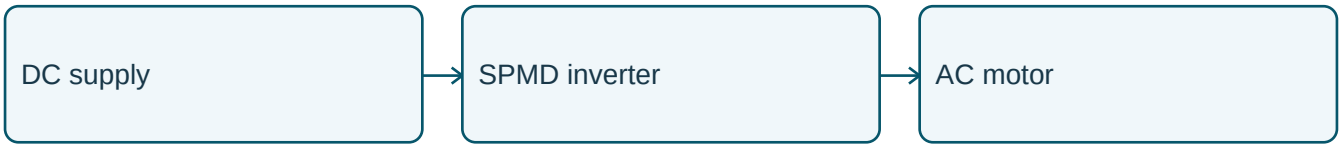
# SPMD1424

## 01 / System identity and preparation

SPMD1424 supplies controlled AC motor power from a coordinated DC bus. Its thermal rating depends on how the inverter and rectifier are mounted within the drive cabinet.




### Preparation priorities

| | |
|---|---|
| Power-stage identity | Match SPMD1424, its brake configuration and fitted control pod to the cabinet record. |
| Electrical system | Confirm DC supply, motor current, the braking arrangement and 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

Ratings apply to the SPMD1424 inverter stage. Docking, duty, temperature, switching frequency, altitude and parallel operation affect output; match the actual fitted control pod separately.

**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 SPMD1424, its brake configuration and fitted control pod to the cabinet record. |
| Electrical system | Confirm DC supply, motor current, the braking arrangement and external 24 V fan supply. |
| Mounting and duty | Use 335 A Normal Duty docked at 40°C or 350 A undocked at 35°C, both at 3 kHz, subject to the remaining derating conditions. |
| Control-chain acceptance | Verify the fitted pod, master/slave links, motor data and feedback settings. Test current, direction, cooling and protective response before release. |

### 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.

## Respect the brake configuration

The internal brake transistor is not fitted; any braking or regenerative-energy path must use a separately engineered system arrangement. Do not infer included resistor hardware from the power-stage designation.

## Key hardware references

| | |
|---|---|
| Frame size | 1 |
| Drive voltage class | 380-480 V AC ±10% system supply; inverter input is DC |
| Normal Duty, docked | 335 A at 40°C, 3 kHz |
| Normal Duty, undocked | 350 A at 35°C, 3 kHz |

## 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, motor current, the braking arrangement and external 24 V fan supply. |
| Configuration review | Use 335 A Normal Duty docked at 40°C or 350 A undocked at 35°C, both at 3 kHz, subject to the remaining derating conditions. |
| Functional release | Verify the fitted pod, master/slave links, motor data and feedback settings. Test current, direction, cooling and protective response before release. |

## 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

Ratings apply to the SPMD1424 inverter stage. Docking, duty, temperature, switching frequency, altitude and parallel operation affect output; match the actual fitted control pod separately.

## Related portfolio references

Emerson SPMD1423

Emerson SPMD1401

Emerson SPMD1404

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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