



## RELAYS

### SELECTION GUIDE

TE Connectivity (TE) is your components provider for relays that help increase reliability and enhance productivity in your applications. We offer the broadest range of relays and contactors in the world. This selection guide will help you choose the best relay for your application with easy access to additional online information at [te.com](http://te.com). TE's quick-to-install and industry-proven relays will help you develop solutions for your most demanding connectivity challenges.



1

## AEROSPACE, DEFENSE & MARINE

TE's high-performance relays are designed specifically to operate in extremely rigorous environments in military and aerospace applications. Our relay products include COTS (commercial off-the-shelf), Mil-Spec, plus highly specialized, and custom-designed products.



2

## APPLIANCES

General purpose power and signal relays are among the many components TE provides appliance manufacturers. From a broad range of small countertop appliances to major home appliances and other in-home equipment, TE relays switch heating elements, motors, compressors, lamps and other loads.



3

## AUTOMOTIVE

TE not only offers standard relays, but also develops individually tailored innovative products and system solutions. From passenger comfort and infotainment to higher DC voltages and power levels to harsh environments, our relays provide critical switching functions in multiple vehicle applications.



4

## COMMUNICATIONS

From high frequency relays for antenna switching to power control relays for end-user equipment, TE's relay products offer the vast communications market an array of components.



5

## ENERGY

Relays meeting the specific requirements for use in power inverters are among the switching components offered by TE's relay products for alternative energy applications.



6

## INDUSTRIAL

Whether the application is a basic pump control circuit, a complex interface with a programmable logic controller or a safety circuit, industrial machinery designers specify components from TE's relay products.



7

## INTELLIGENT BUILDINGS

TE's relay products provide a broad range of products for use in building equipment such as elevators, HVAC systems, alarms and more.



8

## MEDICAL

TE provides high-quality relay solutions that can transform patient care and are designed and manufactured to work in harsh medical environments.



9

## RAIL

Modern railways are becoming faster, safer, and more efficient. TE's relay products provide the reliable, high powered products needed to keeps railways moving forward.

FEATURED PRODUCTS



### FC-325 SERIES RELAY

1

eCard

Brochure

- Qualified to MS27418 specifications, this 25A hermetically sealed relay is excellent for harsh inductive, motor, and lamp load applications.
- The double-make, double-break design provides more stable performance in comparison to balanced armature designs-also suitable for variable frequencies.



### EVC 250 MAIN CONTACTOR

3

White Paper

- Save space with compact design dimensions of only 93 x 55.3 x 49.8mm (3.7 x 2.2 x 2.0")
- Promote safety with a short circuit safety feature that carries currents up to 6,000A
- Achieve highest reliability with a design that works without pressurized contact chamber



### EV-202 HIGH-VOLTAGE CONTACTOR

13567

Brochure

- DPST 400V/350A per pole - takes the place of two contactors
- Bi-Directional switching, not polarity sensitive
- Economized coil with low hold power



### MINI K-HV PRE-CHARGE RELAY

3

Datasheet

- Offer the smallest precharge relay available in its class (PCB version)
- Serve a vast majority of precharge applications in electrical vehicles
- Cover fault break operations of up to 20A at 450VDC



### FCA-150, FCAC-150 SERIES RELAY

1

Brochure

- Hermetically sealed 50 Amp relay designed for environmentally demanding aerospace and military applications
- Offers size and weight savings with 50 Amp switching capability in a one cubic inch package - available with 1 Form C (SPDT) 2A auxiliary contact



### PCN 3A SLIM PCB RELAY

245678

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- Only 5mm wide
- Allows high function packing density
- Z type with reinforced insulation



### K1K HIGH-VOLTAGE CONTACTOR

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- 1,000V/1,000A carry and break contactor for Lithium Ion battery applications (highest ratings in the industry)
- Main disconnect contactor for large battery bank applications



### MINIATURE RELAY PT

567

Brochure

- Miniature space efficient relay for socket or PCB mount
- 2, 3 and 4 pole versions with load current 12, 10 and 6A
- Transparent cover with manual operator options for testing of wiring in cabinet



### OJ/OJE/T77 RELAY

2567

Brochure

- 1 form A (NO) contacts in various models support a range of loads, with contact ratings from 3 to 10 amps, plus TV-5
- Both sensitive (200mW) and standard (450mw) coil options accommodate various drive circuits



### RT1 POWER PCB RELAY

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Brochure

- High quality/performance
- Suitable for a broad range of applications
- Inrush capability



### KHR500 HIGH-VOLTAGE CONTACTOR

13567

Brochure

- Enable design flexibility with voltages from 28 to 1000 VDC and continuous 600A current
- Allow for power switching in either direction with main power terminals that are not polarity sensitive

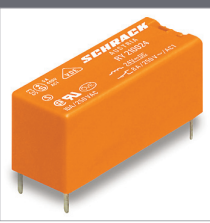


### KCS01 HIGH-VOLTAGE CONTACTOR

13567

Brochure

- Saves space by eliminating the need for external sensor
- Flexible configuration for application needs
- Integrated dual-coil electronic economizer with coil suppression

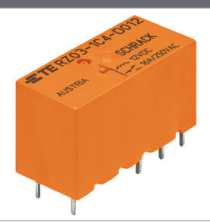


### RYII POWER PCB RELAY

245678

Brochure

- Low component height 12.3mm
- Reinforced insulation (protection class II)
- Especially suitable for resistive and inductive loads on form A (NO) and form B (NC) contacts



### RZ POWER PCB RELAY

245678

Flyer

Brochure

- Global standard platform for 16 Amp applications
- Designed to overcome micro welding in the contact interface to improve life time
- Standard versions for 85°C ambient temperature and high temperature versions for 105°C



### RTX POWER PCB RELAY

567

Brochure

- Provide high in-rush capability due to tungsten pre-make contact and silver tin oxide carry/break contact
- Helps provide additional safety protection with reinforced insulation
- Meet industry standards with small product dimensions of 29.1 x 12.7 x 16mm



### T9S SOLAR RELAY

567

Flyer

- Provide a solution for disconnect switch applications
- Enable high current switching (8kW solar inverters)
- Provide a solution for cad-free application requirements



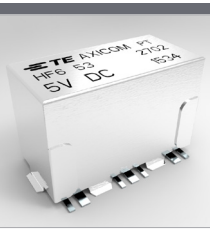
### EW60 PCB RELAY

567

eCard

Flyer

- Enable energy savings and provide low self-heating through a bi-stable magnetic system
- Features the ability to disconnect the entire floor of a building with up to 60Amps switching capability
- Provide strong electronic ballast switching (50k operations) through NEMA 410-2011, 16A or 20A branch circuit rating

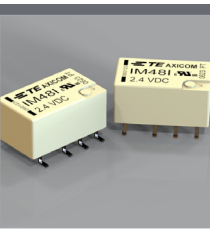


### HF6 RELAY

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Datasheet

- Frequency range up to 6 GHz
- High isolation and low insertion loss
- Scalable PCB footprint



### IM RELAY

245678

Brochure

- Offer high dielectric and surge capability up to 2500Vrms between open contacts and 2500Vrms between coil and contacts
- Slim line 10x6mm, low profile 5.65mm and minimum board-space 60mm<sup>2</sup>



### PCH MINIATURE PCB RELAY

267

Brochure

- 1 form A (NO) or 1 form C (CO) contacts support various loads, with contact ratings from 5 to 10 amps
- Space-saving design is smaller in size than "sugar cube" 3-10A relays
- Both sensitive (200mW) and standard (400mw) coil options accommodate various drive circuits



### P2 SIGNAL RELAY

245678

Brochure

- 2 form C (CO) third generation relay rated 2A, can switch 5A
- Enable design flexibility with latching (bistable) or non-latching (monostable) options
- Offer a high sensitivity solution for low power consumption (140mW/ 70mW)



### PCJ MINIATURE PCB RELAY

5678

Brochure

- 1 form A (NO) contacts are rated 5 amps
- Slim (7mm wide) design saves board space and is offered in flux proof and wash tight versions
- Sensitive coil requires only 200mW of coil power



### T9G SERIES RELAY

245678

Datasheet

- Enable a solution the utilizes 30% less PCB space than current T9A style with the same footprint
- Provide safe separation between coil and contact system by using increased creepage and clearance distances through reinforced insulation



### SRL7 7 POLE FORCE GUIDED RELAY

5679

Brochure

- Enable a space saving solution through a 10.8mm high relay leave enough space in standard safety modules and enable possibility of 17.5mm slim modules
- Enable more circuits and combinations of high and low voltage circuits with a 7 Pole - 2NC and 5NO reinforced relay on all NO contacts

| PRODUCT CATEGORY                              | Brand           | INDUSTRIES |            |            |                |        |            |                      |         |      | Contact Current Rating (A) | Contact Voltage Rating | Contact Arrangement                                               | Contact Number of Poles | Contact Switching Power (W/VA) | Coil Power Rating (DC coil / bistable 1 coil/2 coils) (DC) (mW) | Coil Voltage Rating | Coil Magnetic System | Mounting Type      | Terminal Type                     | Isolation (HF Parameter) | Insertion Loss (HF Parameter) | Insulation Initial Resistance (MΩ) | Contact Material | Key Agency Approvals           |
|-----------------------------------------------|-----------------|------------|------------|------------|----------------|--------|------------|----------------------|---------|------|----------------------------|------------------------|-------------------------------------------------------------------|-------------------------|--------------------------------|-----------------------------------------------------------------|---------------------|----------------------|--------------------|-----------------------------------|--------------------------|-------------------------------|------------------------------------|------------------|--------------------------------|
|                                               |                 | AD&M       | Appliances | Automotive | Communications | Energy | Industrial | Intelligent Building | Medical | Rail |                            |                        |                                                                   |                         |                                |                                                                 |                     |                      |                    |                                   |                          |                               |                                    |                  |                                |
|                                               |                 | 1          | 2          | 3          | 4              | 5      | 6          | 7                    | 8       | 9    |                            |                        |                                                                   |                         |                                |                                                                 |                     |                      |                    |                                   |                          |                               |                                    |                  |                                |
| AUTOMOTIVE, TRUCK, BUS AND OFF-ROAD RELAYS    |                 |            |            |            |                |        |            |                      |         |      |                            |                        |                                                                   |                         |                                |                                                                 |                     |                      |                    |                                   |                          |                               |                                    |                  |                                |
| HIGH CURRENT AUTOMOTIVE RELAYS                |                 |            |            |            |                |        |            |                      |         |      |                            |                        |                                                                   |                         |                                |                                                                 |                     |                      |                    |                                   |                          |                               |                                    |                  |                                |
| High Current Relay 75                         | TE Connectivity |            |            | •          |                |        |            |                      |         |      | 75A                        | 12/24VDC               | 1 form A, 1 NO (bifurcated); 1 form A, 1 NO                       | 1                       | Varies                         | 3.1 to 4.4W                                                     | 12/24VDC            | DC                   | Screw mount        | Connector and screw               | N/A                      | N/A                           | N/A                                | AgSnO2           | IP54                           |
| High Current Relay 150                        | TE Connectivity |            |            | •          |                |        |            |                      |         |      | 130A                       | 12/24VDC               | 1 form A, 1 NO; 1 form B, 1 NC; 1 form C, 1 CO; 1 form X, 1 NO DM | 1                       | Varies                         | 3.3W                                                            | 12/24VDC            | DC                   | Screw mount        | Screw                             | N/A                      | N/A                           | N/A                                | AgSnO2           | RoHS/ELV compliant, IP54, IP67 |
| High Current Relay 200                        | TE Connectivity |            |            | •          |                |        |            |                      |         |      | 175A                       | 12VDC                  | 1 form B, 1 NC                                                    | 1                       | Varies                         | 3.3W                                                            | 12 VDC              | DC                   | Screw mount        | Connector and screw               | N/A                      | N/A                           | N/A                                | AgSnO2           | RoHS/ELV compliant, IP64       |
| Battery Disconnect Switch BDS-A               | TE Connectivity |            |            | •          |                |        |            |                      |         |      | 260A                       | 12/24VDC               | 1 form X, 1 NO DM (Bridge)                                        | 1                       | Varies                         | 7W                                                              | 12/24VDC            | Bistable             | Screw mount        | Connector and screw               | N/A                      | N/A                           | N/A                                | AgSnO2           | N/A                            |
|                                               |                 |            |            |            |                |        |            |                      |         |      |                            |                        |                                                                   |                         |                                |                                                                 |                     |                      |                    |                                   |                          |                               |                                    |                  |                                |
| HIGH VOLTAGE AUTOMOTIVE CONTACTORS AND RELAYS |                 |            |            |            |                |        |            |                      |         |      |                            |                        |                                                                   |                         |                                |                                                                 |                     |                      |                    |                                   |                          |                               |                                    |                  |                                |
| Mini K HV Precharge Relay                     | TE Connectivity |            |            | •          |                |        |            |                      |         |      | 20A                        | 400VDC                 | 1 form X (NO DM)                                                  | 1                       | 450VDC                         | 9kW                                                             | 12VDC               | DC                   | PCB and plug-in/QC | THT and plug-in/QC                | N/A                      | N/A                           | >200 MΩ                            | Ag based         | RoHS/ELV compliant, UL94-HB    |
| EVC 135 Main Contactor                        | EVC             |            |            | •          |                |        |            |                      |         |      | 135A                       | 450VDC                 | 1 form X (SPST NO DM)                                             | 1                       | Varies                         | 5.5W (lower ohm coils need PWM)                                 | 12/24VDC            | DC                   | Screw mount        | Screw (load) and lead (coil)      | N/A                      | N/A                           | >1 GΩ                              | Ag based         | RoHS/ELV compliant             |
| EVC 175 Main Contactor                        | EVC             |            |            | •          |                |        |            |                      |         |      | 175A                       | 450VDC                 | 1 form X (SPST NO DM)                                             | 1                       | Varies                         | 4.4W (economized coil)                                          | 12VDC               | DC                   | Screw mount        | Connector (coil) and screw (load) | N/A                      | N/A                           | >200 MΩ                            | Ag based         | RoHS/ELV compliant             |
| EVC 250 Main Contactor                        | EVC             |            |            | •          |                |        |            |                      |         |      | 250A                       | 450/800VDC             | 1 form X (SPST NO DM)                                             | 1                       | Varies                         | 4W (economized coil)                                            | 12VDC               | DC                   | Screw mount        | Connector (coil) and screw (load) | N/A                      | N/A                           | >200 MΩ                            | Ag based         | RoHS/ELV compliant             |
| EVC 500 Main Contactor                        | EVC             |            |            | •          |                |        |            |                      |         |      | 500A                       | 450VDC                 | 1 form X (SPST NO DM)                                             | 1                       | Varies                         | 3.2W (economized coil)                                          | 12VDC               | DC                   | Screw mount        | Stud (load) and lead (coil)       | N/A                      | N/A                           | >1 GΩ                              | Ag based         | RoHS/ELV compliant             |
| PCB AUTOMOTIVE RELAYS                         |                 |            |            |            |                |        |            |                      |         |      |                            |                        |                                                                   |                         |                                |                                                                 |                     |                      |                    |                                   |                          |                               |                                    |                  |                                |
| Micro Relay K Latching                        | TE Connectivity |            |            | •          |                |        |            |                      |         |      | 30A                        | 12VDC                  | 1 form A, 1 NO; 1 form C, 1 CO                                    | A: 1; C: 1              | N/A                            | 0.55 to 1.1W                                                    | 12VDC               | DC                   | PC board           | THT, THR                          | N/A                      | N/A                           | N/A                                | AgSnO2           | RoHS/ELV compliant             |
| Double Micro Relay K                          | TE Connectivity |            |            | •          |                |        |            |                      |         |      | 30A                        | 12VDC                  | 2 form C, 2 CO                                                    | C: 2                    | N/A                            | 0.55                                                            | 12VDC               | DC                   | PC board           | THT, THR                          | N/A                      | N/A                           | N/A                                | AgSnO2           | RoHS/ELV compliant             |
| Power Relay K                                 | TE Connectivity |            |            | •          |                |        |            |                      |         |      | 45A                        | 12VDC                  | 1 form C, 1 CO                                                    | 1                       | N/A                            | 1.6W                                                            | 12VDC               | DC                   | PC board           | THT                               | N/A                      | N/A                           | N/A                                | AgNi0.15, AgSnO2 | N/A                            |
| Power Relay PK2 HE Latching                   | TE Connectivity |            |            | •          |                |        |            |                      |         |      | 50A                        | 12VDC                  | 1 form A, 1 NO                                                    | 1                       | N/A                            | 0.8                                                             | 12VDC               | DC                   | PC board           | THT, THR                          | N/A                      | N/A                           | N/A                                | AgSnO2           | RoHS/ELV compliant             |
| Power Relay PK2 HE                            | TE Connectivity |            |            | •          |                |        |            |                      |         |      | 60A                        | 12VDC                  | 1 form A, 1 NO                                                    | 1                       | N/A                            | bistable 2 coils                                                | 12VDC               | DC                   | PC board           | THT, THR                          | N/A                      | N/A                           | N/A                                | AgSnO2           | RoHS/ELV compliant             |
| PLUG-IN AUTOMOTIVE RELAYS                     |                 |            |            |            |                |        |            |                      |         |      |                            |                        |                                                                   |                         |                                |                                                                 |                     |                      |                    |                                   |                          |                               |                                    |                  |                                |
| Sockets for Maxi ISO Relay                    | TE Connectivity |            |            | •          |                |        |            |                      |         |      | N/A                        | N/A                    | N/A                                                               | N/A                     | N/A                            | N/A                                                             | N/A                 | N/A                  | Plug-in            | N/A                               | N/A                      | N/A                           | N/A                                | N/A              |                                |
| Sockets for Micro ISO Relay                   | TE Connectivity |            |            | •          |                |        |            |                      |         |      | N/A                        | N/A                    | N/A                                                               | N/A                     | N/A                            | N/A                                                             | N/A                 | N/A                  | Plug-in            | N/A                               | N/A                      | N/A                           | N/A                                | N/A              |                                |
| Sockets for Mini (Shrouded) Relay             | TE Connectivity |            |            | •          |                |        |            |                      |         |      | N/A                        | N/A                    | N/A                                                               | N/A                     | N/A                            | N/A                                                             | N/A                 | N/A                  | Plug-in            | N/A                               | N/A                      | N/A                           | N/A                                | N/A              |                                |
| Micro Relay Low Noise                         | TE Connectivity |            |            | •          |                |        |            |                      |         |      | 20A                        | 12VDC                  | 1 form A, 1 NO; 1 form C, 1 CO                                    | 1                       | N/A                            | 0.6 to 0.9W                                                     | 12VDC               | DC                   | Plug-in            | Plug-in, QC                       | N/A                      | N/A                           | N/A                                | Ag based         | RoHS/ELV compliant             |
| Micro Relay A/VFMA                            | TE Connectivity |            |            | •          |                |        |            |                      |         |      | 30A                        | 12/24VDC               | 1 form A, 1 NO; 1 form C, 1 CO                                    | 1                       | N/A                            | 1 to 1.6W                                                       | 12/24VDC            | DC                   | Plug-in            | Plug-in, QC                       | N/A                      | N/A                           | N/A                                | Ag based         | RoHS/ELV compliant             |
| Power Relay B                                 | TE Connectivity |            |            | •          |                |        |            |                      |         |      | 35A                        | 12/24VDC               | 1 form A, 1 NO; 1 form C, 1 CO                                    | 1                       | N/A                            | 1.7 to 2.3W                                                     | 12/24VDC            | DC                   | Plug-in            | Plug-in, QC                       | N/A                      | N/A                           | N/A                                | Ag based         | RoHS/ELV compliant, UL94-HB    |
| Power Relay F4                                | TE Connectivity |            |            | •          |                |        |            |                      |         |      | 40A                        | 12/24VDC               | 1 form A, 1 NO/1 NO (2x87); 1 form U, 2 NO; 1 form C, 1 CO        | 1                       | N/A                            | 1.6 to 2.1W                                                     | 12/24VDC            | DC                   | Plug-in            | Plug-in, QC/THT                   | N/A                      | N/A                           | N/A                                | Ag based         | RoHS/ELV compliant, UL94-HB    |
| Shrouded Power Relay F4 A                     | TE Connectivity |            |            | •          |                |        |            |                      |         |      | 40A                        | 12VDC                  | 1 form A, 1 NO; 1 form C, 1 CO                                    | 1                       | N/A                            | 1.3W                                                            | 12VDC               | DC                   | Plug-in            | Plug-in, QC/THT                   | N/A                      | N/A                           | N/A                                | Ag based         | RoHS/ELV compliant, UL94-HB    |
| Power Relay F7                                | TE Connectivity |            |            | •          |                |        |            |                      |         |      | 70A                        | 12/24VDC               | 1 form A, 1 NO; 1 form C, 1 CO                                    | 1                       | N/A                            | 1.8 to 2.2W                                                     | 12/24VDC            | DC                   | Plug-in            | Plug-in, QC/THT                   | N/A                      | N/A                           | N/A                                | Ag based         | RoHS/ELV compliant, UL94-HB    |

