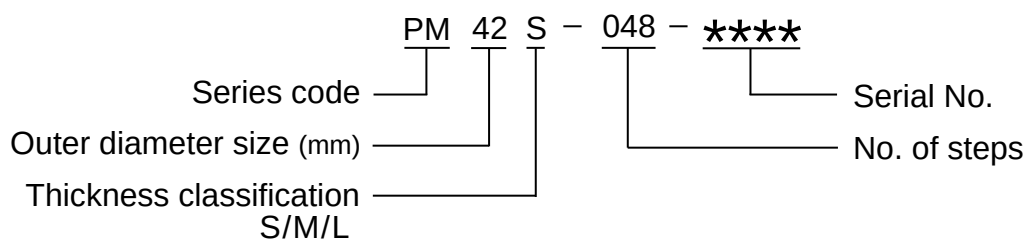
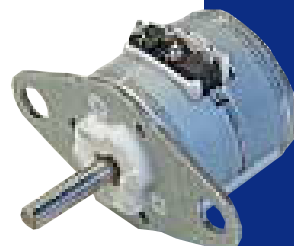


■ Product Line Up

Product Name	Torque Range [x10 ⁻⁴ Nm]	Outer Diameter [mm]	Step No.	Length [mm]
PM10S-020	15-3	10	20	10.2
PM15S-020	25-5	15	20	12.0
PM20S-020	50-15	20	20	15.5
PM20L-020	90-25	20	20	19.6
PM25S-024	50-10	25	24	12.5
PM25S-048	50-15	25	48	12.5
PM25L-024	125-25	25	24	17.0
PM35S-024	200-100	35	24	15.5
PM35S-048	200-100	35	48	15.5
PM35L-024	300-200	35	24	22.2
PM35L-048	400-200	35	48	22.2
PM42S-048	400-200	42	48	15.5
PM42S-096	400-250	42	96	15.5
PM42S-100	400-250	42	100	15.5
PM42M-048	600-300	42	48	20.0
PM42L-048	700-400	42	48	22.2
PM55L-048	1200-700	55	48	25.7
PM55L-096	1200-800	55	96	25.7
PM55L-100	1200-800	55	100	25.7

■ Example of Product Number Explanation





PM Motor
PM Type

Reference Characteristics

Motor Size	PM10S-020
Number of Steps per Rotation	20(18°/Step)
Drive Method	2-2 PHASE
Drive Circuit	BIPOLAR CONST. VOLT.
Drive Voltage	5[V]
Current/Phase	
Coil Resistance/Phase	20[Ω]
Drive IC	L293D
Magnet Material	Nd-Fe-B bonded magnet (MS70)
Insulation Resistance	100M[Ω] MIN
Dielectric Strength	AC 500[V] 1[min]
Class of Insulation	CLASS E
Operating Temp.	-10[°C] ~ 50[°C]
Storage Temp.	-30[°C] ~ 80[°C]
Operating Hum.	20[%] RH ~ 90[%] RH

* Bipolar only. Unipolar is not available.

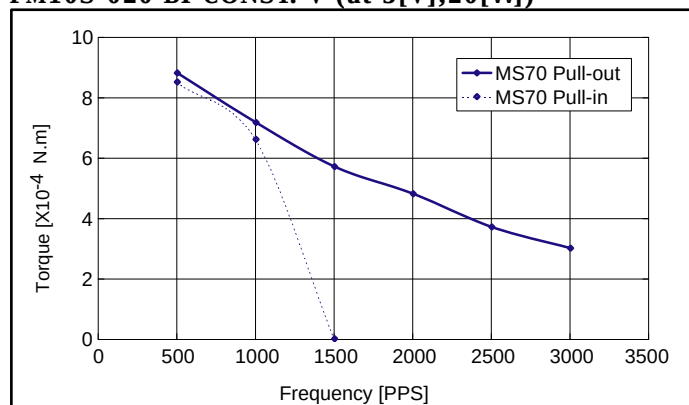
Applications

OA Equipment : Printers / Scanners

Optical instrument : Cameras / Digital cameras / Video cameras

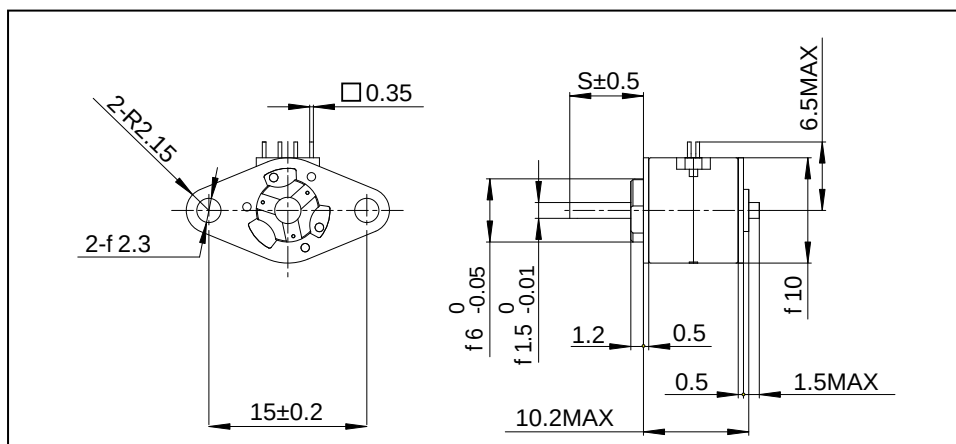
Torque Characteristics

PM10S-020 BI-CONST. V (at 5[V],20[W])



These torque values are reference only. Heat radiation conditions and temperature rise effect by duty are different on each equipment, therefore please select motors after considering the heat conditions in the actual equipment.

Dimensions



If you would like to know this Dimensions(D,S,W, θ),Please see Standard Dimensions in our Home Page.



PM Motor
PM Type

Reference Characteristics

Motor Size	PM15S-020
Number of Steps per Rotation	20(18°/Step)
Drive Method	2-2 PHASE
Drive Circuit	BIPOLAR CONST. VOLT.
Drive Voltage	12[V]
Current/Phase	
Coil Resistance/Phase	100[Ω]
Drive IC	L293D
Magnet Material	Nd-Fe-B bonded magnet (MS70)
Insulation Resistance	100M[Ω] MIN
Dielectric Strength	AC 500[V] 1[min]
Class of Insulation	CLASS E
Operating Temp.	-10[°C] ~ 50[°C]
Storage Temp.	-30[°C] ~ 80[°C]
Operating Hum.	20[%] RH ~ 90[%] RH

* Bipolar only. Unipolar is not available.

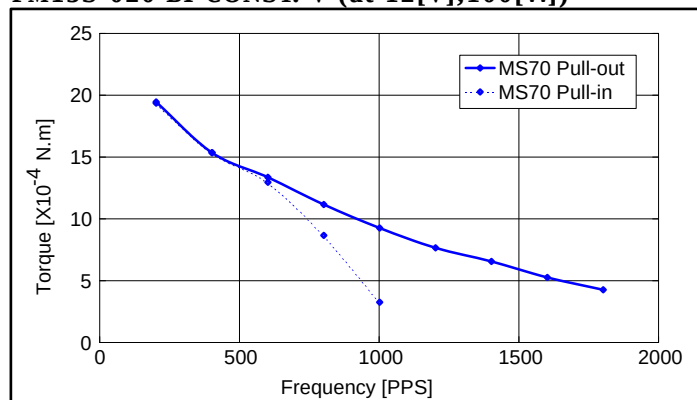
Applications

OA Equipment : Printers / Scanners

Optical instrument : Digital cameras / Video cameras

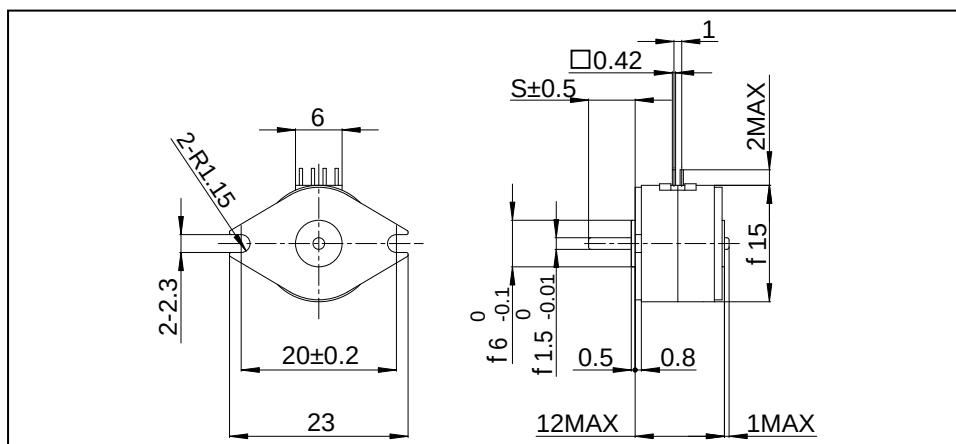
Torque Characteristics

PM15S-020 BI-CONST. V (at 12[V],100[W])

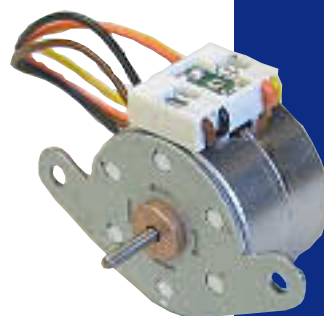


These torque values are reference only. Heat radiation conditions and temperature rise effect by duty are different on each equipment, therefore please select motors after considering the heat conditions in the actual equipment.

Dimensions



If you would like to know this Dimensions(D,S,W, θ),Please see Standard Dimensions in our Home Page.



