PHYTRON 1-STEP-DRIVE

# Product Data Sheet

## 1-STEP-DRIVE-5A-48V

Integrated stepper motor controller

| MOTOR PHASES | MOTOR LEAD ARRANGEMENTS | MOTOR SUPPLY | MAXIMUM PHASE CURRENT |
|---|---|---|---|
| **2** | **4 / 6 / 8 leads** | **24 to 48 V DC** | **5 A peak** |

Phytron 1-STEP-DRIVE-5A-48V is a Phytron stepper-motor controller with an integrated power stage for a SIMATIC ET 200S station. It drives two-phase stepper motors from a 24–48 V DC supply with phase current up to 5 A peak.

## 01 TECHNICAL DATA

| | |
|---|---|
| Motor phases | 2 |
| Motor lead arrangements | 4 / 6 / 8 leads |
| Motor supply | 24 to 48 V DC |
| Maximum phase current | 5 A peak |
| Current-setting increment | 20 mA |
| Maximum microstep division | 1/512 |
| Maximum step frequency | 510000 steps/s |
| Chopper frequencies | 18 / 20 / 22 / 25 kHz |
| Maximum supply current | 3 A at 5 A peak phase current |
| Digital inputs | 2 |

## 02 ADDITIONAL PRODUCT DATA

| | |
|---|---|
| Maximum shielded motor cable | 50 m |
| Maximum shielded input cable | 100 m |
| Overtemperature threshold | 85 °C |
| Short-circuit threshold | Above 10 A |
| Configuration environment | STEP 7 / TIA Portal |

## 03 PRODUCT FUNCTION

Fine current adjustment and microstep division up to 1/512 support the configured positioning profile. The module is integrated through the supplied STEP 7 or TIA Portal configuration files, with selectable chopper frequencies and separate limits for motor and signal cable runs.

## 04 SYSTEM COMPATIBILITY

Connect a compatible two-phase stepper motor with the specified four-, six- or eight-lead arrangement. Set the phase current to the motor requirement within the 5 A peak limit and supply the power stage with 24–48 V DC.

## 05 REFERENCE

Phytron 1-STEP-DRIVE-5A-48V technical data and applicable product instructions

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