Temperature Powerful Sensor

MATSUO ELECTRIC CO., LTD. TOKYO, JAPAN

Agent:

TEMPERATURE DATA SHEET

User:

Application: Heater control for freeze protection of radiator in PE type of fuel cell

Date: 6th.April 2012 Model: M3 5X(bar)C Lot No.: 521349

	Operating temperature Characteristics (℃)			Insulation resistance (MΩ)	Withstanding voltage	Outside appearance	Contact resistance	Remarks Max. load: AC120V/5A AC250V/3A
Thermostat No.	ON 5±3℃	OFF	DIFF. 5—8	DC500V Mega 100 MΩ or higher	Withstanding under the condition	no scratch & crack	DC6V/1A 70mΩ or less	
1	4.9	10.6	5.7	100 MΩ or higher	withstand	nothing found	28mΩ	Q'ty: 10 pieces among of 100
2	5.4	11.4	6.0	100 MΩ or higher	withstand	nothing found	29mΩ	
3	5.0	10.7	5.7	100 MΩ or higher	withstand	nothing found	27mΩ	
4	5.5	12.0	6.5	100 MΩ or higher	withstand	nothing found	28mΩ	
5	5.3	11.7	6.4	100 MΩ or higher	withstand	nothing found	28mΩ	
6	5.4	10.9	5.5	100 MΩ or higher	withstand	nothing found	29mΩ	
7	5.0	11.1	6.1	100 MΩ or higher	withstand	nothing found	28mΩ	
8	4.9	11.8	6.9	100 MΩ or higher	withstand	nothing found	27mΩ	
9	5.1	11.1	6.0	100 MΩ or higher	withstand	nothing found	28mΩ	
10	5.4	11.6	6.2	100 MΩ or higher	withstand	nothing found	29mΩ	
Measurement condition, others	Average ON: 5.2℃ Average OFF: 11.3℃ Average Diff.: 6.1℃ Repeatability: ±0.2℃ Temperature chamber for data Collection: Thermal gradient: 1℃/3min. Wind circulation: 1 to1.5m/sec.			Between case and lead wire 100 MΩ or more	Between contacts AC2000V for 2 sec AC600V for 1 min.	Visual checking	Including resistance of lead wire	

The thermostat #1 switches ON a heater at 4.9℃ on temperature fall, and switches OFF a heater at 10.6℃ on temperature rise. This thermostat #1 always ON the heater at 4.9℃ on fall, and always OFF at 10.6℃On rise within tolerance ±0.2K.

Differential 5.7K is the proper value of this thermostat #1 and it does not fluctuate.