PM Motor
PM Type

Reference Characteristics

Motor Size	PM20S-020
Number of Steps per Rotation	20(18°/Step)
Drive Method	2-2 PHASE
Drive Circuit	UNIPOLAR CONST. VOLT.
Drive Voltage	12[V]
Current/Phase	
Coil Resistance/Phase	50[Ω]
Drive IC	2SC3346
Magnet Material	Nd-Fe-B bonded magnet (MS70)
Insulation Resistance	100M[Ω] MIN
Dielectric Strength	AC 500[V] 1[min]
Class of Insulation	CLASS E
Operating Temp.	-10[°C] ~ 50[°C]
Storage Temp.	-30[°C] ~ 80[°C]
Operating Hum.	20[%] RH ~ 90[%] RH

Applications

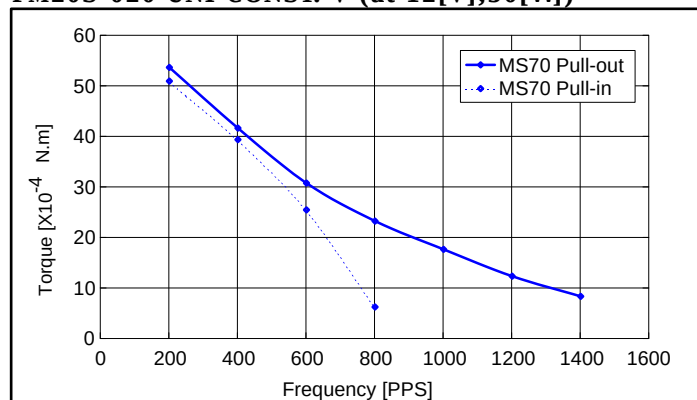
OA Equipment : Printers / Scanners

Automotive : Meters

Home automation appliances : Sewing machines

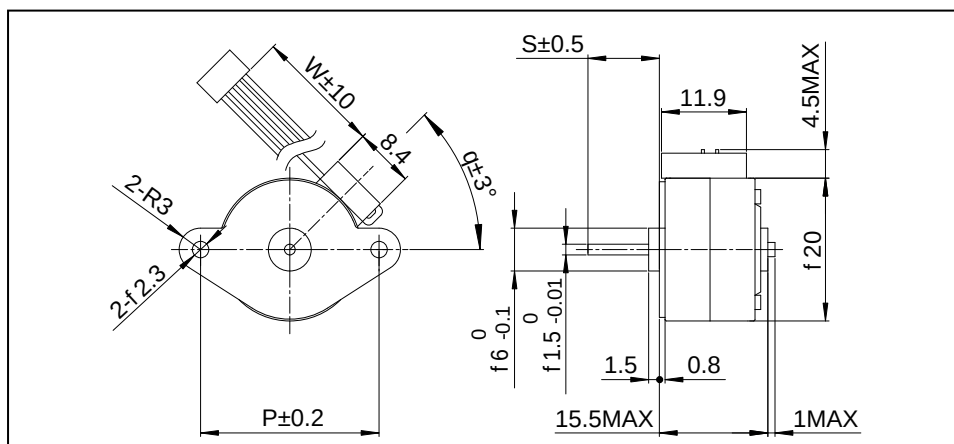
Torque Characteristics

PM20S-020 UNI-CONST. V (at 12[V],50[W])

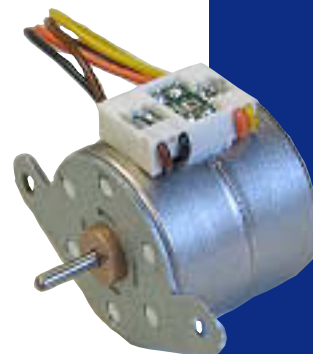


These torque values are reference only. Heat radiation conditions and temperature rise effect by duty are different on each equipment, therefore please select motors after considering the heat conditions in the actual equipment.

Dimensions



If you would like to know this Dimensions(D,S,W, θ),Please see Standard Dimensions in our Home Page.



PM Motor
PM Type

Reference Characteristics

Motor Size	PM20L-020
Number of Steps per Rotation	20(18°/Step)
Drive Method	2-2 PHASE
Drive Circuit	UNIPOLAR CONST. VOLT.
Drive Voltage	12[V]
Current/Phase	
Coil Resistance/Phase	100[Ω]
Drive IC	2SC3346
Magnet Material	Nd-Fe-B bonded magnet (MS70)
Insulation Resistance	100M[Ω] MIN
Dielectric Strength	AC 500[V] 1[min]
Class of Insulation	CLASS E
Operating Temp.	-10[°C] ~ 50[°C]
Storage Temp.	-30[°C] ~ 80[°C]
Operating Hum.	20[%] RH ~ 90[%] RH

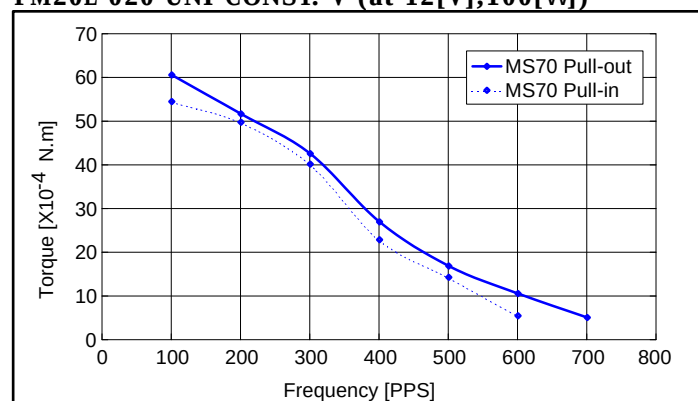
Applications

OA Equipment : Printers / Scanners

Automotive : Meters

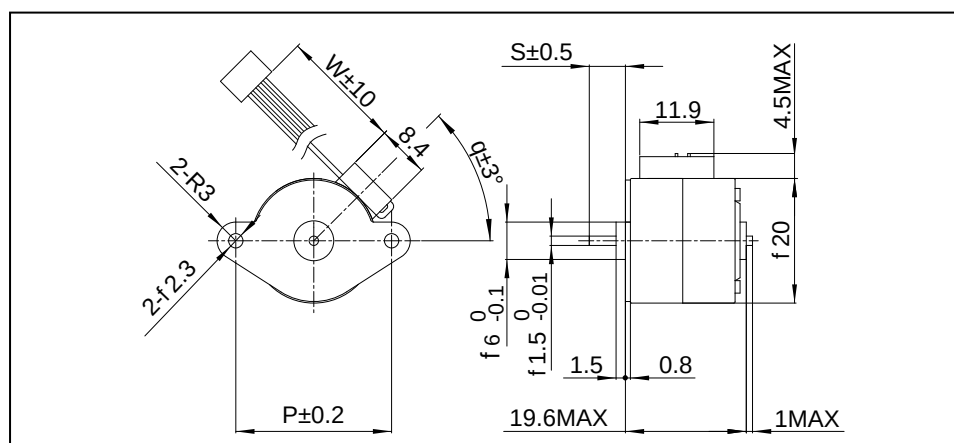
Torque Characteristics

PM20L-020 UNI-CONST. V (at 12[V],100[W])

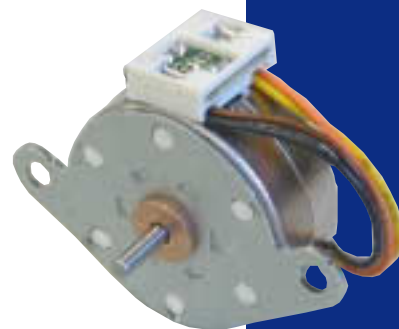


These torque values are general reference values. When using motors, factors such as heat radiation conditions and duty effect heat rise, therefore please select motors after considering the heat conditions in the actual equipment.

Dimensions



If you would like to know this Dimensions(D,S,W, θ),Please see Standard Dimensions in our Home Page.



PM Motor
PM Type

Reference Characteristics

Motor Size	PM25S-024
Number of Steps per Rotation	24(15°/Step)
Drive Method	2-2 PHASE
Drive Circuit	UNIPOLAR CONST. VOLT.
Drive Voltage	24[V]
Current/Phase	
Coil Resistance/Phase	70[Ω]
Drive IC	2SC3346
Magnet Material	Polar anisotropy ferrite sintered magnet (MS50) Nd-Fe-B bonded magnet (MS70)
Insulation Resistance	100M[Ω] MIN
Dielectric Strength	AC 500[V] 1[min]
Class of Insulation	CLASS E
Operating Temp.	-10[°C] ~ 50[°C]
Storage Temp.	-30[°C] ~ 80[°C]
Operating Hum.	20[%] RH ~ 90[%] RH

Applications

OA Equipment : Printers / Scanners

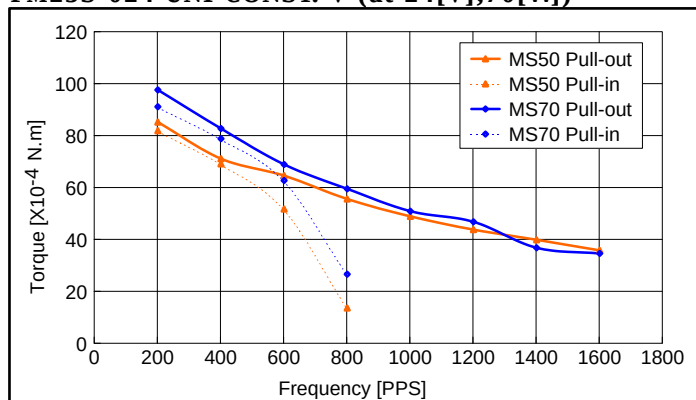
Automotive : Meters

Home electric appliances : Gas range

Home automation appliances : Sewing machines

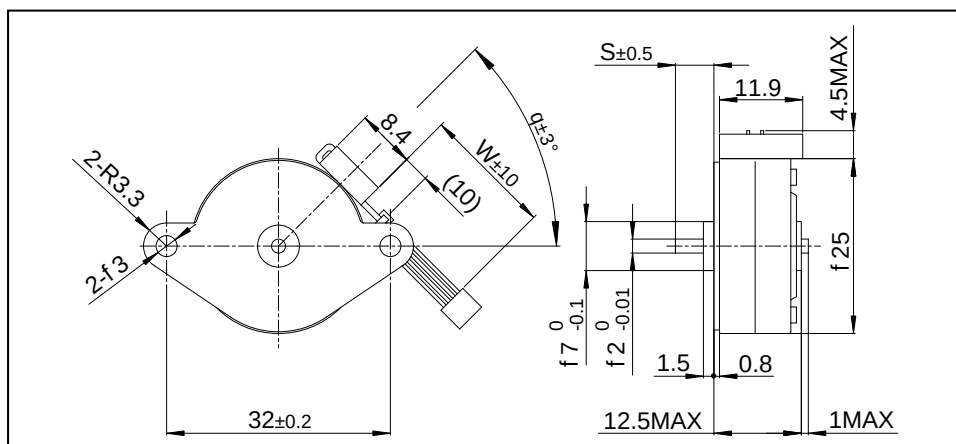
Torque Characteristics

PM25S-024 UNI-CONST. V (at 24[V],70[Ω])

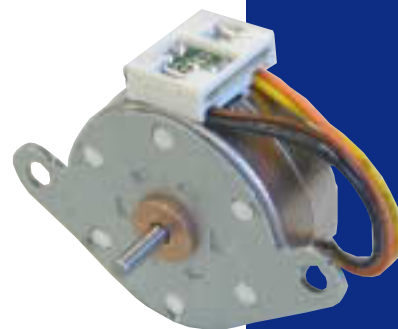


These torque values are reference only. Heat radiation conditions and temperature rise effect by duty are different on each equipment, therefore please select motors after considering the heat conditions in the actual equipment.

Dimensions



If you would like to know this Dimensions(D,S,W, θ),Please see Standard Dimensions in our Home Page.



