

Relays and Timers

CUBE

Mini

A2 Series

- Max switching power 630 watt
- Max switching voltage 75 volt DC
- Max switching current 40 amp
- Electrical life rate 100K cycles, typical
- Mechanical life 10M cycles, typical
- Sealed contacts

T9 Series

- Plastic sealed case
- Meets UL 508 and 873 spacing
- UL class F insulation standard
- Max switching voltage 277 volt AC



A2 SERIES



T9 SERIES

Item Number	Volts	Amps	Contacts	Price
A2 Series				
A2F-24VDC	24	N/O 20A, N/C 10A	SPDT	\$16.00
A2F-12VDC	12	N/O 40A, N/C 20A	SPDT	\$16.00
T9 Series				
T9AP1D52-24	24	30	SPST	\$6.55

Heavy Duty

A3 Series

- RoHS Compliant
- Max switching power 1120 watt
- Max switching voltage 75 volt DC
- Max switching current 80 amp
- Electrical life rate 100K cycles, typical
- Mechanical life rate 10M cycles, typical



A3 SERIES

Item Number	Volts	Amps	Contacts	Price
A3 Series				
Includes bracket and resistor				
A3F-12VDC	12	50	SPST	\$20.00
A3F-24VDC	24	80	SPST	\$46.67

Accessories



RELAY BASE



CONNECTOR

Item Number	Description	Price
87123	Mini 5 or 9 pin bracket mount, black	\$8.89
87269	Connector for Hella relay 87430	\$7.72
87272	Connector for Hella relay 87123	\$2.24

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40 AMP

- UL Listed
- CSA & CE Compliant
- Screw head terminals
- Input or output interface
- Silver cadmium oxide contacts
- Self wiping contacts
- Molded thermoset plastic housing
- 40 amp@300 volt AC/28 volt DC contact rating (resistive)



30 AMP POWER

Item Number	Volts	Price
DPDT		
3X748	12V DC	\$97.88
3X749	24V DC	\$97.88
5X847	120V AC	\$97.88
5X848	240V AC	\$97.88

Step Relays

- Test button with indicators
- 35 mm rail mount (EN 60715)
- 17.4 mm wide
- 6 available functions
- Identification label
- AC & DC coils



20 SERIES

Item Number	Volts	Price
20 Series		
16 Amp, SPST-NO		
20.21.9.012	12V DC	\$40.88
20.21.9.024	24V DC	\$40.88
16 Amp, DPST-NO		
20.22.9.012	12V DC	\$48.51
20.22.9.024	24V DC	\$48.51
20.22.8.120	120V AC	\$48.51

Relays and Timers

FINDER

Mini

- 5 mm contact pin
- Use 86 series timers & 99 series suppression modules
- UL Listed
- CE & CSA Certified
- Cadmium free option
- Flux proof
- Coil EMC suppression



40 SERIES

RELAY SOCKET

Item Number	Volts	Price
40 Series		
8 Amp, DPDT-GO		
40.52.9.012	12V DC	\$7.95
40.52.9.024	24V DC	\$7.95
40.52.8.024	24V AC	\$10.43
40.52.8.120	120V AC	\$12.95
40.52.8.230	240V AC	\$15.44
16 Amp, SPST-NO		
40.61.9.012	12V DC	\$6.76
40.61.9.024	24V DC	\$6.76
Relay Socket		
95.05	Box Clamp	\$7.63
95.85.3	Box Clamp	\$7.95
Item Number	Description	Price
Hardware		
095.91.3	Plastic Retaining Clip	\$.53
095.01	Plastic Retaining Clip	\$.53
095.71	Metal Retaining Clip	\$.28
095.08	8 way Jumper for 95.85.3 Sockets	\$2.94
095.18	8 way Jumper for 95.05 Sockets	\$2.94

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General Purpose

- Uses 86.30 series option timers & 99 series suppression modules
- 35 mm rail mount
- Lockable test button and mechanical flag indicator
- UL Listed
- CE & CSA Certified
- AC or DC coils
- Socket mounted



55 SERIES



RELAY SOCKETS

Item Number	Volts	Price
55 Series		
7 Amp, 4PDT-CO		
55.34.8.024	24V AC	\$15.30
55.34.9.012	12V DC	\$15.30
55.34.9.024	24V DC	\$15.30
55.34.8.120	120V AC	\$15.30
55.34.8.230	240V AC	\$17.92
10 Amp, DPDT-CO		
55.32.9.012	12V DC	\$14.42
55.32.9.024	24V DC	\$14.42
55.32.8.120	120V AC	\$14.42
55.32.8.230	240V AC	\$16.77
Relay Socket		
94.04	Box Clamp	\$8.37
94.74	Plate Clamp	\$7.95
Hardware		
094.91.3	Plastic Retaining Clip	\$.53
094.71	Metal Retaining Clip	\$.28
094.06	6 way Jumper	\$2.94

Relays and Timers

FINDER

General Purpose (Continued)

