APPLICABLE STANDARD		TÜV approved(R 50362678) 1 UL approved (E52653) 2		
RATING	OPERATING TEMPERATURE RANGE	−20 °C TO +90 °C (Including temperature rise due to conduction)	STORAGE TEMPERATURE RANGE	−10 °C TO +60 °C
	VOLTAGE 2	1 AC 600 V , DC 750 V(TÜV、UL) AC,DC 1,000V	———	———
	CURRENT	1 1	Applicable Cable	1 1

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	MEASURED AT THE CONTACT AT DC 1A.	0.5mΩ MAX.	X	X
INSULATION RESISTANCE	MEASURED AT DC 500V.	1000MΩ MIN.	X	X
VOLTAGE PROOF	AC 2200V APPLIED FOR 1min.	NO FLASHOVER OR BREAKDOWN.	X	X
MECHANICAL CHARACTERISTICS				
CONNECTOR INSERTION AND WITHDRAWAL FORCES	MEASURED WITH AN APPLICABLE CONNECTOR WITHOUT A LOCKING DEVICE.	INSERTION AND WITHDRAWAL FORCES: 200N MAX.	X	—
TERMINAL RETENTION FORCE	280N APPLIED AT THE CONNECTION	NO DAMAGE	X	—
MECHANICAL OPERATION	INSERETED AND EXTRACTED 50 TIMES.	1) NO FUNCTION IMPAIRING DAMAGE, CRACKS, OR LOOSENESS IN THE PARTS. 2) CONTACT RESISTANCE: 1 mΩ MAX.	X	—
VIBRATION	FREQUENCY RANGE: 10 TO 500Hz/CYCLE,SINGLE AMPLITUDE OF 0.75mm, FOR 3 HOURS IN 3 AXIAL DIRECTIONS (MIL-STD-1344 method 2005, condition 2).	1) NO ELECTRICAL DISCONUITY OF 10μs. 2) NO DAMAGE, CRACKS, OR LOOSENESS IN THE PARTS.	X	—
SHOCK	IN 6 AXIAL DIRECTIONS AT AN ACCELERATION OF 490 m/s^2, A PULSE DURATION OF 11ms AND PERFORMED 3 TIMES.	1) NO ELECTRICAL DISCONUITY OF 10μs. 2) NO DAMAGE, CRACKS, OR LOOSENESS IN THE PARTS.	X	—
ENVIRONMENTAL CHARACTERISTICS				
DAMP HEAT (STEADY STATE)	TEMPERATURE: 40°C, HUMIDITY 90 TO 95%, LEFT FOR 96 HOURS.	1) INSULATION RESISTANCE: 10MΩ MIN (WHEN WET). 2) INSULATION RESISTANCE: 100MΩ MIN (WHEN DRY). 3) NO DAMAGE, CRACKS, OR LOOSENESS IN THE PARTS.	X	—
TEMPERATURE CYCLE	TEMPERATURE : −40°C → R/T(3) → +105°C → R/T TIME : 30 → 2 TO 3 → 30 → 2 TO 3 min TESTED OVER 5 CYCLES.	1) INSULATION RESISTANCE: 1000MΩ MIN. 2) NO DAMAGE, CRACKS, OR LOOSENESS IN THE PARTS.	X	—
RESISTANCE TO HEAT	EXPOSED AT A TEMPERATURE OF +105°C FOR 96 HOURS.	NO DAMAGE, CRACKS, OR LOOSENESS IN THE PARTS.	X	—
RESISTANCE TO COLD	EXPOSED AT A TEMPERATURE OF −40°C FOR 96 HOURS.	NO DAMAGE, CRACKS, OR LOOSENESS IN THE PARTS.	X	—
SEALING(2)	CONNECTED TO AN APPLICABLE CONTACT AT A WATER DEPTH OF 1m FOR 30 MINUTES.	NO WATER PENETRATION INSIDE THE CONNECTOR.	X	—
AIR TIGHTNESS(2)	CONNECTED TO AN APPLICABLE CONTACT, 17.6kPa OF AIR PRESSURE WAS APPLIED FOR 30 SECONDS.	NO AIR BUBBLES EMITTED FROM THE CONNECTOR.	X	—
CORROSION SALT MIST 3	CONCENTRATION 5% SALT WATER, LEFT FOR 48 HOURS.	NO FUNCTION IMPAIRING CORROSION.	X	—

	COUNT	DESCRIPTION OF REVISIONS	DESIGNED	CHECKED	DATE
B	5	DIS-C-00002977	WR. AJIRO	TP. KOMATSU	20190305

REMARKS

Notes: (1) Above specifications show the values in assembled condition with applicable crimp contacts.

3 (2) Sealing and air tightness were tested under mated condition with an applicable connector, and SANKEI CO.,LTD KEIGLAND E2KD 2836 ,E2KD 3236 or E2KD 3636 installed.

(3) R/T = room temperature

For unspecified specifications, refer to IEC 60512 (JIS C 5402).

