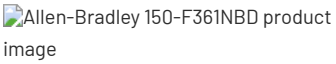
Rockwell Automation



Allen-Bradley
by ROCKWELL AUTOMATION

Catalog #: 150-F361NBD Preferred Availability

SMC Flex Smart Motor Controller

Lifecycle status: ACTIVE

Technical Specifications

Electrical

With display	Yes
Voltage type for actuating	AC
Rated operating voltage Ue	200 V
Rated control supply voltage at AC 50 Hz	100 V
Rated control supply voltage at AC 60 Hz	100 V
Overload current for line connected devices	120 A
Overload current for delta connected devices	208 A
Controller type	Soft starter
Control options	None
Trip classes	10, 15, 20 and 30
Trip current rating	117% of motor FLC
Transformer control module	75VA @ 100...240V AC (-15%, +10%)
Heatsink fan rating	60VA @ 110/120V AC or 220/240V AC
DV/DT protection	RC snubber network for power circuit
Repetitive peak inverse voltage rating	1400V per UL/CSA/NEMA for power circuit
Operating frequency	50/60 Hz for power circuit
Line connected motor power, max	450 Hp @ 600V AC, 60 Hz, 3-phase
Delta connected motor power, max	600 Hp @ 575V AC, 60 Hz, 3-phase
Rated impulse voltage	6000V per IEC for power circuit
Dielectric withstand	2500V per IEC for power circuit
Line connected motor current	120...361 A @ 600/Y/690V AC, 3-phase
Delta connected motor current	208...625 A @ 500/575V AC, 3-phase

Ampere tested european style, max	6,9 gRB 73xxx800 6,6URD33xxx900 @ 690V for maximum FLC
Ampere tested north american style, max	A070URD33xxx900 @ 690V for maximum FLC
Transient protection	Metal oxide varistors: 220 Joules (optional) for power circuit
Insulation voltage	Rated 500V per IEC for power circuit
Rated operational voltage	200...480V AC (-15%, +10%) per UL/CSA/NEMA for power circuit
Input OFF-state current	<10 mA AC, <3 mA DC for control circuit @ input OFF-state voltage
Short-circuit protection device list	Standard fuse, circuit breaker and high capacity time delay class CC/J/L
Number of contacts	1 for auxiliary contacts
High capacity available fault current, max	69 kA @ 600V, maximum current 600 A time delay Class J or Class L fuse for line connected motors
Type of current	AC for auxiliary contacts
Conventional thermal current (Ith)	AC/DC: 5 A for auxiliary contacts
Type of control circuit	Electromagnetic relay for auxiliary contacts
Type of contacts	Programmable NO/NC for auxiliary contacts
Utilization category	MG 1 per UL/CSA/NEMA for power circuit
Standard controller feature	Status indication: stopped, starting, stopping, at speed, alarm and fault
Standard available fault current, max	70 kA @ 690V for maximum FLC
Optional controller feature	SMB smart motor braking control: provides motor braking without additional equipment for applications that require the motor to stop quickly, braking current is adjustable from 0...400% of the motor's full-load current rating
Integrated motor overload protection	Yes
Short circuit protection device performance (SCPD) type	Type 1
Number of sensors, max	6 for PTC input ratings
Inrush current control module	5 A @ 24V DC (-15%, +10%)
Voltage at PTC terminals (RPTC = open), max	30V for PTC input ratings
Transient watts control module	60 W @ 24V DC (-15%, +10%)
Steady state watts control module	24 W @ 24V DC (-15%, +10%)
Voltage at PTC terminals (RPTC = 4 kΩ), max	<7.5 for PTC input ratings
Response time	800 ms for PTC input ratings
Inrush time control module	250 ms @ 24V DC (-15%, +10%)
Transient time control module	500 ms @ 24V DC (-15%, +10%)

Cold resistance of PTC sensor chain, max	1500 Ohm for PTC input ratings
Tachometer input	0...5V DC, 4.5V DC = 100% Speed
Allen bradley power supply control module, min	1606-XLP50E @ 24V DC (-15%, +10%)
Short circuit trip resistance	25 Ohm ± 10 Ohm for PTC input ratings
Response resistance	3400 Ohm ± 150 Ohm for PTC input ratings
Reset resistance	1600 Ohm ± 100 Ohm for PTC input ratings
Input OFF-state voltage, max	50V AC, 10V DC/12V AC for control circuit
Input ON-state voltage, min	85V AC, 19.2V DC/20.4V AC for control circuit
Rated operational current	3 A @ 120V AC, 1.5 A @ 240V AC for auxiliary contacts
Input ON-state current	20 mA @ 120V AC/40mA @ 240V AC, 7.6 mA @ 24V AC/DC for control circuit
Contact type	auxiliary contacts 19/20 (Aux #1), 29/30 (Aux #2), 31/32 (Aux #3) and 33/34 (Aux #4)

Environmental

Steady state heat dissipation with control and fan power	245 W
Storage and transportation temperature	-20 °C
Humidity	5...95% (noncondensing)
Operating temperature	Open: -5 to 50 °C (23 to 122 °F)
Protection against electrical shock	IP2X (with terminal covers) per IEC for power circuit
EMC emission levels	Radiated emission: Class A
EMC immunity levels	Surge transient: per EN/IEC 60947-4-2
Altitude	2000 m
Pollution degree	2

Mechanical

Weight	45.8 kg
Shock	Operational: 5.5 G
Width	290 mm (11.42 inch)
Depth	276.5 mm (10.89 inch)
Height	600 mm (23.62 inch)
Power pole construction	Heatsink hockey puck thyristor modular design
Vibration	Operational: 1.0 G peak, 0.15 mm (0.006 inch) displacement
Make	3600VA for auxiliary contacts

Break	360VA for auxiliary contacts
Internal bypass	Yes
Function	Single direction
Power terminal markings	NEMA, CENELEC EN50 012
Control terminals	Clamping yoke connection, M3 screw clamp

Construction

Line/load side power terminals	Two M12 x 1.75 diameter holes per power pole
Number of poles	3
Enclosure	Open type
Control modules construction	Thermoset and thermoplastic moldings
Metal parts construction	Plated brass, copper or painted steel

Certifications

- China CCC
- Eurasion Economic Community
- Australian RCM

This product was certified with the above certifications as of 2023-10-03. Products sold before or after this date might carry different certifications. Please review the product label to check for the certifications your specific product carries.