

Unidirectional Synchronous Motors



Specifications

Speed	50Hz	375 rpm	500 rpm	500 rpm	
Speed	60Hz	450 rpm	600 rpm	600 rpm	
Running torque	50Hz	0.095 Ncm	0.75 Ncm	1.7 Ncm	
Running torque	60Hz	0.085 Ncm	0.60 Ncm	1.7 Ncm	
Overall dimensions:		ø 42 x 15 mm	ø 50 x 15 mm	ø 50 x 26 mm	
Output shaft		ø 1.5 x 6.2 mm	ø 1.5 x 7.5 mm	ø 3 x 7.7 mm	
Technical data page		8.6	8.7	8.8	

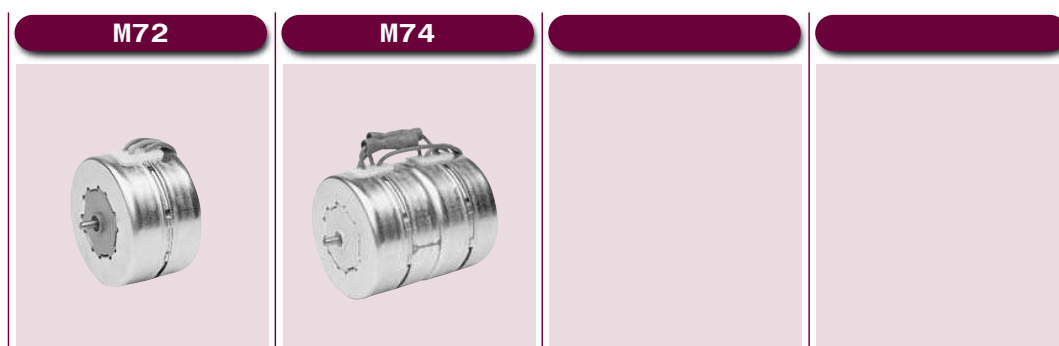
Bidirectional Synchronous Motors



Specifications

Speed	50Hz	500 rpm	500 rpm	500 rpm	
Speed	60Hz		600 rpm		
Running torque	50Hz	1.8 Ncm	2.9 Ncm	3.4 Ncm	
Running torque	60Hz		2.4 Ncm		
Overall dimensions:		ø 50 x 30 mm	ø 50 x 30 mm	ø 50 x 60 mm	
Output shaft		ø 3 x 7.5 mm	ø 3 x 7.5 mm	ø 3 x 7.5 mm	
Technical data page		8.9	8.10	8.11	

Stepper Motors



Specifications

Steps per revolution		24	24		
Step angle		15°	15°		
Running torque		2 Ncm	4 Ncm		
Overall dimensions:		ø 50 x 30 mm	ø 50 x 60 mm		
Output shaft		ø 3 x 7.5 mm	ø 3 x 7.5 mm		
Technical data page		8.12	8.13		

Dc Motors

M80	M83	M84	
			

Specifications

Speed	12 V	5500 rpm	6600 rpm	9458 rpm	
Speed	24 V	6800 rpm	6550 rpm	10354 rpm	
Running torque	12 V	0.43 Ncm	0.51 Ncm	0.97 Ncm	
Running torque	24 V	0.44 Ncm	0.61 Ncm	0.80 Ncm	
Overall dimensions:		ø 27.5 x 51 mm	ø 28.5 x (a) mm	ø 28.5 x 64.5 mm	
Output shaft		ø 2.3 x 15.3 mm	ø 2.3 x (b) mm	ø 2.3 x 15 mm	
Technical data page		8.14	8.15	8.16	

Dc Motor-gearboxes for vending machines

G45	G45 / 70	G47	G47 / 70
			

Specifications

Running torque		175 Ncm	200 Ncm	175 Ncm	200 Ncm
Speed	12 V	22 rpm	/	22 rpm	/
Speed	24 V	24 rpm	29 rpm	24 rpm	29 rpm
Overall dimensions:		50 x 93.2 x 61 mm	50 x 93,2 x 61 mm	50 x 82 x 63 mm	50 x 93,2 x 61 mm
Output shaft		square hole 6.5 x 6.5 mm	square hole 6.5 x 6.5 mm	square hole 6.5 x 6.5 mm	square hole 6.5 x 6.5 mm
mounting		quick coupling	quick coupling	flush-mounting	flush-mounting
Technical data page		8.42	8.43	8.44	8.45

Dc Motor gearboxes for vending machines

G48			
			

Specifications

Running torque		175 Ncm (divides on 2 axes)		
Speed	12 V	/		
Speed	24 V	21 rpm		
Overall dimensions:		91 x 56 x 128 mm		
Output shaft		square hole 6.5 x 6.5 mm		
mounting		flush-mounting		
Technical data page		8.46		