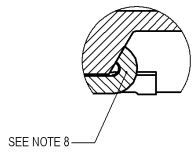
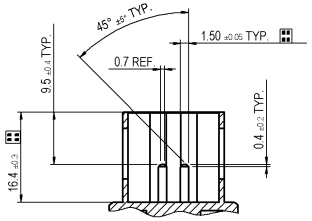
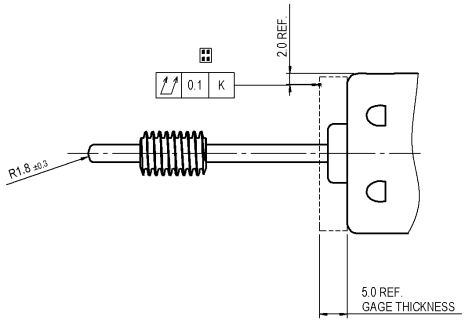
ALT.	REF.	DESCRIPTION	DATE	BY
A		Initial release	20071024	HWZhang

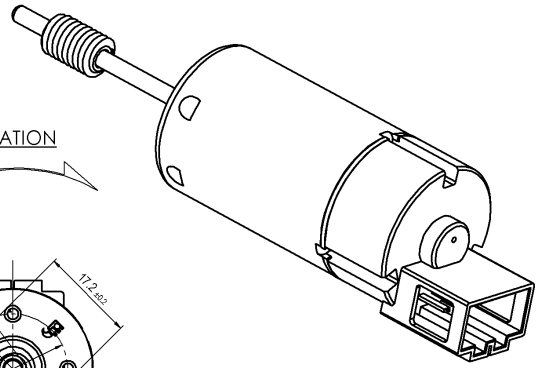
R (5 : 1)

