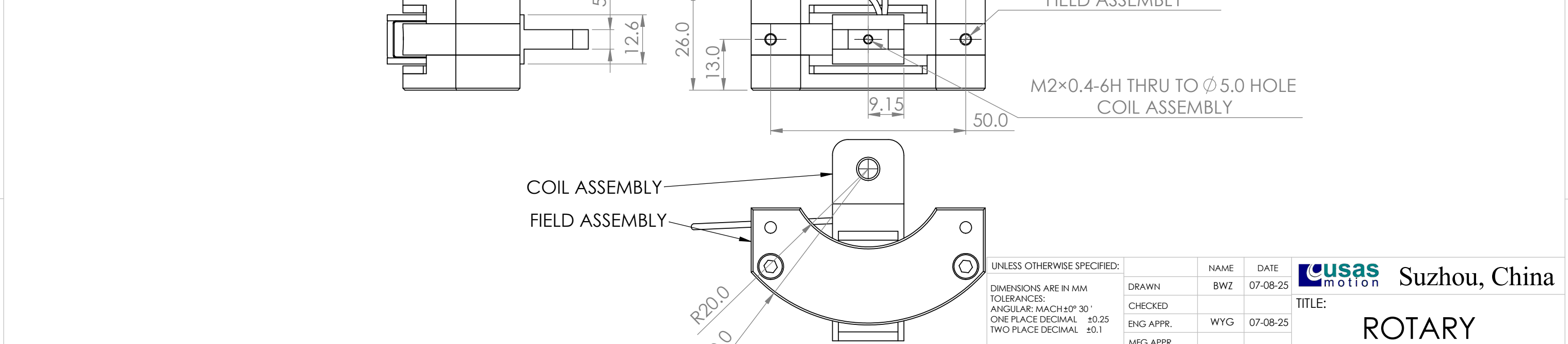


WINDING CONSTANT	TOL	SYM	VALUE	UNITS
DC RESISTANCE	± 10%	R	11.3	OHMS
VOLTAGE @ Fp	NOMINAL	Vp	15.5	VOLTS
CURRENT @ Fp	NOMINAL	Ip	1.4	AMPS
TORQUE SENSITIVITY	± 10%	Kt	0.16	N-m / A
BACK EMF CONSTANT	NOMINAL	Kb	0.16	V/Rad/Sec
INDUCTANCE *****	± 30%	L	2.0	mH

ACTUATOR PARAMETER	SYM	VALUE	UNITS
PEAK TORQUE *	Tp	0.22	N-m
CONTINUOUS STALL TORQUE **	Tcs	0.12	N-m
CONTINUOUS TORQUE WITH HEAT SINK	Tcs	0.18	N-m
ACTUATOR CONSTANT	Ka	0.05	N-m/√w
ELECT TIME CONSTANT	Te	0.18	milli-sec
POWER I ² R@Fp	Pp	21.3	W
TOTAL STROKE(ANGULAR)	S	32	degree
CLEARANCE ON SIDE OF COIL	CL	0.5	mm
THERMAL RESISTANCE ***	θth	18.2	C / W
THERMAL RESISTANCE WITH HEAT SINK****	θth	8.5	C / W
MAX WINDING TEMP	Tmax	150	C
WEIGHT OF COIL ASSEMBLY	WTc	21.5	g
INERTIA OF COIL ASSEMBLY	Ic	130	g-cm ²
WEIGHT OF FIELD ASSEMBLY	Wtf	217	g
WEIGHT OF ACTUATOR	WTa	238.5	g

* 10 sec @ 25C ambient, 150C coil temp.
 ** 25C ambient, 150C coil temp.
 *** In free air.
 **** Measured with 250×250×10mm heat sink.
 ***** Measured with TONGHUI TH2821A.

REV	ECO NO.	DESCRIPTION	DRN	APP'D	Q.A	DATE
X1	---	INITIAL RELEASE	BWZ	WYG	LBQ	07-12-13



2.INSULATION RESISANCE:100 MEGOHMS MINIMUM AT 500 VDC.
 1.A POSITIVE(+)VOLTAGE APPLIED TO THE RED LEAD WILL PRODUCE A FORCE ON THE COIL ASSEMBLY IN CLOCKWISE(CW) DIRECTION.
 NOTES:UNLESS OTHERWISE SPECIFIED

UNLESS OTHERWISE SPECIFIED:
 DIMENSIONS ARE IN MM
 TOLERANCES:
 ANGULAR: MACH ±0° 30'
 ONE PLACE DECIMAL ±0.25
 TWO PLACE DECIMAL ±0.1

INTERPRET GEOMETRIC TOLERANCING PER:
 ANSI Y14.5M-1982.

DO NOT SCALE DRAWING

NAME	DATE
DRAWN: BWZ	07-08-25
CHECKED:	
ENG APPR.: WYG	07-08-25
MFG APPR.:	
Q.A.: LBQ	07-08-25

usas motion Suzhou, China

TITLE:
ROTARY ACTUATOR

SIZE	DWG. NO.	REV
B	VRS0022-032-00A	X1

SCALE: 1: 1 SHEET 1 OF 1

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