

Understanding SmartMotor™ Part Numbers

Moog Animatics SmartMotor™ Part Numbering Guidelines

Basic Class 5 D-Style Part Numbering

NEMA 17	NEMA 23	NEMA 34
<p>The Brake option cannot be used with any other option. 24V I/O can be used alone or in combination with other options. See part numbers below.</p> <p>SM17205D-BRK SM17205D-C SM17205D-DN SM17205D-AD1 SM17205D-C-AD1 SM17205D-DN-AD1</p>	<p>All three options (Brake, 24V I/O, CAN bus) are available in various combinations for the following part numbers.</p> <p>SM23375D SM23205D SM23375DT SM23305D SM23105D SM23405D</p> <p>The Brake option cannot be used with any other option. 24V I/O can be used alone or in combination with other options. See part numbers below.</p> <p>SM23165D-C SM23165DT-C SM23165D-DN SM23165DT-DN SM23165D-AD1 SM23165DT-AD1 SM23165D-C-AD1 SM23165DT-C-AD1 SM23165D-DN-AD1 SM23165DT-DN-AD1 SM23165D-BRK SM23165DT-BRK</p>	<p>All three options (Brake, 24V I/O, CAN bus) are available in various combinations for the following part numbers.</p> <p>SM34165D** SM34205D SM34165DT** SM34305D SM34105D SM34405D</p> <p>**SM34165D and SM34165DT are the only models that can have an internal shunt.</p>

To see all possible option combinations for each motor and get the exact part number, use the Part Number Generator available on the website at: <http://www.animatics.com/pngenerator>.
For the CDS7 option, see <https://pages.animatics.com/cds7-option>.

Advanced Class 5 D-Style Part Numbering

SM 23 16 5 D - DE - AD1

SmartMotor™	Options	Options
NEMA Frame Size	DE Drive enable*	C CANOpen option
17	BRK Internal brake	CDS7 CANOpen on 7W2 and D-sub
23	SH Internal shunt (select models only)**	DN DeviceNet
34		PB PROFIBUS®^
		AD1 24 V Expansion I/O
		F1 1 flat on shaft
		F2 2 flats on shaft
		K Keyway on shaft
		SL Reduced shaft length

Motor Size	Connector Style
17 frame size 20	D D-sub
23 frame size 10 30	DT D-sub, high torque
16 37	
20 40	
34 frame size 10 30	
16 40	
20 50	

Class 5

* Separate drive and control power
** SM34165D and SM34165DT are the only models that can have an internal shunt
^ PROFIBUS option only available on SM23165D and SM23165DT product with no additional options

Advanced Class 5 M-Style Part Numbering

SM 23 16 5 MT - BRK - IP - DN - FB01

SmartMotor™	Brake Option	DeviceNet Option	Abs Encoder Option
NEMA Frame Size	BRK Internal brake	- CAN (standard)	FB01 Multiturn absolute encoder
23		DN DeviceNet	KFB01 Kit (multiturn absolute encoder, cable and battery)
34			

Motor Size	Connector Style	IP Option
16 Standard OEM	MT M-style, high torque	• Standard IP-Option Models are IP67 Compliant
		• IP-Option Models with BRK option are IP65 Compliant

Class 5

Advanced Class 5 S-Style Part Numbering

SM 23 16 5 S T - BRK

SmartMotor™	Custom Winding	Configuration and Brake Option
NEMA Frame Size	- 48 V winding	- 12 pin connector (5V TTL, IOs & CAN)
23	T 48 V high torque	BRK 12 pin connector (5V TTL, IOs & CAN) + internal brake
34	x 24 V winding (on request)	C 5 pin connector (dedicated CAN)
	xT 24 V high torque (on request)	BRK-C 5 pin connector (dedicated CAN) + internal brake
		EO 12 pin connector (5V TTL, IOs & Encoder OUT)
		BRK-EO 12 pin connector (5V TTL, IOs & Encoder OUT) + internal brake

Motor Size	Connector Style
16 Standard OEM	S
	S = sloped cap and sealed
	All S-style motors have IP65* protection and metric axial connectors
	DE is standard
	*The motor shaft is not sealed.

Class 5

Advanced Class 6 M-Style Part Numbering

SM 23 16 6 MT - EXX - BRK - IP

SmartMotor™	Fieldbus Option	IP Option
NEMA Frame Size	EIP EtherNet / IP	• Standard IP-Option Models are IP67 Compliant
23	EEC EtherCAT	• IP-Option Models with BRK option are IP65 Compliant
34**	EPN PROFINET	

Motor Size	Connector Style	Option
16 Standard OEM	MT M-style, high torque	BRK Internal brake
21*** Stepper Hybrid	MH M-style, hybrid	
	MT2 M-style, high torque, Gen 2	

Class 6

* Available on MT and MT2 motors only
** Available on MT2 motors only
*** Available on MH motors only

Advanced Class 6 D-Style Part Numbering

SM 23 16 6 D - BRK - EXX - XX

SmartMotor™	Option	Option
NEMA Frame Size	BRK Inline brake	Standard Round shaft
17		F1* 1 flat on shaft
23		F2* 2 flats on shaft
34		K* Keyway

Motor Size	Connector Style	Fieldbus Option
17 frame size 16	D D-sub	EIP EtherNet / IP
23 frame size 16	DT D-sub, high torque	EEC EtherCAT
26		EPN PROFINET
37		
34 frame size 16		
26		

Class 6

DT option is for high strength roto magnets and only applies to: SM2316---, SM2326---, SM3416---, SM3426---

*Consult factory for availability