

PowerXL DM1 Series



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PowerXL DM1 Series

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Product Description

The DM1 and DM1 PRO microdrives are part of Eaton's next generation PowerXL Series of adjustable frequency drives specifically engineered for today's more demanding commercial and industrial applications. The power unit makes use of the most sophisticated semiconductor technology and a highly modular construction that can be flexibly adapted to meet the customer's needs. The control module was designed to include today's standard communication protocols and I/O while still having the modularity to add additional option cards. Eaton's patented Active Energy Control® is also a standard feature on DM1 drives, offering customers increased efficiency, safety and reliability. These drives continue the tradition of robust performance and raise the bar on features and functionality, ensuring the best solution at the right price.

Features

- Brake chopper standard
- Dual overload ratings:
 - 110% variable torque (I_L)
 - 150% constant torque (I_H)
- Control logic can be powered from an external auxiliary control panel—internal drive functions and fieldbus if necessary
- Open Type/IP00 or IP20 or Type 1/IP21 accessory kit enclosures available
- Standard I/O:
 - 4DI, 1AI, 1AO 2FC relays
- Integrated input surge protection
- Standard communications:
 - DM1 PRO EtherNet/IP, Modbus TCP, BACnet/IP
 - DM1 and DM1 PRO Modbus RTU, BACnet MS/TP, Bluetooth
- EMI/RFI filters optional on all drives—meets EMC Category C2
- Seamless integration into EtherNet/IP networks via EIP-Assist I/O tag-generation tool
- SNTP time clock supports internet time stamping of faults
- One expansion port for additional communication protocols as necessary
- Remote graphic LCD display and keypad supports simple menu navigation as well as on-screen diagnostics and troubleshooting
- LOCAL/REMOTE operation from keypad
- Conformal-coated control and power boards standard
- Safe Torque Off (STO) built-in with functional safety SIL2 Certification

Software

- Active Energy Control minimizes energy losses in your motor, resulting in industry-leading energy efficiency for your application
- Quick Start Wizard upon initial power-up supports fast, easy installation
- Standard applications:
 - Standard
 - Fan
 - Pump
 - Multi-purpose
- Copy/paste functionality on drive keypad allows for fast setup of multiple drives using remote keypad
- Pre-programmed I/O supports fast, easy installation for most applications
- Advanced PC Tool with diagnostic capabilities

Standards and Certifications

- IEC/EN 61800-5-1 Immunity: IEC/EN 61800-3, UL-61800-5, IEC/EN 61800-5-2, Category C2
- cUL
- UL
- CE
- IEC 61508
- C-Tick
- EN 62061
- RoHS
- EN ISO 13849-1
- EAC
- Plenum rated