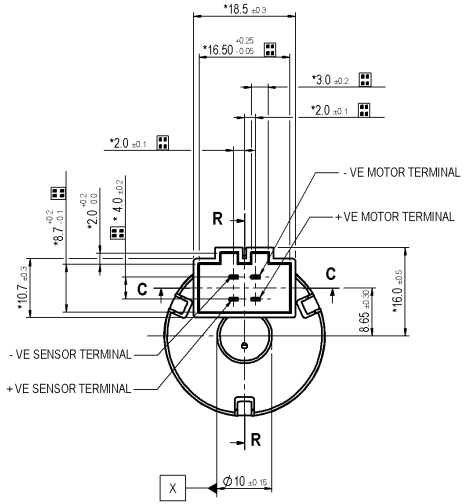


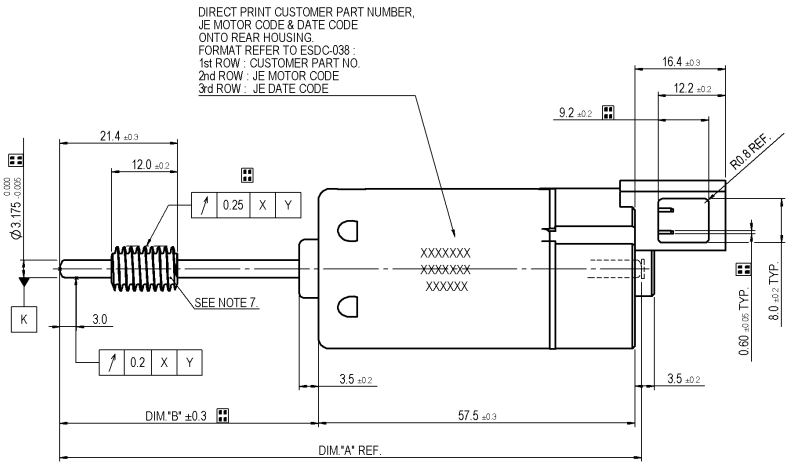
C-C

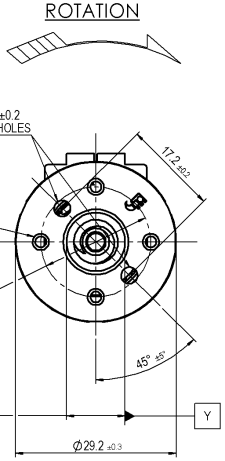








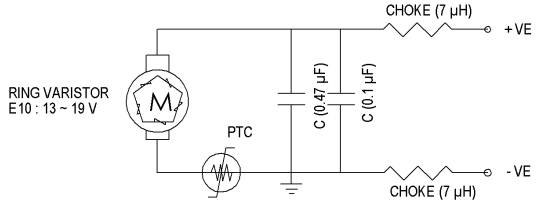




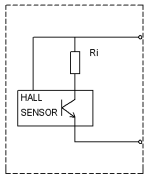
WORM DATA & SPECIFICATION		
BASIC SPECIFICATION	TOOTH PROFILE FORM	
	NUMBER OF THREAD	1
	NORMAL MODULE	0.399
	NORMAL PRESSURE ANGLE	12□
	LEAD ANGLE AND HAND	3.5518□Y RIGHT
	PITCH DIAMETER (P.D)	6.441
	ADDENDUM	
	WHOLE DEPTH	
	PROFILE SHIFT COEFFICIENT	0.0733
	AXIAL PITCH	1.256
	NORMAL TOOTH THICKNESS ON P.D	0.639~0.611
MANUFACTURING AND INSPECTING	OUTSIDE DIAMETER (O.D)	8.132 (0/-0.130)
	ROOT DIAMETER (R.D)	5.658 (0/-0.130)
	NORMAL TIP RADIUS	0.27
	NORMAL ROOT FILLET RADIUS	0.15
	MEASURE OVER THREE PINS	8.768 (0/-0.129)
	PIN DIAMETER	0.9
	QUALITY CLASS BY AGMA 390.03	
	TOOTH TO TOOTH COMPOSITE TOLERANCE	
	TOTAL COMPOSITE TOLERANCE	
	RUN OUT TOLERANCE	
	ACCURACY CLASS BY DIN3974	9 (Ref.)
	SINGLE PITCH DEVIATION (fpx)	0.017 (Ref.)
	PITCH STEP VARIATION (fux)	0.023 (Ref.)
	HELIX FORM DEVIATION (ffb)	
	TOTAL DEVIATION OF SLOP (Fpz)	0.017 (Ref.)
	TOTAL RUN OUT (Fr)	0.035 (Ref.)
	TOTAL PROFILE DEVIATION (Fa)	0.021 (Ref.)
REF.	MATING GEAR PART NUMBER	
	MATING GEAR TOOTH NUMBER	175
	OPERATING CENTER DISTANCE	38.20 ? .120

NOTES:

1. LENGTH OF SHAFT, DIM. "A" 105.7 mm.
2. FRONT EXTENSION, DIM. "B" 47.0 mm., MEASURED WITH SHAFT PUSHED AGAINST END CAP.
3. DIRECTION OF ROTATION : CLOCKWISE WHEN VIEWING MOTOR OUTPUT END WITH POSITIVE VOLTAGE APPLIED TO POSITIVE TERMINAL.
4. END PLAY: 0.3 TO 0.8 mm, MEASURED BY AN AXIAL FORCE OF 10 ±5 N.
5. MAX. MALE SCREW LENGTH ENGAGED INTO MOTOR HOUSING TO BE 3.0 mm.
6. "*" MARKED DIMENSIONS TO BE MEASURED AT ROOT AND THE DRAFT ANGLE TO BE 0.5°.
7. WORM SHOULD WITHSTAND A TWISTING TORQUE OF 0.5 Nm MIN. AND A PUSH-OFF FORCE OF 500 N MIN. WITHOUT MOVEMENT.
8. SECURE END CAP ASSEMBLY BY SWAGING OVER 3 POSITIONS OF HOUSING RIM. THE ENDCAP ASSEMBLY MUST BE ABLE TO WITHSTAND AN AXIAL PUSH-OFF FORCE OF 250 N MIN..
9. THE 20±0.1 mm TOLERANCE IS ONLY APPLIED FOR THE DISTANCE OF 2 PUNCH HOLES OF M3 TAPPED HOLES. TOLERANCE CLASS OF THE TAPPED HOLES IS JIS CLASS 2 STANDARD.
10. REFERENCE CUSTOMER PART NO.: (TBD).
11. 100% CHECK SHAFT RUNOUT OF MOTOR.
12. NO REVERSE VOLTAGE POLARITY FOR HALL SENSOR ALLOWED.
13. HALL SENSOR OUTPUT SIGNAL-VOLTAGE IS MEASURED BY OSCILLOSCOPER, AT 25 ±5 °C, WITH VOLTAGE PATTERN AS SHOWN : U = TBD



MOTOR INTERNAL CIRCUITRY



HALL SENSOR CIRCUITRY

DWN. BY	HW Zhang	CHK. BY	BEN WONG	APP. BY	BEN WONG
Date (yyyymmdd)	20071024	Date (yyyymmdd)	20071024	Date (yyyymmdd)	20071024

MATERIAL :
FINISH :
General Tolerance ISO 2768-1 Class m (Unless specified)
ALL DIMENSIONS ARE IN MILLIMETRES
A2
SCALE 1.5:1

C_{pk}	Characteristics: Key Product	Characteristics: Customer Significant
> 1.67	◉	■
> 1.33	◉	■
>1.00	◉	■
Not Required	◈	■

JOHNSON ELECTRIC GROUP OF COMPANIES (JOHNSON ELECTRIC)

TITLE
MOTOR OUTLINE

DWG No. 07D1059-999-01

SHEET 1 OF 1

rev 1