Manufactured with hitecnology

S33BL-CAN

Engineered and Manufactured in South Korea

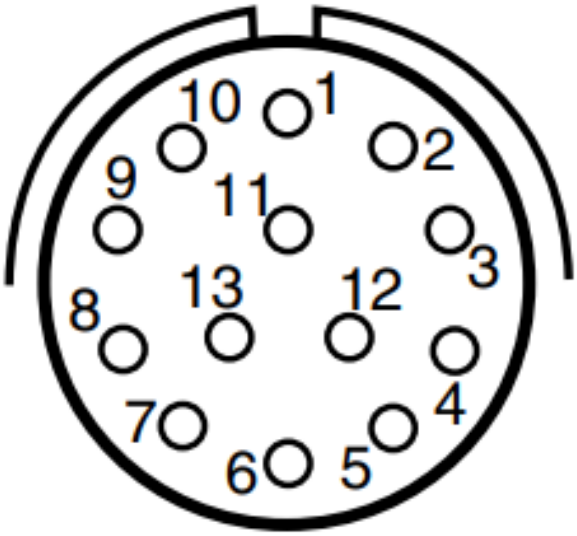
1 Performance Specification

Model	SR33BL-CAN-T-24V	-
Control System	CAN2.0A,B	
Position Type	Contactless Magnetic Encoder	
Motor Type	BLDC Motor	
Operating Voltage Range	-	18.0V ~ 32.0V
Voltage	-	At 24.0V
No Load Speed	200 ˚/sec	
	0.3 sec/60˚	
	33 RPM	
Rated Torque (At 20% Load)	7.84 N·m (80.0 kgf·cm)	
Peak Torque	39.24 N·m (400.0 kgf·cm)	
Idle Current (At Stopped)		30mA
Running Current (At No Load)		1,000mA
Peak Current		2,100mA
Operating Travel	Servo Mode : ±60º(Default), ±150º(Programmable)	
Multi-Turn	Turn Mode : ±32760 turns	
Continuous Mode	N/A	
Temperature Sensing	Enabled (MCU, Motor)	
Voltage Sensing	Enabled	
Current Sensing	Enabled	
Humidity Sensing	Enabled	
Servo Amplifier Type	32bit Programmable Digital	

2 Mechanical Features

Connector Type		Dual Circular
Dimensions	100.0 x 33.0 x 195.0 mm (±0.2mm) / (3.937 x 1.299 x 7.677 inch)	
Weight		1400.0g (49.24oz)
Housing	Rugged Aluminum Alloy With Hardcoat Anodizing (MIL-A-8625 Type III)	
Gear Reduction	5 Hardened Steel Gears	
Bearing	2 Ball Bearing & 6 Needle Bearing 1 Thrust Bearing	
Horn Gear Spline	Square 10 x 10mm (0.394 inch)	
Gear Train Backlash	< 0.5˚	
Slip Clutch Release Momentum	N/A	
Radial Load On Output Shaft	< 3,924N (400kgf)	
Push Load On Output Shaft	< 5,886N (600kgf)	

