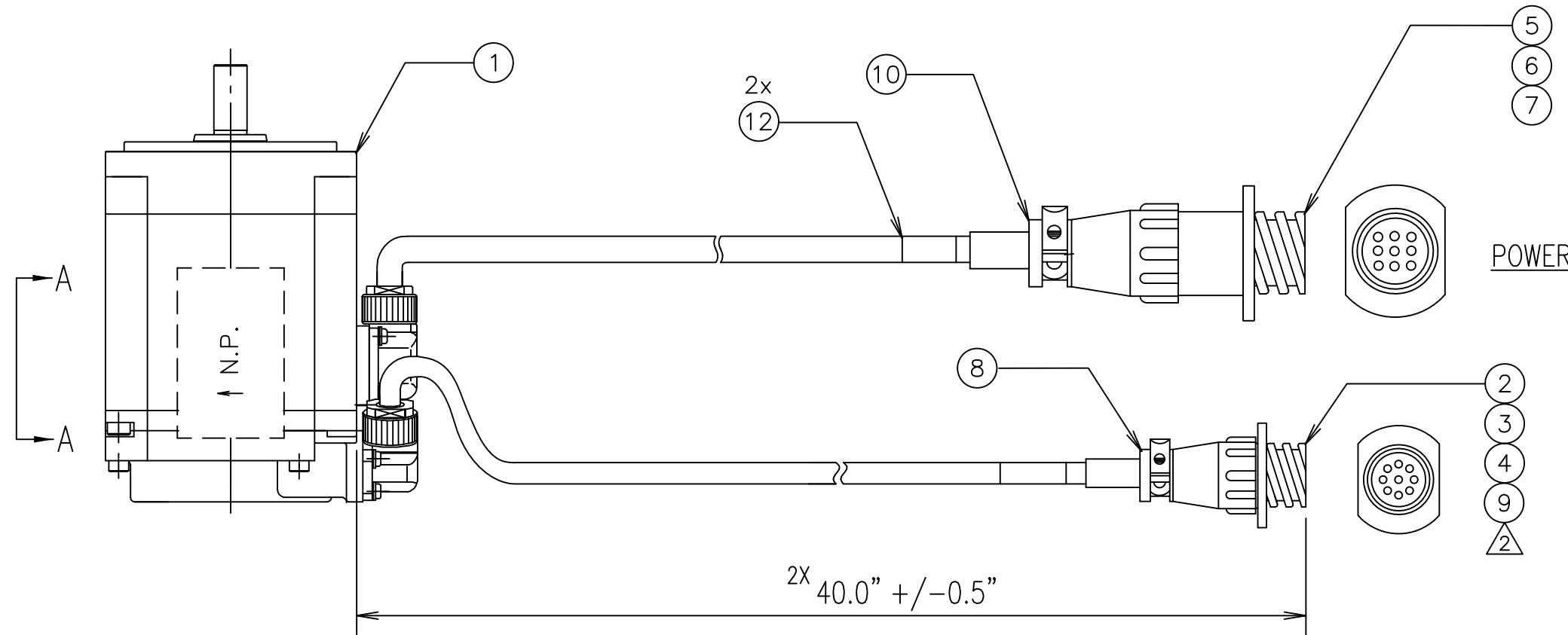


ITEM	PART NO.	DESCRIPTION	Q'TY
1	R2AAXXXXXFXP00M	R SERIES SERVO MOTOR W/O BRAKE, SANYO DENKI	1
2	745254-6	SIZE 20 HIGH REL GOLD FLASH CRIMP CONTACT AWG 22-26, AMP	9
3	206486-2	CPC SERIES 2 SIZE 11 9PIN FREE HANGING(OR 206486-1RECEPT), AMP	1
4	1-206062-4	SIZE 11 CABLE CLAMP, AMP	1
5	66099-3	TYPE III+ PIN AWG 16-18, AMP	4
6	206705-2	CPC SERIES 1 SIZE 13, 9PIN FREE HANG(206705-1 RECEPT), AMP	1
7	206966-7	SIZE 13 CABLE CLAMP, AMP	1
8	VERSAFIT 1/4-0	TBG, SHRINK 1/4"ID, RAYCHEM	0.1
9	TW-24	TBG, PLSTC .022" ID THIN WALL TEFLON 24 AWG, STORM	0.1
10	VERSAFIT 3/8-0	TBG, SHRINK 3/8"ID, RAYCHEM	0.1
11	PTL-17-435	MATT METALLIZED POYESTER 1.63"x0.75", BRADY	1
12	PTL-31-427	SELF-LAMINATING LABEL, BRADY	2

REV	DATE	DESCRIPTION	APPROVAL	REF.
0	03/30/11	ORIGINAL RELEASE	HT	
A	01/25/12	CORRECT OBSOLETE PART	HT	
B	07/31/13	ADD CLEAR TUBING, DCO-13-168	HT	

NOTE:

- 1 PRINT "SANYO DENKI AMERICA" ASSEMBLY PART NUMBER & LOT NUMBER.
- 2 COVER DRAIN WIRE WITH CLEAR TEFLON TUBING PRIOR TO TERMINATION.
- 3. ENCODER WIRING SHOWS CONNECTION FOR SINGLE-AXIS AMPLIFIER.