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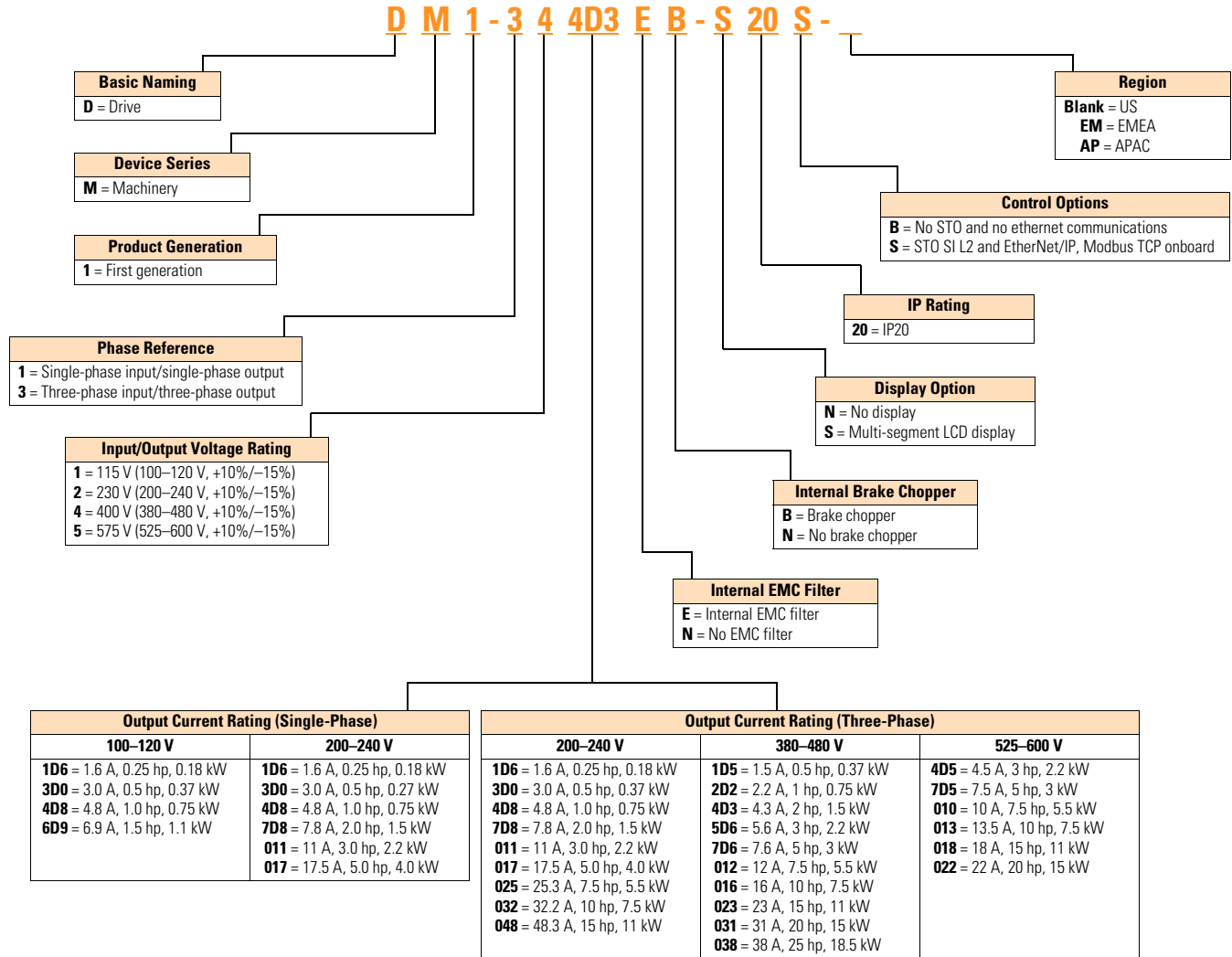
Adjustable Frequency Drives

PowerXL DM1 Series

Catalog Number Selection

PowerXL DM1 Series Drives

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Product Selection

PowerXL DM1 Series Drives

DM1-32_

230 V—Three-Phase Input



Frame Size	Constant Torque (CT)/High Overload (I_H)			Variable Torque (VT)/Low Overload (I_L)			Catalog Number
	230 V, 50 Hz kW Rating	230 V, 60 Hz hp	Current A	230 V, 50 Hz kW Rating	230 V, 60 Hz hp	Current A	
FR1	0.18	0.25	1.6	0.37	0.5	2.5	DM1-321D6_B-N20B
	0.37	0.5	3	0.75	1	4.8	DM1-323D0_B-N20B
	0.75	1	4.8	1.5	2	7.8	DM1-324D8_B-N20B
	1.5	2	7.8	2.2	3	11	DM1-327D8_B-N20B
FR2	2.2	3	11	4	5	17.5	DM1-32011_B-N20B
	4	5	17.5	5.5	7.5	25.3	DM1-32017_B-N20B
FR3	5.5	7.5	25.3	7.5	10	32.2	DM1-32025_B-N20B
FR4	7.5	10	32.2	11	15	48.3	DM1-32032_B-N20B
	11	15	48.3	15	20	62.1	DM1-32048_B-N20B

DM1-34_

480 V—Three-Phase Input



Frame Size	Constant Torque (CT)/High Overload (I_H)			Variable Torque (VT)/Low Overload (I_L)			Catalog Number
	480 V, 50 Hz kW Rating	480 V, 60 Hz hp	Current A	480 V, 50 Hz kW Rating	480 V, 60 Hz hp	Current A	
FR1	0.37	0.5	1.5	0.75	1	2.2	DM1-341D5_B-N20B
	0.75	1	2.2	1.5	2	4.3	DM1-342D2_B-N20B
	1.5	2	4.3	2.2	3	5.6	DM1-344D3_B-N20B
	2.2	3	5.6	3	5	7.6	DM1-345D6_B-N20B
FR2	3	5	7.6	5.5	7.5	12	DM1-347D6_B-N20B
	5.5	7.5	12	7.5	10	16	DM1-34012_B-N20B
	7.5	10	16	11	15	23	DM1-34016_B-N20B
FR3	11	15	23	15	20	31	DM1-34023_B-N20B
FR4	15	20	31	18.5	25	38	DM1-34031_B-N20B
	18.5	25	38	22	30	46	DM1-34038_B-N20B

