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OMRON

A Simple Intelligent Inverter
Simple Operation, Compact Structure

V/F Control Inverter

SYSDRIVE 3G3JZ Series



realizing

SYSDRIVE 3G3JZ

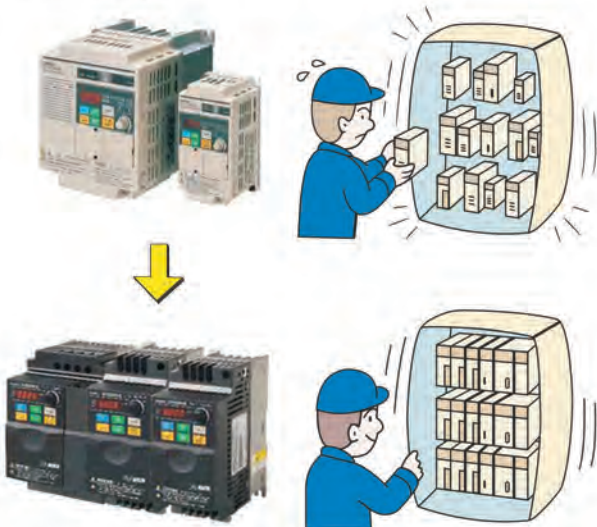
**Simple and multifaceted, informal and well defined
An integrated approach of the best quality Microprocessor**



- » Standard RS485 interface, Modbus bus communication function
- » 3Hz provides 150% more torque output, 2 ~ 15 kHz carrier frequencies, and quiet drive
- » Equipped with simple energy-saving features
- » Integrated compact size, and can be firmly installed side by side
- » Controlling external braking action of the signal output function
- » Software to set the operation mode, without access control line speed control can be carried out

Reasonable and compact hardware design, easy to install and maintain

Small size and uniform, only two sizes highly consistent can be mounted side by side, neatly and elegantly.



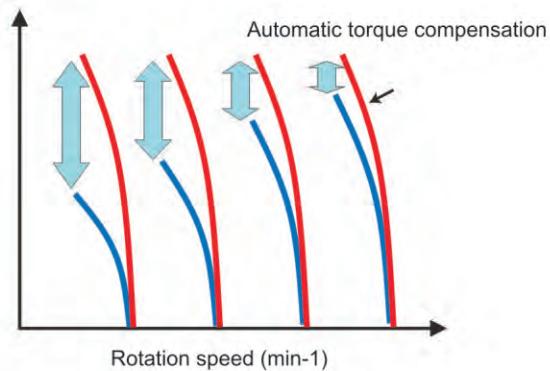
Abundant and customized software design, easy and quick parameter setting

A total of 150 parameters, set the fan to extend the life of the working mode of the high carrier frequency design for quiet drive all this with a finger touch



Drive capability with greater torque output

3G3JZ Inverter use SPWM Control: torque automatic compensation and slip compensation function; within 1 minute has 150% overload capacity: operating frequency range of 0 ~ 600Hz



Built-in RS485 communication interface and Modbus protocol, easy to be connected to the control network

Built-in RS485 communication interface, easy access to a variety of control systems: The installed formula of Modbus protocol allows the user to control familiar and convenient programming; Omron Corporation's PLC built Function Block function module prevent user programming.



Features	2
Applications	4
Name of each part	6
Name & function of each part of operation	7
Operation used as example	8
Parameter List	9
Description of Standard wiring diagrams & terminal	29
Mounting Dimensions	32
Specifications	33
Selection ordering information	34

Correspond to all global application specifications

3G3JZ inverter adhering to the usual OMRON's safety and environmental protection, products have passed the European CE certification, meets EMC Electromagnetic compatibility requirements: and in accordance with the latest green health directive of RoHS

Voltage range: 1-phase 200V ~ 240VAC
 3-phase 200V ~ 240VAC
 3-phase 380V ~ 460VAC

Adjustable NPN and PNP function input points

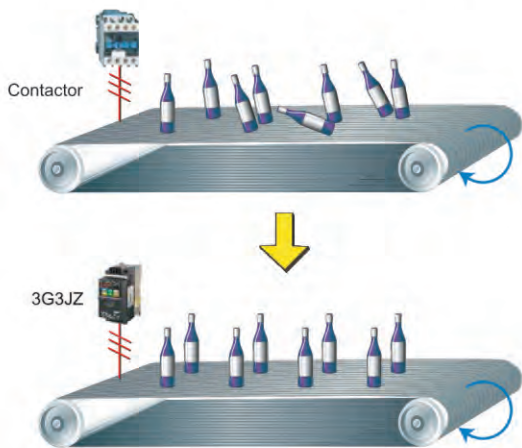


SYSDRIVE 3G3JZ

3G3JZ inverter drive and control functions, the inverter itself has an abundance of drive and control functions, as per Omron's other product compositions each being a compact solution

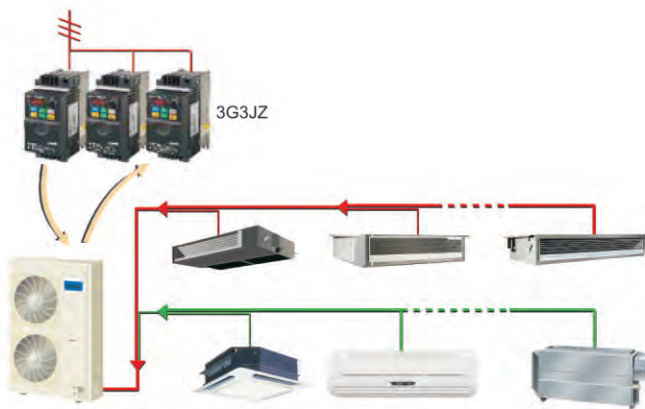
Application on bottling production line

3G3JZ particularly applicable to the production line speed control: soft start / stop, flexible production speed control, line protection, production safety.



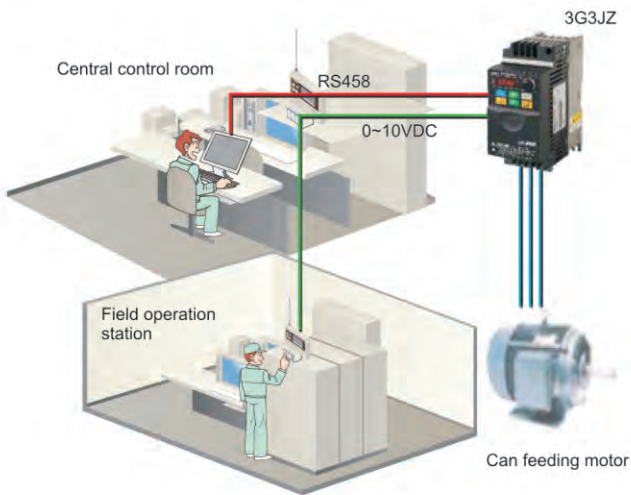
Ventilation control of air conditioner

Compact installation design: Side-by-side Smooth adjustment, according to the requirements of the wind speed: Significant energy savings



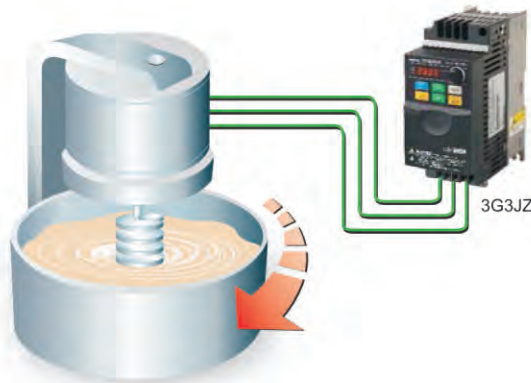
Switching between local operation and remote operation of the water pump in the plant

Frequency command 1 and frequency command 2 can be used separately or jointly (addition and subtraction) control the motor speed, easy remote (communicate) local (analog) control



Printing and dyeing mixer

Automatic torque boost function and slip compensation function, so 3G3JZ can be applied to the mixer, and other large torque loads; 600Hz maximum frequency can be used in a centrifuge of high-speed devices.

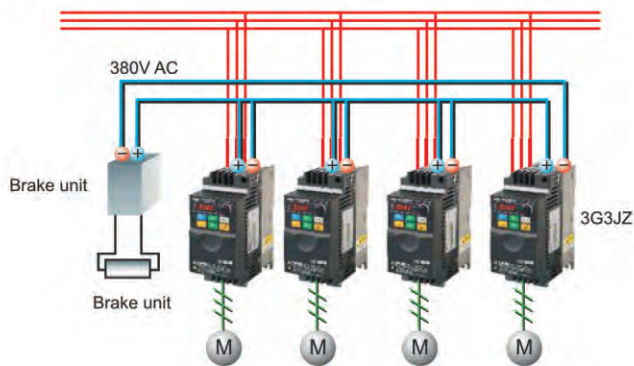


Fully meets your basic speed control requirements

Compact solution, can provide you with a higher additional value.

Installation of multi-converter unified control cabinet (fountain)

Multiple inverter applications, side-by-side cooling features save installation space; flow of direct current, saves energy, if you need emergency braking possible with multiple common brake unit



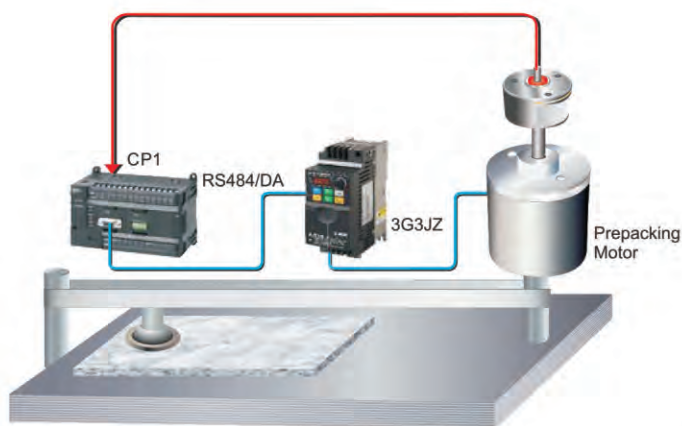
Temperature control system formed together with OMRON temperature controller

3G3JZ inverter analog input and temperature controller are a perfect combination of temperature control system. Thermostat PID controls the drive speed; inverter internal current and motor protection.