PM Motor
PM Type

Reference Characteristics

Motor Size	PM25S-048	
Number of Steps per Rotation	48(7.5°/Step)	
Drive Method	2-2 PHASE	
Drive Circuit	UNIPOLAR CONST. VOLT.	BIPOLAR CHOPPER
Drive Voltage	12[V]	24[V]
Current/Phase		600[<i>mA</i>]
Coil Resistance/Phase	65[Ω]	14[Ω]
Drive IC	2SC3346	UDN2916B-V
Magnet Material	Nd-Fe-B bonded magnet (MS70)	
Insulation Resistance	100M[Ω] MIN	
Dielectric Strength	AC 500[V] 1[<i>min</i>]	
Class of Insulation	CLASS E	
Operating Temp.	-10[°C] ~ 50[°C]	
Storage Temp.	-30[°C] ~ 80[°C]	
Operating Hum.	20[%] RH ~ 90[%] RH	

Applications

OA Equipment : Printers / Scanners

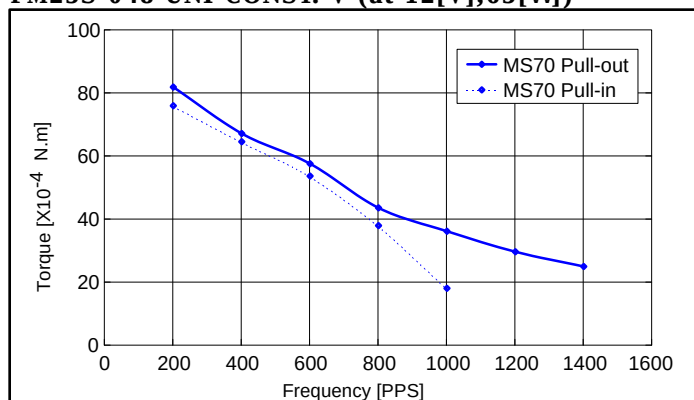
Automotive : Meters

Home electric appliances : Gas range

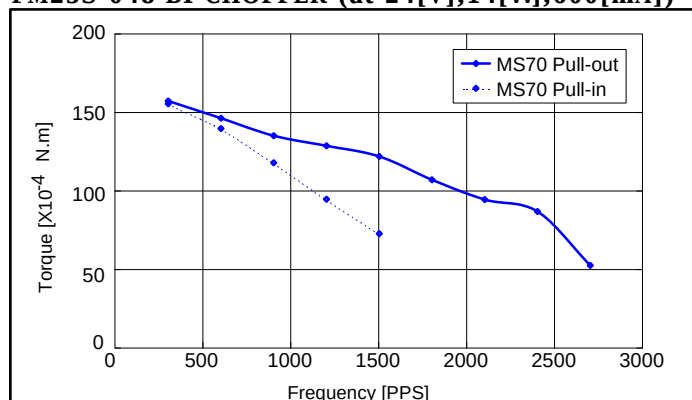
Home automation appliances : Sewing machines

Torque Characteristics

PM25S-048 UNI-CONST. V (at 12[V],65[W])

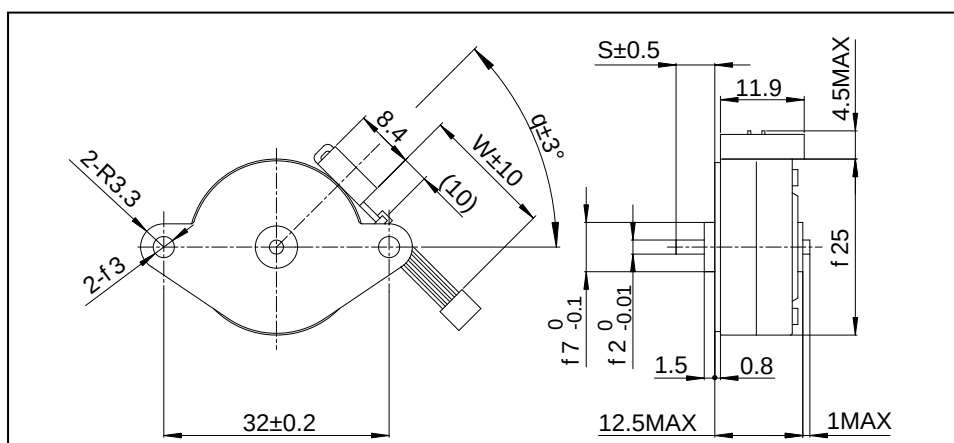


PM25S-048 BI-CHOPPER (at 24[V],14[W],600[*mA*])

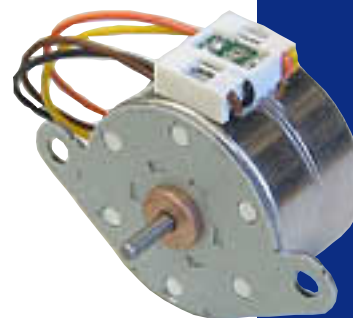


These torque values are reference only. Heat radiation conditions and temperature rise effect by duty are different on each equipment, therefore please select motors after considering the heat conditions in the actual equipment.

Dimensions



If you would like to know this Dimensions(D,S,W, θ),Please see Standard Dimensions in our Home Page.



PM Motor

PM Type

Reference Characteristics

Motor Size	PM25L-024	
Number of Steps per Rotation	24(15°/Step)	
Drive Method	2-2 PHASE	
Drive Circuit	UNIPOLAR CONST. VOLT.	BIPOLAR CHOPPER
Drive Voltage	12[V]	24[V]
Current/Phase		600[mA]
Coil Resistance/Phase	50[Ω]	8[Ω]
Drive IC	2SC3346	UDN2916B-V
Magnet Material	Polar anisotropy ferrite sintered magnet (MS50) Nd-Fe-B bonded magnet (MS70)	
Insulation Resistance	100M[Ω] MIN	
Dielectric Strength	AC 500[V] 1[min]	
Class of Insulation	CLASS E	
Operating Temp.	-10[°C] ~ 50[°C]	
Storage Temp.	-30[°C] ~ 80[°C]	
Operating Hum.	20[%] RH ~ 90[%] RH	

Applications

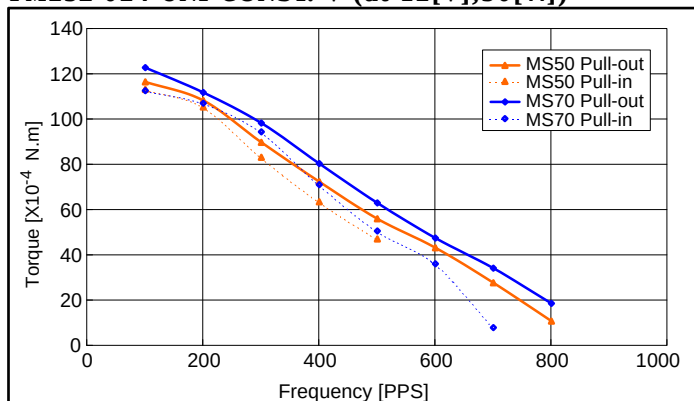
OA Equipment : Printers / Scanners

Home electric appliances : Gas range

Automotive : Meters

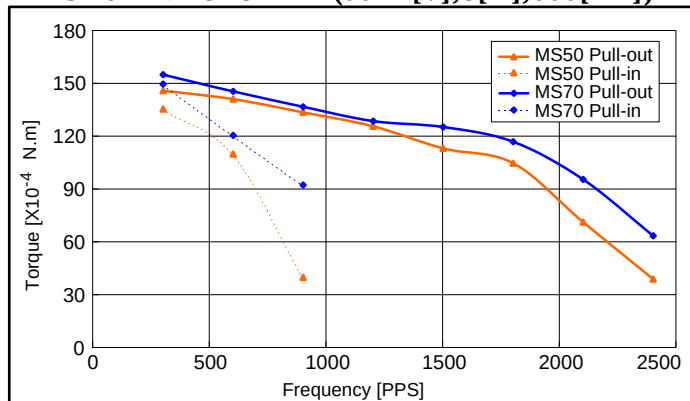
Home automation appliances : Sewing machines

Torque Characteristics

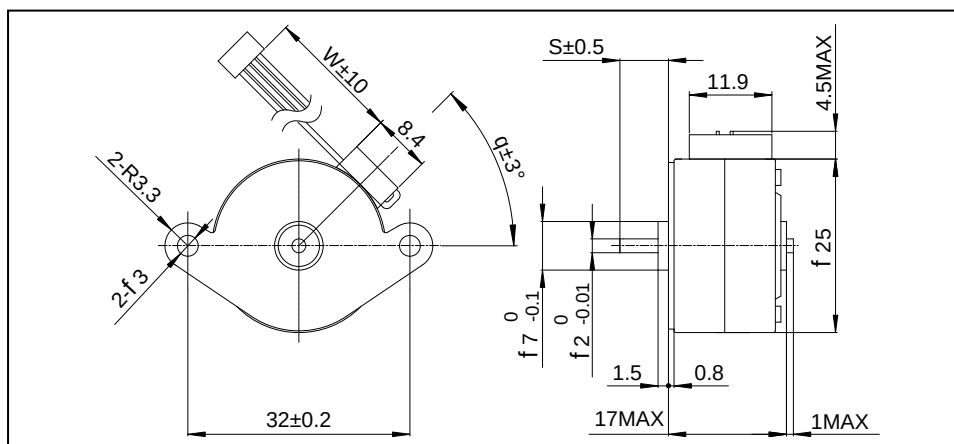
PM25L-024 UNI-CONST. V (at 12[V],50[W])

These torque values are reference only. Heat radiation conditions and temperature rise effect by duty are different on each equipment, therefore please select motors after considering the heat conditions in the actual equipment.

PM25L-024 BI-CHOPPER (at 24[V],8[W],600[mA])



Dimensions



If you would like to know this Dimensions(D,S,W, θ),Please see Standerd Dimensions in our Home Page.



PM Motor
PM Type

Reference Characteristics

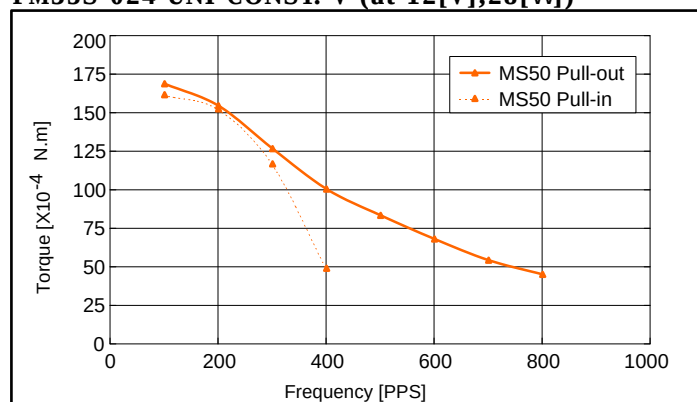
Motor Size	PM35S-024	
Number of Steps per Rotation	24(15°/Step)	
Drive Method	2-2 PHASE	
Drive Circuit	UNIPOLAR CONST. VOLT.	BIPOLAR CHOPPER
Drive Voltage	12[V]	24[V]
Current/Phase		500[mA]
Coil Resistance/Phase	28[Ω]	4.7[Ω]
Drive IC	2SC3346	UDN2916B-V
Magnet Material	Polar anisotropy ferrite sintered magnet (MS50)	
Insulation Resistance	100M[W] MIN	
Dielectric Strength	AC 500[V] 1[min]	
Class of Insulation	CLASS E	
Operating Temp.	-10[°C] ~ 50[°C]	
Storage Temp.	-30[°C] ~ 80[°C]	
Operating Hum.	20[%] RH ~ 90[%] RH	