| PRODUCT CATEGORY                        | Brand               | INDUSTRIES |            |            |                |        |            |                      |         |      | Contact Current Rating (A) | Contact Voltage Rating | Contact Arrangement                                                      | Contact Number of Poles  | Contact Switching Power (W/VA) | Coil Power Rating (DC coil / bistable 1 coil/2 coils) (DC) (mW) | Coil Voltage Rating                        | Coil Magnetic System     | Mounting Type                        | Terminal Type                     | Isolation (HF Parameter) | Insertion Loss (HF Parameter) | Insulation Initial Resistance (MΩ) | Contact Material | Key Agency Approvals          |        |
|-----------------------------------------|---------------------|------------|------------|------------|----------------|--------|------------|----------------------|---------|------|----------------------------|------------------------|--------------------------------------------------------------------------|--------------------------|--------------------------------|-----------------------------------------------------------------|--------------------------------------------|--------------------------|--------------------------------------|-----------------------------------|--------------------------|-------------------------------|------------------------------------|------------------|-------------------------------|--------|
|                                         |                     | AD&M       | Appliances | Automotive | Communications | Energy | Industrial | Intelligent Building | Medical | Rail |                            |                        |                                                                          |                          |                                |                                                                 |                                            |                          |                                      |                                   |                          |                               |                                    |                  |                               |        |
|                                         |                     | 1          | 2          | 3          | 4              | 5      | 6          | 7                    | 8       | 9    |                            |                        |                                                                          |                          |                                |                                                                 |                                            |                          |                                      |                                   |                          |                               |                                    |                  |                               |        |
| HIGH VOLTAGE DC CONTACTORS              |                     |            |            |            |                |        |            |                      |         |      |                            |                        |                                                                          |                          |                                |                                                                 |                                            |                          |                                      |                                   |                          |                               |                                    |                  |                               |        |
| KILOVAC                                 |                     |            |            |            |                |        |            |                      |         |      |                            |                        |                                                                          |                          |                                |                                                                 |                                            |                          |                                      |                                   |                          |                               |                                    |                  |                               |        |
| EV100 Series Contactor                  | Kilovac             | •          |            | •          |                | •      | •          | •                    |         |      | 100A                       | 600VDC                 | 1 form X (SPST-NO)                                                       | 1                        | Contact factory                | Economized coil                                                 | 9 to 32VDC                                 | DC                       | Panel                                | Female thread                     | N/A                      | N/A                           | 100 MΩ                             | Proprietary      | UL, CE                        |        |
| LEV100 Series Contactor                 | Kilovac             | •          |            | •          |                | •      | •          | •                    |         |      | 100A                       | 900VDC                 | 1 form X (SPST-NO)                                                       | 1                        | Contact factory                | N/A                                                             | 12, 24, 48                                 | DC                       | Panel                                | Female thread                     | N/A                      | N/A                           | 100 MΩ                             | Proprietary      | UL, CE                        |        |
| EV202 Contactor                         | Extended<br>Kilovac | •          |            | •          |                | •      | •          | •                    |         |      | 350A                       | 400VDC                 | 2 form X (DPST-NO)                                                       | 2                        | Contact factory                | Economized coil                                                 | 12, 24VDC                                  | DC                       | Panel                                | Female thread                     | N/A                      | N/A                           | 50 MΩ                              | Proprietary      | UL, CE                        |        |
| EV200 Series Contactor                  |                     | Kilovac    | •          |            | •              |        | •          | •                    | •       |      |                            | 500A                   | 900VDC                                                                   | 1 form X (SPST-NO)       | 1                              | Contact factory                                                 | Economized coil                            | 9 to 95VDC               | DC                                   | Panel                             | Stud                     | N/A                           | N/A                                | 100 MΩ           | Proprietary                   | UL, CE |
| LEV200 Series Contactor                 | Kilovac             | •          |            | •          |                | •      | •          | •                    |         |      | 500A                       | 900VDC                 | 1 form X (SPST-NO)                                                       | 1                        | Contact factory                | N/A                                                             | 12, 24, 28, 48, 72, 96, 110DC; 115, 240VAC | DC                       | Panel                                | Stud                              | N/A                      | N/A                           | 100 MΩ                             | Proprietary      | UL, CE                        |        |
| KHR500 Contactor                        | Extended<br>Kilovac | •          |            | •          |                | •      | •          | •                    |         |      | 600A                       | 1000VDC                | 1 form X (SPST-NO) W/AUX                                                 | 1                        | Contact factory                | Economized coil                                                 | 24 to 28VDC                                | DC                       | Panel                                | Female thread                     | N/A                      | N/A                           | 100 MΩ                             | Proprietary      | UL, CE                        |        |
| KIK Contactor                           |                     | Kilovac    | •          |            | •              |        | •          | •                    | •       |      |                            | 1000A                  | 1000VDC                                                                  | 1 form X (SPST-NO) W/AUX | 1                              | Contact factory                                                 | Economized coil                            | 24VDC                    | DC                                   | Panel                             | Busbar                   | N/A                           | N/A                                | 100 MΩ           | Proprietary                   | UL, CE |
| HIGH VOLTAGE RELAYS                     |                     |            |            |            |                |        |            |                      |         |      |                            |                        |                                                                          |                          |                                |                                                                 |                                            |                          |                                      |                                   |                          |                               |                                    |                  |                               |        |
| KILOVAC                                 |                     |            |            |            |                |        |            |                      |         |      |                            |                        |                                                                          |                          |                                |                                                                 |                                            |                          |                                      |                                   |                          |                               |                                    |                  |                               |        |
| KM Relay                                | Kilovac             | •          |            |            |                | •      |            | •                    |         |      | 10A                        | 7.5kV                  | 2C, DPDT                                                                 | 2                        | Contact factory                | Contact factory                                                 | 12 to 26VDC                                | DC                       | Threaded                             | Coil leads                        | N/A                      | N/A                           | 10 GΩ                              | Proprietary      | N/A                           |        |
| HC Series Relay                         | Kilovac             | •          |            |            |                | •      |            | •                    |         |      | 25A                        | 8kV                    | C SPDT                                                                   | 1                        | Contact factory                | Contact factory                                                 | 26.5 to 115VDC                             | DC                       | Non-flanged                          | Turret                            | N/A                      | N/A                           | 0.01 to 0.5 Ω                      | Proprietary      | N/A                           |        |
| KC-14 and KC-18 Relays                  | Kilovac             | •          |            |            |                | •      |            | •                    |         |      | 30A                        | 15kV                   | 1 form A, SPST-NO, 1 NO, 1 form B, SPST-NC, 1 N/C, 1 form C, SPDT, 1 C/O | 1                        | Contact factory                | Contact factory                                                 | 12, 26.5, 115VDC                           | DC                       | Threaded                             | Turret                            | N/A                      | N/A                           | N/A                                | Proprietary      | N/A                           |        |
| K81A, K81B, K81C Relays                 | Kilovac             | •          |            |            |                | •      |            | •                    |         |      | 30A                        | 10kV                   | SPST-NO, SPST-NC, SPDT                                                   | 1                        | Contact factory                | Contact factory                                                 | 12, 26, 115VDC                             | DC                       | PCB, Panel                           | THT, flying leads, threaded studs | N/A                      | N/A                           | N/A                                | Proprietary      | N/A                           |        |
| K40P Relay                              | Kilovac             | •          |            |            |                | •      |            | •                    |         |      | 35A                        | 5KkV                   | SPST-latching                                                            | 1                        | Contact factory                | Contact factory                                                 | 26.5VDC                                    | DC                       | None, flanged                        | Solder terminals                  | N/A                      | N/A                           | N/A                                | Proprietary      | N/A                           |        |
| KC (KC-2, KC-8, KC-11 and KC-12) Relays | Kilovac             | •          |            |            |                | •      |            | •                    |         |      | 50A                        | 15kV                   | C, SPDT                                                                  | 1                        | Contact factory                | Contact factory                                                 | 12, 26.5, 115VDC                           | DC                       | Threaded                             | Turret                            | N/A                      | N/A                           | N/A                                | Proprietary      | N/A                           |        |
| K44P Relay                              | Kilovac             | •          |            |            |                | •      |            | •                    |         |      | 50A                        | 8kV                    | SPST-latching, 1 latching                                                | 1                        | Contact factory                | Contact factory                                                 | 26.5VDC                                    | DC                       | Non-flanged                          | Bus wires                         | N/A                      | N/A                           | N/A                                | Proprietary      | N/A                           |        |
| HVDC CURRENT SENSING CONTACTORS         |                     |            |            |            |                |        |            |                      |         |      |                            |                        |                                                                          |                          |                                |                                                                 |                                            |                          |                                      |                                   |                          |                               |                                    |                  |                               |        |
| KILOVAC                                 |                     |            |            |            |                |        |            |                      |         |      |                            |                        |                                                                          |                          |                                |                                                                 |                                            |                          |                                      |                                   |                          |                               |                                    |                  |                               |        |
| KCS01 Contactor                         | Extended<br>Kilovac | •          |            | •          |                | •      | •          | •                    |         |      | 100A                       | 600VDC                 | 1 form X (SPST-NO) W/AUX                                                 | 1                        | Contact factory                | Economized coil                                                 | 12, 24/28VDC                               | DC                       | Panel                                | Female thread                     | N/A                      | N/A                           | 100 MΩ                             | Proprietary      | N/A                           |        |
| KCS03 Contactor                         |                     | Kilovac    | •          |            | •              |        | •          | •                    | •       |      |                            | 500A                   | 600VDC                                                                   | 1 form X (SPST-NO) W/AUX | 1                              | Contact factory                                                 | Economized coil                            | 12, 24/28VDC             | DC                                   | Panel                             | Female thread            | N/A                           | N/A                                | 100 MΩ           | Proprietary                   | N/A    |
| MIL-AERO RELAYS                         |                     |            |            |            |                |        |            |                      |         |      |                            |                        |                                                                          |                          |                                |                                                                 |                                            |                          |                                      |                                   |                          |                               |                                    |                  |                               |        |
| 1/5 SIZE RELAYS                         |                     |            |            |            |                |        |            |                      |         |      |                            |                        |                                                                          |                          |                                |                                                                 |                                            |                          |                                      |                                   |                          |                               |                                    |                  |                               |        |
| 3SBC 1/5 Size Relay                     | CII                 | •          |            |            |                |        |            |                      |         |      | 2A                         | 28VDC/ 115VAC          | 2 form C, DPDT                                                           | 2                        | N/A                            | 135mW, 50mW                                                     | 1.45 to 10.5VDC                            | DC                       | PC board, chassis mount, panel mount | PC pins, solder hooks             | N/A                      | N/A                           | 1,000 MΩ                           | N/A              | QPL: MIL-R-39016/13, /37, /38 |        |
| 3SBH 1/5 Size Relay                     | CII                 | •          |            |            |                |        |            |                      |         |      | 2A                         | 28VDC/ 115VAC          | 4 form C, 4PDT                                                           | 4                        | N/A                            | 250mW                                                           | 4 to 46VDC                                 | DC                       | PC board, chassis mount, panel mount | PC pins, solder hooks             | N/A                      | N/A                           | 1,000 MΩ                           | N/A              | QPL: MIL-R-39016/14, /53, /54 |        |
| 3SBM 1/5 Size Relay                     | CII                 | •          |            |            |                |        |            |                      |         |      | 2A                         | 28VDC/ 115VAC          | 4 form C, 4PDT                                                           | 4                        | N/A                            | 180mW                                                           | 1.4 to 20VDC                               | Latching                 | PC board, chassis mount, panel mount | PC pins, solder hooks             | N/A                      | N/A                           | 1,000 MΩ                           | N/A              | QPL: MIL-R-39016/31, /35, /36 |        |
| FULL-SIZE RELAYS                        |                     |            |            |            |                |        |            |                      |         |      |                            |                        |                                                                          |                          |                                |                                                                 |                                            |                          |                                      |                                   |                          |                               |                                    |                  |                               |        |
| 3SAM Full-Size Relay                    | CII                 | •          |            |            |                |        |            |                      |         |      | 2A                         | 28VDC/ 115VAC          | 2 form C, DPDT                                                           | 2                        | N/A                            | 50mW or 75mW                                                    | 1.5-99VDC                                  | Latching                 | PC board, chassis mount, panel mount | PC pins, solder hooks, long leads | N/A                      | N/A                           | 1,000 MΩ                           | N/A              | QPL: MIL-R-5757/32            |        |
| 3SAT Full-Size Relay                    | CII                 | •          |            |            |                |        |            |                      |         |      | 2A                         | 28VDC/ 115VAC          | 2 form C, DPDT                                                           | 2                        | N/A                            | 40mW                                                            | Current Calibrated                         | DC                       | PC board, chassis mount, panel mount | PC pins, solder hooks, long leads | N/A                      | N/A                           | 1,000 MΩ                           | N/A              | QPL: MIL-R-5757/13            |        |
| SF Full-Size Relay                      | CII                 | •          |            |            |                |        |            |                      |         |      | 2A                         | 28VDC/ 115VAC          | 2 form C, DPDT                                                           | 2                        | N/A                            | 140mW                                                           | 1.8 to 40VDC                               | DC                       | PC board, chassis mount, panel mount | PC pins, solder hooks, long leads | 40dB                     | 0.4dB                         | 10,000 MΩ                          | N/A              | N/A                           |        |
| FW Full-Size Relay                      | CII                 | •          |            |            |                |        |            |                      |         |      | 3A                         | 28VDC/ 115VAC          | 2 form C, DPDT                                                           | 2                        | N/A                            | 1.0W                                                            | 6.3 to 110VDC                              | DC                       | PC board, chassis mount, panel mount | PC pins, solder hooks, long leads | 40dB                     | 0.4dB                         | 10,000 MΩ                          | N/A              | QPL: MIL-R-5757/10            |        |
| FW5A Full-Size Relay                    | CII                 | •          |            |            |                |        |            |                      |         |      | 5A                         | 28VDC/ 115VAC          | 2 form C, DPDT                                                           | 2                        | N/A                            | 1.0W                                                            | 6.3 to 110VDC                              | DC                       | PC board, chassis mount, panel mount | PC pins, solder hooks, long leads | 40dB                     | 0.4dB                         | 10,000 MΩ                          | N/A              | N/A                           |        |
| SF5A Full-Size Relay                    | CII                 | •          |            |            |                |        |            |                      |         |      | 5A                         | 28VDC/ 115VAC          | 2 form C, DPDT                                                           | 2                        | N/A                            | 280mW                                                           | 1.8 to 40VDC                               | DC                       | PC board, chassis mount, panel mount | PC pins, solder hooks, long leads | 40dB                     | 0.4dB                         | 10,000 MΩ                          | N/A              | N/A                           |        |
| 07 Full-Size Relay                      | CII                 | •          |            |            |                |        |            |                      |         |      | 10A                        | 28VDC/ 115VAC          | 2 form C, DPDT                                                           | 2                        | N/A                            | 4.3W                                                            | 6 to 120VDC                                | DC, AC, diode-suppressed | PC board, chassis mount, panel mount | PC pins, solder hooks, long leads | N/A                      | N/A                           | 1,000 MΩ                           | N/A              | QPL: MIL-R-5757/23            |        |