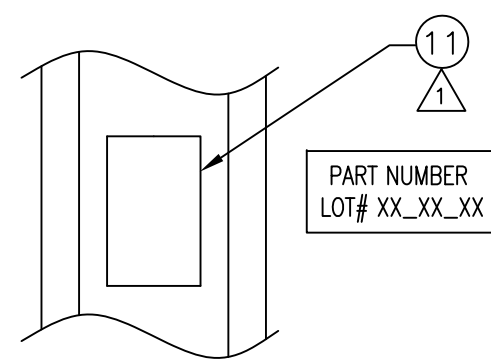
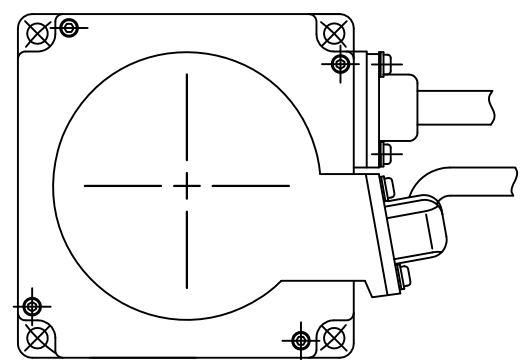


WIRE LIST - MOTOR POWER

PIN	AWG	COLOR	SIGNAL
1	18	RED	U
2	18	WHITE	V
3	18	BLACK	W
5	18	GREEN/YELLOW	GND

ENCODER WIRING (6 CONDUCTOR)

WIRE ITEM	FROM		TO		WIRE AWG	COLOR	SIGNAL NAME
	CONN	PIN	CONN	PIN			
1	MTR		ENC	1	26	PNK	BAT+
1	MTR		ENC	2	26	VIO	BAT-
1	MTR		ENC	3	26	BRN	ES+
1	MTR		ENC	4	26	BLU	ES-
1	MTR		ENC	5			
1	MTR		ENC	6			
1	MTR		ENC	7	26	RED	+5V
1	MTR		ENC	8	26	BLK	VCOM
1	MTR		ENC	9		DRAIN	SHIELD



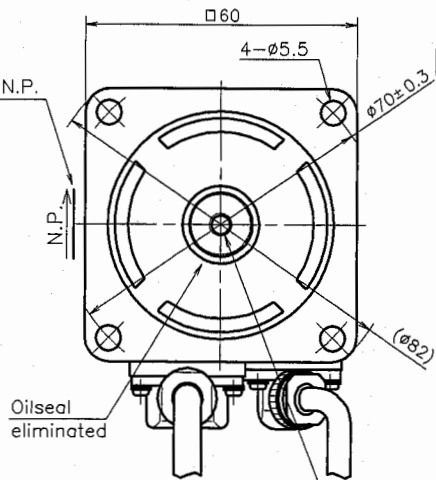
VIEW A-A  
Uncontrolled if printed or E-Mailed

SERVO MOTOR MODEL

ITEM	MOTOR P/N	STANDARD MODEL SERVO AMPLIFIER
01	R2AA04003FXP00ME01	RS1A01AA
02	R2AA04005FXP00ME01	
03	R2AA04010FXP00ME01	
04	R2AA06010FXP00ME01	
05	R2AA06020FXP00ME01	
06	R2AA08020FXP00ME01	RS1A03AA
07	R2AA06040FXP00ME01	
08	R2AA08040FXP00ME01	
09	R2AA08075FXP00ME01	

REMARKS		SHOWN Q'TY	OPPOSITE Q'TY
THIRD ANGLE	SCALE	MATERIAL	APPROVED BY:
METRIC			DRAWN BY:
MODEL		DATE: 03/30/11	DATE: 03/30/11
NAME		R SERIES SERVO MOTOR W/O BRAKE - STANDARD CONNECTOR ASSY.	
DRAWING NO.		R2AAXXXXXFXP00ME01	REVISED
SANYO DENKI AMERICA, INC. TORRANCE, CALIFORNIA, U.S.A.			B

CE, TÜV N.P.



