

ARS 2102

Servo Positioning Controller

The official current designation is ARS 2102 FS, a compact control-cabinet servo controller with expandable safety and fieldbus technology.

Manufacturer	Metronix
Product family	ARS 2000 FS servo-controller series
Complete model	ARS 2102
Source record	ARS 2102 FS; 9200-2102-20; P-HB ARS2100 FS Version 5.0; MI ARS2100 FS Version 9.0

RELATED PRODUCTS ON APTER POWER

01	Siemens A5E00296878	OPEN
02	Siemens A5E34612879	OPEN
03	Siemens A5E00825002	OPEN
04	Siemens A5E00755411	OPEN
05	Siemens A5E00297628	OPEN
06	Siemens A5E03915589	OPEN

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Exact-model technical record

Complete model	ARS 2102	24 V control supply	24 V DC, +/-20%, 0.55 A plus brake and I/O load
Manufacturer	Metronix	Rated motor output	0.5 kVA
Product family	ARS 2000 FS servo-controller series	Maximum output for 5 s	1.0 kVA
Official designation	ARS 2102 FS	Rated output current	2.5 A RMS
Metronix order number	9200-2102-20	5 s output current	5 A RMS maximum
Mains supply	1 x 100 to 230 V AC, +/-10%, 50 to 60 Hz	0.5 s output current	10 A RMS maximum
Continuous mains current	2.4 A RMS maximum	Maximum PWM frequency	Approximately 20 kHz
Alternative DC supply	60 to 380 V DC	Internal brake resistance	60 ohm

OFFICIAL SOURCE COVERAGE

Source 1	Metronix ARS 2102 FS product page — Product overview and technical data
Source 2	ARS 2100 FS Product Manual — Version 5.0, technical and electrical installation chapters
Source 3	ARS 2100 FS Mounting Instructions — Version 9.0, technical and mounting chapters

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System role and applications

Positioning axis

Executes programmed linear, jerk-limited or torque-limited positioning tasks.

Electronic gearing

Synchronizes position or speed with another drive using a configured gear ratio.

Flying-saw control

Supports coordinated high-accuracy motion using the controller's technology functions.

Safe servo retrofit

Restores an ARS 2102 FS cabinet position while preserving motor, encoder, safety and network settings.

ENGINEERING BOUNDARY

Verify that the installed nameplate is ARS 2102 FS before applying these values. Match mains and 24 V supplies, motor data, encoder type, brake circuit, safety module and fieldbus configuration; only qualified drive personnel may energize and commission the controller.

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Model-specific engineering questions

Q1. Why can ARS 2102 also appear as ARS 2102 FS in project records?

ARS 2102 FS is the complete controller designation in the ARS 2000 FS series, paired with Metronix order number 9200-2102-20. Match both entries when checking a replacement.

Q2. What power arrangement must the cabinet provide for ARS 2102?

Use a single-phase 100 to 230 VAC supply at 50 to 60 Hz and keep it within +/-10%. The control electronics also require a separate 24 VDC supply.

Q3. How should motor-current limits be set for ARS 2102?

Set 2.5 Arms as the continuous rating. Short boost periods may reach 5 Arms for 5 seconds or 10 Arms for 0.5 seconds when the motor and application permit them.

Q4. Which feedback devices can be connected to ARS 2102?

The feedback section supports EnDat 2.2, HIPERFACE, resolver, and analog or digital incremental encoders. Select the matching feedback type before enabling the axis.

SOURCE IDENTIFIER

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Acceptance reference and related products

Q5. Which ARS 2102 ports are used for setup and plant communications?

USB 2.0 and LAN handle parameterization, while CANopen and RS232/RS485 are integrated for communications. EtherCAT, PROFINET and PROFIBUS require the corresponding option module.

Q6. What cabinet installation protects ARS 2102 from thermal problems?

Mount the controller vertically with M5 hardware tightened to about 2.8 N m, keep its heat-transfer surface against the cabinet plate and leave the cooling path unobstructed.

RELATED PRODUCTS ON APTER POWER

01	Siemens A5E00297628	OPEN
02	Siemens A5E03915589	OPEN
03	Siemens A5E36228241	OPEN
04	Siemens A5E00282044	OPEN
05	Siemens 6RY1243-0EA00	OPEN
06	Siemens 6SE7027-2TD84-6HF3	OPEN
07	Siemens 6RY1803-0AA25-0AA1	OPEN
08	Siemens 6SE7035-1EJ84-1JC1	OPEN
09	Siemens 6SE7033-7EG84-1JF1	OPEN
10	Siemens 6SL3352-6TG38-8AA3	OPEN
11	Siemens 6SE7041-2WL84-1JC1	OPEN
12	Siemens 6SL3120-2TE21-8AC0	OPEN

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