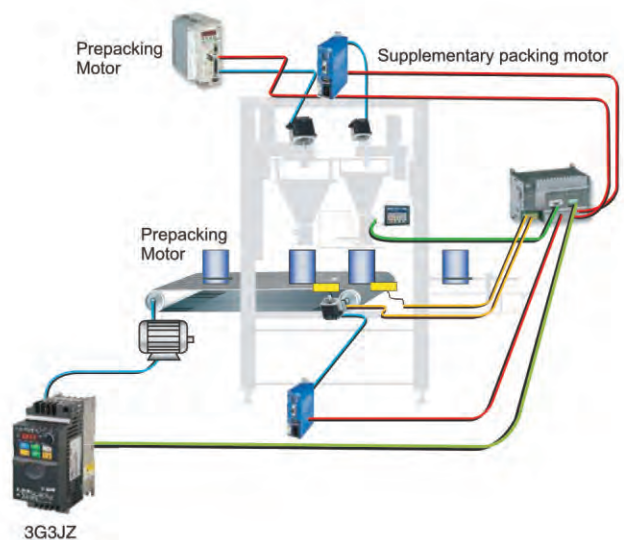
Stone polishing system formed together with CP1 controller

3G3JZ converter with 150% overload capacity CP1 controller and inverter communication. Function blocks can simplify programming, in the PLC set of deviation counter accurate positioning

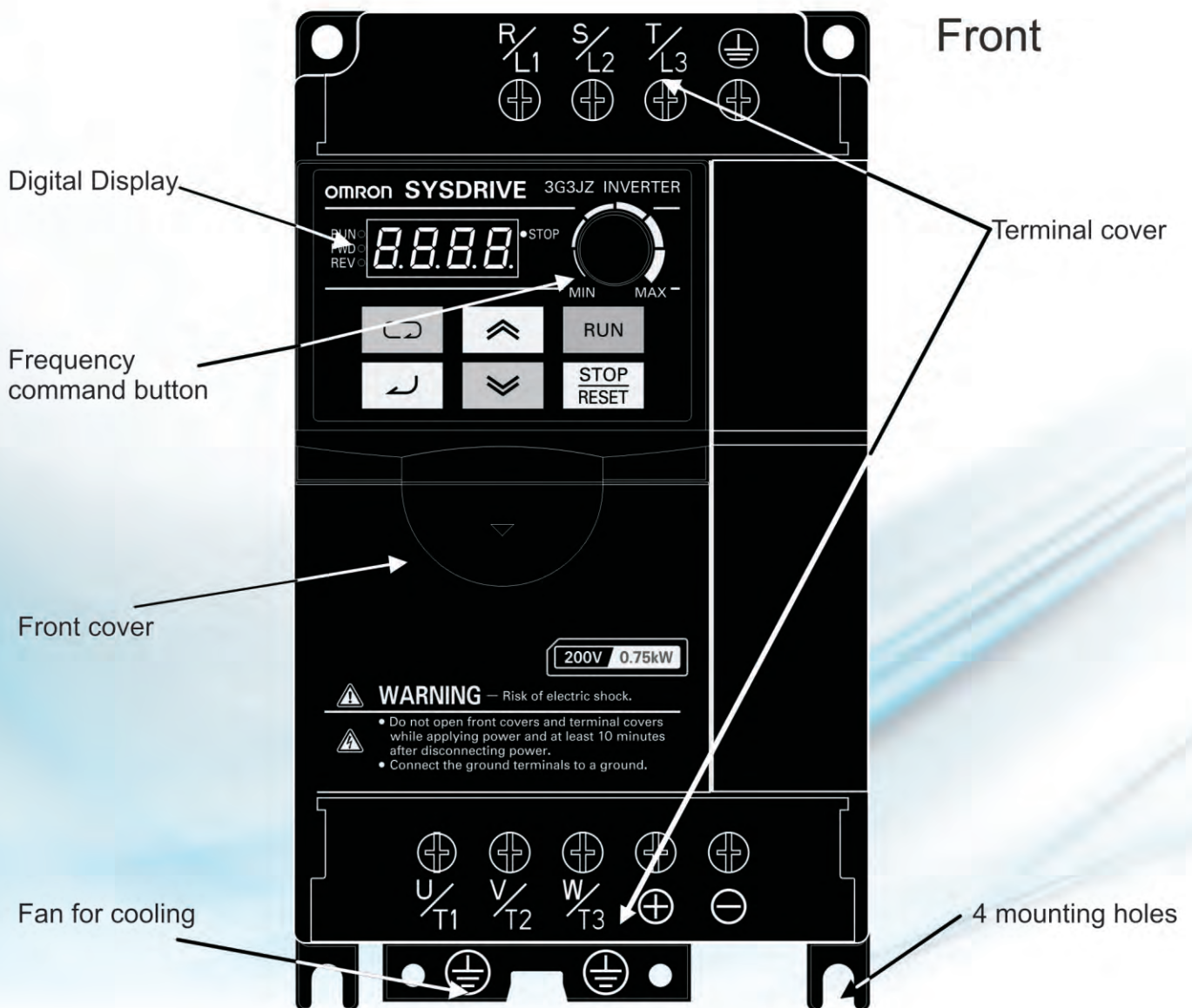


Total solution for packing automation

3G3JZ inverter Omron automation products: servo system, PLC sensors, safety products provides an overall packaging solution.



Name of each part



Name and function of each part of operations

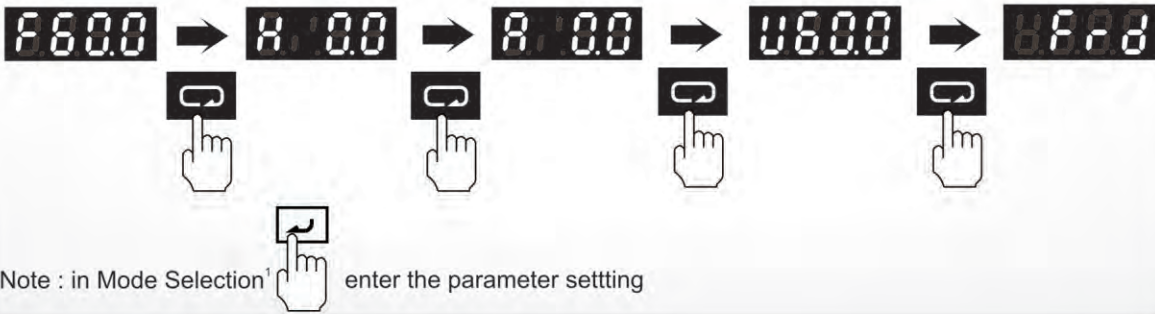
Digital display of the names of different parts of operator



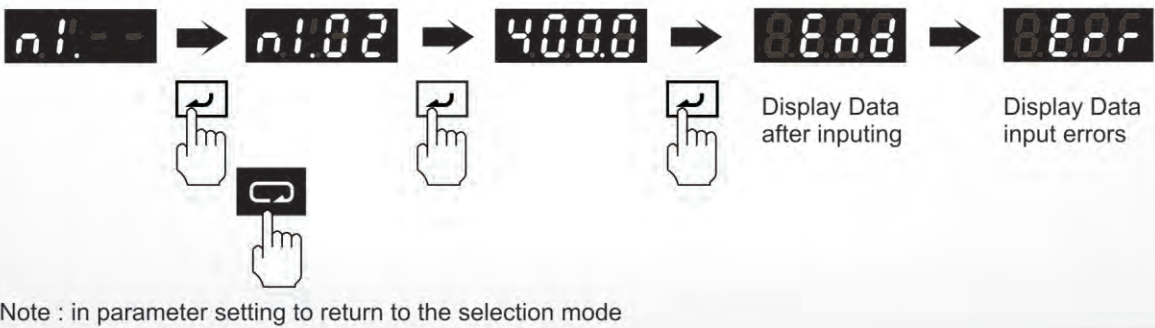
Key	Name	Function
	Data display unit	Display the frequency command value, output frequency values and parameters constant setting and other related data.
	Frequency command knob	Knob to set the frequency. Setting range of the knob can be 0 Hz - to the highest frequency in between.
	Operation display	Running state LED lighting. Operation command OFF deceleration flashing.
	Forward display	Forward Rotation Command LED lights. From back transfer to Positive rpm, LED flickers.
	Reverse display	In reverse rotation command LED lights up. From back transfer to Positive rpm, LED flickers.
	Stop display	Top state LED lights. When the operation is less than the minimum output frequency LED flashes.
	(To carry)	In parameter display when the lights shows the first four of the five values.
	Status key	In order to switch the Inverter monitor display. In parameters constant setting process Press this key to skip function.
	Enter key	Press this key to display the status of the monitoring, then enter the parameter edit mode. Decision Parameter No. shows the other parameter settings used. Press to confirm the changed parameter setting value.
	Reduce key	Reduce the frequency command, parameter constant No. value, number of constant settings
	Increase key	Increase the frequency command, parameter constant No. value, parameters constant setting.
	RUN key	Start the drive (but only in selected operations / digital operation)
	STOP/RESET key	Inverter Stop (Only in the parameters n2.01 set as {STOP} Effective Key "When to Stop"). Additional, in case of occurrence of Inverter abnormality use the Reset button.

Operator application examples

Selection Mode



Selection Mode



Parameter modification



Note : in parameter setting to return to the selection mode

Steering Set



Parameter list

In order to make 3G3JZ parameter settings more convenient currently different functions are divided into 10 groups. Various groups table summary is given below.

Parameter No.	Name	Explanation
n0	Environment settings	Control mode selection environment setting groups. Prohibits changing parameters, choose inverter monitoring programs also for this group set.
n1	V / f mode and ramp time setting	Setting Inverter's basic feature. Setting the V / f mode, Acceleration and deceleration conditions.
n2	Inverter operation method set	Setting Inverter operation method. Selecting the frequency command or operation command determines input method.
n3	Inverter output function setting	Setting the inverter control circuit output function. Select multifunction output or analog output function, as well as to adjust output value.
n4	Inverter input function setting	Setting Inverter control circuit input function. Select the multifunction input or analog input function, and adjust input values.
n5	Multi-speed frequency command setting	Setting Multi-speed operation frequency command. Available in multi-function input set in a multi-speed command and a maximum of 7 frequency instruction switch operation. Setting frequency command.
n6	Protection function setting	Setting • Adjust the motor protection function. Setting • Adjust the heating of the motor Protection function and cut out prevention. It may also confirm the abnormal history.
n7	Motor parameter setting	Setting relevant motor parameters. Especially in vector control it is very important, automatic adjustment of the motor is also part of this group. For the safety of the motor, installed thermal operation line over heating protection setting.
n8	Additional features setting	Setting additional features when the inverter is running Equipped with a DC brake function, momentary power failure after action, jump frequency function, energy-saving features, etc.
n9	RS485 communication setting	Set the inverter & PLC RS485 communication by setting this group.

