

Protection Relays

SIPROTEC 7SJ80 & 7RW80



OVERCURRENT PROTECTION RELAY SIPROTEC 7SJ80 - OVERCURRENT PROTECTION RELAY

- Removable current and voltage terminals provide the ideal solution for fast and secure replacement of relays.
- Binary input thresholds and current taps are software settings. There is thus no need to ever open the relay to adapt the hardware configuration to a specific application.
- The relay provides 9 programmable function keys that can be used to replace push-buttons, select switches and control switches.
- The relay is available with IEC 61850 for incredible cost savings in applications (e.g. transfer schemes with synchcheck, bus interlocking and load shedding schemes) via RJ45 Connector.
- This compact relay provides protection, control, metering and PLC logic functionality. Secure and easy to use one page matrix IO programming is now a standard feature.



Description Protection function	Auxiliary Voltage Voltage range	Order No.	Unit Price (THB)
ANSI 50, 50N, 51, 51N, 50Ns, 64, 87N, 37, 49, 50BF, 46, 86, 3 BI/ 5 BO	24 / 48 VDC	7SJ8011-1EB90-3FA0-L0R	119,016.00
ANSI 50, 50N, 51, 51N, 50Ns, 64, 87N, 37, 49, 50BF, 46, 79, 86, 3 BI/ 5 BO	60 /110V/125V/220VDC 115V,230VAC	7SJ8011-5EB90-3FA0-L0R	119,016.00
ANSI 50, 50N, 51, 51N, 67, 67N, 67Ns, 50Ns, 64, 87N, 37, 49, 27/59, 81O/U, 50BF, 46, 47, 86, 3 BI/ 5 BO	24 / 48 VDC	7SJ8031-1EB90-3FC0-L0R	140,391.00
ANSI 50, 50N, 51, 51N, 67, 67N, 67Ns, 50Ns, 64, 87N, 37, 49, 27/59,81 O/U, 50BF, 46, 47, 86 3 BI/ 5 BO	60 /110V/125V/220VDC 115V,230VAC	7SJ8031-5EB90-3FC0-L0R	140,391.00
ANSI 50, 50N, 51, 51N, 67, 67N, 67Ns, 50Ns, 64, 87N, 37, 49, 27/59,81 O/U, 50 BF, 46, 47, 79(reclose), 86, 3 BI/ 5 BO	24 / 48 VDC	7SJ8031-1EB90-3FC1-L0R	157,776.00
ANSI 50, 50N, 51, 51N, 67, 67N, 67Ns, 50Ns, 64, 87N, 37, 49, 27/59, 81O/U, 50BF, 46, 47, 79(reclose), 86, 3 BI/ 5 BO	60 /110V/125V/220VDC 115V,230VAC	7SJ8031-5EB90-3FC1-L0R	157,776.00

* model with 7 Binary Inputs & 8 Binary Outputs are also available with additional cost.

VOLTAGE AND FREQUENCY PROTECTION RELAY SIPROTEC 7RW80 - VOLTAGE AND FREQUENCY PROTECTION RELAY

- Pluggable current and voltage terminals
- Binary input thresholds settable using DIGSI (3 stages)
- 9 programmable function keys
- 6-line display
- Buffer battery exchangeable from the front
- USB front port
- 2 additional communication ports
- Integrated switch for low-cost and redundant optical Ethernet rings
- Ethernet redundancy protocols RSTP, PRP and HSR for highest availability
- Relay-to-relay communication through Ethernet with IEC 61850 GOOSE via RJ45 Connector.
- Millisecond-accurate time synchronization through Ethernet with SNTP.