| PRODUCT CATEGORY                                 | Brand   | INDUSTRIES |                 |                 |                     |             |                 |                           |              |           | Contact Current Rating (A) | Contact Voltage Rating  | Contact Arrangement                                | Contact Number of Poles | Contact Switching Power (W/VA) | Coil Power Rating (DC coil / bistable 1 coil/2 coils) (DC) (mW) | Coil Voltage Rating       | Coil Magnetic System | Mounting Type                        | Terminal Type                          | Isolation (HF Parameter) | Insertion Loss (HF Parameter) | Insulation Initial Resistance (MΩ) | Contact Material | Key Agency Approvals                                 |
|--------------------------------------------------|---------|------------|-----------------|-----------------|---------------------|-------------|-----------------|---------------------------|--------------|-----------|----------------------------|-------------------------|----------------------------------------------------|-------------------------|--------------------------------|-----------------------------------------------------------------|---------------------------|----------------------|--------------------------------------|----------------------------------------|--------------------------|-------------------------------|------------------------------------|------------------|------------------------------------------------------|
|                                                  |         | AD&M<br>1  | Appliances<br>2 | Automotive<br>3 | Communications<br>4 | Energy<br>5 | Industrial<br>6 | Intelligent Building<br>7 | Medical<br>8 | Rail<br>9 |                            |                         |                                                    |                         |                                |                                                                 |                           |                      |                                      |                                        |                          |                               |                                    |                  |                                                      |
| MIL-AERO RELAYS                                  |         |            |                 |                 |                     |             |                 |                           |              |           |                            |                         |                                                    |                         |                                |                                                                 |                           |                      |                                      |                                        |                          |                               |                                    |                  |                                                      |
| HALF-SIZE RELAYS                                 |         |            |                 |                 |                     |             |                 |                           |              |           |                            |                         |                                                    |                         |                                |                                                                 |                           |                      |                                      |                                        |                          |                               |                                    |                  |                                                      |
| HFW Half-Size Relay                              | CII     | •          |                 |                 |                     |             |                 |                           |              |           | 2A                         | 28VDC/115VAC, 400Hz     | 2 form C, DPDT                                     | 2                       | N/A                            | 1.0W                                                            | 5 to 48VDC                | DC                   | PC board, chassis mount, panel mount | PC pins, solder hooks                  | N/A                      | N/A                           | 10,000 MΩ                          | N/A              | QPL: MIL-R-39016/6                                   |
| HMB Half-Size Relay                              | CII     | •          |                 |                 |                     |             |                 |                           |              |           | 2A                         | 28VDC/115VAC, 400Hz     | 2 form C, DPDT                                     | 2                       | N/A                            | 1.0W                                                            | 6 to 26.5VDC              | DC                   | PC board, chassis mount, panel mount | PC pins, solder hooks                  | N/A                      | N/A                           | 10,000 MΩ                          | N/A              | QPL: MIL-R-39016/22                                  |
| HMS Half-Size Relay                              | CII     | •          |                 |                 |                     |             |                 |                           |              |           | 2A                         | 28VDC/115VAC, 400Hz     | 2 form C, DPDT                                     | 2                       | N/A                            | 680mW                                                           | 5 to 36VDC                | DC                   | PC board, chassis mount, panel mount | PC pins, solder hooks                  | N/A                      | N/A                           | 10,000 MΩ                          | N/A              | QPL: MIL-R-39016/44                                  |
| LS Half-Size Relay                               | CII     | •          |                 |                 |                     |             |                 |                           |              |           | 2A                         | 28VDC/115VAC, 400Hz     | 2 form C, DPDT                                     | 2                       | N/A                            | 700mW                                                           | 5 to 48VDC                | Latching             | PC board, chassis mount, panel mount | PC pins, solder hooks                  | 45dB                     | 0.6dB                         | 10,000 MΩ                          | N/A              | N/A                                                  |
| SR Half-Size Relay                               | CII     | •          |                 |                 |                     |             |                 |                           |              |           | 2A                         | 28VDC/115VAC, 400Hz     | 4 form C, DPDT                                     | 4                       | N/A                            | 1.8W                                                            | 6 to 26.5VDC              | DC                   | PC board, chassis mount, panel mount | PC pins, solder hooks                  | N/A                      | N/A                           | 1,000 MΩ                           | N/A              | QPL: MIL-R-39016/40                                  |
| HFW4A Half-Size Relay                            | CII     | •          |                 |                 |                     |             |                 |                           |              |           | 4A                         | 28VDC/115VAC, 400Hz     | 2 form C, DPDT                                     | 2                       | N/A                            | 1.0W                                                            | 5 to 48VDC                | DC                   | PC board, chassis mount, panel mount | PC pins, solder hooks                  | N/A                      | N/A                           | 10,000 MΩ                          | N/A              | N/A                                                  |
| HFC5A Half-Size Relay                            | CII     | •          |                 |                 |                     |             |                 |                           |              |           | 5A                         | 28VDC/115VAC, 400Hz     | 2 form C, DPDT                                     | 2                       | N/A                            | 1.0W                                                            | 5 to 26.5VDC              | DC                   | PC board, chassis mount, panel mount | PC pins, solder hooks                  | N/A                      | N/A                           | 1,000 MΩ                           | N/A              | N/A                                                  |
| HFW5A Half-Size Relay                            | CII     | •          |                 |                 |                     |             |                 |                           |              |           | 5A                         | 28VDC/115VAC, 400Hz     | 2 form C, DPDT                                     | 2                       | N/A                            | 1.0W                                                            | 5 to 26.5VDC              | DC                   | PC board, chassis mount, panel mount | PC pins, solder hooks                  | N/A                      | N/A                           | 10,000 MΩ                          | N/A              | N/A                                                  |
| C Half-Size Relay                                | CII     | •          |                 |                 |                     |             |                 |                           |              |           | 10A                        | 28VDC/115VAC, 400Hz     | 1 form C, SPDT                                     | 1                       | N/A                            | 1.4W                                                            | 6 to 26.5VDC              | DC                   | PC board, chassis mount, panel mount | PC pins, solder hooks                  | N/A                      | N/A                           | 1,000 MΩ                           | N/A              | N/A                                                  |
| HIGH FREQUENCY RELAYS                            |         |            |                 |                 |                     |             |                 |                           |              |           |                            |                         |                                                    |                         |                                |                                                                 |                           |                      |                                      |                                        |                          |                               |                                    |                  |                                                      |
| MW3 Microwave Relay                              | CII     | •          |                 |                 |                     |             |                 |                           |              |           | 1A                         | 28VDC/115VAC, 400Hz     | 2 form C, DPDT                                     | 2                       | N/A                            | 675mW                                                           | 5, 12, 18, 26.5 VDC       | DC                   | PC board                             | PC pins, long leads                    | 22dB                     | 0.36dB                        | 1,000 MΩ                           | N/A              | N/A                                                  |
| MW3HP Microwave Relay                            | CII     | •          |                 |                 |                     |             |                 |                           |              |           | 1A                         | 28VDC/115VAC, 400Hz     | 2 form C, DPDT                                     | 2                       | N/A                            | 673mW                                                           | 5, 6, 9, 12, 18, 26.5 VDC | DC                   | PC board                             | PC pins, long leads                    | 22dB                     | 0.36dB                        | 1,000 MΩ                           | N/A              | N/A                                                  |
| MW3S Microwave Relay                             | CII     | •          |                 |                 |                     |             |                 |                           |              |           | 1A                         | 28VDC/115VAC, 400Hz     | 2 form C, DPDT                                     | 2                       | N/A                            | 565mW                                                           | 5, 6, 9, 12, 18, 26.5 VDC | DC                   | PC board                             | PC pins, long leads                    | 22dB                     | 0.36dB                        | 1,000 MΩ                           | N/A              | N/A                                                  |
| MW4 Microwave Relay                              | CII     | •          |                 |                 |                     |             |                 |                           |              |           | 1A                         | 28VDC/115VAC, 400Hz     | 2 form C, DPDT                                     | 2                       | N/A                            | 675mW                                                           | 5, 12, 18, 26.5 VDC       | DC                   | PC board                             | PC pins, long leads                    | 18dB                     | 0.27dB                        | 1,000 MΩ                           | N/A              | N/A                                                  |
| MW4S Microwave Relay                             | CII     | •          |                 |                 |                     |             |                 |                           |              |           | 1A                         | 28VDC/115VAC, 400Hz     | 2 form C, DPDT                                     | 2                       | N/A                            | 565mW                                                           | 5, 6, 9, 12, 18, 26.5 VDC | DC                   | PC board                             | PC pins, long leads                    | 18dB                     | 0.27dB                        | 1,000 MΩ                           | N/A              | N/A                                                  |
| MW6 Microwave Relay                              | CII     | •          |                 |                 |                     |             |                 |                           |              |           | 1A                         | 28VDC/115VAC, 400Hz     | 2 form C, DPDT                                     | 2                       | N/A                            | 675mW                                                           | 5, 12, 18, 26.5 VDC       | DC                   | PC board                             | PC pins, long leads                    | 18dB                     | 0.38dB                        | 1,000 MΩ                           | N/A              | N/A                                                  |
| MID-RANGE RELAYS                                 |         |            |                 |                 |                     |             |                 |                           |              |           |                            |                         |                                                    |                         |                                |                                                                 |                           |                      |                                      |                                        |                          |                               |                                    |                  |                                                      |
| FCB-205, 5 Amp Series Relay                      | CII     | •          |                 |                 |                     |             |                 |                           |              |           | 5A                         | 28VDC, 115/200VAC 400HZ | 2 form C, DPDT                                     | 2                       | N/A                            | 1.6W                                                            | 6, 12, 28, 48VDC; 115VAC  | AC, DC               | Socket, panel, PCB                   | Socket pins, solder pins, solder hooks | N/A                      | N/A                           | 100 MΩ                             | N/A              | M83536/1, M83536/2                                   |
| FCB-405, 5 Amp Series Relay                      | CII     | •          |                 |                 |                     |             |                 |                           |              |           | 5A                         | 28VDC, 115/200VAC 400HZ | 4 form C, 4PDT                                     | 4                       | N/A                            | 2.0W                                                            | 6, 12, 28, 48VDC; 115VAC  | AC, DC               | Socket, panel, PCB                   | Socket pins, solder pins, solder hooks | N/A                      | N/A                           | 100 MΩ                             | N/A              | M83536/5, M83536/6                                   |
| FCA-210; FCA-410; FCA-215; FCA-415 Series Relays | CII     | •          |                 |                 |                     |             |                 |                           |              |           | 10A/ 15A                   | 28VDC, 115/200VAC 400HZ | 4 form C, 4PDT for FCA-410/ FCA-415                | 2, 4                    | N/A                            | 2.7W                                                            | 6, 12, 28, 48VDC; 115VAC  | AC, DC               | Socket, panel, PCB                   | Socket pins, solder pins, solder hooks | N/A                      | N/A                           | 100 MΩ                             | N/A              | M83536/9, M83536/10, M83536/15, M83536/16            |
| FC-325 Series Relay                              | CII     | •          |                 |                 |                     |             |                 |                           |              |           | 25A                        | 28VDC, 115VAC           | 2 form C, DPDT                                     | 3                       | N/A                            | 4.9W                                                            | 28VDC/ 115VAC             | AC, DC               | Panel mount                          | Screw terminals, solder hooks          | N/A                      | N/A                           | 100 MΩ                             | N/A              | MS27418                                              |
| FCA-125; FCA-325; FCAC-325 Series Relays         | CII     | •          |                 |                 |                     |             |                 |                           |              |           | 25A                        | 28VDC, 115VAC 400HZ     | 2 form C, DPDT                                     | 1, 3                    | N/A                            | 2.7W                                                            | 6, 12, 28, 48VDC; 115VAC  | AC, DC               | Socket, panel, PCB                   | Socket pins, solder pins, solder hooks | N/A                      | N/A                           | 100 MΩ                             | N/A              | M6106/19, M83536/36, M83536/37, M83536/32, M83536/33 |
| FCA-150, FCAC-150 Series Relay                   | CII     | •          |                 |                 |                     |             |                 |                           |              |           | 50A                        | 28VDC                   | 1 Form X (SPST-NO-DM); 1 Form X (SPST-NC-DM) W/AUX | 1                       | N/A                            | 2.7W                                                            | 6, 12, 28VDC              | DC                   | Panel mount                          | Threaded studs                         | N/A                      | N/A                           | 100 MΩ                             | N/A              | N/A                                                  |
| MIL-AERO CONTACTORS                              |         |            |                 |                 |                     |             |                 |                           |              |           |                            |                         |                                                    |                         |                                |                                                                 |                           |                      |                                      |                                        |                          |                               |                                    |                  |                                                      |
| D7, DH7, D16, DH16, D18, DH18 Series Contactor   | Hartman | •          |                 |                 |                     |             |                 |                           |              |           | 50A/60A                    | 115VAC/400Hz            | 3PST, 3PDT, 3PDT-CO, 3PDT latching                 | 3                       | 20KVA                          | Various                                                         | 28VDC or 115VAC           | N/A                  | Panel                                | Stud                                   | N/A                      | N/A                           | N/A                                | N/A              | N/A                                                  |
| BH315, BH316 Contactor                           | Hartman | •          |                 |                 |                     |             |                 |                           |              |           | 50A/60A                    | 115VAC/400Hz            | 3PST-NO, DM                                        | 3                       | 20KVA                          | Various                                                         | 28VDC                     | N/A                  | Panel                                | Stud                                   | N/A                      | N/A                           | N/A                                | N/A              | N/A                                                  |
| MAP100; MAP101 Series Contactor                  | Kilovac | •          |                 |                 |                     |             |                 |                           |              |           | 100A                       | 12-900VDC               | 1 form X (SPST-NO) W/AUX                           | 1                       | Contact factory                | Economized coil                                                 | 28VDC                     | DC                   | Side                                 | Threaded                               | N/A                      | N/A                           | 100 MΩ                             | N/A              | N/A                                                  |
| D25, DH25, D31, DH31 Series Contactor            | Hartman | •          |                 |                 |                     |             |                 |                           |              |           | 100A/ 120A                 | 115VAC/400Hz            | 3PST, 3PDT, 3PDT-CO                                | 3                       | 40KVA                          | Various                                                         | 28VDC or 115VAC           | N/A                  | Panel                                | Stud                                   | N/A                      | N/A                           | N/A                                | N/A              | N/A                                                  |
| K200 Series Contactor                            | Hartman | •          |                 |                 |                     |             |                 |                           |              |           | 200A                       | 28VDC                   | SPST-NO, DM                                        | 1                       | 5600                           | Varies per specific p/n                                         | 28VDC                     | Side stable          | Panel                                | Busbar                                 | N/A                      | N/A                           | 500 MΩ                             | Ag alloy         | Tested to appropriate MIL-PRP-6106 specs             |
| CAP202 Series Contactor                          | Kilovac | •          |                 |                 |                     |             |                 |                           |              |           | 300A                       | 12-900VDC               | 2 form X (DPST-NO)                                 | 2                       | Contact factory                | Economized coil                                                 | 28 to 32VDC               | DC                   | Bottom mount                         | Threaded                               | N/A                      | N/A                           | 50 MΩ                              | N/A              | N/A                                                  |
| K400 Series Contactor                            | Hartman | •          |                 |                 |                     |             |                 |                           |              |           | 400A                       | 28VDC                   | SPST-NO, DM                                        | 1                       | 11200                          | Varies per specific p/n                                         | 28VDC                     | Side stable          | Panel                                | Busbar                                 | N/A                      | N/A                           | 500 MΩ                             | Ag alloy         | Tested to appropriate MIL-PRP-6106 specs             |
| KD400 Series Contactor                           | Hartman | •          |                 |                 |                     |             |                 |                           |              |           | 400A                       | 28VDC                   | SPDT-double make/break                             | 1                       | 11200                          | Varies per specific p/n                                         | 28VDC                     | Side stable          | Panel                                | Busbar                                 | N/A                      | N/A                           | 500 MΩ                             | Ag alloy         | Tested to appropriate MIL-PRP-6106 specs             |
| K500 Series Contactor                            | Hartman | •          |                 |                 |                     |             |                 |                           |              |           | 500A                       | 28VDC                   | SPSP-NO, DM                                        | 1                       | 14000                          | Varies per specific p/n                                         | 28VDC                     | Side stable          | Panel                                | Busbar                                 | N/A                      | N/A                           | 500 MΩ                             | Ag alloy         | Tested to appropriate MIL-PRP-6106 specs             |
| CAP200 Series Contactor                          | Kilovac | •          |                 |                 |                     |             |                 |                           |              |           | 500A                       | 12-900VDC               | 1 form A (SPST-NO)                                 | 1                       | Contact factory                | Economized coil                                                 | 9 to 95VDC                | DC                   | Bottom mount                         | Threaded                               | N/A                      | N/A                           | 100 MΩ                             | N/A              | N/A                                                  |
| MAP200; MAP201 Series Contactor                  | Kilovac | •          |                 |                 |                     |             |                 |                           |              |           | 500A/ 350A                 | 12-900VDC               | 1 form X (SPST-NO) W/AUX                           | 1                       | Contact factory                | Economized coil                                                 | 28VDC                     | DC                   | Bottom                               | Threaded                               | N/A                      | N/A                           | 100 MΩ                             | N/A              | N/A                                                  |
| KHR500 Contactor                                 | Kilovac | •          |                 |                 |                     |             |                 |                           |              |           | 600A                       | 28-1000VDC              | 1 form X (SPST-NO) W/AUX                           | 1                       | Contact factory                | Economized coil                                                 | 24 to 28VDC               | DC                   | Bottom                               | Threaded                               | N/A                      | N/A                           | 100 MΩ                             | N/A              | N/A                                                  |
| K1000 Series Contactor                           | Hartman | •          |                 |                 |                     |             |                 |                           |              |           | 1000A                      | 28VDC                   | SPST-NO, DM                                        | 1                       | 28000                          | Varies per specific p/n                                         | 28VDC                     | Side stable          | Panel                                | Busbar                                 | N/A                      | N/A                           | 500 MΩ                             | Ag alloy         | Tested to appropriate MIL-PRP-6106 specs             |