Parameter list

n0: Environment settings

Parameter No.	Name	Explanation	Setting range	Setting unit	Factory setting	Operational Changes	
n0.00	Inverter capacity monitoring ※ Only for reference	Displays the use of converter power supply specifications and capacity monitoring. For each inverter applicable specifications / capacity are as follows.	-	1	-	-	
		Dis-play					Power Specifications / Capacity
		0					Single-phase / 3 phase 200VAC/0.2kW
		1					(Unused)
		2					Single-phase / 3 phase 200VAC/0.4kW
		3					3 Phase 400VAC/0.4kW
		4					Single-phase / 3 phase 200VAC/0.75kW
		5					3 Phase 400VAC/0.75kW
		6					Single-phase / 3 phase 200VAC/1.5kW
		7					3 Phase 400VAC/1.5kW
		8					Single-phase / 3 phase 200VAC/2.2kW
		9					3 Phase 400VAC/2.2kW
10	Single-phase / 3 phase 200VAC/3.7kW						
11	3 Phase 400VAC/3.7kW						
n0.02	Prohibits select to change parameters / parameter initialisation	Prohibition of parameter change, can also restore the parameters to the factory value. 0 : Can set and reference all parameters. 1 : Can only set n0.02. All other parameters may only be reference. 8 : Operation key lock 9 : Highest frequency 50Hz initialization 10 : Highest frequency 60Hz initialization	00~10	1	0	0	
n0.03	Select the power ON monitor Control display items	Setting when the power is turned on first displays monitor items. 0 : Frequency command 1 : Output frequency 2 : Output current 3 : n0.04 set monitoring project 4 : FWD (Forward) / REV(Reverse)	4	1	0	0	
n0.04	Select monitor display items	Available operating display 5 kinds of monitoring, existing monitor display contents can be changed. Set items to display on the monitor.	0~11	1	0	0	
		Setti- ng					Monitoring project
		0					User to set the monitor
1	(Unused)						

Parameter list

n0: Environment settings

Parameter No.	Name	Explanation	Setting range	Setting unit	Factory setting	Operational Changes																				
		<table border="1"> <tr><td>2</td><td>(Unused)</td></tr> <tr><td>3</td><td>Main circuit DC Voltage</td></tr> <tr><td>4</td><td>Output voltage command</td></tr> <tr><td>5</td><td>(Unused)</td></tr> <tr><td>6</td><td>Output power(Power Factor)</td></tr> <tr><td>7</td><td>Output power</td></tr> <tr><td>8</td><td>(Unused)</td></tr> <tr><td>9</td><td>Frequency command (voltage) A1 Terminal input voltage</td></tr> <tr><td>10</td><td>Frequency command (voltage) A1 Terminal input voltage</td></tr> <tr><td>11</td><td>IGBT Temperature</td></tr> </table> <p>※ Factory setting 4. Indicates display item heads replaced by the output voltage command.</p>	2	(Unused)	3	Main circuit DC Voltage	4	Output voltage command	5	(Unused)	6	Output power(Power Factor)	7	Output power	8	(Unused)	9	Frequency command (voltage) A1 Terminal input voltage	10	Frequency command (voltage) A1 Terminal input voltage	11	IGBT Temperature	0~11	1	4	0
2	(Unused)																									
3	Main circuit DC Voltage																									
4	Output voltage command																									
5	(Unused)																									
6	Output power(Power Factor)																									
7	Output power																									
8	(Unused)																									
9	Frequency command (voltage) A1 Terminal input voltage																									
10	Frequency command (voltage) A1 Terminal input voltage																									
11	IGBT Temperature																									
n0.05	User to set the monitor	Output frequency is multiplied by magnification, can display the values what one wants to display. Request setting of output frequency ratio. User to set the monitor "U*****"= Output frequency x n0.05 value	0.1~160.0	0.1	0.1	-																				
n0.06	Software No. (Power) ※ Only for reference	Indicates mounted on the drive section of the software version.	-	00.01	-	-																				

Parameter list

n1:Setting the V / f mode and ramp time

Parameter No.	Name	Explanation	Setting range	Setting unit	Factory setting	Operational Changes	
n1.00	Highest frequency (FMAX)	Setting basic characteristics of Inverter that is V / f mode. ※ V / f control mode: Setting different frequencies output voltage.	50.00~600.0	0.01Hz	50.00※1	x	
n1.01	Maximum voltage frequency (FA)	※ Vector control mode: As the vector control for controlling frequency and voltage, Parameter n1.03, n1.04, n1.06 Setting invalid. Output voltage [V]	0.10~600.0	0.01Hz	50.00※1	x	
n1.02	Maximum voltage (VMAX)	<p>n1:Setting the V / f mode and ramp time</p>	0.1~255.0 (0.1~510.0) ※2	0.01V	200.0 (400.0)	x	
n1.03	Intermediate output frequency (FB)		0.10~600.0	0.01Hz	※2	x	
n1.04	Intermediate output frequency voltage (VC)		0.1~255.0 (0.1~510.0) ※2	0.01V	1.5	x	
n1.05	Minimum output frequency (FMIN)		※ Setting must satisfy $n1.0 \leq n1.03 \leq n1.01$. ※ Setting must satisfy $n1.0 \leq n1.04 \leq n1.02$.	0.10~600.0	0.01Hz	12.0 (24.0)	x
n1.06	Minimum output frequency voltage (VMIN)		※ When $n1.03 \leq n1.01$ time n1.04 setting is invalid. ※ When $n1.03 \leq n1.05$ time n1.06 Invalid configuration	0.1~255.0 (0.1~510.0) ※2	0.01V	12.0 (24.0) ※2	x
n1.07	Frequency instruction on limit	Frequency setting instruction upper limit and lower limit. Even if you receive more than the upper or lower limit frequency command, Inverter still remains only on output upper limit value or lower limit. Highest frequency (n1.00) as 100%, Set % units. ※ Please be sure to set $n1.08 \leq n1.07$.	0.1~120	0.1%	110.0	x	
			0.0~100	0.1%	0.0	x	
n1.08	Frequency command lower limit	※ When setting the frequency command limit (n1.08) less than the minimum output frequency (n1.05) times, even if Input is less than the minimum output frequency, Inverter does not output.					
n1.09	Acceleration time 1	Acceleration time: From the highest frequency (n1.00) 0% to 100% time setting Deceleration time: From the highest frequency (n1.00) 100% to 0% time setting ※ Actual deceleration time is the following formula. [Deceleration time setting] × [Frequency command] / [Highest frequency] ※ Deceleration time 1 and 2 through the function input (n4.05~n4.08) is set to "7 (switch Deceleration time)" both can switch.	0.1~600	0.1s	10.0	☐	
n1.10	Deceleration time 1				10.0	☐	
n1.11	Acceleration time 2				10.0	☐	
n1.12	Deceleration time 2				10.0	☐	
n1.17	Acceleration S Symbol Characteristic time	Order to weaken load impact, in the deceleration action lane setting S words characteristics. Check the setting of acceleration and deceleration time n1.09 ~ n1.12 to increase the setting S characteristic time. Actual deceleration time compared with the acceleration and deceleration time (n1.09 ~ n1.12) Set value plus S character special Resistance time (n1.17 or n1.18) of set value.	0.1~10.0	0.1s	0.0	x	
n1.18	Deceleration S Symbol Characteristic time				0.0	x	

※1.Factory set. Implement 0.02~10 { Highest frequency 60Hz initialization} time, set becomes 60Hz.

※2.() In the display value 400VAC Inverter setting range and factory setting.

Parameter list

n2: Inverter operation method set

Parameter No.	Name	Explanation	Setting range	Setting unit	Factory setting	Operational Changes
n2.00	Frequency command selection	<p>Select Inverter input Frequency command.</p> <p>0 : Operator increment / decrement keys valid entry</p> <p>1 : Operating frequency instruction knob valid</p> <p>2 : Frequency command input A1 terminal (voltage input 0 ~ 10V) valid</p> <p>3 : Frequency command input A1 terminals (current input 4 ~ 20mA) valid</p> <p>4 : RS485 communication issued by frequency command valid</p> <p>※ In the multi-function input (n4.05 ~ n4.08) use the UP / DOWN command (setting 10 11) time is set to n 2.00=0, Then the operator is to increase or decrease key input active simultaneously. However, the multi-function input UP / DOWN instruction should be the priority.</p> <p>※ Multi-function input (n4.05 ~ n4.08) Multi Multi-speed command (Settings 01, 02, 03) without n2.00 the setting impact has been effective.</p> <p>※A1 terminal current / voltage input select use SW switch ACI / AVI</p>	0~4	1	1	○
n2.01	Run Command Selection	<p>Select the inverter operation / stop command input method</p> <p>0:Operating the RUN / STOP key effective</p> <p>1:Control circuit terminal (2-wire or 3-wire)</p> <p>※Operator STOP key effective</p> <p>2:Control circuit terminal (2-wire or 3-wire)</p> <p>※Operator STOP key effective</p> <p>3:RS485 communication operation command</p> <p>※Operator STOP key effective</p> <p>4:RS485 communication operation command</p> <p>※Operator STOP key invalid</p> <p>※Multi-function input (n4.05~n4.08) is set to "18" (switching operation command: Control "19" (switching operation command: operator), and "20" (switching operation command:Communication) can temporarily switch operation command.</p>	0~4	1	0	○
n2.02	Stopping method selection	<p>Select the stop command or external abnormalities input time stop method</p> <p>0:Instruction stop deceleration stop / External anomaly free glide to a stop</p> <p>1:Instructed to stop free glide to a stop / External anomaly free glide to a stop</p> <p>2:Instruction stop deceleration stop / External abnormal deceleration stop</p> <p>3:Instruction to stop free glide to a stop / External abnormal deceleration stop</p>	0~3	1	0	x

Parameter list

Parameter No.	Name	Explanation	Setting range	Setting unit	Factory setting	Operational Changes
n2.03	Choice of Carrier Frequency	<p>Set the inverter output of the carrier frequency</p> <ul style="list-style-type: none"> ※ Under normal circumstances no need to change the factory setting ※ Expecting reducing motor noise to be set to a higher value ※ In order to reduce electrical noise impact, settings lowered ※ Carrier frequency setting then setting values adjusted upwards, inverter will heat. So, if set value exceeds 8kHz . rated output current will drop. 	2~15	1khz	8	x
n2.04	Reverse Disable Selection	<p>Select the input reverse rotation command operation:</p> <p>0:Can Inverse (Forward) 1:Prohibited Reverse (Forward) 2:Can Reverse (Prohibition forward)</p>	0~2	1	0	x
n2.05	Power / switching operation Instruction after Operation selection	<p>Turning on the power supply or cut change operation command, set before the input of the operation command / invalid:</p> <p>0:Power-effective / Invalid after switching operation command 1:Invalid after the power is turned / Invalid after switching operation command after invalid 2:Power-effective / Effective after switching operation command 3:Invalid after the power is turned / Effective after switching operation command abnormal deceleration stop</p> <ul style="list-style-type: none"> ※ Power or switching operation command again run command must be valid. 	0~3	1	1	x
n2.06	Frequency command input (A1 Terminal) loss detection select	<p>Set frequency command input instruction when there is loss of operation</p> <p>Frequency command input under current input, when input current is n4.15 subsequently (frequency command input A1 terminal minimum current value). When detected a loss of:</p> <p>0:Decelerate to 0Hz (according to directive action) 1:Detect frequency command input signal abnormalities, Prompt "Aerr" (coasting stop) 2:Frequency command input signal abnormalities, but operation continues (before the loss of instruction action)</p> <ul style="list-style-type: none"> ※ Frequency command input change the setting to 0 ~ 20mA, or the voltage input, loss of detection function invalid 	0~2	1	0	x

