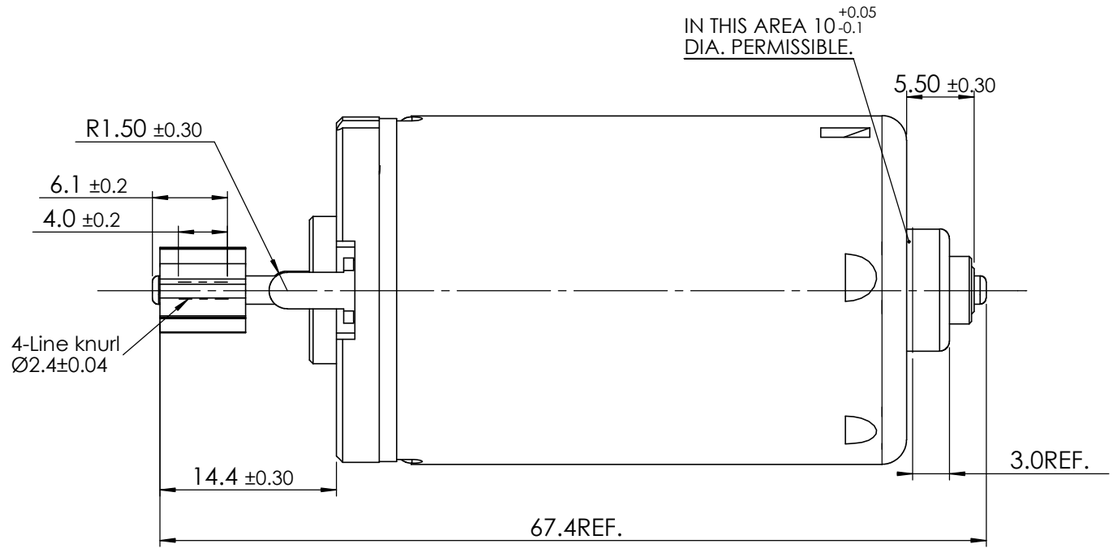
Refer to outsourcing procedure CCHAD-SP-0000010B.
Is design information security level high (Y/N) ? N Name / BU: YINFEI JIANG / PM Date: 2007/07/02

ALT.	REF.	DESCRIPTION	DATE	BY
A		Initial release	2007/12/14	ML LI

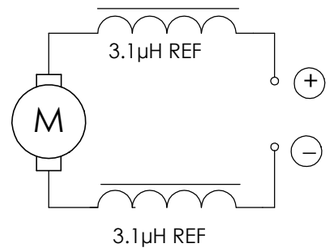
SURFACE OF TERMINAL:
NO PLATING.

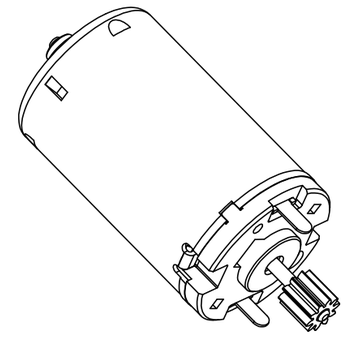
5.5 ±0.3(2X)

