

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 INCREASE OF MORE THAN 10 mΩ FROM INITIAL VALUE. ② INSERTION FORCE 35 N MAX. 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 IMMERSSED IN BATH OF 255±5 °C, 5 sec. (USING TYPE R FLAX)	SOLDER SHALL COVER MINIMUM OF 95 % OF THE SURFACE BEING IMMERSSED.	X	—
	COUNT	DESCRIPTION OF REVISIONS	DESIGNED	CHECKED	DATE
△	1	DIS-E-00000492	TS. ITO	NM. NISHIMATSU	16. 03. 03
REMARKS			APPROVED	NM. NISHIMATSU	15. 10. 27
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.			CHECKED	KN. ICHIKAWA	15. 10. 27
			DESIGNED	TS. ITO	15. 10. 27
			DRAWN	AK. AKIYAMA	15. 10. 27
Note QT:Qualification Test AT:Assurance Test X:Applicable Test			DRAWING NO.		ELC-125857-31-00
HRS	SPECIFICATION SHEET		PART NO.	ZX40-B-5S-UNIT (31)	
	HIROSE ELECTRIC CO., LTD.		CODE NO.	CL242-0002-4-31	△ 1/1