

All The Options – No Costly Extras



Lenze - AC Tech POSITIONServo - The simple servo solution.

The PositionServo offers a cost effective solution to everyday servo applications. The family of servo drives provides high resolution 64-bit indexing and can be matched with a range of quality Lenze servomotors to create a user-friendly and highly competitive servo package. Designed and manufactured to satisfy global standards for performance, communication and interconnectivity, ***the PositionServo is in a world class all its own.***

Power

80 – 528 VAC input, up to 7.5kW output
2 – 18 Amps continuous rms current output
300% overload, peak current

Motor Solutions

Synchronous servo motors
Encoder or resolver feedback

EPM Memory Chip - OEM Magic

All PositionServo drives offer the benefits of the EPM, a rugged memory chip that plugs directly into the drive, cutting programming time to seconds. An EPM programming module allows drive parameters to be instantly copied onto the chip, and once plugged in, the EPM ensures the drive is ready to run without being powered up. OEM manufacturers can speed-up production and suppliers can provide effective low-cost product support.



Specifications

Inputs/Outputs:

- All I/O is optically isolated
- 12 Digital inputs (5-24 VDC)
 - including 1 high-speed (2 μ s)
- 5 Digital Outputs (5-24 VDC @ 15 mA)
- 2 Analog Inputs (± 10 V differential, 12-bit)
- 1 Analog Output (± 10 V single-ended, 10-bit)

Feedback:

- Encoder: Up to 2 MHz
- Resolver: 12-bit resolution

Pulse Width Modulation:

- Chopper Frequency: 8 or 16 kHz

Modes of Operation:

- Torque, Velocity, Position
- Full-featured motion control
- Internal or External reference

Programming Tools:

- MotionView OnBoard embedded software
 - Single-step execution capability
 - Breakpoints
 - I/O Status and variable WATCH window
 - "Real-time" Oscilloscope
 - EVENT handler
 - Fault monitor

Scan Rate:

- 512 μ s EVENT handler (deterministic)
 - 3 μ s reaction to registration mark (Encoder)
 - 7 μ s reaction to registration mark (Resolver)
 - 1 μ s per step/instruction (depending on program length)

User Program Memory:

- Up to 25KB for user compiled program
- Removable memory chip (EPM)
- Non volatile parameter set

Motion:

- 64-bit indexing (incremental, absolute, registered, segmented)
- 32-level motion queue
- Linear and S-curve accel and decel

Index Profiles:

- Trapezoidal
- Multi-segment
- S-curve
- Multi-segment with S-curve

Serial Communications:

- Standard: Ethernet Modbus TCP/IP, Ethernet IP

Optional:

- RS485 Modbus RTU@ 115/38.4 KBPS (address up to 32 devices)
- CANopen DS301 V4.02 250/500 KBPS
- DeviceNet
- PROFIBUS DP
- Ethernet/IP

Electrical Characteristics

Single-Phase Models

Type Type ⁽¹⁾⁽²⁾	Mains Voltage ⁽³⁾	1 \emptyset Mains Current (doubler)	1 \emptyset Mains Current (Std)	Rated Output Current	Peak Output Current ⁽⁶⁾
E94_020S1N_X	120V ⁽⁴⁾ or 240V	9.7	5.0	2.0	6.0
E94_040S1N_X		16.8	8.6	4.0	12.0
E94_020S2F_X	120 / 240V ⁽⁵⁾ (80V -0%...264 V +0%)	—	5.0	2.0	6.0
E94_040S2F_X		—	8.6	4.0	12.0
E94_080S2F_X		—	15.0	8.0	24.0
E94_100S2F_X		—	18.8	10.0	30.0
E94_120S2F_X		—	24.0	12.0	36.0

Single/Three-Phase Models

Type Type ⁽¹⁾⁽²⁾	Mains Voltage ⁽³⁾	1 \emptyset Mains Current	3 \emptyset Mains Current (Std)	Rated Output Current	Peak Output Current ⁽⁶⁾
E94_020Y2N_X	120 / 240V ⁽⁵⁾ 1 \emptyset or 3 \emptyset (80V -0%...264 V +0%)	5.0	3.0	2.0	6.0
E94_040Y2N_X		8.6	5.0	4.0	12.0
E94_080Y2N_X		15.0	8.7	8.0	24.0
E94_120Y2N_X		24.0	13.9	12.0	36.0
E94_180T2N_X	240V 3 \emptyset (180V -0%...264 V +0%)	—	19.6	18.0	54.0
E94_020T4N_X	400 / 480V 3 \emptyset (320V -0%...528 V +0%)	—	2.7	2.0	6.0
E94_040T4N_X		—	5.5	4.0	12.0
E94_060T4N_X		—	7.9	6.0	18.0
E94_090T4N_X		—	12.0	9.0	27.0

(1) The first "_" equals either "P" for the Model 940 encoder-based drive OR an "R" for the Model 941 resolver-based drive.

(2) The second "_" equals either "E" for incremental encoder (must have E94P drive) OR an "R" for the standard resolver (must have E94R drive).

(3) Mains voltage for operation on 50/60 Hz AC supplies (48 Hz -0% ... 62Hz +0%).

(4) Connection of 120VAC (45 V ... 132 V) to input power terminals L1 and N on these models doubles the voltage on motor output terminals U-V-W for use with 230VAC motors.

(5) Connection of 240VAC or 120VAC to input power terminals L1 and L2 on these models delivers an equal voltage as maximum to motor output terminals U-V-W allowing operation with either 120VAC or 230VAC motors.

(6) Peak RMS current allowed for up to 2 seconds. Peak current rated at 8kHz. Derate by 17% at 16kHz.