Parameter list

Parameter No.	Name	Explanation	Setting range	Setting unit	Factory setting	Operational Changes
n2.09	Second frequency means the order to select	<p>Select the second frequency command frequency of the input method.</p> <p>※ Second frequency rate instruction using the method set given in the second frequency command action selection (n2.10) set under.</p> <p>※ Use of multi-function input (n4.05~n4.08) of "22 (Second frequency command)" Switchable frequency rate of input of instructions</p> <p>0 : Operator increment /decrement keys to enter valid</p> <p>1 : Effective operating frequency Instruction knob</p> <p>2 : Frequency command input A1 terminal (voltage input 0 ~ 10V) valid</p> <p>3 : Frequency command input A1 terminals (current input 4 ~ 20mA) valid</p> <p>4 : RS485 communication issued by frequency command valid</p> <p>※ In the multi-function input (n4.05 ~ n4.08) use the UP / DOWN command (setting 10 11) from time to time, set n2.09 = 0. Operating the up / down key input is still valid. But more Function input UP / DOWN priority.</p> <p>※ Multi-function input (n4.05~n4.08) multi speed command (Set values 1, 2, 3) without n2.09 set impact has been effective.</p> <p>※ In frequency command input for current / voltage selection, please use SW switch to select ACI / AVI</p>	0~4	1	2	□
n2.10	Second frequency command action selection	<p>Select the second frequency command action</p> <p>0:Invalid Actual frequency command = frequency command (n2.00)</p> <p>1:Valid Actual frequency command = frequency command (n2.00) + Second frequency Instruction (n2.09)</p> <p>2:Valid Actual frequency command = frequency command (n2.00) - Second frequency Instruction (n2.09)</p>	00-02	1	0	□
n2.13	Operating communication frequency instruction memory select	<p>Choose the memory operation for control and communication frequency command value.</p> <p>0:Memory operation frequency command / Memory communication frequency command</p> <p>1:Memory operation frequency command / Not memory communication frequency command</p> <p>2:Not memory operating frequency command / Memory communication frequency command</p> <p>※Not memory, power is turned after frequency command "0.00" starts.</p>	0~2	1	0	x

Parameter list

n3: Inverter operation method set

Parameter No.	Name	Explanation	Setting range	Setting unit	Factory setting	Operational Changes		
n3.00	Multifunction output 1 function Select (output terminal MA / MB-MC)	Select multi-functional output terminal.		0~21	1	8	0	
		Set	Function name					Explanation
		0	Invalid multifunction output					Not to use multi-function output setting
		1	Operation					ON: Operation (operation input / inverter output)
		2	Same Frequency					ON: Same frequency (consistent with frequency command)
		3	Zero Speed in 1					ON: Zero speed (minimum output frequency unexpired state) ※ Operation command is OFF, if it is not output state will be OFF
		4	Overtorque detection					ON: Comply with the following output parameter conditions • Overtorque detection function selection (n6.03) • Overtorque detection level (n6.04) • Overtorque detection time (n6.05)
		5	Base blockade					ON: Base blockade (Baseblock command input)
		6	In low-voltage detection					ON: In low-voltage detection (Main circuit low voltage is detected UV time to time) ※ Main circuit DC voltage 200V AC type 198V DC/400V AC type 396V DC type
		7	Operation command input					ON: Control circuit terminal OFF: Control circuit terminals outside
8	Abnormal output	ON: Abnormal output						
9	Frequency detection	ON: Output frequency \geq frequency detection level (n3.02)						
12	In cut out prevention during deceleration	ON: In cut out prevention during deceleration (n6.00)						

Parameter list

Parameter No.	Name	Explanation	Setting range	Setting unit	Factory setting	Operational Changes		
n3.00	Multifunction output 1 function Select (output terminal MA / MB-MC)	Select multi-functional output terminal.	0~21	1	8	0		
		Set					Function name	Explanation
		13					In Cut out prevention during acceleration / operation ended	ON: In Cut out prevention during acceleration / operation ended (n6.01/n6.02)
		14					Inverter heating notice	ON: Inverter heating notice (Heat sink temperature of 85 °C)
		15					Overvoltage notice	ON: Overvoltage notice (Main circuit voltage exceeds notice voltage) ※ Notice voltage: Main Circuit DC Voltage: 200VAC type 374V/ 400VAC type 747V
		17					Forward in	ON: Reversal in
		18					Reversal in	ON: Reversal in
		19					Zero Speed 2	ON: Zero Speed (Below minimum output frequency state) ※ Run command stop output continue.
		20					Warning output	ON: Warning output
21	External brake output	ON: External brake open ※ Control time in the external brake open frequency (n3.11) Sum of external brake operation frequency (n3.12) set						
n3.02	Frequency detection level	Sets detected frequency. ※ In the multi-function output (n3.00) set in "9 "(frequency detection).	0.00~600.0	0.01Hz	0.00	x		
n3.03	Multi-function analog output selection	Select the multi-function analog output in output monitoring project. 0: Output frequency (0 ~ 10V / 0 ~ highest frequency n1.00) 1: Output current (0 ~ 10V / 0 ~ inverter rated current output 250%) ※ Multifunction analog output of the output voltage, go to the multi-function analog output Gain (n3.04) in adjustment	0~1	1	0	○		
n3.04	Multi-function analog output gain (Output terminals AM-AC)	Multi-function can simulate the output in order to adjust the output voltage. Set the output voltage gain. Set to 100% time to time. Press on the following formula output. n3.03-0: Output frequency (0~10V / 0 ~ Highest frequency n1.00)n3.03-1 : Output current (0~10 V/ 0~Inverter rated output current 250%) ※ Set to 50% then, same state output 5V.	1~200	1%	100	○		

Parameter list

Parameter No.	Name	Explanation	Setting range	Setting unit	Factory setting	Operational Changes
n3.08	Cooling fan operation selection	Set the operation of the cooling fan. 0 : Power input to keep the fan rotation 1 : Inverter operation fan rotation (Stop within 1 minute after the fan is still rotating) 2 : Inverter operation fan rotation (Fan stops rotating) 3 : According to IGBT temperature fan rotation (run above 60 °C, Stop 40 °C)	0~3	1	1	x
n3.11	External brake open frequency	This feature can set timing control signal to external brake to brake the move. The inverter output frequency setting external brake open / external brake action timing.	0.00~ 20.00	0.01Hz	0.00	x
n3.12	External brake operation frequency	※Request for multifunctional output (n3.00) set "21(External brake output)"connect an external brake. ※ Vertical axis in order to prevent falling. Set brake action status and inverter output of number of states Hz set to overlap.	0.00~ 20.00	0.01Hz	0.00	x

Parameter list

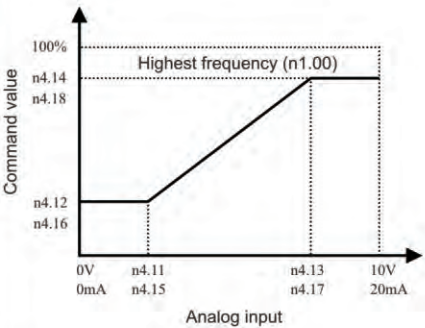
n4: Inverter input function set

Parameter No.	Name	Explanation	Setting range	Setting unit	Factory setting	Operational Changes																
n4.04	Multi-function input ½ Merit (Input terminal can be selected S1/S2)	<p>Control circuit terminal operation command from the multi-function input enter ½ input. With the application set, input method</p> <p>0 : 2-wire (forward / stop (S1 terminal), Reverse / Stop (S2 terminals))</p> <p>1 : 2-wire (run / stop (S1 terminal), Forward / Reverse (S2 terminals))</p> <p>2 : 3-wire</p> <p>※ In n4.04=3, If set 3-wire timing, multi-function input 3 (n4.05) of set no Efficiency, still 3-wire distribution.</p>	0~2	1	0	x																
n4.05	Multi-function input function selection (Input terminals S3)	<p>Please select the multi-function input terminal 3 to 6.</p> <table border="1"> <thead> <tr> <th>Set</th> <th>Function name</th> <th>Explanation</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>Multi-function input invalid</td> <td>Without using the multi-function input time settings.</td> </tr> <tr> <td>1</td> <td>Multi-speed command 1</td> <td rowspan="3">Switching frequency command 1 ~ 15 (n5.00 ~ n5.06) of Signal. ※ Refer to the frequency means 1 ~ 15 (n5.00 n5.06).</td> </tr> <tr> <td>2</td> <td>Multi-speed command 2</td> </tr> <tr> <td>3</td> <td>Multi-speed command 3</td> </tr> <tr> <td>5</td> <td>Abnormal reset</td> <td>ON : Abnormal reset (operation command input invalid)</td> </tr> </tbody> </table>	Set	Function name	Explanation	0	Multi-function input invalid	Without using the multi-function input time settings.	1	Multi-speed command 1	Switching frequency command 1 ~ 15 (n5.00 ~ n5.06) of Signal. ※ Refer to the frequency means 1 ~ 15 (n5.00 n5.06).	2	Multi-speed command 2	3	Multi-speed command 3	5	Abnormal reset	ON : Abnormal reset (operation command input invalid)	0~22	1	14	x
Set	Function name	Explanation																				
0	Multi-function input invalid	Without using the multi-function input time settings.																				
1	Multi-speed command 1	Switching frequency command 1 ~ 15 (n5.00 ~ n5.06) of Signal. ※ Refer to the frequency means 1 ~ 15 (n5.00 n5.06).																				
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5	Abnormal reset	ON : Abnormal reset (operation command input invalid)																				
n4.06	Multi-function input 4 function selection (Input terminals S4)	<table border="1"> <tbody> <tr> <td>7</td> <td>Deceleration time switching</td> <td>ON : Deceleration time 2 (n1.11, n1.12)</td> </tr> <tr> <td>9</td> <td>External base block command</td> <td>ON : Blocked output</td> </tr> <tr> <td>10</td> <td>UP Instruction (UP/DOWN Instruction)</td> <td>Increase / decrease of frequency command UP/DOWN Command functions, Please be sure to set the UP instruction and DOWN command both sides</td> </tr> </tbody> </table>	7	Deceleration time switching	ON : Deceleration time 2 (n1.11, n1.12)	9	External base block command	ON : Blocked output	10	UP Instruction (UP/DOWN Instruction)	Increase / decrease of frequency command UP/DOWN Command functions, Please be sure to set the UP instruction and DOWN command both sides			5	x							
7	Deceleration time switching	ON : Deceleration time 2 (n1.11, n1.12)																				
9	External base block command	ON : Blocked output																				
10	UP Instruction (UP/DOWN Instruction)	Increase / decrease of frequency command UP/DOWN Command functions, Please be sure to set the UP instruction and DOWN command both sides																				
n4.07	Multi-function input 5 function selection (Input terminals S5)	<table border="1"> <tbody> <tr> <td>11</td> <td>DOWN Instruction (UP/DOWN Instruction)</td> <td>※ UP / DOWN Instruction and multi-speed command 1 to 3 can be used simultaneously.</td> </tr> </tbody> </table>	11	DOWN Instruction (UP/DOWN Instruction)	※ UP / DOWN Instruction and multi-speed command 1 to 3 can be used simultaneously.			1	x													
11	DOWN Instruction (UP/DOWN Instruction)	※ UP / DOWN Instruction and multi-speed command 1 to 3 can be used simultaneously.																				

