



"The Right Control
for Your Application"



KBN2 Series Inverters



1/2 Thru 3 HP	200 – 240 VAC	1 Phase – 50/60 Hz
1/2 Thru 30 HP	200 – 240 VAC	3 Phase – 50/60 Hz
1 Thru 30 HP	380 – 460 VAC	3 Phase – 50/60 Hz

Applications: Variable torque, constant torque or constant horsepower applications.
 Original equipment manufacturers (OEM), new installations and replacements.

Design Specifications

- Microprocessor controlled PWM output
- NEMA 1 or NEMA 4 enclosure
- 1-12kHz carrier frequency (rated at 8kHz)
- 0.1-400Hz output frequency
- MOP speed control
- 0.01Hz frequency resolution (digital)
- 7 Preset speeds
- 7 Process timers
- DC injection braking
- Torque compensation
- Analog meter output

Operating Conditions

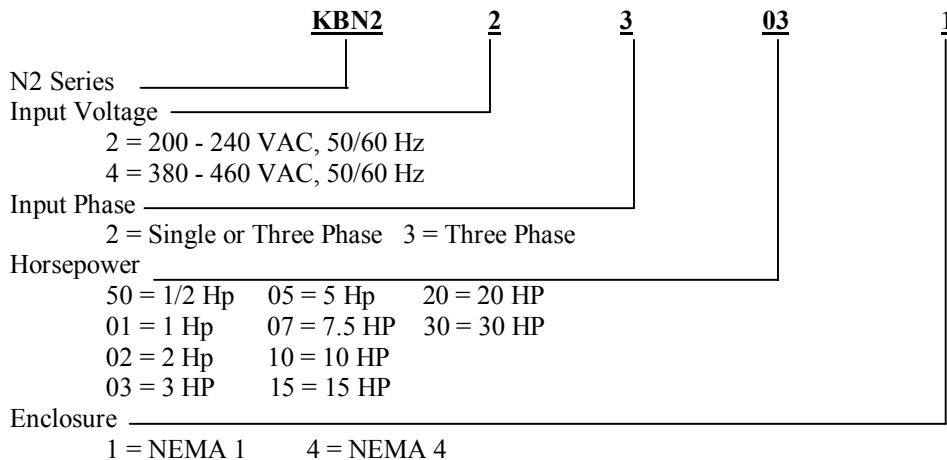
- Continuous duty
- Humidity - 95% max RH
- Vibration - Under 0.5G
- 50/60Hz input frequency
- -10° C to +40° C ambient temperature

Protection Features

- Instantaneous over current
- 150% overload for 1 minute
- Electronic thermal overload
- Over voltage
- Under voltage
- Ground fault
- Current limit
- Output short circuit
- Stall prevention
- Momentary power loss
- Heat sink overheat

Operator Keypad

- Digital speed control and programming
- Removable keypad
- LED display w/ speed potentiometer
- Start / stop control
- Fault tracking



