N100

Features

High Starting Torque - Powerful Operation

- High starting torque of 150% at 0.5Hz
- Stable operation within the frequency range

Open Network Communication to Upper Controller

- Built-in RS-485 communication interface using modus protocol
- The optional built-in communication interface(Profibus, DeviceNet)

Safe Operation

- Minimize interference in other equipment through low noise design
- Reinforced protective functions with application of high efficient power device

Compact Size and Easy Installation

- User-friendly protrusion operator
- Direct frequency operation through the volume on the standard digital operator
- Space efficiency by making the height of all models 130mm

Versatile Functions

- Various monitoring and convenient cord grouping
- Various functions (auto-tuning, control of 2nd motor)
- PID control function, restart and operation during sudden power failure
- Up to 16 set speeds, speed can be changed during operation

High Torque Multi-motor Operation

- Powerful operation is possible for two motors using sensorless vector control

Conformity to Global Standards

- CE marked for Europe

Specifications

200V Class

Item(N100)				004 SF	007 SF	015 SF	004 LF	007 LF	015 LF	022 LF	037 LF
Output	Applicable Motor Capacity(kW)			0.4	0.75	1.5	0.4	0.75	1.5	2.2	3.7
	Rated Output Current (A)			3	5	7	3	5	7	11	17
	Rated Output Capacity (kVA)			1.1	1.9	3	1.1	1.9	3	4.2	6.1
	Rated Output Voltage (V)			3-phase, 200~230V(±10%)							
	Maximum Output Frequency (Hz)			400Hz							
Protective Structure				IP20							
Cooling Method				Self cooling		Forced cooling		Self cooling		Forced cooling	
Control Characteristic	Control System			Space vector PWM control							
	Torque Control			V/F control, sensorless vector control							
	Output Frequency Range			0.01~400Hz							
	Frequency Setting Resolution		Analog	Max. setting frequency/500 (DC 5V input), Max. setting frequency/1000 (DC 10V,4~20mA input)							
			Digital	0.01Hz (100Hz less), 0.1Hz (100Hz or more)							
	Frequency Precision		Analog	Within 0.1% of output frequency							
			Digital	Within 0.01% of maximum output frequency							
	Voltage/Frequency Characteristic			Any base frequency setting possible between 0 Hz and 400 Hz, constant torque or reduced torque pattern selection possible							
	Overload Rating			150% of rated current for 60 sec.							
	Starting Torque			More than 200% (at 0.5Hz)							
	Torque Boost			Manual torque boost can be set between 0~50%							
	Acceleration/Deceleration Time Setting			0.1~3000 sec. setting possible							
	Acceleration/Deceleration Pattern			Linear, S-curve, U-curve selection possible							
	Braking Torque		Regenerative	150%(5 sec.)							
			DC Braking	Operating frequency(0~120Hz), operating time(0~10 sec.), operating voltage(0~30%) variable External DC braking setting possible							
	Current stall Prevention Operation Level			Operation current level setting possible(0~200% variable), enable/disable selection							
	Voltage Stall Prevention Operation Level			Operation level constant, enable/disable selection							
	Input Signals	Frequency Setting	Analog	0 to 5V DC, 0 to 10V DC, 4 to 20mA, External variable resistor(1~2kΩ, 1W), main unit volume resistor input from control panel							
			Digital	Control panel							
		Starting Signal		Individual selection of forward or reverse run							
		Abnormality Reset		Used to reset protective state provided when protective function is activated							
		Multispeed Selection		Up to 16 set speeds (each speed can be set between 0Hz and 400Hz), speed can be changed during operation							
		2nd Function Selection		Acceleration/deceleration time, base frequency, maximum frequency, multistage frequency, torque boost, electronic thermal, control method, motor parameter							
		Output Stop		Instant cutoff of inverter output (frequency/voltage)							
		Current Input Selection		Input selection of frequency setting current signal							
		Self-protection Function at Starting		Self-protection selection of start signal							
		External Trip Contact Input		Contact input for when stopping the inverter with external terminal							
		External Thermal Input		Thermal contact input for when stopping inverter with externally mounted thermal relay							

		Operation Mode Selection	Control panel or external operation transition selection possible
		Voltage/Frequency Characteristic	V/F control or sensorless vector control method selection possible
	Operation Functions		Multispeed operation, operation mode selection, DC braking, upper/lower frequency setting, frequency jump operation, PID control, AVR, 2-stage accel./decel., instantaneous power failure restart operation, electronic thermal, software lock, carrier frequency adjustment, auto tuning function, forward/reverse run prevention, RS485 link operation
	Output Signals	Operation Status	Inverter running, frequency reached, frequency detection, overload warning fault
		For Meter	Output frequency, output current, output voltage
Display Function	Displayed on Control Panel	Operation Status	Output frequency, output current, output voltage, operation direction, PID feedback, terminal input, terminal output
		Error Details	Fault list, fault history
Protective and Warning Functions			Overcurrent cutoff, regenerative overvoltage cutoff, undervoltage, output short circuit, temperature abnormality, overload cutoff (electronic thermal), ground fault protection
Environment	Ambient Temperature /Storage Temperature		-10℃~50℃ (no freezing) / -20℃~60℃
	Ambient Humidity / Installation Area		90%RH or less(no condensing) / Indoors (no corrosive gases, no flammable gases, no oil mist and no dust)
	Altitude and Vibration		Maximum 1000m or less above sea level, 5.9㎨ or less
Operator			Standard operator built-in control board, optional remote operator
Misc.	International Directive Compliance		UL/CE directive compliance (to be scheduled)

