



Front of the  
BMH 070●●●●●1A



Front of the  
BMH 100●●●●●1A



Front of the  
BMH 1401P●●●●●1A



Rear view of the  
BMH 1901P●●●●●2A

### BMH servo motors

The BMH servo motors shown below are supplied without a gearbox.  
For GBX and GBY gearboxes see pages 62106/5 and 62106/6.

Continuous stall torque	Peak stall torque	Nominal servo motor output power	Nominal speed	Maximum mechanical speed	Associated LXM 32 servo drive	Reference (1)	Weight (2)
Nm	Nm	W	rpm	rpm			kg
1.2	4.2	350	3000	8000	●U60N4	BMH 0701P●●●●●A	1.600
1.4	4	450	4000	8000	●U90M2	BMH 0701T●●●●●A	1.600
	4.2	350	2500	8000	●D18M2	BMH 0701T●●●●●A	1.600
		700	5000	8000	●D12N4	BMH 0701P●●●●●A	1.600
2.5	6.4	600	2500	8000	●D30M2	BMH 0702T●●●●●A	1.800
	7.4	900	4000	8000	●D18M2		
		700	3000	8000	●D12N4	BMH 0702P●●●●●A	1.800
3.4	8.7	650	2000	8000	●D30M2	BMH 0703T●●●●●A	2.000
	10.2	900	3000	8000	●D18M2	BMH 0703T●●●●●A	2.000
		1300	5000	8000	●D18N4	BMH 0703P●●●●●A	2.000
3.3	10.8	800	4000	6000	●D12N4	BMH 1001P●●●●●A	3.340
3.4	8.9	700	2000	6000	●D30M2	BMH 1001T●●●●●A	3.340
	10.8	900	3000	6000	●D18M2		
		1300	4000	6000	●D18N4	BMH 1001P●●●●●A	3.340
6	10.3	750	2000	6000	●D30M2	BMH 1002T●●●●●A	4.920
	18.4	1450	3000	6000	●D30M2		
5.9	18.4	1600	4000	6000	●D18N4	BMH 1002P●●●●●A	4.920
8	23.5	1450	2500	5000	●D30M2	BMH 1003T●●●●●A	6.500
8.4	25.1	2600	4000	5000	●D30N4	BMH 1003P●●●●●A	6.500
10.3	30.8	1450	1500	4000	●D30M2	BMH 1401P●●●●●A	8.000
		2400	3000	4000	●D30N4		
16.8	50.3	3800	3000	4000	●D72N4	BMH 1402P●●●●●A	12.000
24	71.8	4500	3000	4000	●D72N4	BMH 1403P●●●●●A	16.000
30	77.7	4800	2500	4000	●D72N4	BMH 1901P●●●●●A	19.000
37.4	101	5900	2500	4000	●D72N4	BMH 1902P●●●●●A	31.000
43.2	123	5700	1500	3500	●D72N4	BMH 1903P●●●●●A	43.000
84	232	6500	1200	3800	●D72N4	BMH 2053P●●●●●A	67.000

To order a BMH servo motor, complete each reference above with:

		BMH 0701P					A
Shaft end	IP 54	Untapped (3)	0				
		Keyed (3)	1				
	IP 65/IP 67 (4)	Untapped	2				
		Keyed	3				
Integrated sensor High resolution, optical	Single turn, SinCos Hiperface® 131,072 points/turn (5) 128 sine/cosine periods per turn		1				
	Multiturn, SinCos Hiperface® 131,072 points/turn x 4096 turns (5) 128 sine/cosine periods per turn		2				
Integrated sensor Medium resolution, capacitive	Single turn, SinCos Hiperface® 32,768 points/turn (5) 16 sine/cosine periods per turn		6				
	Multiturn, SinCos Hiperface® 32,768 points/turn x 4096 turns (5) 16 sine/cosine periods per turn		7				
Holding brake	Without				A		
	With				F		
Connections	Straight connectors (3)					1	
	Rotatable right-angled connectors					2	
Flange	International standard						A

Note: The example above is for a BMH 0701P servo motor. For other servo motors, replace BMH 0701P with the relevant reference.