Description Protection function	Auxiliary Voltage Voltage range	Order No.	Unit Price (THB)
ANSI 27/59, 59N, 81O/U, 47, 81R, 27R/59R, 74TC, 86, 3 BI/ 5 BO, IEC 61850, 100 Mbit Ethernet, electrical, double RJ45 connector	24 / 48 VDC	7RW8010-1EB90-1DA0-L0R	121,296.00
ANSI 27/59, 59N, 81O/U, 47, 81R, 27R/59R, 74TC, 86 3 BI/ 5BO IEC 61850, 100 Mbit Ethernet, electrical, double, RJ45 connector	60 /110V/125V/220VDC 115V,230VAC	7RW8010-5EB90-1DA0-L0R	121,296.00
ANSI 27/59, 59N, 81O/U, 24, 47, 25, 81R, 27R/59R, 74TC, 86, vector jump , 7 BI/8 BO IEC 61850, 100 Mbit Ethernet, electrical, double, RJ45 connector	24 / 48 VDC	7RW8010-1EB90-1DE0-L0R	144,096.00
ANSI 27/59, 59N, 81O/U, 24, 47, 25, 81R, 27R/59R, 74TC, 86, vector jump 7 BI/8 BO IEC 61850, 100 Mbit Ethernet, electrical, double, RJ45 connector	60 /110V/125V/220VDC 115V,230VAC	7RW8010-5EB90-1DE0-L0R	144,096.00

* model with 7 Binary Inputs & 8 Binary Outputs are also available with additional cost.

Protection Relays

SIPROTEC 7SK80 & REYROLLE 7SR



SIVACON

Technology Partner

SIEMENS

GENERATOR AND MOTOR PROTECTION RELAY SIPROTEC 7SK80 - GENERATOR AND MOTOR PROTECTION RELAY

- Pluggable current and voltage terminals
- Binary input thresholds settable using DIGSI (3 stages)
- Secondary current transformer values (1 A / 5 A) settable using DIGSI
- 9 programmable function keys
- 6-line display
- Buffer battery exchangeable from the front
- USB front port
- 2 additional communication ports
- Integrated switch for low-cost and redundant optical Ethernet rings
- Ethernet redundancy protocols RSTP, PRP and HSR for highest availability
- Relay-to-relay communication through Ethernet with IEC 61850 GOOSE RJ45 Connector.
- Millisecond-accurate time synchronization through Ethernet with SNTP (over Port A or Port B)
- Number of binary binputs and inary outputs by connection from up to two SICAM I / O-Units extendable.



Description Protection function	Auxiliary Voltage Voltage range	Order No.	Unit Price (THB)
ANSI 50, 50N, 51, 51N, 74TC, 37, 49, 51M, 14, 66/86, 50BF, 46, 48, 86, 3 BI/ 5 BO,	24 / 48 VDC	7SK8011-1EB90-3HD0-L0R	133,152.00
ANSI 50, 50N, 51, 51N, 74TC, 37, 49, 51M, 14, 66/86, 50BF, 46, 48, 86, 3 BI/ 5 BO,	60 /110V/125V/220VDC 115V,230VAC	7SK8011-5EB90-3HD0-L0R	133,152.00
ANSI 50, 50N; 51, 51N, 67N, 67Ns, 50Ns, 59N, 74TC, 37, 38, 49, 51M, 14, 51V, 66/86, 27/59, 32, 55, 81O/U, 50BF, 46, 47, 48, 86, 81R, 27R, 59R, 3xV input, 3BI/ 5BO	24 / 48 VDC	7SK8031-1EB90-3HE0-L0R	148,770.00
ANSI 50, 50N; 51, 51N, 67N, 67Ns, 50Ns, 59N, 74TC, 37, 38, 49, 51M, 14, 51V, 66/86, 27/59, 32, 55, 81O/U, 50BF, 46, 47, 48, 86, 81R, 27R, 59R, 3xV input+C25 3 BI / 5 BO	60 /110V/125V/220VDC 115V,230VAC	7SK8031-5EB90-3HE0-L0R	148,770.00

* model with 7 Binary Inputs & 8 Binary Outputs are also available with additional cost.

