

STP-MTRD-23065RE Cut Sheet



SureStep DC integrated stepper motor/drive, advanced microstepping, NEMA 23 frame, IP20, 5A, 12-70 VDC, bipolar, 210 oz-in holding torque, 1.8-degree step angle, 200 to 51200 steps per revolution, internal (inaccessible) encoder, (1) RS-485 (4-pin) port(s).

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



<https://www.automationdirect.com/pn/STP-MTRD-23065RE>

Technical Specifications

Brand	SureStep
Item	Integrated stepper motor/drive
Voltage Type	DC
Controller Type	Advanced microstepping
Amperage Rating	5A
Number of Output Phases	2
Voltage Rating	12-70 VDC
Winding Type Control	Bipolar
Output Type	MOSFET, dual H-bridge and 4-quadrant output
Current Control	4-state PWM at 20 kHz
Step Angle	1.8-degree
Steps per Revolution	200 to 51200
Encoder Position	Internal (inaccessible)
Feedback Type	Incremental (quadrature)
Encoder Type	Rotary
Encoder Resolution	4000 ppr
Communication Port and Connection Type(s)	(1) RS-485 (4-pin)
Port Protocol(s)	<ul style="list-style-type: none">• SCL• ASCII
Port Speed(s)	up to 115.2k baud
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	210 oz-in
Control Mode	Velocity and position

Command Signal(s)	<ul style="list-style-type: none">• step and direction• CW/CCW• A/B Quad• internal indexing (via communication port)• velocity (via analog input)
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
Number of Analog Input Points	1
Analog Input Signal Type	Voltage
Input Voltage Signal Range	0-5 VDC
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">• overvoltage• undervoltage• overcurrent• over-temperature• stall prevention
Configuration	Software
Software Required	SM-PRO configuration software
Requires	STP-485DB9-CBL-2 communication cable and STP-USB485-4W PC adapter
Additional Information	Internal encoder not accessible

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Agency Approvals

UL Listed File #	None
UL Recognized File #	None
UL Hazardous File #	None
CE	View CE declarations
CSA File #	None
RoHS Status	Yes (See CE Doc)
EU REACH	View EU REACH document