AVM12-6.4

Performance Parameters		Symbol	Unit	AVM12-6.4	
Stroke		S	mm	6.4	
Continuous Force @100°C 👥 🛛		Fc	N	0.91	
Peak Force 🤒		Fpk	N	3.53	
Force Constant ±10% ⁰		K _f	N/A	0.57	
Back EMF Constant ±10%		Ke	V/(m/s)	0.57	
Motor Constant @25°C		Km	N/Sqrt(W)	0.53	
Resistance @25°C ±10%		R ₂₅	Ω	1.17	
Inductance ±20%		L	mH	0.10	
Electrical Time Constant		τ _e	ms	0.09	
Continuous Current @100°C		lc	A	1.6	
Peak Current		I _{pk}	Α	6.2	
Continuous Power Dissipation	@100°C		W	3.9	
Max. Coil Temperature		t _{max}	°C	100	
Thermal Dissipation Constant		K _{th}	W/°C	0.051	
Max.Voltage		Umax	Vdc	60	
Mechanical Parameters					
Coil Mass		m _{coil}	g	5	
Core Mass		m _{core}	g	7.3	
Running Clearance		Lgap	mm	0.35	
Other Information					
Insulation Class		Class A (105°C)			
Protection Grade		IP00			
Compliance with Global Stand	ards	RoHS			
Ambient Temperature	Operation		0°C to 40°C	(non-freezing)	
Ambient remperature	Storage		-15°C to 70°C	(non-freezing)	
Ambient Humidity	Operation	109	6RH to 80%RI	H (non-condensing)	
Amorene manualey	Storage	109	6RH to 90%RI	H (non-condensing)	
Recommended Ambience		No corros	Indoor (no direct sunlight); No corrosive gas, inflammable gas, oil mist or dust		

AVM19-5

Performance Parameters		Symbol	Unit	AVM19-5	
Stroke		S	mm	5.0	
Continuous Force @100°C 👥 🥹		Fc	N	1.75	
Peak Force 🤨		Fpk	N	7.88	
orce Constant ±10%		Kf	N/A	1.75	
Back EMF Constant ±10%		Ke	V/(m/s)	1.75	
Motor Constant @25°C		Km	N/Sqrt(W)	1.17	
Resistance @25°C ±10%®		R25	Ω	2.24	
nductance ±20% ⁶		L	mH	0.29	
Electrical Time Constant		τ _e	ms	0.13	
Continuous Current @100°C [®]		lc	A	1.0	
Peak Current			А	4.5	
Continuous Power Dissipation @100°C		Pc	W	2.9	
Max. Coil Temperature		t _{max}	°C	100	
Thermal Dissipation Constant [®]		Kth	W/°C	0.038	
Max.Voltage		Umax	Vdc	60	
Mechanical Parameters					
Coil Mass		mcoil	g	9.0	
Core Mass		mcore	g	23.8	
Running Clearance		Lgap	mm	0.4	
Other Information					
nsulation Class		Class A (105°C)			
Protection Grade		IP00			
Compliance with Global Standa	ards	RoHS			
Ambient Temperature	Operation		0°C to 40°C	(non-freezing)	
and che rempetature	Storage		-15°C to 70°C	(non-freezing)	
Ambient Humidity	Operation	109	6RH to 80%RI	H (non-condensing)	
andicite furnitury	Storage	109	6RH to 90%RI	H (non-condensing)	
Recommended Ambience		Indoor (no direct sunlight); No corrosive gas, inflammable gas, oil mist or dust.			
			÷ ,	e 1	

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AVM

SERIES

▶ Direct drive, zero cogging, zero

backlash voice coil motors ► Low coil mass with very fast

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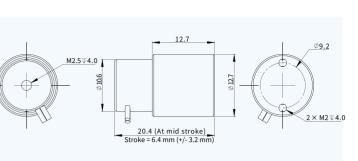
limitless resolution

Smooth motion at low speeds with

(depends on feedback device)

AVM Standard Series

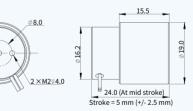
Dimension



leasurement is taken at ambient temperature 25°C. Value depends on the thermal environment.

- The values are at mid stroke.
- esistance is measured by DC current with standard 0.5 m lead wire.
- nductance is measured by current frequency of 1 kHz.
- contents of datasheet are subject to change without prior notice.

Dimension





asurement is taken at ambient temperature 25°C. Value depends on the thermal environment. e values are at mid stroke.

sistance is measured by DC current with standard 0.5 m lead wire.

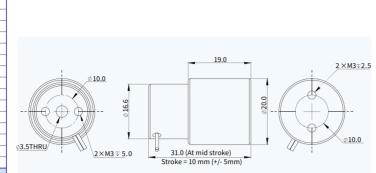
luctance is measured by current frequency of 1 kHz.

contents of datasheet are subject to change without prior notice.

AVM Standard Series

<u>AVM20-10</u>

Performance Parameters		Unit	AVM20-10		
	S	mm	10.0		
	Fc	N	1.56		
	Fpk	N	7.6		
	K _f	N/A	2.0		
	Ke	V/(m/s)	2.0		
	Km	N/Sqrt(W)	1.06		
	R ₂₅	Ω	3.59		
	L	mH	0.55		
	τ _e	ms	0.15		
	lc	Α	0.78		
	I _{pk}	A	3.8		
@100°C	Pc	W	2.8		
Max. Coil Temperature			100		
Thermal Dissipation Constant		W/°C	0.038		
Max.Voltage		Vdc	60		
	m _{coil}	g	11		
	m _{core}	g	45.1		
	Lgap	mm	0.5		
	Class A (105°C)				
	IP00				
rds	RoHS				
Operation	0°C to 40°C (non-freezing)				
Storage		-15°C to 70°C (non-freezing)			
Operation	109	6RH to 80%RH	H (non-condensing)		
Storage	10%RH to 90%RH (non-condensing)				
Recommended Ambience		Indoor (no direct sunlight); No corrosive gas, inflammable gas, oil mist or du			
	rds Operation Storage Operation	Fc Fpk Kf Km R23 L Te lc plot pk Ø100°C Pc tmax Kth Umax Mcoil Mcore Lgap Index Operation Storage Operation Storage Up	S mm Fc N Fpk N Kf N/A Ke V/(m/s) Km N/Sqrt(W) R25 Ω L mH Te ms lc A lpk A Ø100°C0 Pc W tmax V(c) Umax Vdc Wmax Mcoil g Mcore g Lgap mm Class A IP4 rds Rot Mcore g Class A IP4 Storage -15°C to 70°C Operation 10%RH to 80%RH Storage 10%RH to 90%RH		



Measurement is taken at ambient temperature 25°C. Value depends on the thermal environment. Output: Provide the structure of the 6 Resistance is measured by DC current with standard 0.5 m lead wire. Inductance is measured by current frequency of 1 kHz.

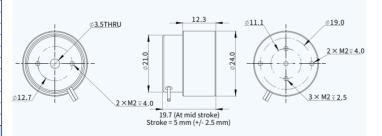
The contents of datasheet are subject to change without prior notice.

<u>AVM24-5</u>

Performance Parameters		Symbol	Unit	AVM24-5	
Stroke		S	mm	5.0	
Continuous Force @100°C 🕫 Ø		Fc	N	2.1	
Peak Force 🤨		Fpk	N	11.4	
Force Constant ±10%		Kf	N/A	3.0	
Back EMF Constant ±10%		Ke	V/(m/s)	3.0	
Motor Constant @25°C ⁰		Km	N/Sqrt(W)	1.69	
Resistance @25°C ±10%8		R25	Ω	3.15	
Inductance ±20% ⁴		L	mH	0.55	
Electrical Time Constant		τ _e	ms	0.17	
Continuous Current @100°C ⁰		lc	A	0.7	
Peak Current		Ipk	A	3.8	
Continuous Power Dissipation	@100°C	Pc	W	2.0	
Max. Coil Temperature		tmax	°C	100	
Thermal Dissipation Constant ⁰		Kth	W/°C	0.027	
Max.Voltage		Umax	Vdc	60	
Mechanical Parameters					
Coil Mass		mcoil	g	12	
Core Mass		mcore	g	29.7	
Running Clearance		Lgap	mm	0.5	
Other Information					
Insulation Class		Class A (105°C)			
Protection Grade		IP00			
Compliance with Global Standa	ards	RoHS			
Ambient Temperature	Operation		0°C to 40°C (non-freezing)	
	Storage		-15°C to 70°C	(non-freezing)	
Ambient Humidity	Operation	109	%RH to 80%RI	H (non-condensing)	
	Storage	10%RH to 90%RH (non-condensing)			
Recommended Ambience		Indoor (no direct sunlight); No corrosive gas, inflammable gas, oil mist or dus			

Dimension

Dimension



Measurement is taken at ambient temperature 25°C. Value depends on the thermal environment. Particular and the stroke of the stroke. 8 Resistance is measured by DC current with standard 0.5 m lead wire.

Inductance is measured by current frequency of 1 kHz.

The contents of datasheet are subject to change without prior notice.

<u>AVM24-10</u>

Performance Parameters		Symbol	Unit	AVM24-10	
Stroke	<e comparison="" of="" se<="" second="" td="" the=""><td>mm</td><td>10.0</td><td></td></e>		mm	10.0	
Continuous Force @100°C 🖲 😢		Fc	Ν	2.65	
Peak Force 🤨		Fpk	Ν	14.82	
Force Constant ±10%		Kf	N/A	3.9	
Back EMF Constant ±10%		Ke	V/(m/s)	3.9	
Motor Constant @25°C		Km	N/Sqrt(W)	1.61	
Resistance @25°C ±10%		R25	Ω	5.86	
Inductance ±20% [©]		L	mH	1.34	
Electrical Time Constant		τ _e	ms	0.23	
Continuous Current @100°C		lc	A	0.68	
Peak Current		I _{pk}	Α	3.8	
Continuous Power Dissipation	@100°C	Pc	W	3.5	
Max. Coil Temperature		tmax	°C	100	
Thermal Dissipation Constant	9	Kth	W/°C	0.047	
Max.Voltage		Umax	Vdc	60	
Mechanical Parameters					
Coil Mass		mcoil	g	16.5	
Core Mass		mcore	g	45	
Running Clearance		Lgap	mm	0.5	
Other Information					
Insulation Class		Class A (105°C)			
Protection Grade			IP00		
Compliance with Global Stand	ards	RoHS			
Ambient Temperature	Operation		0°C to 40°C (non-freezing)	
	Storage		-15°C to 70°C	(non-freezing)	
Ambient Humidity	Operation	109	6RH to 80%RH	H (non-condensing)	
Ambient numulty	Storage	109	6RH to 90%RH	H (non-condensing)	
Recommended Ambience		Indoor (no direct sunlight); No corrosive gas, inflammable gas, oil mist or dust.			

