

# STP-MTRD-23042E Cut Sheet



SureStep DC integrated stepper motor/drive, microstepping, NEMA 23 frame, IP20, 5A, 12-48 VDC, bipolar, 125 oz-in holding torque, 1.8-degree step angle, 200 to 25000 steps per revolution, external (field-wireable) encoder.

For complete product information, please see this item on our store at the following link:



<https://www.automationdirect.com/pn/STP-MTRD-23042E>

## Technical Specifications

Brand	SureStep
Item	Integrated stepper motor/drive
Voltage Type	DC
Controller Type	Microstepping
Amperage Rating	5A
Number of Output Phases	2
Voltage Rating	12-48 VDC
Winding Type Control	Bipolar
Output Type	MOSFET, dual H-bridge and 4-quadrant output
Current Control	4-state PWM at 16 kHz
Step Angle	1.8-degree
Steps per Revolution	200 to 25000
Encoder Position	External (field-wireable)
Feedback Type	Incremental (quadrature)
Encoder Type	Rotary
Encoder Resolution	1000 ppr
Encoder Output Type	Line driver (differential)
Temperature Rating	0 to 40 deg C
Enclosure Type	Enclosed
Integrated Brake	No
Motor Frame	NEMA 23
IP Rating	IP20
Shaft Type	Single

Shaft Diameter	1/4in
Holding Torque Rating	125 oz-in
Control Mode	Position
Command Signal(s)	<ul style="list-style-type: none"><li>• step and direction</li><li>• CW/CCW</li></ul>
Number of Discrete Input Points	3
Nominal Input Voltage	5-24 VDC
Discrete Input Type	Sinking/sourcing
Number of Discrete Output Points	1
Nominal Output Voltage	5-24 VDC
Discrete Output Type	Sinking/sourcing
Tuning Mode	Pre-tuned
Idle Current Reduction	Yes
Drive Features	Self-test, anti-resonance (electronic damping), torque ripple smoothing and command signal filtering
Protection Type(s)	<ul style="list-style-type: none"><li>• overvoltage</li><li>• undervoltage</li><li>• overcurrent</li><li>• over-temperature</li></ul>
Configuration	Dipswitch
Includes	(1) 3ft encoder cable, (1) 1ft control cable and (1) STP-MTRA-ENC1 modular encoder

## Agency Approvals

UL Listed File #	None
UL Recognized File #	None
UL Hazardous File #	None
CE	<a href="#">View CE declarations</a>
CSA File #	None
RoHS Status	Yes (See CE Doc)
EU REACH	<a href="#">View EU REACH document</a>

## Dimensional Drawings



2D Drawing PDF Link:  
<https://cdn.automationdirect.com/static/drawings/STP-MTRD-23042E.pdf>  
See store item page for other formats.