OVERCURRENT PROTECTION RELAY ARGUS 7SR11 - OVERCURRENT PROTECTION RELAY

- Easy slide-safe relay with value sales bookmark
- Easy to use with 4-line display with 20 characters
- E4 chassis, 4 input current, draw-out case
- 10 warning light
- 3 Binary Inputs / 5 Binary Outputs.
- x / 1 A and x / 5 A current transformer ratios adjusted for transformer
- Parameterization obverse USB port, rear RS485 percent parameterization and SCADA port
- IEC 60870-5-103 via RS485 serial port connection, also support MODBUS RTU and DNP 3.0 communications fluorine menu 1000 event, 10 oscillographic fault recording facilities
- Free relay parameterization software



Product descriptions	Auxiliary Voltage Voltage range	Order No.	Unit Price (THB)
ANSI 46BC, 50, 50BF, 50G / 50N, 51, 51G / 51N, 60CTS, 86, 64H, 74TC protection functions	80-250VDC/115VAC	7SR1102-1GA12-1AA0	55,575.00
ANSI 46BC, 50, 50BF, 50G / 50N, 51, 51G / 51N, 60CTS, 86, 64H, 74TC protection functions	24-60VDC	7SR1102-1JA12-1AA0	55,575.00
ANSI 46BC, 37, 46NPS, 49, 50, 50BF, 50G / 50N, 51, 51G / 51N, 60CTS 64H, 74TC, 86, 51c, 81HBL2 protection	80-250VDC/115VAC	7SR1102-1GA12-1CA0	68,400.00
ANSI 46BC, 37, 46NPS, 49, 50, 50BF, 50G / 50N, 51, 51G / 51N, 60CTS 64H, 74TC, 86, 51c, 81HBL2 protection	24-60VDC	7SR1102-1JA12-1CA0	68,400.00
ANSI 46BC, 37, 46NPS, 49, 50, 50BF, 50G / 50N, 51, 51G / 51N, 60CTS 64H, 74TC, 86, 51c, 81HBL2, 79 (reclosure) protection functions,	80-250VDC/115VAC	7SR1102-1GA12-1DA0	82,650.00
ANSI 46BC, 37, 46NPS, 49, 50, 50BF, 50G / 50N, 51, 51G / 51N, 60CTS 64H, 74TC, 86, 51c, 81HBL2, 79 (reclosure) protection functions,	24-60VDC	7SR1102-1JA12-1DA0	82,650.00

* model with 6 Binary Inputs & 8 Binary Outputs are also available with additional cost.

Protection Relays

REYROLLE 7SR12 & 7SR15



OVERCURRENT PROTECTION RELAY ARGUS 7SR12 - OVERCURRENT PROTECTION RELAY

- ◊ The 7SR12 are overcurrent protection relays developed to enhance the Argus family of products by providing a familiar product using the latest generation of hardware technology.
- ◊ The 7SR12 comes with additional voltage inputs providing directional protection.
- ◊ 3 Binary Inputs / 5 Binary Outputs.
- ◊ Housed in a 4U high, size E4 or E6 (with Optional IEC61850 model) Draw-out cases, these relays provide protection, monitoring, instrumentation and metering with integrated input and output logic, data logging & fault reports.
- ◊ Communication ac-cess to the relay functionality is via a front USB port for local PC connection, a rear electrical RS485 port for remote connection & optional IEC61850 communication through two rear Ethernet ports.



