CNC CONTROLS | **SERVO DRIVES** | SOFTWARE

PA SDI-Drive *Midi*™

MI205 | MI305

POWER AUTOMATION

THE NEW GENERATION OF CNCs

PA SDI-Drive *Midi*™

MI205 | MI305

The **PA SDI-Drive™** series is a digital, compact and cost-effective servo drive solution for all kind of machine tools. The **PA SDI-Drive™** series offers excellent servo properties such as high dynamics, high precision, high efficiency and low heat generation. Up to three axes in one housing saves space in the control cabinet and achieves an optimal price/performance ratio. There is only on cable from the PA CNC system to the **PA SDI-Drive™** and only one cable from one drive to the other, which makes wireing as easy as possible and reduces wireing failures to a minimum. High flexibility is provided by the availability of all conventional feedback systems. The communication is made by the **PA SDI-Bus™**. This high-speed interface enables fast and jitter-free communication between the **PA SDI-Drive™** and the PA CNC system. The **PA SDI-Drive Midi™** is an AC servo drive for CNC applications from the entry-level to the medium power range. The **PA SDI-Drive Midi™** features two different models. The **MI205™** features 2 axes with 5 amps rated current each, the **MI305™** features 3 axes with 5 amps rated current each.

TECHNICAL DATA

Type	**MI205**	**MI305**
Number of axes	2	3
Rated mains voltage	3 x 115V$_{-10\%}$ – 230V$^{+10\%}$, 45Hz – 65Hz	
Auxiliary supply voltage	24 V$_{DC\ -10\%\ /\ +25\%}$	
Rated output current	5/ – /5 A$_{rms}$	5/5/5 A$_{rms}$
Peak output current	10/ – /10 A$_{rms}$	10/10/10 A$_{rms}$
Rated power of internal regen resistor	66 W	

DIMENSIONS

All types	
Depth with plug	300 mm
Depth without plug	225 mm
Width	114 mm
Height	249 mm

BASICS

- Direct power supply (restricted to Midi)
- Integrated line filter and inrush circuitry
- Internal regen resistor, external regen resistor optionally
- Control of the holding brake
- Excellent servo-performance
- Control of servo-, linear- and torque -motors
- Fast capture-inputs
- Reduction of power loss by new PWM-technique
- 2 differential analog inputs

INTERFACE

- Full Integration into the PA CNC system
- Cycle time of set-point value 500µs – 1ms
- Free configuration of cyclical transferred real-time-values
- Spline-Interpolation in position-control
- Synchronization to overriding control cycle
- Full parameter access

SOFTWARE APPLICATION

The PA SDI-Appl™ software, which is available in English and German language, communicates via the PA SDI realtime bus from the PA CNC system directly with the drive. After power-on, the PA SDI-Drive Midi™ is automatically loaded with defaultparameters. In combination with Encoder Feedback motors the motor parameters are loaded automatically from the Encoder. If motors with Resolver feedback are connected the motor type can be selected from a list of available motors and the parameters are loaded. Additionally the datasets can be manipulated, archived and copied afterwards.

FEEDBACK

- Resolver
- EnDat®-Encoder
- Hiperface®-Encoder
- High resolution SIN/COS-Encoder

SECURITY

- Safe restart-lock acc. EN 954 Cat. 3 and ISO 13849 performance level „d“ (optional)
- Safe holding brake control acc. EN954 Cat.1 and ISO 13849 performance level „c“

Power Automation assumes no liability for possible failures and reserves the right for changes without previous notification.

POWER AUTOMATION

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