PowerXL DM1 PRO Series Drives

DM1-11_

115 V—Single-Phase Input



Frame Size	Constant Torque (CT)/High Overload (I_H)			Variable Torque (VT)/Low Overload (I_L)			Catalog Number
	230 V, 50 Hz kW Rating	230 V, 60 Hz hp	Current A	230 V, 50 Hz kW Rating	230 V, 60 Hz hp	Current A	
FR1	0.18	0.25	1.6	0.37	0.5	2.5	DM1-111D6_B-S20S
	0.37	0.5	3	0.75	1	4.8	DM1-113D0_B-S20S
FR2	0.75	1	4.8	1.1	1.5	6.9	DM1-114D8_B-S20S
	1.1	1.5	6.9	1.5	2	7.8	DM1-116D9_B-S20S

DM1-12_

230 V—Single-Phase Input



Frame Size	Constant Torque (CT)/High Overload (I_H)			Variable Torque (VT)/Low Overload (I_L)			Catalog Number
	230 V, 50 Hz kW Rating	230 V, 60 Hz hp	Current A	230 V, 50 Hz kW Rating	230 V, 60 Hz hp	Current A	
FR1	0.18	0.25	1.6	0.37	0.5	2.5	DM1-121D6_B-S20S
	0.37	0.5	3	0.75	1	4.8	DM1-123D0_B-S20S
	0.75	1	4.8	1.5	2	7.8	DM1-124D8_B-S20S
FR2	1.5	2	7.8	2.2	3	11	DM1-127D8_B-S20S
	2.2	3	11	4	5	17.5	DM1-12011_B-S20S
FR3	4	5	17.5	5.5	7.5	25.3	DM1-12017_B-S20S

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Adjustable Frequency Drives

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DM1-32_

230 V—Three-Phase Input



Frame Size	Constant Torque (CT)/High Overload (I_H)			Variable Torque (VT)/Low Overload (I_L)			Catalog Number
	230 V, 50 Hz kW Rating	230 V, 60 Hz hp	Current A	230 V, 50 Hz kW Rating	230 V, 60 Hz hp	Current A	
FR1	0.18	0.25	1.6	0.37	0.5	2.5	DM1-321D6_B-S20S
	0.37	0.5	3	0.75	1	4.8	DM1-323D0_B-S20S
	0.75	1	4.8	1.5	2	7.8	DM1-324D8_B-S20S
	1.5	2	7.8	2.2	3	11	DM1-327D8_B-S20S
FR2	2.2	3	11	4	5	17.5	DM1-32011_B-S20S
	4	5	17.5	5.5	7.5	25.3	DM1-32017_B-S20S
FR3	5.5	7.5	25.3	7.5	10	32.2	DM1-32025_B-S20S
FR4	7.5	10	32.2	11	15	48.3	DM1-32032_B-S20S
	11	15	48.3	15	20	62.1	DM1-32048_B-S20S

DM1-34_

480 V—Three-Phase Input



Frame Size	Constant Torque (CT)/High Overload (I_H)			Variable Torque (VT)/Low Overload (I_L)			Catalog Number
	480 V, 50 Hz kW Rating	480 V, 60 Hz hp	Current A	480 V, 50 Hz kW Rating	480 V, 60 Hz hp	Current A	
FR1	0.37	0.5	1.5	0.75	1	2.2	DM1-341D5_B-S20S
	0.75	1	2.2	1.5	2	4.3	DM1-342D2_B-S20S
	1.5	2	4.3	2.2	3	5.6	DM1-344D3_B-S20S
	2.2	3	5.6	3	5	7.6	DM1-345D6_B-S20S
FR2	3	5	7.6	5.5	7.5	12	DM1-347D6_B-S20S
	5.5	7.5	12	7.5	10	16	DM1-34012_B-S20S
	7.5	10	16	11	15	23	DM1-34016_B-S20S
FR3	11	15	23	15	20	31	DM1-34023_B-S20S
FR4	15	20	31	18.5	25	38	DM1-34031_B-S20S
	18.5	25	38	22	30	46	DM1-34038_B-S20S

