




Applicable standard											
Rating	Operating temperature range	-55°C to + 85°C(Note 1)				Storage temperature range	-10°C to + 60°C(Note2)				
	Operating humidity range	20% to 80% (Note3)				Storage humidity range	40% to 70%(Note2)				
	Voltage	1000V AC/DC				Applicable Connector	DF22L -*S-7.92C(28) DF22#L-*S-7.92C(#=B,C)				
	Current(*1)	Contact	1	2,3	4,5	Current(*2)	Contact	1	2,3	4,5	
		AWG10	43A/pin	38A/pin	33A/pin		AWG10	30A/pin	25A/pin	22A/pin	
		AWG12	38A/pin	32A/pin	26A/pin		AWG12	25A/pin	20A/pin	18A/pin	
		AWG14	26A/pin	23A/pin	22A/pin		AWG14	20A/pin	18A/pin	15A/pin	
		AWG16	21A/pin	21A/pin	19A/pin		AWG16	15A/pin	15A/pin	13A/pin	
Rated voltage		Rated current				Overvoltage category		IP-Protection method			
UL	AC 600V	See above(*1) (At ambient temp.25°C) (Note 4)				—		—			
C-UL	AC 600V	See above(*2) (Temp. rise up 30°C MAX)				—		—			
TÜV	AC 600V	See above(*2)				II		IPOO			
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
Electric characteristics											
Contact resistance millivolt level method		20mV MAX, 1mA (DC OR 1000 Hz).				5 mΩ MAX.				X	—
Insulation resistance		1000V DC.				1000MΩ MIN.				X	—
Voltage proof		2500V AC for 1 min.				No flashover or breakdown.				X	—
Mechanical characteristics											
Mechanical operation		50times insertions and extractions.				1) Contact resistance: 10mΩ 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 1μs. 2) No damage, crack or looseness of parts.				X	—
Shock		490 m/s ² duration of pulse 11 ms at 3 times for 3 directions.				1) No electrical discontinuity of 1μs. 2) No damage, crack or looseness of parts.				X	—
Environmental characteristics											
Rapid change of temperature		Temperature -55→ 5 to 35→+85→ 5 TO 35 °C Time 30→ 5 MAX → 30→ 5 MAX min Under 5 cycles.				1) Contact resistance: 10mΩ MAX. 2) Insulation resistance: 1000MΩ 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: 10mΩ MAX. 2) Insulation resistance: 500MΩ MIN. 3) No damage, crack or looseness of parts.				X	—
Resistance to soldering heat		1) Solder bath method Solder temperature : 260°C for Immersion, duration: 10 sec. 2) Manual soldering Soldering iron temperature : 350°C Soldering time: 3 sec. No strength on contact.				No deformation of case of excessive looseness of the terminals.				X	—
Solderability		Soldered at solder temperature, 245°C for insertion duration, 5sec.				Solder shall cover a minimum of 95 % of the surface being immersed.				X	—
Remarks											
Note1: Including the temperature rising by current.											
Note2: No condensing.											
Note3: Apply to the condition of long term storage for unused products before mounted on PCB. After mounted on PCB, operation temperature and humidity range is applied for interim storage during transportation.											
Note4: Indicates the current that corresponds to the RTI value (temperature at which performance is halved) of the resin when the ambient temperature is 25°C.											
	Count	Description of revisions				Designed		Checked		Date	
											
Unless otherwise specified, refer to IEC 60512.						Approved	HS. OKAWA		20200310		
						Checked	SZ. ONO		20200310		
						Designed	SN. MIWA		20200310		
						Drawn	DS. HIROWATARI		20200306		
Note QT:Qualification Test AT:Assurance Test X:Applicable Test						Drawing no.		ELC-302132-53-00			
	Specification sheet					Part no.		DF22L-*P-7. 92DSA (53)			
	HIROSE ELECTRIC CO., LTD.					Code no.		CL680			1/1