Product descriptions	Auxiliary Voltage Voltage range	Order No.	Unit Price (THB)
ANSI 27/59, 32, 37, 46BC, 46NPS, 47, 49, 50, 50BF,50G / 50N, 51, 51G / 51N, 51V, 59N, 60CTS, 60VTS, 64H, 67, 67G / 67N, 74TC, 51c, 86, 81HBL2, 81 U/O 80-250 VDC / 115 VAC power supply	80-250 VDC / 115 VAC	7SR1205-2GA12-1CA0	85,500.00
ANSI 27/59, 32, 37, 46BC, 46NPS, 47, 49, 50, 50BF,50G / 50N, 51, 51G / 51N, 51V, 59N, 60CTS, 60VTS, 64H, 67, 67G / 67N, 74TC, 51c, 86, 81HBL2, 81 U/O	24-60 VDC	7SR1205-2JA12-1CA0	85,500.00
ANSI 27/59, 32, 37, 46BC, 46NPS, 47, 49, 50, 50BF,50G / 50N, 51, 51G / 51N, 51V, 59N, 60CTS, 60VTS, 64H, 67, 67G / 67N, 74TC, 51c, 86, 81HBL2, 81 U/O 79 (reclosure) protection functions,	80-250 VDC / 115 VAC	7SR1205-2GA12-1DA0	99,750.00
ANSI 27/59, 32, 37, 46BC, 46NPS, 47, 49, 50, 50BF,50G / 50N, 51, 51G / 51N, 51V, 59N, 60CTS, 60VTS, 64H, 67, 67G / 67N, 74TC, 51c, 86, 81HBL2, 81 U/O 79 (reclosure) protection functions,	24-60 VDC	7SR1205-2JA12-1DA0	99,750.00

* model with 6 Binary Inputs & 8 Binary Outputs are also available with additional cost.

CHECK SYNCHRONISING PROTECTION RELAY

ARGUS 7SR157 - CHECK SYNCHRONISING PROTECTION RELAY

- ◊ The Reyrolle 7SR157 Argus is a combined check and system synchronising relay
- ◊ Adjustable slip frequency, phase angle, voltage blocking and Differential voltage blocking
- ◊ Housed in a 4U high, size E4 draw-out case
- ◊ Configurable dead/live bus and dead/live line voltage settings, (2 State and 3 State).
- ◊ Synchronising bypass logic is provided to connect a dead line or bus to a live line or bus.
- ◊ For manual synchronising the relay includes a circuit breaker close guard feature, which is used to prevent the control switch being held closed during a synchronising operation.



Product descriptions	Auxiliary Voltage Voltage range	Order No.	Unit Price (THB)
ANSI 25, 74, 60(VT Fail) E4 case, 2 VT, 3 Binary Inputs / 5 Binary Outputs binary input threshold 19 V DC	80 to 250VDC / 115VAC	7SR1577-5GA12-1CA0	85,500.00
ANSI 25, 74, 60(VT Fail) E4 case, 2 VT, 6 Binary Inputs / 8 Binary Outputs binary input threshold 19 V DC	80 to 250VDC / 115VAC	7SR1578-5GA12-1CA0	96,900.00

VOLTAGE AND FREQUENCY PROTECTION RELAY ARGUS 7SR158 - VOLTAGE AND FREQUENCY PROTECTION RELAY

- ◊ The 7SR158 is a voltage and frequency protection relay developed to enhance the Argus family of products by providing a familiar device using the latest generation of hardware technology.
- ◊ 6 Binary Inputs / 8 Binary Outputs.
- ◊ Housed in a 4U high, size E4 draw-out case, these relays provide protection, monitoring, instrumentation and metering with integrated input and output logic, data logging & fault reports.
- ◊ Communication access to the relay functionality is via a front USB port for local PC connection or rear electrical RS485 port for remote connection.



Product descriptions	Auxiliary Voltage Voltage range	Order No.	Unit Price (THB)
27/59, 47, 59N,81,74T/CCS, 86 binary input threshold 19 V DC RS485 rear port, IEC 60870-5-103, Modbus RTU and DNP3	80 to 250VDC / 115VAC	7SR1587-5GA12-1CA0	84,075.00
27/59, 47, 59N,81,74T/CCS, 86, 78(vector shift),81R binary input threshold 19 V DC RS485 rear port, IEC 60870-5-103, Modbus RTU and DNP3	80 to 250VDC / 115VAC	7SR1587-5GA12-1DA0	95,475.00

