



**CUSTOM SOFTWARE DESCRIPTION**

# 2 Motor Selection

<b>Software Number:</b> VSP015210 / VSP015220		<b>Base Version:</b>	
<b>Product:</b> V7 Low & High HP		<b>Model Number:</b> CIMR-V7AUXXXX1-054	
<b>Release Date:</b> 5/14/03	<b>Author:</b>	<input type="checkbox"/> Beta Version	
<b>Overview:</b> This software provides 2 complete sets of motor parameters. The motor data is selectable by a multi-function input. This manual covers both the low horsepower version VSP015210 and the high horsepower version VSP015220.			
<b>Revision History:</b>			

## 1.0 Overview:

This software provides 2 complete sets of motor parameters. The motor data is selectable by a new multi-function input. The drive must be stopped for the changeover to occur.

## 2.0 Related Parameters:

### 2.1 Parameters For Motor 1

No.	Modbus Address	Name	Setting Range	Unit	Default
002	0102	Control mode selection	0,1	—	0
011	010B	Maximum output frequency	50.0 to 400.0Hz	0.1Hz	60.0Hz
012	010C	Maximum output voltage	0.1 to 255.0V	0.1V	230.0V
013	010D	Base frequency	0.2 to 400.0Hz	0.1Hz	60.0Hz
014	010E	Midpoint output frequency	0.1 to 399.9Hz	0.1Hz	1.5Hz
015	010F	Midpoint output voltage	0.1 to 255.0V	0.1V	12.0V
016	0110	Minimum output frequency	0.1 to 10.0Hz	0.1Hz	1.5Hz
017	0111	Minimum output voltage	0.1 to 50.0V	0.1V	12.0V
036	0124	Motor rated current	0 to 150% of drive current	0.1A	*1
037	0125	Electronic motor OL selection	0 to 4	—	0
038	0126	Electronic motor OL time constant	1 to 60min	1min	8min
093	015D	Stall prevention during acceleration	30 to 200%	1%	170%
094	015E	Stall prevention during running	30 to 200%	1%	160%
105	0169	Torque compensation iron loss	0.0 to 6550W	0.1W	*1
106	016A	Motor rated slip	0.0 to 20.0Hz	0.1Hz	*1
107	016B	Motor resistance for one-phase	0.000 to 65.50Ω	0.001Ω	*1
108	016C	Motor leakage inductance	0.00 to 655.0mH	0.01mH	*1
110	016E	Motor no-load current	0 to 99%	1%	*1

### 2.2 Parameters For Motor 2

No.	Modbus Address	Name	Setting Range	Unit	Default
040	0128	Control mode selection	0,1	—	0
041	0129	Maximum output frequency	50.0 to 400.0Hz	0.1Hz	60.0Hz
042	012A	Maximum output voltage	0.1 to 255.0V	0.1V	230.0V
043	012B	Base frequency	0.2 to 400.0Hz	0.1Hz	60.0Hz
044	012C	Midpoint output frequency	0.1 to 399.9Hz	0.1Hz	1.5Hz
045	012D	Midpoint output voltage	0.1 to 255.0V	0.1V	12.0V
046	012E	Minimum output frequency	0.1 to 10.0Hz	0.1Hz	1.5Hz
047	012F	Minimum output voltage	0.1 to 50.0V	0.1V	12.0V
048	0130	Motor rated current	0 to 150% of drive current	0.1A	*1
117	0175	Electronic motor OL selection	0 to 2	—	0
118	0176	Electronic motor OL time constant	1 to 60min	1min	8min
049	0131	Stall prevention during acceleration	30 to 200%	1%	170%
119	0177	Stall prevention during running	30 to 200%	1%	160%
170	01AA	Torque compensation iron loss	0.0 to 6550W	0.1W	*1
171	01AB	Motor rated slip	0.0 to 20.0Hz	0.1Hz	*1
172	01AC	Motor resistance for one-phase	0.000 to 65.50Ω	0.001Ω	*1
173	01AD	Motor leakage inductance	0.00 to 655.0mH	0.01mH	*1
174	01AE	Motor no-load current	0 to 99%	1%	*1

\*1 Changes depending on inverter capacity.

### 3.0 Multi-function Input Selection (n050 to n056)

Setting value	Function	Description
27	Motor Selection Command	Off: Select motor 1 On: Select motor 2

Motor selection command can only be changed during stop. If this command is changed during running, "SEr" is displayed on digital operator and the command is ignored. Inverter needs 50ms from motor selection command input to complete internal calculation of motor data.

### 4.0 Multi-function Output Selection (n057 to n059)

Setting value	Function	Description
22	Motor Selection Monitor	Off: Motor 1 is selected On: Motor 2 is selected

### 5.0 Electronic Thermal Motor Protection (OL1)

No.	Description	Default
n037	0: Applied to general-purpose motor (calculation independent of motor 2) 1: Applied to inverter motor (calculate independent of motor 2) 2: OL1 not provided 3: Applied to general-purpose motor (calculation includes motor 2 current history) 4: Applied to inverter motor (calculation includes motor 2 current history)	0
n117	0: Applied to general-purpose motor (calculation independent of motor 1) 1: Applied to inverter motor (calculation independent of motor 1) 2: OL1 not provided	0

### 6.0 Common Parameters for Motors 1 and 2

No.	Modbus Address	Name	Setting Range	Unit	Default
104	0168	Time constant at torque compensation	0.0 to 25.5s	0.1sec	V/f: 0.3sec Vector: 0.2sec
111	016F	Slip compensation gain	0.0 to 2.5	0.1	V/f: 0.0 Vector: 1.0
112	0170	Slip compensation primary delay time	0.0 to 25.5s	0.1sec	V/f: 2.0sec Vector: 0.2sec