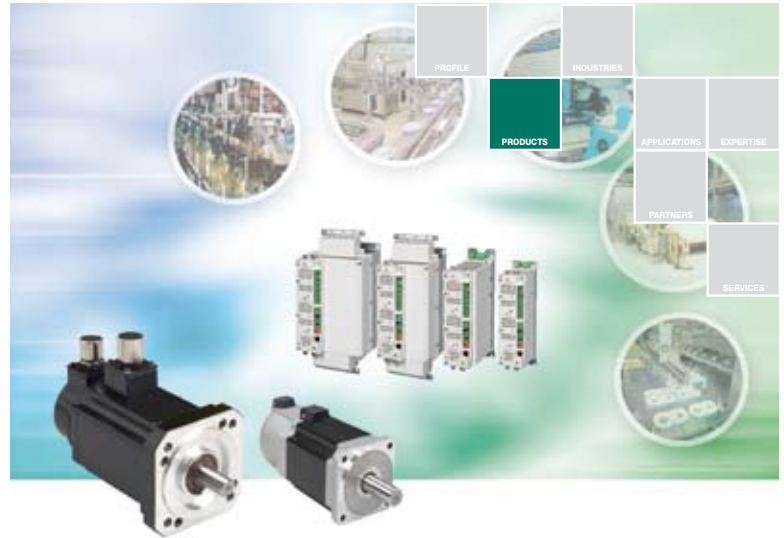


ABB servo motors

for ABB high performance machinery drives

MS series, 1.1 to 35.8 Nm nominal torque



Matched drive and motor combination

The ABB high performance machinery drive ACSM1 and the MS series servo motors provide a compact and powerful package for machine building applications.

ABB servo motors

The MS series of ABB servo motors is ideal for operation with the ABB high performance machinery drives. The motor is robust and suitable for operation in harsh environmental conditions. The resolver feedback is highly reliable, even under demanding mechanical stress levels and in high ambient temperatures. The series comprises four frame sizes, each available in various lengths, totaling ten variants. Ready-made power and feedback cables are also available. The motors are delivered from stock, guaranteeing quick and reliable delivery.

ABB high performance machinery drives

ABB high performance machinery drives provide speed, torque and motion control for demanding machines. They can control induction, synchronous and asynchronous servo and high torque motors with various feedback devices. The compact hardware and programming flexibility ensure the optimum solution. The innovative memory unit concept enables flexible drive configuration.

Features and benefits

- Compact design with low weight: 20% smaller than conventional design
- Powerful and responsive: high performance magnetic material
- Brushless resolver as feedback sensor gives highly reliable and maintenance-free operation
- Complete torque range from 1 to 35.8 Nm
- Short term overload between 2.5 and 3.5 times nominal torque, depending on the motor size
- Shaft with keyway – motor delivered with half and full key
- Selecting a motor and drive combination is easy with the DriveSize sizing tool
- Ready-made power and feedback cables
- Stocked item with fast delivery

Types, ratings and dimensions



MS series servo motor, AC 400 V	$M_N, M_0^{(2)}$	$M_{Max}^{(3)}$	$n_N^{(4)}$	$I_N^{(5)}$	$I_{Max}^{(6)}$	$P^{(7)}$	$J_M^{(8)}$	$J_{M+Brk}^{(9)}$	$M_{Brk}^{(10)}$
Type code	[Nm]	[Nm]	[rpm]	[A]	[A]	[kW]	$[\text{kgm}^2 \times 10^{-4}]$	$[\text{kgm}^2 \times 10^{-4}]$	[Nm]
MS4612NX ¹⁾ 008E43F10	1.1	3.82	3000	2.5	8.3	0.345	0.61	0.77	1.27
MS4614NX ¹⁾ 008E43F10	2.0	7.16	3000	2.3	8.0	0.628	1.08	1.24	2.39
MS4813NX ¹⁾ 008E43C10	3.3	9.90	3000	3.4	9.3	1.0	2.59	2.77	9.30
MS4815NX ¹⁾ 008E43C10	4.8	14.30	3000	4.7	13.3	1.5	3.60	3.77	9.30
MS4817NX ¹⁾ 008E43C10	6.8	20.40	3000	6.5	18.7	2.0	4.70	4.87	9.30
MS4836NX ¹⁾ 008E43C10	10.5	31.50	3000	9.5	27.8	3.3	11.60	11.70	13.50
MS4839NX ¹⁾ 008E43C10	15.5	47.70	3000	14.4	43.3	4.9	17.20	17.20	17.50
MS4884NX ¹⁾ 008E42C10	19.1	47.70	2000	11.7	28.6	4.0	29.50	29.98	32.00
MS4887NX ¹⁾ 008E42C10	28.6	71.50	2000	18.1	44.8	6.0	43.30	44.00	50.00
MS4889NX ¹⁾ 008E42C10	35.8	89.50	2000	20.9	51.3	7.5	57.00	57.70	50.00