Applications

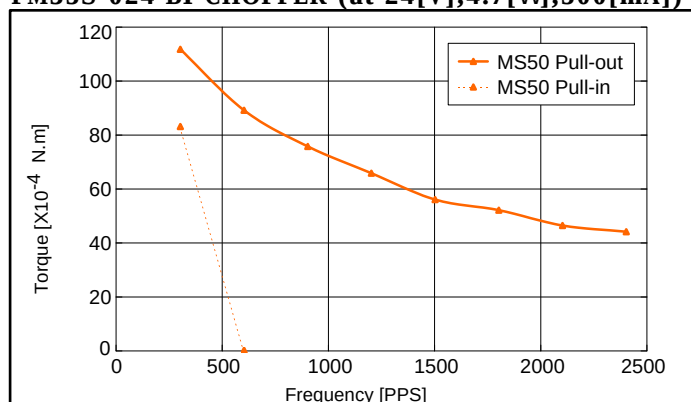
OA Equipment : Printers / Scanners
Industrial equipment : Flow control valves
Automotive : Meters / Optic axis control device
Home automation appliances : Sewing machines

Torque Characteristics

PM35S-024 UNI-CONST. V (at 12[V],28[W])

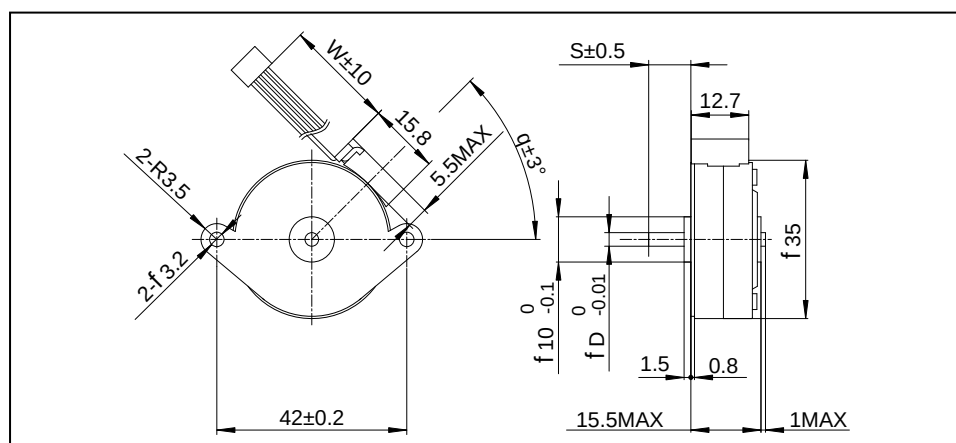


PM35S-024 BI-CHOPPER (at 24[V],4.7[W],500[mA])



These torque values are reference only. Heat radiation conditions and temperature rise effect by duty are different on each equipment, therefore please select motors after considering the heat conditions in the actual equipment.

Dimensions



If you would like to know this Dimensions(D,S,W, θ),Please see Standard Dimensions in our Home Page.



PM Motor
PM Type

Reference Characteristics

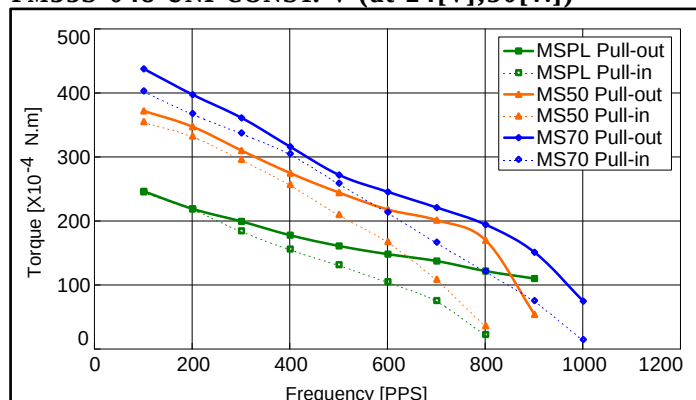
Motor Size	PM35S-048	
Number of Steps per Rotation	48(7.5°/Step)	
Drive Method	2-2 PHASE	
Drive Circuit	UNIPOLAR CONST. VOLT.	BIPOLAR CHOPPER
Drive Voltage	24[V]	24[V]
Current/Phase		600[mA]
Coil Resistance/Phase	50[Ω]	6.6[Ω]
Drive IC	2SC3346	UDN2916B-V
Magnet Material	Ferrite plastic magnet (MSPL) Polar anisotropy ferrite sintered magnet (MS50) Nd-Fe-B bonded magnet (MS70)	
Insulation Resistance	100M[Ω] MIN	
Dielectric Strength	AC 500[V] 1[min]	
Class of Insulation	CLASS E	
Operating Temp.	-10[°C] ~ 50[°C]	
Storage Temp.	-30[°C] ~ 80[°C]	
Operating Hum.	20[%] RH ~ 90[%] RH	

Applications

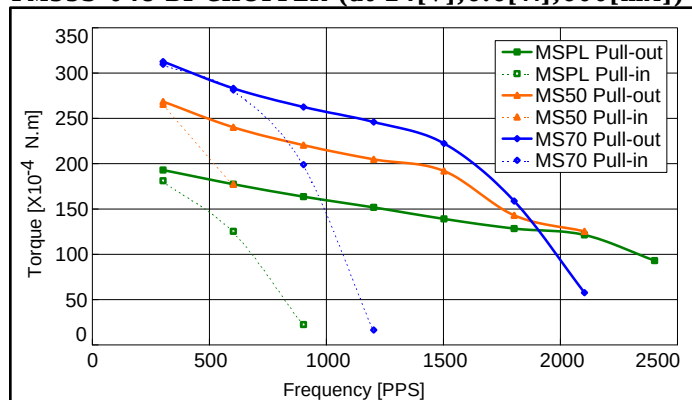
OA Equipment : Printers / Scanners
 Industrial equipment : Flow control valves
 Automotive : Meters / Optic axis control device
 Home automation appliances : Sewing machines

Torque Characteristics

PM35S-048 UNI-CONST. V (at 24[V],50[Ω])

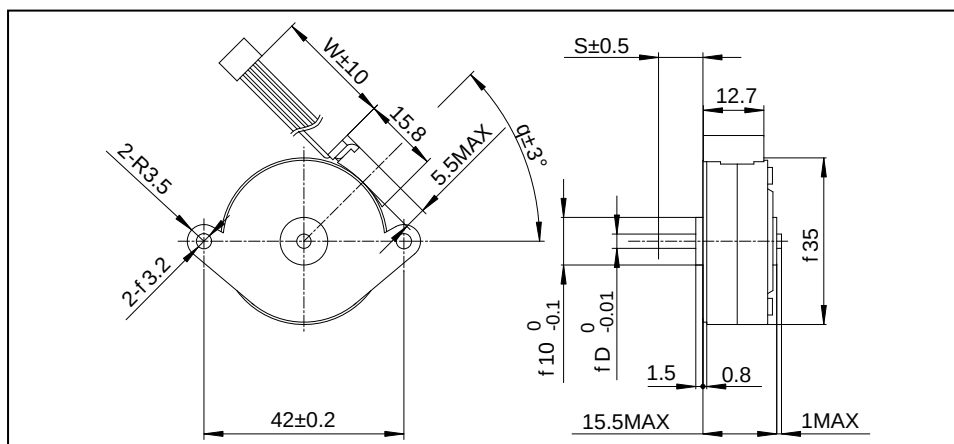


PM35S-048 BI-CHOPPER (at 24[V],6.6[Ω],600[mA])



These torque values are reference only. Heat radiation conditions and temperature rise effect by duty are different on each equipment, therefore please select motors after considering the heat conditions in the actual equipment.

Dimensions



If you would like to know this Dimensions(D,S,W, θ),Please see Standard Dimensions in our Home Page.



PM Motor
PM Type

Reference Characteristics

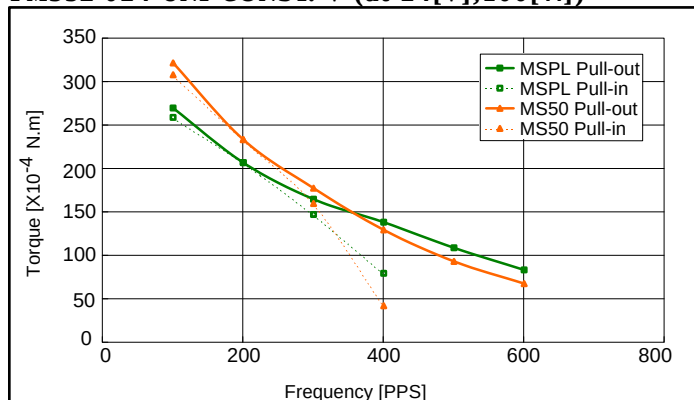
Motor Size	PM35L-024	
Number of Steps per Rotation	24(15°/Step)	
Drive Method	2-2 PHASE	
Drive Circuit	UNIPOLAR CONST. VOLT.	BIPOLAR CHOPPER
Drive Voltage	24[V]	24[V]
Current/Phase		500[mA]
Coil Resistance/Phase	100[Ω]	12[Ω]
Drive IC	2SC3346	UDN2916B-V
Magnet Material	Ferrite plastic magnet (MSPL) Polar anisotropy ferrite sintered magnet (MS50) Nd-Fe-B bonded magnet (MS70)	
Insulation Resistance	100M[Ω] MIN	
Dielectric Strength	AC 500[V] 1[min]	
Class of Insulation	CLASS E	
Operating Temp.	-10[°C] ~ 50[°C]	
Storage Temp.	-30[°C] ~ 80[°C]	
Operating Hum.	20[%] RH ~ 90[%] RH	

Applications

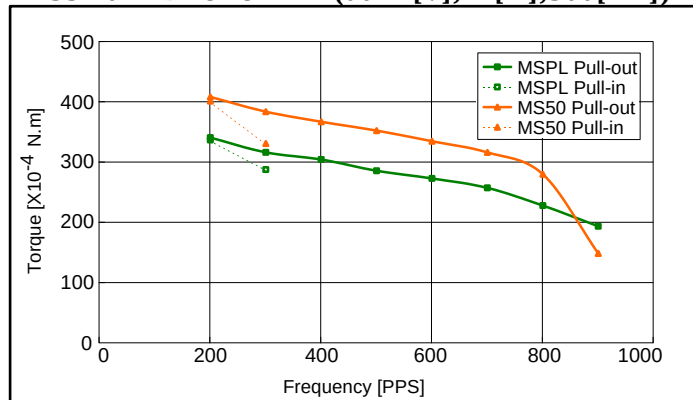
OA Equipment : Printers / Scanners
 Industrial equipment : Flow control valves
 Automotive : Meters / Optic axis control device
 Home automation appliances : Sewing machines

Torque Characteristics

PM35L-024 UNI-CONST. V (at 24[V],100[W])

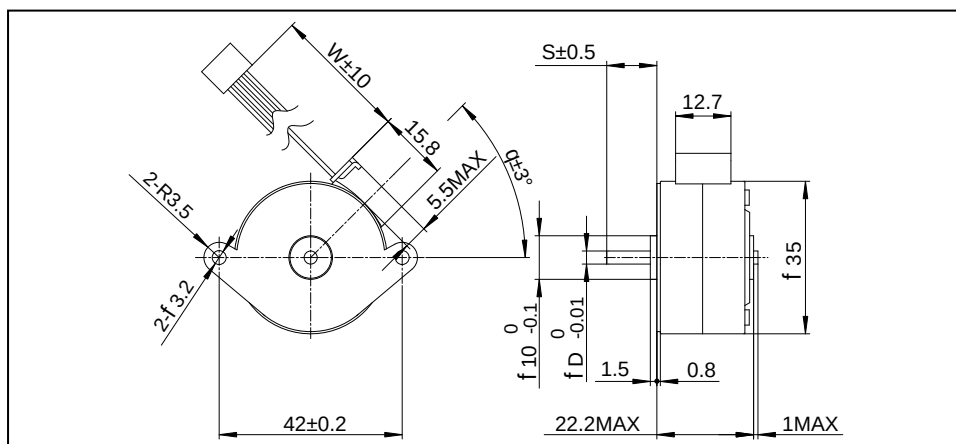


PM35L-024 BI-CHOPPER (at 24[V],12[W],500[mA])



These torque values are reference only. Heat radiation conditions and temperature rise effect by duty are different on each equipment, therefore please select motors after considering the heat conditions in the actual equipment.

