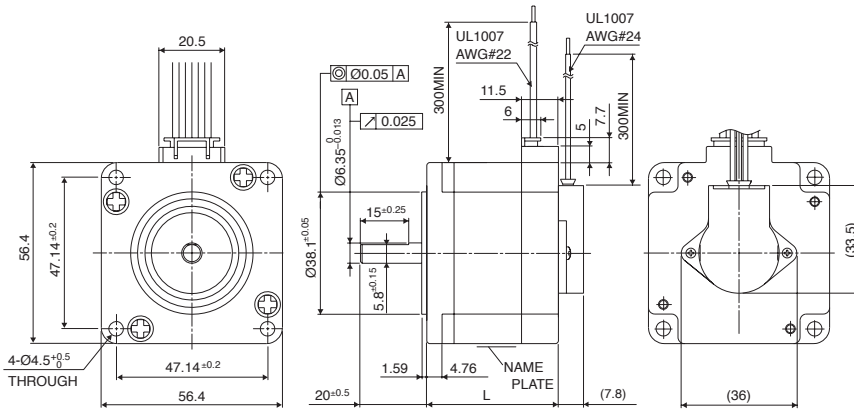


Outline

Hall Sensor



Hybrid

General Specifications

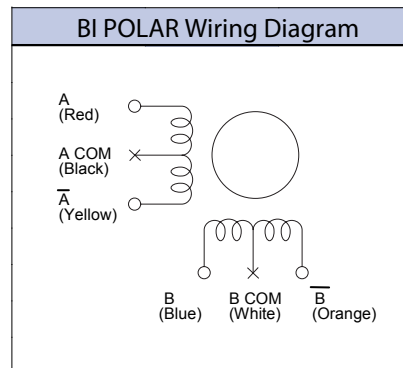
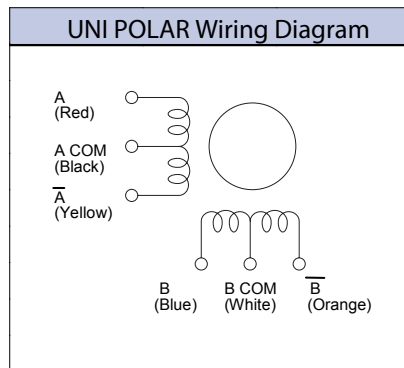
Step Accuracy: ±5%
 Temperature Rise: 80°C MAX
 Ambient Temperature Range: -10 °C ~ +50 °C
 Insulation Resistance: 100MΩ MIN. DC500V
 Dielectric Strength: AC500V 1min
 Radial Play: 20μm MAX. (at 4.4N {450gf} [Load])
 End Play: 80μm MAX. (at 4.4N {450gf} [Load])

PIN NO.	SENSOR TERMINAL NO.	SIGNAL	L/W COLOR
1	2	GND	BLK
2	3	OUT	YEL
3	1	Vcc	RED

	"L"
S23KMK249x	42 (1.65)
S23KMK044x	54 (2.13)

Specifications

Model	Motor Size	Step Angle	Drive Sequence	Rated Current	Resistance	Holding Torque	Inductance	Rotor Inertia	Detent Torque	Mass
	(mm)	deg		A	Ohms	mNm	mH	g cm ²	(mNm)	(g)
S23KMK249USTDCA	56 x 42	1.8	UNI-POLAR	2.0	1.3	420	1.9	120	20	470
S23KMK044USTDCA	56 x 54	1.8	UNI-POLAR	3.0	0.85	760	1.8	200	34	680
S23KMK249BSTDCA	56 x 42	1.8	BI-POLAR	1.4	2.4	540	7.7	120	20	470
S23KMK044BSTDCA	56 x 54	1.8	BI-POLAR	2.2	1.7	1000	7.2	200	34	680

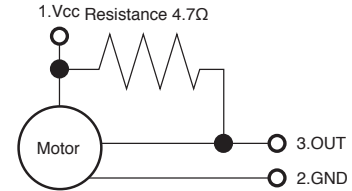


* Do not connect A COM and B COM. Please insulate individually.
 * Apply 70% of Unipolar rated current.

Hall Sensor Specifications

Maximum Rating (Ta = 25°C)			
Item	Symbol	Rating	Unit
Supply Voltage	Vcc	18	V
Output H Voltage	V _{o(off)}	Vcc	V
Output L Current	I _{sink}	15	mA
Operating Ambient Temperature	Topr	-20 ~ 115	°C
Storage Temperature	Tstg	-40 ~ 125	°C

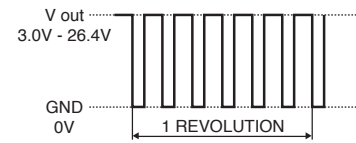
Circuit Configuration



Electrical Specifications (Ta = 25°C)						
Item	Symbol	Measuring Condition	Min.	Typ.	Max.	Unit
Operating Voltage Range	Vcc		4.5	12	18	H
Output H → L Magnetic Flux Density	Bop	Vcc = 12V			20	mT
Output L → H Magnetic Flux Density	Brp	Vcc = 12V	5			mT
Hysteresis Error	Bh	Vcc = 12V	1.5			mT
Saturated Output Voltage	Vsat	Vcc = 12V, OUT "L", I _{sink} = 10mA			0.4	V
Output Leakage Current	I _{leak}	Vcc = 12V, OUT "H", V _{out} = 12V			1	μA
Power Current	I _{cc}	Vcc = 12V, OUT "H"			8	mA

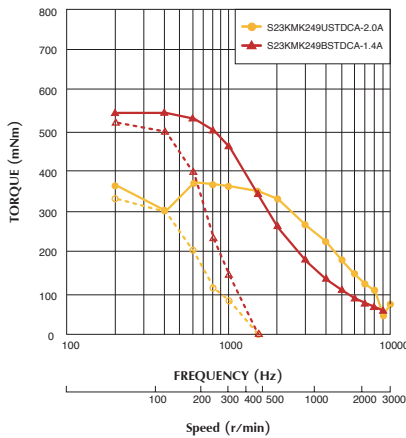
1 [mT] = 10 [Gauss]

6 Pulse Output Signal



Torque/Speed Characteristics

Model No: S23KMK249USTDCA / BSTDCA
Driver: Chopper Dual
Supply Voltage: 24.0 V (DC)



Model No: S23KMK044USTDCA / BSTDCA
Driver: Chopper Dual
Supply Voltage: 24.0 V (DC)

