IRDH275-435

Insulation Monitoring Device

Engineering reference for system fit, interface boundaries and exact-model technical decisions.

01 System position

Installed role

Insulation Monitoring Device

Host platform

Bender IRDH275 unearthed AC and DC power systems

Evidence source

Bender IRDH275 operating manual D00122

Identity boundary

Use the complete marking and explicitly documented family relationships only.

02 Functional path

Field / companion side	Installed sensor, load, network, terminal or actuator
Exact product role	IRDH275-435 - Insulation Monitoring Device
Host-system side	Bender IRDH275 unearthed AC and DC power systems
Decision output	Verified interface, configuration and acceptance boundary

03 Selection-critical relationships

Nominal system voltage, AC	Design the connected circuit around 0 to 793 V; verify at the installed terminals.
Nominal system voltage, DC	Design the connected circuit around 0 to 650 V; verify at the installed terminals.
Supply voltage, AC	Design the connected circuit around 88 to 264 V; verify at the installed terminals.
Supply voltage, DC	Design the connected circuit around 77 to 286 V; verify at the installed terminals.
Power consumption	Design the connected circuit around 14 VA maximum; verify at the installed terminals.
Response-value range	Use 1 kohm to 10 Mohm only within the documented response-value range boundary.

04 Engineering data map

Electrical / signal domain

Nominal system voltage, AC	0 to 793 V
Nominal system voltage, DC	0 to 650 V
Supply voltage, AC	88 to 264 V
Supply voltage, DC	77 to 286 V
Power consumption	14 VA maximum

Interface / processing domain

Response-value range	1 kohm to 10 Mohm
Measuring voltage	50 V maximum
Measuring current	280 uA maximum
System leakage capacitance	500 uF maximum
Alarm relays	2 changeover contacts

Environmental / configuration domain

Interface	RS-485
Device protection	IP30
Terminal protection	IP20
Operating temperature	-10 to +55 deg C

05 Diagnostic interpretation matrix

Observed issue involving Nominal system voltage, AC	Compare the installed condition with 0 to 793 V; isolate field, interface and configuration causes before replacing hardware.

Observed issue involving Nominal system voltage, DC	Compare the installed condition with 0 to 650 V; isolate field, interface and configuration causes before replacing hardware.
Observed issue involving Supply voltage, AC	Compare the installed condition with 88 to 264 V; isolate field, interface and configuration causes before replacing hardware.
Observed issue involving Supply voltage, DC	Compare the installed condition with 77 to 286 V; isolate field, interface and configuration causes before replacing hardware.
Observed issue involving Power consumption	Compare the installed condition with 14 VA maximum; isolate field, interface and configuration causes before replacing hardware.
Observed issue involving Response-value range	Compare the installed condition with 1 kohm to 10 Mohm; isolate field, interface and configuration causes before replacing hardware.
Observed issue involving Measuring voltage	Compare the installed condition with 50 V maximum; isolate field, interface and configuration causes before replacing hardware.
Observed issue involving Measuring current	Compare the installed condition with 280 uA maximum; isolate field, interface and configuration causes before replacing hardware.
Observed issue involving System leakage capacitance	Compare the installed condition with 500 uF maximum; isolate field, interface and configuration causes before replacing hardware.
Observed issue involving Alarm relays	Compare the installed condition with 2 changeover contacts; isolate field, interface and configuration causes before replacing hardware.
Observed issue involving Interface	Compare the installed condition with RS-485; isolate field, interface and configuration causes before replacing hardware.
Observed issue involving Device protection	Compare the installed condition with IP30; isolate field, interface and configuration causes before replacing hardware.
Observed issue involving Terminal protection	Compare the installed condition with IP20; isolate field, interface and configuration causes before replacing hardware.
Observed issue involving Operating temperature	Compare the installed condition with -10 to +55 deg C; isolate field, interface and configuration causes before replacing hardware.

06 Engineering evidence record

Complete marking	IRDH275-435 plus visible revision and label details
Installed relationship	Check the -435 suffix, supply execution, network terminals, protective-earth path, relay assignments and RS-485 wiring.
Companion boundary	Copy both response thresholds, delay, relay energization, fault memory and serial settings only after the network and coupling arrangement have been confirmed.
Configuration authority	Approved project backup, drawing or validated application record
Acceptance evidence	Recorded readings, diagnostic state and controlled functional result

07 Source and applicability ledger

Manufacturer reference	Bender IRDH275 operating manual D00122
Exact-model scope	IRDH275-435
System scope	Bender IRDH275 unearthed AC and DC power systems
Use limit	Family values apply only where the manufacturer relationship is explicit; verify the installed execution.

08 Separate verified listings

MTL 8103-AI-TX	Eight-Channel 4-20 mA Analog Input Module; separate listing, not an automatic substitute.
Emerson A6500-UM	Universal Two-Channel Machinery Measurement Card; separate listing, not an automatic substitute.
GE IC220PBI002	VersaPoint PROFIBUS-DP Network Interface Module; separate listing, not an automatic substitute.

Discuss system fit and exact marking with Apter Power.
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Quote the complete reference: IRDH275-435