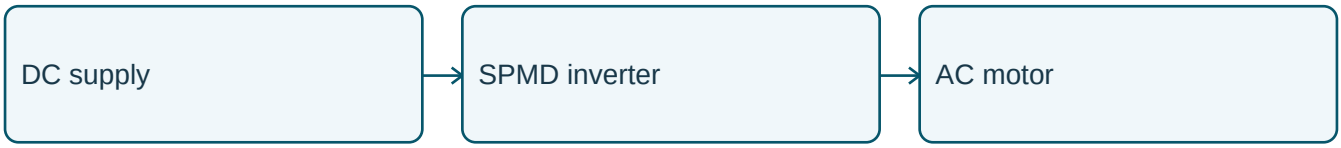
SPMD1423

01 / System identity and preparation

SPMD1423 converts a common or separately supplied DC bus into controlled AC power for industrial motors within a configured Unidrive SPM drive system.



Preparation priorities

Power-stage identity	Match SPMD1423, its brake configuration and the fitted control pod to the cabinet record.
Electrical system	Confirm DC supply design, motor voltage/current, protection and the external 24 V fan supply.

Guide boundary

This Apter Power guide organizes preparation and acceptance checks. Apply the manufacturer instructions and approved site procedure for detailed wiring, mounting, configuration and functional testing.

Application boundary

400 V class ratings apply to the specified SPMD power stage. Duty, switching frequency, ambient temperature, altitude and parallel operation affect permissible output; the supplied control pod and system configuration require separate matching.

Product and installation enquiries

sales13@apterpower.com | +86 18030235313

Apply manufacturer instructions and approved site procedures.

02 / Configuration review before service

Power-stage identity	Match SPMD1423, its brake configuration and the fitted control pod to the cabinet record.
Electrical system	Confirm DC supply design, motor voltage/current, protection and the external 24 V fan supply.
Duty and cooling	Use 290 A Normal Duty only under the stated rating conditions; apply switching-frequency, temperature, altitude and parallel derating.
Control and release	Restore the correct motor data, feedback settings and master/slave arrangement. Validate direction, current and protective response against the approved baseline.

Identify the power input

SPMD is a DC-input inverter stage. Do not connect AC mains directly to its DC terminals; match the rectifier, DC bus and protection to the approved design.

Isolate every energy source

Use qualified personnel and approved isolation procedures. Account for the DC bus, external auxiliary supplies and regenerated energy; verify safe discharge before work.

Mismatch decision

Resolve a different catalog marking, interface, software requirement or installed configuration before proceeding. Physical similarity alone does not establish an approved replacement.

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03 / Hardware and interface checks

Maintain cooling

Provide the external 24 V fan supply and unobstructed cooling paths. Cabinet temperature and switching frequency affect the permissible continuous current.

Match braking hardware

The internal brake transistor is not fitted. Applications returning energy to the DC bus require an appropriately engineered regeneration or braking arrangement; a resistor cannot be treated as directly supported by a missing internal transistor.

Key hardware references

Frame size	1
Drive voltage class	380-480 V AC ±10% system supply; inverter input is DC
Normal Duty continuous output	290 A at 40°C, 3 kHz, up to 1000 m
Normal Duty nominal motor power	160 kW at 400 V

Preserve the connection record

Photograph and label the affected connections before disconnection. Retain the original routing, module positions and identification with the work order, and compare the restored installation against that record.

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04 / Commissioning and diagnostic decisions

Preserve the control arrangement

Record the fitted pod, option modules, motor and encoder data before replacement. A slave pod does not provide the independent control interfaces of the master pod.

Validate parallel operation

Use matching power stages, the specified paralleling connections and output sharing chokes. Apply the additional current derating and test the completed drive system before release.

Acceptance checkpoints

Before energization	Confirm DC supply design, motor voltage/current, protection and the external 24 V fan supply.
Configuration review	Use 290 A Normal Duty only under the stated rating conditions; apply switching-frequency, temperature, altitude and parallel derating.
Functional release	Restore the correct motor data, feedback settings and master/slave arrangement. Validate direction, current and protective response against the approved baseline.

Abnormal result

If diagnostics, communication or functional response differ from the approved baseline, stop the release and resolve the configuration or installation issue. Do not bypass an interlock or protective function to obtain a passing test.

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05 / Service record and technical references

Lifecycle and support

The current manufacturing and service-support phase for this complete model has not been confirmed.

Technical basis

Control Techniques Unidrive SPM User Guide, 0471-0053-05, Issue 5.

Applicability

400 V class ratings apply to the specified SPMD power stage. Duty, switching frequency, ambient temperature, altitude and parallel operation affect permissible output; the supplied control pod and system configuration require separate matching.

Related portfolio references

Emerson SM-PROFIBUS-DP-V1

Emerson SM-APPLICATIONS

Navigation only. These listings are not confirmed replacements, compatible accessories or included items.

Handover record

Retain the complete fitted marking, hardware/software revision where applicable, connection record and accepted test results. Confirm separate accessories and documents in the quotation.

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