

May.1.2023 Copyright 2023 HIROSE ELECTRIC CO., LTD. All Rights Reserved.  
In case of consideration for using Automotive equipment / device which demand high reliability, kindly contact our sales window correspondents.

APPLICABLE STANDARD					
RATING	OPERATING TEMPERATURE RANGE	-55 °C TO 125 °C (NOTES 1)	STORAGE TEMPERATURE RANGE	-10 °C TO 60 °C (NOTES 2)	
	VOLTAGE	50 V AC			
	CURRENT	0.3 A			
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	20 mV AC OR LESS 1 kHz, 1 mA.	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>					
MECHANICAL OPERATION	50 TIMES INSERTIONS AND WITHDRAWALS.	① CONTACT RESISTANCE: 50 mΩ MAX. ② 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.	① NO ELECTRICAL DISCONTINUITY OF 1 μs. ② NO DAMAGE, CRACK AND 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 AND LOOSENESS OF PARTS.	X	—	
<b>ENVIRONMENTAL CHARACTERISTICS</b>					
RAPID CHANGE OF TEMPERATURE	TEMPERATURE -65 →15 TO 35 →125 →15 TO 35 °C TIME 30 → 2 TO 3 → 30 → 2 TO 3 min UNDER 5 CYCLES.	① CONTACT RESISTANCE: 50 mΩ MAX. ② INSULATION RESISTANCE: 500 MΩ MIN. ③ NO DAMAGE, CRACK AND 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 AND LOOSENESS OF PARTS.	X	—	
SULPHUR DIOXIDE	EXPOSED IN 25 PPM RH 75 % FOR 96 h. (TEST STANDARD:JEIDA-38)	① CONTACT RESISTANCE: 50 mΩ MAX. ② NO HEAVY CORROSION.	X	—	
HEAT RESISTANCE OF SOLDERING	【RECOMMENDED TEMPERATURE PROFILE】 《SOLDERING AREA》 MAX250°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					
NOTES1:INCLUDING THE TEMPERATURE RISE BY CURRENT. NOTES2:STORAGEIS 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	WR. FUKUCHI	20200728
			CHECKED	TS. MIYAZAKI	20200728
			DESIGNED	KT. KUSAKA	20200728
			DRAWN	RN. IIDA	20200728
Note	QT:Qualification Test AT:Assurance Test X:Applicable Test		DRAWING NO.	ELC-389268-51-01	
	SPECIFICATION SHEET		PART NO.	DF12NC-20DS-0.5V (51)	
	HIROSE ELECTRIC CO., LTD.		CODE NO.	CL537-0292-0-51	1/1