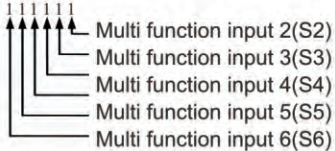
Parameter list

Parameter No.	Name	Explanation	Setting range	Setting unit	Factory setting	Operational Changes																					
		※When needed in the Power Off memory UP/ DOWN means the order of the frequency of words,(N2.13) is set to "0" or "1". <table border="1"> <thead> <tr> <th>Status</th> <th>Accelerate</th> <th>Decelerate</th> <th>Hold</th> <th>Hold</th> </tr> </thead> <tbody> <tr> <td>UP Instru- -ction</td> <td>ON</td> <td>OFF</td> <td>OFF</td> <td>ON</td> </tr> <tr> <td>DOWN Instruction</td> <td>OFF</td> <td>ON</td> <td>OFF</td> <td>ON</td> </tr> </tbody> </table>	Status	Accelerate	Decelerate	Hold	Hold	UP Instru- -ction	ON	OFF	OFF	ON	DOWN Instruction	OFF	ON	OFF	ON										
Status	Accelerate	Decelerate	Hold	Hold																							
UP Instru- -ction	ON	OFF	OFF	ON																							
DOWN Instruction	OFF	ON	OFF	ON																							
n4.08	Multi-function input 5 function selection (Input terminalsS6)	<table border="1"> <tbody> <tr> <td>14</td> <td>External abnormalities</td> <td>ON : External fault (EF anomaly detection)</td> </tr> <tr> <td>16</td> <td>Free glide to a stop</td> <td>ON : Blocked output freely glide to a stop ※ Enter after releasing, Restart from 0Hz</td> </tr> <tr> <td>17</td> <td>Prohibit changes to the parameters</td> <td>ON : Prohibit changes to the parameters</td> </tr> <tr> <td>18</td> <td>Switching operation command (Control circuit terminal)</td> <td>ON : Control circuit terminal operation command issued OFF : Operation command selection (n2.01) valid</td> </tr> <tr> <td>19</td> <td>Switching operation command (Operator)</td> <td>ON : Operator RUN / STOP key effective OFF : Operation command selection (n2.01) valid</td> </tr> <tr> <td>20</td> <td>Switching operation command (Communicate)</td> <td>ON : Communication issued to Operation command effective OFF : Operation command selection (n2.01) valid</td> </tr> <tr> <td>22</td> <td>Second frequency command</td> <td>ON : Effective second frequency command (n2.09)</td> </tr> </tbody> </table>	14	External abnormalities	ON : External fault (EF anomaly detection)	16	Free glide to a stop	ON : Blocked output freely glide to a stop ※ Enter after releasing, Restart from 0Hz	17	Prohibit changes to the parameters	ON : Prohibit changes to the parameters	18	Switching operation command (Control circuit terminal)	ON : Control circuit terminal operation command issued OFF : Operation command selection (n2.01) valid	19	Switching operation command (Operator)	ON : Operator RUN / STOP key effective OFF : Operation command selection (n2.01) valid	20	Switching operation command (Communicate)	ON : Communication issued to Operation command effective OFF : Operation command selection (n2.01) valid	22	Second frequency command	ON : Effective second frequency command (n2.09)			2	x
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20	Switching operation command (Communicate)	ON : Communication issued to Operation command effective OFF : Operation command selection (n2.01) valid																									
22	Second frequency command	ON : Effective second frequency command (n2.09)																									
n4.09	Multi-function input a contact / b contact input selection	From a contact (N.O.) Or b contact (N.C.) select the multi-function input into the input method. Use B contact (N.C.) after, set of binary into decimal back value 0 settings "11"=000000001011 → Multi-function input 1,2, 4 as B contact (N.C.) input set 0:a contact (N.O.) 1 1 1 1 1 1:b Contact Input (N.C.) 	0~63	1	0	x																					

Parameter list

Parameter No.	Name	Explanation	Setting range	Setting unit	Factory setting	Operational Changes
n4.10	Input terminal response time	Can be set to the input terminal of the input response time. Usually no need to change the settings. In order to prevent relay, tremor or electrical noise set the value to increase. Per one unit is set to 2ms to configure settings.	1~20	1(2ms)	1	x
n4.11	Frequency command input A1 terminal Minimum voltage input	<p>To change the frequency command input (A1 terminal) analog input characteristics. Press figure set to change characteristics.</p> <p>※ Command value to the highest frequency instruction (n1.00) as 100%,set unit at 0.1%.</p> <p>※ A1 current / voltage input selection using the switch SW, option ACI/AVI. ACI:Current input (4~20mA) AVI:Voltage input (0~20V)</p> <p>ACI : Current input (4~20mA)</p> <p>AVI : Voltage input (0~10V)</p> 	0.0~10.0	0.1V	0.0	x
n4.12	Frequency command input A1 terminal Minimum voltage input		0.0~100	0.1%	0.0	x
n4.13	Frequency command input A1 terminal Maximum voltage input		0.0~10	0.1V	10.0	x
n4.14	Frequency command input A1 terminal Maximum voltage command value		0.0~100	0.1%	100.0	x
n4.15	Frequency command input A1 end Sub-minimum current input		0.0~20	0.1mA	4.0	x
n4.16	Frequency command input A1 end Sub minimum current command value		0.0~100	0.1%	100.0	x
n4.17	Frequency command input A1 end Sub maximum current input		0.0~20	0.1mA	20.0	x
n4.18	Frequency command input A1 end Sub maximum current command value		0.0~100	0.1%	100.0	x

Parameter list

Parameter No.	Name	Explanation	Setting range	Setting unit	Factory setting	Operational Changes
n4.27	Input terminal of the internal input selection	Input terminal assigned to the internal input, internal input can be set at a fixed state. No wiring required, when the power is turned on to start the inverter secure the state when in use.	0~63	1	0	x
n4.28	Internal state of the input selected	<p>※ Inside the input terminal of the input selector (n4.27) set the assigned internal input to enter the output. Internal input is set to 1 and binary converted to a decimal value set.</p> <p>※ In the internal state of the input selection (n4.28) set a fixed internal input state.</p> <p>Enter the fixed state (a contact ON) to 1 and 2 binary conversion decimal value set fixed Settings "11" = 00000001011</p> <p>n4.27 → Multi-function input 1, 2, 4 Internal input settings n4.28→ Multi-function input 1, 2, 4 To enter a fixed state (a contact ON) n4.27=1: Internal input devices</p> <p>1 1 1 1 1 1 n4.28=1:Enter a fixed shape Multi-function input 1(S1)</p>  <p>Multi function input 2(S2) Multi function input 3(S3) Multi function input 4(S4) Multi function input 5(S5) Multi function input 6(S6)</p>	0~63	1	0	x

Parameter list

n5:Multi-speed frequency command setting

Parameter No.	Name	Explanation	Setting range	Setting unit	Factory setting	Operational Changes																																												
n5.00	Frequency Command 1	Set the internal frequency command. ※ Internal frequency command in the multi-speed command (n4.05 ~ n4.08) Set in a multi-speed command (Set value of 01, 02, 03) and select.	0.00~600.0	0.01Hz	0.0	○																																												
n5.01	Frequency Command 2				0.0	○																																												
n5.02	Frequency Command 3				0.0	○																																												
n5.03	Frequency Command 4				0.0	○																																												
n5.04	Frequency Command 5				0.0	○																																												
n5.05	Frequency Command 6				0.0	○																																												
n5.06	Frequency Command 7				0.0	○																																												
		<table border="1"> <thead> <tr> <th>Frequency command</th> <th>Multi-speed command 1 (Settings :01)</th> <th>Multi-speed command 2 (Settings :02)</th> <th>Multi-speed command 3 (Settings :03)</th> <th>Multi-speed command 4 (Settings :04)</th> </tr> </thead> <tbody> <tr> <td>Frequency command Select (n2.00)</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> </tr> <tr> <td>Frequency Command 1</td> <td>○</td> <td>X</td> <td>X</td> <td>X</td> </tr> <tr> <td>Frequency Command 2</td> <td>X</td> <td>○</td> <td>X</td> <td>X</td> </tr> <tr> <td>Frequency Command 3</td> <td>○</td> <td>○</td> <td>X</td> <td>X</td> </tr> <tr> <td>Frequency Command 4</td> <td>X</td> <td>X</td> <td>○</td> <td>X</td> </tr> <tr> <td>Frequency Command 5</td> <td>○</td> <td>X</td> <td>○</td> <td>X</td> </tr> <tr> <td>Frequency Command 6</td> <td>X</td> <td>○</td> <td>○</td> <td>X</td> </tr> <tr> <td>Frequency Command 7</td> <td>○</td> <td>○</td> <td>○</td> <td>X</td> </tr> </tbody> </table>	Frequency command	Multi-speed command 1 (Settings :01)	Multi-speed command 2 (Settings :02)	Multi-speed command 3 (Settings :03)	Multi-speed command 4 (Settings :04)	Frequency command Select (n2.00)	X	X	X	X	Frequency Command 1	○	X	X	X	Frequency Command 2	X	○	X	X	Frequency Command 3	○	○	X	X	Frequency Command 4	X	X	○	X	Frequency Command 5	○	X	○	X	Frequency Command 6	X	○	○	X	Frequency Command 7	○	○	○	X			
Frequency command	Multi-speed command 1 (Settings :01)	Multi-speed command 2 (Settings :02)	Multi-speed command 3 (Settings :03)	Multi-speed command 4 (Settings :04)																																														
Frequency command Select (n2.00)	X	X	X	X																																														
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Frequency Command 2	X	○	X	X																																														
Frequency Command 3	○	○	X	X																																														
Frequency Command 4	X	X	○	X																																														
Frequency Command 5	○	X	○	X																																														
Frequency Command 6	X	○	○	X																																														
Frequency Command 7	○	○	○	X																																														
		※ ○ represents the input state (a contact ON), X indicates no input state (a contact is OFF).																																																