DM1-35_

575 V—Three-Phase Input



Frame Size	Constant Torque (CT)/High Overload (I_H)			Variable Torque (VT)/Low Overload (I_L)			Catalog Number
	575 V, 50 Hz kW Rating	575 V, 60 Hz hp	Current A	575 V, 50 Hz kW Rating	575 V, 60 Hz hp	Current A	
FR2	0.75	1	1.7	1.5	2	2.7	DM1-351D7NB-S20S
	1.5	2	2.7	2.2	3	4.5	DM1-352D7NB-S20S
	2.2	3	4.5	3	5	7.5	DM1-354D5NB-S20S
	3	5	7.5	5.5	7.5	10	DM1-357D5NB-S20S
	5.5	7.5	10	7.5	10	13.5	DM1-35010NB-S20S
FR3	7.5	10	13.5	11	15	18	DM1-35013NB-S20S
FR4	11	15	18	15	20	22	DM1-35018NB-S20S
	15	20	22	18.5	25	27	DM1-35022NB-S20S

Accessories

PowerXL Series—DM1 NEMA 1 Conversion Kits

Description	Catalog Number
DM1 FR1 NEMA 1 kit	DXM-ACC-ER1N1KIT
DM1 FR2 NEMA 1 kit	DXM-ACC-ER2N1KIT
DM1 FR3 NEMA 1 kit	DXM-ACC-ER3N1KIT
DM1 FR4 NEMA 1 kit	DXM-ACC-ER4N1KIT

PowerXL Series—DM1 Communication Card Kit

Description	Catalog Number
DG1 SmartWire™ communication card and module IP20	DXG-NET-SWD-IP20
DG1 SmartWire communication card and module IP54	DXG-NET-SWD-IP54
DM1 PROFIBUS communications card	DXM-NET-PROFIBUS
DM1 CANopen communications card	DXM-NET-CANOPEN

PowerXL Series—DM1 Remote Keypad Kit

Description	Catalog Number
Remote keypad	DXG-KEY-LCD
Remote keypad mounting holder	DXG-KEY-HOLDER
DG1 remote keypad kit (3.0 m cable)	DXG-KEY-RMTKIT
DG1 remote keypad mounting holder only—bulk pack (99)	DXG-KEY-HOLDER-BP

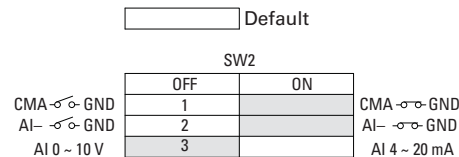
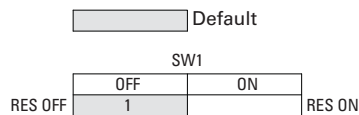
PowerXL Series—DM1 Demo Units

Description	Catalog Number
Demo case DM1 PRO	DM1-DEMO

Power Xpert *inControl* Software

Description	Catalog Number
PC cable	DXG-CBL-PCCABLE

Wiring Diagram



PowerXL Series—DM1 Control Wiring Diagram

External Wiring	Pin	Signal Name	Signal	Default Setting	Description
	1	DI1	Digital input 1	Run forward	Starts the motor in the forward direction
	2	DI2	Digital input 2	Run reverse	Start the motor in the reverse direction
	3	DI3	Digital input 3	External fault	Triggers a fault in the drive
	4	DI4	Digital input 4	Fault reset	Resets active faults in the drive
	5	CMA	DI1 to DI4 common	Grounded	Allows for sourced input
	6	A	RS-485 signal A	—	Fieldbus communication (Modbus RTU, BACNet)
	7	B	RS-485 signal B	—	Fieldbus communication (Modbus RTU, BACNet)
	8	AI1+ ①	Analog input 1	0–10 V	Voltage speed reference (programmable to 4 mA to 20 mA)
	9	AI1–	Analog input 1 ground	—	Analog input 1 common (ground)
	10	GND	I/O signal ground	—	I/O ground for reference and control
	11	AO1+	Analog output 1	Output frequency	Shows output frequency to motor 0–60 Hz (4 mA to 20 mA)
	12	GND	I/O signal ground	—	I/O ground for reference and control
	13	10 V	10 Vdc reference output	10.3 Vdc ±3%	10 Vdc reference voltage
	14	24 V	24 Vdc control output	24 Vdc In/Out	Control voltage input/output (100 mA max.)
	15	STO1	Safe torque Off 1	—	Safe torque Off 1 input
	16	STO2	Safe torque Off 2	—	Safe torque Off 2 input
	17	STO_COM	Safe torque common	—	Safe torque Off common
	18	R1NO	Relay 1 normally open	Run	Changes state when the drive is in the run state
	19	R1CM	Relay 1 common	—	—
	20	R1NC	Relay 1 normally closed	—	—
	21	R2NO	Relay 2 normally open	Fault	Changes state when the drive is in the fault state
	22	R2CM	Relay 2 common	—	—

Notes

The above wiring demonstrates a SINK configuration. It is important that CMA is wired to ground (as shown by dashed line). If a SOURCE configuration is desired, wire 24 V to CMA and close the inputs to ground. When using the +10 V for AI1, it is important to wire AI1– to ground (as shown by dashed line). If using +10 V for AI1, terminals 9 and 10 need to be jumpered together.