- Uses 86 series timers & 99 series suppression modules
- 8-11 pin plug in
- AC or DC coils
- Lockable test button with mechanical flag
- Bifurcated contact option



60 SERIES



RELAY SOCKET

Item Number	Volts	Price
60 Series		
10 Amp, DPDT-CO, 8 Pin		
60.12.9.012	12V DC	\$21.91
60.12.9.024	24V DC	\$21.91
60.12.8.024	24V AC	\$21.91
60.12.8.120	120V AC	\$21.91
60.12.8.230	240V AC	\$23.66
10 Amp, 3PDT-CO, 11 Pin		
60.13.9.012	12V DC	\$22.65
60.13.9.024	24V DC	\$22.65
60.13.8.120	120V AC	\$22.65
60.13.8.230	240V AC	\$24.26
Relay Socket		
90.26	Plate Clamp	\$7.49
90.27	Plate Clamp	\$8.54
90.02	Box Clamp	\$8.96
90.03	Box Clamp	\$10.01
Hardware		
090.06	6 way Jumper	\$3.95
090.33	Metal Retaining Clip	\$.28

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Power

- UL Listed
- Uses 86 series timers & 99 series suppression module
- AC or DC coils
- 3 mm gap between open contacts
- 8 mm gap between coil and contacts



62 SERIES



RELAY SOCKET

Item Number	Volts	Price
62 Series		
16 Amp, 3PDT-CO		
62.33.9.012	12V DC	\$22.93
62.33.9.024	24V DC	\$22.93
62.33.8.120	120V AC	\$22.93
62.33.8.230	240V AC	\$24.54
Relay Socket		
92.03	Box Clamp	\$13.51

Suppression Modules

LED + Varistor

- LED modules + Varistor are used for both AC and DC coils
- The reverse voltage peaks of the relay coil are limited by the Varistor to approximately 2.5 times the nominal voltage of the supply
- When using DC coils it is essential that positive is connected to terminal A1. The relay release time increases insignificantly

LED + Diode

- Green LED + diode module (standard polarity)
- Recovery diode modules + LED are used for DC only
- The reverse voltage peaks of the coil are short circuited by the recovery diode (positive to terminal A1).
- The release time increases by an approximate factor from 3 to 5
- If an increase of the release time is undesirable use a Varistor or RC module.
- The LED indicator lights up when the coil is energized.



99 SERIES

item Number	Description	V AC/DC	Series Relay	Price
99 Series				
99.02.0.024.98	LED + Varistor	6-24	40, 55, 60, 62	\$6.17
99.02.0.230.98	LED + Varistor	110-240	40, 55, 60, 62	\$6.16
99.80.0.024.98	LED + Varistor	6-24	40	\$6.16
99.80.0.230.98	LED + Varistor	110-240	40	\$6.16
99.80.9.024.99	LED + Diode	6-24	40	\$5.43

Relays and Timers

FINDER

Timers

80 Series

- Multi function & multi voltage timer
- Functions: AI (on delay), DI(interval), SW (symmetrical flasher, starting pulse on), BE (off delay with control signal), CE (on and off delay with control signal), DE (interval with control signal on)
- 17.5 mm wide
- Six time scales from 0.1s to 24h
- New multi voltage version with PWM clever technology

81 Series

- Multi function & multi voltage timer
- Functions: AI (on delay), DI (interval), SW (symmetrical flasher start pulse on), SP (symmetrical flasher start pulse off), BE (off delay with control signal), DE (interval with control signal on), EB (interval with control signal off)
- 17.5 mm wide
- Six time scales from 0.1s to 10h



TIMERS

Item Number	Contacts	Current	Volts	Price
80 Series				
80.01.0.240	SPDT	16A	12-240V AC/DC	\$79.45
81 Series				
81.01.0.230	SPDT	16A	12-230V AC/DC	\$95.10

83 Series

- 83.01 & 83.02 are multifunction
- 83.11 monofunction with ON-delay
- 17.5 mm wide
- Multi Functions: AI (on delay), DI (interval), GI (pulse delayed), SW (symmetrical flasher start plus on), BE (off delay with control signal), CE (on and off delay with control signal), DE (interval with control signal on), WD (watchdog retriggerable interval with control signal on)
- Eight times scale from .05 second to 10 days
- High input/output isolation
- Wide supply range (24-240)volt AC/DC

86 Series

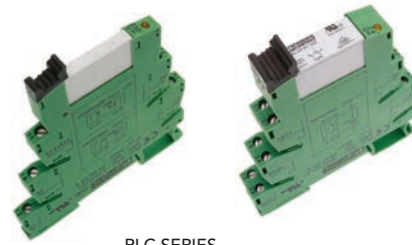
- Multi Functions: AI (on delay), DI (interval), GI (pulse delayed), SW (symmetrical flasher start plus on), BE (off delay with control signal), CE (on and off delay with control signal), DE (interval with control signal on), WD (watchdog retriggerable interval with control signal on)
- Six time scales from .05s to 100hr
- Plug in for use w/ 90.02 and 96.04 sockets
- Wide supply range (24-240)volt AC/DC

