

3U Rack-Mount Digital AC-Servo Drives MDE Series

- Ideal for Linear Motors
- 3,2 kW Peak Power in a compact Unit
- Continuous Power Range from 100 W up to 1600 W
- High Bandwidth
- Sinusoidal Commutation with Encoder
- Optically isolated Encoder Output
- Current Control using special hybrid technique
- Internal Logic Supply
- Protected against Short-Circuit Phase and Phase to Ground
- Analogue Velocity Command Input
- Limit Switch Inputs



The AC servo drives of the MSK series were developed especially for motors with lower power ranges.

The digital MDE is a high performance servo drive for horizontal axis with encoder or linear scale feedback. Despite their compactness, a peak power of 3.2 kW is delivered, which is sufficient to accelerate a 1 kW motor to the rated speed within the shortest time.

It is powered from the bus voltage via a fly-back converter. Alternatively, the logic system can be supplied by external 24 V DC. The drive parameters are configured by software under Windows 95.

Technical Data

	MDE06	MDE12	MDE15
Supply Voltages			
Bus Voltage	120 V DC (60V - 140V)		
Logic Voltage (Version A)	generated internally from the bus voltage by a fly-back converter		
Logic Voltage (Version B)	generated internally by a fly-back converter from an external 24 V _{DC} supply, necessary: 24 V, 500 mA		
Auxiliary DC Output	+15 V, -15 V max. load 10 mA each		
Power and Currents			
Continuous Current (rms) ¹⁾	4,2 A	8,5 A	10,6 A
Peak Current (rms, 600 ms)	8,5 A	17,0 A	20,2 A
Continuous Power	625 W	1250 W	1600 W
Peak Power (600 ms)	1250 W	2500 W	3200 W
Velocity Controller (PI-Controller)			
Cycle Time	150 µs		
Max. Speed	± 9000 Upm (linear motor: pole pairs/min) ²⁾		
Speed Reference Input	±10 V, resolution: 14 bit, offset adjustable (operator software)		
Monitoring Devices			
Bus Undervoltage	55 V (LED)		
Bus Overvoltage	180 V (LED)		
Undervoltage of Logic Supply	14 V (LED)		
I ² t Limit	active after 600ms at twice the rated current (LED)		
I _{max}	adjustable to up to 200% of the rated current (LED)		
Thermo Protection Module	heat sink temperature 85°C ±10 %		
Thermo Protection of Motor	input for potential-free thermo switch		
Encoder Input X9			
Supply Voltage Output	5 V max. 500 mA		
Signals	TTL differential (RS 422) 500 kHz		
Encoder Output X3			
Supply Voltage Input	5 V min. 100 mA		
Signals	TTL differential (RS 422) galvanic isolated		
Inputs and Outputs			
Enable	+15 V, enables the MDE drive		
Limit Switch	+15 V, depend on direction with dynamic braking		
Stand by	Relay, 24 V _{DC} , 500 mA		
Brake	TTL		
Analog Monitor 1 and 2 (Front)	±5 V, velocity, velocity command and current command (scale adjustable)		
RS232 (Front)	standard		
Dimensions			
Dimensions	euro module / 3 U / 10 HP		

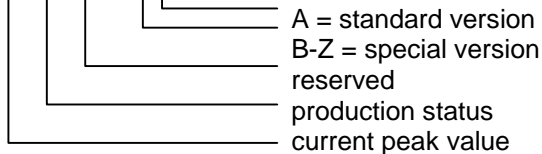
Accessories:

Motherboard MB-MSK04

Motherboard for MSK and MDE servo drive, ribbon cable connector for connection to a PTS

Order Code

MDE 12-12-001-AA



subject to change without notice

¹⁾ from 7 A forced air cooling required
 if the max. mechanical speed of the motor and the ma. input frequency of the encoder feedback is not exceeded