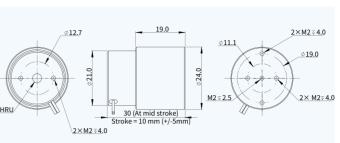
AVM30-15

Performance Parameters		Symbol	Unit	AVM30-15	D	
Stroke		S	mm	15.0		
Continuous Force @100°C 🛯 🖉		Fc	N	4.63		
Peak Force 🤨		Fpk	N	29.4		
Force Constant ±10% ⁰		Kf	N/A	7.35		
Back EMF Constant ±10%		Ke	V/(m/s)	7.35		
Motor Constant @25°C		Km	N/Sqrt(W)	2.30		
Resistance @25°C ±10%		R25	Ω	10.24		
Inductance ±20% ⁶		L	mH	2.82	2×M3	
Electrical Time Constant		τ _e	ms	0.28		
Continuous Current @100°C		lc	A	0.63		
Peak Current		Ipk	А	4		
Continuous Power Dissipation	@100°C <mark>0</mark>	Pc	W	5.2		
Max. Coil Temperature		tmax	°C	100		
Thermal Dissipation Constant ⁰		Kth	W/°C	0.070		
Max.Voltage		Umax	Vdc	60		
Mechanical Parameters						
Coil Mass		mcoil	g	36		
Core Mass		mcore	g	95.6		
Running Clearance		Lgap	mm	0.6		
Other Information						
Insulation Class						
Protection Grade			IP	00		
Compliance with Global Standa	RoHS					
Ambient Temperature	Operation	0°C to 40°C (non-freezing)				
	Storage		-15°C to 70°C	(non-freezing)	Mea	
Ambiant Ilumidity	Operation	109	6RH to 80%RI	H (non-condensing)	Mean Mean Phenotechnic Pheno	
Ambient Humidity	Storage	10%RH to 90%RH (non-condensing)				
Recommended Ambience		Indoor (no direct sunlight); No corrosive gas, inflammable gas, oil mist or dust.				

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AVM Standard Series

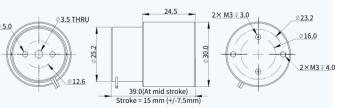
Dimension



asurement is taken at ambient temperature 25°C. Value depends on the thermal environment.

- e values are at mid stroke.
- sistance is measured by DC current with standard 0.5 m lead wire.
- uctance is measured by current frequency of 1 kHz.
- ontents of datasheet are subject to change without prior notice.

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AVM Standard Series

<u>AVM40-20</u>

Introduction

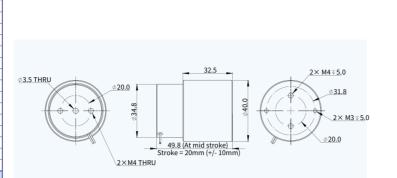
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Frequently

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Performance Parameters		Symbol	Unit	AVM40-20	
Stroke		S	mm	20.0	
Continuous Force @100°C \varTheta 😢		Fc	N	9.93	
Peak Force 🤨		Fpk	N	58.05	
Force Constant ±10%		Kf	N/A	12.9	
Back EMF Constant ±10%		Ke	V/(m/s)	12.9	
Motor Constant @25°C		Km	N/Sqrt(W)	3.84	
Resistance @25°C ±10% [®]		R ₂₅	Ω	11.26	
Inductance ±20% ⁴		L	mH	4.77	
Electrical Time Constant		τ _e	ms	0.42	
Continuous Current @100°C		lc	A	0.77	
Peak Current		I _{pk}	A	4.5	
Continuous Power Dissipation @100°C		P _c	W	8.6	
Max. Coil Temperature		tmax	°C	100	
Thermal Dissipation Constant ⁰		Kth	W/°C	0.115	
Max.Voltage		Umax	Vdc	60	
Mechanical Parameters					
Coil Mass		m _{coil}	g	67.0	
Core Mass		Mcore	g	226.2	
Running Clearance		Lgap	mm	0.6	
Other Information					
Insulation Class		Class A (105°C)			
Protection Grade		IP00			
Compliance with Global Standa	ards	RoHS			
Ambient Temperature	Operation	0°C to 40°C (non-freezing)			
Amplent remperature	Storage	-15°C to 70°C (non-freezing)			
Ambient Humidity	Operation	109	6RH to 80%RI	H (non-condensing)	
Amplent numidity	Storage	10%RH to 90%RH (non-condensing)			
Recommended Ambience		Indoor (no direct sunlight); No corrosive gas, inflammable gas, oil mist or dust			



Measurement is taken at ambient temperature 25°C. Value depends on the thermal environment.
Participation of the structure of the

8 Resistance is measured by DC current with standard 0.5 m lead wire.

Dimension

Inductance is measured by current frequency of 1 kHz.

The contents of datasheet are subject to change without prior notice.

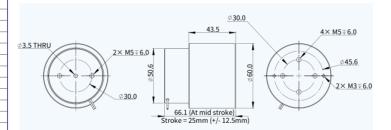
<u>AVM90-30</u>

Performance Parameters		Symbol	Unit	AVM90-30	
Stroke		S	mm	30.0	
Continuous Force @100°C 🖲 🥹		Fc	Ν	89.1	
Peak Force 🤨		Fpk	N	315	
Force Constant ±10%		Kf	N/A	22.5	
Back EMF Constant ±10%		Ke	V/(m/s)	22.5	
Motor Constant @25°C ⁰		Km	N/Sqrt(W)	13.97	
Resistance @25°C ±10%®		R25	Ω	2.60	
Inductance ±20% ⁶		L	mH	3.26	
Electrical Time Constant		τ _e	ms	1.25	
Continuous Current @100°C		lc	A	3.96	
Peak Current		I _{pk}	А	14.0	
Continuous Power Dissipation	@100°C	P _c	W	52.4	
Max. Coil Temperature		tmax	°C	100	
Thermal Dissipation Constant ⁰		Kth	W/°C	0.699	
Max.Voltage		Umax	Vdc	120	
Mechanical Parameters					
Coil Mass		mcoil	g	820	
Core Mass		mcore	g	1750	
Running Clearance		Lgap	mm	0.7	
Other Information					
Insulation Class		Class A (105°C)			
Protection Grade		IP00			
Compliance with Global Stand	ards	RoHS			
Ambient Temperature	Operation		0°C to 40°C (non-freezing)	
	Storage		-15°C to 70°C	(non-freezing)	
Ambient Humidity	Operation	109	6RH to 80%RH	H (non-condensing)	
Ambient number	Storage	109	6RH to 90%RF	H (non-condensing)	
Recommended Ambience		Indoor (no direct sunlight); No corrosive gas, inflammable gas, oil mist or dust.			

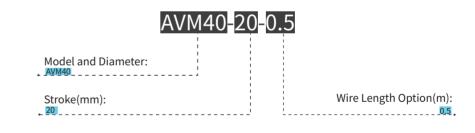
AVM60-25

Performance Parameters		Symbol	Unit	AVM60-25	
Stroke		S	mm	25.0	
Continuous Force @100°C •	Continuous Force @100°C \varTheta 🥹		N	26.35	
Peak Force 🥺		Fpk	N	119	
Force Constant ±10%		Kf	N/A	17.0	
Back EMF Constant ±10%		Ke	V/(m/s)	17.0	
Motor Constant @25°C ⁰		Km	N/Sqrt(W)	7.35	
Resistance @25°C ±10%		R ₂₅	Ω	5.35	
Inductance ±20% ⁴		L	mH	3.82	
Electrical Time Constant		τ _e	ms	0.71	
Continuous Current @100°C ⁰		lc	Α	1.55	
Peak Current		I _{pk} Pc	A	7	
	Continuous Power Dissipation @100°C		W	16.6	
Max. Coil Temperature		tmax	°C	100	
Thermal Dissipation Constant ⁰		Kth	W/°C	0.221	
Max.Voltage		Umax	Vdc	60	
Mechanical Parameters					
Coil Mass		Mcoil	g	215	
Core Mass		mcore	g	692.9	
Running Clearance		Lgap	mm	0.7	
Other Information					
Insulation Class		Class A (105°C)			
Protection Grade		IP00			
Compliance with Global Standa	ards	RoHS			
Ambient Temperature	Operation		0°C to 40°C (non-freezing)	
	Storage		-15°C to 70°C	(non-freezing)	
Ambient Humidity	Operation	109	6RH to 80%RH	H (non-condensing)	
Ambient Humidity	Storage	10%RH to 90%RH (non-condensing)			
Recommended Ambience		Indoor (no direct sunlight); No corrosive gas, inflammable gas, oil mist or du:			

Dimension



Part Numbering



Measurement is taken at ambient temperature 25°C. Value depends on the thermal environment. Particular and the stroke of the stroke. 6 Resistance is measured by DC current with standard 0.5 m lead wire. Output the second se

The contents of datasheet are subject to change without prior notice.

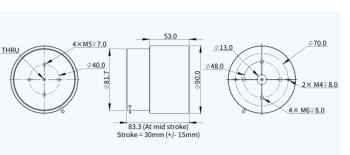
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AVM Standard Series

Dimension



leasurement is taken at ambient temperature 25°C. Value depends on the thermal environment.

- The values are at mid stroke.
- Resistance is measured by DC current with standard 0.5 m lead wire.
- nductance is measured by current frequency of 1 kHz.
- contents of datasheet are subject to change without prior notice.