(1) To complete each reference see the table above.

(2) Weight of servo motor without brake, no packaging. To obtain the weight of the servo motor with holding brake, please visit our website [www.schneider-electric.com](http://www.schneider-electric.com).

(3) Not available for BMH 190 servo motors.

(4) IP 67 with the VW3 M2 30● IP 67 conformity kit supplied as an option (see opposite page).

(5) Sensor resolution given for use with a Lexium 32 servo drive.

BMH servo motors (continued)			
Dimensions (overall)			
Servo motors	Flange	W x H x D (1)	
		Without holding brake	With holding brake
		mm	mm
BMH 0701●	70 x 70	70 x 109.5 x 122	70 x 109.5 x 161
BMH 0702●	70 x 70	70 x 109.5 x 154	70 x 109.5 x 193
BMH 0703●	70 x 70	70 x 109.5 x 186	70 x 109.5 x 225
BMH 1001●	100 x 100	100 x 139.5 x 128	100 x 139.5 x 170
BMH 1002●	100 x 100	100 x 139.5 x 160	100 x 139.5 x 202
BMH 1003●	100 x 100	100 x 139.5 x 192	100 x 139.5 x 234
BMH 1401P	140 x 140	140 x 179.5 x 152	140 x 179.5 x 187
BMH 1402P	140 x 140	140 x 179.5 x 192	140 x 179.5 x 227
BMH 1403P	140 x 140	140 x 179.5 x 232	140 x 179.5 x 267
BMH 1901P	190 x 190	190 x 257 x 190	190 x 257 x 248
BMH 1902P	190 x 190	190 x 257 x 250	190 x 257 x 308
BMH 1903P	190 x 190	190 x 257 x 310	190 x 257 x 368
BMH 2053P	205 x 205	205 x 259(2) x 489	205 x 259(2) x 538.5

## IP 67 conformity kits

This kit can be used to ensure IP 67 degree of protection. It is fitted in place of the rear motor rating plate.

Description	For use with	Reference	Weight kg
IP 67 conformity kits (supplied as an option)	BMH 070●●	VW3 M2 301	0.100
	BMH 100●●	VW3 M2 302	0.150
	BMH 140●●	VW3 M2 303	0.300
	BMH 190●●	(3)	0.003
	BMH 205●●	VW3 M2 304	0.750

(1) D: motor length (excluding shaft end).

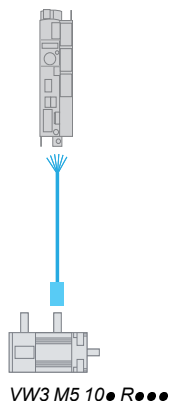
(2) Height of the servo motor equipped with straight connectors. The height is 265 mm when the servo motor is equipped with rotatable angled connectors.

(3) IP 67 conformity kit sold by Festo AG under reference QSML-B-M3-4-20.

