

		DESCRIPTION OF REVISIONS			BY	CHKD	DATE		COUNT	DESCRIPTION OF REVISIONS			BY	CHKD	DATE
△								△							
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APPLICABLE STANDARD															
RATING	OPERATING TEMPERATURE RANGE	-35 °C TO 85 °C(NOTE1)					STORAGE TEMPERATURE RANGE		-10 °C TO 60 °C						
	VOLTAGE	30 V AC					APPLICABLE CONNECTOR		DF30*-*DS-0.4V (**)						
	CURRENT	0.3 A													
<b>SPECIFICATIONS</b>															
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 (DC OR 1000 Hz).						100 mΩ MAX.						X	—	
INSULATION RESISTANCE	100 V DC.						50 MΩ MIN.						X	—	
VOLTAGE PROOF	100 V AC FOR 1 min.						NO FLASHOVER OR BREAKDOWN.						X	—	
MECHANICAL CHARACTERISTICS															
MECHANICAL OPERATION	50 TIMES INSERTIONS AND EXTRACTIONS.						① CONTACT RESISTANCE: 100 mΩ MAX. ② NO DAMAGE, CRACK AND LOOSENESS, OF PARTS.						X	—	
VIBRATION	FREQUENCY 10 TO 55 Hz, SINGLE AMPLITUDE 0.75 mm, 10 CYCLES OF EACH 3 AXIAL DIRECTION FOR 5 min.						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	—	
ENVIRONMENTAL CHARACTERISTICS															
DAMP HEAT (STEADY STATE)	EXPOSED AT 40 ± 2 °C, 90 TO 95 %, 96 h.						① CONTACT RESISTANCE: 100 mΩ MAX. ② INSULATION RESISTANCE: 25 MΩ MIN. ③ NO DAMAGE, CRACK AND LOOSENESS, OF PARTS.						X	—	
RAPID CHANGE OF TEMPERATURE	TEMPERATURE -55 → 5 TO 35 → 85 → 5 TO 35 °C TIME 30 → 10 TO 15 → 30 → 10 TO 15 min UNDER 5 CYCLES.						① CONTACT RESISTANCE: 100 mΩ MAX. ② INSULATION RESISTANCE: 50 MΩ MIN. ③ NO DAMAGE, CRACK AND LOOSENESS, OF PARTS.						X	—	
CORROSION SALT MIST	EXPOSED IN 5% SALT WATER SPRAY FOR 48 h. (TEST STANDARD: IEC60068)						① CONTACT RESISTANCE: 100 mΩ MAX. ② NO HEAVY CORROSION.						X	—	
SULPHUR DIOXIDE	EXPOSED IN 25 PPM FOR 96h. (TEST STANDARD: IEC60068)						① CONTACT RESISTANCE: 100 mΩ MAX. ② NO HEAVY CORROSION.						X	—	
REMARKS NOTE1: INCLUDE THE TEMPERATURE RISING BY CURRENT.							DRAWN	DESIGNED	CHECKED	APPROVED	RELEASED				
Unless otherwise specified, refer to IEC60512.							T. Nishi	K. Midorikawa	A. Okada	J. Ono					
Note QT: Qualification Test AT: Assurance Test X: Applicable Test															
 HIROSE ELECTRIC CO., LTD.				SPECIFICATION SHEET					PART NO. DF30FC-*DP-0.4V (82)						
CODE NO.(OLD)		DRAWING NO.			CODE NO.					CL684-*****-82			1	1	
CL		ELC4-303555-03													

	COUNT	DESCRIPTION OF REVISIONS	BY	CHKD	DATE		COUNT	DESCRIPTION OF REVISIONS	BY	CHKD	DATE
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■ NOTES WHEN MATING DF30 SERIES CONNECTORS.