AVM High Force Series

AVM35-HF-7

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Sizing Gu

Frequently

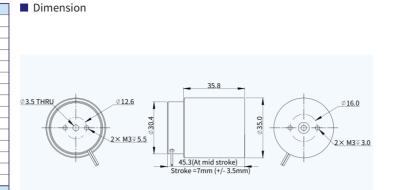
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Direct Drive

Rotary

Motors

Performance Parameters		Symbol	Unit	AVM35-HF-7	
Stroke		S Fr	mm	7.0	
Continuous Force @100°C 💔 🥹	Continuous Force @100°C 00		Ν	14.4	
Peak Force 🤨		Fpk	N	72.0	
Force Constant ±10%		Kf	N/A	16.0	
Back EMF Constant ±10%		Ke	V/(m/s)	16.0	
Motor Constant @25°C		Km	N/Sqrt(W)	5.25	
Resistance @25°C ±10%8		R ₂₅	Ω	9.28	
Inductance ±20% ⁴		L	mH	3.55	
Electrical Time Constant		τ _e	ms	0.38	
Continuous Current @100°C [®]		lc	A	0.9	
Peak Current		I _{pk}	A	4.5	
Continuous Power Dissipation @100°C ⁰		Pc	W	9.7	
Max. Coil Temperature		tmax	°C	100	
Thermal Dissipation Constant ⁰		Kth	W/°C	0.129	
Max.Voltage		Umax	Vdc	60	
Mechanical Parameters					
Coil Mass		Mcoil	g	53.0	
Core Mass		mcore	g	146.8	
Running Clearance		Lgap	mm	0.5	
Other Information					
Insulation Class		Class A (105°C)			
Protection Grade		IP00			
Compliance with Global Standa	ards	RoHS			
Ambient Temperature	Operation	0°C to 40°C (non-freezing)			
	Storage	-15°C to 70°C (non-freezing)			
Ambient Humidity	Operation	10%RH to 80%RH (non-condensing)			
Amorent Humarty	Storage	10%RH to 90%RH (non-condensing)			
Recommended Ambience		Indoor (no direct sunlight); No corrosive gas, inflammable gas, oil mist or dust			



Measurement is taken at ambient temperature 25°C. Value depends on the thermal environment. ② The values are at mid stroke.

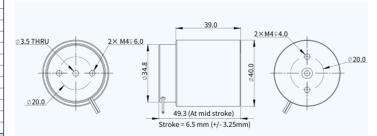
8 Resistance is measured by DC current with standard 0.5 m lead wire.

Inductance is measured by current frequency of 1 kHz. The contents of datasheet are subject to change without prior notice.

AVM40-HF-6.5

Performance Parameters		Symbol	Unit	AVM40-HF-6.5		
Stroke		S	mm	6.5		
Continuous Force @100°C 🛯 🖉		Fc	N	16.6		
Peak Force 🤨		Fpk	N	93.2		
Force Constant ±10% ⁰		Kf	N/A	20.7		
Back EMF Constant ±10%		Ke	V/(m/s)	20.7		
Motor Constant @25°C ⁰		Km	N/Sqrt(W)	6.39		
Resistance @25°C ±10%		R25	Ω	10.51		
Inductance ±20% ⁶		L	mH	4.2		
Electrical Time Constant		τ _e	ms	0.40		
Continuous Current @100°C ⁰		lc	А	0.8		
Peak Current		I _{pk}	A	4.5		
Continuous Power Dissipation @100°C		Pc	W	8.7		
Max. Coil Temperature		tmax	°C	100		
Thermal Dissipation Constant ⁰		Kth	W/°C	0.116		
Max.Voltage		Umax	Vdc	60		
Mechanical Parameters						
Coil Mass		mcoil	g	68.0		
Core Mass		mcore	g	218.7		
Running Clearance		Lgap	mm	0.6		
Other Information						
Insulation Class		Class A (105°C)				
Protection Grade		IP00				
Compliance with Global Standa	ards	RoHS				
Ambient Temperature	Operation		0°C to 40°C	non-freezing)		
	Storage		-15°C to 70°C (non-freezing)			
Ambient Humidity	Operation	109	6RH to 80%RI	H (non-condensing)		
Storage		10%RH to 90%RH (non-condensing)				
Recommended Ambience		Indoor (no direct sunlight); No corrosive gas, inflammable gas, oil mist or du				

Dimension



Measurement is taken at ambient temperature 25°C. Value depends on the thermal environment Particular and the stroke of the stroke.

6 Resistance is measured by DC current with standard 0.5 m lead wire. Output the second se

The contents of datasheet are subject to change without prior notice.

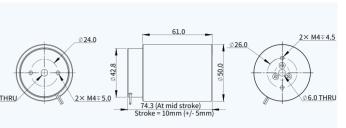
AVM50-HF-10

Performance Parameters		Symbol	Unit	AVM50-HF-10		
Stroke		S	mm	10.0		
Continuous Force @100°C \cdots		Fc	N	33.6		
Peak Force 🤨		Fpk	N	140.0		
Force Constant ±10%		Kf	N/A	28.0		
Back EMF Constant ±10%		Ke	V/(m/s)	28.0		
Motor Constant @25°C		Km	N/Sqrt(W)	9.6		
Resistance @25°C ±10%		R25	Ω	8.5		
Inductance ±20% ⁶		L	mH	5.20		
Electrical Time Constant		τ _e	ms	0.61		
Continuous Current @100°C		lc	А	1.2		
Peak Current		I _{pk}	A	5.0		
Continuous Power Dissipation	@100°C	Pc	W	15.8		
Max. Coil Temperature	Iax. Coil Temperature		°C	100		
Thermal Dissipation Constant		Kth	W/°C	0.210		
Max.Voltage		Umax	Vdc	60		
Mechanical Parameters						
Coil Mass		Mcoil	g	148		
Core Mass		mcore	g	553		
Running Clearance		Lgap	mm	0.6		
Other Information						
Insulation Class			Class A	(105°C)		
Protection Grade		IP00				
Compliance with Global Standards		RoHS				
Ambient Temperature	Operation		0°C to 40°C (non-freezing)		
Ambient remperature	Storage		-15°C to 70°C	(non-freezing)		
Ambient Humidity	Operation	109	6RH to 80%RH	H (non-condensing)		
Ambient numidity	Storage	10%RH to 90%RH (non-condensing)				
Recommended Ambience		No corros		irect sunlight); nmable gas, oil mist or dust.		

AVM60-HF-10

Performance Parameters			Unit	AVM60-HF-10	
Stroke		S	mm	10.0	
Continuous Force @100°C •		Fc	N	51.2	
Peak Force 🤨		Fpk	N	224	
Force Constant ±10%		K _f	N/A	32.0	
Back EMF Constant ±10%		Ke	V/(m/s)	32.0	
Motor Constant @25°C ⁰		Km	N/Sqrt(W)	13.56	
Resistance @25°C ±10%		R ₂₅	Ω	5.57	
Inductance ±20%		L	mH	3.83	
Electrical Time Constant		τ _e	ms	0.69	
Continuous Current @100°C		lc	A	1.6	
Peak Current		I _{pk} Pc	A	7	
	Continuous Power Dissipation @100°C		W	18.4	
1	Iax. Coil Temperature		°C	100	
Thermal Dissipation Constant	0	Kth	W/°C	0.245	
Max.Voltage	ax.Voltage		Vdc	60	
Mechanical Parameters					
Coil Mass		m _{coil}	g	236.5	
Core Mass		m _{core}	g	997	
Running Clearance		Lgap	mm	0.7	
Other Information					
Insulation Class			Class A (105°C)		
Protection Grade		IP00			
Compliance with Global Stand	lards	RoHS			
Ambient Temperature Operation			0°C to 40°C (non-freezing)	
	Storage		-15°C to 70°C	(non-freezing)	
Ambient Humidity Operation		109	6RH to 80%RF	H (non-condensing)	
Ambient numuuty	Storage	10%RH to 90%RH (non-condensing)			
Recommended Ambience		Indoor (no direct sunlight); No corrosive gas, inflammable gas, oil mist or dust.			

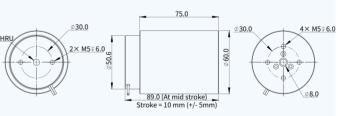
Dimension



asurement is taken at ambient temperature 25°C. Value depends on the thermal environment

- he values are at mid stroke.
- sistance is measured by DC current with standard 0.5 m lead wire.
- ductance is measured by current frequency of 1 kHz.
- contents of datasheet are subject to change without prior notice.

Dimension



asurement is taken at ambient temperature 25°C. Value depends on the thermal environment

e values are at mid stroke. sistance is measured by DC current with standard 0.5 m lead wire.

luctance is measured by current frequency of 1 kHz.

contents of datasheet are subject to change without prior notice.

AVM High Force Series

AVM90-HF-10

Introduction

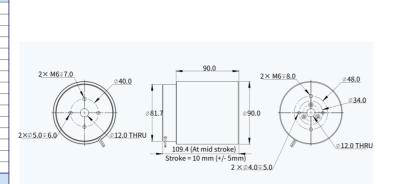
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Frequently

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Performance Parameters		Symbol	Unit	AVM90-HF-10
Stroke		S	mm	10.0
Continuous Force @100°C 💔 🥹		Fc	N	152.7
Peak Force 🤒		Fpk	N	610.7
Force Constant ±10% ²		K _f	N/A	43.6
Back EMF Constant ±10%		Ke	V/(m/s)	43.6
Motor Constant @25°C ⁰		Km	N/Sqrt(W)	25.27
Resistance @25°C ±10%		R ₂₅	Ω	2.98
Inductance ±20% ⁶		L	mH	4.02
Electrical Time Constant		τ _e	ms	1.35
Continuous Current @100°C		lc	A	3.5
Peak Current		I _{pk}	A	14.0
Continuous Power Dissipation	@100°C	Pc	W	47.0
Max. Coil Temperature		t _{max}	°C	100
Thermal Dissipation Constant		K _{th}	W/°C	0.627
Max.Voltage		Umax	Vdc	120
Mechanical Parameters				
Coil Mass		m _{coil}	g	960
Core Mass		m _{core}	g	2400
Running Clearance		Lgap	mm	0.65
Other Information				
Insulation Class			Class A	(105°C)
Protection Grade			IPO	00
Compliance with Global Standa	ards		Roh	HS
Ambient Temperature	Operation		0°C to 40°C ((non-freezing)
Amplent remperature	Storage		-15°C to 70°C	(non-freezing)
Ambient Humidity	Operation	109	6RH to 80%RH	H (non-condensing)
Ambient numidity	Storage	109	6RH to 90%RH	H (non-condensing)
Recommended Ambience		No corros		lirect sunlight); nmable gas, oil mist or dust.