Characteristic table

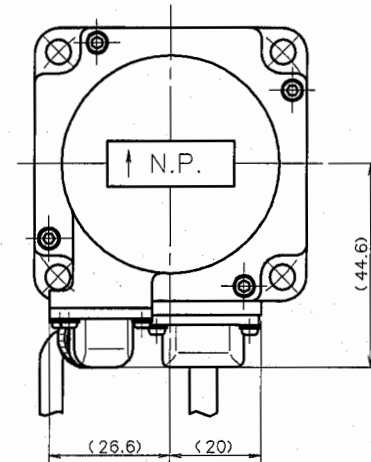
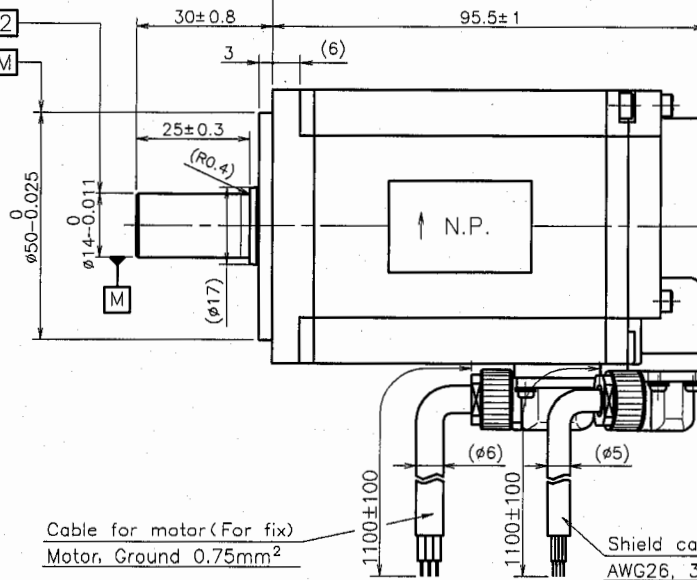
Motor :00646396  
Sensor:00633942

M5×0.8  
12Depth

⊥ 0.07 M

∕ 0.02

∅ 0.06 M



Sensor

Absolute Encoder  
Resolution 131072P/R(17bit)  
Amount of maximum multi-turn counts 65536(16bit)

Degrees of protection

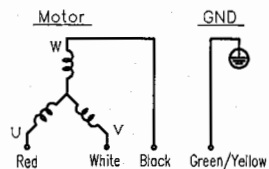
IP67(except for the shaft hole and the edge of the cable)

Motor Mass(Including Sensor)

1.3kg(except for the cable)

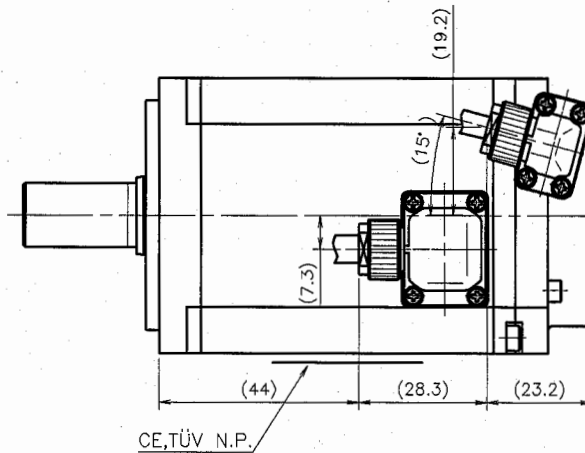
UL, TÜV Specification

Connection



Signal	Color	Pair
+DC 5V	Red	□
0V	Black	□
ES+	Brown	□
ES-	Blue	□
EBAT+	Pink	□
EBAT-	Purple	□

Direction of rotation is C.C.W for phase sequence U V W, as seen from front shaft.



Endurable load on Motor Shaft

Assembling			Operation			F	F1
Radial play(N)	Thrust play(N)		Radial play(N)	Thrust play(N)			
Fr	F	F1	Fr	F	F1		
390	200	200	250	68	68		

1st EDITION BY J.OOSAWA 07-01-22 REV. 記号 DESCRIPTION 日付 DATE		APPROVED BY <i>S. Oosawa</i> 07-01-25 CHECKED BY <i>K. Yamaura</i> 07-01-24 DESIGNED BY J.OOSAWA 07-01-22 SANYO DENKI CO., LTD. 2008-02-20 ISSUED	3521 名称 TITLE <b>SERVO MOTOR</b> <b>OUTLINE DRAWINGS</b> <b>R2AA06040FXP00M</b>
山洋電気株式会社 <b>SANYO DENKI CO., LTD.</b>		図番 DWG NO. <b>00646930</b>	100645930