APPROVED	SU. OBARA	20151217
CHECKED	YH. YAMADA	20151217
DESIGNED	YS. SAKODA	20151217
DRAWN	THOMAS FORAN	20151217

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

DRAWING NO. ELC-118665-00-00

HRS	SPECIFICATION SHEET	PART NO.	EM52M-WBR-4SCA	
	HIROSE ELECTRIC CO., LTD.	CODE NO.	CL138-0036-9-00	B 1/3

FORM HD0011-2-1

1 Current Rating and Applicable Cable (1)

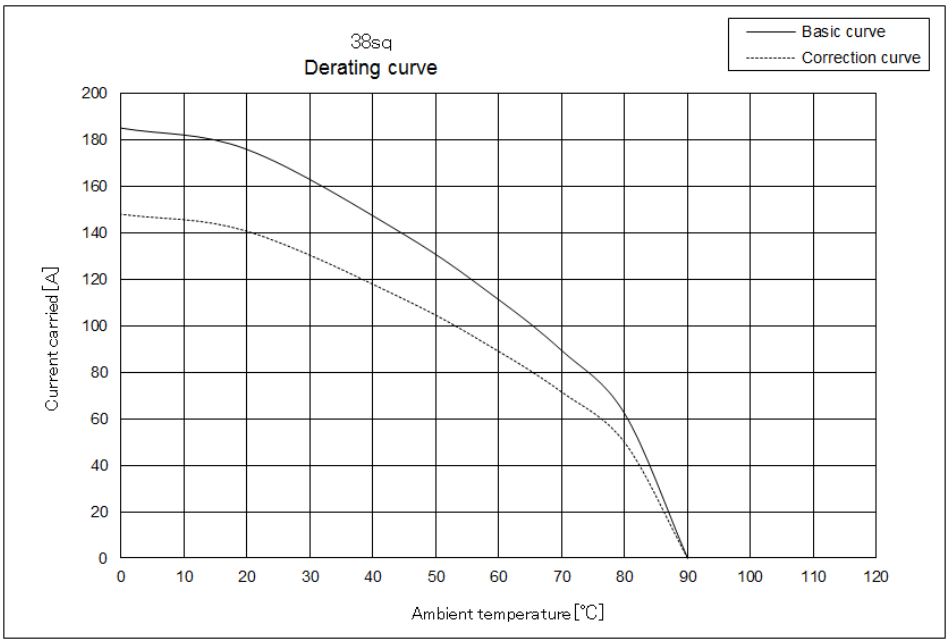
Table 1 shows the current rating and applicate cable.

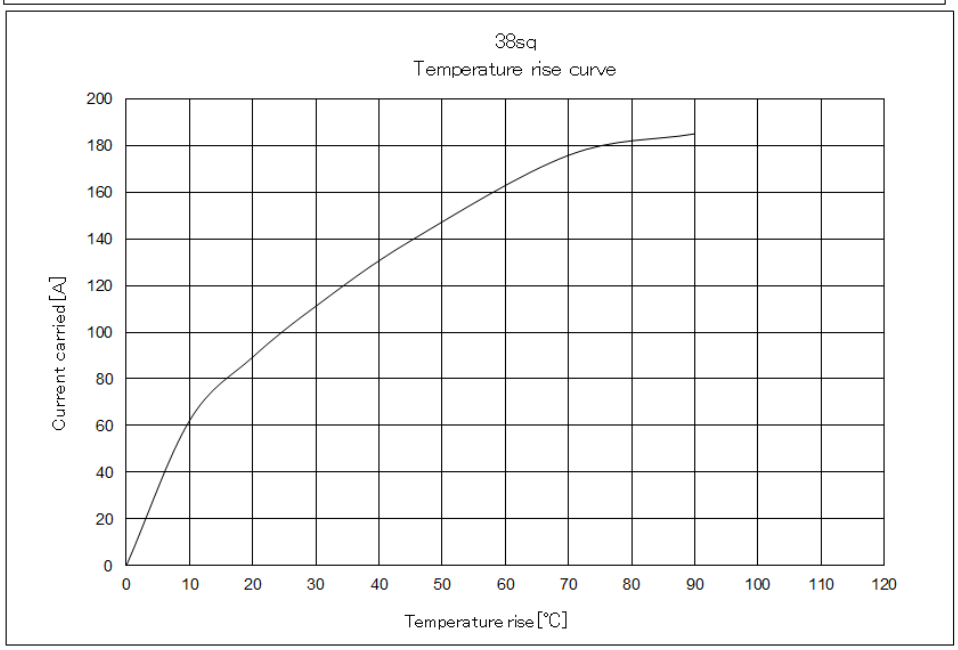
Table 1. Current Rating And Applicable Cable

Current (7)	100A (TÜV、UL), (2) 130A(Ambient Temperature 25℃)	80A (TÜV、UL), (2)
Applicable Cable	38(26.66 to 42.42)mm^2 (3) AWG 2	22(16.78 to 26.66)mm^2 AWG 4

Current rating depends on ambient temperature. Please refer to the derating curve shown below.

