

# Sinus N AC Drive



## Standard Features

- 200-230 Vac single phase power supply
- Power range 0,4~3Kw
- 2 Control modes: V/F and Sensorless Vector Control
- Built-in potentiometer
- Start/ stop keypads
- Enclosure IP20
- Overload capacity 150% per 1 min. 200% for 0,5 sec.
- Maximum output frequency 400Hz
- Motor auto-tuning for optimum performance
- Anti-Stalling and antitrip algorithm
- Adjustable carrier 1-15kHz
- Automatic and manual torque boost
- JOG function
- Speed search
- PID function
- 'S' ramps
- 8 speed sets
- 3 frequency jumps (skip)
- 5 NPN PNP Programmable digital inputs
- 2 analog inputs 0-10Vdc and 4-20mA
- 1 multi-function open collector output
- 1 multi-function relay output
- 1 analog multi-function output 0-10Vdc

## Full digital

- 200 - 230 Vac single phase  
Power range 0,4 - 3kW
- Full compatibility with teleservice software,  
"Remote Drive" on Internet.



## Optionals

- Output ferritering filters
- Relay for open collector output
- "Remote Drive" software
- Converter for MODBUS/Profibus DP-CanBus-Device Net etc.
- RS 485/232 converter
- EMC INPUT FILTERS EN 61800-3 2nd edition FIRST ENVIRONMENT

## Applications

- Fan
- Pumps
- Food processing machines
- Dryers
- Washing machines
- Grinders
- Textile machines
- Machines for handling materials
- Centrifuges
- Doors for elevators
- Tooling machinery



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## Power Ratings

Mod.: SINUS N	2S X_K2	0001	002	0003	0005
Max motor capacity	[HP]	0.5	1.5	2.5	4
	[kW]	0.4	1.1	1.8	3.0
Output ratings	Capacity [kVA]	0.95	1.9	3.0	4.5
	FLA [A]	2.5	5	8	12
	Frequency	0 ~ 400 [Hz]			
Input ratings	Voltage	Three Phase 200 ~ 230V AC			
	Frequency	Single Phase 200 ~ 230V AC (+/-10%)			
	Current	5.5	9.2	16	21.6

## Control

Control mode	V/F, Sensorless vector control
Frequency setting resolution	Digital : 0.01Hz Analog 0.06Hz (Max frequency : 60Hz)
Accuracy of Frequency command	Digital : 0.01% of Max output frequency Analog : 0.1% of Max. output frequency
V/F Ratio	Linear, Squared, Pattern, User V/F
Overload capacity	Software: 150% for 60s, Hardware: 200% for 30 s (time-inverse)
Torque boost	Auto Manual torque boost

## Operation

Operation mode	Keypad / Terminal / Communication option selectable		
Frequency setting	Analog : 0 - 10V, 0-20mA, Keypad Potentiometer Digital: Keypad		
Operation features	PID control, Up-down operation, 3-wire operation		
Input	Multi-function terminal	NPN / PNP selectable Function	
	Multi-function Open collector terminal	Operating status	selectable Function
Output	Multi-function relay terminal	Fault output (N.O., N.C.)	
	Analogue output	0 ~ 10 Vdc : Frequency, Current, Voltage, DC link voltage selectable	

SINUS N	0001	2S	X	B	K	2	Dimension		
	Motor rating	Input power	Brake	Filter	Keypad	Enclosure	W	H	D
	kW						[mm]	[mm]	[mm]
	0001	0.4	1 Phase	X=excluded	B=included	K=included	79	143	143
	0002	0.75-1,1	200-230		I=excluded		79	143	143
	0003	1,5-1,8	VAC				156	143	143
	0005	2,2-3				2=IP20	156	143	143

## Environment

Cooling method	Forced air cooling
Degree of protection	Open. IP 20
Ambient temperature	-10° C ~ + 50° C
Storage temperature	-20° C ~ + 65° C
Relative humidity	Less than 90% (no condensation)
Altitude. Vibration	1,000m above sea level, Max. 5.9m/sec <sup>2</sup> (0.6G)
Application site	Protected from corrosive gas, combustible gas, oil mist or dust

## Protective functions

Inverter Trip	Over-voltage, Under-voltage, Over current, Ground fault current detection, Over-temperature of Inverter and motor, Output phase open, Overload, Communication error, Loss of frequency command, H/W fault
Alarm Conditions	Stall prevention, Overload
Momentary Power Loss	Less than 15 mSec. : Continuous operation
	More than 15 mSec. : Auto Restart enable

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