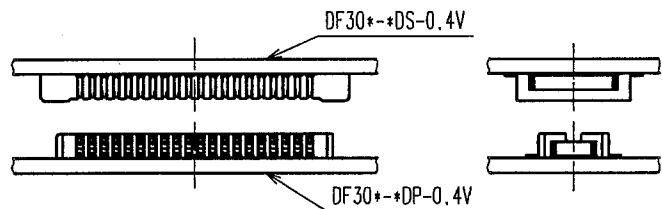


FIGURE- 1

PLEASE LOCATE EACH CONNECTOR IN PARALLEL WHEN YOU PUT THEM IN MATING POSITION.

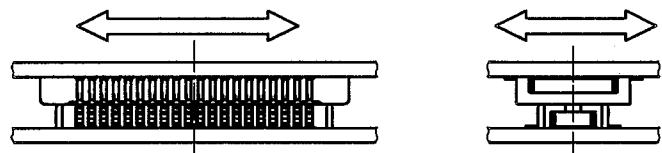


FIGURE- 2

THE INSULATOR WILL BE DAMAGED AND THE CONTACTS WILL BE DEFORMED IF THE CONNECTORS ARE LOCATED INCLINED AND MATED BY EXCESSIVE FORCE.

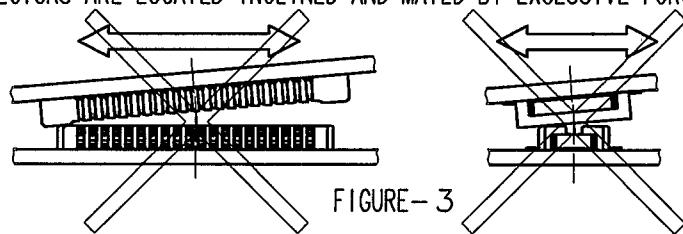


FIGURE - 3

WHEN YOU LOCATE TWO CONNECTORS IN A PROPER POSITION,  
THEY WILL GO DOWN SLIGHTLY AT A LOWER LEVEL AND YOU WILL FIND THAT THEY GET LOCATED CORRECTLY.  
PLEASE MATE EACH CONNECTOR IN PARALLEL AFTER YOU CONFIRMED THAT THEY GO DOWN LOWER TO SOME EXTENT.

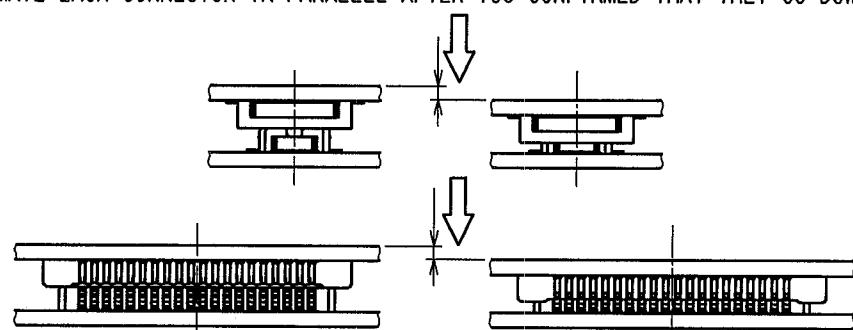


FIGURE- 4

THE MATED CONDITIONS CAN BE RELEASED BY A DROP IMPACT OR THE APPLIED FORCE CAUSED BY FPC-HANDLING.  
FIX THE CONNECTORS BY APPLYING PRESSURE IN THE MATING DIRECTION WITH THE DEVISE OR A BUFFER MATERIAL.

CODE NO.(OLD)		DRAWN Y.MICHIDA	DESIGNED A.TAKAHASHI	CHECKED T.SAKATA	APPROVED T.OMA	RELEASED
NOTES WHEN MATING		04.12.16	04.12.16	04.12.16	04.12.16	
  <b>SCALE</b> FREE : 1	DRAWING NO. EDSC4-830174		PART NO. DF30 Series			
	 HIROSE ELECTRIC CO.,LTD.		CODE NO. CL684			
						1 3

Count	Description of Revisions			By	Chkd	Date	Count	Description of Revisions			By	Chkd	Date
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△							△						..
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#### ■ NOTES WHEN EXTRACTING

