

BALDOR • RELIANCE

Farm Duty Motors

VS1MX AC Micro Drive

1/2 thru 1.5 Hp	115 VAC	1 Phase - 50/60 Hz
1/2 thru 3 Hp	230 VAC	1 Phase - 50/60 Hz
2 thru 5 Hp	230 VAC	3 Phase - 50/60 Hz
1 thru 10 Hp	460 VAC	3 Phase - 50/60 Hz

Definite Purpose Motors



Unit Handling

Applications: Applications that require a washdown or harsh duty enclosure. Ideal for environments where dust, oil mist or water is prevalent. Variable torque, constant torque or constant horsepower applications. Target stand alone applications where a local disconnect is required. New installations, replacements and original equipment manufactures (OEM).

Features: Volts per Hertz Control with peak overload capacity of 175%. Flexible mounting options NEMA 12, NEMA 4X, Input Disconnect models and EMC Filter models. Integral keypad, operator interface and local speed control. Basic set of less than forty programming parameters. Power ratings up to 10 Hp in 460V versions.

Brake Motors

Performance Features	Control Modes	V/Hz or Sensorless Vector
	Operator Interface Module	Integral Drive Mounted
	Display Lines	6-Character LED Display
	Programmable Preset Speeds	Four
	Analog Outputs	One (0-10 VDC)
	Auto Restart	Yes – Up to 5 attempts
	Frequency Avoidance	One Band
	Fault History	Last Four Faults
	Digital Inputs	Three Configurable Inputs
Digital Inputs Type	Pull-Up	
Drive Specifications	Analog Inputs: One	0-10VDC or 4 to 20mA
	Digital Outputs: Two Total	One Built-in Form C Relay, One Optional Form C Relay
	Meter Outputs	0-10 VDC: One Analog Usable for Meter (Freq., Current, Voltage, or Digital Output)
	Maximum Load	10 Hp @ 460 VAC
	Overload Capacity	Drive Output 150% for one minute and 175% for 2 seconds
	Input Voltage Ranges	115 VAC (99-126); 230 VAC (198-264); 460 VAC (342-528)
	Rated Input Frequency	50-60Hz (±5%)
	Carrier Frequency	4-32 kHz (8 kHz default)
	Operating Temperature	-10° to 40°C
	Snubber (Dynamic Braking)	Built-in Transistor on Frames 2 and 3 only
	Dynamic Braking External	Up to 150% Dynamic Braking with appropriately sized resistor
	DC Injection Braking	Included
	Volts/Hz	Linear V/Hz, Energy Optimizer Function
	Sensorless Vector	Full Sensorless Vector Control with Autotune Function and motor model
	Frequency Control Range	0 - 500Hz
	Accel/Decel	Independently adjustable accel. & decel. ramps
	Time Range	0.1 to 3000 Seconds
	Keypad Speed Control	Yes
	Sink/Source Inputs	Selectable, 24 VDC Logic
	Electronic Overload Trip	Electronic Motor Overload Inverse 150% for 1 minute or 175% for 2
	Communications	Built-in MODBUS-RTU (RS-485) Communications
PID Control	Future Release	
Protective Features	Under Voltage	Level Depends on Voltage Class (240, 480, or 575)
	Output Short Circuit	Phase-to-Phase on Drive Output
	Over Temperature	Heatsink Monitor
	DC Bus Overvoltage	DC Bus Level Trip
	Drive Overload	Exceed Drive rating of 150% for One Minute or 175% for 2 seconds
	Over Current	Over-current/short-Circuit protection
	Output Phase	Trips on open Output Phase
	Loss of Reference	Trips on Loss of Speed Command Signal
	Comm. Error	Detects a communication error (fault)
	Agency Certifications	UL, cUL, CE, CCC, C-tick
Service Conditions	Altitude	1,000 m (3,300 ft.), derate by 1% per 100m up to 2,000m maximum
	Ambient Temperature	IP20: -10°C (14°F) to 40°C (102°F)
	Storage Temperature	-40°C (-40°F) to 60°C (140°F)
	Relative Humidity	10% to 95%, non-condensing
	Intermittent Overload	150% overload capacity for up to 1 minute, 175% overload capacity for up to 2 seconds

200 & 575 Volt Motors

IEC Frame Motors

50 Hertz Motors

Inverter/Vector Motors & Controls

DC Motors and Controls

Soft Start & Dynamic Brakes