

Stepper Motors

22 mNm

Two phase, 24 steps per revolution
PRECiStep® Technology

AM2224-R3-ww-ee

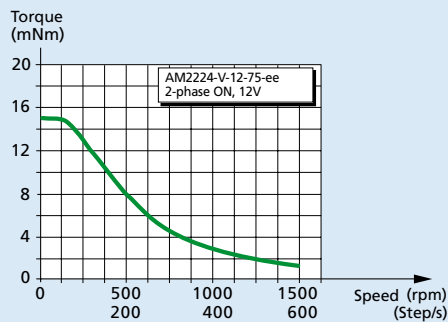
	ww =		AV-0,9		AV-4,8		AV-18		V-12-75		Drive mode
	Voltage	Current	Voltage	Current	Voltage	Current	Voltage	Current			
1 Nominal voltage	1,4	–	3	–	6	–	12	–	V DC		
2 Nominal current per phase (both phases ON)	–	1,0	–	0,5	–	0,25	–	0,125	A		
3 Phase resistance (at 20°C)		0,9		4,8		18		75	Ω		
4 Phase inductance (1kHz)		0,9		4,3		16,3		65,6	mH		
5 Back-EMF amplitude		3,8		8,3		16,3		32,7	V/k step/s		
6 Holding torque ¹⁾ (at nominal current in both phases)	22									mNm	
7 Holding torque ¹⁾ (at twice the nominal current)	37									mNm	
8 Step angle (full step)	15									degree	
9 Angular accuracy ²⁾	± 10									% of full step	
10 Residual torque	2									mNm	
11 Rotor inertia	253									·10 ⁻⁹ kgm ²	
12 Resonance frequency (at no load)	100									Hz	
13 Electrical time constant	0,92									ms	
14 Ambient temperature range	–35 ... +70									°C	
15 Winding temperature tolerated, max.	130									°C	
16 Thermal resistance winding-ambient air	28									°C/W	
17 Thermal time constant	600									s	
18 Shaft bearings	ball bearings, preloaded (standard with 3 mm shaft)										
19 Shaft load, max.:											
– radial (3 mm from bearing)	20,0									N	
– axial	4,0									N	
20 Shaft play, max.:											
– radial (0,2N)	15									µm	
– axial (0,2N)	~0									µm	
21 Isolation test voltage	200									V DC	
22 Weight	50,5									g	

¹⁾ with bipolar driver

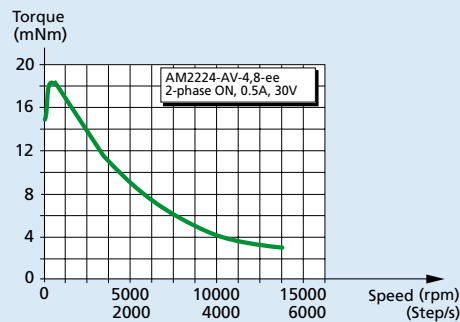
²⁾ 2 phases ON, balanced phase currents

³⁾ Curves measured with a load inertia of 8 · 10⁻⁹ kgm²

⁴⁾ Testing the motor at lower supply voltages in current mode will result in a decrease in torque at higher speed, even with the same current setting



Voltage mode (V) ³⁾
Driver AD VM M15



Current mode (A) ^{3) 4)}
Driver AD CM M15

