
Relion[®] protection and control

Improved network reliability



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The Relion® product family offers a full range of native IEC 61850 products for the protection, control, measurement and supervision of power systems.

To ensure interoperable and future-proof solutions, the Relion series products have been designed to implement the core values of the IEC 61850 standard. Using these products, you benefit from ABB's leading-edge technology, global application knowledge and experienced support network.

The Relion technology is a forerunner in the field of protection and control in power systems. Our products are continuously improved to meet the market requirements and deeply rooted in our vast experience of developing successful protection and control relays.

The Relion products implement the core values of the IEC 61850 standard and operating with other equipment and systems that conform to this standard, they are capable of running multiple communication tasks, including horizontal GOOSE messaging. Communication also runs smoothly with other manufacturer's products, which comply with the IEC 61850 standard.

The Relion Interactive Selection Guide (ISG) helps you select the protection relay type that is the most suitable for your application. The Relion ISG is available at <http://abb.relionisg.com>



	Type	605 series	611 series	615 series	620 series
Applications					
Feeder protection and control	REF				
Motor protection and control	REM				
Transformer protection and control	RET				
Generator protection and control	REG				
Voltage protection and control	REU				
Line differential protection and control	RED				
Line distance protection	REL				
Bay control	REC				
Busbar protection	REB				
Phasor measurement	RES				
Self-powered feeder protection	REJ				
Capacitor bank protection and control	REV				
Breaker protection	REQ				
Railway protection	RER				
Key features					
Auxiliary source		Self-powered or auxiliary source (AC/DC)	Auxiliary source (AC/DC)	Auxiliary source (AC/DC)	Auxiliary source (AC/DC)
Analog input		Conventional or sensor	Conventional	Conventional or sensor	Conventional or sensor
Case type		Fixed	Withdrawable plug-in unit	Withdrawable plug-in unit	Withdrawable plug-in unit
Display			4-line display 8 programmable LEDs	4-line display (or option with 10 lines and customizable graphical display) 11 programmable LEDs (2 colors)	10-line display (or option with 11 programmable LEDs) (2 colors)
Control - Command			Open/close push button	Open/close push button	Open/close push button
Programming Interface		Display	Display PCM600 software configuration Web browser	Display PCM600 software configuration Web browser	Display PCM600 software configuration Web browser
Communication protocols		Modbus RTU	Modbus TCP/IP serial IEC 61850	Modbus TCP/IP serial IEC 61850 Profibus DPV1 adapter Ethernet redundancy PRP and HSR DNP3 TCP/IP serial IEC 60870-5-103 Process bus (IEC 61850-9-2 LE)	Modbus TCP/IP serial IEC 61850 Ethernet redundancy PRP and HSR DNP3 TCP/IP serial IEC 60870-5-103
Additional functionality				Arc fault protection (optional)	Arc fault protection (optional)
Additional input /output			Optional I/O card depending on product version RIO600	Optional I/O card depending on product version RIO600	Optional I/O card depending on product version RIO600

ABB also offers a range of complementary products to facilitate power system automation in substations.

RIO600 is a remote unit to extend the number of input/output ports on the relays (IEC 61850 communication protocol).



COM600 series devices perform the combined role of a user interface, a communication gateway and an automation platform in a single physical unit to facilitate substation operations and data management.



			RET650	RET670
				RET670

Auxiliary source (AC/DC)	Auxiliary source (AC/DC)	Auxiliary source (AC/DC)	Auxiliary source (AC/DC or DC only)	Auxiliary source (DC)
Conventional or sensor	Conventional	Conventional or sensor	Conventional	Conventional and/or sensor
Detachable plug-in unit	Detachable display	Optional display	3U or 6U depending on version	Different case sizes 6U
Display and customizable graphical display	Display 320 x 240 pixels and customizable graphical display	7-inch color touch screen	Display 320 x 240 pixels and customizable graphical display	Display 320x 240 pixels and customizable graphical display
Programmable LEDs	15 programmable LEDs (3 colors)		15 programmable LEDs (3 colors)	15 programmable LEDs (3 colors)
Open/close push button	Open/close push button	Open/close from touch screen	Open/close push button	Open/close push button
5 programmable buttons	5 programmable buttons		5 programmable buttons	5 programmable buttons
Software configuration	Display	Display	Display	Display
Web browser	PCM600 software configuration	PCM600 software configuration	PCM600 software configuration	PCM600 software configuration
TCP/IP/serial	IEC 61850	IEC 61850-8-1	IEC 61850	IEC 61850
Redundancy PRP and	DNP3 TCP/IP serial	Modbus TCP/IP and RTU	Ethernet redundancy PRP	Ethernet redundancy PRP
	IEC 60870-5-103	IEC 60870-5-103	DNP3 TCP/IP serial	DNP3 TCP/IP serial /SPA/LON
TCP/IP serial		DNP3 TCP/IP serial	IEC 60870-5-103	IEC 60870-5-103
IEC 60870-5-103		Ethernet redundancy PRP and HSR		IEC 61850-9-2 LE
		Process bus (IEC 61850-9-2LE)		
Protection (optional)		Arc fault protection (optional)		
		Petersen coil protection		
I/O card depending on version	Optional I/O cards depending on product version	Optional I/O card depending on product version	Optional I/O card depending on product version	Optional I/O card depending on product version
	RIO600			

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