Parameter list

n6: Protection function settings

Parameter No.	Name	Explanation	Setting range	Setting unit	Factory setting	Operational Changes
n6.00	Deceleration cut out Preventing action level	<p>※ Deceleration in order to prevent the occurrence of over-voltage (OV). Set the automatic change to deceleration time level.</p> <p>In the main circuit DC power supply voltage value set. Usually do not need to change the settings</p> <p>※ If deceleration freeze prevention function is used when over voltage (OV) is detected, please reduce the value When set value is set too low, it will not be able to decelerate ,please note that stop time becomes very long.</p>	0.0, 330.0~410.0(0.0, 660.0~820.0) ※2	0.1V	390.0 (780.0) ※2	x
n6.01	Accelerated cut out prevention operation level	<p>Acceleration, in order to not enter the cut out state, set stops automatically to accelerated functions action level .Rated Output current as 100%,with % of units set.</p> <p>※ Set "0.0" time, cut out prevention function is invalid</p>	0,20~250	1%	170	x
n6.02	Cut out prevention action level	<p>Operation in order not to enter the cut out state, set stops automatically to accelerated functions action level. Rated Output current as 100%,with % of units set.</p> <p>※ Set "0.0" time,cut out prevention function is invalid.</p>	0,20~250	1%	170	x
n6.03	Overtorque detection function selection	<p>Select effective torque detection / invalid when detected after the process.</p> <p>0:Overtorque detection is invalid</p> <p>1:Only in speed-cause when detected/continue to operate after detection (Detection warning)</p> <p>2:Only in speed-cause when detected/detection of Blocked output (Abnormalities detected)</p> <p>3:Operation frequently detected/continue to operate after detection</p> <p>4:Operation often detected/detection of Blocked output (Abnormalities detected)</p> <p>※ Beyond overtorque detection level (n6.04) status beyond the overtorque detection time (n6.05) - for some time will continuously be detected</p> <p>※ Detected overtorque, in case of anomaly "AOL2",Inverter will continue.</p> <p>※ In the multi-function output (n3.00) Set "04 (overtorque detection in)" then, be able to outwardly put the department of output.</p>	0~4	1	0	x
n6.04	Overtorque detection level	Set Overtorque detection level. Set the inverter's rated output current as 100%,set % unit setting.	10~200	1%	150	□
n6.05	Overtorque detection time	Set overtorque detection time.	0.1~60.0	0.1s	0.1	x
n6.06	Motor protection function selection	<p>Set the appropriate connection of motor overload protection features (electronic thermal characteristics).</p> <p>0:Corresponding generic induction motor protection action</p> <p>1:Corresponding inverter dedicated motor protection action</p> <p>2:Motor overload protection function is invalid</p> <p>※ In order to make the electronic thermal function correctly detect motor overload (OL1).Please be sure to set the electrical machines rated current (n7.00).</p> <p>※ When 1 inverter is connected to number of motors, set "2".</p>	0~2	1	0	x

Parameter list

Parameter No.	Name	Explanation	Setting range	Setting unit	Factory setting	Operational Changes																																																												
n6.07	Motor Overload Protection Time	Motor overload detection (OL1) of Electronic thermal protection parameters in seconds as a unit. Factory settings to 1 minute 150% resistance amount. ※ Usually no need to change the settings.	30~600	1s	60	x																																																												
n6.08	Abnormal History (1times over)	Up to the memory of the inverter 2 abnormal historical records. Request in the analysis of abnormal causes. When to use. Abnormal historical records memories of the following numbers.	-	1	0	x																																																												
n6.09	Abnormal History (2 times before)	<table border="1"> <thead> <tr> <th>No</th> <th>Feature name</th> </tr> </thead> <tbody> <tr><td>0</td><td>(No abnormal)</td></tr> <tr><td>1</td><td>Overcurrent (rigid detection) "oc"</td></tr> <tr><td>2</td><td>Overvoltage "ov"</td></tr> <tr><td>3</td><td>Heat sink overheating "oH1"</td></tr> <tr><td>4</td><td>Power supply board overheating "oH2"</td></tr> <tr><td>5</td><td>Inverter overload "oL"</td></tr> <tr><td>6</td><td>Motor overload "oL1"</td></tr> <tr><td>7</td><td>Overtorque Detection "oL2"</td></tr> <tr><td>8</td><td>External fault "EF"</td></tr> <tr><td>9</td><td>Acceleration current exceeds "ocA"</td></tr> <tr><td>10</td><td>Deceleration in the current exceeds "ocd"</td></tr> <tr><td>11</td><td>Steady state current exceeds "ocn"</td></tr> <tr><td>12</td><td>Ground "GFF"</td></tr> <tr><td>13</td><td>Main circuit low voltage "Lv" ※No record</td></tr> <tr><td>14</td><td>Input power phase "PHL"</td></tr> <tr><td>15</td><td>External base block "bb" ※ No record</td></tr> <tr><td>18</td><td>EEPROM write exception "cF1.0"</td></tr> <tr><td>19</td><td>EEPROM read exception "cF2.0"</td></tr> <tr><td>20</td><td>Power limit circuit anomaly "HPF1"</td></tr> <tr><td>21</td><td>Over-voltage detection circuit anomaly "HPF2"</td></tr> <tr><td>22</td><td>Ground short circuit detection circuit anomaly "HPF3"</td></tr> <tr><td>23</td><td>Over current detection circuit exception "HPF4"</td></tr> <tr><td>24</td><td>U-phase circuit anomaly "cF3.0"</td></tr> <tr><td>25</td><td>V-phase circuit anomaly "cF3.1"</td></tr> <tr><td>26</td><td>W phase circuit anomaly "cF3.2"</td></tr> <tr><td>27</td><td>Abnormal voltage control loop "cF3.3"</td></tr> <tr><td>28</td><td>Abnormal voltage control loop "cF3.3"</td></tr> <tr><td>29</td><td>Abnormal temperature detector "cF3.5"</td></tr> <tr><td>32</td><td>Abnormal frequency command input signal "AErr"</td></tr> </tbody> </table>	No	Feature name	0	(No abnormal)	1	Overcurrent (rigid detection) "oc"	2	Overvoltage "ov"	3	Heat sink overheating "oH1"	4	Power supply board overheating "oH2"	5	Inverter overload "oL"	6	Motor overload "oL1"	7	Overtorque Detection "oL2"	8	External fault "EF"	9	Acceleration current exceeds "ocA"	10	Deceleration in the current exceeds "ocd"	11	Steady state current exceeds "ocn"	12	Ground "GFF"	13	Main circuit low voltage "Lv" ※No record	14	Input power phase "PHL"	15	External base block "bb" ※ No record	18	EEPROM write exception "cF1.0"	19	EEPROM read exception "cF2.0"	20	Power limit circuit anomaly "HPF1"	21	Over-voltage detection circuit anomaly "HPF2"	22	Ground short circuit detection circuit anomaly "HPF3"	23	Over current detection circuit exception "HPF4"	24	U-phase circuit anomaly "cF3.0"	25	V-phase circuit anomaly "cF3.1"	26	W phase circuit anomaly "cF3.2"	27	Abnormal voltage control loop "cF3.3"	28	Abnormal voltage control loop "cF3.3"	29	Abnormal temperature detector "cF3.5"	32	Abnormal frequency command input signal "AErr"	-	1	0	x
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※13:Main circuit low voltage "LV" and 15: External base block "bb" is not written as abnormal historical record.

※2. () To display the value setting range and factory set of the 400VAC-type inverter.

Parameter list

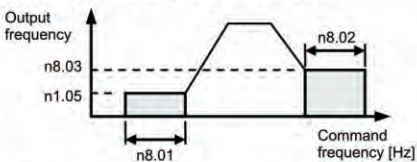
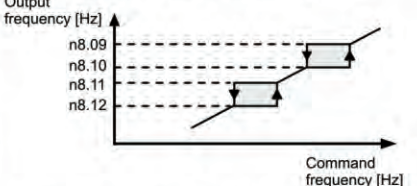
n7: Motor parameter settings

Parameter No.	Description	Explanation	Setting range	Setting unit	Factory setting	Operational Changes
n7.00	Motor rated current	Motor rated current A unit set. Rated motor current in the motor overload detection (OL1) standard current or vector control calculations. Be sure to set such parameters as and when you use	※4	0.1A	※5	□
n7.01	Motor load current	Motor load current A unit set.	※6	0.1A	※7	□
n7.02	Torque compensation gain	Please set the gain of the torque compensation function ※ usually you do not have to change the factory setting. When the torque is insufficient, please increase the set value. ※ When the motor is connected in a station on the drive in order to increase excess current. set "0.0"Invalid.	0.0~10.0	0.1	1.0	□
n7.03	Slip compensation gain	Set slip compensation gain; slip compensation function must be set to motor rated current (n7.00) Motor load current (n7.01). ※ This function is disabled when setting is "0.0".	0.0~10.0	0.1	1.0	□

- ※ 4. Range will vary according to the inverter capacity applicable, in the range of about 30 to 120% of the rated output current
- ※ 5. The factory setting vary depending on the applicable inverter capacity, for about 75% of the rated output current set.
- ※ 6. The setting range varies, according to the inverter capacity applicable, in the range of about 0 to 99% of the rated output current.
- ※ 7. Factory settings vary according to the inverter capacity applicable, about 40% of the rated output current setting.

