Yolico

Yolico

YDS8000
Advanced Inverter
for IM/PM/IPM Motor

Detailed Work Makes Quality
Our Quality Equals Perfection

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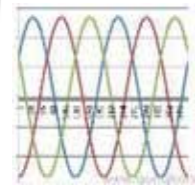www.yolico.com.tw · E-mail: info@yolico.com.tw

ISO9001 $C\epsilon$

Open / Close-Loop driving

Servo Motor

PM
Synchronous Motor

AC Asynchronous
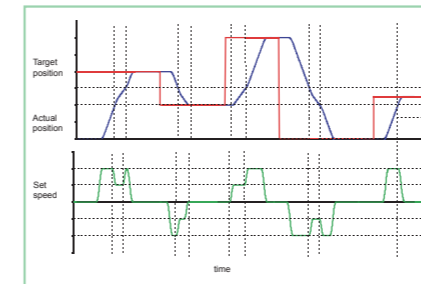Inverter Motor

AC Asynchronous
Servo Motor

AC Asynchronous
Motor

Position Control

Synchronous Control

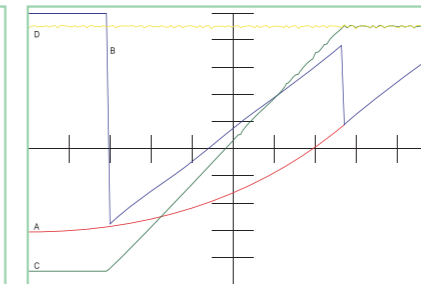Torque Control

PID Control

Speed Control
.
.
.
.

Voltage
400VAC
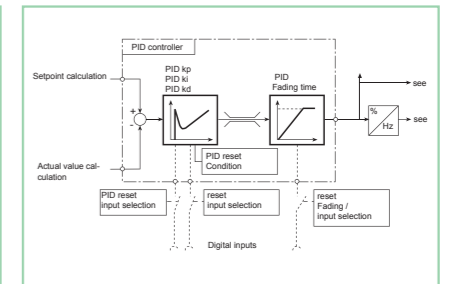
Power Range
0.75~315kW

Position Control

16 Position Index for P to P Control
Approach to REF Point by Software /
Hardware Limit
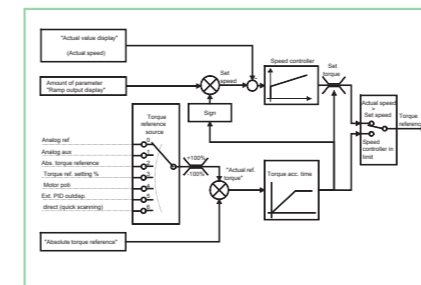Relative or Absolute Moves
Programmable Electric Gearing

Synchronous Control

Speed synchronization
Angle synchronization
Angle adjustment
Programmable Electric Gearing
Master-Slave Motion Control

PID Control

Achieve a variety of process control
The reference value can accumulate
PID with feedforward control
Integral can be reset
Multi-Target Reference Source

Torque Control

Multi-Torque Reference Source
Open-Loop Torque Control is available
Programmable Electric Gearing

Control Terminals

8 programmable Digital Inputs:
   PNP/ NPN Logic selectable
2 programmable Analog Inputs:
   -10~+10V, 0~20mA, 4~20mA
2 programmable Relay Outputs: Form-C
2 programmable Analog Outputs: 0~10V
2 programmable Transistor Digital Outputs: +24V
ST Enable Terminal

Parameter

All Parameters in up to 8 sets
Customized Parameters (CP)
Parameter access Level by Password
Monitor Data up to 93
Big LCD Display