• Measurement is taken at ambient temperature 25°C. Value depends on the thermal environment On the values are at mid stroke. 6 Resistance is measured by DC current with standard 0.5 m lead wire.

Inductance is measured by current frequency of 1 kHz.

The contents of datasheet are subject to change without prior notice.

AVM130-HF-25

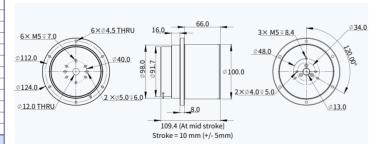
Performance Parameters		Symbol	Unit	AVM130-HF-25	
Stroke		S	mm	25.0	
Continuous Force @100°C 00		Fc	N	360.4	
Peak Force 🥹		Fpk	N	764.4	
Force Constant ±10%		Kf	N/A	54.6	
Back EMF Constant ±10%		Ke	V/(m/s)	54.6	
Motor Constant @25°C ⁰		Km	N/Sqrt(W)	48.17	
Resistance @25°C ±10%		R25	Ω	1.29	
Inductance ±20%		L	mH	1.59	2×05
Electrical Time Constant		τ _e	ms	1.24	
Continuous Current @100°C		lc	Α	6.6	
Peak Current		Ipk	A	14	
Continuous Power Dissipation	@100°C	Pc	W	72.1	
Max. Coil Temperature		tmax	°C	100	
Thermal Dissipation Constant)	Kth	W/°C	0.962	
Max.Voltage		Umax	Vdc	120	
Mechanical Parameters					
Coil Mass		m _{coil}	g	1550	
Core Mass		m _{core}	g	9300	
Running Clearance		Lgap	mm	0.55	
Other Information					
Insulation Class			Class A	(105°C)	1
Protection Grade			IP	00	
Compliance with Global Stand	ards		Rol	IS	
Ambient Temperature	Operation		0°C to 40°C	(non-freezing)	
Ambient remperature	Storage		-15°C to 70°C	(non-freezing)	<u>е</u> м
Ambient Humidity	Operation	109	6RH to 80%RI	H (non-condensing)	0 T
	Storage	10%RH to 90%RH (non-condensing)			€) R€
Recommended Ambience		No corros		lirect sunlight); nmable gas, oil mist or dust.	@In The

AVM100-HF-10

Performance Parameters		Symbol	Unit	AVM100-HF-10
Stroke		S	mm	10.0
Continuous Force @100°C •		Fc	N	192.5
Peak Force 🤒		Fpk	N	770
Force Constant ±10% ²		K _f	N/A	55.0
Back EMF Constant ±10%		Ke	V/(m/s)	55.0
Motor Constant @25°C		Km	N/Sqrt(W)	29.85
Resistance @25°C ±10%		R ₂₅	Ω	3.40
Inductance ±20% ⁴		L	mH	4.43
Electrical Time Constant		τ _e	ms	1.30
Continuous Current @100°C [®]		lc	Α	3.5
Peak Current		I _{pk}	A	14
Continuous Power Dissipation	@100°C	Pc	W	53.6
Max. Coil Temperature		t _{max}	°C	100
Thermal Dissipation Constant		K _{th}	W/°C	0.715
Max.Voltage		Umax	Vdc	120
Mechanical Parameters				
Coil Mass		m _{coil}	g	1117
Core Mass		m _{core}	g	3300
Running Clearance		Lgap	mm	0.65
Other Information				
Insulation Class			Class A	(105°C)
Protection Grade			IPO	00
Compliance with Global Standa	ards		Rol	IS
Ambient Temperature	Operation		0°C to 40°C (non-freezing)
Ambient remperature	Storage		-15°C to 70°C	(non-freezing)
Ambient Humidity	Operation	109	6RH to 80%RF	H (non-condensing)
Amorent Humarty	Storage	109	6RH to 90%RH	H (non-condensing)
Recommended Ambience		No corros		irect sunlight); nmable gas, oil mist or dust.

Dimension

Dimension



Measurement is taken at ambient temperature 25°C. Value depends on the thermal environment. On the values are at mid stroke. 8 Resistance is measured by DC current with standard 0.5 m lead wire.

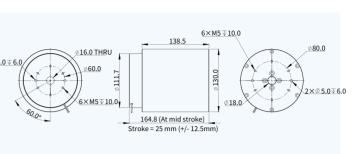
Inductance is measured by current frequency of 1 kHz.

The contents of datasheet are subject to change without prior notice.

AVM250-HF-20

Performance Parameters		Symbol	Unit	AVM250-HF-20		
Stroke		S	mm	20.0		
Continuous Force @100°C \varTheta 🥹		Fc	N	1111.4		
Peak Force 🤨		Fpk	N	4715.2		
Force Constant ±10%		Kf	N/Arms	168.4		
Back EMF Constant ±10%		Ke	Vpeak/(m/s)	168.4		
Motor Constant @25°C		Km	N/Sqrt(W)	87.55		
Resistance @25°C ±10%		R25	Ω	3.7		
Inductance ±20% ⁶		L	mH	5		
Electrical Time Constant		τ _e	ms	1.35		
Continuous Current @100°C ⁰		lc	Arms	6.6		
Peak Current		Ipk	Arms	28		
Continuous Power Dissipation	@100°C	Pc	W	207.7		
Max. Coil Temperature		tmax	°C	100		
Thermal Dissipation Constant	9	Kth	W/°C	2.769		
Max.Voltage	lax.Voltage		Vdc	120		
Mechanical Parameters						
Coil Mass		mcoil	g	5900		
Core Mass		mcore	g	27200		
Running Clearance		Lgap	mm	0.9		
Other Information						
Insulation Class		Class A (105°C)				
Protection Grade		IP00				
Compliance with Global Stand	ards	RoHS				
Ambient Temperature	Operation	0°C to 40°C (non-freezing)				
	Storage		-15°C to 70°C	(non-freezing)		
Ambient Humidity	Operation	109	6RH to 80%RH	I (non-condensing)		
Amplent numidity	Storage	10%RH to 90%RH (non-condensing)				
Recommended Ambience		Indoor (no direct sunlight); No corrosive gas, inflammable gas, oil mist or dust.				

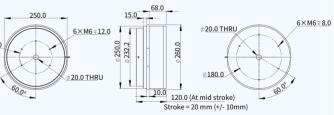
Dimension



easurement is taken at ambient temperature 25°C. Value depends on the thermal environment

- he values are at mid stroke.
- esistance is measured by DC current with standard 0.5 m lead wire.
- ductance is measured by current frequency of 1 kHz.
- contents of datasheet are subject to change without prior notice.

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urement is taken at ambient temperature 25°C. Value depends on the thermal environment. values are at mid stroke.

stance is measured by DC current with standard 0.5 m lead wire.

ctance is measured by current frequency of 1 kHz.

ntents of datasheet are subject to change without prior notice.

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AVM High Force Series

Part Numbering



AVM14-HF-4-C19

Performance Parameters		Symbol	Unit	AVM14-HF-4-C19	
Stroke		S	mm	4.0	
Continuous Force @100°C •		Fc	N	2.44	
Peak Force 🤒	Peak Force 😕		N	7.33	
Force Constant ±10%		Kf	N/A	1.88	
Back EMF Constant ±10%		Ke	V/(m/s)	1.88	
Motor Constant @25°C ⁰		Km	N/Sqrt(W)	1.35	
Resistance @25°C ±10%		R ₂₅	Ω	1.93	
Inductance ±20% ⁶		L	mH	0.14	
Electrical Time Constant		τ _e	ms	0.073	
Continuous Current @100°C		lc	A	1.3	
Peak Current		I _{pk}	А	3.9	
Continuous Power Dissipation	@100°C	Pc	W	4.2	
Max. Coil Temperature		t _{max}	°C	100	
Thermal Dissipation Constant		K _{th}	W/°C	0.06	
Max.Voltage	x.Voltage		Vdc	60	
Mechanical Parameters					
Coil Mass		m _{coil}	g	7.0	
Core Mass		m _{core}	g	13.7	
Running Clearance		Lgap	mm	0.35	
Other Information					
Insulation Class		Class A (105°C)			
Protection Grade		IP00			
Compliance with Global Standards		RoHS			
Ambient Temperature Operation		0°C to 40°C (non-freezing)			
Ampient remperature	Storage		-15°C to 70°C	(non-freezing)	
Ambient Humidity	Operation	109	6RH to 80%RH	H (non-condensing)	
Ambient numulty	Storage	10%RH to 90%RH (non-condensing)			
Recommended Ambience		No corros		irect sunlight); nmable gas, oil mist or dust.	

AVM14-10-C56

Performance Parameters		Symbol	Unit	AVM14-10-C56	
Stroke		S	mm	10.0	
Continuous Force @100°C 00		Fc	N	0.98	
Peak Force 🤨		Fpk	N	2.95	
Force Constant ±10% [®]		Kf	N/A	0.82	
Back EMF Constant ±10%		Ke	V/(m/s)	0.82	
Motor Constant @25°C ⁰		Km	N/Sqrt(W)	0.55	
Resistance @25℃ ±10%		R25	Ω	2.22	
Inductance ±20% ⁶		L	mH	0.24	
Electrical Time Constant		τ _e	ms	0.108	
Continuous Current @100°C		lc	A	1.20	
Peak Current		I _{pk} Pr	A	3.60	
Continuous Power Dissipation	Continuous Power Dissipation @100°C		W	4.11	
Max. Coil Temperature		tmax	°C	100	
Thermal Dissipation Constant	Thermal Dissipation Constant [®]		W/°C	0.05	
/ax.Voltage		Umax	Vdc	60	
Mechanical Parameters					
Coil Mass		Mcoil	g	3.0	
Core Mass		mcore	g	13.6	
Running Clearance		Lgap	mm	0.35	
Other Information					
Insulation Class		Class A (105°C)			
Protection Grade		IP00			
Compliance with Global Stand	ards	RoHS			
Ambient Temperature	Operation		0°C to 40°C (non-freezing)		
	Storage		-15°C to 70°C	(non-freezing)	
Ambient Humidity	Operation Operation		6RH to 80%RH	H (non-condensing)	
	Storage	10%RH to 90%RH (non-condensing)			
Recommended Ambience		Indoor (no direct sunlight); No corrosive gas, inflammable gas, oil mist or dust.			

