

COMM ELEC - ES1000A

Automatic switching system of electrical supply sources, with IT system monitoring

GENERAL INFORMATION

The **automatic power supply source switching system**, incorporates load separation switch and IT system monitoring, for medical use, in group 2 areas.

Includes mechanical lock and manual operation in the same equipment.

Fast switching less than 180ms.

Optional by-pass.



ALARM MONITORING

- 1 SAI discharge input
- 2 Ground wire connection failure
- 3 Insulation leak
- 4 Temperature in the isolation transformer
- 5 Isolation transformer overcurrent
- 6 Network communication failure

REFERENCES

REFERENCE	CURRENT	POLES	VOLTAGE
COMM ELEC230 63A ES1000A	63A	II	230Vca
COMM ELEC230 80A ES1000A	80A	IV	230/400Vca
ELEC400 63A ES1000A	63A	II	230Vca
ELEC400 80A ES1000A	80A	IV	230/400Vca

ACCESSORIES

Temperature sensor	PT 340
Bypass 63A	COMM ELEC 63A ByPass
Bypass 80A	COMM ELEC 80A ByPass

COMPATIBLE EQUIPMENT

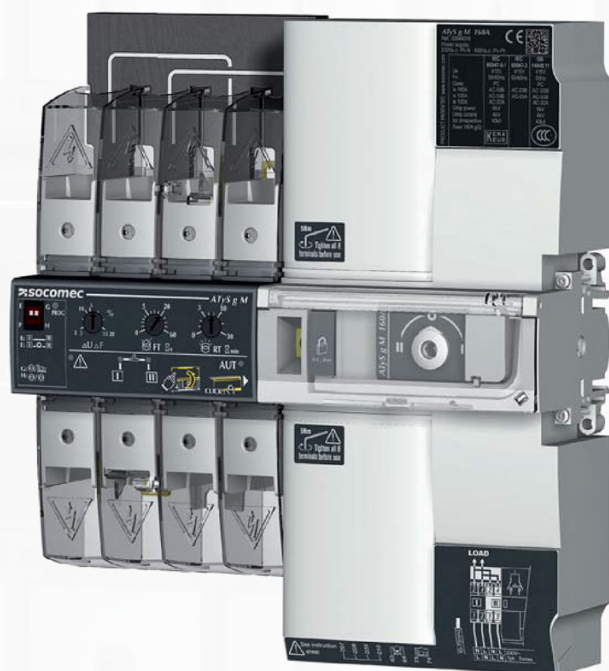
Alarm repeater	TDS 149-2
Multi repeater	MRP 249-2A
Line insulation failure locator	ES 448
Current injector	ES 449

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TECHNICAL DATA

		63A	80A
Frequencies		50/60Hz	50/60Hz
Thermal current I_{th} at 40°C (A)		63	80
Thermal current I_{th} at 50°C (A)		63	80
Thermal current I_{th} at 60°C (A)		50	63
Thermal current I_{th} at 70°C (A)		40	50
Rated assigned insulation voltage U_i (V)		800	800
Power circuit			
Rated impulse withstand voltage U_{imp} (kV)		6	6
Control circuit			
Rated insulation voltage U_i (V)		300	300
Rated impulse withstand voltage U_{imp} (kV)		2.5	2.5
Rated operational currents (A)	AC 21A / 21B	63/63	80/80
IEC 60947-3 at 415VAC at 40°C	AC 22A / 22B	63/63	80/80
	AC 23A / 23B	63/63	80/80
Rated operational currents (A)	AC 33B / 32B	63/63	80/80
IEC 60947-6-1 at 415VAC at 40°C			
Fuse protected short-circuit withstand if using gG DIN fuses	Fuse protected short-circuit withstand (kA eff)	50	50
	Associated fuses (gG DIN)	63	80
Short-circuit capacity	Rated short-term withstand current: I_{cw} Is (kA eff)	4	4
	Rated short-term withstand current: I_{cw} 30ms (kA eff)	10	10
Switching time at I_n excluding loss of supply sensing time and excluding any delay terms applicable	I-II o II-I (ms)	180	180
	Duration of electrical blackout at U_n (ms)	90	90
	I-O / O-I / II-O / O-II (ms)	45	45
Consumption	Inrush current (A)	20	20
	Consumption in established state (VA)	6	6
Mechanical characteristics	Number of changeovers	10000	10000
Connection cross-section (not compatible with aluminium cables)	Minimum size (Cu mm ²) Flexible and rigid	10	10
	Maximum size (Cu mm ²) Flexible and rigid	70	70
Equipment class according IEC 60947-6-1		PC	PC
EMC environment		A	A



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Insulation monitor in IT systems



TECHNICAL DATA

Supply voltage	AC 84...264V~
Nominal frequency	47-63 Hz
Consumption	≤5W

INSULATION MEASUREMENT

Insulation failure detector	AC/DC
Response Value (Ran)	50K-500K (adjustable)
Relative error percentage	≤5%
Response time <i>Rf = 25K, Cc = 0.5uF</i>	≤5 Seg
Measurement voltage (Um)	±12Vdc
Measurement Current (Im)	≤45uA
Internal resistance	≥250KΩ
50Hz impedance	≥200KΩ
Continuous voltage allowed (Ufg)	±300Vdc
Network capacity allowed	≤4uF

TEMPERATURE MONITORING

Response Value	1-150°C
Relative error percentage	≤5%
Response time	≤2 Seg

COMMUNICATION

Communication with multi-repeater ES 149-2	1 RS485 output
Communication with multi-repeater MRP 249-2A	1 RS485 output
General Alarm	1 switched relay output

REGULATIONS

EN 61508
IEC 60947-3
IEC 60947-6-1
EN 61557-8: 2015
EN 61557-1: 2007
IEC 60364-7-710