Dimensions



If you would like to know this Dimensions(D,S,W, θ),Please see Standard Dimensions in our Home Page.



PM Motor
PM Type

Reference Characteristics

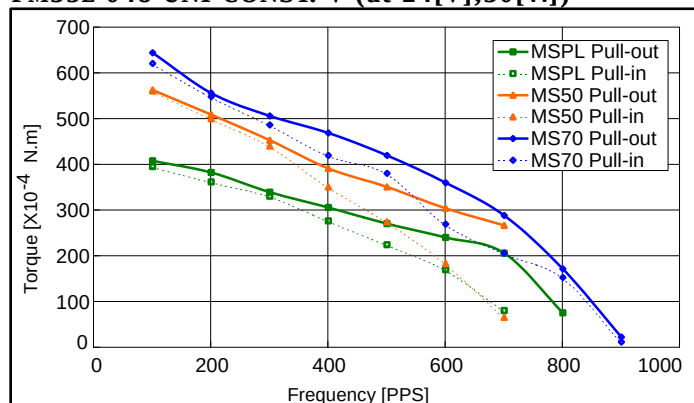
Motor Size	PM35L-048	
Number of Steps per Rotation	48(7.5°/Step)	
Drive Method	2-2 PHASE	
Drive Circuit	UNIPOLAR CONST. VOLT.	BIPOLAR CHOPPER
Drive Voltage	24[V]	24[V]
Current/Phase		500[mA]
Coil Resistance/Phase	30[Ω]	5.5[Ω]
Drive IC	2SC3346	UDN2916B-V
Magnet Material	Ferrite plastic magnet (MSPL) Polar anisotropy ferrite sintered magnet (MS50) Nd-Fe-B bonded magnet (MS70)	
Insulation Resistance	100M[Ω] MIN	
Dielectric Strength	AC 500[V] 1[min]	
Class of Insulation	CLASS E	
Operating Temp.	-10[°C] ~ 50[°C]	
Storage Temp.	-30[°C] ~ 80[°C]	
Operating Hum.	20[%] RH ~ 90[%] RH	

Applications

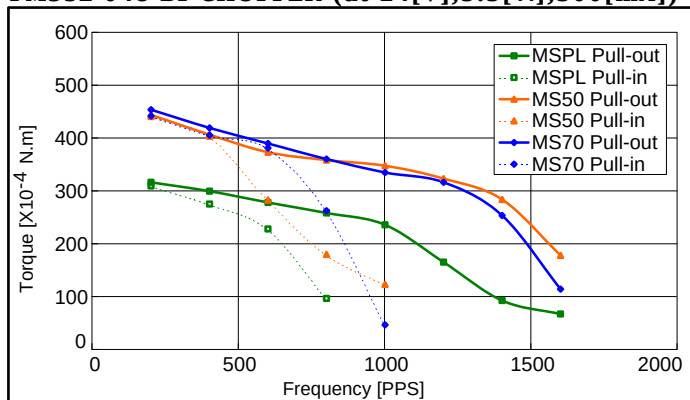
OA Equipment : Printers / Scanners
 Automotive : Meters / Optic axis control device
 Industrial equipment : Flow control valves
 Home automation appliances : Sewing machines

Torque Characteristics

PM35L-048 UNI-CONST. V (at 24[V],30[W])

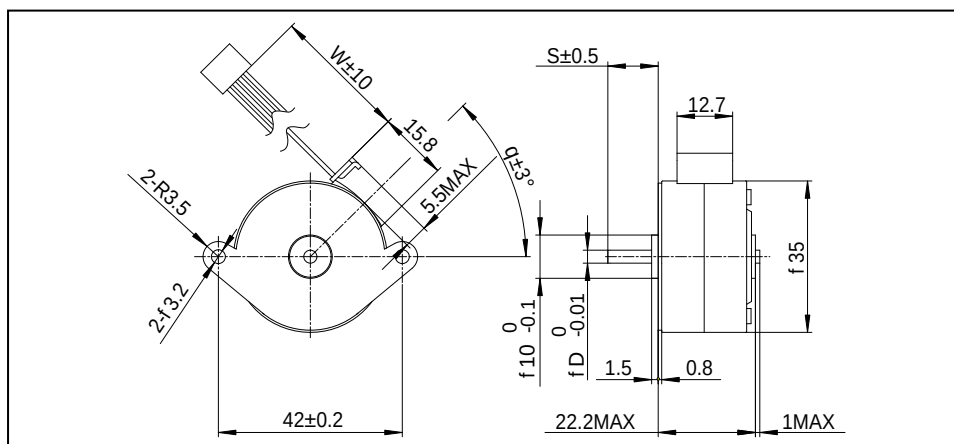


PM35L-048 BI-CHOPPER (at 24[V],5.5[W],500[mA])



These torque values are reference only. Heat radiation conditions and temperature rise effect by duty are different on each equipment, therefore please select motors after considering the heat conditions in the actual equipment.

Dimensions



If you would like to know this Dimensions(D,S,W, θ),Please see Standard Dimensions in our Home Page.



PM Motor
PM Type

Reference Characteristics

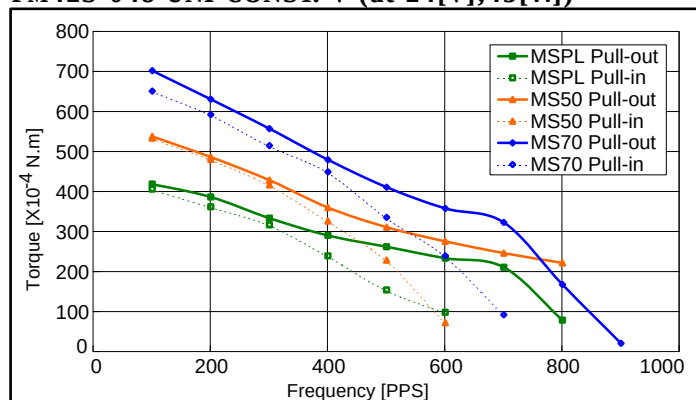
Motor Size	PM42S-048	
Number of Steps per Rotation	48(7.5°/Step)	
Drive Method	2-2 PHASE	
Drive Circuit	UNIPOLAR CONST. VOLT.	BIPOLAR CHOPPER
Drive Voltage	24[V]	24[V]
Current/Phase		500[mA]
Coil Resistance/Phase	45[Ω]	11.3[Ω]
Drive IC	2SC3346	UDN2916B-V
Magnet Material	Ferrite plastic magnet (MSPL) Polar anisotropy ferrite sintered magnet (MS50) Nd-Fe-B bonded magnet (MS70)	
Insulation Resistance	100M[Ω] MIN	
Dielectric Strength	AC 500[V] 1[min]	
Class of Insulation	CLASS E	
Operating Temp.	-10[°C] ~ 50[°C]	
Storage Temp.	-30[°C] ~ 80[°C]	
Operating Hum.	20[%] RH ~ 90[%] RH	

Applications

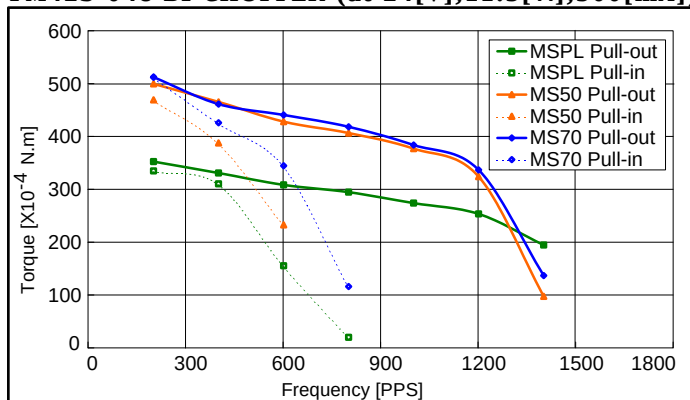
OA Equipment : Printers / Scanners
 Industrial equipment : Flow control valves
 Toys : Slot machines
 Home automation appliances : Sewing machines

Torque Characteristics

PM42S-048 UNI-CONST. V (at 24[V],45[W])

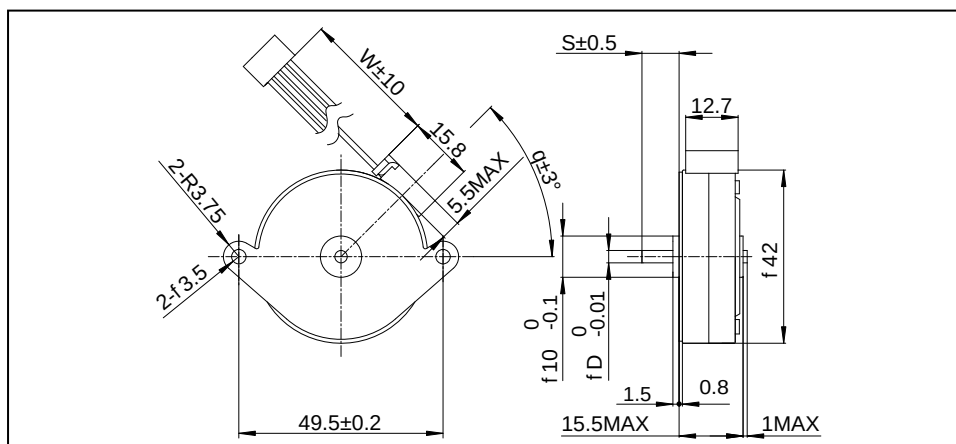


PM42S-048 BI-CHOPPER (at 24[V],11.3[W],500[mA])



These torque values are reference only. Heat radiation conditions and temperature rise effect by duty are different on each equipment, therefore please select motors after considering the heat conditions in the actual equipment.

Dimensions



If you would like to know this Dimensions(D,S,W, θ),Please see Standard Dimensions in our Home Page.



