APPLICABLE STANDARD		USB2.0 SPECIFICATION AND MICRO-USB CABLE AND CONNECTORS SPECIFICATION.		
RATING	OPERATING TEMPERATURE RANGE	-30 °C TO +85°C	STORAGE TEMPERATURE RANGE	-30°C TO +85°C
	VOLTAGE	30V AC	OPERATING HUMIDITY RANGE	— % TO — %
	CURRENT 1) SIGNAL ONLY 2) POWER APPLY	① 1 A/pin ② 1.8 A/pin (PIN No.1,5) 0.5 A/pin (PIN No.2—4)	APPLICABLE CABLE	USB CABLE ① SIGNAL : AWG 28 MAX ② POWER : AWG 26 MAX

SPECIFICATIONS

ITEM	TEST METHOD	REQUIREMENTS	QT	AT
CONSTRUCTION				
GENERAL EXAMINATION	VISUALLY AND BY MEASURING INSTRUMENT.	ACCORDING TO DRAWING.	X	X
MARKING	CONFIRMED VISUALLY.		X	X
ELECTRICAL CHARACTERISTICS				
CONTACT RESISTANCE	100 mA MAX (DC OR 1000 Hz).	30 mΩ MAX.	X	X
INSULATION RESISTANCE	500 V DC.	100 MΩ MIN.	X	X
VOLTAGE PROOF	100 V AC FOR 1 min.	NO FLASHOVER OR BREAKDOWN.	X	X
CAPASITANCE	MEASURE ADJACENT TWO CONTACTS AT 1000 ± 10 Hz AC VOLTAGE	2 pF MAX	X	—
MECHANICAL CHARACTERISTICS				
INSERTION AND WITHDRAWAL FORCES	A MAXIMUM RATE OF 12.5 mm/min. MEASURED BY APPLICABLE CONNECTOR.	INSERTION FORCE 35 N MAX. WITHDRAWAL FORCE 8 N MIN.	X	—
MECHANICAL OPERATION	10000 TIMES INSERTIONS AND EXTRACTIONS. MATING SPEED - MECHANICALLY OPERATED : 500 CYCLES / h - MANUALLY OPERATED : 200 CYCLES / h	① CONTACT RESISTANCE: NO INCREASEOF MORE THAN 10 mΩ FROM INITIAL VALUE. ② INSERTION FORCE 35 NMAX. WITHDRAWAL FORCE 8 N MIN. ③ NO DAMAGE, CRACK AND LOOSENESS OF PARTS.	X	—
VIBRATION	FREQUENCY 10 TO 55 Hz, SINGLE AMPLITUDE 0.75 mm, AT 2 h, FOR 3 DIRECTIONS, TOTAL 6 h.	① NO ELECTRICAL DISCONTINUITY OF 1 μs. ② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.	X	—
RADOM VIBRATION	FREQUENCY 50 TO 2000 Hz, AT 15 min, FOR 3 DIRECTIONS.		X	—
SHOCK	490 m/s^2 DURATION OF PULSE 11 ms AT 3 TIMES FOR 6 DIRECTIONS, TOTAL 18 TIMES.		X	—
ENVIRONMENTAL CHARACTERISTICS				
THERMAL SHOCK	TEMPERATURE -55 → 15 TO 35 → 85 → 15 TO 35 °C TIME 30 → 2 TO 3 → 30 → 2 TO 3 min. UNDER 10 CYCLES. (MATING APPLICABLE CONNECTOR)	① CONTACT RESISTANCE: 70 mΩ MAX. ② INSULATION RESISTANCE: 10 MΩ MIN. ③ NO DAMAGE, CRACK AND LOOSENESS OF PARTS.	X	—
HUMIDITY LIFE	TEMPERATURE -10 TO 65 °C, HUMIDITY 90 TO 98 %, UNDER 7 CYCLES (168h) (MATING APPLICABLE CONNECTOR)	NO DAMAGE, CRACK AND LOOSENESS OF PARTS.	X	—
DRY HEAT	EXPOSED AT +85±2 °C, 96 h. (MATING APPLICABLE CONNECTOR)	NO DAMAGE, CRACK AND LOOSENESS OF PARTS.	X	—
COLD	EXPOSED AT -40±2 °C, 96 h. (MATING APPLICABLE CONNECTOR)	NO DAMAGE, CRACK AND LOOSENESS OF PARTS.	X	—
CORROSION SALT MIST	EXPOSED IN 5 % SALT WATER, 35 °C FOR 48 h.	NO HEAVY CORROSION.	X	—
RESISTANCE TO SOLDERING HEAT	TEMPERATURE: 350±10 °C TIME: 5±1 sec AT SOLDERING PARTS	NO DAMAGE, CRACK AND LOOSENESS OF PARTS.	X	—
SOLDERBILITY	SOLDERING POINT IMMERSED IN BATH OF 255±5 °C, 5 sec. (USING TYPE R FLAX)	SOLDER SHALL COVER MINIMUM OF 95 % OF THE SURFACE BEING IMMERSED.	X	—

	COUNT	DESCRIPTION OF REVISIONS	DESIGNED	CHECKED	DATE
⚠1	1	DIS-E-00000492	TS. ITO	NM. NISHIMATSU	16.03.03

REMARKS
HIROSE will not guarantee the performance on these specifications in case this product will be mated with the others which is not HIROSE's.
Unless otherwise specified, refer to USB2.0, EIA364 or IEC 60512.

APPROVED	NM. NISHIMATSU	15. 10. 27
CHECKED	KN. ICHIKAWA	15. 10. 27
DESIGNED	TS. ITO	15. 10. 27
DRAWN	AK. AKIYAMA	15. 10. 27

⚠1

Note QT:Qualification Test AT:Assurance Test X:Applicable Test

DRAWING NO.	ELC-125857-31-00		
SPECIFICATION SHEET	PART NO.	ZX40-B-5S-UNIT(31)	
HIROSE ELECTRIC CO., LTD.	CODE NO.	CL242-0002-4-31 ⚠1	1/1

FORM HD0011-2-1