FOR REFERENCE ONLY

# 1. Characteristics of Motor

Terms	Item	Symbol	Unit	Specification
	Drive	—	—	Sine Wave
	Amplifier power supply	—	—	AC200V~AC230V +10% -15% 50/60Hz±3Hz 3phase
	Cooling Method	—	—	Totally Enclosed
	Exciting Method	—	—	Permanent Magnet
	Rated	—	—	Cont.
☆☆	Rated Output	P <sub>R</sub>	kW	0.4
☆☆	Rated Torque	T <sub>R</sub>	N·m	1.27
☆☆	Continuous Stall Torque	T <sub>S</sub>	N·m	1.37
☆☆	Peak Stall Torque	T <sub>P</sub>	N·m	4.8
☆☆	Rated Speed	N <sub>R</sub>	min <sup>-1</sup>	3000
☆☆	Maximum Speed	N <sub>max</sub>	min <sup>-1</sup>	6000
☆☆	Rated Current	I <sub>R</sub>	Arms	2.8
☆☆	Continuous Stall Current	I <sub>S</sub>	Arms	2.8
☆☆	Peak Armature Current	I <sub>P</sub>	Arms	10.8
☆	Torque Constant	K <sub>r</sub>	N·m/Arms	0.524±10%
☆	Voltage Constant	K <sub>Eφ</sub>	mV/min <sup>-1</sup>	18.3±10%
	Rotor inertia	J <sub>M</sub>	kg·m <sup>2</sup> (GD <sup>2</sup> /4)	0.412×10 <sup>-4</sup>
☆☆	Rated Power Rate	Q <sub>R</sub>	kW/s	39
☆	Resistance	R <sub>φ</sub>	Ω	1.36
☆	Inductance	L <sub>φ</sub>	mH	4.3
☆	Mech.Time Constant	t <sub>m</sub>	ms	0.61
☆	Elect.Time Constant	t <sub>e</sub>	ms	3.2
	Insulation Class	—	—	F
	Vibration Class	—	—	V15
☆☆	Max.temperature Rise	θ	K	110(Resistance method)
	Insulation Resistance	—	MΩ	10MIN.(DC500V megger)
	Dielectric Strength	—	V	1500(AC 1min)

# 2. Environmental Condition

Item	Operation	Storage
Temperature (°C)	0~40	-20~65
Humidity (%)	20~90	20~90
	No dew condensation required	
Vibration (m/s <sup>2</sup> )	24.5 (Single amplitude)	
Shock (m/s <sup>2</sup> )	980 (Single amplitude), Twice	

Note.1. ☆☆ indicates motor temperature rise saturation point combined with Amplifire ☆ indicates coil temperature at 20°C.

All values are at typical ones.

2. The ratings measured by alminum heat sink size 250×250×6t.

3. Total rotor inertia shall be add respectiverly.

4. Fig.1 is a value when motor temperature rise saturation point combined with Amplifire at AC200V.

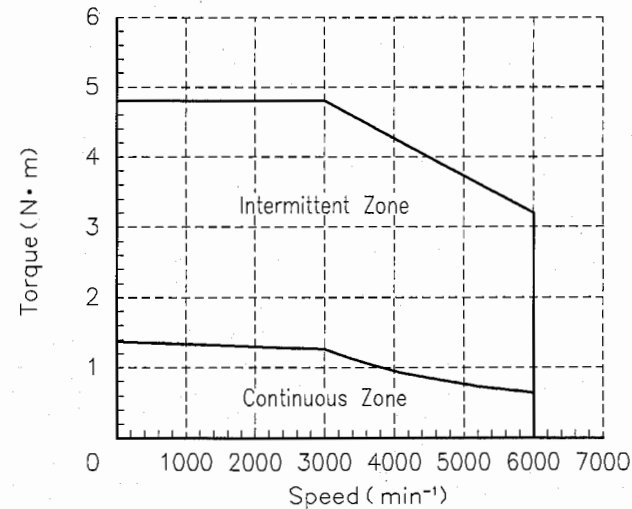


Fig.1 Torque-Speed characteristics (Note.4)

		承認 APPROVED BY <i>S. Oosawa</i> 07-01-18		品目分類記号 3521
		審査 CHECKED BY <i>K. Yamawara</i> 07-01-18		名称 TITLE Motor Characteristics R2AA06040FX*
A	1st EDITION BY J.OOSAWA	07-01-18	尺度 SCALE mm	設計 DESIGNED BY J.OOSAWA 07-01-18
記号 REV.	記事 DESCRIPTION	日付 DATE	図番 DWG NO. 00646396	
山洋電気株式会社 SANYO DENKI CO., LTD.			SANYO DENKI CO., LTD. 2008-02-20 ISSUED	REV. A

FOR REFERENCE ONLY

00646396