



**THE DATASHEET OF  
DF20A-50DS-1C**



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 In case of consideration for using Automotive equipment / device which demand high reliability, kindly contact our sales window correspondents.

COUNT	DESCRIPTION OF REVISIONS	BY	CHKD	DATE	COUNT	DESCRIPTION OF REVISIONS	BY	CHKD	DATE
△	1	RE-H-03367	M.K.C.H	99.11.05	△				
△					△				

APPLICABLE STANDARD				
RATING	OPERATING TEMPERATURE RANGE	-35 °C TO +85 °C(NOTE1)	STORAGE TEMPERATURE RANGE	-10 °C TO +60 °C
	VOLTAGE	100 V AC	APPLICABLE CONTACT	△DF20B-2830SCFA
	CURRENT	AWG28:1 A AWG30:0.5A	APPLICABLE CONNECTOR	DF20*- *DP-1*
			APPLICABLE CABLE	28-30AWG JACKET DIAMETER 0.6MAX

### SPECIFICATIONS

ITEM	TEST METHOD	REQUIREMENTS	QT	AT
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#### CONSTRUCTION

GENERAL EXAMINATION	VISUALLY AND BY MEASURING INSTRUMENT.	ACCORDING TO DRAWING.	○	○
MARKING	CONFIRMED VISUALLY.		○	○

#### ELECTRICAL CHARACTERISTICS

CONTACT RESISTANCE	100 mA (DC OR 1000 Hz).	mΩ MAX.	-	-
CONTACT RESISTANCE MILLIVOLT LEVEL METHOD	20 mV MAX. mA(DC OR 1000 Hz).		-	-
INSULATION RESISTANCE	- V DC.	MIN.	-	-
VOLTAGE PROOF	- V AC FOR 1 min.	NO FLASHOVER OR BREAKDOWN.	-	-

#### MECHANICAL CHARACTERISTICS

CONTACT INSERTION AND EXTRACTION FORCES	BY STEEL GAUGE.	INSERTION FORCE : N MAX. EXTRACTION FORCE : N MIN.	-	-
INSERTION AND WITHDRAWAL FORCES	MEASURED BY APPLICABLE CONNECTOR.	INSERTION FORCE N MAX. EXTRACTION FORCE N MIN.	-	-
MECHANICAL OPERATION	TIMES INSERTION AND EXTRACTION.	① CONTACT RESISTANCE: mΩ MAX. ② NO DAMAGE, CRACK OR LOOSENESS OF PARTS.	-	-
VIBRATION	FREQUENCY 10 TO 55 Hz, SINGLE AMPLITUDE 0.75 mm, AT 2 h FOR 3 DIRECTIONS.	① NO ELECTRICAL DISCONTINUITY OF 1 μs	○	-
SHOCK	490 m/s <sup>2</sup> DURATION OF PULSE 11 ms AT 3 TIMES FOR 3 DIRECTIONS.	② CONTACT RESISTANCE: - mΩ MAX. ③ NO DAMAGE, CRACK OR LOOSENESS OF PARTS.	○	-

#### ENVIRONMENTAL CHARACTERISTICS

RAPID CHANGE OF TEMPERATURE	TEMPERATURE -55 → 5~35 → +85 → 5~35 °C TIME 30 → 2~3 → 30 → 2~3 min UNDER 5 CYCLES.	① CONTACT RESISTANCE: 30 mΩ MAX. ② INSULATION RESISTANCE: 500 MΩ MIN. ③ NO DAMAGE, CRACK OR LOOSENESS OF PARTS.	○	-
DAMP HEAT(STEADY STATE)	EXPOSED AT 40 ± 2 °C, 90 ~95 %, 96 h.		○	-
CORROSION, SALT MIST	EXPOSED IN 5 % SALT WATER SPRAY FOR 48 h	① CONTACT RESISTANCE: - mΩ MAX. ② NO HEAVY CORROSION.	○	-
HYDROGEN SULPHIDE	EXPOSED IN PPM FOR h. (TEST STANDARD: JEIDA-38)	① CONTACT RESISTANCE: mΩ MAX. ② NO HEAVY CORROSION.	-	-
SULPHUR DIOXIDE	EXPOSED IN 10 PPM FOR 96 h. (TEST STANDARD: JEIDA-39)	① CONTACT RESISTANCE: - mΩ MAX. ② NO HEAVY CORROSION.	○	-
RESISTANCE TO SOLDERING HEAT	SOLDER TEMPERATURE, °C, FOR IMMERSION DURATION, s.	NO DEFORMATION OF CASE OF EXCESSIVE LOOSENESS OF THE TERMINALS.	-	-
SOLDERABILITY	SOLDERED AT SOLDER TEMPERATURE, °C FOR IMMERSION DURATION, s.	SOLDER SHALL COVER A MINIMUM OF 95 % OF THE SURFACE BEING IMMERSED.	-	-

REMARKS	DRAWN	DESIGNED	CHECKED	APPROVED	RELEASED
NOTE 1: INCLUDE THE TEMPERATURE RISING BY CURRENT.	H.UMEHARA	H.UMEHARA	M.NAKAMURA	K.KATAYOSE	
	98.11.13	98.11.13	98.11.16	98.11.16	

Unless otherwise specified, refer to MIL-STD-1344.

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

<b>HRS</b> HIROSE ELECTRIC CO., LTD.	SPECIFICATION SHEET	PART NO.	DF20A-*DS-1C
CODE NO. (OLD)	DRAWING NO.	PART NO.	1
CL	ELC4-162771	CL686	1

TO

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