| PRODUCT CATEGORY                               | Brand              | INDUSTRIES |            |            |                |        |            |                      |         |      | Contact Current Rating (A) | Contact Voltage Rating    | Contact Arrangement                                                                                                 | Contact Number of Poles       | Contact Switching Power (W/VA)                 | Coil Power Rating (DC coil / bistable 1 coil/2 coils) (DC) (mW) | Coil Voltage Rating | Coil Magnetic System            | Mounting Type               | Terminal Type                 | Isolation (HF Parameter)                              | Insertion Loss (HF Parameter) | Insulation Initial Resistance (MΩ) | Contact Material | Key Agency Approvals      |                                                   |                                         |
|------------------------------------------------|--------------------|------------|------------|------------|----------------|--------|------------|----------------------|---------|------|----------------------------|---------------------------|---------------------------------------------------------------------------------------------------------------------|-------------------------------|------------------------------------------------|-----------------------------------------------------------------|---------------------|---------------------------------|-----------------------------|-------------------------------|-------------------------------------------------------|-------------------------------|------------------------------------|------------------|---------------------------|---------------------------------------------------|-----------------------------------------|
|                                                |                    | AD&M       | Appliances | Automotive | Communications | Energy | Industrial | Intelligent Building | Medical | Rail |                            |                           |                                                                                                                     |                               |                                                |                                                                 |                     |                                 |                             |                               |                                                       |                               |                                    |                  |                           |                                                   |                                         |
|                                                |                    | 1          | 2          | 3          | 4              | 5      | 6          | 7                    | 8       | 9    |                            |                           |                                                                                                                     |                               |                                                |                                                                 |                     |                                 |                             |                               |                                                       |                               |                                    |                  |                           |                                                   |                                         |
| MIL-AERO RELAYS                                |                    |            |            |            |                |        |            |                      |         |      |                            |                           |                                                                                                                     |                               |                                                |                                                                 |                     |                                 |                             |                               |                                                       |                               |                                    |                  |                           |                                                   |                                         |
| SOLID STATE RELAYS                             |                    |            |            |            |                |        |            |                      |         |      |                            |                           |                                                                                                                     |                               |                                                |                                                                 |                     |                                 |                             |                               |                                                       |                               |                                    |                  |                           |                                                   |                                         |
| MS 14 Series SSR Relay                         | Kilovac            | •          |            |            |                |        |            |                      |         |      | 350mA                      | 400VDC                    | SPST-NO                                                                                                             | 1                             | N/A                                            | N/A                                                             |                     | 3.8 to 32VDC                    | DC                          | PCB                           | THT                                                   |                               | N/A                                | N/A              | 10 <sup>9</sup> Ω         | N/A                                               | N/A                                     |
| DS11 Series DC Relay                           | Kilovac            | •          |            |            |                |        |            |                      |         |      | 2A                         | 60VDC                     | SPST-NO                                                                                                             | 1                             | N/A                                            | N/A                                                             |                     | 3.8 to 32VDC                    | DC                          | PCB                           | THT                                                   |                               | N/A                                | N/A              | 10 <sup>9</sup> Ω         | N/A                                               | N/A                                     |
| DS13 Series DC Relay                           | Kilovac            | •          |            |            |                |        |            |                      |         |      | 2A                         | 60VDC                     | SPST-NO                                                                                                             | 1                             | N/A                                            | N/A                                                             |                     | 3.8 to 32VDC                    | DC                          | PCB                           | THT                                                   |                               | N/A                                | N/A              | 10 <sup>9</sup> Ω         | N/A                                               | DSCC PN: 90091-008                      |
| MS18 Series Relay                              | Kilovac            | •          |            |            |                |        |            |                      |         |      | 2A                         | 80VDC                     | SPST-NO                                                                                                             | 1                             | N/A                                            | N/A                                                             |                     | 25mAdc                          | DC                          | PCB                           | THT                                                   |                               | N/A                                | N/A              | 10 <sup>9</sup> Ω         | N/A                                               | DSCC PN: 89116-006                      |
| JDS9 Series Relay                              | Kilovac            | •          |            |            |                |        |            |                      |         |      | 2A                         | 250VDC                    | SPST-NO                                                                                                             | 1                             | N/A                                            | N/A                                                             |                     | 3.8 to 32VDC                    | DC                          | PCB                           | THT                                                   |                               | N/A                                | N/A              | 10 <sup>9</sup> Ω         | N/A                                               | N/A                                     |
| PS12 Series Relay                              | Kilovac            | •          |            |            |                |        |            |                      |         |      | 10A                        | 250VAC                    | SPST-NO                                                                                                             | 1                             | N/A                                            | N/A                                                             |                     | 4 to 32VDC                      | DC                          | Panel                         | Screw                                                 |                               | N/A                                | N/A              | 10 <sup>9</sup> Ω         | N/A                                               | DSCC PN: 86031-001                      |
| JPS10 Series Relay                             | Kilovac            | •          |            |            |                |        |            |                      |         |      | 25A                        | 250VAC                    | SPST-NO                                                                                                             | 1                             | N/A                                            | N/A                                                             |                     | 3.8 to 32VDC                    | DC                          | Panel                         | Solder hook                                           |                               | N/A                                | N/A              | 10 <sup>9</sup> Ω         | N/A                                               | MIL PN: M28750/10-001Y & M28750/10-002Y |
| TIME DELAY RELAYS                              |                    |            |            |            |                |        |            |                      |         |      |                            |                           |                                                                                                                     |                               |                                                |                                                                 |                     |                                 |                             |                               |                                                       |                               |                                    |                  |                           |                                                   |                                         |
| TD228 Relay                                    | CII                | •          |            |            |                |        |            |                      |         |      | 10A                        | 28VDC/115VAC/200VAC/400Hz | 2 Form C (DPDT)                                                                                                     | 2                             | N/A                                            | 4.2W                                                            |                     | 28VDC                           | Fixed delay on operate      | Socket, panel, PCB            | Socket Pins, solder pins, solder hooks                | N/A                           | N/A                                | 1,000 MΩ         | N/A                       | MIL-PRF-83726/28                                  |                                         |
| TD229 Relay                                    | CII                | •          |            |            |                |        |            |                      |         |      | 10A                        | 28VDC/115VAC/200VAC/400Hz | 2 Form C (DPDT)                                                                                                     | 2                             | N/A                                            | 4.2W                                                            |                     | 28VDC                           | Fixed delay on release      | Socket, panel, PCB            | Socket Pins, solder pins, solder hooks                | N/A                           | N/A                                | 1,000 MΩ         | N/A                       | MIL-PRF-83726/29                                  |                                         |
| TD230 Relay                                    | CII                | •          |            |            |                |        |            |                      |         |      | 10A                        | 28VDC/115VAC/200VAC/400Hz | 2 Form C (DPDT)                                                                                                     | 2                             | N/A                                            | 4.2W                                                            |                     | 28VDC                           | Adjustable delay on operate | Socket, panel, PCB            | Socket Pins, solder pins, solder hooks                | N/A                           | N/A                                | 1,000 MΩ         | N/A                       | MIL-PRF-83726/30                                  |                                         |
| TD231 Relay                                    | CII                | •          |            |            |                |        |            |                      |         |      | 10A                        | 28VDC/115VAC/200VAC/400Hz | 2 Form C (DPDT)                                                                                                     | 2                             | N/A                                            | 4.2W                                                            |                     | 28VDC                           | Adjustable delay on release | Socket, panel, PCB            | Socket Pins, solder pins, solder hooks                | N/A                           | N/A                                | 1,000 MΩ         | N/A                       | MIL-PRF-83726/31                                  |                                         |
| POWER RELAYS                                   |                    |            |            |            |                |        |            |                      |         |      |                            |                           |                                                                                                                     |                               |                                                |                                                                 |                     |                                 |                             |                               |                                                       |                               |                                    |                  |                           |                                                   |                                         |
| FORCE-GUIDED RELAYS                            |                    |            |            |            |                |        |            |                      |         |      |                            |                           |                                                                                                                     |                               |                                                |                                                                 |                     |                                 |                             |                               |                                                       |                               |                                    |                  |                           |                                                   |                                         |
| SR2M 2 Pole Force Guided Relay                 | Schrack            |            |            |            |                | •      | •          | •                    |         | •    | 6A                         | 250VAC                    | 1 form A + 1 form B 1NO + 1NC, 2 form C 2CO                                                                         | A: 1 B: 1 C: 2                | 1500VA                                         | 700mW                                                           |                     | 5 to 110VDC                     | DC                          | PCB, socket                   | THT                                                   |                               | N/A                                | N/A              | N/A                       | AgNi                                              | cULus, VDE, TÜV, CCC                    |
| SRL7 7 Pole Force Guided Relay                 | Schrack            |            |            |            |                | •      | •          | •                    |         | •    | 6A                         | 250VAC                    | 5 form A + 2 form B, 5NO + 2NC                                                                                      | A: 5; B: 2                    | 1500VA                                         | 700mW                                                           |                     | 5 to 110VDC                     | DC                          | PCB                           | THT                                                   |                               | N/A                                | N/A              | N/A                       | AgSnO                                             | cULus, VDE, TÜV                         |
