

APPLICABLE STANDARD					
RATING	OPERATING TEMPERATURE RANGE	-25°C TO +105°C (1)	STORAGE TEMPERATURE RANGE	-10°C TO +60°C	
	VOLTAGE	AC 600 V, DC 600 V	—	—	
	CURRENT	90A (WITH 22mm ² CABLE)	APPLICABLE CABLE	—	
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	CONTACT SHALL BE MEASURED AT DC 1A.		0.5 mΩ MAX	X	X
INSULATION RESISTANCE	500 V DC.		1000 MΩ MIN.	X	X
VOLTAGE PROOF	3310 V AC. FOR 1 min.		NO FLASHOVER OR BREAKDOWN.	X	X
MECHANICAL CHARACTERISTICS					
CONTACT INSERTION AND WITHDRAWAL FORCES	φ7.98 ⁺⁰ _{-0.003} BY STEEL AUGER.		INSERTION AND WITHDRAWAL FORCES : 1.7 N MIN.	—	—
CONNECTOR INSERTION AND WITHDRAWAL FORCES	MEASURED BY APPLICABLE CONNECTOR. WITHOUT LOCKING DEVICE.		INSERTION AND WITHDRAWAL FORCES : 70 N MAX. (INITIAL MEASUREMENTS)	X	—
MECHANICAL OPERATION	30 TIMES INSERTIONS AND EXTRACTIONS.		① NO DAMAGE, CRACK AND LOOSENESS OF PARTS. ② CONTACT RESISTANCE : 1 mΩ MAX ③ INSERTION AND WITHDRAWAL FORCES : 100 N MAX.	X	—
VIBRATION	FREQUENCY: 10 → 55 → 10 (Hz) (1CYC, 5min), SINGLE AMPLITUDE 0.75 mm, AT 10 CYC, FOR 3 DIRECTIONS.		① NO ELECTRICAL DISCONTINUITY OF 10 μs. ② NO DAMAGE, CRACK AND LOOSENESS, OF PARTS.	X	—
SHOCK	IN OPPOSITE DIRECTIONS OF EACH 3 DEMENSION AXIS FOR 3 TIMES AT 490 m/s ² DURATIONS OF PULSE 11 ms.		① NO ELECTRICAL DISCONTINUITY OF 10 μs. ② NO DAMAGE, CRACK AND LOOSENESS, OF PARTS.	X	—
ENVIRONMENTAL CHARACTERISTICS					
DAMP HEAT (STEADY STATE)	EXPOSED AT 40 °C, 90 TO 95 %, 96 h.		① INSULATION RESISTANCE: 10 MΩ MIN (AT HIGH HUMIDITY). ② INSULATION RESISTANCE: 100 MΩ MIN (AT DRY). ③ NO DAMAGE, CRACK AND LOOSENESS OF PARTS.	X	—
RAPID CHANGE OF TEMPERATURE	TEMPERATURE -55→ R/T ⁽²⁾ → +105 → R/T °C TIME 30 → 2 TO 3 → 30 → 2 TO 3 min UNDER 5 CYCLES.		① INSULATION RESISTANCE: 1000 MΩ MIN. ② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.	X	—
CORROSION SALT MIST	EXPOSED IN 5 % SALT WATER SPRAY FOR 48 h.		NO HEAVY CORROSION RUIN THE FUNCTION.	X	—
DRY HEAT	EXPOSED AT +105°C, 96 h.		NO DAMAGE, CRACK AND LOOSENESS OF PARTS.	X	—
COLD	EXPOSED AT -55°C, 96 h.		NO DAMAGE, CRACK AND LOOSENESS OF PARTS.	X	—
	COUNT	DESCRIPTION OF REVISIONS	DESIGNED	CHECKED	DATE
REMARK			APPROVED	SU. OBARA	14. 02. 04
NOTES(1) OPERATING TEMPERATURE RANGE INCLUDES THE TEMPERATURE RISE BY CURRENT CARRYING.			CHECKED	HY. KOBAYASHI	14. 02. 04
(2) R/T : ROOM TEMPERATURE.			DESIGNED	HS. KAWASHIMA	14. 02. 04
(3) ABOVE SPECIFICATIONS SHOWS THE VALUES IN ASSEMBLED CONDITION WITH APPLICABLE CRIMP CONTACTS.					
(4) THIS CONNECTOR IS DESIGNED TO BE USED UNDER STATIONARY CONDITIONS. PLEASE AVOID APPLICATIONS THAT VIBRATION IS APPLIED.			DRAWN	HS. KAWASHIMA	14. 02. 04
Unless otherwise specified, refer to JIS C 5402(IEC 60512).					
Note QT:Qualification Test AT:Assurance Test X:Applicable Test			DRAWING NO.	ELC4-118306-00	
	SPECIFICATION SHEET		PART NO.	EM12MR-1SCB	
	HIROSE ELECTRIC CO., LTD.		CODE NO.	CL138-0032-8-00	1/1