PM Motor
PM Type

Reference Characteristics

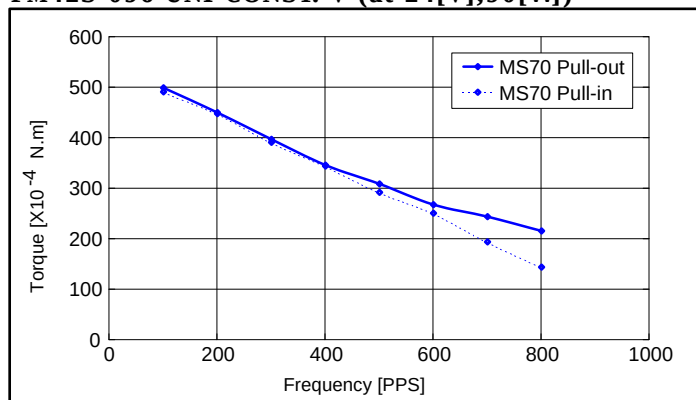
Motor Size	PM42S-096	
Number of Steps per Rotation	96(3.75°/Step)	
Drive Method	2-2 PHASE	
Drive Circuit	UNIPOLAR CONST. VOLT.	BIPOLAR CHOPPER
Drive Voltage	24[V]	24[V]
Current/Phase		500[mA]
Coil Resistance/Phase	90[Ω]	10[Ω]
Drive IC	2SC3346	UDN2916B-V
Magnet Material	Nd-Fe-B bonded magnet (MS70)	
Insulation Resistance	100M[W] MIN	
Dielectric Strength	AC 500[V] 1[min]	
Class of Insulation	CLASS E	
Operating Temp.	-10[°C] ~ 50[°C]	
Storage Temp.	-30[°C] ~ 80[°C]	
Operating Hum.	20[%] RH ~ 90[%] RH	

Applications

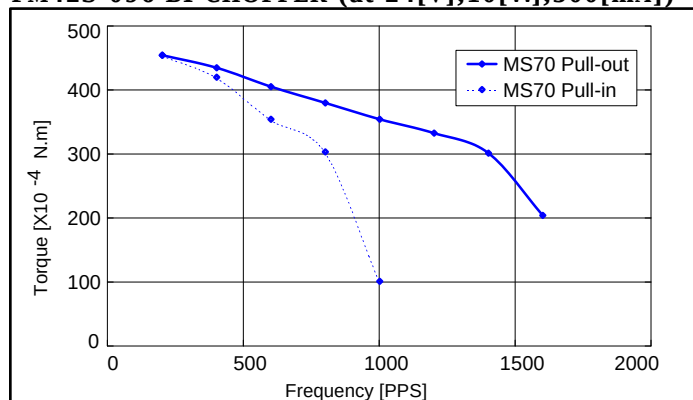
OA Equipment : Printers / Scanners
Industrial equipment : Flow control valves
Toys : Slot machines
Home automation appliances : Sewing machines

Torque Characteristics

PM42S-096 UNI-CONST. V (at 24[V],90[W])

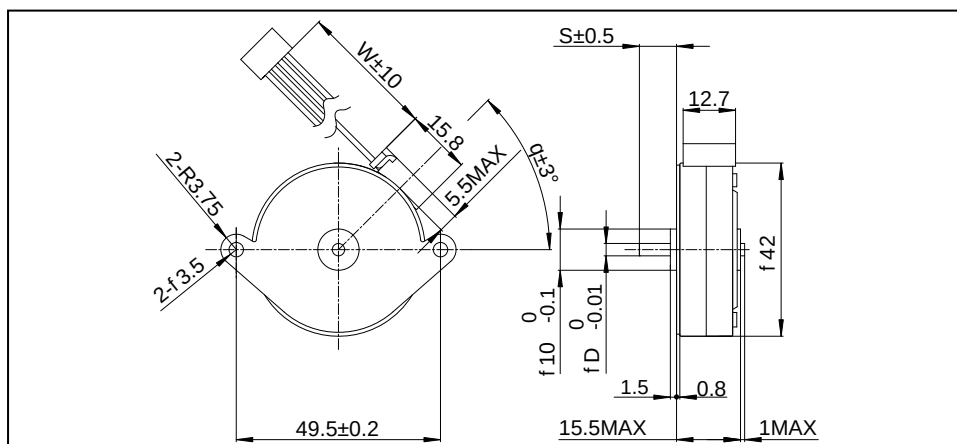


PM42S-096 BI-CHOPPER (at 24[V],10[W],500[mA])



These torque values are reference only. Heat radiation conditions and temperature rise effect by duty are different on each equipment, therefore please select motors after considering the heat conditions in the actual equipment.

Dimensions



If you would like to know this Dimensions(D,S,W, θ),Please see Standard Dimensions in our Home Page.



PM Motor
PM Type

Reference Characteristics

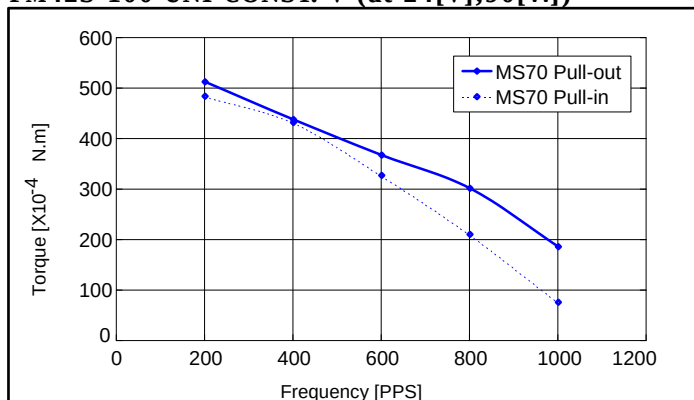
Motor Size	PM42S-100	
Number of Steps per Rotation	100(3.6°/Step)	
Drive Method	2-2 PHASE	
Drive Circuit	UNIPOLAR CONST. VOLT.	BIPOLAR CHOPPER
Drive Voltage	24[V]	24[V]
Current/Phase		500[mA]
Coil Resistance/Phase	90[Ω]	5.8[Ω]
Drive IC	2SC3346	UDN2916B-V
Magnet Material	Nd-Fe-B bonded magnet (MS70)	
Insulation Resistance	100M[W] MIN	
Dielectric Strength	AC 500[V] 1[min]	
Class of Insulation	CLASS E	
Operating Temp.	-10[°C] ~ 50[°C]	
Storage Temp.	-30[°C] ~ 80[°C]	
Operating Hum.	20[%] RH ~ 90[%] RH	

Applications

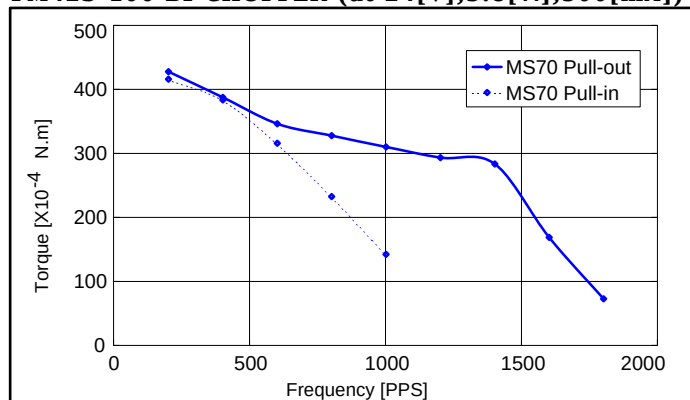
OA Equipment : Printers / Scanners
Industrial equipment : Flow control valves
Toys : Slot machines
Home automation appliances : Sewing machines

Torque Characteristics

PM42S-100 UNI-CONST. V (at 24[V],90[W])

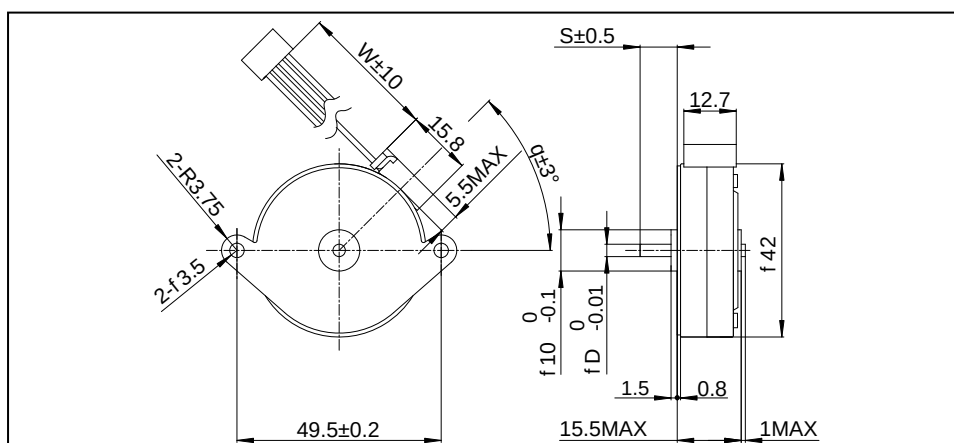


PM42S-100 BI-CHOPPER (at 24[V],5.8[W],500[mA])



These torque values are general reference values. When using motors, factors such as heat radiation conditions and duty effect heat rise, therefore please select motors after considering the heat conditions in the actual equipment.

Dimensions



If you would like to know this Dimensions(D,S,W, θ),Please see Standard Dimensions in our Home Page.



PM Motor
PM Type

Reference Characteristics

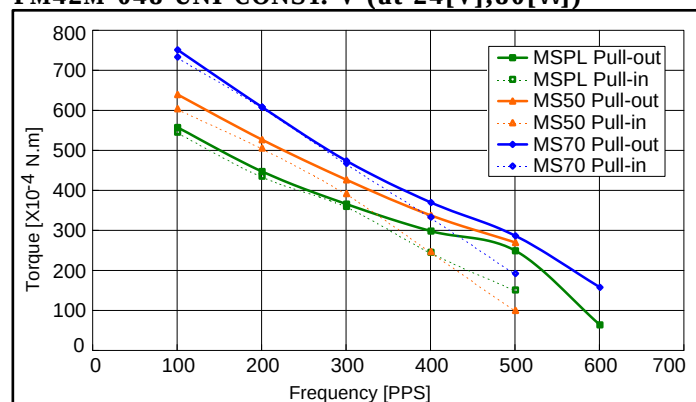
Motor Size	PM42M-048	
Number of Steps per Rotation	48(7.5°/Step)	
Drive Method	2-2 PHASE	
Drive Circuit	UNIPOLAR CONST. VOLT.	BIPOLAR CHOPPER
Drive Voltage	24[V]	24[V]
Current/Phase		500[mA]
Coil Resistance/Phase	80[Ω]	6[Ω]
Drive IC	2SC3346	UDN2916B-V
Magnet Material	Ferrite plastic magnet (MSPL) Polar anisotropy ferrite sintered magnet (MS50) Nd-Fe-B bonded magnet (MS70)	
Insulation Resistance	100M[Ω] MIN	
Dielectric Strength	AC 500[V] 1[min]	
Class of Insulation	CLASS E	
Operating Temp.	-10[°C] ~ 50[°C]	
Storage Temp.	-30[°C] ~ 80[°C]	
Operating Hum.	20[%] RH ~ 90[%] RH	

