MOTOR SPECIFICATION (TENTATIVE)

MOTOR MODEL Y07-43D4-5060

CUSTOMER MODEL

1. SCOPE

THIS SPECIFICATION COVERS THE GENERAL REQUIREMENTS FOR THE STEP MOTOR Y07-43D4-5060 THAT CONSISTS OF BIPOLAR WINDING STATOR AND HYBRID MAGNET ROTOR

2. ELECTRICAL CHARACTERISTICS

ITEM	SPECIFICATION	DESCRIPTION
DUTY	CONTINUOUS	
DRIVE VOLTAGE	24 V D.C	
RATED CURRENT	2.0 A (PHASE)	
STEP ANGLE	1.8°(DEG) FULL STEP	
NUMBER OF PHASE	2PHASE UNIPOLAR 2PHASE EXCITING	
INSULATION CLASS(UL)	UL CLASS B (COIL)	
WINDING RESISTANCE	1.8Ω±15%	25°C
WINDING INDUCTANCE	4.0mH±20%	NOTE)1
HOLDING TORQUE	0.54N·m(5.4kgf·cm) MIN.	NOTE)2
DETENT TORQUE	30mN·m(300Kgf·cm) REF.	
MAX STARTING PULSE RATE	800PPS MIN.	NOTE)3
POSITIONAL ACCURACY	±0.09°(DEG) MAX.	NOTE)4
DIELECTRIC STRENGTH	500V A.C 1MINUTE NO ABNORMAL	NOTE)5
INSULATION RESISTANCE	100 MΩ MIN.	NOTE)6
TEMPERATURE RISE	80 K (80 DEG) MAX.	NOTE)7

3. MECHANICAL CHARACTERISTICS

ITEM	SPECIFICATION	DESCRIPTION
MECHANICAL DEMENSION	ACCORDING TO SPECIFICATION Y-21-0929-0(PAGE3/3)	
SHAFT MATERIAL	SUS303	
BEARING	SINGLE ROW BALL BEARING	
END BELL MATERIAL	ALUMINUM ALLOY	
MASS	APPROXIMATELY 380g	
ROTOR INERTIA	APPROXIMATELY 66g·cm^2 (66×10^{-3} g·cm·s^2)	

4. ADDITIONAL

ITEM	SPECIFICATION	DESCRIPTION
DIRECTION OF ROTATION	PHASE SEQUENCE TO PRODUCE CLOCKWISE ROTATION VIEWED FROM MOUNTING END IS AS TABLE 1	
TYPE OF LEAD WIRE	UL 1430 AWG 26	
COLOR OF LEAD WIRE	ACCORDING TO TABLE 2	
LIFE	20000 HOURS MIN.	NOTE)8
MATERIALS OF MOTOR CONTAIN TEN SUBSTANCES Pb Cr(VI+) Cd Hg PBB PBDE DEHP BBP DBP AND DIBP THOSE CONTENTS COMPLY WITH THE RoHS INSTRUCTION.		

ITEM	SPECIFICATION	DESCRIPTION
OPERATION AMBIENT TEMPERATURE	0°C～+50°C	
OPERATION AMBIENT HUMIDITY	20%RH ～ 90%RH	NOTE)9
STORAGE AMBIENT TEMPERATURE	-20°C～+70°C	
STORAGE AMBIENT HUMIDITY	15%RH ～ 95%RH	NOTE)9

CAUTION AND RECOMMENDATION	PLEASE DON'T HOLD MOTOR BY LEAD WIRES NO OUTSIDE FORCE ON THE EXIT OF LEAD WIRES
	PLEASE DON'T PLUG OR UNPLUG THE MOTOR CONNECTOR WHILE POWER ON
	PLEASE DON'T DROP HURL AND DUMP MOTOR AGAINST HARD MATERIAL MALFUNCTION MAY NOT BE OBSERVED AT EARLY STAGE AFTER SUCH SHOCK BUT IT MAY BE FOUND LATER THIS TYPE OF MISHANDLING VOIDS OUR WARRANTY
	THE FUNCTION OR PERFORMANCE SHALL BE EVALUATED BY INSTALLING MOTOR TO APPLICATION THAT SHOULD BE CHECKED AT BUYER'S SIDE
	PLEASE DON'T REUSE DISASSEMBLED MOTOR
	OUR CORPORATION WILL NOT BE RESPONSIBLE FOR ANY PATENT DISPUTE OR PROBLEM CAUSED BY ACTUAL APPLICATIONS