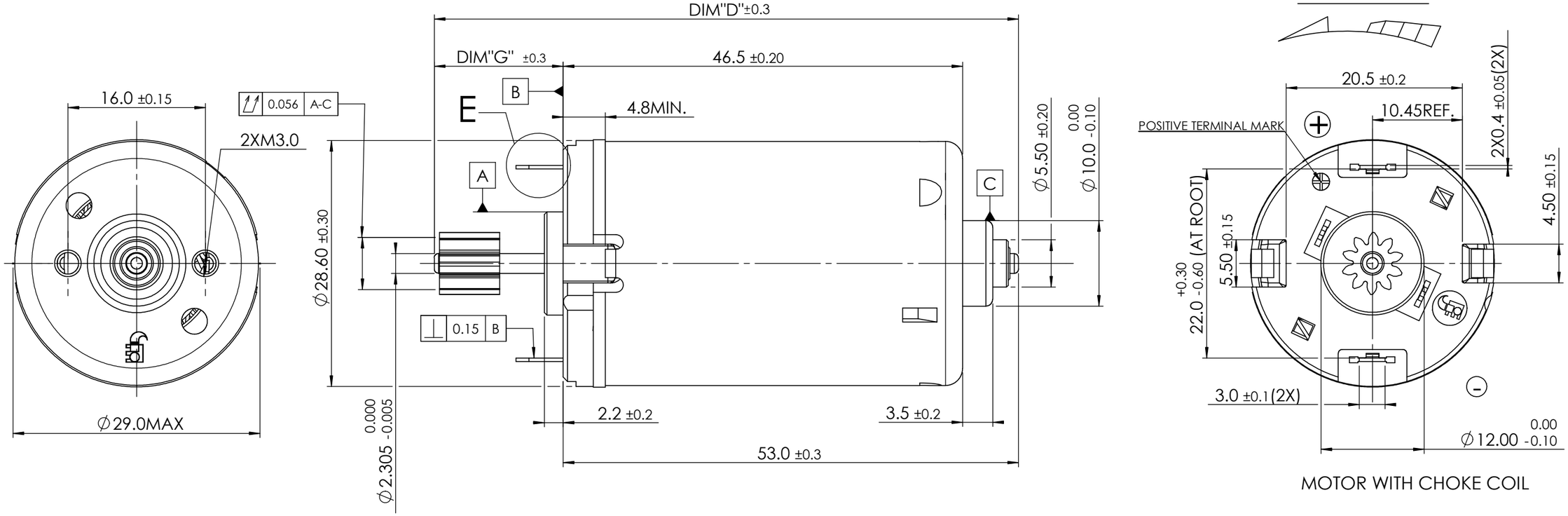
DETAIL "E"
SCALE: 4 : 1



CIRCUITRY DIAGRAM







ROTATION

MOTOR WITH CHOKE COIL

NOTES:
1. LENGTH OF SHAFT DIM."D" 68.0 mm..
2.SHAFT REAR EXTENSION,DIM."G" 15.0 mm,MEASURED WITH SHAFT PUSHED AGAINST REAR HOUSING.
3.DIRECTION OF ROTATION:ANTI-CLOCKWISE WHEN VIEWING MOTOR OUTPUT END WITH POSITIVE VOLTAGE APPLIED TO POSITIVE TERMINAL.
4.SHAFT AXIAL PLAY: 0.05 TO 0.15mm.
5. THE POSITION OF SPACER TO BE ADJUSTED UNTIL END PLAY IS WITHIN SPECIFICATION.

C_{pk}	Characteristics: Key Product	Characteristics: Customer Significant
> 1.67	⊙	▪
> 1.33	⊙	▪
>1.00	⊙	▪
Not Required	⊙	▪

DWN. BY YINFEI JIANG	CHK. BY MINGLEUNG LI	APP. BY ELTON YEUNG
Date (yyyymmdd) 2007/12/14	Date (yyyymmdd) 2007/12/14	Date (yyyymmdd) 2007/12/14
MATERIAL :		A3
FINISH :		
General Tolerance : ISO 2768-1 Class m (Unless specified)	ALL DIMENSIONS ARE IN MILLIMETRES	SCALE 2:1

JOHNSON ELECTRIC JOHNSON ELECTRIC GROUP OF COMPANIES (" JOHNSON ELECTRIC ")