PFC080922



VW3 M2 30●



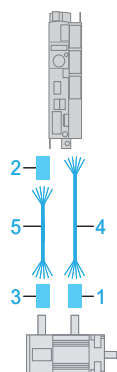
## Connection components

## Power cordsets

Description	From servo motor	To servo drive	Composition	Length m	Reference	Weight kg
<b>Cordsets equipped with one M23 industrial connector</b> (servo motor end)	BMH 070●● BMH 100●● BMH 1401P	LXM 32●●●●●● See combinations on pages 62080/6 to 62080/11	[(4 x 1.5 mm <sup>2</sup> ) + (2 x 1 mm <sup>2</sup> )]	1.5	<b>VW3 M5 101 R15</b>	0.600
				3	<b>VW3 M5 101 R30</b>	0.810
				5	<b>VW3 M5 101 R50</b>	1.210
				10	<b>VW3 M5 101 R100</b>	2.290
				15	<b>VW3 M5 101 R150</b>	3.400
				20	<b>VW3 M5 101 R200</b>	4.510
				25	<b>VW3 M5 101 R250</b>	6.200
				50	<b>VW3 M5 101 R500</b>	12.325
				75	<b>VW3 M5 101 R750</b>	18.450
	BMH 1402P BMH 1403P	LXM 32●D72N4	[(4 x 2.5 mm <sup>2</sup> ) + (2 x 1 mm <sup>2</sup> )]	3	<b>VW3 M5 102 R30</b>	1.070
				5	<b>VW3 M5 102 R50</b>	1.670
				10	<b>VW3 M5 102 R100</b>	3.210
				15	<b>VW3 M5 102 R150</b>	4.760
				20	<b>VW3 M5 102 R200</b>	6.300
				25	<b>VW3 M5 102 R250</b>	7.945
				50	<b>VW3 M5 102 R500</b>	16.170
				75	<b>VW3 M5 102 R750</b>	24.095
<b>Cordsets equipped with one M40 industrial connector</b> (servo motor end)	BMH 1901P BMH 2053P	LXM 32●D72N4	[(4 x 4 mm <sup>2</sup> ) + (2 x 1 mm <sup>2</sup> )]	3	<b>VW3 M5 103 R30</b>	2.000
				5	<b>VW3 M5 103 R50</b>	3.400
				10	<b>VW3 M5 103 R100</b>	6.500
				15	<b>VW3 M5 103 R150</b>	9.500
				20	<b>VW3 M5 103 R200</b>	12.100
				25	<b>VW3 M5 103 R250</b>	15.500
				50	<b>VW3 M5 103 R500</b>	30.300
				75	<b>VW3 M5 103 R750</b>	45.000
	BMH 1902P BMH 1903P	LXM 32●D72N4	[(4 x 6 mm <sup>2</sup> ) + (2 x 1 mm <sup>2</sup> )]	3	<b>VW3 M5 105 R30</b>	2.000
				5	<b>VW3 M5 105 R50</b>	3.400
				10	<b>VW3 M5 105 R100</b>	6.500
				15	<b>VW3 M5 105 R150</b>	9.500
				20	<b>VW3 M5 105 R200</b>	12.100
				25	<b>VW3 M5 105 R250</b>	15.500
				50	<b>VW3 M5 105 R500</b>	30.300
				75	<b>VW3 M5 105 R750</b>	45.000
	BMH 1901P BMH 2053P	LXM 32●D72N4	[(4 x 6 mm <sup>2</sup> ) + (2 x 1 mm <sup>2</sup> )]	3	<b>VW3 M5 105 R30</b>	2.000
				5	<b>VW3 M5 105 R50</b>	3.400
				10	<b>VW3 M5 105 R100</b>	6.500
				15	<b>VW3 M5 105 R150</b>	9.500
				20	<b>VW3 M5 105 R200</b>	12.100
				25	<b>VW3 M5 105 R250</b>	15.500
				50	<b>VW3 M5 105 R500</b>	30.300
				75	<b>VW3 M5 105 R750</b>	45.000
	BMH 1902P BMH 1903P	LXM 32●D72N4	[(4 x 10 mm <sup>2</sup> ) + (2 x 1 mm <sup>2</sup> )]	3	<b>VW3 M5 104 R30</b>	3.600
				5	<b>VW3 M5 104 R50</b>	5.600
				10	<b>VW3 M5 104 R100</b>	10.500
				15	<b>VW3 M5 104 R150</b>	15.500
				20	<b>VW3 M5 104 R200</b>	20.300
				25	<b>VW3 M5 104 R250</b>	24.500
				50	<b>VW3 M5 104 R500</b>	49.700
				75	<b>VW3 M5 104 R750</b>	74.200