3 Connector

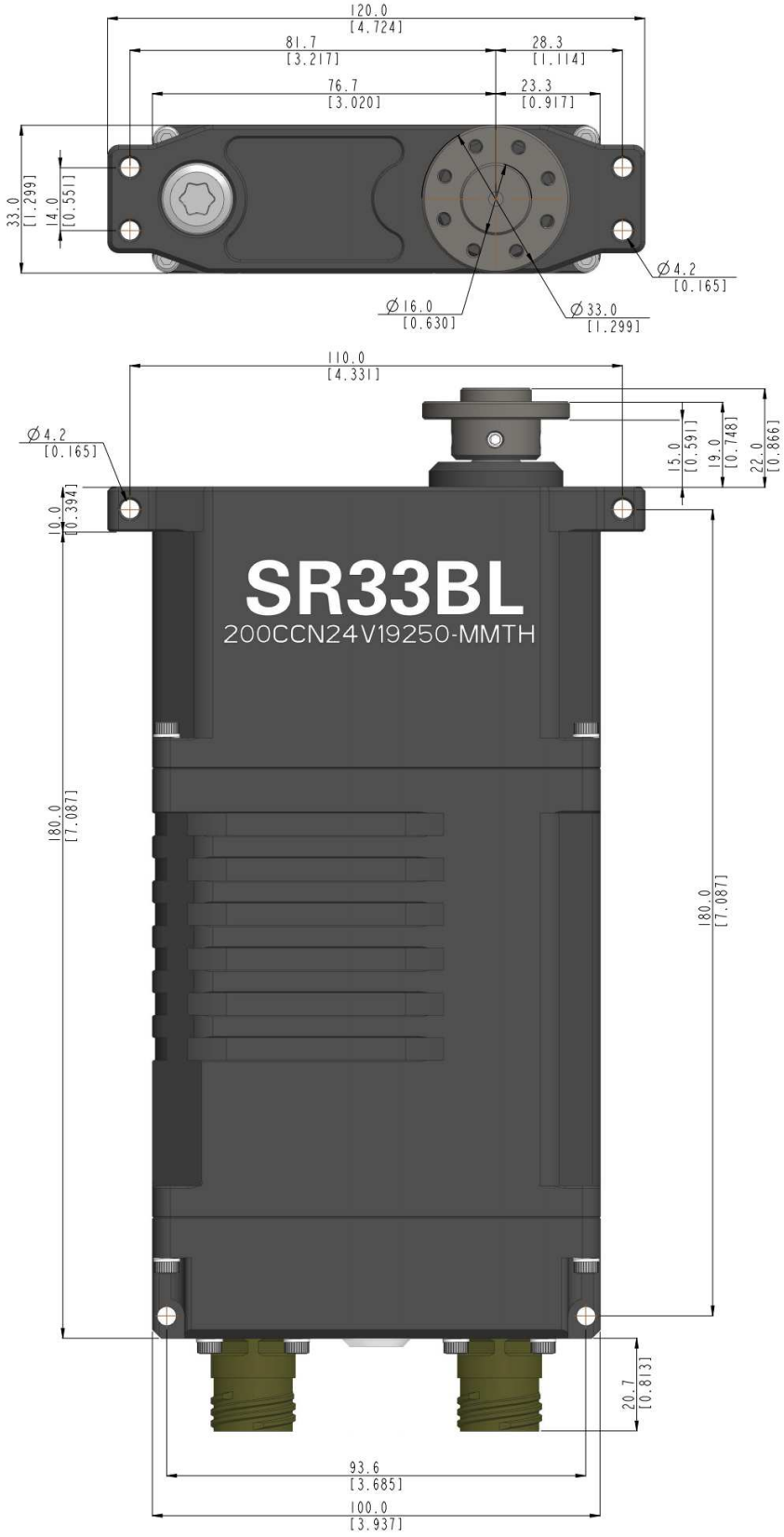
Manufacture	AMPHENOL		
Type	AMPHENOL_D38999-20WB35PN.		
Mating	AMPHENOL_D38999/26WB35SN		
Pin Assignment	Circular Type Connector	**1**	NC
		**2**	VCC
		3	NC
		4	CAN-High
		5	CAN-Low
		6	CASE_GND
		7	NC
		8	NC
		9	NC
		10	VCC
		11	NC
		12	GND
		13	GND

