APPLICABLE STANDARD		TÜV approved(J 50240903), UL approved(E52653)		
RATING	Operating Temperature Range	-25℃ TO +105℃ (1)	Storage Temperature Range	-10℃ TO +60℃
	Voltage △2	AC, DC 600 V (UL, TÜV) AC, DC 1000 V	—	—
	Current △2	130 A (UL, TÜV) (6) 160 A (Ambient Temperature 25℃)	Applicable Cable	38 (26.66 TO 42.42) mm² △2 AWG #2 Outer diameter : Φ11 TO 12.4

SPECIFICATIONS

ITEM	TEST METHOD	REQUIREMENTS	QT	AT
CONSTRUCTION				
General Examination	Examined visually and with a measuring instrument.	According to the drawing.	X	X
Marking	Confirmed visually.		X	X
ELECTRICAL CHARACTERISTICS				
Contact Resistance	Measured at 1 A DC.	0.5 mΩ MAX.	X	X
Insuration Resistance	Measured at 500 V DC.	1000 MΩ MIN.	X	X
Voltage Proof	3310 V AC applied for 1 min. Current leakage 2 mA MAX.	No flashover or breakdown.	X	X
MECHANICAL CHARACTERISTICS				
Mating and Unmating Forces	Measured with an applicable connector without locking device.	Mating and unmating force : 100 N MAX. (Initial measurement)	X	—
Contact Retention Forces	Subjected to a tensile force of 150N MAX.	No damage.	X	—
Mechanical Operation	Mated and unmated 30 times.	① No damage, cracks or looseness of parts. ② Contact resistance : 1 mΩ MAX. ③ Mating and unmating force : 150 N MAX.	X	—
Vibration	Frequency : 10 Hz to 55 Hz, Single amplitude : 0.75 mm, Acceleration : 98 m/s² Performed over 10 cycles in each of three mutually perpendicular directions.	① No electrical discontinuity of more than 10 μs. ②No damage, cracks or looseness of parts.	X	—
Shock	Acceleration : 490 m/s² Half sine wave pulses of 11 ms. Performed 3 times in each of 6 mutually perpendicular directions.		X	—
ENVIRONMENTAL CHARACTERISTICS				
Rapid Change of Temperature	Tenperature : -55→ R/T(2) → +105 → R/T ℃ Time : 30 → 2 TO 3 → 30 → 2 TO 3 min for 5 cycles.	① Insuration resistance : 1000 MΩ MIN. ② No damage, cracks or looseness of parts.	X	—
Damp Heat (Steady State)	Subjected to +40 ℃, at a humidity of 90% TO 95% for 96 h.	① Insuration resistance : 10 MΩ MIN. (At high humidity) ② Insuration resistance : 100 MΩ MIN. (When dry) ③ No damage, cracks or looseness of parts.	X	—
Corrosion Salt Mist	Subjected to 5% salt spray for 48 h.	No heavy corrosion which impairs functionality.	X	—
Dry Heat	Subjected to +105℃ for 96 h.	No damage, cracks or looseness of parts.	X	—
Cold	Subjected to -55℃ for 96 h.	No damage, cracks or looseness of parts.	X	—

	COUNT	DESCRIPTION OF REVISIONS	DESIGNED	CHECKED	DATE
△2	5	DIS-C-00001410	TH.KAMEYA	HY.KOBAYASHI	17.01.30

Notes △2

1) Operating temperature range includes the temperature rise by current Carrying.
2) R/T :Room temperature
3) Above specifications shows the values in assembled condition with Applicable crimp contacts.
4) This product is designed to be used under stationary conditions. Please avoid applications that vibration is applied.

Unless otherwise specified, refer to IEC 60512.