Item Number	Contacts	Current	Volts	Price
83 Series				
83.11.0.240	SPDT	16A	24-240V AC/DC	\$51.10
83.01.0.240	SPDT	16A	24-240V AC/DC	\$81.38
83.02.0.240	DPDT	12A	24-240V AC/DC	\$121.80
86 Series				
86.00.0.240	--	--	12-240V AC	\$54.60

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General Purpose

- Max in rush current 15 amp (300mV)
- Max switching current 10mA @5 volt
- Safe isolation DIN EN 50178, between coil and contact
- Agency listed and approved
- Polyamide PA non-reinforced housing
- Functional plug-in bridge
- Screw connections and spring cage connection methods



PLC SERIES

Item Number	Contacts	Volts	Price
Relay with Base			
PLC-RSC-120UC21	SPDT	120 V AC	\$29.00
PLC-RSC-230UDC	SPDT	230V AC	\$34.52
PLC-RSC-24DC/21	SPDT	24V DC	\$27.84
PLCRSC120UC2121	2PDT	120V AC	\$44.54
PLCRSC230UC2121	2PDT	230V AC	\$49.71
PLCRSC24DC/2121	2PDT	24V DC	\$39.91
Item Number	Contacts	Volts	Price
Relay Only			
REL-MR-24DC/21	SPDT	24	\$11.04
RELMR24DC/2121	DPDT	24	\$11.05
REL-MR-60DC/21	SPDT	60	\$29.00
RELMR110DC/2121	DPDT	110	\$16.57

AC Overcurrent relays provide monitoring and protection for three phase applications. Internal diagnostics annunciate when relay function or accuracy is compromised. The BE3-51 operates on only the fundamental component of the sensed current, rejecting all harmonic components. Set adjustment is based on a percentage of the relay's nominal sensing current rating. The delay adjustment prevents premature relay operation during brief current fluctuations.

Relays and Timers

PROTECTION

AC Current

Crompton

- CE Compliant
- UL approved
- Protection against overload and high voltage
- Mechanical shock and vibration resistance
- Flame retardant



252-PVUU-RRBXC7

Item Number	Volts	Hz.	Manufacturer	Price
35 mm DIN rail mount or integral key slots				
252-PVUU-RRBXC7	24	50/60	Crompton	\$195.88

AC Over Current

Bassler

- UL Listed, CE Certified, and IEEE Approved
- Set Point: undercurrent range adjustable 5-80% of normal, over current range adjustable 40-120% of normal, time delay adjustable 0-20 seconds, drop out (reset) fixed at 1% of normal
- Output contact type 2 form C contact per protective function
- AC rating make and carry 240 volt, 5 amp
- Three phase
- Case size: 3.94" (100 mm)



BE3-51-3E1A1

Item number	Operating Power	Nominal Current	Frequency	Sensing Input	Price
Bassler					
BE3-51-3E1A1	12V AC	5 A	50-60 Hz.	5A AC/ 0.2-10A AC	\$268.00

AC Voltage Band Monitor

- Design to insure that the monitored operating voltage remains within a 120 volt AC band
- Dual op-amp comparator circuit to achieve stable and repeatable trip set points
- Output relay is energized only when the voltage being monitored remains between the upper and lower set points
- LED indicator lights signal over or under voltages
- Adjustment range: over voltage 120-140 volt AC, under voltage 90-110 volt AC
- Contact rating 10 amp at 240 volt AC resistive
- 8 pin mounting socket
- Dimensions in"(mm) 1.95(49.53)H x 1.95(49.53)W x 3.25(82.55)D



TIM268

Item Number	Volts AC	Contacts	Hz.	Price
TIM268	120	SPDT	45-420	\$150.40

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AC Voltage Band Meter

- 240 volt AC nominal voltage
- 285 volt AC max input voltage
- Over voltage range 240-270 volt AC
- Input voltages between the upper and lower set points will cause the output contacts to pull in and the LED indicator to illuminate
- Input voltages above or below the set points will cause the output contacts to drop out and extinguish the LED indicator
- Automatic resets
- Dimensions in"(mm) 2.44(61.97)H x 1.75(44.45)W x 2.88(73.15)D

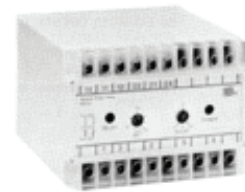


TIM2681-240V

Item Number	Volts AC	Contacts	Hz.	Price
TIM2681-240V	240	SPDT	50-400	\$176.80

Reverse Power

- UL, CSA, and CE listed and compliant
- Ct operated or direct connected .2 to 10 amp
- Output type is energize to trip
- Self powered unit
- External adjustable time delay of 0 to 20 second
- Relay LED indicates output status of the relay and a power LED indicates the condition of the power supply



REVERSE POWER

Item Number	Nominal Input Voltage	Nominal Current	Hz.	Price
DIN rail mount 35 mm x 7.5 mm				
BE3-32-3B1N1	3Phase, 240V AC	5	50/60	\$236.00