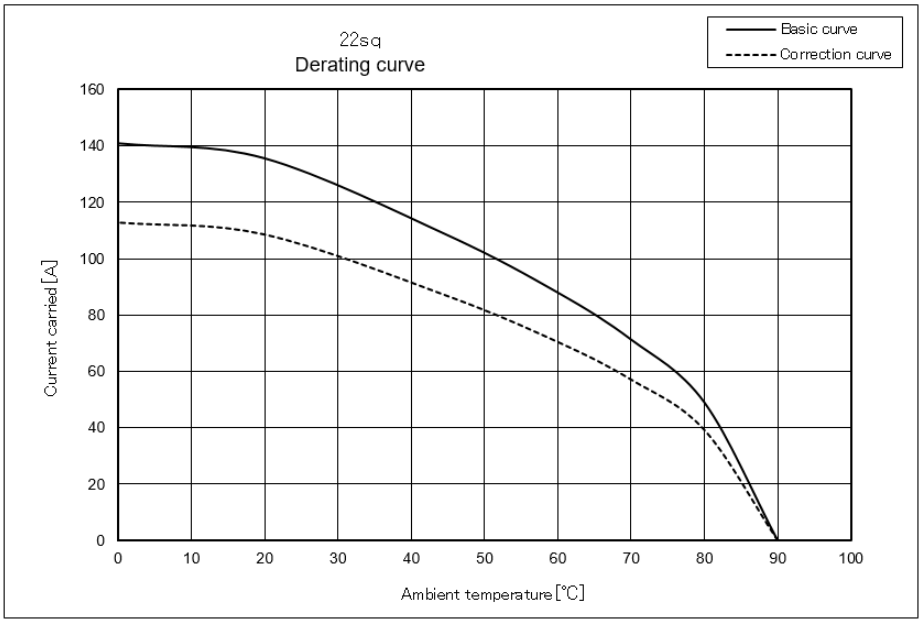
[Reference] Derating Curve assembled with 38 mm²(AWG2) cable. (1)

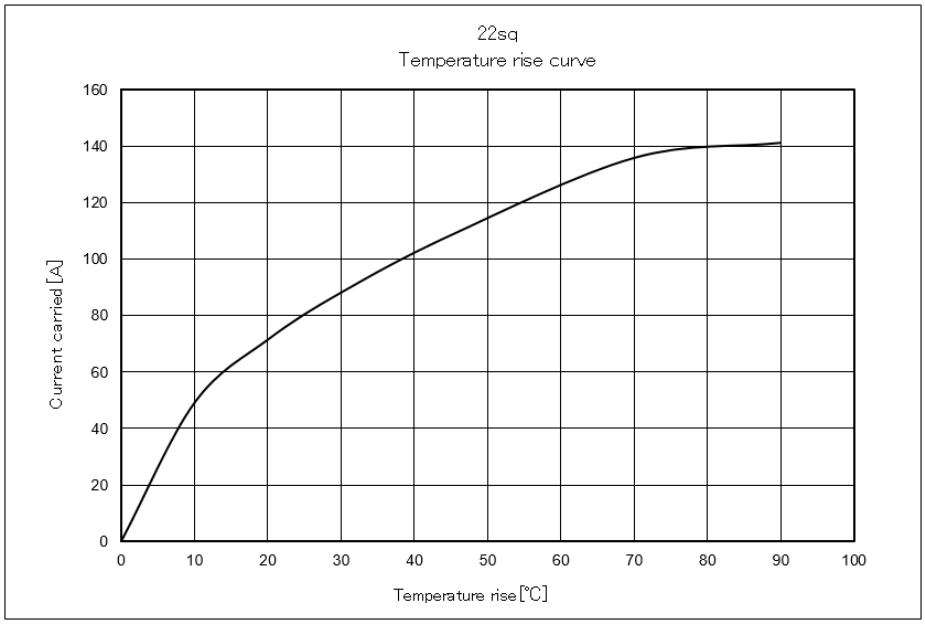




Note QT:Qualification Test AT:Assurance Test X:Applicable Test		DRAWING NO.	ELC-118665-00-00	
HRS	SPECIFICATION SHEET	PART NO.	EM52M-WBR-4SCA	
	HIROSE ELECTRIC CO., LTD.	CODE NO.	CL138-0036-9-00 (1)	2/3

△3 [Reference] Derating Curve assembled with 22 mm²(AWG4) cable.





4) The correction curve is derived from the basic curve multiplied by the derating factor of 0.8.
5) The value of rated current varies with the ambient temperature. It is recommended to use the product within the correction curve zone. When using a UL or TÜV approved product, please use the product within the specified range as well as the correction curve area.
6) The measurement method of the derating curve is shown below.
   •Test specimen: This product, unused prior to testing.
   •Test condition: Power supplied while the specimen is in a stationary state and then measured.
△3 •Measure by energizing 3 contacts excluding No.4 contact.

Note QT:Qualification Test AT:Assurance Test X:Applicable Test	DRAWING NO.	ELC-118665-00-00		
HRS SPECIFICATION SHEET	PART NO.	EM52M-WBR-4SCA		
HIROSE ELECTRIC CO., LTD.	CODE NO.	CL138-0036-9-00	△3	3/3