DEIF A/S

Type Certificate

4124010050D

Type:	**Insulation Monitor SIM-Q, SIM-Q LF.**

Technical specifications		
	Measuring Circuit:	
*	DC resistance (R)	300 kΩ ±1%
	AC impedance (Z)	251 kΩ ±1%
	Measuring voltage:	±28 V DC ±5%
	Mains voltage:	Max. 690V AC +20% continuously Max. 1000V DC continuously Max. 50uF leakage capacitor or max. 500uF leakage capacitor. In SIM-Q LF version only 500uF capacitor.
	Frequency working range	SIM-Q 20…500Hz, SIM-Q LF 5…500Hz.
	Instrument:	
	Measuring range:	1 MΩ / 10 MΩ
*	Accuracy:	±5% of scale length at 1 MΩ ±2% of scale length at 10 MΩ
	Temperature drift:	Max. 0,5% of scale length per 10 °C
	Aux. supply influence:	Max. 0,2% of scale length at U_s +20…-15% Max. 0,5% of scale centre at U_s -15…-20%
	Aux. Supply:	Voltage: 100-110-127VAC or 220-230-240V AC or 400-450-480V AC ±20% 40…70Hz, (≤4VA) or 24V DC, ±25% ≤4W
	Response time:	Depends on the actual insulation level and the leakage capacitance.
*	Visual indication:	Green LED: supervision, Red LED: Fault
	Relay output:	
	Set point:	0…1000kΩ at 22kΩ scale centre. 0…10000KΩ at 220kΩ scale centre.
	Reproduceability:	±1% of scale length for potentiometer.
	Hysteresis:	±1% of scale length for potentiometer.
	Temperature drift:	Max. 0,2% of scale length for potentiometer per 10 °C
	Voltage drift:	Max. 0,2% of scale length for potentiometer at U_s ±20%
	Relay output type:	Change over contact.
	Contact ratings:	AC1: 8A, 250V AC. AC15: 3A, 250V AC DC1: 8A, 24V AC. DC13: 3A, 24V AC
	Relay coupling:	Normally energized (NE) or normally de-energized (ND)

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Type test specifications		*Tested according to:*
Insulation:	>100MΩ, tested at 500V DC	IACS UR E10
Vibration:	3…13.2Hz: 3mm$_{pp}$ 13.2…100Hz: 1g	IACS UR E10
Shock:	6 impacts of 50g, 11msec. half sine Tested in all 3 axes.	IEC 60068-2-27, test Ea
Climate:	Up to 70°C, 95% RH	IEC 60068-2-2, IACS UR E10
Protection:	Case: IP52 Terminals: IP20	IEC/EN 60529
Temperature:	-10….55 °C (nominal) -25….60°C (operating) -25….65°C (storage)	IACS UR E10.
Safety:	Galvanic separation. Measure input:3.250V AC Aux./Supply input: 3.250V AC Relay output: 2.200V AC.	EN 61010-1
Materials:	All plastic parts are self-extinguishing to UL94 (V0)	
EMC:		EN 61000-6-1/2/3/4 IACS UR E10 power distr. zone

*) Tested on all units according to specifications. Remaining specifications are tested regularly by test sampling.

15th July 2011
DEIF A/S

Martin S. Mallan
Type Test Manager

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