| SR4m 4 Pole Force Guided Relay                 | Schrack            |            |            |            |                | •      | •          | •                    |         | •    | 8A                         | 250VAC                    | 3 form A + 1 form B 3NO + 1 NC 2 form A + 2 form B contacts 2 NO + 2 NC                                             | A: 2, 3 B: 1, 2               | 2000VA                                         | 800mW                                                           |                     | 5 to 110VDC                     | DC                          | PCB                           | THT                                                   |                               | N/A                                | N/A              | N/A                       | AgSnO                                             | cULus, VDE, TÜV, CCC                    |
| SR6-V23050 4 & 6 Pole Force Guided Relay       | Schrack            |            |            |            |                | •      | •          | •                    |         | •    | 8A                         | 250VAC                    | 3 form A + 1 form B 3 NO + 1 NC 2 form A + 2 form B 2 NO + 2 NC                                                     | A: 2, 3 B: 1, 2               | 2000VA                                         | 800mW, 1200mW                                                   |                     | 5 to 110VDC                     | DC                          | PCB                           | THT                                                   |                               | N/A                                | N/A              | N/A                       | AgSnO                                             | cULus, VDE, TÜV, CCC                    |
| SRAZ 2 & 6 Pole Force Guided Relay on Din Rail | Schrack            |            |            |            |                | •      | •          | •                    |         | •    | 8A                         | 250VAC                    | 3 form A + 3 form B, 3NO + 3NC 4 form A + 2 form B, 4 NO + 2NC 5 form A + 1 form B, 5 NO + 1NC                      | A: 3, 4, 5 B: 1, 2, 3         | 1500VA, 2000VA                                 | 1200mW                                                          |                     | 6 to 115VAC/ VDC, 230VAC        | DC, AC                      | DIN rail                      | Screwless                                             |                               | N/A                                | N/A              | N/A                       | AgSnO                                             | CE                                      |
| INDUSTRIAL PANEL PLUG-IN                       |                    |            |            |            |                |        |            |                      |         |      |                            |                           |                                                                                                                     |                               |                                                |                                                                 |                     |                                 |                             |                               |                                                       |                               |                                    |                  |                           |                                                   |                                         |
| KHA Series Relay                               | Potter & Brumfield |            |            |            |                | •      | •          | •                    |         |      | 1A to 5A                   | 240VAC                    | 2 form C (CO), 4 form C (CO)                                                                                        | 2, 4                          | N/A                                            | 800 to 1100mW/1.2 to 1.5A                                       |                     | 5 to 240VDC, 6 to 240VAC        | AC, DC                      | Socket, PCB, flange           | THT, solder                                           |                               | N/A                                | N/A              | 1000 MΩ                   | Ag, AgCdO, Au-AgNi, Au overlay Ag, Au diffused Ag | UL                                      |
| GP/TR Series Relay                             | Agastat            | •          |            |            |                | •      | •          |                      |         |      | 1A/10A                     | 125VDC/ 120VAC            | 4 form C, 4PDT                                                                                                      | 4                             | NA                                             | 6W/6VA                                                          |                     | 24, 120, 220VAC                 | AC, DC                      | Socket                        | Flat base pins. Screw terminal sockets are available. |                               | N/A                                | N/A              | N/A                       | Varies                                            | CSA Approved, RU                        |
| MT Multimode Relay                             | Schrack            |            |            |            |                | •      | •          | •                    |         |      | 4A/10A                     | 240VAC                    | 2 form C 2 CO, 3 form C 3 CO                                                                                        | C: 2, 3                       | 500/2500VA                                     | 1100 to 1300mW, 2.2 to 2.3VA                                    |                     | 6 to 220VDC, 6 to 230VAC        | DC, AC                      | Socket                        | Plug-in                                               |                               | N/A                                | N/A              | N/A                       | AgNi 90/10, AgNi90/10 Au plated                   | cULus, VDE                              |
| Relay Packages SNR, RT, XT, PT                 | Schrack            |            |            |            |                | •      | •          | •                    |         |      | 6A/7A/ 8A/10A/ 12A         | 240VAC                    | 1 form C 1CO, 2 form C 2CO, 3 form C 3CO, 4 form C 4CO                                                              | C: 1, 2, 3, 4                 | 1500VA, 4000VA, 2000VA, 3000VA, 2500VA, 1500VA | 170 to 950mW, 0.75 to 1VA                                       |                     | 12 to 24VDC, 24 to 230VAC       | DC, AC                      | DIN rail                      | Screw clamps                                          |                               | N/A                                | N/A              | N/A                       | AgSnO, AgNi 90/10, AgNi90/10 Au plated            | cULus, VDE, CE                          |
| Slim Interface Relay SNR                       | Schrack            |            |            |            |                | •      | •          | •                    |         |      | 6A                         | 250VAC                    | 1 form C 1CO                                                                                                        | C: 1                          | 1500VA                                         | 170 to 220mW                                                    |                     | 6 to 110VDC                     | DC                          | PCB, socket                   | THT                                                   |                               | N/A                                | N/A              | N/A                       | AgSnO, AgSnO Au plated                            | cULus, VDE                              |
| Interface Relay RT1 & RT2                      | Schrack            |            |            |            |                | •      | •          | •                    |         |      | 8A/16A                     | 250VAC                    | 1 form C 1CO, 2 form C 2CO                                                                                          | C: 1, 2                       | 3000VA, 4000VA, 2000VA                         | 400 to 420mW, 0.75VA                                            |                     | 6 to 110VDC, 24 to 230VAC       | DC, AC                      | PCB, socket                   | THT                                                   |                               | N/A                                | N/A              | N/A                       | AgNi 90/10, AgNi90/10 Au plated                   | cULus, VDE                              |
| Interface Relay XT                             | Schrack            |            |            |            |                | •      | •          | •                    |         |      | 8A/16A                     | 240VAC                    | 1 form C 1CO, 2 form C 2CO                                                                                          | C: 1, 3                       | 4000VA, 2000VA                                 | 400 to 420mW, 0.75VA                                            |                     | 12 to 110VDC, 24 to 230VAC      | DC, AC                      | Socket                        | THT                                                   |                               | N/A                                | N/A              | N/A                       | AgNi 90/10                                        | cULus, VDE, Lloyds                      |
| KBP Series Relay                               | Potter & Brumfield |            |            |            |                | •      | •          | •                    |         |      | 10A                        | 120VAC                    | 2 form C (CO), 4 form C (CO), 5 form C (CO)                                                                         | 2, 4, 5                       | N/A                                            | 2.42 to 2.8W/5.05 to 8.2VA                                      |                     | 12 to 220VDC, 24 to 240VAC      | AC, DC                      | Socket                        | Octal style plug-in                                   |                               | N/A                                | N/A              | 100 MΩ                    | Ag, AgCdO                                         | UL                                      |
| KRP/KRPA Series Relay                          | Potter & Brumfield |            |            |            |                | •      | •          | •                    |         |      | 10A                        | 240VAC                    | 1 form C (CO), 2 form C (CO), 3 form C (CO)                                                                         | 1, 2, 3                       | N/A                                            | 1.15 to 1.3W/2.01 to 2.1VA                                      |                     | 6 to 220VDC, 6 to 240VAC        | AC, DC                      | Socket                        | Octal style plug-in                                   |                               | N/A                                | N/A              | KRPA: 1000 MΩ, KA: 100 MΩ | Ag, AgCdO                                         | UL                                      |
| KUEP Series Relay                              | Potter & Brumfield |            |            |            |                | •      | •          | •                    |         |      | 10A                        | 150VDC                    | 1 form X (NO-DM), 2 form A (NO), 2 form C (CO)                                                                      | X:1; A:2; C:2                 | N/A                                            | 1.2W to 1.8W/2 to 2.9VA                                         |                     | 5 to 125VDC, 6 to 240VAC        | AC, DC                      | Socket, bracket, flange       | QC, solder, THT                                       |                               | N/A                                | N/A              | 100 MΩ                    | AgCdO, AgSnOInO                                   | UL, CSA                                 |
| KUL Series Relay                               | Potter & Brumfield |            |            |            |                | •      | •          | •                    |         |      | 10A                        | 240VAC                    | 1 form C, (1 CO); 2 form C, (2 CO); 3 form C, (3 CO)                                                                | 1, 2, 3                       | N/A                                            | 1.6W dual coil/1.25W single coil                                |                     | 12 to 110VDC, 24 to 120, 240VAC | AC, DC                      | Socket, bracket               | .187 QC, PCB terminals                                |                               | N/A                                | N/A              | 100 MΩ                    | Ag, AgCdO                                         | UL/CSA                                  |
| KU/KUP Series Relay                            | Potter & Brumfield |            |            |            |                | •      | •          | •                    |         |      | 10A                        | 240VAC                    | 1 form X (NO-DM), 1-3 form A (NO), 1-4 form C (CO)                                                                  | A: 1, 2, 3 C: 1, 2, 3, 4 X: 1 | N/A                                            | 1.2 to 1.85W/2.0 to 2.9 VA                                      |                     | 5 to 110VDC, 6 to 240VAC        | DC, AC                      | Socket, PCB, bracket, flange  | QC, THT                                               |                               | N/A                                | N/A              | 100 MΩ                    | Ag, AgCdO, AgSnOInO                               | N/A                                     |
| KUP93 Series Relay                             | Potter & Brumfield |            |            |            |                | •      | •          | •                    |         |      | 10A                        | 28VDC/ 240VAC             | 3 form C (3PDT)                                                                                                     | 3                             | N/A                                            | 1.2W / 2.7VA                                                    |                     | 12 to 24VDC, 24 to 240VAC       | AC, DC                      | Socket                        | QC                                                    |                               | N/A                                | N/A              | 100 MΩ                    | Fine Ag, AgCdO                                    | UL/CSA                                  |
| Power Relay RM                                 | Potter & Brumfield |            |            |            |                | •      | •          | •                    |         |      | 10A/ 16A/ 25A/ 30A         | 230VAC/ 400VAC            | 2 form C 2 CO, 3 form C 3 CO, 2 form A 2NO, 3 form A 3NO, 1 form Z 1NO + 1NZ, 1 form X 1 NO                         | A: 2, 3 C: 2, 3 X: 1, Z: 1    | 6000VA, 3800VA, 7500VA                         | 1100 to 1700mW, 2.2 to 2.7VA                                    |                     | 6 to 220VDC, 6 to 400VAC        | DC, AC                      | PCB, socket, flange, DIN rail | Plug-in, THT, quick connect                           |                               | N/A                                | N/A              | N/A                       | AgCdO, AgNi 90/10                                 | cULus, VDE, CE                          |
| Miniature Relay PT                             | Schrack            |            |            |            |                | •      | •          | •                    |         |      | 12A/ 10A/ 7A               | 240VAC                    | 2 form C 2CO, 3 form C 3CO, 4 form C 4CO                                                                            | C: 2, 3, 4                    | 3000VA, 2500VA, 1500VA                         | 750 to 950mW, 1VA                                               |                     | 6 to 220VDC, 6 to 230VAC        | DC, AC                      | PCB, socket                   | Plug-in, THT                                          |                               | N/A                                | N/A              | N/A                       | AgNi 90/10, AgNi90/10 Au plated                   | cULus, VDE, Lloyds                      |
| K10 Series Relay                               | Potter & Brumfield |            |            |            |                | •      | •          | •                    |         |      | 15A                        | 120VAC                    | 2 form A (NO), 2 form B (NO), 2 form C (NO), 1 form A (NO) + 1 form B (NC)                                          | 1, 2                          | N/A                                            | 900 to 1100mW/ 1.2 to 1.5VA                                     |                     | 6 to 110VDC, 6 to 240VAC        | AC, DC                      | Socket, PCB, bracket          | QC, THT                                               |                               | N/A                                | N/A              | N/A                       | Ag, AgCdO, AgSnOInO                               | UL, CSA                                 |
| KUMP Series Relay                              | Potter & Brumfield |            |            |            |                | •      | •          | •                    |         |      | 15A                        | 277VAC                    | 1 to 3 form A (NO); 1 to 3 form B (NC); 1 to 3 form C (CO); 1 form X (NO-DM); 1 form Y (NC-DB); 1 form Z (CO-DB-DM) | 1,2,3                         | N/A                                            | 1.2 to 1.3W/2.8 to 2.9VA (AC coil)                              |                     | 5 to 110VDC, 6 to 240VAC        | DC, AC                      | Socket, bracket, flange       | QC, THT                                               |                               | N/A                                | N/A              | 100 MΩ                    | AgCdO, AgSnOInO                                   | UL/CSA                                  |
| KUHP Series Relay                              | Potter & Brumfield |            |            |            |                | •      | •          | •                    |         |      | 20A/30A                    | 240VAC                    | 1 form C (CO), 1 form A (NO), 1 form B (NC); 2 form C (CO), 2 form A (NO), 2 form B (NC)                            | 1, 2                          | 4800/7200VA                                    | 1.13 to 1.30W/2.5 to 2.9 VA                                     |                     | 6 to 110VDC, 6 to 277VAC        | DC, AC                      | Socket, bracket, flange       | Solder, THT, QCQC, solder, PCB                        |                               | N/A                                | N/A              | 100 MΩ                    | AgCdO, AgSnOInO                                   | UL, CSA                                 |