① AI1+ support 10 K potentiometer.

Technical Data and Specifications

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PowerXL DM1 Series Specifications

Section	Description	Specification	
Input ratings	Rated input voltage	1 = 115 V (100–120 V, +10%/–15%) 2 = 230 V (200–240 V, +10%/–15%) 4 = 400 V (380–480 V, +10%/–15%) 5 = 575 V (525–600 V, +10%/–15%)	
	Voltage tolerance	–15%/10%	
	Input frequency	50 Hz to 60 Hz (variation up to 45 Hz to 66 Hz)	
	Input THD	>120%	
	Connection to power	Once per minute or less	
	Boot delay	3 s	
	Short-circuit withstand rating	100 kAIC (fuses and circuit breakers); 65 kAIC (Type E CMC); 14 kAIC (miniature breakers); 5 kAIC (all)	
	Power ride-through	100 ms	
	Logic control ride-through	0.5 s min, 2 s typical	
	Frequency tolerance	45 Hz to 65 Hz	
	Total watts loss typical	Typical efficiency 97.5% for three phase	
	Output ratings	Output voltage	
		Continuous output current	I_L : ambient temperature maximum 40 °C, up to 60 °C with derating, overload 1.1 x I_L (1 min/10 min) I_H : ambient temperature maximum 50 °C, up to 60 °C with derating, overload 1.5 x I_H (1 min/10 min)
Overload current		150% of drive rating for constant torque; 110% of drive rating for variable torque	
Initial output current		200% (2 sec/20 sec)	
Output frequency		0–400 Hz (standard)	
Frequency resolution		0.01 Hz	
Maximum cable length		See EMC guidelines in Installation Manual Without EMC considerations: 328 ft (100 m)	
Control characteristics	Control methods	Frequency control; speed control; PM motor speed control	
	Performance:		
	• V/Hz (volts per hertz)	±0.5% of base speed across a 30:1 speed range	
	• SVC (sensorless vector)	±0.5% of base speed across a 60:1 speed range	
	• PM motor	±0.5% of base speed, up to a 20:1 speed range	
	Switching frequency	230 V/480 V range: 1 kHz to 16 kHz Automatic switching frequency derating in case of overload	
	Frequency reference	Analog input: resolution 0.1% (10-bit), accuracy +1% Analog output: resolution 0.1% (10-bit), accuracy +1% Panel reference: resolution 0.01 Hz	
	Field weakening point	20 Hz to 400 Hz	
	Acceleration time	0.1 s to 3000 s	
	Deceleration time	0.1 s to 3000 s	
Protections	Braking torque	DC brake: 30% x motor rated torque (T_n) (without brake chopper) Dynamic braking (with optional brake chopper using an external brake resistor): 100% continuous maximum rating	
	Overvoltage protection	Yes	
	Overvoltage trip limit	240 V drives: 430 V / 480 V drives: 850 V	
	Undervoltage protection	Yes	
	Undervoltage trip limit	240 V drives: 210 V / 480 V drives: 390 V	
	Earth fault protection	Yes	
	Input phase supervision	Yes	
	Motor phase supervision	Yes	
	Overcurrent protection	Yes	
	Unit overtemperature protection	Yes	
	Motor overload protection	Yes	
	Motor stall protection	Yes	
	Motor underload protection	Yes	
	DC bus overvoltage control	Yes	
	Short-circuit protection of 24 V supply	No	
Surge protection	Yes (differential mode 2 kV; common mode 4 kV)		
Conformal-coated boards	Yes (prevents corrosion) meets IEC 60721-3-3, unit in operation, Class 3C2		

