

Yolico

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YD3000N

Economic Current Vector Inverter



*Detailed Work Makes Quality
Our Quality Equals Perfection*

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ISO9001 

YD3000N Economic Current Vector Inverter

Friendly easy Operation

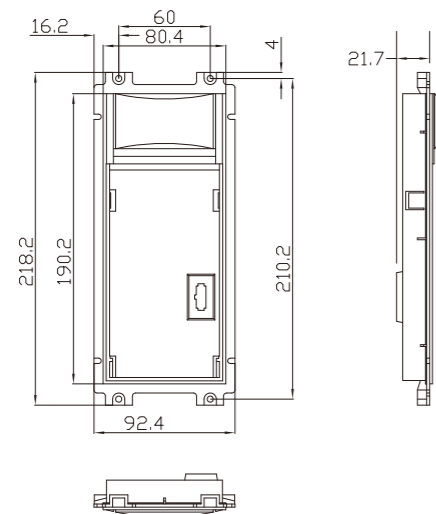
Parameters can be selected easily by logic groups

Dynamic Self-Study Mode

Self-Study Mode works at vector control, Inverter can be set with details of motor nameplate



Operator Description



Remote Operator Mounting Kit Installing Dimension

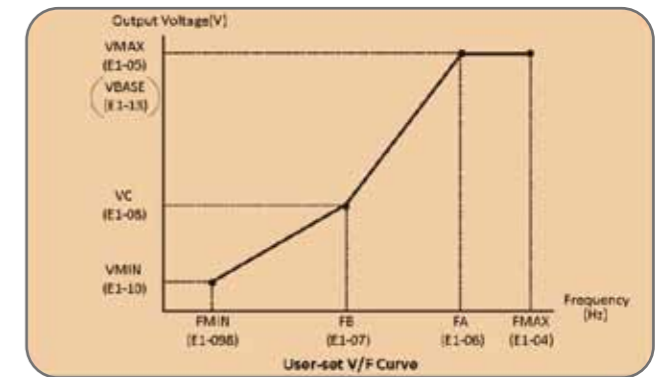


YD3000N Series Operator

YD3000N Series LCD Operator uses Graphic DOT MATRIX Module. It can display English/Chinese letters. The user can read the parameters easier and set the parameter faster. Remote Operator requires the Operator Mounting Kit and Exclusive cable.

Various V/f Curve Setting

There are totally 15 preset V/f curves setting and 1 adjustable V/f curve setting can be selected, such as High Starting Torque Curve, Variable Torque Curve, High Speed Operation. They can match different kind of loadings, also Uer-set V/f curve can work at PG Vector Control Mode as Well.



Full Protection Function

Over Load, Over Current, Over Voltage, Low Voltage, Phase Loss, Ground Fault, etc. To make sure the equipment operates properly.

Energy Saving Control

Automatically adjust output voltage according to loading at vector control in order to give better performance when motor operates on different load. It improves motor efficiency then saves energy.

Various Frequency Command Given

Multi-Channel Analog Input Given :

- 2 off Voltage Signal Input Channel : 0~10VDC or 0~+/- 10VDC (motor reverse with negative input)
- 1 off Current Signal Input Channel : 0(4)~20mA (voltage signal input available by parameter setting)

Setting Frequency Command by Digital Operator
Communication Command

Monitor Function

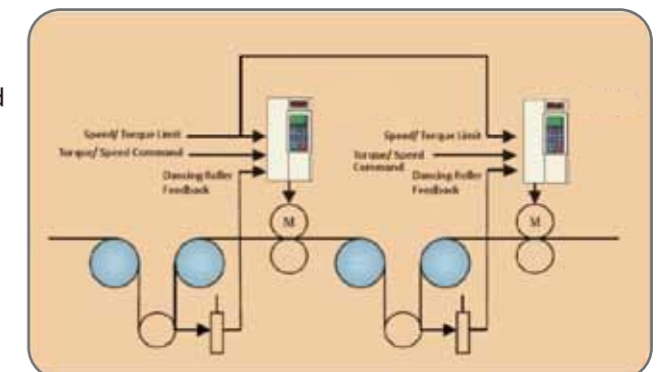
The following items can be monitored with the Digital Operator. Frequency Command, Output Frequency, Output Current, Motor Speed, Output Voltage, Main Circuit DC Voltage, Output Power, Torque Command, Input Terminal Status, Operating Status, Speed Deviation, PID feedback Value, Fault History, and so on. With Monitor Function, both Inverter and Motor will have better performance.

PID Control Function

PID Control Function may through controlling the Rotational Speed of motor to achieve the controlled Process Quantity as the Target, this process Quantity may be Temperature, Flow, Pressure, Speed, and so on.