Specifications

		Model: N2-□□□□-x	2250	2201	2202	2203	2305	2307	2310	2315	2320	2330	
		Specifications	230 V	Constant Torque (HP)	0.5	1	2	3	5	7.5	10	15	20
Constant Torque (KW)	0.4			0.75	1.5	2.2	3.7	5.5	7.5	11.0	15.0	22.0	
Variable Torque (HP)	1			2	3	5	7.5	10	15	20	25	40	
Variable Torque (KW)	0.75			1.5	2.2	3.7	5.5	7.5	11.0	15.0	18.5	30.0	
Constant Torque (FL A)	3.1			5.0	7.5	10.5	17.5	26.0	35.0	49.0	64.0	87.0	
Constant Torque (KVA)	1.2			1.9	2.9	4.0	6.7	9.9	13.3	18.7	24.4	33.2	
460 V	Variable Torque (FLA)		3.6	5.6	8.5	11.9	19.8	29.4	39.6	55.4	72.3	98.3	
	Variable Torque (KVA)		1.3	2.0	3.0	4.2	7.1	10.5	14.1	19.7	25.7	34.9	
	Input Voltage		(1/3 Phase 200 ~ 230 Volts +/- 10%) (50/60Hz +/- 5%) (5 HP And Above 3 Phase Only)										
	Output Voltage		3 Phase, Proportional to Output Frequency										
	Model: N2-□□□□-x		4301	4302	4303	4305	4307	4310	4315	4320	4330		
	Constant Torque (HP)		1	2	3	5	7.5	10	15	20	30		
Constant Torque (KW)	0.75	1.5	2.2	3.7	5.5	7.5	11.0	15.0	22.0				
Variable Torque (HP)	2	3	5	7.5	10	15	20	20	40				
Variable Torque (KW)	1.5	2.2	3.7	5.5	7.5	11.0	15.0	18.5	30.0				
Constant Torque (FL A)	2.3	3.8	5.2	8.8	13.0	17.5	25.0	32.0	48.0				
Constant Torque (KVA)	1.7	2.9	4.0	6.7	9.9	13.3	19.1	24.4	36.6				
Variable Torque (FLA)	2.6	4.3	5.9	9.9	14.7	19.8	28.3	36.2	54.2				
Variable Torque (KVA)	1.9	3.1	4.2	7.2	10.5	14.1	20.1	25.2	38.5				
Input Voltage	(3 Phase 380 ~ 460 Volts +/- 10%) (50/60Hz +/- 5%)												
Output Voltage	3 Phase, Proportional to Output Voltage												
Control Characteristics	Carrier Frequency	1 ~ 12KHz / Rated at 8 kHz											
	Frequency Control Range	0.1 ~ 400 Hz											
	Frequency Accuracy	Digital: 0.01% (-10° C~ 40° C): Analog: 0.4% (25° C +/- 10° C)											
	Frequency Resolution	0.1Hz with Computer or PLC Control. 0.1Hz with Keypad Control When Freq. Above 100Hz.											
	Frequency Setting Signal	(0 - 5 VDC) (0 - 10 VDC) (4 - 20mA) (0 - 20mA)											
	Accel / Decel. Time	0.1 - 3600 SEC with (2) S-curves											
	Braking Torque	About 20% (10Hp and Below Built-in Braking Transistor)											
V / F Pattern	18 Patterns. One Curve Programmable.												
Protection Functions	Instantaneous Over Current	200% Rated Current (Approx.)											
	Overload	Inverter: 150% / 1 Min.											
	Motor Overload	Electronic Thermal Overload Relay											
	Over Voltage	230V Series: (DC Bus Exceeds 427V) 460 Series: (DC Bus Exceeds 854V)											
	Under Voltage	230V Series: (DC Bus Drop < 200V) 460 Series: (DC Bus Voltage Drops 400V)											
	Ground Fault	Electronic Protection											
	Momentary Power Loss	0 - 2 Seconds: Inverter Can Be Restarted Using The Speed Search Feature.											
Heat Sink Fin Overheat	Protected by Thermostat												
Operational Characteristics	Operation Signals	Start/Stop, Fwd/Rev, Reset Operation by Keypad or Hardwire Contact											
	Multifunction Inputs	7 Preset Speeds, Jog, Accel/Decl Select, Stop Method, MOP, Energy Saving, Control Signal Select, Comm. Select, Step Sequence Select, Master/Aux. Speed Select											
	Multifunction Output	Run Mode, At Target Speed, Preset Speed/Bandwidth, Frequency Detection, Over Current Detection											
	Fault Output	250VAC 1A, 30VDC 1A or Less											
	Built-in Function	Frequency Reference Bias / Gain; Up / Lower Limit; Manual Torque Boost; Frequency Meter Calibration Gain; Auto Restart Attempt; Skip Frequency; S-Curve ACCEL / DECEL; Carrier Frequency Adjust. (1 - 12KHz); Communication Link Function.											
	Digital Operator Monitor	Frequency Command, Output Frequency, Speed Output Current, Output Voltage, P-N Bus Voltage, Rotating Detection.											
Analog Output Monitor	Analog Output (0 - 10V), Output Frequency, Setting Frequency, Output Voltage, P-N Bus Voltage.												
Location	Indoor (Protected from Corrosive Gas and Dust).												
Ambient Temperature	-10° C ~ 40° C (14° F ~ 104° F); 50° C with Cover Removed.												
Humidity	0 - 95% (Non Condensing)												
Vibration	0.5G (4.9m/s ²)												
Enclosure	NEMA1 or NEMA 4												
Certification	UL / cUL / CE						240V Class N2-2305 and above are NOT CE Compliant						



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