PowerXL DM1 Series Specifications, continued

Section	Description	Specification
Control section	Control voltage	24 Vdc, max 100 mA
	Reference voltage	10.3 Vdc max 10 mA
	Digital inputs:	
	Quantity	4 programmable
	Type	Positive or negative logic; 18 to 30 Vdc
	Speed	1 kHz
	Relay output:	
	Quantity	2 programmable (1 Form C relay and 1 N/O Form A relay)
	Specification	Switching capacity: Resistive rating: 3.0 A at 30 Vdc, 3.0 A at 125 V, 3.0 A at 240 Vac Inductive rating: 0.5 A at 30 Vdc, 0.5 A at 125 V, 0.5 A at 240 Vac
	Analog input:	
	Quantity	1 dipswitch selectable 0–10 Vdc or 0/4 to 20 mA
	Specification	
	• Resolution	10-bit
	• 0–10 Vdc analog	100 kohm input impedance
	• 4–20 mA analog	250 ohm input impedance
	• External pot	1–10 kohm, 2 watt minimum
	Analog output:	
Quantity	1 dipswitch selectable 0–10 Vdc or 0/4 to 20 mA	
Specification		
• Resolution	10-bit	
• 0–10 Vdc analog	10 mA max	
• 4–20 mA analog	RL max 500 ohm	
Communications	EtherNet/IP	Onboard (DM1 PRO only)
	Modbus TCP	Onboard (DM1 PRO only)
	BACnet/IP	Onboard (DM1 PRO only)
	Modbus RTU	Onboard
	BACnet MSTP	Onboard (DM1 PRO only)
	Dualport EtherNet/IP	Onboard (DM1 PRO only)
	SmartWire D/T	Onboard (DM1 PRO only)
	PROFIBUS	Onboard (DM1 PRO only)
	CANopen	Onboard (DM1 PRO only)
Environmental	Ambient operating temperature	–10 °C (no frost) to +50 °C, up to +60 °C with derating (CT) –10 °C (no frost) to +40 °C, up to +60 °C with derating (VT)
	Storage temperature	–40 °C to +70 °C
	Relative humidity	0–95% RH, noncondensing, non-corrosive
	Air quality:	Tested according to IEC 60068-2-60 test key:
	• Chemical vapors	Flowing mixed gas corrosion test, method 1 (H ₂ S [hydrogen sulfide] and SO ₂ [sulfur dioxide])
	• Mechanical particles	Designed according to: IEC 60721-3-3, unit in operation, Class 3C2
	Vibration:	Vibration test at operating status
	• EN 61800-5-1	Displacement amplitude: 0.075 mm (peak) at 10 Hz to 57 Hz
	• EN 60068-2-6	Maximum acceleration amplitude: 1g at 57 Hz to 150 Hz
	Shock:	Shock test at operating status
	• EN 60068-2-27	Peak acceleration: 15 g Duration: 11 ms
	Transportation:	Transported as a single device in a separate package,
	• ISTA 1 A	Vibration test and drop test per ISTA 1A
	Overvoltage	Overvoltage Category III
	Pollution degree	Pollution Degree 2
	Enclosure class	IP20 standard in entire kW/hp range; NEMA Type 1 with accessory kit
	Immunity	EN 61800-3:2004/A1:2012, first and second environment
Altitude	100% load capacity (no derating) up to 3280 ft (1000 m) 1% derating for each 328 ft (100 m) above 3280 ft (1000 m) max. 9842 ft (3000 m) (2000 m for corner grounded earth main systems)	
MTBF	300,000 hours	
Standards	Safety	UL 61800-5-1:2012 (Rev. 2018), CSA C22.2 No. 274-17:2017 and EN 61800-5-1:2007/A1:2017
	Electrostatic discharge	Second environment, IEC 61000-4-2, 4 kV CD or 8 kV AD, Criterion B
	Fast transient burst	Second environment, IEC 61000-4-4, 2 kV/5 kHz, Criterion B
	Dielectrical strength	Primary to secondary: 3600 Vac/5100 Vdc; Primary to earth: 2000 Vac/2828 Vdc
	Approvals	CE, UL and cUL, EAC, RCM (C-Tick), RoHS, TUV, FCC

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Adjustable Frequency Drives

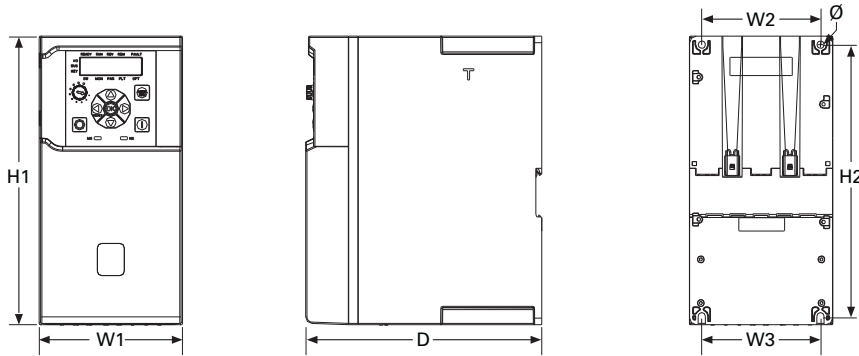
PowerXL DM1 Series

Dimensions

Approximate Dimensions in Inches (mm)

