
DATASHEET

ABB Ability™ Smart Sensor

Condition monitoring solution for low voltage motors



For questions and support, please contact
ABB Motors and Generators Service.

Product information:

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Note

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SPECIFICATIONS		Remarks
Temperature measurement		
Measurement range	-40°C ... +85°C	
Resolution	0.05°C	
Accuracy	+/- 0.5°C	baseplate temperature
Vibration measurement (overall velocity values)		
Amplitude range	0.04 - 700 mm/s (25 Hz)	
Frequency range	10 Hz - 1 kHz	
Detection type	RMS	
Wireless communication		
Network standard	Bluetooth® 4.0	
Radio standard	IEEE 802.15.1	
Frequency	2.4 GHz, license free ISM band	
Range (nominal)	>10 m @ line-of-sight	
Power		
Battery type	3.0 V Lithium Permanganate (LI-MnO4) button cell	CR2477N (The battery is not user replaceable)
Estimated battery lifetime	Batteries have a design life of 5 years. Expect 3-5 years depending on usage, settings and temperatures	
Motor body temperature (°C) at ambient temperature of 40 °C	0° to 40°	40° to 70°
Battery life in years	5	3
Default configuration: Sensor measures once per hour and stores data to memory. Stored data must be collected at least monthly with a Bluetooth® mobile device or gateway		
Environmental		
Temperature	Operation: -40°C to +85°C Storage : 40 °C maximum	
IP class	IP66 (dust-tight and resistant to powerful water jetting)	
Vibration (of mounted surface)	< 15g at 100 Hz	
Certifications/Standards		
CE, FCC, IEC		
Safe or ordinary areas		
Physical		
Weight	0.26 kg	
Case material	Stainless steel/Thermoplastic	
Mounting	On cooling ribs of motor frame, ensure good contact	