APPROVED	EJ.KUNII	15.10.05
CHECKED	EJ.KUNII	15.10.05
DESIGNED	TP.KOMATSU	15.10.05
DRAWN	SY.KONDO	15.10.05

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

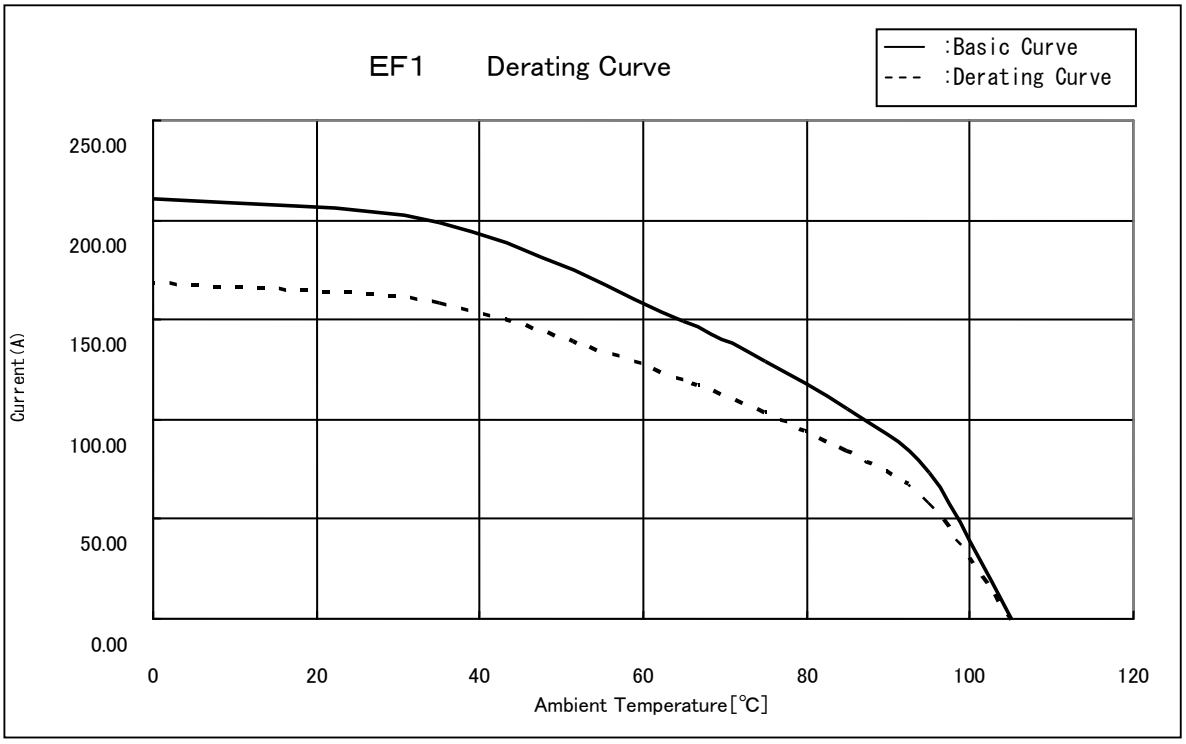
DRAWING NO. ELC-117802-21-00

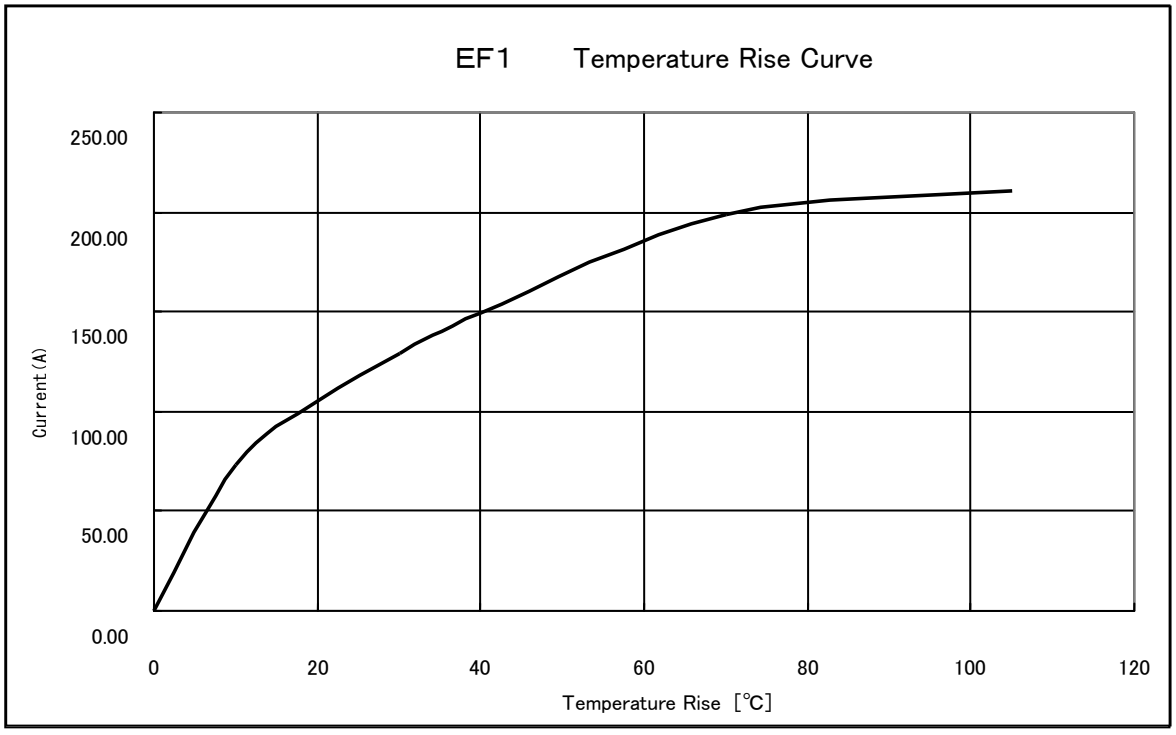
HRS	SPECIFICATION SHEET	PART NO.	EF1-38R-1SCA(21)	
	HIROSE ELECTRIC CO., LTD.	CODE NO.	CL142-0001-3-21 △2	1/2

FORM HD0011-2-1

[Reference]

△2





5) The derating curve is derived from the basic curve multiplied by the derating factor of 0.8.
6) The value of rated current varies with the ambient temperature. It is recommended to use the product within the derating curve zone.
When using a UL or TÜV approved product, please use the product within the specified range as well as the derating curve area.
7) The measurement method of the derating curve is shown below.
• Test specimen: This product, unused prior to testing.
• Test cable conductor cross sectional area: AWG #2 (38mm^2)
• Test condition: Power supplied while the specimen is in a stationary state and then measured.

Note QT:Qualification Test AT:Assurance Test X:Applicable Test		DRAWING NO.	ELC-117802-21-00		
HRS	SPECIFICATION SHEET	PART NO.	EF1-38R-1SCA(21)		
	HIROSE ELECTRIC CO., LTD.	CODE NO.	CL142-0001-3-21	△2	2/2

FORM HD0011-2-2