more and more Applications

CNC

Printing

Flying Cutting

Packing

Textile

Extruder

Elevator/Lift

Logistics

Dyeing

Mining/Steel

YDS8000 Type Code Number

Inverter   YDS   8 XXX TX – X – B

- -E: Synchronous Open-Loop Operating, -S or Blank: Standard Type
- -H: High Performance Asynchronous Operating without PG Vector
- -B: Braking Transistor Installed
- Voltage: T2 for AC220V / T4 for AC400V / T6 for AC690V
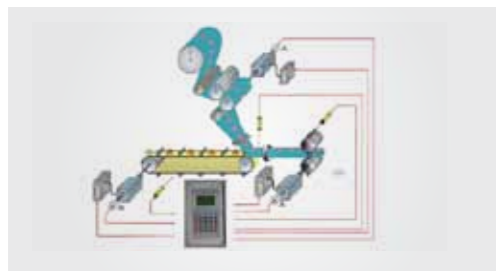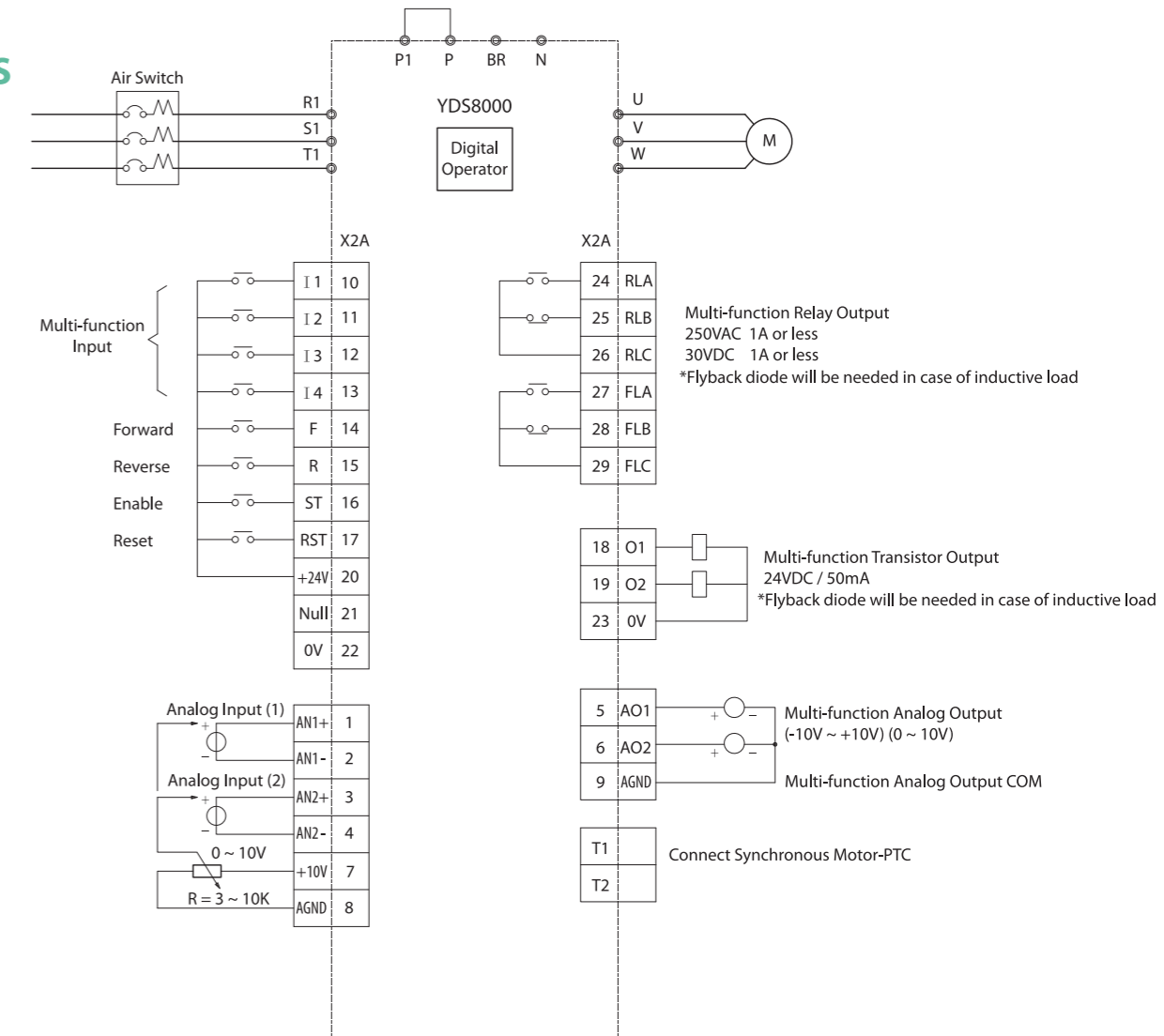- Applicable Motor Capacity, for example 030 = 30kW
- 8000 Series
- YOLICO High performance Servo type Inverter

PG Card   YDS - XX X XX

- Channel 2 Input / Output: TI = TTL Input, TO = TTL Output
- 1 : for 0.75kW ~ 15kW, 2 : for 18.5kW and above
- Channel 1 Input (DB15): PG = Open Collector Incremental, RV = Resolver
- SI : SIN/COS, EN : ENDAT, UV : UVWABZ Incremental, HF : HIPERFACE
  for YDS8000

Connections (Diagram)