The purpose of PID control is making the Process Quantity Stabilizing as the Target (setting) value. The PID control with Feedforward Speed setting Function is comprehensive used in Synchronization or Winder / Unwinder Control System.

The Given Command and Feedback Quantity decide the output Frequency of the Inverter.



YD3000N Standard Specification



Crane & Hoist
Wood Machinery
Textile Machinery
Fan & Blower

Packaging Machinery
Food Machinery
Chemical Industry
Treadmill

Steel & Metal
Conveyor
CNC Machinery
Pump

YD3000N	1P5	2P2	3P7	5P5	7P5	011	015	018	022	030	037	045	055	075	093	110	132	160	185	200	250	250	280	315	
Applicable Motor Capacity (kW)	1.5	2.2	3.7	5.5	7.5	11	15	18	22	30	37	45	55	75	93	110	132	160	185	200	220	250	280	315	
Rated Output	Capacity (kVA)	3.7	4.7	6.1	11	14	21	26	31	37	50	61	73	98	130	140	170	200	230	260	300	340	380	430	460
	Rated Output Current (A)	4.8	6.2	8	14	18	27	34	41	48	65	80	96	128	165	180	224	260	302	340	380	450	470	530	605
Power Supply	Max. Output Voltage(V)	3Ø 380/ 400/ 415/ 460V(Proportional to Input Voltage)																							
	Rated Output Frequency	Up to 400Hz (Available by Programming)																							
Control Characteristic	Voltage, Frequency	3Ø 380/ 400/ 415/ 460V, 50/ 60Hz																							
	Allowable Voltage Fluctuation	+10%, -15%																							
Protective Functions	Allowable Frequency Fluctuation	±5%																							
	Control Method	Sensorless Vector Control																							
	Torque Characteristic	150% at 1Hz																							
	Speed Control Range	1:100																							
	Speed Control Accuracy	±0.2% (25°C ± 10°C)																							
	Speed Control Response	5Hz																							
	Torque Limits	Provided (Only 2 Quadrant Steps)																							
	Frequency Control Range	0.1 ~ 400Hz																							
	Frequency Accuracy (Temperature Characteristic)	Digital Reference: ±0.01% (-10°C ~ +40°C), Analog Reference: ±0.1% (25°C ± 10°C)																							
	Frequency Setting Resolution	Digital Reference: 0.01Hz, Analog Reference: 0.03Hz/ 60Hz (11 bits + Sign)																							
	Output Frequency Resolution (Calculation)	0.01Hz																							
	Overload Capacity	150% Rated Current for 1 minute																							
Frequency Setting Signal	Analog -10 ~ +10V, 0 ~ 10V, 4-20mA																								
Acceleration/Deceleration Time	0.01 ~ 6000Seconds(4 Selectable Combinations of Independent Acceleration and Deceleration Settings)																								
Braking Torque	Approximately 20%																								
Motor Protection	Protection by Electric Thermal Overload Relay																								
Instantaneous Overcurrent Protection	Stops at approx. 200% of Rated Output Current																								
Overload Protection	150% Rated Current for 1 minute																								
Overvoltage Protection	Stops when Main Circuit DC Bus Voltage is approx. 820V																								
Undervoltage Protection	Stops when Main Circuit DC Bus Voltage is approx. 380V																								
Momentary Power Loss Ridethru	Stops for 15mS or more. By selecting the Momentary Power Loss Mode, operation can be continued if Power is restored within 2 Seconds																								
Cooling Fin Overheating	Portection by Thermistor																								
Stall Prevention	Stall Prevention during Acceleration, Running, Deceleration																								
Grounding Protection	Protection by Electric Circuit (Overcurrent Level)																								
Charge Indicator (Internal LED)	Lit when the Main Circuit DC Bus Voltage is approx. 50V or more																								
Environment	Ambient Operating Humidity	90% RH max.																							
	Ambient Operating Temperature	-10°C ~ +40°C (Enclosed Wall-Mounted Type) -10°C ~ +45°C (Open Chassis Type)																							
	Storage Temperature	-20°C ~ +60°C																							
	Application Site	Indoor (No Corrosive Gas, Dust, etc.)																							
	Altitude	1000 m max.																							
Options	Vibration	10 ~ 20Hz, 9.8m/S ² (1G) max.; 20 ~ 50Hz, 2m/S ² (0.2G) max.																							
	RS-485 Communication	Yes (Built-In)																							
	PID Function	Yes (Built-In)																							
Braking Transistor	Option																								

YD3000N Connection Example (Diagram)

Please follow the Diagram making a Wire Connection

When using the Digital Operator, the Motor can be operated by wiring only the Main Circuit

YD3000N Dimension