Applications

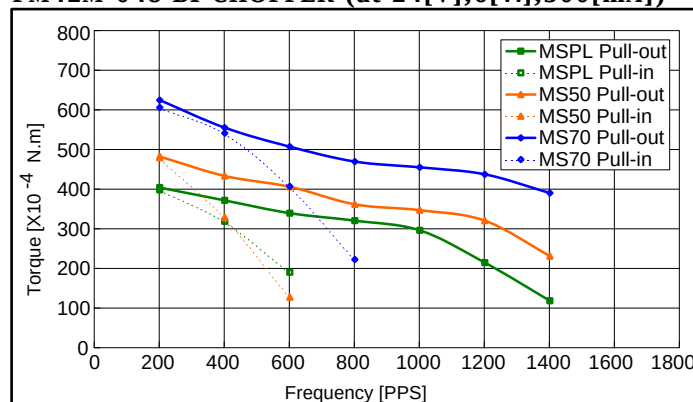
OA Equipment : Printers / Scanners
 Industrial equipment : Flow control valves
 Toys : Slot machines
 Home automation appliances : Sewing machines

Torque Characteristics

PM42M-048 UNI-CONST. V (at 24[V],80[Ω])

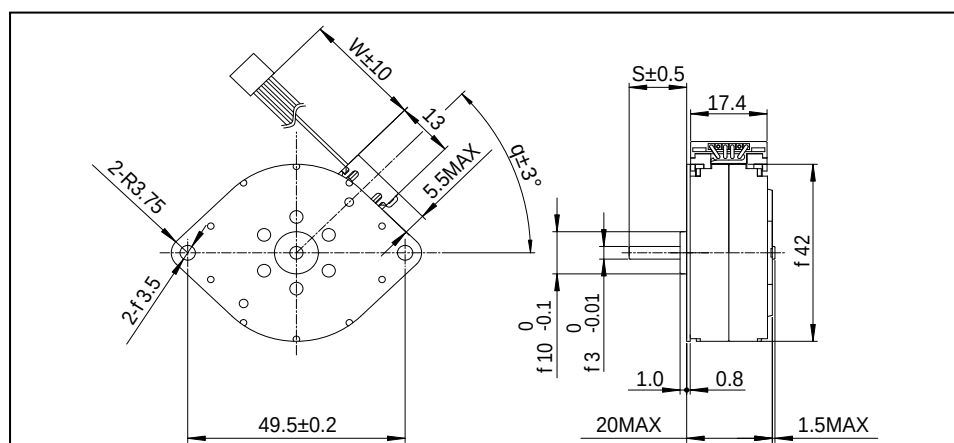


PM42M-048 BI-CHOPPER (at 24[V],6[Ω],500[mA])



These torque values are reference only. Heat radiation conditions and temperature rise effect by duty are different on each equipment, therefore please select motors after considering the heat conditions in the actual equipment.

Dimensions



If you would like to know this Dimensions(D,S,W,θ),Please see Standard Dimensions in our Home Page.



PM Motor
PM Type

Reference Characteristics

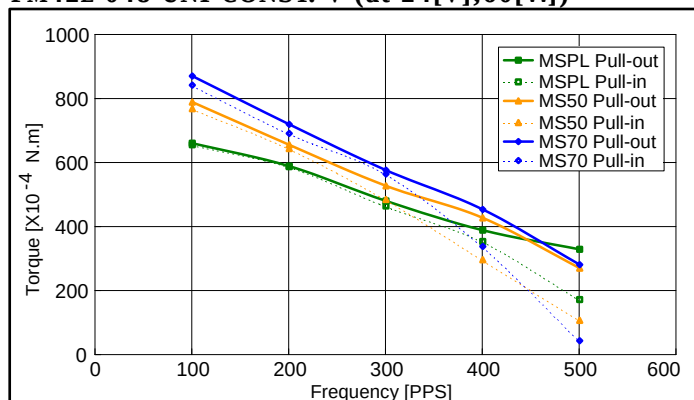
Motor Size	PM42L-048	
Number of Steps per Rotation	48(7.5°/Step)	
Drive Method	2-2 PHASE	
Drive Circuit	UNIPOLAR CONST. VOLT.	BIPOLAR CHOPPER
Drive Voltage	24[V]	24[V]
Current/Phase		600[mA]
Coil Resistance/Phase	60[Ω]	7[Ω]
Drive IC	2SC3346	UDN2916B-V
Magnet Material	Ferrite plastic magnet (MSPL) Polar anisotropy ferrite sintered magnet (MS50) Nd-Fe-B bonded magnet (MS70)	
Insulation Resistance	100M[Ω] MIN	
Dielectric Strength	AC 500[V] 1[min]	
Class of Insulation	CLASS E	
Operating Temp.	-10[°C] ~ 50[°C]	
Storage Temp.	-30[°C] ~ 80[°C]	
Operating Hum.	20[%] RH ~ 90[%] RH	

Applications

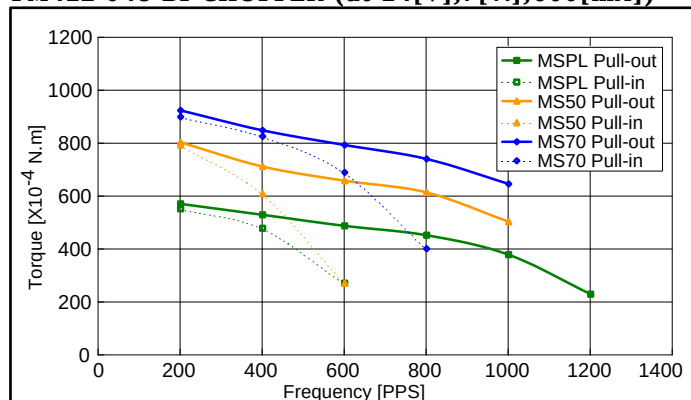
OA Equipment : Printers / Scanners
 Industrial equipment : Flow control valves
 Toys : Slot machines
 Home automation appliances : Sewing machines

Torque Characteristics

PM42L-048 UNI-CONST. V (at 24[V],60[W])

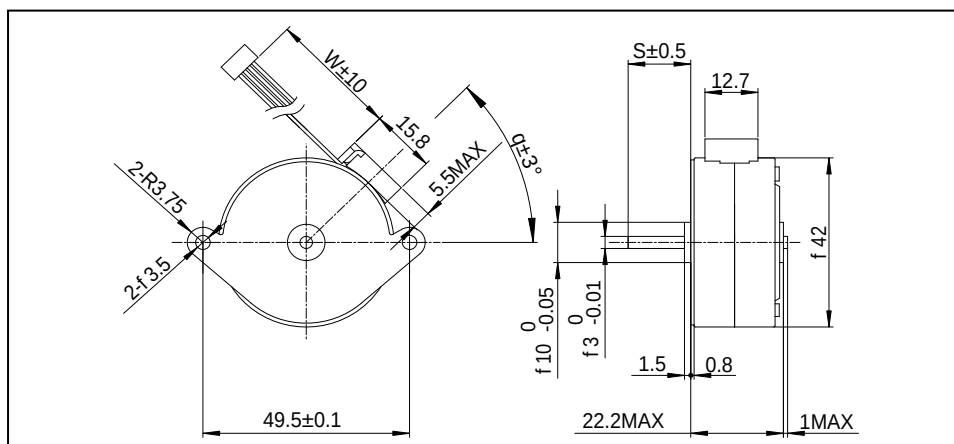


PM42L-048 BI-CHOPPER (at 24[V],7[W],600[mA])



These torque values are reference only. Heat radiation conditions and temperature rise effect by duty are different on each equipment, therefore please select motors after considering the heat conditions in the actual equipment.

Dimensions



If you would like to know this Dimensions(D,S,W, θ),Please see Standard Dimensions in our Home Page.



PM Motor
PM Type

Reference Characteristics

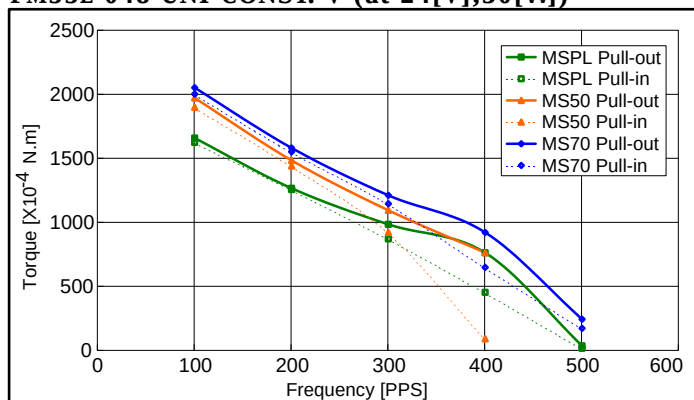
Motor Size	PM55L-048	
Number of Steps per Rotation	48(7.5°/Step)	
Drive Method	2-2 PHASE	
Drive Circuit	UNIPOLAR CONST. VOLT.	BIPOLAR CHOPPER
Drive Voltage	24[V]	24[V]
Current/Phase		800[ma]
Coil Resistance/Phase	30[W]	5.5[W]
Drive IC	2SC3346	UDN2916B-V
Magnet Material	Ferrite plastic magnet (MSPL) Polar anisotropy ferrite sintered magnet (MS50) Nd-Fe-B bonded magnet (MS70)	
Insulation Resistance	100M[W] MIN	
Dielectric Strength	AC 500[V] 1[min]	
Class of Insulation	CLASS E	
Operating Temp.	-10[°C] ~ 50[°C]	
Storage Temp.	-30[°C] ~ 80[°C]	
Operating Hum.	20[%] RH ~ 90[%] RH	

Applications

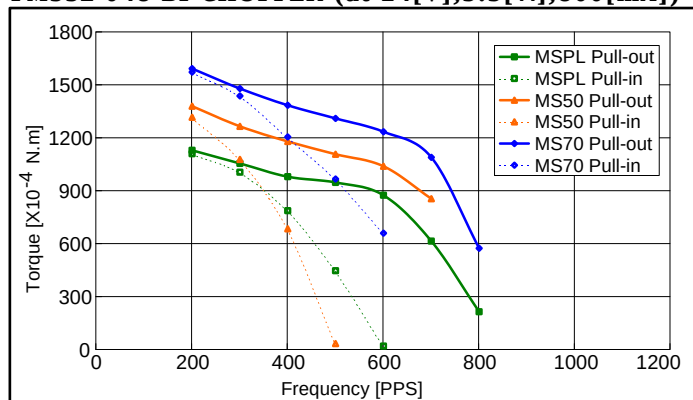
OA Equipment : Printers / Scanners
 Industrial equipment : Flow control valves
 Toys : Slot machines
 Home automation appliances : Sewing machines

Torque Characteristics

PM55L-048 UNI-CONST. V (at 24[V],30[W])

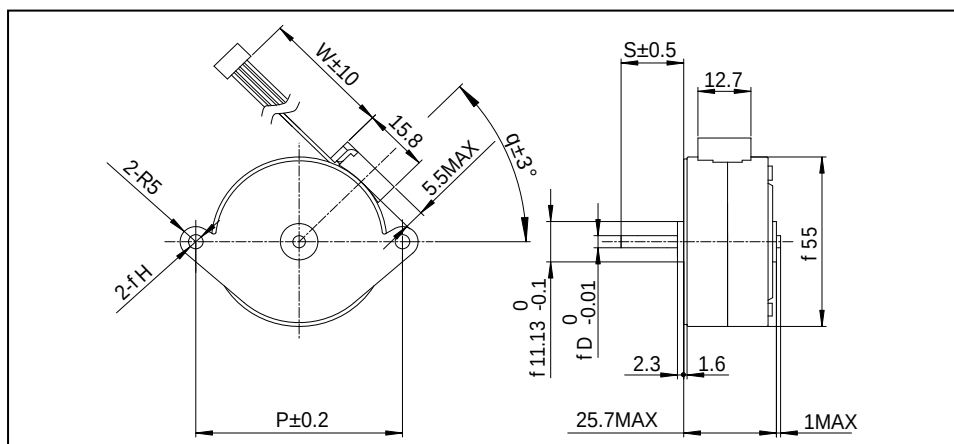


PM55L-048 BI-CHOPPER (at 24[V],5.5[W],800[ma])



These torque values are reference only. Heat radiation conditions and temperature rise effect by duty are different on each equipment, therefore please select motors after considering the heat conditions in the actual equipment.

