SMB SERVO DRIVE | SMB SD-LP-04-DX-X

- High precision control
- Auto-tuning function
- Graphical interface for parameter settings
- Operating at Current, Speed and Position Mode

SMB servo drive system is an omnibearing integrated servo system which developed for different customers requirements of various application machine tools. Besides, the other features of SMB drive series, including gain tuning, smooth motor operation and software analysis / monitor function, also provide high-speed and high-precision motion control for a wide range of industrial automation applications.

TECHNICAL SPECIFICATIONS		SMB SD-LP-04-DX-X
Power Supply	Power (W)	400
	Phase / Voltage (Vac)	Single / Three Phase 200 ~ 230 Vac, -15% ~ 10%
	Input Current (Arms)	Three Phase --> 2,2 Single Phase --> 4,4
	Control Input Voltage (Vac)	200 ~ 230
	Continous Output Current (Arms)	2,6
	Output Voltage (Vrms)	0 - 110
	Output Max, Current (Arms)	7,8
	Over Load (%)	300 (5s)
	24V Input	External
Brake	Brake / Internal (W)	40 (60 W)
Position Control Mode	Position Command Type	Pulse & Direction , AB Mode
	Max. Input Frequency	500 Kbps (Line Driver), 250 Kbps (Open Collector)
	Electronic Gear	Electronic gear is provided
	Feedforward Compensation (%)	0-100
	Smoothing Strategy	Low-pass filter
Speed Control Mode	Speed Command Type	Analog Speed Command (± 10V), Internal Speed Command
	Speed Control Range	1:5000 rpm
	Smoothing Strategy	Low-pass and S-Curve Filter
	Speed Accuracy	Less than 0.1% (absolute encoder) at 0 to 100% load fluctuations Less than 0.1% (absolute encoder) at ± 10W power fluctuation Less than 0.1% (absolute encoder) at 0 ° C to 50 ° C ambient temperature fluctuations
	Torque Limit	Via parameter setting or analog input
Torque Control Mode	Torque Command Type	Analog Torque Command (± 10V), Internal Torque Command
	Smoothing Strategy	Low-Pass fllter
	Speed Limit	Via parameter setting or analog input
Control & Communication	Control Method	Vector Control
	f_b/ (Electrical frequency)	0 - 250 Hz
	Enkoder Resolution	13 bit Incremental / 17-21 bit Absolute BiSS Encoder
	Communication	RS-232 / RS-485 (MODBUS RTU), USB, CANopen, EtherCAT
Digital Inputs	8	Servo on, Alarm Reset, Zero Speed, Command input reverse control, Speed / Torque limit enabled, Emergency Stop, Forward / Reverse JOG input, Forward / Reverse Inhibit Limit,Speed command selection 0, Speed command selection 1, Torque command selection 0, Zero speed control
Digital Outputs	4	Servo on, Servo Alarm Output, Electromagnetic Brake, Servo Ready, Zero Speed, Torque Reached Limit, Overload Warning Output, Speed command selection 0, Speed command selection 1, Torque command selection 0, Zero speed control
Protection & Safety	Protection	Over Current, Over Voltage, Box Ambient Temperature, Low Voltage, Overload, Over Speed, IPM temperature, IPM Fault, Encoder error, Fan Fault, Brake Loss, Phase Loss, Motor error, EEPROM error, Emergency Stop, WDT Reset
Size Cooling Temperature	Operating Temperature (°C)	0 to 55
	Cooling	DC-FAN
	Dimensions (HxWxL) (mm)	175x65x170
	Weight (kg)	1,5
Autotunning		Offline Auto-tuning
Product Commissioning		Easy commissioning with PC İnterface, display and keypad

SERVO DRIVE APPEARANCE

Power Status LED

Led indicates that either power is connected to servo drive or a residual charge is present in the drive's internal power components

AC Servo 3 Phase Power Supply (L1,L2,L3)

Used to connect 3 phase 200~230V AC Power, 50/60Hz

AC Servo 1 Phase Power Supply (L1C,L2C)

Used to connect 1 phase 200~230V AC Power, 50/60Hz

Internal/External Regenerative Resistance Terminal (P,B1,B2)

When using an internal regenerative resistor, unsure that B1 and B2 is short-circuted. When using an external regenerative resistor, connect P and B1 to the regenerative resistor. (B2 must be open)

Motor Output

Used to connect servo motor to servo drive

Display

The 5 digit and 7 segment led display servo status or faults and capable to show required parameters when setted

USB Connection

Used to connect to user interface

Encoder Interface

Used to connect encoder of servo motor

I/O Interface

Used to connect an external controller unit (PLC) or control I/O signals

CANopen/EtherCAT Communication Ports

For CANopen and EtherCAT communication

Serial Communication Interface

Used to connect Servo Drive to other controllers by RS232 and RS485 serial communication

SD	LP	04	DX	X
Product Name Servo Drive	Power Series LP: Low Power	Output Power 04: 400 W	Input Voltage & Phase D1: 220V Single Phase / Three Phase D3*: 220V Three Phase	Communication Protocol M: Modbus C: CANopen E: EtherCAT

SMB SERVO DRIVE LOW POWER PRUDUCT SERIES

Communication Protocol	MODBUS	CANopen	EtherCAT	Closed Loop
M	√	X	X	√
C	O	√	X	√
E	O	X	√	√

* When the 1500W drive is supplied with single phase, it must be used with a line reactor with Uk = 4%, 16Arms.

O	Optional
√	Available
X	Not Available