

Turntide® SL120 (1-3 HP) Motor Controller Data Sheet

Turntide Smart Motor System™



Turntide’s breakthrough sustainability technology is a complete platform for energy optimization that drives down energy consumption and operating costs in buildings, agriculture and electric transport. With Turntide’s Smart Motor System™ and Platform for Sustainable Operations™, organizations can attack energy waste at every level, through optimal device physics, intelligent automation, and seamless integration with other systems.

Turntide SL120 Motor Controller: Key Benefits

ATTACKS ENERGY WASTE AT EVERY LEVEL	CONTINUOUS IMPROVEMENTS	TRANSFORMATIVE IMPACT
SL120 runs a proprietary control algorithm that monitors motor feedback to optimize for efficiency at any speed	SL120 has two +24VDC power outputs, which can be used to connect sensors that enable continuous, proactive monitoring of the Turntide Smart Motor System’s operating environment	SL120 makes Turntide Smart Motor System installation simpler through easy-access I/O terminals, enabling Turntide to help you save energy and money faster

Taking into account feedback from our customers and field service partners, SL120 improves on previous generations of Turntide motor controllers, offering easy-access I/O terminals that make installation and commissioning easier than ever before. Also, SL120 is Plenum rated, enabling it to withstand even the harshest operating environments.

As with all Turntide motor controllers, SL120 provides the intelligence behind the Turntide Smart Motor System, and is key to unleashing the power of technology and data to enable HVAC systems to run at optimal efficiency.

Motor Controller I/O and Compatibility

QTY	Description
7	Programmable digital inputs
1	Programmable voltage output: 0-10, 20mA limit
4	Relay outputs: 1A, 125VAC limit
4	Universal inputs, individually selectable as: <ul style="list-style-type: none"> Voltage Mode: 0-10V Current Mode: 0-20mA; or 4-20mA Resistive Mode External Logic Mode
2	24VDC Aux Power Outputs (up to 500mA)

MOTOR COMPATIBILITY

Designed and Engineered for the
Turntide Smart Motor System



V Series: V01 (1-3hp)

IMPORTANT: Turntide motor controllers are only compatible with motor systems manufactured by Turntide.



Conforms to UL STD 61800-5-1 and 61800-5-2 and Certified to CSA STD C22.2#274



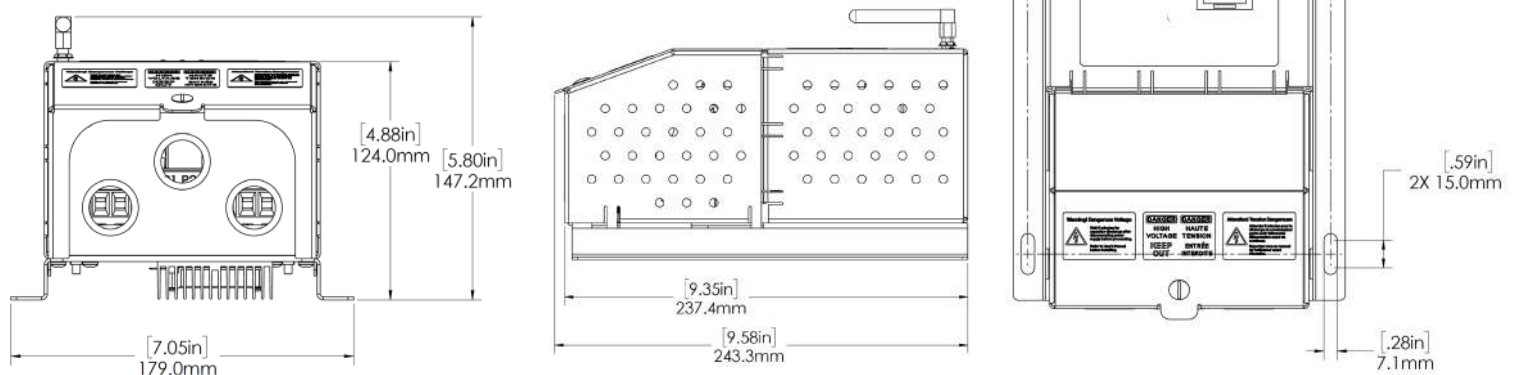
Motor Controller System Characteristics

Product Name	Motor Controller	Motor Controller Product Family	SL120
Compatible Turntide Motor Series	V01	Ingress Protection Code	IP20
Rated Output Power Range	1, 1.5, 2, 3 hp (0.75, 1.1, 1.5, 2.2 kW)	Input Frequency	60 Hz
Peak Motor Controller Efficiency	98.3%	Supply Phase	3-PH
Mounting Hole Pattern	163.1mm x 131.8 mm	Motor to Controller Power Wire	14 AWG
Mounting Fastener	1/4 inch or M7	Ambient Temperature Range	-10°C to +40°C
Motor Controller Weight	6.0 lb (2.7 kg)	Relative Humidity	95%, non-condensing
Wi-Fi Interface	802.11 b/g/n (802.11n up to 150 Mbps)	Wi-Fi Frequency Range	2.4 GHz ~ 2.5 GHz (single band)
MODEL / SKU	SL120-2030A-RT	Input Line Voltage	208 / 230 V~
Rated Output Voltage	3PH 280 V~ (@208 V~)	Input Line Current	12.6A (@208 V~)
	3PH 340 V~ (@230 V~)		11.7A (@230 V~)
MODEL / SKU	SL120-4030A-RT	Input Line Voltage	460 V~
Rated Output Voltage	3PH 680 V~ (@460 V~)	Input Line Current	4.3A (@460 V~)

Motor Controller Mounting

Securely install the motor controller to a solid mounting surface with a 1/4 inch or M7 fastener using the four screw tabs on the base.

Motor Controller Dimensions



Indemnity

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Turntide Technologies (formerly Software Motor Company) has developed the world's most efficient and intelligent electric motor system. The revolutionary Smart Motor System is based on proven switched reluctance technology, now managed with advanced cloud software and connected to precise controls via IoT. Turntide's vision is to eliminate the 25% of global electricity consumption that is wasted by legacy motors, thus accelerating the world's transition from fossil fuels. Turntide is based in Sunnyvale, Calif., with offices in San Francisco; Arlington, Wash.; and Kennesaw, Ga. Turntide has installed Smart Motor Systems with dozens of customers, reducing their motor electricity consumption by an average of 64%, and is powering the systems of leading OEMs. For further information, visit www.turntide.com.