4 Environmental Specifications

Operation Temperature	-40˚C (-40˚F)	MIL-STD-810G Method 502.5
	+80˚C (+176˚F)	MIL-STD-810G Method 501.5
Storage Temperature	-40˚C (-40˚F)	MIL-STD-810G Method 502.5
	+80˚C (+176˚F)	MIL-STD-810G Method 501.5
Humidity	95% @35˚C ~ 60˚C @300hours	MIL-STD-810G Method 507.5
IP-Rating	IP68	IEC 60529
Vibration	Orthogonal axes : ±X , ±Y, ±Z from 50 ~ 500Hz Duration : sweep 5min Acceleration 30G Displacement : 5mm	MIL-STD-810G 514.6C-VII EN 60068-2-6
Mechanical Shock	Procedure 1 - Functional shock 20g, 11ms, Sawtooth Waveform	MIL-STD-810G 516.6
EMC	EN 61000-4-2 EN 61000-4-3 EN 55016-2-1 EN 55016-2-3	EN 61000-6-2:2005+Cor.:2005 EN 61000-6-3:2007+A1:2011
MTTF	>1,000h	Test Condition Load : 20% of Max Torque 0.5Hz Extream(-60˚<>0<>+60˚)

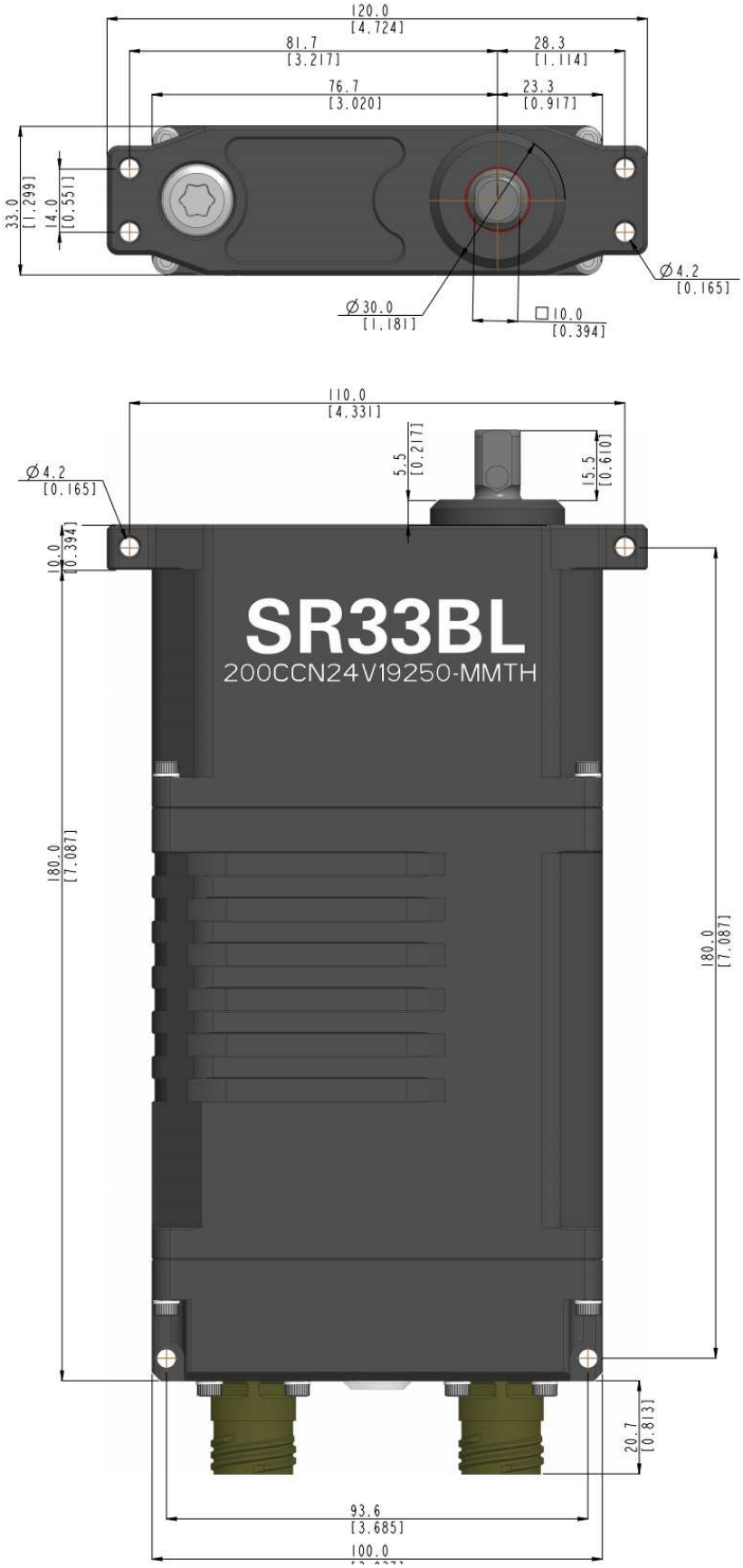
Dimensions

5-1 CIRCULAR CONNECTOR TYPE – WITH HORN



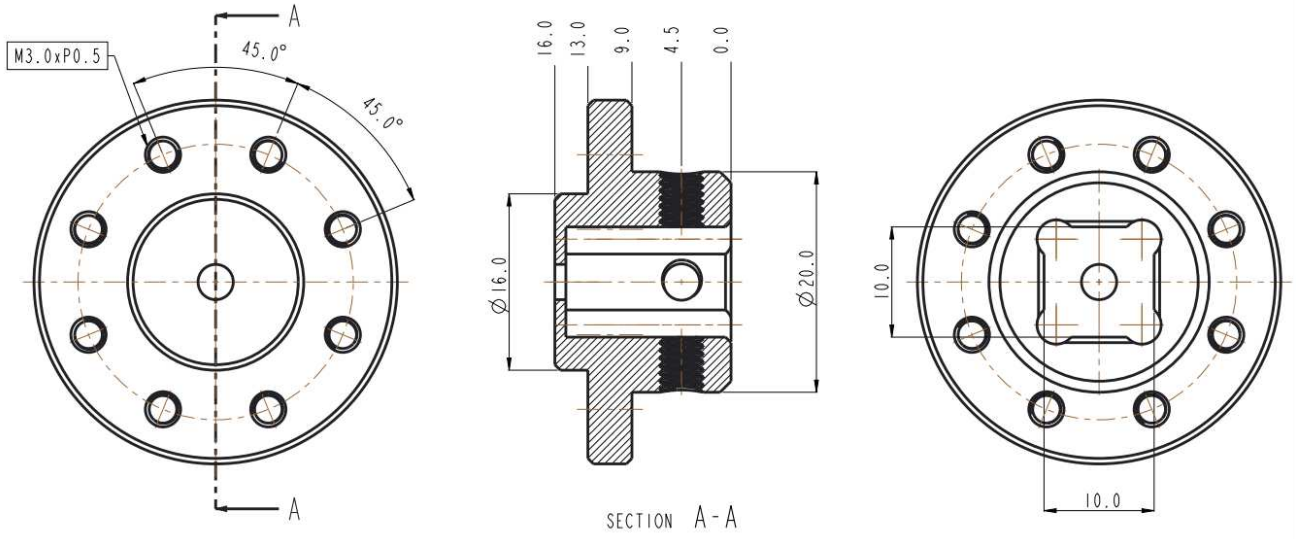
unit : mm [inch]