¹⁾ X¹⁾: 4 = without holding brake
9 = with holding brake

²⁾ M_N, M_0 : Nominal and stall torque

³⁾ M_{Max} : Intermittent peak torque

⁴⁾ n_N : Nominal speed

⁵⁾ I_N : Nominal current

⁶⁾ I_{Max} : Intermittent peak current

⁷⁾ P: Nominal power

⁸⁾ J_M : Moment of inertia

⁹⁾ J_{M+Brk} : Moment of inertia with holding brake

¹⁰⁾ M_{Brk} : Holding brake torque

Motor type	A ¹⁾ mm	B j6 ²⁾ mm	C ³⁾ mm	D k6 ⁴⁾ mm	E ⁵⁾ mm	F ⁶⁾ mm	R ⁷⁾ mm	S ⁸⁾ mm	L ⁹⁾ mm	$L_{Brk}^{(10)}$ mm
MS4612	95.0	80.0	30.0	14.0	N/A	N/A	7.0	100.0	90.1	121.1
MS4614	95.0	80.0	30.0	14.0	N/A	N/A	7.0	100.0	115.7	152.3
MS4813	115.0	95.0	40.0	19.0	107.5	78.0	9.0	115.0	162.0	194.0
MS4815	115.0	95.0	40.0	19.0	107.5	78.0	9.0	115.0	180.0	212.0
MS4817	115.0	95.0	40.0	19.0	107.5	78.0	9.0	115.0	198.0	230.0
MS4836	142.0	130.0	50.0	24.0	122.5	93.1	11.0	165.0	175.5	213.5
MS4839	142.0	130.0	50.0	24.0	122.5	93.1	11.0	165.0	208.0	246.0
MS4884	190.0	180.0	60.0	32.0	147.5	93.1	14.0	215.0	182.0	231.0
MS4887	190.0	180.0	60.0	32.0	147.5	93.1	14.0	215.0	206.0	252.0
MS4889	190.0	180.0	60.0	32.0	147.5	93.1	14.0	215.0	230.0	276.0

¹⁾ A: Flange size

²⁾ B j6: Collar diameter

³⁾ C: Shaft length

⁴⁾ D k6: Shaft diameter

⁵⁾ E: Power connector height

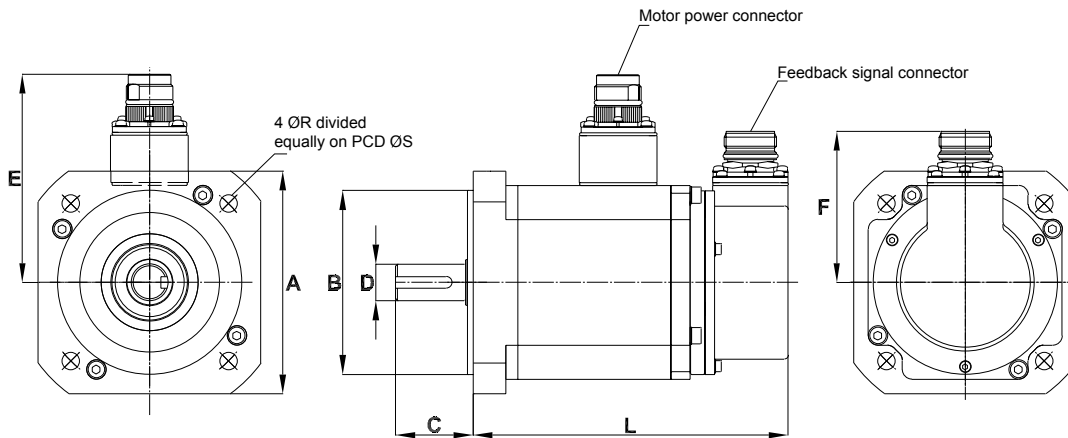
⁶⁾ F: Feedback connector height

⁷⁾ R: Fixing hole

⁸⁾ S: Pitch Circle Diameter (PCD)

⁹⁾ L: Length without brake

¹⁰⁾ L_{Brk} : Length with brake



For more information see technical catalogue ABB servo motors for ABB high performance machinery drives, MS series (3AFE68955645), and technical catalogue ABB high performance machinery drives, ACSM1 (3AFE68675073)



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