TITLE
MOTOR OUTLINE

DWG No. 07DB025/50/0011

SHEET 1 OF 1

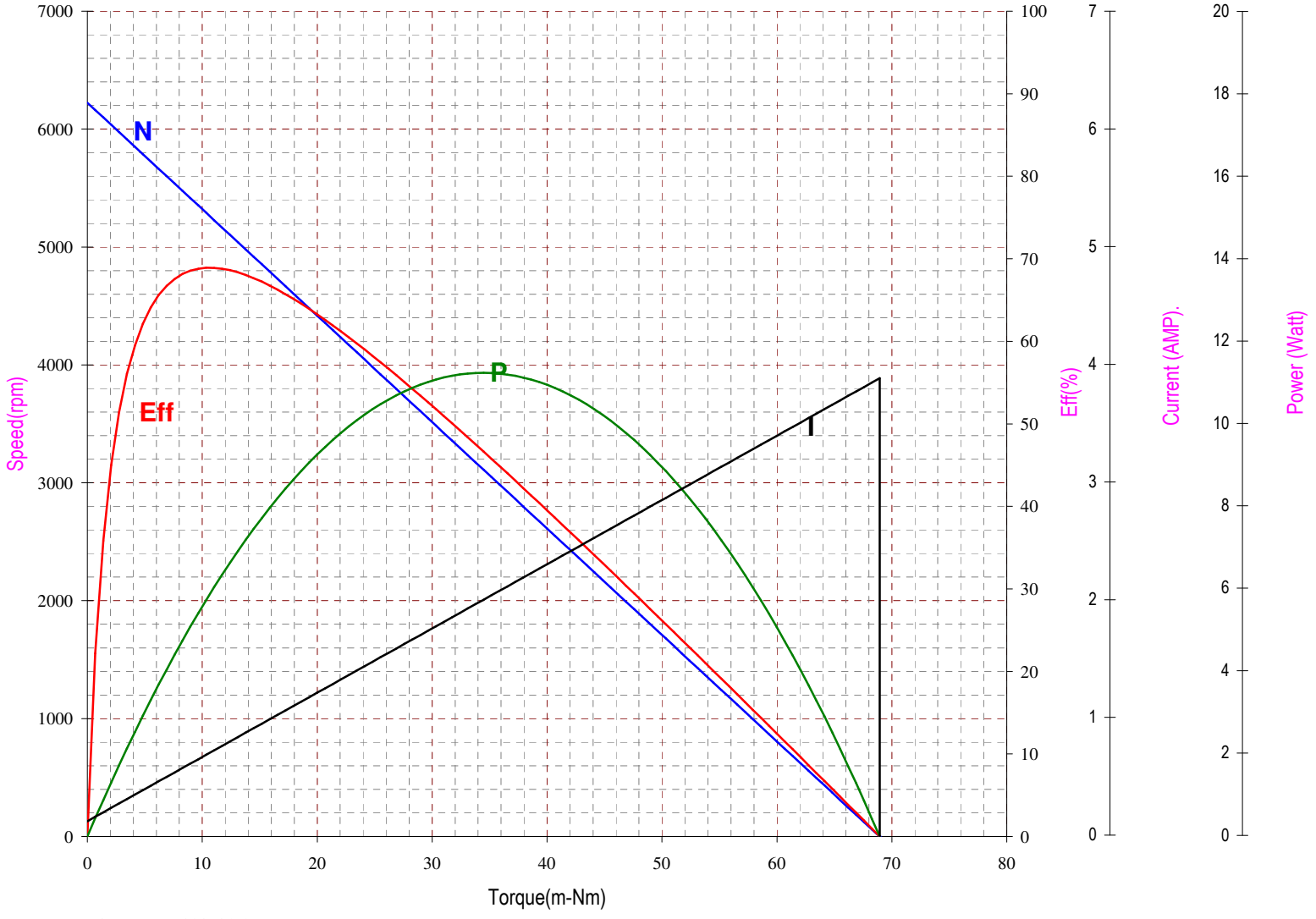
JOHNSON ELECTRIC INTERNATIONAL LTD.

Johnson Building,6-22, Dai Shun Street, Tai Po, Hong Kong.

Excellence in ***Micromotors*** Since 1959

Date : 2008/09/10

Project No.: 07DB025
Winding : 0.23 - 70



FORM : PIB-930701-1

Ref: 108727

Simulation at 25 C
Motor tested rapidly to prevent significant temperature rise.

At a constant voltage of	**12.00**	Volts
With a circuit resistance	0.000	Ohms

At No Load

Speed :	6224	Rpm
Current:	0.130	Amp

At stall (Extrapolated)

Torque :	68.956	m-Nm
Current:	3.887	Amp

At maximum efficiency

Efficiency :	68.91	%
Torque :	10.649	m-Nm
Speed :	5262	Rpm
Current :	0.710	Amp
Output :	5.871	Watts

At maximum power

Torque :	34.478	m-Nm
Speed :	3111	Rpm
Current :	2.008	Amp
Output :	11.235	Watts

Characteristics

Torque Constant :	18.352	m-Nm/Amp
E.M.F Constant :	18.352	mV/rad/sec
Dy. Resistance :	3.087	Ohms
Motor Regulation:	90.291	Rpm/m-Nm

At Torque Level:

Torque:	25.000	m-Nm
Speed:	3966	Rpm
Current:	1.492	Amp
Efficiency:	58.04	%
Output:	10.388	Watts

COMPUTER PRINT-OUT NOMINAL MOTOR CURVES.
Performance and charactertics are measured based on limited motor samples only.

Issued by CATD Simulation