Parameter list

n8: Motor parameter settings

Parameter No.	Description	Explanation	Setting range	Setting unit	Factory setting	Operational Changes
n8.00	DC braking current	Induction motor additional DC current, Brake motor function, DC braking current: Inverter rated output current as 100% and % of units set.	0~100	1%	50	x
n8.01	DC braking start	 <p>※ Starting DC brake minimum output frequency (n1.0) switched ※ Want to stop large inertial load or hope of deceleration without restarting fan.</p>	0.0~60.0	0.1s	0.0	x
n8.02	DC braking stop		0.0~60.0	0.1s	0.5	x
n8.03	DC braking start frequency		0.0~600.0	0.1Hz	0.00	x
n8.04	Instantaneous stop recovery operation selection		Select processing method when momentary power failure occurs. 0: Do not continue to operate. 1: Continue to operate (frequency command to issue search speed restart) 2: Continue to operate (press minimum output frequency to issue search speed restart) ※ Continue to operate constant momentary power failure compensation time (n8.05) to set the time.	0~2	1	0
n8.05	Momentary power failure compensation time	After a momentary power failure continue to operate approach setting. Please set maximum continue time. ※ In the event of a momentary power failure exceeds a set time, use detection "LV" anomaly. ※ Setting time is too long, Inverter internal power supply is completely reduced, it does not search speed and becomes ordinary starter.	0.1~5	0.15	2.0	x
n8.09	Jump frequency 1 upper limit	 <p>※ Be sure to set $n8.09 \geq n8.10 \geq n8.11 \geq n8.12$ ※ Setting 0.00 invalid</p>	0.00~600.0	0.01Hz	0.00	x
n8.10	Jump frequency 1 lower limit		0.00~600.0	0.01Hz	0.00	x
n8.11	Jump frequency 2 upper limit		0.00~600.0	0.01Hz	0.00	x
n8.12	Jump frequency 2 lower limit		0.00~600.0	0.01Hz	0.00	x
n8.15	Abnormal retry count	Overvoltage (OV), Over-current (OC), This feature is automatically reset by starting again. Please set the maximum number of restart. ※ Restart frequency command issues search speed starting	0~10	1	0	x
n8.17	Energy saving control selection	Set energy-saving control valid / invalid 0: Invalid 1: Valid ※ Through means of Motor power state automatically controlled, Controlled Load movements should be powered	0,1	1	0	x

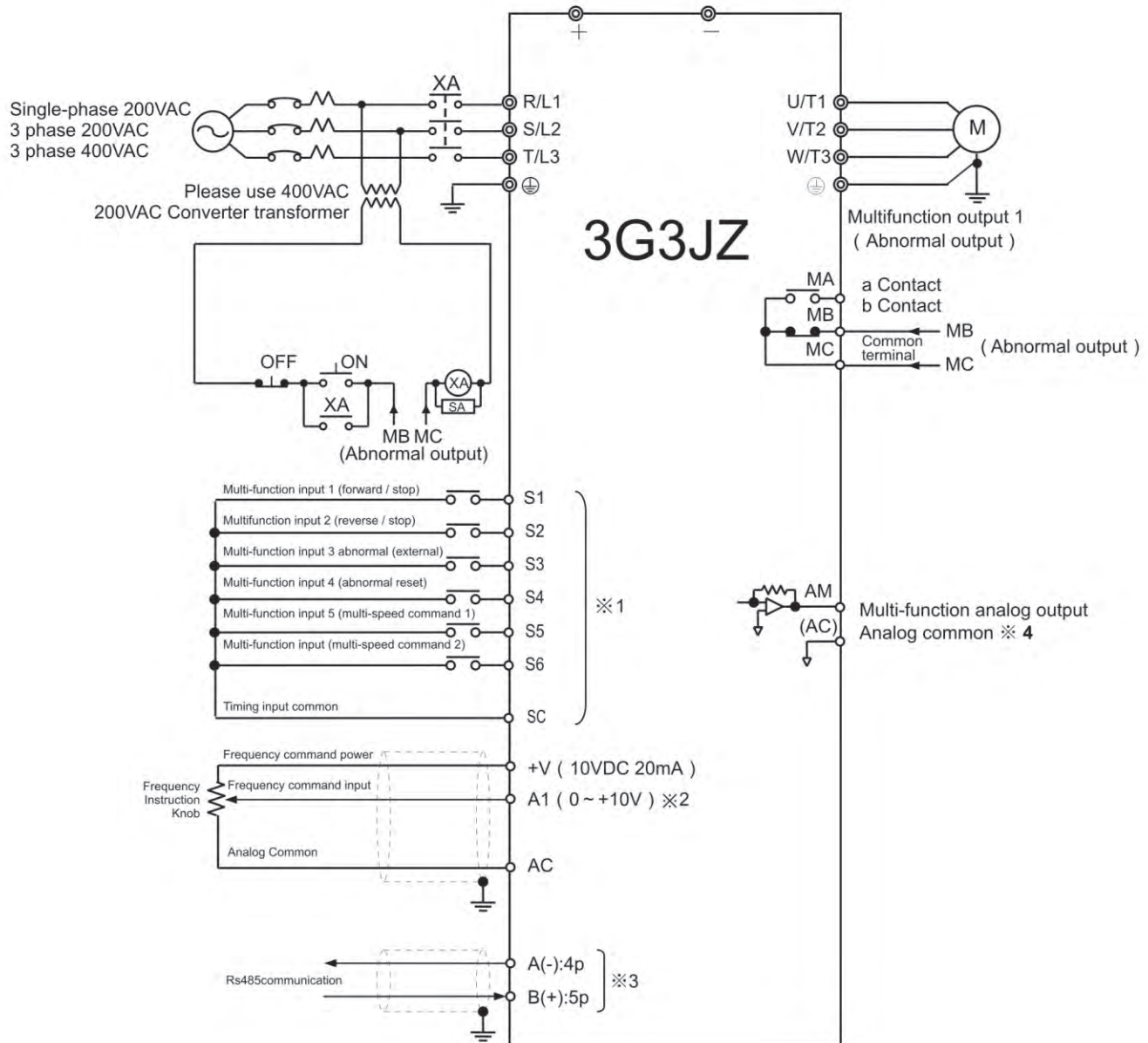
Parameter list

n9: R S485 Communication settings

Parameter No.	Description	Explanation	Setting range	Setting unit	Factory setting	Operational Changes
n9.00	RS485 Communication from the station address	Set communication from the station address (Sub Bureau No.) ※ Set 0:00 RS485 communication is invalid.	0~254	1	0	x
n9.01	RS485 Communication baud rate selection	Set the communication baud rate (communication speed). 0:4800 bps 1:9600 bps 2:19200 bps 3:38400 bps	0~3	1	1	x
n9.02	RS485 Communication error detection while selecting an operation	Select a communication error (CE □) detected action. 0:Displays a warning continue to operate 1:Display warning deceleration stop 2:Display warning freedom to gradually stop 3:Continue to operate (no warning)	0~3	1	2	x
n9.04	RS485 Communication waiting time	Set from the main station (GSS) after receipt of the request signal, back to waiting response time. Please set as 1 to 2ms	0.0~200	1(2ms)	0	x
n9.05	RS485 Communication detection time	Sets the communication timeout Detection Time. With the communication procedures set timeout detection time. ※ Setting 0.0 Communication timeout detected invalid.	0.0~120.0	0.1s	1.0	x

Standard wiring diagram and terminals Description

Standard connection



※ 1. NPN display for the initial set of control circuit terminal wiring. Available via timing input method, switch SW is set to change as the PNP input.


※ 2. Frequency command input A1 initial voltage input. By analog input selection switch SW the setting of the flow of the current can be entered.

※ 3. RS485 wiring with standard Ethernet connector wiring.

※ 4. Analog input and analog output common analog common terminal. Analog output carrier frequency 1KHz PWM waveform Can be directly connected with the analog input.

Standard wiring diagram and terminals Description

Standard Specifications 200V Level inverter

Terminal Symbol	Name	Content
R/L1	Power input terminal ※ 1	• 3G3JZ-AB□ : Single-phase 200 ~ 240VAC
S/L2		• 3G3JZ-A2□ : 3 Phase 200 ~ 240VAC ※1
T/L3		• 3G3JZ-A4□ : 3 Phase 380 ~ 480VAC
U/T1	Motor output terminals ※ 2	3-phase power supply output for driving motors ※ 2
V/T2		• 3G3JZ-AB□ : 3 Phase 200 ~ 240VAC
W/T3		• 3G3JZ-A2□ : Single-phase 200 ~ 240VAC
		• 3G3JZ-A3□ : 3 Phase 380 ~ 480VAC
+	DC power input terminal ※ 3	DC power input terminal
-		
	Ground terminal	Following must be grounded: • 3G3JZ-AB□ : 3G3JZ-A2□ : Class 3 grounding (grounding resistance of less than 100W) • 3G3JZ-A4□ : Special Class 3 grounding (grounding resistance of less than 10W) ※ motor cabinet ground direct wiring.

※ 1. Single-phase input connected to the two terminals R/L1, S/L2.

※ 2. Output side of the maximum voltage corresponding to the inverter input power voltage.

Control circuit terminal description

Terminal Symbol	Name	Content
Input	S1	Multi-function input 1 (forward / stop)
	S2	Multi-function input 2 (reverse / stop)
	S3	Multi-function input 3 (external fault)
	S4	Multi-function input 4 (abnormal reset)
	S5	Multi-function input 5 (multi-speed command 1)
	S6	Multi-function input (multi-speed command 2)
	SC	Timing input common
	SP	Timing power supply +24 V
	AC	Analog Common
	A1	Frequency command input
+V	Frequency command power	
Output	MA	Multifunction output 1a normally open contact
	MB	Multifunction output 1b normally closed contact
	MC	Multifunction output 1 common terminal
	AM	Multi-function analog output
	(AC)	Analog common ※ 3

※ 1. Multifunction input 1 to 6, multifunction output 1 can choose a variety of functions by setting parameters. Function described in a box () is the function set in factory

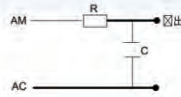
※ 2. Frequency command input, Multifunctional analog output can be done by setting parameters to change the function and adjust the input / output of the voltage (current) specifications. Has documented the specifications set in the factory specifications.

※ 3. Analog input and analog output common analog common terminal.

※ 4. 3G3JZ analog output carrier frequency 1KHz PWM wave form. Directly with the analog input connection. To use the oscilloscope to observe the waveform, you require to add filters. Circuit as follows, wherein R = 100KW, C = 0.1mF.

Standard wiring diagram and terminals Description

Control circuit terminal description



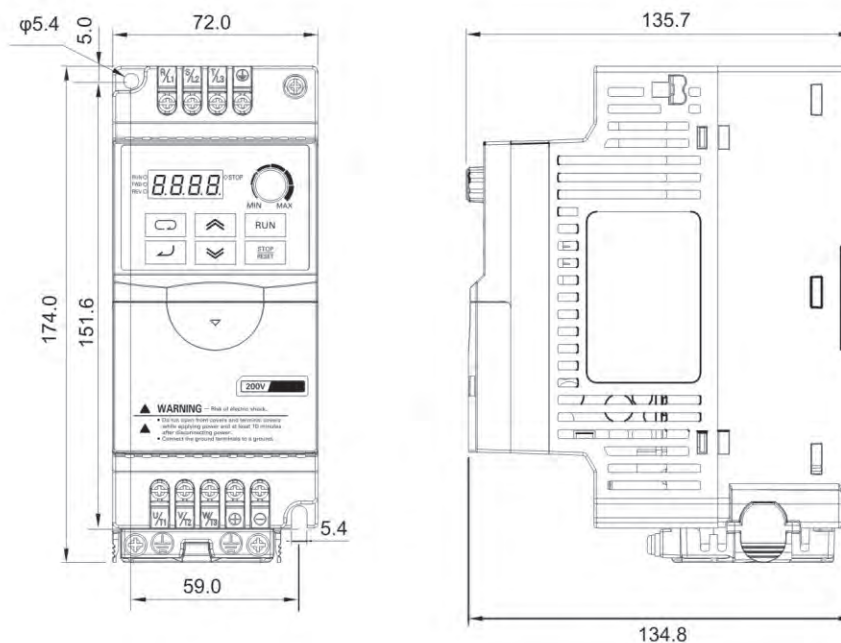
Name		Content		
Connector plug foot	1	-	(Unused)	-
	2	+5V	Options with 5VDC Power supply	Optional Power supply, when to use connectivity options. Do not use outside option supply.
	3	SG	Options with GND	
	4	A(-)	RS485 Communications transceiver data -	Rs485 Communication transceiver signal.
	5	B(+)	RS485 Communications transceiver data +	※Basis of MODBUS Protocol
	6	-	(Unused)	-
	7	-	(Unused)	-
	8	-	(Unused)	-

※ Use connector - Ethernet connector. Please buy nearby Ethernet cable.