Protection Relays

REYROLLE 7SR24 & 7SR17



TRANSFORMER PROTECTION RELAY
DUOBIAS 7SR24 - TRANSFORMER PROTECTION RELAY

- ⊖ A multifunctional transformer differential relay
- ⊖ Our new generation of integrated transformer protection relays are designated the 7SR24 series.
- ⊖ The relays utilise years of numeric relay protection experience with the 'Duobias' family of products.
- ⊖ Housed in 4U high, size E8 draw-out cases, these relays provide protection, control, monitoring, instrumentation and metering with integrated input and output logic, data logging & fault reports.
- ⊖ Communication access to relay functionality is via a front USB port for local PC connection or rear electrical RS485 port for remote connection which support IEC 60870-5-103 and Modbus RTU and DNP3.0
- ⊖ Additional rear port options are available.



Product descriptions	Auxiliary Voltage Voltage range	Order No.	Unit Price (THB)
ANSI 50BF, 64H, 74TCS/CCS, 81HBL2, 81HBL5, 87BD, 87HS Measuring Input: 1/5A, 63.5/110V 50/60Hz. 9 Binary Inputs / 6 Binary Outputs, 16LED. USB front port, RS485 rear port	30 to 220VDC	7SR2422-2BA12-0AA0	248,040.00
ANSI 50BF, 64H, 74TCS/CCS, 81HBL2, 81HBL5, 87BD, 87HS, 37, 46, 50, 50G/50N, 51.51G/51N 9 Binary Inputs / 6 Binary Outputs. 16LED. USB front port, RS485 rear port,	30 to 220VDC	7SR2422-2BA12-0BA0	271,440.00

* model with 19BI & 14BO with 24LED or 39BI & 14BO with 32LED are available with additional cost

MOTOR PROTECTION RELAY
PHO 7SR17 - MOTOR PROTECTION RELAY

- ⊖ The 7SR17 motor protection relay range utilises service and design experience accumulated with the previous generations of Rho family of products.
- ⊖ Housed in 4U high, size E4 draw-out cases, the 7SR17 Rho can provide protection, control, monitoring, instrumentation and metering with integrated input and output logic, data logging and fault reports.
- ⊖ RTD inputs are also available with a size E6 draw-out case.
- ⊖ Relay functionality is accessed via a familiar user friendly interface.
- ⊖ Communication access to relay functionality is via a front USB port for local PC connection or rear RS485 port for remote connection. which support IEC 60870-5-103 and Modbus RTU and DNP3.0
- ⊖ Additional rear port options are available.



Product descriptions	Auxiliary Voltage Voltage range	Order No.	Unit Price (THB)
ANSI 14, 37, 46, 46PhRev, 48/66, 49, 50/51, 50BCL, 50BF, 60CTS-I, 74T/CCS, 81B, 87REF E4 case, 4CT, 3 binary inputs/5 binary outputs	80 to 250VDC / 115 VAC	7SR1702-3GA12-1CA0	85,500.00
ANSI 14, 37, 46, 46PhRev, 48/66, 49, 49RTD, 50/51, 50BCL, 50BF, 60CTS-I, 74T/CCS, 81B, 87REF, 27/59, 32/55, 47, 67, 67G, 81 E4 case, 4CT, 3VT, 3 binary inputs/5 binary outputs	80 to 250VDC / 115 VAC	7SR1705-4GA12-1CA0	102,600.00
ANSI 14, 37, 46, 46PhRev, 48/66, 49, 50/51, 50BCL, 50BF, 60CTS-I, 74T/CCS, 81B, 87REF, 49RTD, E6 case, 4CT, 4RTD inputs, 3 binary inputs/5 binary outputs	80 to 250VDC / 115 VAC	7SR1712-3GA12-1CA0	108,300.00
ANSI 14, 37, 46, 46PhRev, 48/66, 49, 49RTD, 50/51, 50BCL, 50BF, 60CTS-I, 74T/CCS, 81B, 87REF, 27/59, 32/55, 47, 67, 67G, 81 E6 case, 4CT, 3VT, 4RTD inputs, 3 binary inputs/5 binary outputs		7SR1715-4GA12-1CA0	125,400.00