Introdu

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Sizing Gu

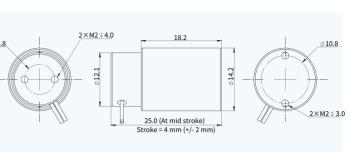
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Frequently

Asked

AVM Customized Series

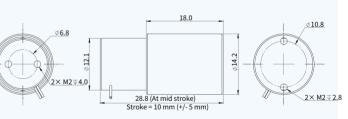
Dimension



Measurement is taken at ambient temperature 25°C. Value depends on the thermal environment

- The values are at mid stroke. Resistance is measured by DC current with standard 0.5 m lead wire.
- nductance is measured by current frequency of 1 kHz.
- e contents of datasheet are subject to change without prior notice.

Dimension

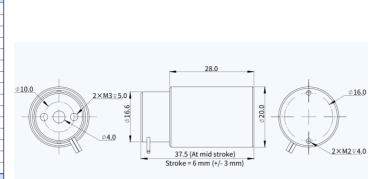


easurement is taken at ambient temperature 25°C. Value depends on the thermal environment he values are at mid stroke.

- esistance is measured by DC current with standard 0.5 m lead wire.
- ductance is measured by current frequency of 1 kHz.
- contents of datasheet are subject to change without prior notice.

AVM20-HF-6-C28

Performance Parameters		Symbol	Unit	AVM20-HF-6-C28
Stroke		S	mm	6
Continuous Force @100°C 🛯 🥹		Fc	N	5.69
Peak Force 🤒		Fpk	N	17.06
Force Constant ±10% ²		Kf	N/A	4.74
Back EMF Constant ±10%		Ke	V/(m/s)	4.74
Motor Constant @25°C		Km	N/Sqrt(W)	2.16
Resistance @25°C ±10%		R ₂₅	Ω	4.84
Inductance ±20% ⁴		L	mH	0.60
Electrical Time Constant		τ	ms	0.124
Continuous Current @100°C		lc	A	1.20
Peak Current		Ipk	A	3.60
Continuous Power Dissipation	@100°C	Pc Pc	W	8.98
Max. Coil Temperature		t _{max}	°C	100
Thermal Dissipation Constant		Kth	W/°C	0.12
Max.Voltage		Umax	Vdc	60
Mechanical Parameters				
Coil Mass		m _{coil}	g	13.5
Core Mass		m _{core}	g	47.5
Running Clearance		Lgap	mm	0.5
Other Information				
Insulation Class			Class A	(105°C)
Protection Grade			IP	00
Compliance with Global Standa	ards		Rol	IS
Ambient Temperature	Operation		0°C to 40°C	non-freezing)
Ambient remperature	Storage		-15°C to 70°C	(non-freezing)
Ambient Humidity	Operation	109	6RH to 80%RI	H (non-condensing)
Amolent numberly	Storage	109	6RH to 90%RI	H (non-condensing)
Recommended Ambience		No corros		lirect sunlight); nmable gas, oil mist or dust.



Measurement is taken at ambient temperature 25°C. Value depends on the thermal environment. Output: A straight of the s

8 Resistance is measured by DC current with standard 0.5 m lead wire. Inductance is measured by current frequency of 1 kHz.

The contents of datasheet are subject to change without prior notice.

AVM30-7-C60

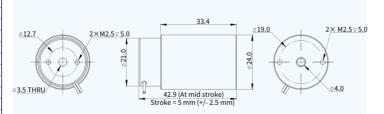
Performance Parameters		Symbol	Unit	AVM30-7-C60	
Stroke		S	mm	7	
Continuous Force @100°C •	Continuous Force @100°C \varTheta 😣		N	5.64	
Peak Force 🤒		Fpk	N	24.80	
Force Constant ±10% ²		Kf	N/A	6.20	
Back EMF Constant ±10%		Ke	V/(m/s)	6.20	
Motor Constant @25°C		Km	N/Sqrt(W)	2.49	
Resistance @25°C ±10%€		R25	Ω	6.21	
Inductance ±20% ⁶		L	mH	1.41	
Electrical Time Constant		τ _e	ms	0.226	
Continuous Current @100°C		lc	A	0.91	
Peak Current		I _{pk}	A	4.00	
Continuous Power Dissipation	@100°C	Pc	W	6.62	
Max. Coil Temperature		tmax	°C	100	
Thermal Dissipation Constant		Kth Umax	W/°C	0.09	
Max.Voltage	ax.Voltage		Vdc	60	
Mechanical Parameters					
Coil Mass		Mcoil	g	15.3	
Core Mass		mcore	g	86.2	
Running Clearance		Lgap	mm	0.6	
Other Information					
Insulation Class		Class A (105°C)			
Protection Grade		IP00			
Compliance with Global Standa	ards		Rol	IS	
Ambient Temperature	Operation		0°C to 40°C	(non-freezing)	
Ambient remperature	Storage		-15°C to 70°C	(non-freezing)	
Ambient Humidity	Operation	109	6RH to 80%RI	H (non-condensing)	
Ambient number	Storage	10%RH to 90%RH (non-condensing)			
Recommended Ambience		No corros		irect sunlight); nmable gas, oil mist or dust.	

AVM24-HF-5-C13

Performance Parameters		Symbol	Unit	AVM24-HF-5-C13
Stroke		S	mm	5
Continuous Force @100°C 🛯 🥹		Fc	N	5.88
Peak Force 🤨		Fpk	N	31.92
Force Constant ±10%		Kf	N/A	8.40
Back EMF Constant ±10%		Ke	V/(m/s)	8.40
Motor Constant @25°C		Km	N/Sqrt(W)	2.91
Resistance @25°C ±10%		R25	Ω	8.35
Inductance ±20% ⁶		L	mH	1.68
Electrical Time Constant		τ _e	ms	0.201
Continuous Current @100°C		lc	A	0.70
Peak Current		Ipk	A	3.80
Continuous Power Dissipation	@100°C	Pc	W	5.27
Max. Coil Temperature		tmax	°C	100
Thermal Dissipation Constant		Kth	W/°C	0.07
Max.Voltage		Umax	Vdc	60
Mechanical Parameters				
Coil Mass		mcoil	g	21.5
Core Mass		mcore	g	82.0
Running Clearance		Lgap	mm	0.5
Other Information				
Insulation Class			Class A	(105°C)
Protection Grade			IP	00
Compliance with Global Standa	ards		Roł	IS
Ambient Temperature	Operation		0°C to 40°C (non-freezing)
	Storage		-15°C to 70°C	(non-freezing)
Ambient Humidity	Operation	109	6RH to 80%RI	H (non-condensing)
Ambient Humidity	Storage	109	6RH to 90%RI	H (non-condensing)
Recommended Ambience		No corros		irect sunlight); nmable gas, oil mist or dust

Dimension

Dimension



Measurement is taken at ambient temperature 25°C. Value depends on the thermal environment. Particular and the stroke of the stroke. 8 Resistance is measured by DC current with standard 0.5 m lead wire Inductance is measured by current frequency of 1 kHz.

The contents of datasheet are subject to change without prior notice.

AVM35-HF-15-C22

Performance Parameters		Symbol	Unit	AVM35-HF-15-C22	
Stroke		S	mm	15	
Continuous Force @100°C 🛚 🕹		Fc	N	19.76	
Peak Force 🤨		Fpk	N	98.80	
Force Constant ±10%		Kf	N/A	24.70	
Back EMF Constant ±10%		Ke	V/(m/s)	24.70	
Motor Constant @25°C		Km	N/Sqrt(W)	6.24	
Resistance @25°C ±10%		R25	Ω	15.66	
Inductance ±20% ⁶		L	mH	7.0	
Electrical Time Constant		τ _e	ms	0.447	
Continuous Current @100°C		lc	A	0.80	
Peak Current		I _{pk} Pc	A	4.00	
Continuous Power Dissipation	Continuous Power Dissipation @100°C		W	12.91	
Max. Coil Temperature	Iax. Coil Temperature		°C	100	
Thermal Dissipation Constant	hermal Dissipation Constant ⁰		W/°C	0.17	
Max.Voltage	lax.Voltage		Vdc	60	
Mechanical Parameters					
Coil Mass		mcoil	g	80.7	
Core Mass		mcore	g	261.0	
Running Clearance		Lgap	mm	0.5	
Other Information					
Insulation Class		Class A (105°C)			
Protection Grade		IP00			
Compliance with Global Stands	ards	RoHS			
Ambient Temperature	Operation	0°C to 40°C (non-freezing)			
	Storage		-15°C to 70°C	(non-freezing)	
Ambiant Humidity	Operation	109	6RH to 80%RI	H (non-condensing)	
Ambient Humidity	Storage	10%RH to 90%RH (non-condensing)			
Recommended Ambience				lirect sunlight);	
		No corros	ive gas, inflar	nmable gas, oil mist or dust	

Introduction

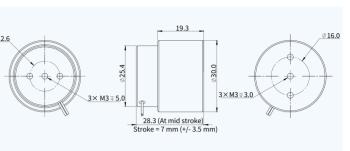
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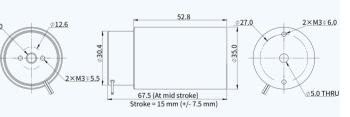
Dimension



leasurement is taken at ambient temperature 25°C. Value depends on the thermal environmen

- The values are at mid stroke.
- Resistance is measured by DC current with standard 0.5 m lead wire.
- nductance is measured by current frequency of 1 kHz.
- e contents of datasheet are subject to change without prior notice.