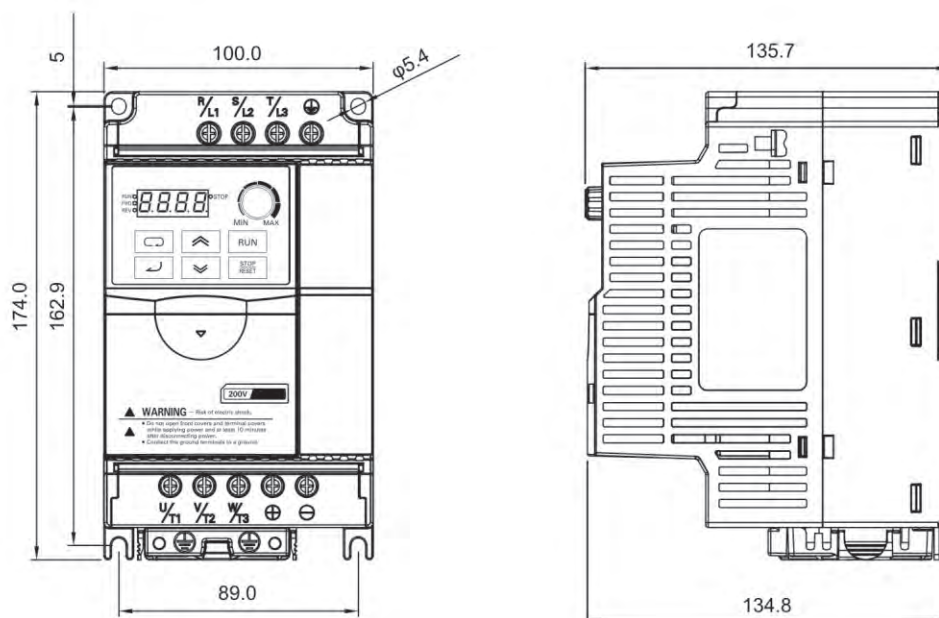
Mounting dimensions

3G3JZ-AB002 ~ AB007 (0.2 ~ 0.75kW) Single- phase AC 200V
 3G3JZ-A2002 ~ A2015 (0.2 ~ 1.5kW) 3Phase AC 200V
 3G3JZ-A4004 ~ A4015 (0.4 ~ 1.5kW) 3Phase AC400V

Unit : mm



3G3JZ-AB015 ~ AB022 (1.5 ~ 2.2kW) Single-phase AC 200V
 3G3JZ-A2022 ~ A2037 (2.2 ~ 3.7kW) 3 Phase AC 200V
 3G3JZ-A4022 ~ A4037 (2.2 ~ 3.7kW) 3 Phase AC 400V



Specification

Standard Specifications 200V Level inverter

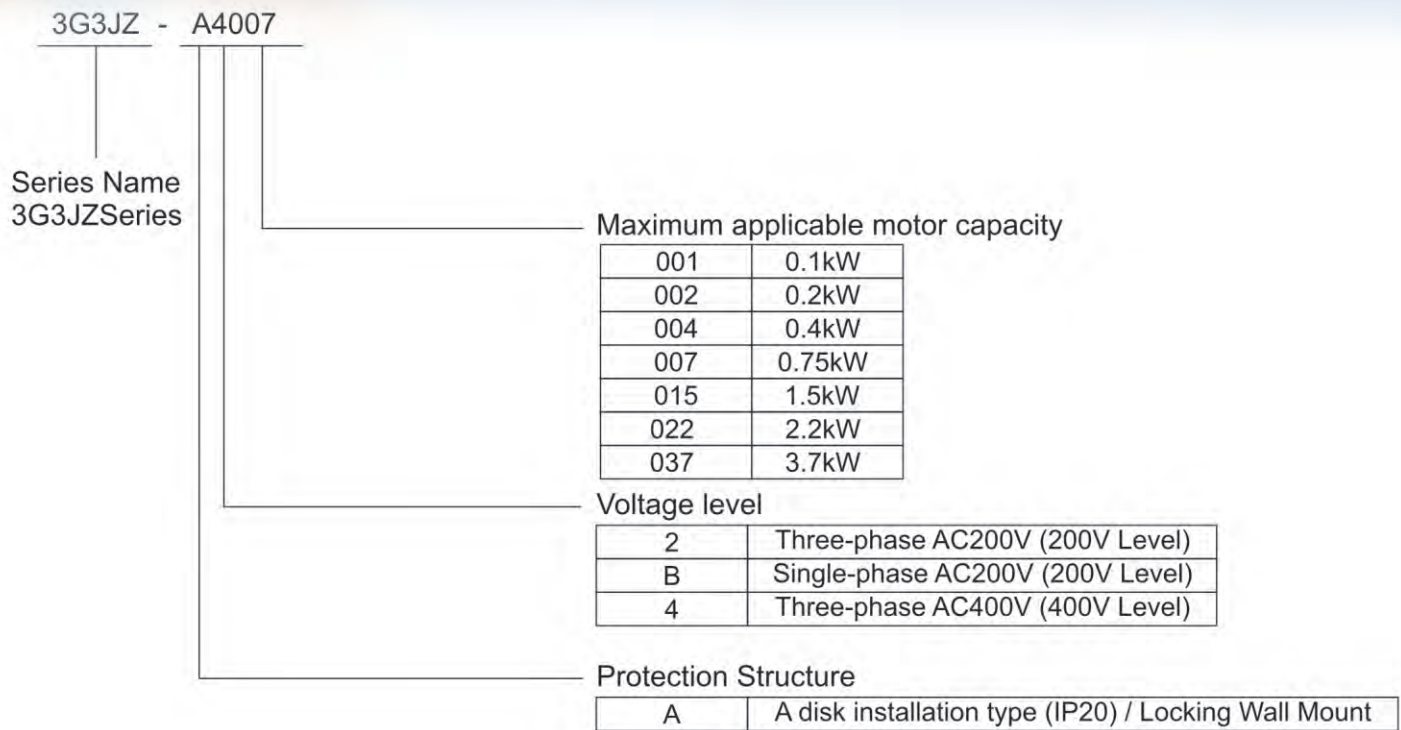
Single-phase 200V	3G3JZ-AB		002	004	007	015	022
	The maximum applicable motor power (KW)		0.2	0.4	0.75	1.5	2.2
	Output	Rated output capacity (KVA)	0.6	1.0	1.6	2.9	4.2
		Rated output current (A)	1.6	2.5	4.2	7.5	11.0
		Maximum output voltage (V)	Three-phase 200 ~ 240VAC (Corresponding input voltage)				
		Output Frequency Range (Hz)	0.1 ~ 600 Hz				
		Carrier frequency (kHz)	2~15				
	Power supply	Input current (A)	4.9	6.5	9.7	15.7	24
		Rated voltage, frequency	Single-phase power 200~240V, 50/60Hz				
		Allowable changes in input voltage range	±10%				
		Frequency Tolerance	±5%				
	Cooling method		Natural air cooled			Forced cooling	
Weight (kg)		1.1	1.1	1.1	1.9	1.9	

Three-phase 200V	3G3JZ-A2		002	004	007	015	022	037
	The maximum applicable motor power (KW)		0.2	0.4	0.75	1.5	2.2	3.7
	Output	Rated output capacity (KVA)	0.6	1.0	1.6	2.9	4.2	6.5
		Rated output current (A)	1.6	2.5	4.2	7.5	11.0	17
		Maximum output voltage (V)	Three-phase 200 ~ 240VAC (Corresponding input voltage)					
		Output Frequency Range (Hz)	0.1 ~ 600 Hz					
		Carrier frequency (kHz)	2~15					
	Power supply	Input current (A)	1.9	2.7	5.1	9	15	20.6
		Rated voltage, frequency	Three-phase power 200~240V, 50/60Hz					
		Allowable changes in input voltage range	±10%					
		Frequency Tolerance	±5%					
	Cooling method		Natural air cooled			Forced cooling		
Weight (kg)		1.1	1.1	1.1	1.2	1.9	1.9	

400V Level inverter

Single-phase 400V	3G3JZ-A4		004	007	015	022	037
	The maximum applicable motor power (KW)		0.4	0.75	1.5	2.2	3.7
	Output	Rated output capacity (KVA)	1.2	2.0	3.3	4.4	6.8
		Rated output current (A)	1.5	2.5	4.2	5.5	8.2
		Maximum output voltage (V)	Three-phase 380~480VAC (Corresponding input voltage)				
		Output Frequency Range (Hz)	0.1 ~ 600 Hz				
		Carrier frequency (kHz)	2~15				
	Power supply	Input current (A)	1.9	3.2	4.3	7.1	11.2
		Rated voltage, frequency	Three-phase power 380~480V, 50/60Hz				
		Allowable changes in input voltage range	±10%				
		Frequency Tolerance	±5%				
	Cooling method		Natural air cooled			Forced cooling	
Weight (kg)		1.2	1.2	1.2	1.9	1.9	

Selection Ordering information



Rated voltage	Protection Structure	Maximum applicable motor capacity	Type	Rated Output Current
Single-phase 200VAC	Tray installation type (IP20)	0.2kW	3G3JZ-AB002	1.6A
		0.4kW	3G3JZ-AB004	2.5A
		0.75kW	3G3JZ-AB007	4.2A
		1.5kW	3G3JZ-AB015	7.5A
		2.2kW	3G3JZ-AB022	11.0A
Three-phase 200VAC	Tray installation type (IP20)	0.2kW	3G3JZ-A2002	1.6A
		0.4kW	3G3JZ-A2004	2.5A
		0.75kW	3G3JZ-A2007	4.2A
		1.5kW	3G3JZ-A2015	7.5A
		2.2kW	3G3JZ-A2022	11.0A
		3.7kW	3G3JZ-A2037	17A
Three-phase 400VAC	Tray installation type (IP20)	0.4kW	3G3JZ-A4004	1.5A
		0.75kW	3G3JZ-A4007	2.5A
		1.5kW	3G3JZ-A4015	4.2A
		2.2kW	3G3JZ-A4022	5.5A
		3.7kW	3G3JZ-A4037	8.2A



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