SKY

MATERIAL	----						Y07-43D4-5060
FINISH	----	--	21-9-29	----	00 First version	Zhang Huajing	
		SYM	DATE	REVISION NO.	REVISIONS	BY	NOTE

DRAWN	DESIGNED	CHECKED	CHECKED	SCALE	FREE	TITLE	MOTR SPECIFICATION	THIRD ANGLI PROJECTION
Kaifull Technology 21-9-29 Zhang Huajing	Kaifull Technology 21-9-29 Zhang Huajing					DWG.NO.	Y-21-0929-0	
						SHEET	1/3	

5. NOTE

1.	MEASURED AT 1kHz 1Vrms
2.	MEASURED AT RATED CURRENT AND 2PHASE EXCITING
3.	MEASURED AT NO LOAD
4.	EXCLUDING HYSTERESIS 2PHASE EXCITING
5.	THERE SHOULD BE NO BREAK DOWN AT 50Hz&60Hz APPLIED FOR 1MINUTE BETWEEN MOTOR FRAME AND LEAD WIRES AND THE CUT OFF CURRENT IS 3mA MAX.
6.	APPLY 500V D.C BETWEEN MOTOR FRAME AND LEAD WIRES
7.	WITH TEST CIRCUIT OF FIG.1 MEASURED BY RESISTANCE METHOD WHEN MOTOR IS OPERATED AT 2PHASE EXCITING 2.0A/PHASE(PEAK)800PPS NO LOAD WITH ALUMINIUM HEAT SINK160×160×t6
8.	WITH TEST CIRCUIT OF FIG.1 2PHASE EXCITING I=2.0A/PHASE(PEAK) AT 800PPS BEARING TEMPERATURE MUST BE 80℃ MAX. TO DO LIFE TEST AFTER LIFE TEST IT SHOULD CONFORMS THE ELECTRICAL SPECIFICATION UNDER OPERATION AMBIENT
9.	NO CONDENSATION

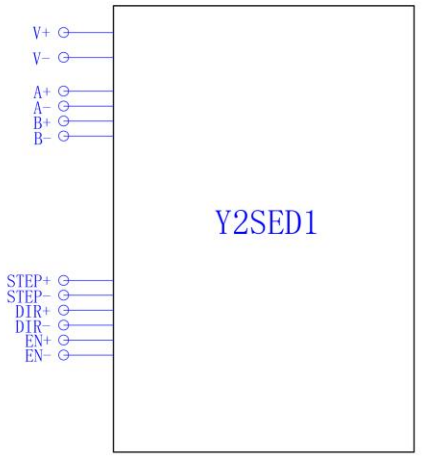
【TABLE1】 PHASE SEQUENCE （2 PHASE EXCITING)

STEP	A	B	$\overline{A}$	$\overline{B}$
1	+	+	−	−
2	−	+	+	−
3	−	−	+	+
4	+	−	−	+
5	+	+	−	−