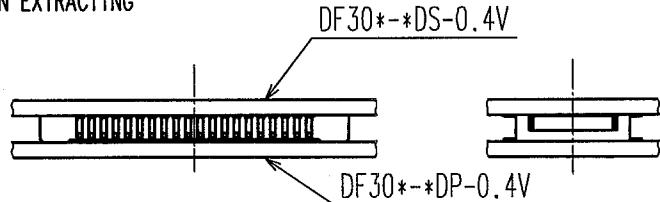
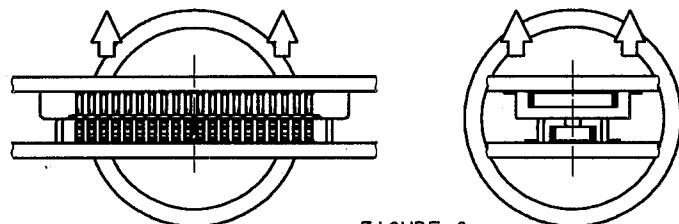


FIGURE-5

WHEN YOU EXTRACT CONNECTORS, PLEASE EXTRACT IN PARALLEL.



## FIGURE-6

**⚠ IF YOU'RE UNABLE TO EXTRACT IN PARALLEL DUE TO SET STRUCTURE OR SPACE, PLEASE EXTRACT AS FIGURE-7 (IN LONGER DIMENSION). PLEASE BE CAREFUL NOT TO DAMAGE CONTACTS AT SIDES, WHERE STRESS IS LIKELY TO GATHER WHEN CONNECTORS ARE MOUNTED ON SOFT FPC.**

**1) ESPECIALLY, PLEASE DO NOT EXTRACT FROM THE CORNER AS FIGURE-8. IT GIVES CRITICAL STRESS TO THE CONTACTS ON THE CROSS CORNER.**

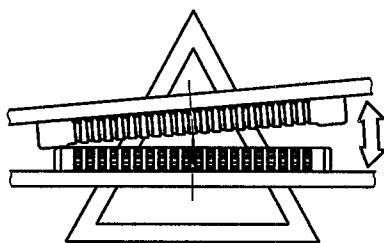


FIGURE-7

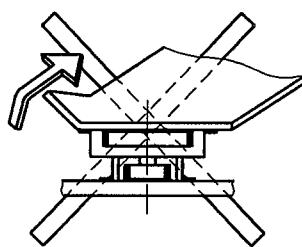


FIGURE-8

**⚠ PLEASE DO NOT EXTRACT AS FIGURE-9.  
THE STRESS CONCENTRATES ON ONE ROW, AND MIGHT DAMAGE CONNECTORS TO MALFUNCTION.**

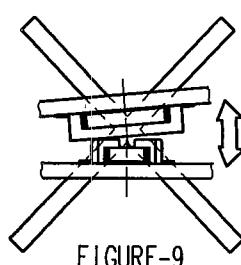


FIGURE-9

CODE NO.(OLD)		DRAWN Y.MICHIDA	DESIGNED A.TAKAHASHI	CHECKED T.SAKATA	APPROVED T.OMA	RELEASED
NOTES WHEN EXTRACTING		04.12.16	04.12.16	04.12.16	04.12.16	
	DRAWING NO. EDSC4-830174	PART NO. DF30 Series				
SCALE FREE : 1						
UNITS mm	<b>HRS</b> HIROSE ELECTRIC CO.,LTD.	CODE NO. CL684				2 3

1	2	3	4						
COUNT	DESCRIPTION OF REVISIONS	BY	CHKD	DATE	COUNT	DESCRIPTION OF REVISIONS	BY	CHKD	DATE
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A A

△ WHEN FPC IS SOFT, STRESS IS CONCENTRATED ON THE CONTACTS AT CORNERS.  
PLEASE PAY ATTENTION TO THIS POINT AND DO NOT UNMATE CONNECTORS FROM CORNERS AS FIGURE-10.  
THIS GIVES SERIOUS DAMAGE ON CONTACTS, AND OCCURS SOLDER PEEL-OFF OR CONTACT COME-OFF.

