

Basic functions

Each “setup item” that determines the control characteristics of the inverter is called a “parameter.” For example, to change the acceleration time, you choose the acceleration time parameter (titled “ACC”).

wizard function

A wizard function enable set the 10 most often used parameter quickly. It can be sequentially, such as installing the PC software.

Title	Function
<i>Aut</i>	Automatic acceleration/deceleration
<i>ACC</i>	Acceleration time 1
<i>dEC</i>	Deceleration time 1
<i>LL</i>	Lower limit frequency
<i>UL</i>	Upper limit frequency
<i>tHr</i>	Motor electronic-thermal protection level 1
<i>FN</i>	Meter adjustment
<i>Pt</i>	V/F control mode selection
<i>uL</i>	Base frequency 1
<i>uLv</i>	Base frequency voltage 1

Basic parameters

Title	Function	Adjustment range	Default setting
<i>FC</i>	Operation frequency of operation panel	<i>LL - UL</i>	0.0
<i>WIZ</i>	Wizard function	The wizard function refers to the special function of calling up ten frequently used parameters.	—
<i>ALH</i>	History function	Displays parameters in groups of five in the reverse order to that in which their settings were changed. * (Possible to edit)	—
<i>Aut</i>	Automatic acceleration/deceleration	0: Disabled (manual) 1: Automatic 2: Automatic (only at acceleration)	0
<i>AL4</i>	Parameter setting macro function	0: Disabled 1: Coast stop 2: 3-wire operation 3: External input UP/DOWN setting 4: 4-20 mA current input operation	0
<i>Cmd</i>	Command mode selection	0: Terminal board 1: Operation panel 2: Serial communication	0
<i>Frd</i>	Frequency setting mode selection 1	1: VIA 2: VIB 3: Operation panel 4: Serial communication 5: UP/DOWN from external contact	1
<i>FNSL</i>	Meter selection	0-19 (0:Output frequency 1:Output current 2:Set frequency 3:DC voltage 4: Output voltage command value, etc.)	0
<i>FN</i>	Meter adjustment	—	—
<i>tYP</i>	Default setting	0: - 1: 50Hz default setting 2: 60Hz default setting 3: Default setting (Initialization) 4: Trip record clear 5: Cumulative operation time clear 6: Initialization of type information 7: Save user setting parameters 8. Call user-defined parameters 9. Cumulative fan operation time record clear	0
<i>Fr</i>	Forward/reverse run selection	0: Forward run 1: Reverse run 2: Forward run (F/R switching possible) 3: Reverse run (F/R switching possible)	0
<i>ACC</i>	Acceleration time 1	0.0-3200	Depends on capacity
<i>dEC</i>	Deceleration time 1	0.0-3200	Depends on capacity
<i>FH</i>	Maximum frequency	30.0-200.0	80.0
<i>UL</i>	Upper limit frequency	0.5- <i>FH</i>	50.0 (WP)/60.0 (WN)
<i>LL</i>	Lower limit frequency	0.0- <i>LL</i>	0.0
<i>uL</i>	Base frequency 1	25.0-200.0	50.0 (WP)/60.0 (WN)
<i>uLv</i>	Base frequency voltage 1	50-330 (200V class), 50-660 (400V class)	Depends on capacity
<i>Pt</i>	V/F control mode selection	0: V/F constant 1: Variable torque 2: Automatic torque boost control 3: Vector control 4: Energy-saving 5: - (Do not select) 6: PM motor control	1
<i>ub</i>	Torque boost 1	0.0-30.0	Depends on capacity
<i>tHr</i>	Motor electronic-thermal protection level 1	10-100	100
<i>OLN</i>	Electronic-thermal protection characteristic selection	0-3: Standard motor (Overload protection, OL stall) 4-7: VF motor (Overload protection, OL stall)	0
<i>Sr 1</i>	Preset-speed operation frequency 1	<i>LL - UL</i>	15.0
<i>Sr 2</i>	Preset-speed operation frequency 2	<i>LL - UL</i>	20.0
<i>Sr 3</i>	Preset-speed operation frequency 3	<i>LL - UL</i>	25.0
<i>Sr 4</i>	Preset-speed operation frequency 4	<i>LL - UL</i>	30.0
<i>Sr 5</i>	Preset-speed operation frequency 5	<i>LL - UL</i>	35.0
<i>Sr 6</i>	Preset-speed operation frequency 6	<i>LL - UL</i>	40.0
<i>Sr 7</i>	Preset-speed operation frequency 7	<i>LL - UL</i>	45.0
<i>F - -</i>	Extended parameters	Set parameters in more detail	—
<i>Gr. U</i>	Automatic edit function	—	—

Extended parameters

About 170 extended parameters are available. For details on extended parameters, please visit our web site. (<http://www.inverter.co.jp/>)

Peripheral devices

No.	Device	Function and purpose
(1)	Input AC reactor (ACL)	Effective to reduce the harmonics (PWH) and suppress external surge on the inverter power source side. Install when a distorted wave generation source such as a thyristor unit or a large capacity inverter is connected in the same distribution system.
(2)	Radio noise reduction filter	High-attenuation radio noise filter (NF type)
		Zero-phase reactor ferrite core-type
		EMC noise filter (Compliant with European standards)
(3)	EMC plate	A steel plate used to connect shielded earth wires from inverter's power cables or to connect earth wires from external devices. Some models have it as a standard attachment or as an option.
(4)	Motor-end surge voltage suppression filter (for 400V class only)	Use an insulation-reinforced motor or install the surge voltage restraint filter to prevent degrading motor insulation caused by surge voltage generation depending on cable length and wiring method, or use of a 400V class motor driven with an inverter.
(5)	DIN rail kit	Available for the 2.2kW or less. (Model: DIN005Z)
(6)	LED extension panel (With parameter writer function)	This operation panel unit is for extension. It is provided with an LED display, RUN/STOP key, UP/DOWN key, monitor key, and enter key. Setup parameters for three inverters can be stored to this panel. (Type : RKP005Z)
(7)	USB communications conversion unit	This unit is connected to a PLC or a computer to enable data communications. By connecting the connector cable, parameters can be easily adjusted, and data easily saved and written. ■Monitor function ■Parameter setup function ■Command function (Type : USB001Z)
(8)	Communications cable	Connector cable for LED extension
(9)	LonWorks® communications	This option enables LonWorks® communications with a host controller or other PLC. (Type :LIU007Z)
(10)	BACnet® communications option board	This option enables BACnet® communications with a host controller or other PLC. (Type :BCN002Z)
(11)	Metasys® N2 communications option board	This option enables Metasys® N2 communications with a host controller or other PLC. (Type :MTS002Z)
(12)	APOGEE® FLN communications option board	This option enables APOGEE® FLN communications with a host controller or other PLC. (Type :APG002Z)
(13)	Operation panel	Has a built-in frequency type, frequency setter and RUN-STOP (forward run, reverse run) switch. (model type: CBVR-7B1)