| PRODUCT<br>CATEGORY            | Brand              | INDUSTRIES |            |            |                |        |            |                      |         |      | Contact Current Rating (A) | Contact Voltage Rating | Contact Arrangement                         | Contact Number of Poles | Contact Switching Power (W/VA)        | Coil Power Rating (DC coil / bistable 1 coil/2 coils) (DC) (mW) | Coil Voltage Rating       | Coil Magnetic System                   | Mounting Type    | Terminal Type | Isolation (HF Parameter) | Insertion Loss (HF Parameter) | Insulation Initial Resistance (MΩ) | Contact Material                                 | Key Agency Approvals   |  |
|--------------------------------|--------------------|------------|------------|------------|----------------|--------|------------|----------------------|---------|------|----------------------------|------------------------|---------------------------------------------|-------------------------|---------------------------------------|-----------------------------------------------------------------|---------------------------|----------------------------------------|------------------|---------------|--------------------------|-------------------------------|------------------------------------|--------------------------------------------------|------------------------|--|
|                                |                    | AD&M       | Appliances | Automotive | Communications | Energy | Industrial | Intelligent Building | Medical | Rail |                            |                        |                                             |                         |                                       |                                                                 |                           |                                        |                  |               |                          |                               |                                    |                                                  |                        |  |
|                                |                    | 1          | 2          | 3          | 4              | 5      | 6          | 7                    | 8       | 9    |                            |                        |                                             |                         |                                       |                                                                 |                           |                                        |                  |               |                          |                               |                                    |                                                  |                        |  |
| POWER RELAYS                   |                    |            |            |            |                |        |            |                      |         |      |                            |                        |                                             |                         |                                       |                                                                 |                           |                                        |                  |               |                          |                               |                                    |                                                  |                        |  |
| STANDARD POWER RELAYS          |                    |            |            |            |                |        |            |                      |         |      |                            |                        |                                             |                         |                                       |                                                                 |                           |                                        |                  |               |                          |                               |                                    |                                                  |                        |  |
| PCH Miniature PCB Relay        | OEG                |            | •          |            |                |        | •          | •                    |         |      | 3A/5A/10A                  | 277VAC/30VDC           | 1 form A (NO)                               | 1                       | 1400VA/150W (NO) 850VA/90W (NC)       | 200/400mW                                                       | 3 to 48VDC                | DC, sensitive                          | PCB              | THT           | N/A                      | N/A                           | N/A                                | AgSnO2                                           | UL, VDE, CSA           |  |
| OJ/OJE/T77 Relay               | OEG                |            | •          |            |                | •      | •          | •                    |         |      | 3A/5A/8A/10A               | 250VAC/28VDC           | 1 form A, (NO)                              | 1                       | 720 to 2500VA/90 to 240W              | 200/250/450mW                                                   | 3 to 48 VDC               | DC, sensitive                          | PCB              | THT           | N/A                      | N/A                           | N/A                                | Ag, AgSnO, AdCdO                                 | UL, VDE, CSA           |  |
| OSA Relay                      | OEG                |            | •          |            |                |        |            |                      |         |      | 3A/5A                      | 240VAC/30VDC           | 2 form A, (2 NO)                            | 2                       | 300VA/72W (DM3) 1100VA/150W (DM5)     | 540mW                                                           | 5 to 48VDC                | DC                                     | PCB              | THT           | N/A                      | N/A                           | 10 MΩ                              | AgSnO                                            | UL, VDE, CSA           |  |
| PCN 3A Slim PCB Relay          | TE/OEG             |            | •          |            | •              | •      | •          | •                    | •       |      | 3A/5A                      | 250VAC                 | 1 form A (NO)                               | 1                       | 750VA/1250VA                          | 120mw                                                           | 3 to 24VDC                | DC                                     | PCB              | THT           | N/A                      | N/A                           | N/A                                | AgNi                                             | VDE, UL                |  |
| PCJ Miniature PCB Relay        | OEG                |            |            |            |                | •      | •          | •                    | •       |      | 3A/5A (WG type)            | 250VAC                 | 1 form A (NO)                               | 1                       | 750VA/1250VA (WG type)                | 200mW                                                           | 5 to 24VDC                | DC                                     | PCB              | THT           | N/A                      | N/A                           | 10 MΩ                              | AgNi                                             | UL, VDE, CSA           |  |
| OJT Miniature PCB Relay        | OEG                |            | •          |            |                |        | •          | •                    |         |      | 5A                         | 250VAC                 | 1 form A, (NO)                              | 1                       |                                       | 200/450mW                                                       | 3 to 48 VDC               | DC, sensitive                          | PCB              | THT           | N/A                      | N/A                           | N/A                                | AgSnO2                                           | UL, VDE, CSA           |  |
| REL Miniature PCB Relay        | Schrack            |            | •          |            | •              | •      | •          | •                    | •       |      | 5A                         | 250VAC                 | 1 form A (NO)                               | 1                       | 1250VA                                | 360mW                                                           | 5 to 48VDC                | DC                                     | PCB              | THT           | N/A                      | N/A                           | N/A                                | AgNi90/10, AgCdO                                 | VDE, UL                |  |
| PE Power PCB Relay             | Schrack            |            | •          |            | •              | •      | •          | •                    | •       |      | 5A                         | 250VAC                 | 1 form C (CO), 1 form A (NO)                | 1                       | 1250VA                                | 200mW                                                           | 3 to 48VDC                | AC, DC, bistable                       | PCB              | THT           | N/A                      | N/A                           | >10° Ω                             | AgNi 90/10, AgSnO2                               | UL, VDE                |  |
| SDT/SDT-R Miniature PCB Relay  | OEG                |            | •          |            |                |        |            |                      |         |      | 5A/10A                     | 250VAC/30VDC           | 1 form A (NO)                               | 1                       | 1250VA, 150W (LMR) 2500VA, 330W (DMR) | 250/540mW                                                       | 5 to 48VDC                | DC                                     | PCB              | THT           | N/A                      | N/A                           | N/A                                | AgSnOInO/AgSnO2                                  | UL, VDE, CSA           |  |
| PB-V23088 Miniature Relay      | Schrack            |            | •          |            | •              |        | •          | •                    |         |      | 6A                         | 250VAC                 | 1 form C (CO) or 1 form A (NO)              | 1                       | 2500VA                                | 360mW                                                           | 5 to 36VDC                | DC                                     | PCB              | PCB           | N/A                      | N/A                           | N/A                                | AgNi 90/10, AgSnO2                               | VDE, UL                |  |
| RE Miniature PCB Relay         | Schrack            |            | •          |            | •              | •      | •          | •                    | •       |      | 6A                         | 250VAC                 | 1 form A (NO)                               | 1                       | 1500VA                                | 200mW                                                           | 5 to 48VDC                | DC                                     | PCB              | THT           | N/A                      | N/A                           | N/A                                | AgCdO, AgNi 0.15, AgNi 90/10, AgNi0.15 Au plated | VDE, UL                |  |
| SNR-V23092 Power PCB Relay     | Schrack            |            | •          |            | •              | •      | •          | •                    | •       |      | 6A                         | 250VAC                 | 1 form C (CO) or 1 form A (NO)              | 1                       | 1500VA                                | 170mW                                                           | 5 to 60VDC                | DC                                     | PCB              | THT           | N/A                      | N/A                           | N/A                                | AgSnO2, AgNi 90/10, AgSnO2, Au plated            | VDE, UL                |  |
| V23148 Power PCB Relay         | Schrack            |            |            |            |                |        | •          | •                    |         |      | 7A                         | 250VAC                 | 1 form A (NO), 1 form B (NC), 1 form C (CO) | 1                       | 1750VA                                | 1317mW                                                          | 6 to 48VDC                | DC, sensitive, bistable 1 coil         | PCB              | THT           | N/A                      | N/A                           | N/A                                | AgNi 90/10                                       | UL                     |  |
| MSR-V23061-T75 Power PCB Relay | Schrack            |            | •          |            | •              | •      | •          | •                    | •       |      | 8A                         | 250VAC                 | 1 form C (CO) or 1 form A (NO)              | 1                       | 2000VA                                | 230mW                                                           | 3 to 60VDC                | DC                                     | PCB              | THT           | N/A                      | N/A                           | N/A                                | AgNi90/10, AgSnO2,                               | VDE, UL                |  |
| RYII Power PCB Relay           | Schrack            |            | •          |            | •              | •      | •          | •                    | •       |      | 8A                         | 250VAC                 | 1 form C (CO); 1 form A (NO); 1 form B (NC) | 1                       | 2000VA                                | 230mW                                                           | 5 to 60VDC                | DC                                     | PCB              | THT, THR      | N/A                      | N/A                           | N/A                                | AgNi0.15, AgSnO2, AgNi0.15 Au plated             | VDE, UL                |  |
| RT2 Power PCB Relay            | Schrack            |            | •          |            | •              | •      | •          | •                    | •       |      | 8A                         | 250VAC                 | 2 form A (NO), 2 form C (CO)                | 2                       | 2000VA                                | 400 to 420mW, 400 to 430mW, 600 to 700mW                        | 5 to 110VDC/ 24 to 230VAC | AC, DC, bistable                       | PCB, plug-in     | THT, THR      | N/A                      | N/A                           | N/A                                | AgNi90/10, AgNi90/10 Au plated, AgSnO            | N/A                    |  |
| OMI/OMIH/OMIT Power PCB Relay  | OEG                |            | •          |            |                |        | •          |                      |         |      | 10A/16A                    | 250VAC/30VDC           | 1 form A (NO), 1 form C (CO)                | 1                       | 2500VA/300W 4000VA/480W               | 540/720mW                                                       | 5 to 48VDC                | DC, sensitive                          | PCB              | THT           | N/A                      | N/A                           | 10 MΩ                              | AgSnO                                            | UL, VDE, CSA           |  |
| RT1 Bifurcated Relay           | Schrack            |            | •          |            | •              | •      | •          | •                    | •       |      | 12A/16A                    | 250VAC                 | 1 form C (CO)                               | 1                       | 3000/4000VA                           | 190 to 220mW, 400 to 420mW                                      | 5 to 110VDC               | DC                                     | PCB, plug-in     | THT           | N/A                      | N/A                           | N/A                                | AgNi90/10, AgNi90/10 Au plated                   | N/A                    |  |
| RT1 Power PCB Relay            | Schrack            |            | •          |            | •              | •      | •          | •                    | •       |      | 12A/16A                    | 250 VAC                | 1 form A (NO), 1 form C (CO)                | 1                       | 3000/4000VA                           | 400 to 420mW, 400 to 430mW, 600 to 700mW                        | 5 to 110VDC/ 24 to 230VAC | AC, DC, bistable                       | PCB, plug-in     | THT, THR      | N/A                      | N/A                           | N/A                                | AgNi90/10, AgNi90/10 Au plated, AgSnO            | N/A                    |  |
| RZ Power PCB Relay - 1 Pole    | Schrack            |            | •          |            | •              | •      | •          | •                    | •       |      | 12A/16A                    | 250VAC                 | 1 form A (NO), 1 form C (CO)                | 1                       | 3000/4000VA                           | 400mW                                                           | 3 to 48VDC                | DC                                     | PCB              | THT           | N/A                      | N/A                           | N/A                                | AgNi90/10, AgSnO                                 | N/A                    |  |
| 410 63 Relay                   | Schrack            |            | •          |            |                |        |            |                      |         |      | 16A                        | 250VAC                 | 1 form A (SPST-NO); 1 form B (SPST-NC)      | 1                       | 4000VA                                | 360mW                                                           | 6 to 48VDC                | DC                                     | PCB              | THT/QC (#250) | N/A                      | N/A                           | N/A                                | AgCdO                                            | UL (US and Canada) VDE |  |
| 410 83 Relay                   | Schrack            |            | •          |            |                |        |            |                      |         |      | 16A                        | 250VAC                 | 1 form X (NO-DM)                            | 1                       | 4000VA                                | 360mW                                                           | 6 to 60VDC                | DC                                     | PCB              | THT/QC (#250) | N/A                      | N/A                           | N/A                                | AgNi                                             | UL, VDE, CSA           |  |
| OZ/OZT Relay                   | OEG                |            | •          |            |                |        |            |                      |         |      | 16A                        | 240VAC/24VDC           | 1 form A (NO), 1 form C (CO)                | 1                       | 3840/380W                             | 540mW/720mW                                                     | 5 to 48VDC                | DC, sensitive                          | PCB              | THT           | N/A                      | N/A                           | 1000 MΩ                            | AgSnO                                            | UL, VDE, CSA           |  |
| RF Power Relay                 | OEG                |            | •          |            |                |        |            |                      |         |      | 16A                        | 250VAC                 | 1 form A (NO), 1 form B (NC)                | 1                       | 4000VA                                | 400mW                                                           | 5 to 60VDC                | DC                                     | PCB              | THT/QC (#250) | N/A                      | N/A                           | N/A                                | AgNi90/10                                        | UL, VDE, CSA           |  |
| RT1 Inrush Power Relay         | Schrack            |            | •          |            |                | •      | •          | •                    |         |      | 16A                        | 250VAC                 | 1 form A (NO)                               | 1                       | 4000VA                                | 400 to 420mW, 400 to 650mW (bistable)                           | 5 to 110VDC               | DC, monostable, bistable, 1 and 2 coil | PCB, plug-in     | THT           | N/A                      | N/A                           | N/A                                | AgNi90/10, AgSnO                                 | UL, VDE                |  |
| RTX Power PCB Relay            | Schrack            |            |            |            |                | •      | •          | •                    |         |      | 16A                        | 250VAC                 | 1 form A (NO)                               | 1                       | 4000VA                                | 650/665mW                                                       | 5 to 48VDC                | bistable, 1 and 2 coil                 | PCB              | THT           | N/A                      | N/A                           | N/A                                | W (pre-run contact) + AgSnOs                     | UL, VDE                |  |
| PCF Miniature Relay            | OEG                |            | •          |            |                |        |            |                      |         |      | 25A                        | 250VAC                 | 1 form A (NO)                               | 1                       | 6370VA                                | 900mW                                                           | 6 to 24VDC                | DC                                     | PCB              | THT/QC (#250) | N/A                      | N/A                           | 1000 MΩ                            | AgCdO, AgSnO                                     | UL, VDE, CSA           |  |
| PCFN Solar Relay               | OEG                |            | •          |            |                |        |            |                      |         |      | 26A                        | 277A                   | 1 form A (NO)                               | 1                       | 7200VA                                | 1.5W/200mW hold power                                           | 12VDC                     | DC                                     | PCB              | THT           | N/A                      | N/A                           | N/A                                | AgSnO                                            | UL, VDE, CSA           |  |
| T92 Series Relay               | Potter & Brumfield |            | •          |            | •              | •      | •          | •                    | •       |      | 30A                        | 400VAC                 | 2 form A (NO), 2 form C (CO)                | 2                       | 7500VAC                               | 1.7W/4.0VA                                                      | 6 to 110VDC/ 12 to 277VAC | AC, DC                                 | Panel mount, PCB | THT, QC       | N/A                      | N/A                           | >10° Ω                             | AgCdO, AgSnInO                                   | UL, CSA, VDE           |  |
| T9G Series Relay               | Potter & Brumfield |            | •          |            | •              | •      | •          | •                    | •       |      | 30A                        | 250VAC                 | 1 form A (NO), 1 form B (NC), 1 form C (CO) | 1                       | 7500VAC                               | 1W/900mW                                                        | 6 to 48VDC                | DC                                     | PCB, panel mount | THT, QC       | N/A                      | N                             | >10° Ω                             | AgSnO                                            | UL, CSA                |  |
| T9E Series Relay               | Potter & Brumfield |            | •          |            | •              | •      | •          | •                    | •       |      | 30A                        | 250VAC                 | 1 form A (NO), 1 form C (CO)                | 1                       | 7500VAC                               | 1W/900mW                                                        | 6 to 48VDC                | DC                                     | PCB, panel mount | THT, QC       | N/A                      | N                             | >10° Ω                             | AgSnOInO (AgCdO optional)                        | VDE, UL                |  |
| T90 Series Relay               | Potter & Brumfield |            | •          |            | •              | •      | •          | •                    | •       |      | 30A                        | 240VAC                 | 1 form A (NO), 1 form B (NC), 1 form C (CO) | 1                       | 7500VAC                               | 1W/900mW                                                        | 6 to 48VDC                | DC                                     | PCB, panel mount | THT, QC       | N/A                      | N                             | >10° Ω                             | AgCdO, AgSnInO                                   | UL, CSA                |  |
| AC30 Series Contactor          | Kilovac            | •          |            |            |                |        |            |                      |         |      | 30A/60A                    | 600VAC                 | 3 form A (3 NO)                             | 3                       | Contact factory                       | DC                                                              | 9 to 95VDC                | DC                                     | Panel            | Screw         | N/A                      | N/A                           | 100 MΩ                             | N/A                                              | N/A                    |  |
| T9S Solar Relay                | Potter & Brumfield |            |            |            |                | •      | •          | •                    |         |      | 35A                        | 277VAC                 | 1 form A (NO)                               | 1                       | 8750VAC                               | 2.25W/350mW hold power                                          | 12VDC                     | DC                                     | PCB              | THT           | N/A                      | N/A                           | N/A                                | AgNi                                             | UL, VDE                |  |
| EW60 PCB Relay                 | TE Connectivity    |            |            |            |                | •      | •          | •                    |         |      | 60A                        | 250VAC                 | 1 form A, NO                                | 1                       | 15000VA                               | 3W                                                              | 12, 24VDC                 | bistable 1 and 2 coil                  | PCB              | PCB           | N/A                      | N/A                           | N/A                                | AgSnO2                                           | UL                     |  |
| FM200 Series Contactor         | Kilovac            | •          |            |            |                |        |            |                      |         |      | 200A                       | 480VAC                 | 1 form A (NO) to 3 form A (3 NO)            | 1,2 or 3                | Contact factory                       | AC or DC                                                        | 12, 24VDC; 115, 240VAC    | AC, DC                                 | Panel            | Screw         | N/A                      | N/A                           | 100 MΩ                             | N/A                                              | N/A                    |  |
| SOLID STATE RELAYS             |                    |            |            |            |                |        |            |                      |         |      |                            |                        |                                             |                         |                                       |                                                                 |                           |                                        |                  |               |                          |                               |                                    |                                                  |                        |  |
| IAC Input Module               | Potter & Brumfield |            |            |            | •              | •      | •          | •                    | •       |      | 50mA                       | 30VDC                  | 1 form A (SPST-NO)                          | 1                       | N/A                                   | N/A                                                             | 90 to 140V                | AC                                     | PCB              | THT           | N/A                      | N/A                           | N/A                                | N/A                                              | UL                     |  |
| IDC Input Module               | Potter & Brumfield |            |            |            | •              | •      | •          | •                    | •       |      | 50mA                       | 30VDC                  | 1 form A (SPST-NO)                          | 1                       | N/A                                   | N/A                                                             | 3 to 32V                  | DC                                     | PCB              | THT           | N/A                      | N/A                           | N/A                                | N/A                                              | UL                     |  |
| IACM Input Module              | Potter & Brumfield |            |            |            | •              | •      | •          | •                    | •       |      | 50mA                       | 30VDC                  | 1 form A (SPST-NO)                          | 1                       | N/A                                   | N/A                                                             | 240VAC/VDC                | AC                                     | PCB              | THT           | N/A                      | N/A                           | N/A                                | N/A                                              | UL                     |  |
| IDCM Input Module              | Potter & Brumfield |            |            |            | •              | •      | •          | •                    | •       |      | 50mA                       | 30VDC                  | 1 form A (SPST-NO)                          | 1                       | N/A                                   | N/A                                                             | 10 to 60VDC               | DC                                     | PCB              | THT           | N/A                      | N/A                           | N/A                                | N/A                                              | UL                     |  |
| OAC Output Module              | Potter & Brumfield |            |            |            | •              | •      | •          | •                    | •       |      | up to 3A                   | 24VAC to 280VAC        | 1 form A (SPST-NO)                          | 1                       | N/A                                   | N/A                                                             | 3 to 32V                  | AC                                     | PCB              | THT           | N/A                      | N/A                           | N/A                                | N/A                                              | UL                     |  |
| ODC Output Module              | Potter & Brumfield |            |            |            | •              | •      | •          | •                    | •       |      | up to 3A                   | 3VDC to 250VDC         | 1 form A (SPST-NO)                          | 1                       | N/A                                   | N/A                                                             | 3 to 250VDC               | DC                                     | PCB              | THT           | N/A                      | N/A                           | N/A                                | N/A                                              | UL                     |  |
| OACM Output Module             | Potter & Brumfield |            |            |            | •              | •      | •          | •                    | •       |      | up to 3A                   | 24VAC to 280VAC        | 1 form A (SPST-NO)                          | 1                       | N/A                                   | N/A                                                             | 24 to 280VAC              | AC                                     | PCB              | THT           | N/A                      | N/A                           | N/A                                | N/A                                              | UL                     |  |
| ODCM Output Module             | Potter & Brumfield |            |            |            | •              | •      | •          | •                    | •       |      | up to 3A                   | 60VDC                  | 1 form A (SPST-NO)                          | 1                       | N/A                                   | N/A                                                             | 5 to 250VDC               | DC                                     | PCB              | THT           | N/A                      | N/A                           |                                    |                                                  |                        |  |