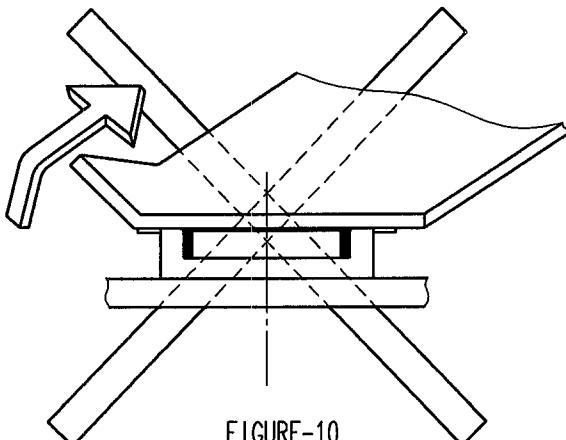


FIGURE-10

B B

C C

IF YOU MOUNT PLUG CONNECTOR ON FPC, CONTACTS MIGHT COME OFF FROM HOUSING MOLD.

CONTACT MIGHT COME OFF FROM HOUSING MOLD.

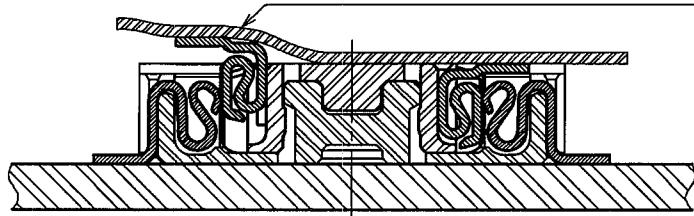


FIGURE-11

D D

E E

IN CASE YOU MOUNT RECEPTACLE CONNECTOR ON FPC, THERE IS NO RISK OF CONTACT COME-OFF.  
HIROSE RECOMMEND THAT RECEPTACLE IS MOUNTED ON FPC.

IN ORDER TO AVOID THIS RISK, IT IS RECOMMENDED  
THAT YOU MOUNT RECEPTACLE CONNECTOR ON FPC.

