

APPLICABLE STANDARD				
RATING	OPERATING TEMPERATURE RANGE	-45 °C TO +125 °C (NOTES 1)	STORAGE TEMPERATURE RANGE	-10°C TO + 60 °C (NOTE 2)
	VOLTAGE	50V AC	APPLICABLE CONNECTOR	DF12#(3.0)-*DP-0.5V(81)
	CURRENT	0.3 A		DF12#(3.0)-*DP-0.5V(86)

### SPECIFICATIONS

ITEM	TEST METHOD	REQUIREMENTS	QT	AT																					
<b>CONSTRUCTION</b>																									
GENERAL EXAMINATION	VISUALLY AND BY MEASURING INSTRUMENT.	ACCORDING TO DRAWING.	X	X																					
MARKING	CONFIRMED VISUALLY.		X	X																					
<b>ELECTRIC CHARACTERISTICS</b>																									
CONTACT RESISTANCE	100 m A (DC OR 1000 Hz).	50 mΩ MAX.	X	—																					
INSULATION RESISTANCE	100 V DC	500 MΩ MAX	X	—																					
VOLTAGE PROOF	150 V AC FOR 1 min.	NO FLASHOVER OR BREAKDOWN.	X	—																					
<b>MECHANICAL CHARACTERISTICS</b>																									
INSERTION AND WITHDRAWAL FORCES	MEASURED BY APPLICABLE CONNECTOR.	<table border="1" style="display: inline-table; vertical-align: middle;"> <thead> <tr> <th>SIGNAL</th> <th>INSERTION FORCE (NMAX)</th> <th>WITHDRAWAL FORCE (NMIN)</th> </tr> </thead> <tbody> <tr><td>20</td><td>23.4</td><td>2.6</td></tr> <tr><td>30</td><td>27.0</td><td>3.4</td></tr> <tr><td>36</td><td>29.0</td><td>4.0</td></tr> <tr><td>40</td><td>30.6</td><td>4.2</td></tr> <tr><td>50</td><td>34.2</td><td>5.0</td></tr> <tr><td>60</td><td>38.0</td><td>6.0</td></tr> </tbody> </table>	SIGNAL	INSERTION FORCE (NMAX)	WITHDRAWAL FORCE (NMIN)	20	23.4	2.6	30	27.0	3.4	36	29.0	4.0	40	30.6	4.2	50	34.2	5.0	60	38.0	6.0	X	—
SIGNAL	INSERTION FORCE (NMAX)	WITHDRAWAL FORCE (NMIN)																							
20	23.4	2.6																							
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40	30.6	4.2																							
50	34.2	5.0																							
60	38.0	6.0																							
MECHANICAL OPERATION	50 TIMES INSERTIONS AND EXTRACTIONS.	① CONTACT RESISTANCE: 50 mΩ MAX. ② NO DAMAGE, CRACK OR LOOSENESS OF PARTS.	X	—																					
VIBRATION	FREQUENCY 10 TO 55 Hz, SINGLE AMPLITUDE 0.75 mm, AT 2 h, FOR 3 DIRECTIONS.	① NO ELECTRICAL DISCONTINUITY OF 1 μs. ② NO DAMAGE, CRACK OR LOOSENESS OF PARTS.	X	—																					
SHOCK	490 m/s <sup>2</sup> DURATION OF PULSE 11 ms AT 3 TIMES FOR 3 DIRECTIONS.	① NO ELECTRICAL DISCONTINUITY OF 1 μs. ② NO DAMAGE, CRACK OR LOOSENESS OF PARTS.	X	—																					
<b>ENVIRONMENTAL CHARACTERISTICS</b>																									
RAPID CHANGE OF TEMPERATURE	TEMPERATURE -65 → 15 TO 35 → 125 → 15 TO 35 °C TIME 30 → 10 TO 15 → 30 → 10 TO 15 min UNDER 5 CYCLES.	① CONTACT RESISTANCE: 50 mΩ MAX. ② INSULATION RESISTANCE: 500 MΩ MIN. ③ NO DAMAGE, CRACK OR LOOSENESS OF PARTS.	X	—																					
DAMP HEAT (STEADY STATE)	EXPOSED AT 40 ± 2 °C, 90 TO 95 %, 96 h.	① CONTACT RESISTANCE: 50 mΩ MAX. ② INSULATION RESISTANCE: 500 MΩ MIN. ③ NO DAMAGE, CRACK OR LOOSENESS OF PARTS.	X	—																					
CORROSION SALT MIST	EXPOSED IN 5 % SALT WATER SPRAY FOR 48 h.	① CONTACT RESISTANCE: 50 mΩ MAX. ② NO HEAVY CORROSION.	X	—																					
SULPHUR DIOXIDE	EXPOSED IN 10 PPM FOR 96 h. (TEST STANDARD: JEIDA-39)	① CONTACT RESISTANCE: 50 mΩ MAX. ② NO HEAVY CORROSION.	X	—																					
HEAT RESISTANCE OF SOLDERING	[RECOMMENDED TEMPERATURE PROFILE] 《SOLDERING AREA》 MAX 250 °C, 220 °C FOR 60 SECONDS MAX. 《PREHEATING AREA》 150 TO 180 °C 90~120 SECONDS. MAXIMUM TWICE ACTION IS ALLOWED UNDER THE SAME CONDITION. [RECOMMENDED MANUAL SOLDELING CONDITION ] SOLDERING IRON TEMPERATURE 350 °C SOLDERING TIME : WITHIN 3 SECONDS.	NO DEFORMATION OF CASE OF EXCESSIVE LOOSENESS OF THE TERMINALS.	X	—																					

**REMARKS**

NOTE1: INCLUDING THE TEMPERATURE RISE BY CURRENT.  
 NOTE2: STORAGE IS DEFINED AS LONG-TERM STORAGE OF UNUSED PRODUCTS.  
 APPLY OPERATION TEMPERATURE RANGE TO PRODUCTS MOUNTED ON PCB WITHOUT POWER SUPPLY.  
 UNLESS OTHERWISE SPECIFIED, REFER TO JIS C 5402.

COUNT	DESCRIPTION OF REVISIONS	DESIGNED	CHECKED	DATE
△				
		APPROVED	MO. NAKAMURA	06.01.27
		CHECKED	TS. MIYAZAKI	06.01.27
		DESIGNED	YH. MICHIDA	06.01.27
		DRAWN	HK. MURAKAMI	06.01.26

Note QT: Qualification Test AT: Assurance Test X: Applicable Test      DRAWING NO.      ELC4-162286-09

<b>HRS</b>	SPECIFICATION SHEET	PART NO.	DF12A-*DS-0.5V(81)	
	HIROSE ELECTRIC CO., LTD.	CODE NO.	CL537	△ 1/1