400V Class

Item(N100)			004HF	007HF	015HF	022HF	037HF
Output	Applicable Motor Capacity (kW)		0.4	0.75	1.5	2.2	3.7
	Rated Output Capacity (kVA)		1.8	3.4	4.8	7.2	9.2
	Rated Output Current (A)		1.1	1.9	3	4.2	6.1
	Rated Output Voltage (V)		3-phase, 380~460V(±10%)				
	Maximum Output Frequency (Hz)		400Hz				
Protective Structure			IP20				
Cooling Method			Self cooling Forced cooling				
Control Characteristic	Control System		Space vector PWM control				
	Torque Control		V/F control, sensorless vector control				
	Output Frequency Range		0.01~400Hz				
	Frequency Setting Resolution	Analog	Max. setting frequency/500 (DC 5V input), Max. setting frequency/1000 (DC 10V,4~20mA input)				
		Digital	0.01Hz (100Hz less), 0.1Hz (100Hz or more)				
	Frequency Precision	Analog	Within 0.1% of output frequency				
		Digital	Within 0.01% of maximum output frequency				
	Voltage/Frequency Characteristic		Any base frequency setting possible between 0 Hz and 400 Hz, constant torque or reduced torque pattern selection possible				
	Overload Rating		150% or rated current for 60 sec.				
	Starting Torque		More than 200% (at 0.5Hz)				
	Torque Boost		Manual torque boost can be set between 0~50%				
	Acceleration/Deceleration Time Setting		0.1~3000 sec. Setting possible				
	Accleration/Deceleration Pattern		Linear, S-curve, U-curve selection possible				
	Braking Torque	Regenerative	150% (5 sec.)				
		DC Braking	Operating frequency(0~120Hz), Operating time(0~10 sec.), operating voltage(0~30%) variable				
	Current Stall Prevention Operation Level		Operation current level setting possible(0~200% variable), enable/disable selection				
	Voltage Stall Prevention Operation Level		Operation level constant, enable/disable selection				
	Input Signal Frequency Setting	Analog	0 to 5VDC, 0 to 10VDC, 4 to 20mA, External variable resistor(1~2kΩ, 1W), main unit volume resistor input from control panel				

		Digital	Control panel
		Starting Signal	Individual selection of forward or reverse run
		Abnormality Reset	Used to reset protective state provided when protective function is activated
		Multispeed Selection	Up to 16 set speeds (each speed can be set between 0Hz and 400Hz), speed can be changed during operation
		2nd Function Selection	Acceleration/deceleration time, base frequency, maximum frequency, multistage frequency, torque boost, electronic thermal, control method, motor parameter
		Output Stop	Instant cutoff of inverter output (frequency/voltage)
		Current Input Selection	Input selection of frequency setting current signal
		Self-protection Functional at Starting	Self-protection selection of start signal
		External Trip Contact Input	Contact input for when stopping the inverter with external terminal
		Eternal Thermal Input	Thermal contact input for when stopping inverter with externally mounted thermal relay
		Operation Mode Selection	Control panel or external operation transition selection possible
		Voltage/Frequency Characteristic	V/F control or sensorless vector control method selection possible
	Operation Functions		Multispeed operation, operation mode selection, DC braking, upper/lower frequency setting, frequency jump operation, PID control AVR, 2-stage accel./decel., instantaneous power failure restart operation, electronic thermal, software lock, carrier frequency adjustment, auto tuning function, forward/reverse run prevention, RS485 link operation
	Output Signals	Operation Status	Inverter running, frequency reached, frequency detection, overload warning fault
		For Meter	Output frequency, output current, output voltage
Display Function	Displayed on Control Panel	Operation Status	Output frequency, output current, output voltage, operation direction, PID feedback, terminal input, terminal output, transition frequency monitor, power consumption, operating time accumulation
		Error Details	Fault list, fault history
Protective and Warning Functions			Overcurrent cutoff, regenerative overvoltage cutoff, undervoltage, output short circuit, temperature abnormality, overload cutoff (electronic thermal), ground fault protection External trip, communication error, USP error, EEPROM error
Environment	Ambient Temperature / Storage Temperature		-10℃~50℃ (no freezing) / -20℃~60℃
	Ambient Humidity / Installation Area		90%RH or less(no condensing) / Indoors (no corrosive gases, no flammable gases, no oil mist and no dust)
	Altitude and Vibration		Maximum 1000m or less above sea level, 5.9㎨ or less
Operator			Standard operator built-in control board, optional remote operator
Misc.	International Directive Compliance		UL/CE directive compliance (to be scheduled)

Return to Inverters

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