LAM Technologies
electronic equipment

DDS5x

The **DDS5x** series stepper motor drives allow an accurate and complete motor control through the industrial **Modbus RTU** protocol.

Modbus RTU is an open and easy to implement communication protocol, based on the client/server architecture. Many PLC and HMI of the latest generation natively support the Modus RTU protocol, moreover PC-based systems can easy implement it thanks to free libraries.

The physical layer is **RS485** type and isolated from the auxiliary and power supply, the communication speed reaches **921.600Kbit/s**. Among the implemented functions is the **23 0x17 Read/Write Multiple registers** which allows in a single transaction to read and write multiple registers at the same time and can be used, for example, to update the position set point and read the encoder quota in a single operation.

The drive is made in full digital technology and drives the motor in vector control technique to minimize motor vibrations and noise. It can be easily integrated in the modern industrial 4.0 automation also for its compact size and quick installation on DIN rail.

Family development

Power Supply / Motor Current 24Vdc Auxiliary Power Supply	Modbus RTU – RS485 6 Digital Inputs, 3 Digital Outputs, 2 Analog Inputs, 2 Analog Outputs		
		1 Encoder Input A, B, I	1 Encoder Input A, B, I 1 Absolute Encoder Input SSI
20..50Vdc (16..36Vac) / 0.2..1.4Arms	**DDS5041(A)**	**DDS5241(A)**	**DDS5441(A)**
20..50Vdc (16..36Vac) / 1.0..4.5Arms	**DDS5044(A)**	**DDS5244(A)**	**DDS5444(A)**
20..50Vdc (16..36Vac) / 2.0..10.0Arms	**DDS5048(A)**	**DDS5248(A)**	**DDS5448(A)**
24..90Vdc (20..65Vac) / 1.0..4.5Arms	**DDS5074(A)**	**DDS5274(A)**	**DDS5474(A)**
24..90Vdc (20..65Vac) / 2.0..10.0Arms	**DDS5078(A)**	**DDS5278(A)**	**DDS5478(A)**

The A suffix for ex. DDS5241A) identifies the AC versions

The I/O equipment is complete and includes both digital and analog inputs and outputs. There are also available models with Encoder input able to control the motor in closed-loop, removing the step losses' problems and improving the motor efficiency. The drive has a separate power supply for the logic and is protected against over or under-voltage, over-temperature, short-circuits, etc..

The drive setting and diagnostics are possible with the use of the free *Omni Automation IDE* software..

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