

# STP-MTRD-23065E Cut Sheet



SureStep DC integrated stepper motor/drive, microstepping, NEMA 23 frame, IP20, 5A, 12-48 VDC, bipolar, 210 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-23065E>

## Technical Specifications

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

<b>Shaft Diameter</b>	1/4in
<b>Holding Torque Rating</b>	210 oz-in
<b>Control Mode</b>	Position
<b>Command Signal(s)</b>	<ul style="list-style-type: none"><li>• step and direction</li><li>• CW/CCW</li></ul>
<b>Number of Discrete Input Points</b>	3
<b>Nominal Input Voltage</b>	5-24 VDC
<b>Discrete Input Type</b>	Sinking/sourcing
<b>Number of Discrete Output Points</b>	1
<b>Nominal Output Voltage</b>	5-24 VDC
<b>Discrete Output Type</b>	Sinking/sourcing
<b>Tuning Mode</b>	Pre-tuned
<b>Idle Current Reduction</b>	Yes
<b>Drive Features</b>	Self-test, anti-resonance (electronic damping), torque ripple smoothing and command signal filtering
<b>Protection Type(s)</b>	<ul style="list-style-type: none"><li>• overvoltage</li><li>• undervoltage</li><li>• overcurrent</li><li>• over-temperature</li></ul>
<b>Configuration</b>	Dipswitch
<b>Includes</b>	(1) 3ft encoder cable, (1) 1ft control cable and (1) STP-MTRA-ENC1 modular encoder

## Agency Approvals

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

## Dimensional Drawings



2D Drawing PDF Link:  
<https://cdn.automationdirect.com/static/drawings/STP-MTRD-23065E.pdf>  
See store item page for other formats.