

## MDS-A-V1-20

Industrial automation components

<b>Manufacturer</b>	Mitsubishi
<b>Catalog number</b>	mds-a-v1-20
<b>Category</b>	Industrial automation components
<b>Product type</b>	Industrial automation components
<b>Status</b>	Active product

### Technical specification

<b>Weight</b>	4.13 kgs
<b>Input Voltage</b>	AC 200-230V, 50/60Hz V
<b>Output Power</b>	1.0 kW
<b>Control Method</b>	Digital Servo Control
<b>Compatible Motor Series</b>	Mitsubishi HA Servo Motors
<b>Dimensions</b>	170 mm (H) x 50 mm (W) x 160 mm (D)

### Description

The Mitsubishi MDS-A-V1-20 is a high-performance servo drive unit designed for precise control in CNC machine tools. Part of the MDS-A series, it integrates the servo and spindle drive sections into a single compact unit, reducing installation space and enhancing system efficiency. This drive unit operates with a rated input of AC 200-230V at 50/60Hz, drawing 0.2A, and a DC input of 270-311V at 7A. Its rated output is 4.6A at 1.0kW, making it suitable for applications requiring precise motion control. The MDS-A-V1-20 features a high-speed CPU on the control PCB and incorporates a 100,000 pulse/rotation sub-micron detector, enabling faster and more precise interpolation. The stable position loop control (SHG control) method ensures outstanding response, improved positioning time, and reduced machine vibration during acceleration and deceleration. Additionally, the drive unit utilizes a high-speed orientation method for smooth operations and minimal orientation times during spindle drive. Designed with low heat generation in mind, it incorporates an Intelligent Power Module (IPM) and employs power supply regeneration to minimize heat output. The unit's compact and lightweight design, achieved through high-density mounted electronic parts and a high-performance heat radiating fin, facilitates easy installation and efficient operation. The MDS-A-V1-20 is compatible with Mitsubishi HA servo motors, making it an ideal choice for upgrading or replacing existing servo drive units in CNC machine tools.