6	7.5	8.1	7.2	6.4

Table-2.2: MEMOBUS maximum transmission speed

Carrier frequency (n080)	Maximum transmission speed (n154)
12.5Hz or lower (setting 1-5, 7-9)	19200 bps (setting 3)
13.0, 13.5kHz	9600 bps (setting 2)
14.0, 14.5kHz	4800 bps (setting 1)