| PRODUCT CATEGORY                | Brand              | INDUSTRIES |            |            |                |        |            |                      |         |      | Contact Current Rating (A)                | Contact Voltage Rating                                 | Contact Arrangement                                            | Contact Number of Poles | Contact Switching Power (W/VA) | Coil Power Rating (DC coil / bistable 1 coil/2 coils) (DC) (mW) | Coil Voltage Rating                   | Coil Magnetic System                                                | Mounting Type                                | Terminal Type                                         | Isolation (HF Parameter) | Insertion Loss (HF Parameter) | Insulation Initial Resistance (MΩ) | Contact Material                               | Key Agency Approvals |    |
|---------------------------------|--------------------|------------|------------|------------|----------------|--------|------------|----------------------|---------|------|-------------------------------------------|--------------------------------------------------------|----------------------------------------------------------------|-------------------------|--------------------------------|-----------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------|----------------------------------------------|-------------------------------------------------------|--------------------------|-------------------------------|------------------------------------|------------------------------------------------|----------------------|----|
|                                 |                    | AD&M       | Appliances | Automotive | Communications | Energy | Industrial | Intelligent Building | Medical | Rail |                                           |                                                        |                                                                |                         |                                |                                                                 |                                       |                                                                     |                                              |                                                       |                          |                               |                                    |                                                |                      |    |
|                                 |                    | 1          | 2          | 3          | 4              | 5      | 6          | 7                    | 8       | 9    |                                           |                                                        |                                                                |                         |                                |                                                                 |                                       |                                                                     |                                              |                                                       |                          |                               |                                    |                                                |                      |    |
| ROTARY RELAYS                   |                    |            |            |            |                |        |            |                      |         |      |                                           |                                                        |                                                                |                         |                                |                                                                 |                                       |                                                                     |                                              |                                                       |                          |                               |                                    |                                                |                      |    |
| MDR Series Relay                | Potter & Brumfield | •          |            |            |                | •      | •          |                      |         |      | 10A/ 3A/ 0.8A                             | 115VAC/ 28VDC/ 125VDC                                  | 4 form C (4PDT) through 24 form C (4PDT).                      | 4 to 24                 | NA                             | 5 to 22W                                                        | 115 VAC, 440 VAC, 28 VDC, and 125 VDC | Non-latching and latching types                                     | Surface mount                                | Screw terminals                                       | N/A                      | N/A                           | 100MΩ                              | AgCdO, and Ag                                  | N/A                  |    |
| SIGNAL RELAYS                   |                    |            |            |            |                |        |            |                      |         |      |                                           |                                                        |                                                                |                         |                                |                                                                 |                                       |                                                                     |                                              |                                                       |                          |                               |                                    |                                                |                      |    |
| JW Series Reed Relays (JWD/JWS) | Potter & Brumfield |            | •          |            |                | •      | •          | •                    | •       | •    | 1A, 1B, 2A: 500mA, 20VDC 1C: 500mA, 10VDC | 1A, 1B, 2A: 20VDC/ 500mA 1C: 10VDC/ 500mA/ 10VDC/ 10mA | 1 form A (1 NO), 2 form A (2 NO), 1 form B (NC), 1 form C, 1CO | A:1, 2 B:1 C:1          | A, B: 10W C: 3W                | 50 to 288mW                                                     | 5 to 24VDC                            | monostable, DC (website)                                            | PCB                                          | THT                                                   | N/A                      | N/A                           | 1010Ω at 100VDC                    | Ru                                             | UL                   |    |
| OUAZ Relay                      | OEG                |            | •          |            | •              | •      | •          | •                    | •       | •    | 1A                                        | 24VDC/120VAC                                           | 1 form A, (1 NO), 1 form C, 1 CO                               | 1                       | 30W, 120VA                     | 200mW, 450mW                                                    | 5 to 24VDC                            | monostable, DC                                                      | PCB                                          | THT                                                   | N/A                      | N/A                           | N/A                                | AgPd alloy                                     | UL                   |    |
| P1 Relay                        | Axicom             |            |            |            |                |        | •          | •                    | •       | •    | •                                         | 1A                                                     | 125VDC/ 150VAC                                                 | 1 form C (CO)           | 1                              | 30W, 60VA                                                       | 30 to 128mW                           | 3 to 24VDC                                                          | monostable, bistable 1 coil, bistable 2 coil | PCB                                                   | THT, SMT                 | 30.0dB/ 18.0dB                | 0.12dB/ 1.90dB                     | N/A                                            | PdNi, AuRh covered   | UL |
| T81 Series Relay                | Potter & Brumfield |            | •          |            |                | •      | •          | •                    | •       | •    | 1A                                        | 24VDC/ 120VAC                                          | 1 form C (CO)                                                  | 1                       | 120VA, 30W                     | 200mW, 450mW                                                    | 5 to 24VDC                            | monostable, DC                                                      | PCB                                          | THT                                                   | N/A                      | N/A                           | >10°Ω                              | Au overlay, AgPd alloy                         | UL                   |    |
| TSC Relay                       | OEG                |            | •          |            | •              | •      | •          | •                    | •       | •    | 1A                                        | 24VDC/ 120VAC                                          | 1 form C (CO)                                                  | 1                       | 120VA, 24W                     | 150mW, 300mW                                                    | 5 to 24VDC                            | monstable, DC                                                       | PCB                                          | THT                                                   | N/A                      | N/A                           | >10°Ω                              | AgNi alloy                                     | UL                   |    |
| EGP/ETR Series Relay            | Agastat            | •          |            |            |                |        | •          | •                    |         |      | 1A/10A                                    | 125VDC/ 120VAC                                         | 4 form C, 4PDT                                                 | 4                       | NA                             | 6W/6VA                                                          | 24, 120, 220VAC                       | AC, DC                                                              | Socket                                       | Flat base pins. Screw terminal sockets are available. | N/A                      | N/A                           | N/A                                | Varies                                         | CSA Approved         |    |
| W11 Relay                       | Axicom             |            | •          |            | •              | •      | •          | •                    | •       | •    | 1.25A/3A                                  | 120VDC/ 125VAC                                         | 1 form C (CO)                                                  | 1                       | 30 to 72W/ 60 to 360VA         | 200 to 450mW                                                    | 1.5 to 24VDC                          | monostable                                                          | PCB                                          | THT                                                   | N/A                      | N/A                           | >10°Ω                              | 1.25A-AgPd, Au plated, AgNi, Au plated 3A-AgNi | UL                   |    |
| Card Relay SN                   | Axicom             |            | •          |            | •              | •      | •          | •                    | •       | •    | up to 2A                                  | 220VDC/ 250VAC                                         | N/A                                                            | 4, 6                    | N/A                            | 658 to 878mW                                                    | 5 to 60VDC                            | neutral, monostable                                                 | N/A                                          | N/A                                                   | N/A                      | N/A                           | N/A                                | Varies                                         | N/A                  |    |
| FP2 Relay                       | Axicom             |            | •          |            | •              | •      | •          | •                    | •       | •    | 2A                                        | 220VDC/ 250VAC                                         | 2 form C (CO)                                                  | 2                       | 60W/62.5VA                     | 80mW to 300mW                                                   | 3 to 48VDC                            | monostable, bistable 1 coil, bistable 2 coil                        | PCB                                          | THT                                                   | 40.2dB/ 22.3dB           | 0.03dB/ 0.25dB                | >10°Ω                              | AgNi, Au covered                               | UL                   |    |
| FT2 Relay                       | Axicom             |            | •          |            | •              | •      | •          | •                    | •       | •    | 2A                                        | 220VDC/ 250VAC                                         | 2 form C (CO)                                                  | 2                       | 60W/62.5VA                     | 200mW                                                           | 3 to 48VDC                            | monostable                                                          | PCB                                          | THT                                                   | 30.6dB/ -13.7dB          | 0.02dB/ 0.50dB                | >10°Ω                              | PdRu, Au covered                               | UL                   |    |
| FU2 Relay                       | Axicom             |            | •          |            | •              | •      | •          | •                    | •       | •    | 2A                                        | 220VDC/ 250VAC                                         | 2 form C (CO)                                                  | 2                       | 60W/62.5VA                     | 200mW                                                           | 3 to 48VDC                            | monostable                                                          | PCB                                          | SMT                                                   | 4.0dB/ 15.1dB            | 0.03dB/ 0.60dB                | >10°Ω                              | PdRu, Au covered                               | UL                   |    |
| FX2 Relay                       | Axicom             |            | •          |            | •              | •      | •          | •                    | •       | •    | 2A                                        | 220VDC/ 250VAC                                         | 2 form C (CO)                                                  | 2                       | 60W/62.5VA                     | 80mW to 300mW                                                   | 3 to 48VDC                            | monostable, bistable 1 coil, bistable 2 coil                        | PCB                                          | THT                                                   | 34.0dB/ 15.1dB           | 0.03/ 0.60dB                  | >10°Ω                              | PdRu, Au covered                               | UL                   |    |
| IM B Relay                      | Axicom             |            | •          |            | •              | •      | •          | •                    | •       | •    | 2A                                        | 220VDC/ 250VAC                                         | 1 form A (1 NO)                                                | 1                       | 60W/62.5VA                     | 140mW                                                           | 1.5 to 24VDC                          | monostable, 1 coil                                                  | PCB                                          | THT, SMT                                              | 37.0dB/ 18.8dB           | 0.03dB/ 0.33dB                | >10°Ω                              | PdRu, Au covered                               | UL                   |    |
| IM E Relay                      | Axicom             |            | •          |            | •              | •      | •          | •                    | •       | •    | 2A                                        | 220VDC/ 250VAC                                         | 2 form A, 2 NO                                                 | 2                       | 60W/62.5VA                     | 140mW                                                           | 1.5 to 24VDC                          | monostable, 1 coil                                                  | PCB                                          | THT, SMT                                              | 37.0dB/ 18.8dB           | 0.03dB/ 0.33dB                | >10°Ω                              | PdRu, Au covered                               | UL                   |    |
| MT2 Relay                       | Axicom             |            | •          |            | •              | •      | •          | •                    | •       | •    | 2A                                        | 220VDC/ 250VAC                                         | 2 form C (CO)                                                  | 2                       | 60W/62.5VA                     | 150 to 550mW                                                    | 3 to 48VDC                            | monostable                                                          | PCB                                          | THT                                                   | -31.8dB/ -14.2dB         | -0.02dB/ -0.97dB              | >10°Ω                              | AgNi, Au covered                               | N/A                  |    |
| P2 Relay                        | Axicom             | PLATED     |            | •          |                | •      | •          | •                    | •       | •    | 2A                                        | 220VDC/ 250VAC                                         | 2 form C, 2 CO                                                 | 2                       | 60W/62.5VA                     | 140mW/ 70mW/ 140mW                                              | 2.4 to 24VDC                          | monostable, bistable 1 coil, bistable 2 coil, monostable overmolded | PCB                                          | THT, SMT                                              | 39.0dB/ 20.7dB           | 0.02/ 0.27dB                  | >10°Ω                              | AgNi, Au covered                               | UL                   |    |
| D2n Relay                       | Axicom             |            | •          |            | •              | •      | •          | •                    | •       | •    | 3A                                        | 220VDC/ 250VAC                                         | 2 form C, 2CO                                                  | 2                       | 60W/125VA                      | 150 to 700mW                                                    | 3 to 48VDC                            | monostable                                                          | PCB                                          | THT                                                   | -39.0/- 20.7dB           | -0.02dB/ -0.27dB              | >10°Ω                              | AgNi, Au covered                               | N/A                  |    |
| IM C Relay                      | Axicom             |            | •          |            | •              | •      | •          | •                    | •       | •    | up to 4A                                  | 220VDC/ 250VAC                                         | 1 form C (CO)                                                  | 1                       | 60W/62.5VA                     | 140mW                                                           | 1.5 to 24VDC                          | monostable 1 coil, bistable 1 coil                                  | PCB                                          | THT, SMT                                              | 37.0dB/ 18.8dB           | 0.03dB/ 0.33dB                | >10°Ω                              | PdRu, Au covered                               | UL                   |    |
| IM Relay                        | Axicom             | PLATED     |            | •          |                | •      | •          | •                    | •       | •    | up to 5A                                  | 220VDC/ 250VAC                                         | 2 form C (CO)                                                  | 2                       | 60W/62.5VA                     | 50 to 200mW                                                     | 1.5 to 24VDC                          | monostable 1 coil, bistable, 1 coil                                 | PCB                                          | THT, SMT                                              | 37.0dB/ 18.8dB           | 0.03dB/ 0.33dB                | >10°Ω                              | PdRu, Au covered / AgNi, Au covered            | UL                   |    |
| Cradle Relay N-B104/B110/B112   | Axicom             |            | •          |            | •              | •      | •          | •                    | •       | •    | up to 5A                                  | 220VDC/ 250VAC                                         | N/A                                                            | A: 4.6 B:2              | N/A                            | 170 to 1700mW                                                   | 5 to 60VDC                            | neutral, monostable                                                 | N/A                                          | N/A                                                   | N/A                      | N/A                           | N/A                                | Varies                                         | N/A                  |    |
| Cradle Relay N-B604/B610/B612   | Axicom             |            | •          |            | •              | •      | •          | •                    | •       | •    | up to 5A                                  | 220VDC/ 250VAC                                         | N/A                                                            | A: 4.6 B:2              | N/A                            | 170 to 1700mW                                                   | 5 to 60VDC                            | neutral, monostable                                                 | N/A                                          | N/A                                                   | N/A                      | N/A                           | N/A                                | Varies                                         | N/A                  |    |
| Cradle Relay N-C104/C110/C112   | Axicom             |            | •          |            | •              | •      | •          | •                    | •       | •    | up to 5A                                  | 220VDC/ 250VAC                                         | N/A                                                            | A: 4.6 B:2              | N/A                            | 170 to 1700mW                                                   | 5 to 60VDC                            | neutral, monostable                                                 | N/A                                          | N/A                                                   | N/A                      | N/A                           | N/A                                | Varies                                         | N/A                  |    |
| Cradle Relay N-C404/C410        | Axicom             |            | •          |            | •              | •      | •          | •                    | •       | •    | up to 5A                                  | 220VDC/ 250VAC                                         | N/A                                                            | A: 4.6 B:2              | N/A                            | 170 to 1700mW                                                   | 5 to 60VDC                            | neutral, monostable                                                 | N/A                                          | N/A                                                   | N/A                      | N/A                           | N/A                                | Varies                                         | N/A                  |    |
| Cradle Relay N-F104 to F107     | Axicom             |            | •          |            | •              | •      | •          | •                    | •       | •    | up to 5A                                  | 220VDC/ 250VAC                                         | N/A                                                            | A: 4.6 B:2              | N/A                            | 170 to 1700mW                                                   | 5 to 60VDC                            | neutral, monostable                                                 | N/A                                          | N/A                                                   | N/A                      | N/A                           | N/A                                | Varies                                         | N/A                  |    |
| Cradle Relay P/W                | Axicom             |            | •          |            | •              | •      | •          | •                    | •       | •    | up to 5A                                  | 220VDC/ 250VAC                                         | N/A                                                            | A: 4.6 B:2              | N/A                            | 1150 to 1700mW                                                  | 5 to 60VDC/ 220VAC                    | polarized, monostable, bistable                                     | N/A                                          | N/A                                                   | N/A                      | N/A                           | N/A                                | Varies                                         | N/A                  |    |
| Cradle Relay S                  | Axicom             |            | •          |            | •              | •      | •          | •                    | •       | •    | up to 5A                                  | 220VDC/ 250VAC                                         | N/A                                                            | A: 4.6 B:2              | N/A                            | 170 to 1700mW                                                   | 5 to 60VDC                            | neutral, monostable                                                 | N/A                                          | N/A                                                   | N/A                      | N/A                           | N/A                                | Varies                                         | N/A                  |    |
| HIGH FREQUENCY RELAYS           |                    |            |            |            |                |        |            |                      |         |      |                                           |                                                        |                                                                |                         |                                |                                                                 |                                       |                                                                     |                                              |                                                       |                          |                               |                                    |                                                |                      |    |
| HF3 Relay                       | Axicom             |            | •          |            | •              | •      | •          | •                    | •       | •    | 2A                                        | 220VDC/ 250VAC                                         | 1 form C, 1 CO                                                 | 1                       | 60W/62.5VA                     | 70mW to 200mW                                                   | 3 to 24VDC                            | monostable 1 coil, bistable 1 coil, 2 coil                          | PCB                                          | SMT                                                   | 80dB/ 72dB/ 45dB         | 0.03dB/ 0.12dB/ 0.35dB        | N/A                                | Ag, Au covered                                 | UL                   |    |
| HF3 S Relay                     | Axicom             |            | •          |            | •              | •      | •          | •                    | •       | •    | 2A                                        | 220VDC/ 250VAC                                         | 1 form C, 1 CO                                                 | 1                       | 60W/62.5VA                     | 70mW to 200mW                                                   | 3 to 24VDC                            | monostable 1 coil, bistable 1 coil, 2 coil                          | PCB                                          | SMT                                                   | 95dB/ 80dB/ 55dB         | 0.03dB/ 0.12dB/ 0.30dB        | N/A                                | Ag, Au covered                                 | UL                   |    |
| HF6 Relay                       | Axicom             | PLATED     |            |            | •              | •      | •          | •                    | •       | •    | 2A                                        | 220VDC/ 250VAC                                         | 1 form C, 1 CO                                                 | 1                       | 60W/62.5VA                     | 70mW to 200mW                                                   | 3 to 24VDC                            | monostable 1 coil, bistable 1 coil, 2 coil                          | PCB                                          | SMT                                                   | 80dB/ 60dB/ 30dB         | 0.05dB/ 0.15dB/ 0.80dB        | N/A                                | Ag, Au covered                                 | UL                   |    |