Dimension



leasurement is taken at ambient temperature 25°C. Value depends on the thermal environment.

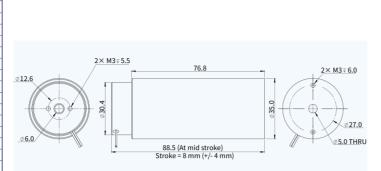
The values are at mid stroke. esistance is measured by DC current with standard 0.5 m lead wire.

nductance is measured by current frequency of 1 kHz.

contents of datasheet are subject to change without prior notice.

AVM35-HF-8-C35

Stroke Continuous Force @100°C • • • Peak Force • Force Constant ±10%• Back EMF Constant ±10%•		S Fc Fpk Kf Ke	mm N N/A	8 27.43 137.16	
Peak Force [@] Force Constant ±10% [®] Back EMF Constant ±10% [®]		Fpk Kf	N		
Force Constant ±10% [®] Back EMF Constant ±10% [®]		Kf		137.16	
Back EMF Constant ±10%			NI/A		
		Ka	IN/A	34.29	
		ive	V/(m/s)	34.29	
Motor Constant @25°C ⁰		Km	N/Sqrt(W)	8.32	
Resistance @25℃ ±10%€		R25	Ω	16.98	
Inductance ±20% ^O		L	mH	7.15	
Electrical Time Constant		τ _e	ms	0.421	
Continuous Current @100°C		lc	A	0.80	
Peak Current	Ipk	A	4.00		
Continuous Power Dissipation	Pc	W	14.01		
Max. Coil Temperature	tmax	°C	100		
Thermal Dissipation Constant	Kth	W/°C	0.19		
Max.Voltage		Umax	Vdc	60	
Mechanical Parameters					
Coil Mass		mcoil	g	85.2	
Core Mass		mcore	g	371.4	
Running Clearance		Lgap	mm	0.5	
Other Information					
Insulation Class		Class A (105°C)			
Protection Grade		IP00			
Compliance with Global Standa	ards	RoHS			
Ambient Temperature	Operation	0°C to 40°C (non-freezing)			
	Storage	-15°C to 70°C (non-freezing)			
Ambient Humidity	Operation	10%RH to 80%RH (non-condensing)			
Amplent numulty	Storage	10%RH to 90%RH (non-condensing)			
Recommended Ambience		Indoor (no direct sunlight); No corrosive gas, inflammable gas, oil mist or dust.			



() Measurement is taken at ambient temperature 25°C. Value depends on the thermal environment.

Output: Provide the stroke of the stroke of the stroke.

Dimension

Sesistance is measured by DC current with standard 0.5 m lead wire.

Inductance is measured by current frequency of 1 kHz.

The contents of datasheet are subject to change without prior notice.

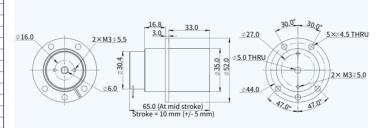
AVM40-20-C18

Performance Parameters		Symbol	Unit	AVM40-20-C18		
Stroke		S	mm	20		
Continuous Force @100°C 🛚 🛛		Fc	N	8.11		
Peak Force 🤨		Fpk	N	47.39		
Force Constant ±10% [®]		K _f	N/A	10.53		
Back EMF Constant ±10%		Ke	V/(m/s)	10.53		
Motor Constant @25°C		Km	N/Sqrt(W)	3.06		
Resistance @25°C ±10%		R25	Ω	11.82		
Inductance ±20%		L	mH	5.41		
Electrical Time Constant		τ	ms	0.458		
Continuous Current @100°C		lc	A	0.77		
Peak Current		I _{pk}	A	4.50		
Continuous Power Dissipation @100°C		Pc	W	9.03		
Max. Coil Temperature		t _{max}	°C	100		
Thermal Dissipation Constant ⁰		Kth	W/°C	0.12		
Max.Voltage		Umax	Vdc	60		
Mechanical Parameters						
Coil Mass		m _{coil}	g	65.0		
Core Mass		m _{core}	g	205.0		
Running Clearance		Lgap	mm	0.6		
Other Information						
Insulation Class		Class A (105°C)				
Protection Grade		IP00				
Compliance with Global Stands	ards	RoHS				
Ambient Temperature	Operation		0°C to 40°C (non-freezing)		
Ambient remperature	Storage		-15°C to 70°C	(non-freezing)		
Ambient Humidity	Operation	109	6RH to 80%RH	H (non-condensing)		
Ambient numulty	Storage	109	6RH to 90%RF	H (non-condensing)		
Recommended Ambience		Indoor (no direct sunlight); No corrosive gas, inflammable gas, oil mist or dust.				

AVM35-HF-10-C31

Performance Parameters		Symbol	Unit	AVM35-HF-10-C31		
Stroke		S	mm	10		
Continuous Force @100°C 9 Ø		Fc	N	16.72		
Peak Force 🤨		Fpk	N	83.60		
Force Constant ±10% ²		Kf	N/A	20.90		
Back EMF Constant ±10%		Ke	V/(m/s)	20.90		
Motor Constant @25°C ⁰		Km	N/Sqrt(W)	5.98		
Resistance @25°C ±10%		R ₂₅	Ω	12.23		
Inductance ±20%		L	mH	5.22		
Electrical Time Constant		τ _e	ms	0.427		
Continuous Current @100°C		lc	A	0.80		
Peak Current		I _{pk} Pc	A	4.00		
Continuous Power Dissipation	Continuous Power Dissipation @100°C			10.09		
Max. Coil Temperature	tmax	°C	100			
Thermal Dissipation Constant ⁰		Kth	W/°C	0.13		
Max.Voltage	Umax	Vdc	60			
Mechanical Parameters						
Coil Mass		mcoil	g	78.0		
Core Mass		mcore	g	285.7		
Running Clearance		Lgap	mm	0.5		
Other Information						
Insulation Class		Class A (105°C)				
Protection Grade		IP00				
Compliance with Global Stand	ards	RoHS				
Ambient Temperature	Operation		0°C to 40°C	(non-freezing)		
	Storage	-15°C to 70°C (non-freezing)				
Ambient Humidity	Operation	109	6RH to 80%RI	H (non-condensing)		
Ambient numidity	Storage	109	6RH to 90%RI	H (non-condensing)		
Recommended Ambience		Indoor (no direct sunlight); No corrosive gas, inflammable gas, oil mist or dus				

Dimension



Measurement is taken at ambient temperature 25°C. Value depends on the thermal environment. Ø The values are at mid stroke.

6 Resistance is measured by DC current with standard 0.5 m lead wire.

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The contents of datasheet are subject to change without prior notice.

AVM40-HF-6.4-C11A

Performance Parameters		Symbol	Unit	AVM40-HF-6.4-C11A		
Stroke		S	mm	6.4		
Continuous Force @100°C 00		Fc	N	18.18		
Peak Force 🤒		Fpk	N	99.40		
Force Constant ±10%		Kf	N/A	14.20		
Back EMF Constant ±10%		Ke	V/(m/s)	14.20		
Motor Constant @25°C ⁰		Km	N/Sqrt(W)	5.91		
Resistance @25°C ±10%		R ₂₅	Ω	5.77		
Inductance ±20%		L	mH	1.44		
Electrical Time Constant		τ _e	ms	0.249		
Continuous Current @100°C		lc	Α	1.28		
Peak Current		I _{pk}	Α	7.00		
Continuous Power Dissipation @100°C		P _c	W	12.18		
Max. Coil Temperature		tmax	°C	100		
Thermal Dissipation Constant		K _{th}	W/°C	0.16		
Max.Voltage		Umax	Vdc	60		
Mechanical Parameters						
Coil Mass		mcoil	g	49.0		
Core Mass		mcore	g	195.0		
Running Clearance		Lgap	mm	0.5		
Other Information						
Insulation Class		Class A (105°C)				
Protection Grade		IP00				
Compliance with Global Stand	ards	RoHS				
Ambient Temperature	Operation		0°C to 40°C	(non-freezing)		
Ampient remperature	Storage		-15°C to 70°C	C (non-freezing)		
Ambient Humidity	Operation	109	6RH to 80%R	H (non-condensing)		
Ambient Humaity	Storage	109	6RH to 90%R	H (non-condensing)		
Recommended Ambience		Indoor (no direct sunlight); No corrosive gas, inflammable gas, oil mist or dust.				

Direct Drive

Rotary

Introduction

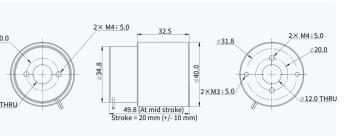
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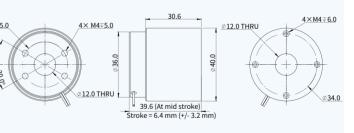
Dimension



asurement is taken at ambient temperature 25°C. Value depends on the thermal environmen

- e values are at mid stroke.
- sistance is measured by DC current with standard 0.5 m lead wire.
- luctance is measured by current frequency of 1 kHz.
- contents of datasheet are subject to change without prior notice.

Dimension



Measurement is taken at ambient temperature 25°C. Value depends on the thermal environment The values are at mid stroke.

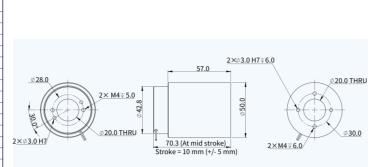
Resistance is measured by DC current with standard 0.5 m lead wire

Inductance is measured by current frequency of 1 kHz.

e contents of datasheet are subject to change without prior notice.