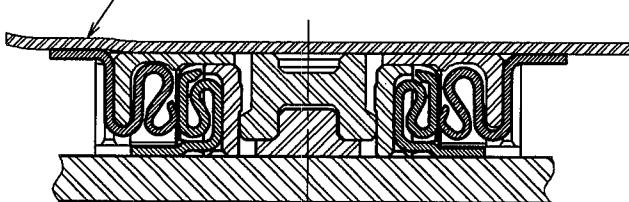
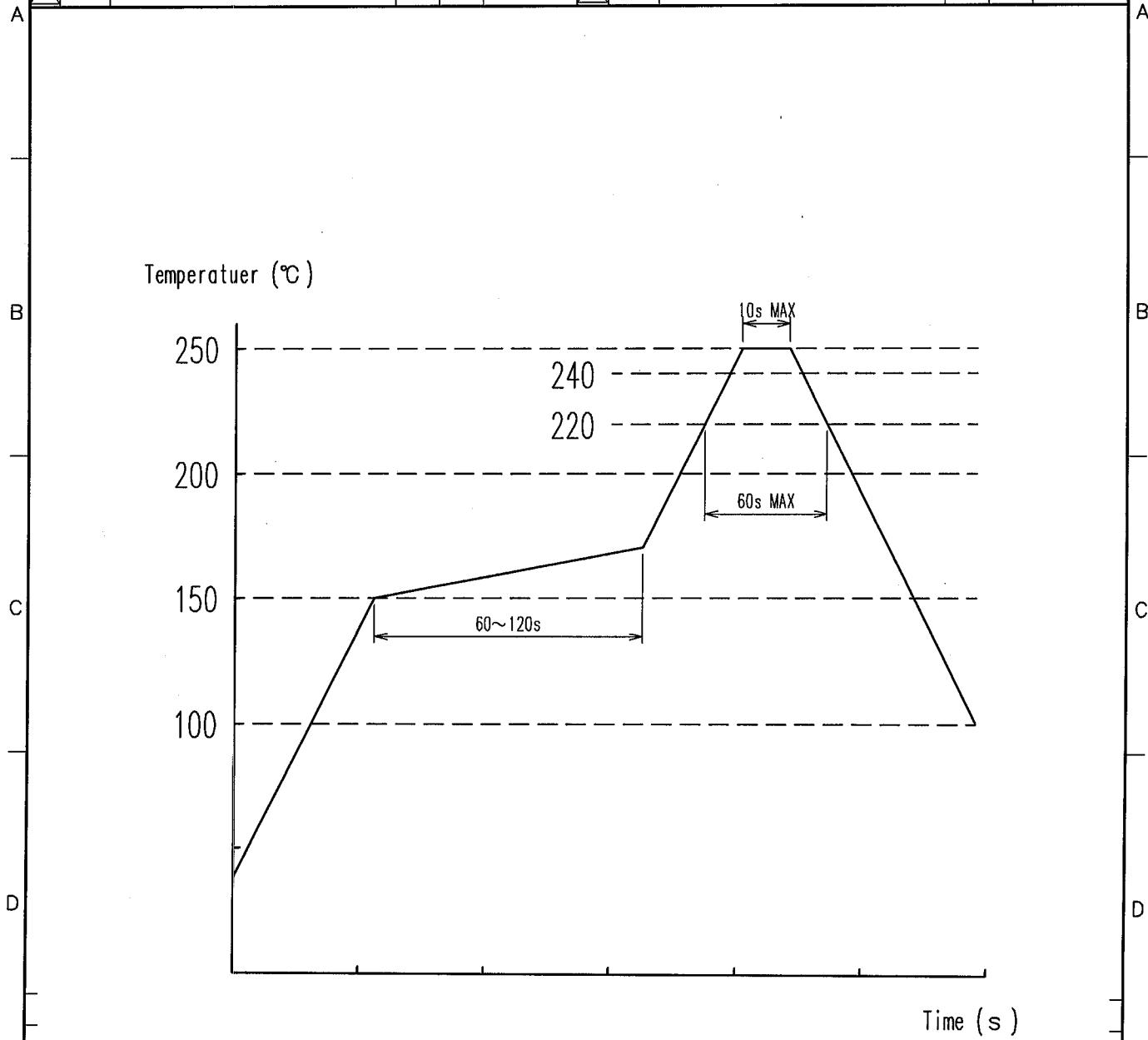


FIGURE-12

CODE NO. (OLD)		DRAWN Y.MICHIDA 04.12.16	DESIGNED A.TAKAHASHI 04.12.16	CHECKED T.SAKATA 04.12.16	APPROVED T.OMA 04.12.16	RELEASED
NOTES WHEN EXTRACTING (SUPPLEMENTARY DATA)		DF30 Series				
DRAWING NO. EDSC4-830174 SCALE FREE : 1 UNITS mm		PART NO. CL 684				
HIROSE ELECTRIC CO.,LTD.		CODE NO. CL 684				3/3

1	2	3	4						
COUNT	DESCRIPTION OF REVISIONS	BY	CHKD	DATE	COUNT	DESCRIPTION OF REVISIONS	BY	CHKD	DATE
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△					△				..



NOTE 1.REFLOW SYSTEM : IR REFLOW (AIR OR N<sub>2</sub> GAS)  
2.PERFORMING REFLOW : TWICE MAX

NO.	MATERIAL	FINISH, REMARKS	NO.	MATERIAL	FINISH, REMARKS
CODE NO. (OLD)			DRAWN	DESIGNED	CHECKED APPROVED RELEASED
TO			T. NISHI	W. Fukuchi	J. Tanaka J. Ono
F	RECOMMENDED TEMPERATUER PROFILE		03.08.19	03.08.19	03.08.20 03.08.20
SCALE FREE	DRAWING NO.		PART NO.	DF30-*DS/DP-0.4V	
UNITS mm	EDC4-830116		CODE NO.	CL684	1/1
	<b>HRS</b>	HIROSE ELECTRIC CO., LTD.			