VW3 M8 102 R●●●



Connectors and cables for connecting the servo motor

## Connection components (continued)

## Control cordsets

Description	For use with	To servo drive	Composition	Length	Reference	Weight
				m		kg
SinCos Hiperface® encoder cordsets equipped with an M23 industrial connector (servo motor end) and an RJ45 connector with 8 + 2 contacts (servo drive end)	BMH ●●●●●	LXM 32●●●●●●● See references on pages 62083/2 and 62083/3	[3 x (2 x 0.14 mm²) + (2 x 0.34 mm²)]	1.5	VW3 M8 102 R15	0.400
				3	VW3 M8 102 R30	0.500
				5	VW3 M8 102 R50	0.600
				10	VW3 M8 102 R100	0.900
				15	VW3 M8 102 R150	1.100
				20	VW3 M8 102 R200	1.400
				25	VW3 M8 102 R250	1.700
				50	VW3 M8 102 R500	3.100
				75	VW3 M8 102 R750	4.500

## Connectors for creating power and control cordsets

Description	For use with	Sold in lots of	Item no.	For cable cross-section	Reference	Weight
				mm²		kg
M23 industrial connector for creating power cordsets	BMH 070●●, BMH 100●● and BMH 140●P servo motors	5	1	1.5 or 2.5	VW3 M8 215	0.350
M40 industrial connector for creating power cordsets	BMH 1901P (1) and BMH 2053P (1) servo motors	5	1	4	VW3 M8 217	0.850
	BMH 1901P (2), BMH 1902P (1) (2), BMH 1903P (1) (2) and BMH 2053P (2) servo motors	5	1	6 or 10	VW3 M8 218	0.850
RJ45 connector with 8 + 2 contacts for creating control cordsets	LXM 32●●●●●●● servo drives (CN3 connector)	5	2	—	VW3 M2 208	0.200
M23 industrial connector for creating control cordsets	BMH ●●●●● servo motors	5	3	—	VW3 M8 214	0.350

## Cables for creating power and control cordsets

Description	From servo motor	To servo drive	Composition	Item no.	Length	Reference	Weight
					m		kg
Cables for creating power cordsets	BMH 070●● BMH 100●● BMH 1401P	LXM 32●●●●●●● See combinations on pages 62080/6 to 62080/11	[(4 x 1.5 mm²) + (2 x 1 mm²)]	4	25	VW3 M5 301 R250	5.550
					50	VW3 M5 301 R500	11.100
					100	VW3 M5 301 R1000	22.200
	BMH 1402P BMH 1403P	LXM 32●D72N4	[(4 x 2.5 mm²) + (2 x 1 mm²)]	4	25	VW3 M5 302 R250	7.725
					50	VW3 M5 302 R500	15.450
					100	VW3 M5 302 R1000	30.900
	BMH 1901P (1) BMH 2053P (1)	LXM 32●D72N4	[(4 x 4 mm²) + (2 x 1 mm²)]	4	25	VW3 M5 303 R250	9.900
					50	VW3 M5 303 R500	19.800
					100	VW3 M5 303 R1000	39.600
	BMH 1901P (2) BMH 1902P (1) BMH 1903P (1) BMH 2053P (2)	LXM 32●D72N4	[(4 x 6 mm²) + (2 x 1 mm²)]	4	25	VW3 M5 305 R250	14.750
					50	VW3 M5 305 R500	29.500
					100	VW3 M5 305 R1000	59.000
	BMH 1902P (2) BMH 1903P (2)	LXM 32●D72N4	[(4 x 10 mm²) + (2 x 1 mm²)]	4	25	VW3 M5 304 R250	24.500
					50	VW3 M5 304 R500	49.000
					100	VW3 M5 304 R1000	98.000
Cables for creating control cordsets for SinCos Hiperface® encoders	BMH ●●●●●	LXM 32●●●●●●● See references on pages 62083/2 and 62083/3	[(3 x (2 x 0.14 mm²) + (2 x 0.34 mm²)]	5	25	VW3 M8 222 R250	1.400
					50	VW3 M8 222 R500	2.800
					100	VW3 M8 222 R1000	5.600

(1) E type mounting with open cable ducts, conforming to standard EN 60204-1.

(2) B2 type mounting in conduits or distribution trunking, conforming to standard EN 60204-1.