【TABLE2】 COLOR OF LEAD WIRES

PHASE	A	B	$\overline{A}$	$\overline{B}$
COLOR	BROWN	RED	ORANGE	YELLOW

FIG1. TEST DRIVE CIRCUIT



I=2.0A/PHASE(PEAK) ADJUSTED

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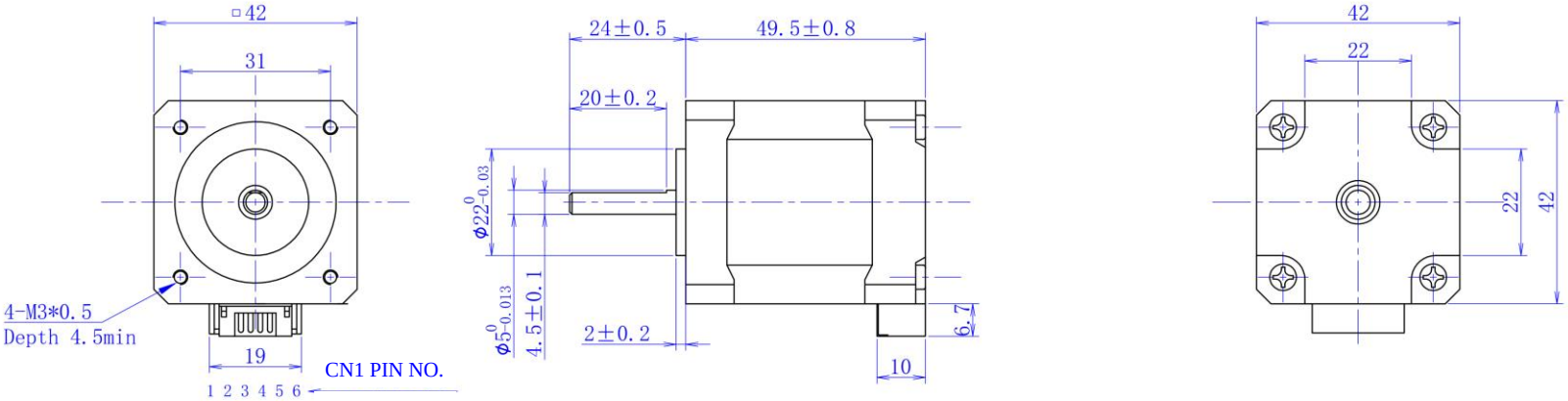
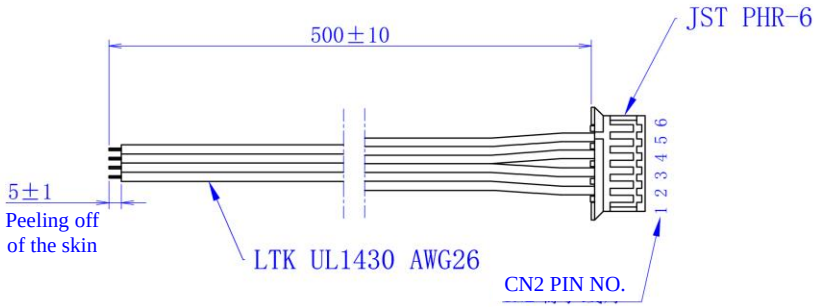
						SHEET	2/3	

CN1 CN2 PIN NUMBER	1	2	3	4	5	6
LEAD COLOR	--	ORANGE	YELLOW	BROWN	RED	-

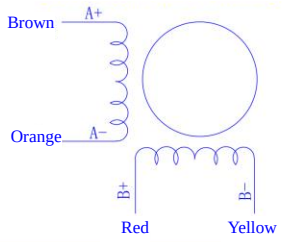




【MOTOR SIDE CONNECTOR】

MAKER J.S.T.MFG.CO., LTD.
HOUSING CN1 B6B-PH-K-S (LF) (SN)
COLOR: NATURAL
CN2 HOUSING PHR-6
COLOR: NATURAL

[WIRING DIAGRAM]



TOLERANCES (EXCEPT AS NOTES)	±0.3
MATERIAL	----
FINISH	----

PORTIONS MARKED BY ★ ARE USED BY CUSTOMER (MOUNTING·POWER TRANSMISSION·POWER SUPPLY)

SKY

SYM	DATE	REVISION NO.	REVISIONS	BY	NOTE
--	21-9-29	----	00 First version	Zhang Huajing	Y07-43D4-5060

DRAWN	DESIGNED	CHECKED	CHECKED	SCALE	1:1	TITLE	MOTR SPECIFICATION	THIRD ANGLI PROJECTION
Kaifull Technology 21-9-29 Zhang Huajing	Kaifull Technology 21-9-29 Zhang Huajing					DWG.NO.	Y-21-0929-0	
						SHEET	3/3	