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A	MOTOR SPECIFICATION (TENTATIVE) MOTOR MODEL S90D130A-XXXX CUSTOMER MODEL 1. SCOPE THIS SPECIFICATION COVERS THE GENERAL REQUIREMENTS FOR THE STEP MOTOR S90D130A-XXXX THAT CONSISTS OF UNIPOLAR WINDING STATOR AND HYBRID MAGNET ROTOR 2. ELECTRICAL CHARACTERISTICS <table><tr><th>ITEM</th><th>SPECIFICATION</th><th>DESCRIPTION</th></tr><tr><td>DUTY</td><td>CONTINUOUS</td><td></td></tr><tr><td>DRIVE VOLTAGE</td><td>48 V D.C</td><td></td></tr><tr><td>RATED CURRENT</td><td>3.0 A (PHASE)</td><td></td></tr><tr><td>STEP ANGLE</td><td>1.8°(DEG) FULL STEP</td><td></td></tr><tr><td>NUMBER OF PHASE</td><td>2PHASE UNIPOLAR 2PHASE EXCITING</td><td></td></tr><tr><td>INSULATION CLASS(UL)</td><td>UL CLASS B (COIL)</td><td></td></tr><tr><td>WINDING RESISTANCE</td><td>0.49Ω±10%</td><td>25°C</td></tr><tr><td>WINDING INDUCTANCE</td><td>1.5mH±20%</td><td>NOTE)1</td></tr><tr><td>HOLDING TORQUE</td><td>1.72N·m(1.75kgf·cm) MIN.</td><td>NOTE)2</td></tr><tr><td>DETENT TORQUE</td><td>103mN·m(1.05Kg·cm) REF.</td><td></td></tr><tr><td>MAX STARTING PULSE RATE</td><td>670PPS MIN.</td><td>NOTE)3</td></tr><tr><td>POSITIONAL ACCURACY</td><td>±0.09°(DEG) MAX.</td><td>NOTE)4</td></tr><tr><td>DIELECTRIC STRENGTH</td><td>1800V A.C 1MINUTE NO ABNORMAL</td><td>NOTE)5</td></tr><tr><td>INSULATION RESISTANCE</td><td>100 MΩ MIN.</td><td>NOTE)6</td></tr><tr><td>TEMPERATURE RISE</td><td>80 K (80 DEG) MAX.</td><td>NOTE)7</td></tr></table> 3. MECHANICAL CHARACTERISTICS <table><tr><th>ITEM</th><th>SPECIFICATION</th><th>DESCRIPTION</th></tr><tr><td>MECHANICAL DEMENSION</td><td>ACCORDING TO SPECIFICATION Y-21-0806-0(PAGE3/3)</td><td></td></tr><tr><td>SHAFT MATERIAL</td><td>SUS303</td><td></td></tr><tr><td>BEARING</td><td>SINGLE ROW BALL BEARING</td><td></td></tr><tr><td>END BELL MATERIAL</td><td>ALUMINUM ALLOY</td><td></td></tr><tr><td>MASS</td><td>APPROXIMATELY 2000g</td><td></td></tr><tr><td>ROTOR INERTIA</td><td>1400g·cm² (1.4 g·cm·s²) APPROXIMATELY 1400g·cm² (1.4 g·cm·s²)</td><td></td></tr></table> 4. ADDITIONAL <table><tr><th>ITEM</th><th>SPECIFICATION</th><th>DESCRIPTION</th></tr><tr><td>DIRECTION OF ROTATION</td><td>PHASE SEQUENCE TO PRODUCE CLOCKWISE ROTATION VIEWED FROM MOUNTING END IS AS TABLE 1</td><td></td></tr><tr><td>TYPE OF LEAD WIRE</td><td>a3/UL 2517-1674 LF 6×22 AWG</td><td></td></tr><tr><td>COLOR OF LEAD WIRE</td><td>ACCORDING TO TABLE 2</td><td></td></tr><tr><td>LIFE</td><td>5000 HOURS MIN.</td><td>NOTE)8</td></tr><tr><td colspan="3">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.</td></tr></table>							ITEM	SPECIFICATION	DESCRIPTION	DUTY	CONTINUOUS		DRIVE VOLTAGE	48 V D.C		RATED CURRENT	3.0 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	0.49Ω±10%	25°C	WINDING INDUCTANCE	1.5mH±20%	NOTE)1	HOLDING TORQUE	1.72N·m(1.75kgf·cm) MIN.	NOTE)2	DETENT TORQUE	103mN·m(1.05Kg·cm) REF.		MAX STARTING PULSE RATE	670PPS MIN.	NOTE)3	POSITIONAL ACCURACY	±0.09°(DEG) MAX.	NOTE)4	DIELECTRIC STRENGTH	1800V A.C 1MINUTE NO ABNORMAL	NOTE)5	INSULATION RESISTANCE	100 MΩ MIN.	NOTE)6	TEMPERATURE RISE	80 K (80 DEG) MAX.	NOTE)7	ITEM	SPECIFICATION	DESCRIPTION	MECHANICAL DEMENSION	ACCORDING TO SPECIFICATION Y-21-0806-0(PAGE3/3)		SHAFT MATERIAL	SUS303		BEARING	SINGLE ROW BALL BEARING		END BELL MATERIAL	ALUMINUM ALLOY		MASS	APPROXIMATELY 2000g		ROTOR INERTIA	1400g·cm ² (1.4 g·cm·s ²) APPROXIMATELY 1400g·cm ² (1.4 g·cm·s ²)		ITEM	SPECIFICATION	DESCRIPTION	DIRECTION OF ROTATION	PHASE SEQUENCE TO PRODUCE CLOCKWISE ROTATION VIEWED FROM MOUNTING END IS AS TABLE 1		TYPE OF LEAD WIRE	a3/UL 2517-1674 LF 6×22 AWG		COLOR OF LEAD WIRE	ACCORDING TO TABLE 2		LIFE	5000 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.			B	<table><tr><th>ITEM</th><th>SPECIFICATION</th><th>DESCRIPTION</th></tr><tr><td>OPERATION AMBIENT TEMPERATURE</td><td>0°C~+50°C</td><td></td></tr><tr><td>OPERATION AMBIENT HUMIDITY</td><td>20%RH ~ 90%RH</td><td>NOTE)9</td></tr><tr><td>STORAGE AMBIENT TEMPERATURE</td><td>0°C~+50°C</td><td></td></tr><tr><td>STORAGE AMBIENT HUMIDITY</td><td>15%RH ~ 95%RH</td><td>NOTE)9</td></tr></table>						ITEM	SPECIFICATION	DESCRIPTION	OPERATION AMBIENT TEMPERATURE	0°C~+50°C		OPERATION AMBIENT HUMIDITY	20%RH ~ 90%RH	NOTE)9	STORAGE AMBIENT TEMPERATURE	0°C~+50°C		STORAGE AMBIENT HUMIDITY	15%RH ~ 95%RH	NOTE)9
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