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PowerXL Series—DM1 Dimensions



Input Voltage	Frame Size	Catalog Number	Output Rating		Approximate Dimensions in Inches (mm)								Weight Lb (kg)
			CT/H Current (A)	VT/L Current (A)	D	H1	H2	W1	W2	W3	Ø		
100–120 Vac, 50/60 Hz, single-phase	FR1	DM1-111D6...	1.6	2.5	7.09 (180)	5.98 (152)	5.51 (140)	2.83 (72)	2.26 (57.5)	2.26 (57.5)	0.20 (5.2)	2.6 (1.2)	
		DM1-113D0...	3	4.8	7.09 (180)	5.98 (152)	5.51 (140)	2.83 (72)	2.26 (57.5)	2.26 (57.5)	0.20 (5.2)	2.6 (1.2)	
	FR2	DM1-114D8...	4.8	6.9	7.09 (180)	8.66 (220)	8.15 (207)	4.29 (109)	3.56 (90.5)	3.56 (90.5)	0.22 (5.5)	5.7 (2.6)	
		DM1-116D9...	6.9	7.8	7.09 (180)	8.66 (220)	8.15 (207)	4.29 (109)	3.56 (90.5)	3.56 (90.5)	0.22 (5.5)	5.7 (2.6)	
200–240 Vac, 50/60 Hz, single-phase	FR1	DM1-121D6...	1.6	2.5	7.09 (180)	5.98 (152)	5.51 (140)	2.83 (72)	2.26 (57.5)	2.26 (57.5)	0.20 (5.2)	2.6 (1.2)	
		DM1-123D0...	3	4.8	7.09 (180)	5.98 (152)	5.51 (140)	2.83 (72)	2.26 (57.5)	2.26 (57.5)	0.20 (5.2)	2.6 (1.2)	
		DM1-124D8...	4.8	7.8	7.09 (180)	5.98 (152)	5.51 (140)	2.83 (72)	2.26 (57.5)	2.26 (57.5)	0.20 (5.2)	2.6 (1.2)	
	FR2	DM1-127D8...	7.8	11	7.09 (180)	8.66 (220)	8.15 (207)	4.29 (109)	3.56 (90.5)	3.56 (90.5)	0.22 (5.5)	5.7 (2.6)	
		DM1-12011...	11	17.5	7.09 (180)	8.66 (220)	8.15 (207)	4.29 (109)	3.56 (90.5)	3.56 (90.5)	0.22 (5.5)	5.7 (2.6)	
FR3	DM1-12017...	17.5	25.3	7.09 (180)	10.24 (260)	9.72 (247)	5.12 (130)	4.57 (116)	4.57 (116)	0.22 (5.5)	8.2 (3.7)		
200–240 Vac, 50/60 Hz, three-phase	FR1	DM1-321D6...	1.6	2.5	7.09 (180)	5.98 (152)	5.51 (140)	2.83 (72)	2.26 (57.5)	2.26 (57.5)	0.20 (5.2)	2.6 (1.2)	
		DM1-323D0...	3	4.8	7.09 (180)	5.98 (152)	5.51 (140)	2.83 (72)	2.26 (57.5)	2.26 (57.5)	0.20 (5.2)	2.6 (1.2)	
		DM1-324D8...	4.8	7.8	7.09 (180)	5.98 (152)	5.51 (140)	2.83 (72)	2.26 (57.5)	2.26 (57.5)	0.20 (5.2)	2.6 (1.2)	
		DM1-327D8...	7.8	11	7.09 (180)	5.98 (152)	5.51 (140)	2.83 (72)	2.26 (57.5)	2.26 (57.5)	0.20 (5.2)	2.6 (1.2)	
	FR2	DM1-32011...	11	17.5	7.09 (180)	8.66 (220)	8.15 (207)	4.29 (109)	3.56 (90.5)	3.56 (90.5)	0.22 (5.5)	5.7 (2.6)	
		DM1-32017...	17.5	25.3	7.09 (180)	8.66 (220)	8.15 (207)	4.29 (109)	3.56 (90.5)	3.56 (90.5)	0.22 (5.5)	5.7 (2.6)	
	FR3	DM1-32025...	25.3	32.2	7.09 (180)	10.24 (260)	9.72 (247)	5.12 (130)	4.57 (116)	4.57 (116)	0.22 (5.5)	8.2 (3.7)	