AVM50-HF-10-C15A

Performance Parameters		Symbol	Unit	AVM50-HF-10-C15A		
Stroke		S	mm	10.0		
Continuous Force @100°C 🛚 🕗		Fc	N	25.20		
Peak Force 🤨		Fpk	N	105.00		
Force Constant ±10%		K _f	N/A	21.00		
Back EMF Constant ±10% ²		Ke	V/(m/s)	21.00		
Motor Constant @25°C ⁰		Km	N/Sqrt(W)	7.10		
Resistance @25℃ ±10%		R ₂₅	Ω	8.75		
Inductance ±20%		L	mH	4.93		
Electrical Time Constant		τ _e	ms	0.563		
Continuous Current @100°C		lc	A	1.20		
Peak Current	I _{pk}	A	5.00			
Continuous Power Dissipation (Pc	W	16.24			
Max. Coil Temperature	t _{max}	°C	100			
Thermal Dissipation Constant ⁰		Kth	W/°C	0.22		
Max.Voltage		Umax	Vdc	60		
Mechanical Parameters						
Coil Mass		m _{coil}	g	142		
Core Mass		m _{core}	g	482		
Running Clearance		Lgap	mm	0.6		
Other Information						
Insulation Class		Class A (105°C)				
Protection Grade		IP00				
Compliance with Global Standa	ırds	RoHS				
Ambient Temperature Operation		0°C to 40°C (non-freezing)				
	Storage	-15°C to 70°C (non-freezing)				
Ambient Humidity	Operation	109	6RH to 80%R	H (non-condensing)		
Amolent humaity	Storage	10%RH to 90%RH (non-condensing)				
Recommended Ambience		Indoor (no direct sunlight); No corrosive gas, inflammable gas, oil mist or dust.				



Measurement is taken at ambient temperature 25°C. Value depends on the thermal environment Output: A straight of the s

6 Resistance is measured by DC current with standard 0.5 m lead wire.

Dimension

Inductance is measured by current frequency of 1 kHz.

The contents of datasheet are subject to change without prior notice.

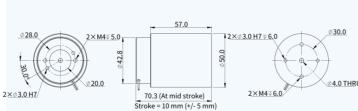
AVM75-HF-25-C12

Performance Parameters		Symbol	Unit	AVM75-HF-25-C12		
Stroke		S	mm	25.0		
Continuous Force @100°C \varTheta		Fc	N	124.69		
Peak Force 🤒		Fpk	N	572.90		
Force Constant ±10%		K _f	N/A	33.70		
Back EMF Constant ±10%		Ke	V/(m/s)	33.70		
Motor Constant @25°C [®]		Km	N/Sqrt(W)	20.05		
Resistance @25°C ±10%			Ω	2.83	23	
nductance ±20% [©]		L	mH	2.76		
Electrical Time Constant		τ _e	ms	0.977		
Continuous Current @100°C		lc	А	3.70		
Peak Current		I _{pk}	А	17.00		
Continuous Power Dissipation @100°C		Pc	W	49.84		
Max. Coil Temperature		t _{max}	°C	100		
Thermal Dissipation Constant ⁰		K _{th}	W/°C	0.66		
Max.Voltage		Umax	Vdc	60		
Mechanical Parameters						
Coil Mass		m _{coil}	g	710		
Core Mass		m _{core}	g	1940		
Running Clearance		Lgap	mm	0.5		
Other Information						
Insulation Class		Class A (105°C)				
Protection Grade		IP00				
Compliance with Global Stand	lards	RoHS				
Ambient Temperature	Operation		0°C to 40°C	(non-freezing)		
Amplent remperature	Storage		-15°C to 70°C	(non-freezing)	6	
Ambient Humidity	Operation	109	6RH to 80%RI	H (non-condensing)	0	
Amolent numberly	Storage	10%RH to 90%RH (non-condensing)				
Recommended Ambience		Indoor (no direct sunlight); No corrosive gas, inflammable gas, oil mist or dust.				

AVM50-HF-10-C34A

Performance Parameters		Symbol	Unit	AVM50-HF-10-C34A		
Stroke		S	mm	10.0		
Continuous Force @100°C 10		Fc	N	37.57		
Peak Force 😕		Fpk	N	156.55		
Force Constant ±10%		Kf	N/A	31.31		
Back EMF Constant ±10%		Ke	V/(m/s)	31.31		
Motor Constant @25°C ⁰		Km	N/Sqrt(W)	11.21		
Resistance @25°C ±10%6		R ₂₅	Ω	7.80		
Inductance ±20% ⁴		L	mH	5.30		
Electrical Time Constant		τ _e	ms	0.679		
Continuous Current @100°C		lc	A	1.20		
Peak Current		Ipk	A	5.00		
Continuous Power Dissipation	@100°C	Pc	W	14.48		
Max. Coil Temperature		tmax	°C	100		
Thermal Dissipation Constant ⁰		Kth	W/°C	0.19		
Max.Voltage		Umax	Vdc	60		
Mechanical Parameters						
Coil Mass		Mcoil	g	144		
Core Mass		mcore	g	628		
Running Clearance		Lgap	mm	0.6		
Other Information						
Insulation Class		Class A (105°C)				
Protection Grade		IP00				
Compliance with Global Stand	ards	RoHS				
Ambient Temperature	Operation	0°C to 40°C (non-freezing)				
Amplent remperature	Storage		-15°C to 70°C	(non-freezing)		
Ambiant Humidity	Operation	10%RH to 80%RH (non-condensing)				
Ambient Humidity	Storage	10%RH to 90%RH (non-condensing)				
Recommended Ambience		No corros		lirect sunlight); nmable gas, oil mist or dust		





Measurement is taken at ambient temperature 25°C. Value depends on the thermal environment. Ø The values are at mid stroke. 6 Resistance is measured by DC current with standard 0.5 m lead wire. Inductance is measured by current frequency of 1 kHz.

The contents of datasheet are subject to change without prior notice.

AVM75-38-C39

Performance Parameters		Symbol	Unit	AVM75-38-C39		
Stroke		S	mm	38.0		
Continuous Force @100°C •		Fc	N	45.26		
Peak Force 😕	Peak Force 😕		N	192.02		
orce Constant ±10% ⁰		Kf	N/A	13.72		
ack EMF Constant ±10% ⁰		Ke	V/(m/s)	13.72		
Motor Constant @25°C ⁰	tor Constant @25°C ⁰		N/Sqrt(W)	9.66		
Resistance @25°C ±10%			Ω	2.02		
ductance ±20% ⁶		L	mH	1.82		
Electrical Time Constant		τ _e	ms	0.903		
Continuous Current @100°C ⁰		lc	A	3.30		
Peak Current		I _{pk}	A	14.00		
Continuous Power Dissipation @100°C			W	28.28		
Iax. Coil Temperature		t _{max}	°C	100		
hermal Dissipation Constant ⁰		Kth	W/°C	0.38		
Max.Voltage		Umax	Vdc	60		
Mechanical Parameters						
Coil Mass		mcoil	g	534		
Core Mass		m _{core}	g	1277		
Running Clearance		Lgap	mm	0.5		
Other Information						
Insulation Class		Class A (105°C)				
Protection Grade			IPO	00		
Compliance with Global Stand	lards	RoHS				
Ambient Temperature	Operation		0°C to 40°C (non-freezing)		
Amplent remperature	Storage		-15°C to 70°C	(non-freezing)		
Ambient Humidity	Operation	109	6RH to 80%RH	H (non-condensing)		
Ambient Humidity	Storage	10%RH to 90%RH (non-condensing)				
Recommended Ambience		Indoor (no direct sunlight); No corrosive gas, inflammable gas, oil mist or dust.				

Introduction

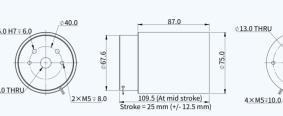
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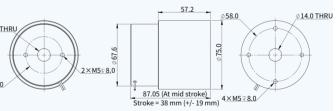
Dimension



asurement is taken at ambient temperature 25°C. Value depends on the thermal environment e values are at mid stroke.

- sistance is measured by DC current with standard 0.5 m lead wire.
- ductance is measured by current frequency of 1 kHz.
- contents of datasheet are subject to change without prior notice.

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surement is taken at ambient temperature 25°C. Value depends on the thermal environment. values are at mid stroke.

- stance is measured by DC current with standard 0.5 m lead wire.
- uctance is measured by current frequency of 1 kHz.
- intents of datasheet are subject to change without prior notice.

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AVM80-12-C8

Performance Parameters		Symbol	Unit	AVM80-12-C8		
Stroke		S	mm	12		
Continuous Force @100°C 🛚 🛛		Fc	N	33.71		
Peak Force 🤨		Fpk	Ν	192.60		
Force Constant ±10%		K _f	N/A	21.34		
Back EMF Constant ±10%		Ke	V/(m/s)	21.34		
Motor Constant @25°C ⁰		Km	N/Sqrt(W)	8.37		
Resistance @25°C ±10% [®]		R ₂₅	Ω	6.50		
Inductance ±20%		L	mH	1.70		
Electrical Time Constant		τ _e	ms	0.262		
Continuous Current @100°C [®]	lc	A	1.58			
Peak Current	Ipk	A	9.00			
Continuous Power Dissipation	P _c	W	20.91			
Max. Coil Temperature	t _{max}	°C	100			
Thermal Dissipation Constant	Kth	W/°C	0.28			
Max.Voltage		Umax	Vdc	60		
Mechanical Parameters						
Coil Mass		m _{coil}	g	124		
Core Mass		m _{core}	g	1262.4		
Running Clearance		Lgap	mm	0.6		
Other Information						
Insulation Class		Class A (105°C)				
Protection Grade		IP00				
Compliance with Global Standa	ards	RoHS				
Ambient Temperature	Operation		0°C to 40°C (non-freezing)		
Ambient remperature	Storage	-15°C to 70°C (non-freezing)				
Ambient Humidity	Operation	10%RH to 80%RH (non-condensing)				
Ambient numerty	Storage	10%RH to 90%RH (non-condensing)				
Recommended Ambience		Indoor (no direct sunlight); No corrosive gas, inflammable gas, oil mist or du				

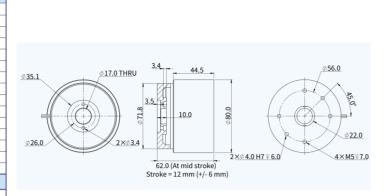


Image: Measurement is taken at ambient temperature 25°C. Value depends on the thermal environment.	
P The values are at mid stroke.	