| PRODUCT CATEGORY                                        | Brand   | INDUSTRIES |            |            |                |        |            |                      |         |      | Contact Current Rating (A) | Contact Voltage Rating | Contact Arrangement               | Contact Number of Poles | Contact Switching Power (W/VA) | Coil Power Rating (DC coil / bistable 1 coil/2 coils) (DC) (mW) | Coil Voltage Rating             | Coil Magnetic System | Mounting Type | Terminal Type             | Isolation (HF Parameter) | Insertion Loss (HF Parameter) | Insulation Initial Resistance (MΩ) | Contact Material | Key Agency Approvals |                |
|---------------------------------------------------------|---------|------------|------------|------------|----------------|--------|------------|----------------------|---------|------|----------------------------|------------------------|-----------------------------------|-------------------------|--------------------------------|-----------------------------------------------------------------|---------------------------------|----------------------|---------------|---------------------------|--------------------------|-------------------------------|------------------------------------|------------------|----------------------|----------------|
|                                                         |         | AD&M       | Appliances | Automotive | Communications | Energy | Industrial | Intelligent Building | Medical | Rail |                            |                        |                                   |                         |                                |                                                                 |                                 |                      |               |                           |                          |                               |                                    |                  |                      |                |
|                                                         |         | 1          | 2          | 3          | 4              | 5      | 6          | 7                    | 8       | 9    |                            |                        |                                   |                         |                                |                                                                 |                                 |                      |               |                           |                          |                               |                                    |                  |                      |                |
| TIME DELAY RELAYS                                       |         |            |            |            |                |        |            |                      |         |      |                            |                        |                                   |                         |                                |                                                                 |                                 |                      |               |                           |                          |                               |                                    |                  |                      |                |
| DISCRETE PLUG-IN AND TIMING MODULES                     |         |            |            |            |                |        |            |                      |         |      |                            |                        |                                   |                         |                                |                                                                 |                                 |                      |               |                           |                          |                               |                                    |                  |                      |                |
| VTM-1 Specification Grade Timing Module                 | Agastat |            |            |            |                | •      | •          |                      |         |      | 1A                         | 24-240VAC/VDC          | 1 form A (SPST-NO)                | 1                       | N/A                            | 3W                                                              | 24-240VAC/VDC                   | NA                   | Screw mount   | Quick connect terminals   | N/A                      | N/A                           | N/A                                | Varies           |                      | RU, CSA        |
| VTM1 On-Delay Timing Module                             | Agastat |            |            |            |                | •      | •          |                      |         |      | 1A                         | Nominal Voltage        | Solid state 1 form A (SPST-NO)    | 1                       | N/A                            | 3W                                                              | 12, 24, 120 VAC                 | NA                   | Panel mount   | Quick connect terminals   | N/A                      | N/A                           | N/A                                | Varies           |                      | RU, CSA        |
| VTM2 Off-Delay Timing Module                            | Agastat |            |            |            |                | •      | •          |                      |         |      | 1A                         | Nominal Voltage        | Solid state 1 form A (SPST-NO)    | 1                       | N/A                            | 4W                                                              | 12, 24, 120VAC/VDC              | NA                   | Panel mount   | Quick connect terminals   | N/A                      | N/A                           | N/A                                | Varies           |                      | RU, CSA        |
| VTM3 Interval Timing Module                             | Agastat |            |            |            |                | •      | •          |                      |         |      | 1A                         | Nominal Voltage        | Solid state 1 form A (SPST-NO)    | 1                       | N/A                            | 4W                                                              | 12, 24, 120VAC/VDC              | NA                   | Panel mount   | Quick connect terminals   | N/A                      | N/A                           | N/A                                | Varies           |                      | RU, CSA        |
| VTM7 Repeat Cycle Timing Module                         | Agastat |            |            |            |                | •      | •          |                      |         |      | 1A                         | Nominal Voltage        | Solid state 1 form A (SPST-NO)    | 1                       | N/A                            | 4W                                                              | 12, 24, 120VAC/VDC              | NA                   | Panel mount   | Quick connect terminals   | N/A                      | N/A                           | N/A                                | Varies           |                      | RU, CSA        |
| VTMA1 On-Delay Timing Module                            | Agastat |            |            |            |                | •      | •          |                      |         |      | 1A                         | Nominal Voltage        | Solid state 1 form A (SPST-NO)    | 1                       | N/A                            | 3W                                                              | 12, 24, 120VAC/VDC              | NA                   | Panel mount   | Quick connect terminals   | N/A                      | N/A                           | N/A                                | Varies           |                      | RU, CSA        |
| VTMR1 On-Delay Timing Module with Relay                 | Agastat |            |            |            |                | •      | •          |                      |         |      | 8A                         | Nominal Voltage        | 1 form C (SPDT)                   | 1                       | N/A                            | 3W                                                              | 120VAC/VDC                      | NA                   | Panel mount   | Quick connect terminals   | N/A                      | N/A                           | N/A                                | Varies           |                      | RU, CSA        |
| SCB/SCC Specification Grade Precision Timing Relay      | Agastat |            |            |            |                | •      | •          |                      |         |      | 10A                        | 28VDC/120VAC           | 2 form C, DPDT                    | 2                       | N/A                            | 3W                                                              | 12, 24VDC                       | NA                   | Plug In       | Varies                    | N/A                      | N/A                           | N/A                                | Varies           |                      | SCB RU, SCC UL |
| SCE Specification Grade True Off-Delay Timing Relay     | Agastat |            |            |            |                | •      | •          |                      |         |      | 10A                        | 28VDC / 120VAC         | 1 Form C SPDT, 2 Form C DPDT      | 1, 2                    | N/A                            | 750mW                                                           | 24, 48, 120VAC                  | NA                   | Plug In       | Varies                    | N/A                      | N/A                           | N/A                                | Varies           |                      | RU             |
| SRC Specification Grade Repeat Cycle Timing Relay       | Agastat |            |            |            |                | •      | •          |                      |         |      | 10A                        | 28VDC/120VAC           | 2 form C (DPDT)                   | 2                       | N/A                            | 3W                                                              | 240VAC/120VDC                   | NA                   | Plug In       | Varies                    | N/A                      | N/A                           | N/A                                | Varies           |                      | CE             |
| SSC Specification Grade Timing Relay                    | Agastat |            |            |            |                | •      | •          |                      |         |      | 10A                        | 28VDC/120VAC           | 2 form C (DPDT)                   | 2                       | N/A                            | 3W                                                              | 240VAC/120VDC                   | NA                   | Plug In       | Varies                    | N/A                      | N/A                           | N/A                                | Varies           |                      | CSA            |
| SSF Series Universal Time Delay Relay                   | Agastat |            |            |            |                | •      | •          |                      |         |      | 10A                        | 28VDC/120VAC           | 2 form C (DPDT)                   | 2                       | N/A                            | 2W                                                              | 240VAC/120VDC                   | NA                   | Plug In       | Varies                    | N/A                      | N/A                           | N/A                                | Varies           |                      | RU, CSA        |
| SST Series Universal Time Delay Relay                   | Agastat |            |            |            |                | •      | •          |                      |         |      | 10A                        | 120VAC                 | 2 form C (DPDT)                   | 2                       | N/A                            | 3W                                                              | 240VAC/120VDC                   | NA                   | Plug In       | Varies                    | N/A                      | N/A                           | N/A                                | Varies           |                      | RU, CSA        |
| STA Series Specification Grade Tab-Type Precision Relay | Agastat |            |            |            |                | •      | •          |                      |         |      | 10A                        | 28VDC/120VAC           | 2 form C (DPDT)                   | 2                       | N/A                            | 3W                                                              | 120VAC/125VDC                   | NA                   | Plug In       | Varies                    | N/A                      | N/A                           | N/A                                | Varies           |                      | RU, CSA, CE    |
| ELECTROPNEUMATIC TIMERS                                 |         |            |            |            |                |        |            |                      |         |      |                            |                        |                                   |                         |                                |                                                                 |                                 |                      |               |                           |                          |                               |                                    |                  |                      |                |
| 2100 Series Relay                                       | Agastat | •          |            |            |                | •      | •          |                      |         |      | 1A/10A                     | 110VDC/120VAC          | 2 form C, DPDT (adjustable delay) | 2                       | N/A                            | 6W                                                              | 12 to 125VDC/115, 120 or 240VAC | AC, DC               | Chassis mount | Octal plug or solder hook | N/A                      | N/A                           | N/A                                | Varies           |                      | CE             |
| 7000 Series Industrial Relay                            | Agastat | •          |            |            |                | •      | •          |                      |         | •    | 1A/20A                     | 110VDC/120VAC          | 2 form C, DPDT or 4 form C, 4PDT  | 2, 4                    | N/A                            | 8W                                                              | Various                         | AC, DC               | Panel Mount   | Varies                    | N/A                      | N/A                           | N/A                                | Varies           |                      | UL Listed      |
| E7000 Series Nuclear Qualified Relay                    | Agastat | •          |            |            |                | •      | •          |                      |         |      | 1A/20A                     | 110VDC/120VAC          | 2 form C, DPDT or 4 form C, 4PDT  | 2, 4                    | N/A                            | 8W                                                              | Various                         | AC, DC               | Panel Mount   | Screw terminals           | N/A                      | N/A                           | N/A                                | Varies           |                      | UL Listed      |