Air Switch

P1   P   BR   N

R1
S1
T1

YDS8000

Digital Operator

U
V
W   M

X2A

Multi-function Input

I 1   10
I 2   11
I 3   12
I 4   13
Forward   F   14
Reverse   R   15
Enable   ST   16
Reset   RST   17
+24V   20
Null   21
0V   22

X2A

24   RLA
25   RLB
26   RLC

Multi-function Relay Output
250VAC   1A or less
30VDC   1A or less
*Flyback diode will be needed in case of inductive load

27   FLA
28   FLB
29   FLC

18   O1
19   O2
23   0V

Multi-function Transistor Output
24VDC / 50mA
*Flyback diode will be needed in case of inductive load

Analog Input (1)

AN1+   1
AN1-   2

Analog Input (2)

AN2+   3
AN2-   4
0 ~ 10V
+10V   7
R = 3 ~ 10K
AGND   8

5   AO1
6   AO2
9   AGND

Multi-function Analog Output
(-10V ~ +10V) (0 ~ 10V)

Multi-function Analog Output COM

T1
T2

Connect Synchronous Motor-PTC

YDS8000 Standard Specification

YDS8000	0P7	1P5	2P2	4P0	5P5	7P5	11	15	18P5	22	30	37	45	55	75	90	110	132	160	200	250	315
Frame size	* F2				F3				F4			F5			F6			F7		F8	F9	
Applicable Motor Capacity (kW)	0.75	1.5	2.2	4	5.5	7.5	11	15	18.5	22	30	37	45	55	75	90	110	132	160	200	250	315
Rated Output — Capacity (kVA)	1.8	2.8	4	6.6	8.3	11	17	23	29	35	42	52	62	80	104	125	145	173	208	256	319	395
Rated Ouput Current (A)	2.6	4.1	5.8	9.5	12	16.5	24	33	42	50	60	75	90	115	150	180	210	250	300	370	460	570
Rated Carrier Frequency	8K	8K	8K	8K	8K	8K	4K	4K	4K	4K	4K	4K	4K	4K	4K	4K	4K	2K	2K	2K	2K	2K
Min. Braking Resistor	120	120	82	82	39	39	39	25	25	13	13	9	9	9	5	4	4	4	4	1.2	1.2	1.2
Standard Braking Resistor	620	390	270	150	110	85	56	42	30	22	15	12	10	9	6.7	5	4.3	4.3	4.3	2.2	1.7	1.3
Max. Braking Current (A)	7.5	7.5	10	10	21	21	21	32	30	63	63	88	88	88	160	200	200	200	200	660	660	660

Max. Output Voltage(V)	3Ø 380 ~ 460V(Proportional to Input Voltage)
Rated Output Frequency	Up to 400Hz (Avaliable by Programming)
Power Supply — Voltage, Frequency	3Ø 380 ~ 460V, 50/ 60Hz
Allowable Voltage Fluctuation	+10%, -15%
Allowable Frequency Fluctuation	±2Hz
Cooling Method	Force Cooling
Control Characteristic — Control Method	Open / Close - Loop (Absolute Encoder, Incremental Encoder, Resolver) for Asynchronous/Synchronous Motor
Overload Capacity	150% Rated Current for 1 minute
Overcurrent Capacity	180% Rated Current
Over Voltage	Main Circuit Common DC Bus Voltage DC820V
Under Voltage	Main Circuit Common DC Bus Voltage DC390V
Overheat Protection	90℃
Degree of Protection	IP20
Environment — Ambient Operating Humidity	95% RH max. Non-Condensing
Ambient Operating Temperature	-10℃ ~ +45℃
Storage Temperature	-25℃ ~ +70℃
EMC Standard	Comply with EN61800-3
Vibration	9.8m/S² less than 20Hz up to 1.96m/S² at 20Hz to 50Hz

* F2 under development

Option Cards

Dimensions

Frame 2:
(under development)
YDS80P75 T4 B
YDS801P5 T4 B
YDS802P2 T4 B
YDS8004   T4 B

Frame 3:
YDS805P5 T4 B
YDS807P5 T4 B
YDS8011   T4 B
YDS8015   T4 B

Frame 4:
YDS8018   T4 B
YDS8022   T4 B
YDS8030   T4

Frame 5:
YDS8030   T4   B
YDS8037   T4
YDS8045   T4
YDS8055   T4

Frame 6:
YDS8075   T4
YDS8090   T4
YDS8110   T4

Frame 7:
YDS8132   T4
YDS8160   T4

Frame 8:
YDS8200   T4

Frame 9:
YDS8250   T4
YDS8315   T4