Dimensions



If you would like to know this Dimensions(D,S,W, θ),Please see Standard Dimensions in our Home Page.



PM Motor
PM Type

Reference Characteristics

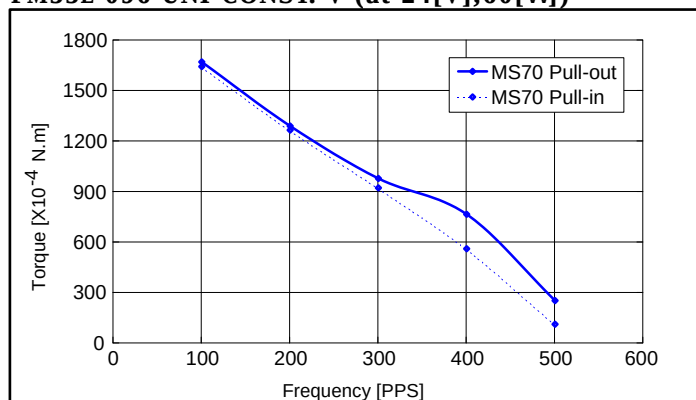
Motor Size	PM55L-96	
Number of Steps per Rotation	96(3.75°/Step)	
Drive Method	2-2 PHASE	
Drive Circuit	UNIPOLAR CONST. VOLT.	BIPOLAR CHOPPER
Drive Voltage	24[V]	24[V]
Current/Phase		500[mA]
Coil Resistance/Phase	60[Ω]	7.1[Ω]
Drive IC	2SC3346	UDN2916B-V
Magnet Material	Nd-Fe-B bonded magnet (MS70)	
Insulation Resistance	100M[W] MIN	
Dielectric Strength	AC 500[V] 1[min]	
Class of Insulation	CLASS E	
Operating Temp.	-10[°C] ~ 50[°C]	
Storage Temp.	-30[°C] ~ 80[°C]	
Operating Hum.	20[%] RH ~ 90[%] RH	

Applications

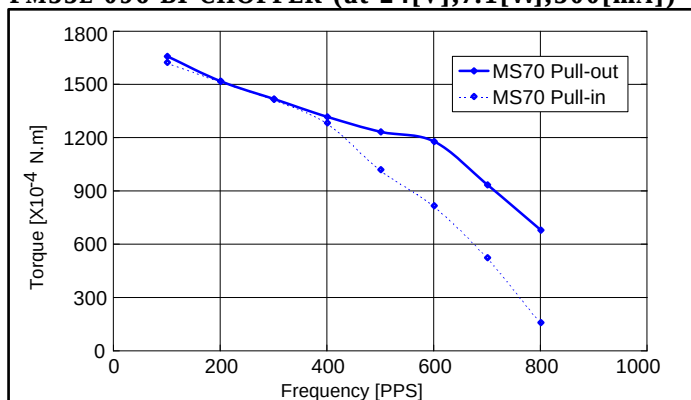
OA Equipment : Printers / Scanners
Industrial equipment : Flow control valves
Toys : Slot machines
Home automation appliances : Sewing machines

Torque Characteristics

PM55L-096 UNI-CONST. V (at 24[V],60[W])

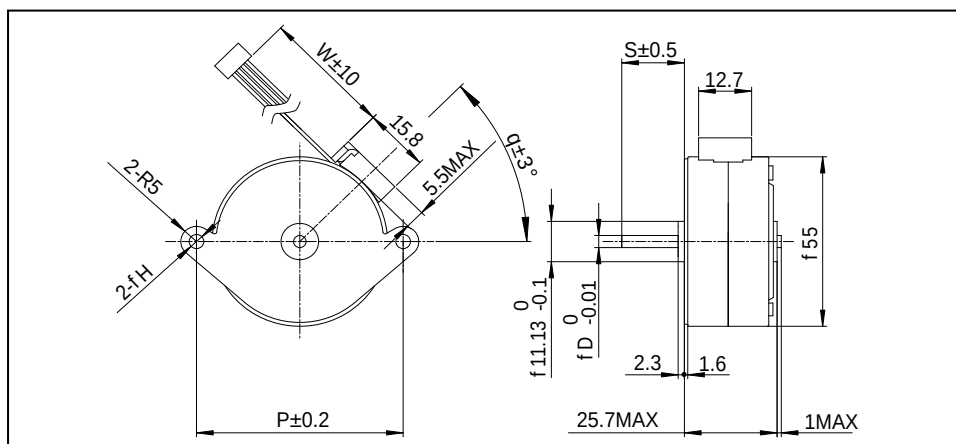


PM55L-096 BI-CHOPPER (at 24[V],7.1[W],500[mA])



These torque values are reference only. Heat radiation conditions and temperature rise effect by duty are different on each equipment, therefore please select motors after considering the heat conditions in the actual equipment.

Dimensions



If you would like to know this Dimensions(D,S,W, θ),Please see Standard Dimensions in our Home Page.



PM Motor
PM Type

Reference Characteristics

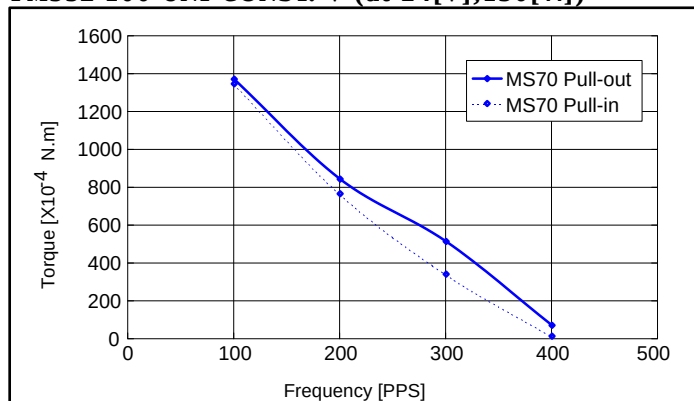
Motor Size	PM55L-100	
Number of Steps per Rotation	100(3.6°/Step)	
Drive Method	2-2 PHASE	
Drive Circuit	UNIPOLAR CONST. VOLT.	BIPOLAR CHOPPER
Drive Voltage	24[V]	24[V]
Current/Phase		500[mA]
Coil Resistance/Phase	130[Ω]	7.1[Ω]
Drive IC	2SC3346	UDN2916B-V
Magnet Material	Nd-Fe-B bonded magnet (MS70)	
Insulation Resistance	100M[Ω] MIN	
Dielectric Strength	AC 500[V] 1[min]	
Class of Insulation	CLASS E	
Operating Temp.	-10[°C] ~ 50[°C]	
Storage Temp.	-30[°C] ~ 80[°C]	
Operating Hum.	20[%] RH ~ 90[%] RH	

Applications

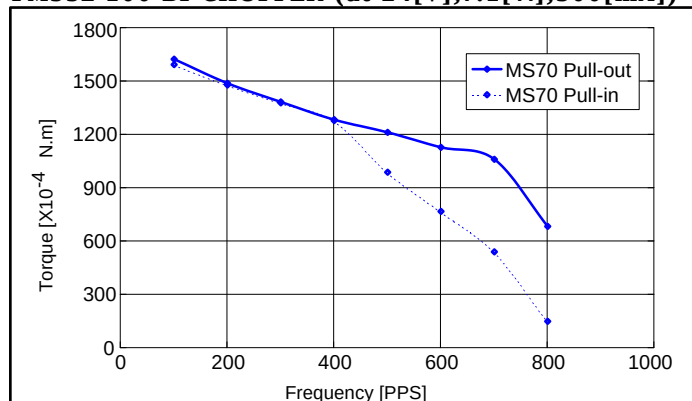
OA Equipment : Printers / Scanners
Industrial equipment : Flow control valves
Toys : Slot machines
Home automation appliances : Sewing machines

Torque Characteristics

PM55L-100 UNI-CONST. V (at 24[V],130[W])

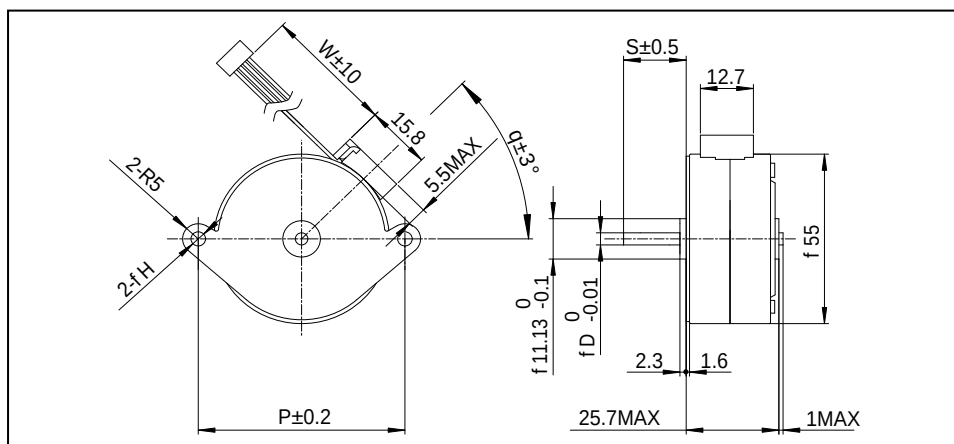


PM55L-100 BI-CHOPPER (at 24[V],7.1[W],500[mA])



These torque values are reference only. Heat radiation conditions and temperature rise effect by duty are different on each equipment, therefore please select motors after considering the heat conditions in the actual equipment.

Dimensions



If you would like to know this Dimensions(D,S,W, θ),Please see Standard Dimensions in our Home Page.