5-2 CIRCULAR CONNECTOR TYPE – WITHOUT HORN



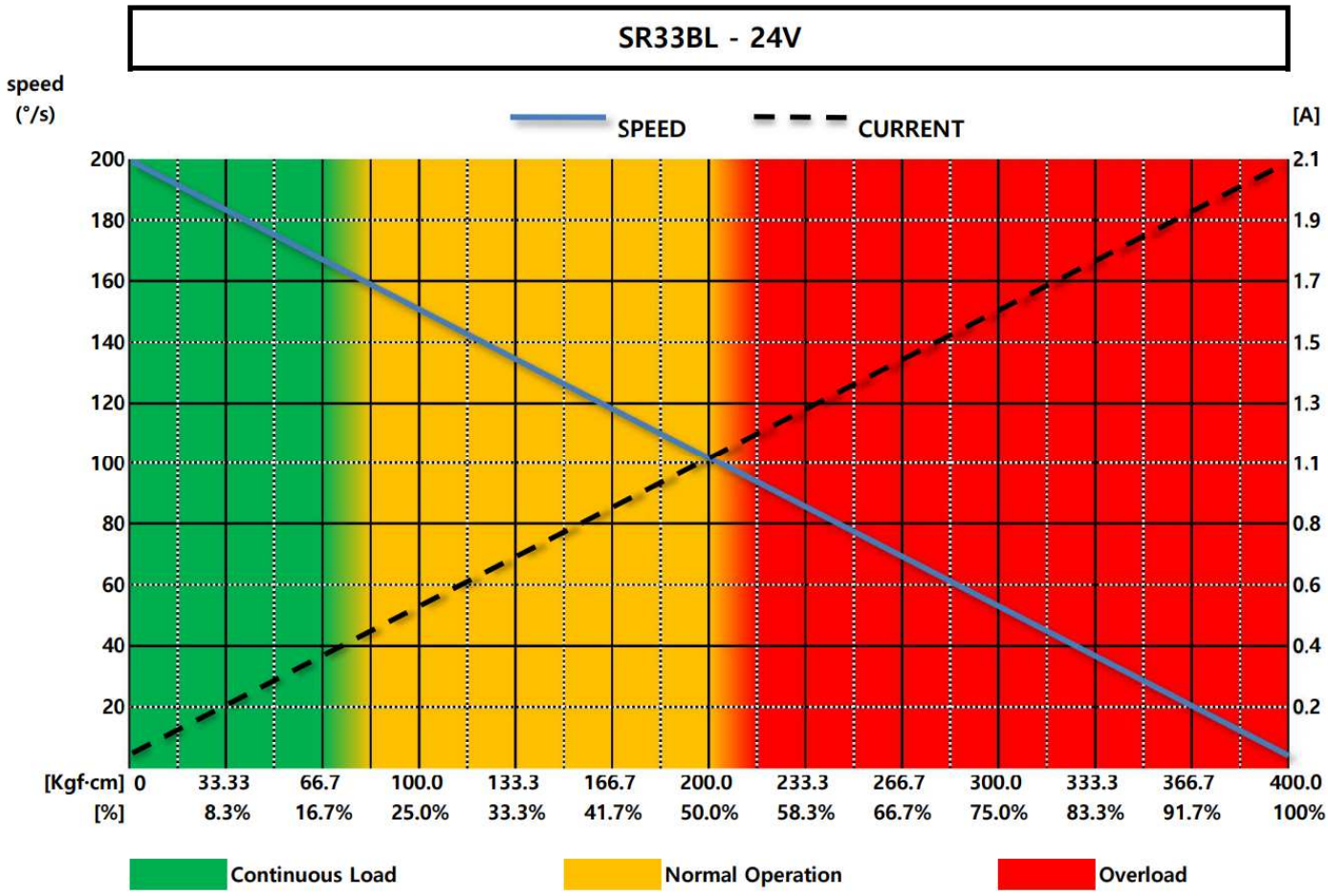
unit : mm [inch]

5 Dimensions – Accessory



unit : mm

6 Performance Graph



7 Changes

Data	Version	Updates

REFERENCES

- ✓ For the protocol manuals of CAN, DroneCAN, RS485 and TTL, please contact Hitec RCD Korea. (industrial.sales@hitecrcd.net)
- ✓ If you would like to purchase additional industrial servos, please contact Hitec Network or local Hitec distributors in your place. (https://hitecrcd.com/contact-us/international-distributors)
- ✓ This product should not be used directly on the human body for medical purposes.
- ✓ This product should not be used for war weapons.
- ✓ All specifications are subject to change without notice.
- ✓ Be careful as strong magnetic fields may cause malfunction of the product.