* model with 6BI & 8BO or 8RTD inputs are available with additional cost

ACCESSORIES

Product descriptions	Auxiliary Voltage Voltage range	Order No.	Unit price (THB)
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7PA22 - AUXILIARY RELAYS



7PA22 - FAST-ACTING LOCKOUT RELAY 8 change-over contact 10 ms. bush outside me time 110 VDC 10 Amp continuous current capacity of i t fl IP50 level of protection on the front The reset-button	24V DC (19-26V)	7PA2211-1	
	110V DC (88-121V)	7PA2231-1	18,354.00
	220V DC (176-242V)	7PA2241-1	
	125V DC (100-137V)	7PA2251-1	

7PA23 - AUXILIARY RELAYS



7PA23 - FAST-ACTING LOCKOUT RELAY 4 change-over contact 8 ms. bush outside me time 125 VDC 10 Amp continuous current capacity of i t fl IP50 level of protection on the front The reset-button 7XP9011-1 panel mount socket cover	24V DC (19-26V)	7PA2311-1	
	110V DC (88-121V)	7PA2231-1	11,799.00
	220V DC (176-242V)	7PA2241-1	
	125V DC (100-137V)	7PA2351-1	

AUXILIARY RELAYS / 7PA

7PA26/27/30 auxiliary relays for various applications / trip circuit supervision

Technical data for 7PA26 and 7PA27

Switching contacts continuous current: 10A high make/break capacity
Overload capability : 80 A / 200 ms , 150A / 10 ms
Switching current / voltage : 40A/0.5 s / DC 110V
Breaking capacity for 1.0 million operation cycles
IEC , EN , IEEE Standards

7PA26 - MONOSTABLE FAST-ACTING RELAY



Product descriptions	Auxiliary Voltage Voltage range	Order No.	Unit price (THB)
8 change-over contact 10 ms. bush outside me time include flush-mounting socket 7XP9010-3	DC 24/30V	7PA2612-1AA00-1	12,426.00
	DC 110/125V	7PA2632-1AA00-1	
	DC 220V	7PA2642-1AA0-1	

7PA27 - AUXILIARY RELAYS



7PA27 - MONOSTABLE FAST-ACTING RELAY 4 changeover contacts 8 ms. bush outside me time with flush-mounting socket 7XP9011-2	DC 24/30V	7PA2712-0AA00-1	7,524.00
	DC 110/125V	7PA2732-0AA00-1	
	DC 220V	7PA2742-0AA00-1	

7PA30 - AUXILIARY RELAYS

7AP30 - TRIP CIRCUIT SUPERVISION

The relay is for supervision of the trip circuit of a circuit breaker with one trip coil. The trip circuit wiring is supervised from the positive supply to negative supply whilst the circuit breaker is open or closed.

Single phase trip circuit supervision relay	DC 24/30V	7PA3012-1AA00-1	8,208.00
Include flush-mounting socket 7XP9011-0	DC 110/125V	7PA3032-1AA00-1	
	DC 220V	7PA3042-1AA00-1	

ACCESSORIES

Product descriptions	Feature	Order No.	Unit price (THB)
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7XG22 - Test Switch 14 contacts Easy-to-use structure with spring loaded contacts Automatic CT short Link are available as option. Auxiliary Equipment for secondary circuits. Modular case test terminal Test module in size E2 case Vertical Mounting	without CT auto-short-link	7XG2220-1AA00-0AA0	10,431.00
	with CT auto-short-link	7XG2220-4AA00-0AA0	13,167.00



Product descriptions	Feature	Order No.	Unit price (THB)
7XG2240 - Test Plug Consistent with structure 14 contacts The connecting with multiple pin Auxiliary Equipment for secondary circuits. Modular case test plug Multi Finger Test Plug with test leads Vertical use	for without CT auto-short-link	7XG2240-1AA00-0AA0	23,028.00
	for with CT auto-short-link	7XG2240-4AA00-0AA0	23,028.00