	FR4	DM1-32032...	32.2	48.3	7.68 (195)	11.81 (300)	11.02 (280)	7.24 (184)	6.3 (160)	6.3 (160)	0.24 (6)	13.9 (6.3)	
DM1-32048...		48.3	62.1	7.68 (195)	11.81 (300)	11.02 (280)	7.24 (184)	6.3 (160)	6.3 (160)	0.24 (6)	13.9 (6.3)		
380–480 Vac, 50/60 Hz, three-phase	FR1	DM1-341D5...	1.5	2.2	7.09 (180)	5.98 (152)	5.51 (140)	2.83 (72)	2.26 (57.5)	2.26 (57.5)	0.20 (5.2)	2.6 (1.2)	
		DM1-342D2...	2.2	4.3	7.09 (180)	5.98 (152)	5.51 (140)	2.83 (72)	2.26 (57.5)	2.26 (57.5)	0.20 (5.2)	2.6 (1.2)	
		DM1-344D3...	4.3	5.6	7.09 (180)	5.98 (152)	5.51 (140)	2.83 (72)	2.26 (57.5)	2.26 (57.5)	0.20 (5.2)	2.6 (1.2)	
		DM1-345D6...	5.6	7.6	7.09 (180)	5.98 (152)	5.51 (140)	2.83 (72)	2.26 (57.5)	2.26 (57.5)	0.20 (5.2)	2.6 (1.2)	
	FR2	DM1-347D6...	7.6	12	7.09 (180)	8.66 (220)	8.15 (207)	4.29 (109)	3.56 (90.5)	3.56 (90.5)	0.22 (5.5)	5.7 (2.6)	
		DM1-34012...	12	16	7.09 (180)	8.66 (220)	8.15 (207)	4.29 (109)	3.56 (90.5)	3.56 (90.5)	0.22 (5.5)	5.7 (2.6)	
		DM1-34016...	16	23	7.09 (180)	8.66 (220)	8.15 (207)	4.29 (109)	3.56 (90.5)	3.56 (90.5)	0.22 (5.5)	5.7 (2.6)	
		FR3	DM1-34023...	23	31	7.09 (180)	10.24 (260)	9.72 (247)	5.12 (130)	4.57 (116)	4.57 (116)	0.22 (5.5)	8.2 (3.7)
	FR4	DM1-34031...	31	38	7.68 (195)	11.81 (300)	11.02 (280)	7.24 (184)	6.3 (160)	6.3 (160)	0.24 (6)	13.9 (6.3)	
		DM1-34038...	38	46	7.68 (195)	11.81 (300)	11.02 (280)	7.24 (184)	6.3 (160)	6.3 (160)	0.24 (6)	13.9 (6.3)	
	525–600 Vac, 50/60 Hz, three-phase	FR2	DM1-351D7...	1.7	2.7	7.09 (180)	8.66 (220)	8.15 (207)	4.29 (109)	3.56 (90.5)	3.56 (90.5)	0.22 (5.5)	5.7 (2.6)
			DM1-352D7...	2.7	4.5	7.09 (180)	8.66 (220)	8.15 (207)	4.29 (109)	3.56 (90.5)	3.56 (90.5)	0.22 (5.5)	5.7 (2.6)
DM1-354D5...			4.5	7.5	7.09 (180)	8.66 (220)	8.15 (207)	4.29 (109)	3.56 (90.5)	3.56 (90.5)	0.22 (5.5)	5.7 (2.6)	
DM1-357D5...			7.5	10	7.09 (180)	8.66 (220)	8.15 (207)	4.29 (109)	3.56 (90.5)	3.56 (90.5)	0.22 (5.5)	5.7 (2.6)	
DM1-35010...			10	13.5	7.09 (180)	8.66 (220)	8.15 (207)	4.29 (109)	3.56 (90.5)	3.56 (90.5)	0.22 (5.5)	5.7 (2.6)	
FR3		DM1-35013...	13.5	18	7.09 (180)	10.24 (260)	9.72 (247)	5.12 (130)	4.57 (116)	4.57 (116)	0.22 (5.5)	8.2 (3.7)	
FR4		DM1-35018...	18	22	7.68 (195)	11.81 (300)	11.02 (280)	7.24 (184)	6.3 (160)	6.3 (160)	0.24 (6)	13.9 (6.3)	
		DM1-35022...	22	27	7.68 (195)	11.81 (300)	11.02 (280)	7.24 (184)	6.3 (160)	6.3 (160)	0.24 (6)	13.9 (6.3)	