8 Resistance is measured by DC current with standard 0.5 m lead wire.

Dimension

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The contents of datasheet are subject to change without prior notice.

AVM90-HF-5-C40A

Performance Parameters		Symbol	Unit	AVM90-HF-5-C40A		
Stroke		S	mm	5		
Continuous Force @100°C 00		Fc	N	62.49		
Peak Force 🤨		Fpk	N	220.92		
Force Constant ±10% ⁰		Kf	N/A	15.78		
Back EMF Constant ±10%		Ke	V/(m/s)	15.78		
Motor Constant @25°C		Km	N/Sqrt(W)	14.44		
Resistance @25°C ±10%		R25	Ω	1.20		
Inductance ±20% [©]		L	mH	0.75		
Electrical Time Constant		τ _e	ms	0.628		
Continuous Current @100°C		lc	A	3.96		
Peak Current		Ipk	A	14.00		
Continuous Power Dissipation @100°C		Pc	W	24.15		
Max. Coil Temperature		tmax	°C	100		
Thermal Dissipation Constant ⁰		Kth	W/°C	0.32		
Max.Voltage		Umax	Vdc	120		
Mechanical Parameters						
Coil Mass		m _{coil}	g	427.2		
Core Mass		mcore	g	1514.6		
Running Clearance		Lgap	mm	0.65		
Other Information						
Insulation Class		Class A (105°C)				
Protection Grade		IP00				
Compliance with Global Standa	ards		Rol	IS		
Ambient Temperature	Operation		0°C to 40°C	(non-freezing)		
Ambient rempetature	Storage		-15°C to 70°C	(non-freezing)		
Ambient Humidity	Operation	109	6RH to 80%RI	H (non-condensing)		
Amplent numidity	Storage	109	6RH to 90%RI	H (non-condensing)		
Recommended Ambience		No corros		lirect sunlight); nmable gas, oil mist or dust.		

AVM90-30-C77

Performance Parameters		Symbol	Unit	AVM90-30-C77	
Stroke		S	mm	30	
Continuous Force @100°C •		Fc	N	57.30	
Peak Force 🤨		Fpk	N	202.60	
Force Constant ±10%		Kf	N/A	14.33	
Back EMF Constant ±10%		Ke	V/(m/s)	14.33	
Motor Constant @25°C		Km	N/Sqrt(W)	8.67	
Resistance @25°C ±10%		R25	Ω	2.73	
Inductance ±20% ⁶		L	mH	3.80	
Electrical Time Constant		τ _e	ms	1.392	
Continuous Current @100°C		lc	A	4.00	
Peak Current		I _{pk}	A	14.00	
Continuous Power Dissipation	Pc	W	56.29		
Max. Coil Temperature		tmax	°C	100	
Thermal Dissipation Constant [®]		Kth	W/°C	0.75	
Max.Voltage	Umax	Vdc	120		
Mechanical Parameters					
Coil Mass		mcoil	g	751.2	
Core Mass		Mcore	g	1135.1	
Running Clearance		Lgap	mm	0.65	
Other Information					
Insulation Class			Class A (105°C)		
Protection Grade		IP00			
Compliance with Global Standa	ards	RoHS			
Ambient Temperature	Operation	0°C to 40°C (non-freezing)			
Ambient remperature	Storage	-15°C to 70°C (non-freezing)			
Ambient Humidity	Operation	109	6RH to 80%RH	H (non-condensing)	
	Storage	10%RH to 90%RH (non-condensing)			
Recommended Ambience		Indoor (no direct sunlight); No corrosive gas, inflammable gas, oil mist or dust			

Dimension



Measurement is taken at ambient temperature 25°C. Value depends on the thermal environment Output: A straight of the s

6 Resistance is measured by DC current with standard 0.5 m lead wire.

Inductance is measured by current frequency of 1 kHz. The contents of datasheet are subject to change without prior notice

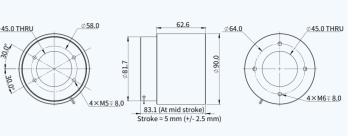
AVM130-HF-10-C29A

Performance Parameters	Symbol	Unit	AVM130-HF-10-C29A		
Stroke	S	mm	10		
Continuous Force @100°C •	Fc	N	162.40		
Peak Force 🤨		Fpk	N	487.20	
Force Constant ±10%		Kf	N/A	46.40	
Back EMF Constant ±10%		Ke	V/(m/s)	46.40	
Motor Constant @25°C		Km	N/Sqrt(W)	53.58	
Resistance @25°C ±10%		R25	Ω	0.75	
Inductance ±20% ⁶		L	mH	0.75	
Electrical Time Constant		τ _e	ms	1.0	
Continuous Current @100°C	lc	A	3.50		
Peak Current	I _{pk}	A	10.50		
Continuous Power Dissipation	Pc	W	11.84		
Max. Coil Temperature	tmax	°C	100		
Thermal Dissipation Constant [®]		Kth	W/°C	0.16	
Max.Voltage	Umax	Vdc	120		
Mechanical Parameters					
Coil Mass	mcoil	g	1080		
Core Mass		mcore	g	5300	
Running Clearance	Lgap	mm	0.55		
Other Information					
Insulation Class	Class A (105°C)				
Protection Grade	IP00				
Compliance with Global Standa	RoHS				
Ambient Temperature	Operation	0°C to 40°C (non-freezing)			
Ambient remperature	Storage -15°C to 70°C (non-freezing)		C (non-freezing)		
Ambiant Humidity	Operation	109	6RH to 80%R	H (non-condensing)	
Ambient Humidity	Operation 10%RH to 80%RH (non-condensing) Storage 10%RH to 90%RH (non-condensing)		H (non-condensing)		
Recommended Ambience		Indoor (no direct sunlight); No corrosive gas, inflammable gas, oil mist or dust.			

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AVM Customized Series

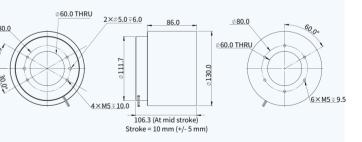
Dimension



Measurement is taken at ambient temperature 25°C. Value depends on the thermal environm

- The values are at mid stroke.
- Resistance is measured by DC current with standard 0.5 m lead wire.
- Inductance is measured by current frequency of 1 kHz.
- he contents of datasheet are subject to change without prior notice.

Dimension



Measurement is taken at ambient temperature 25°C. Value depends on the thermal environment

The values are at mid stroke. Resistance is measured by DC current with standard 0.5 m lead wire.

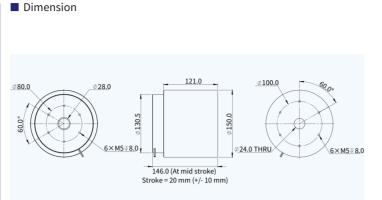
Inductance is measured by current frequency of 1 kHz.

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UK & Ireland Offial Distributor: Motion Control Products Ltd.

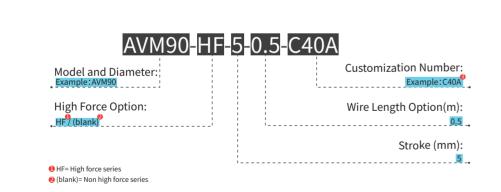
AVM150-HF-20-C53

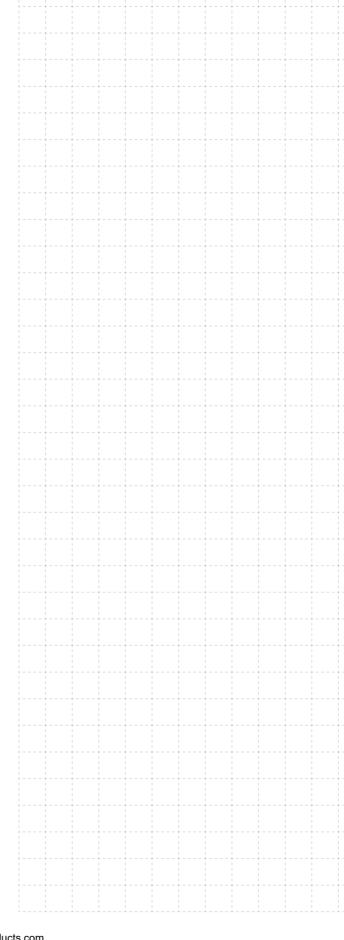
Performance Parameters	Symbol	Unit	AVM150-HF-20-C53				
Stroke	S	mm	20.0				
Continuous Force @100°C •		Fc	N	585.77			
Peak Force 🥺		Fpk	N	1757.30			
Force Constant ±10% ²		Kf	N/A	97.63			
Back EMF Constant ±10%		Ke	V/(m/s)	97.63			
Motor Constant @25°C		Km	N/Sqrt(W)	46.54			
Resistance @25°C ±10%€		R25	Ω	4.40			
Inductance ±20% ⁴		L	mH	2.60			
Electrical Time Constant		τ	ms	0.591			
Continuous Current @100°C		lc	A	6.00			
Peak Current	Ipk	A	18.00				
Continuous Power Dissipation	P _c	W	204.14				
Max. Coil Temperature		tmax	°C	100			
Thermal Dissipation Constant	Kth	W/°C	2.72				
Max.Voltage	Umax	Vdc	120				
Mechanical Parameters							
Coil Mass	Mcoil	g	1500				
Core Mass	mcore	g	12700				
Running Clearance	Lgap	mm	0.75				
Other Information							
Insulation Class	Class A (105°C)						
Protection Grade	IP00						
Compliance with Global Stand	RoHS						
Ambient Temperature	Operation	0°C to 40°C (non-freezing)					
Ambient remperature	Storage	-15°C to 70°C (non-freezing)					
Ambiant Uumiditu	Operation	10%RH to 80%RH (non-condensing)					
Ambient Humidity	Storage	109	10%RH to 90%RH (non-condensing)				
Recommended Ambience	Indoor (no direct sunlight); No corrosive gas, inflammable gas, oil mist or dust.						



Weasurement is taken at ambient temperature 25°C. Value depends on the thermal environment.
The values are at mid stroke.
Resistance is measured by DC current with standard 0.5 m lead wire.
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Part Numbering





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