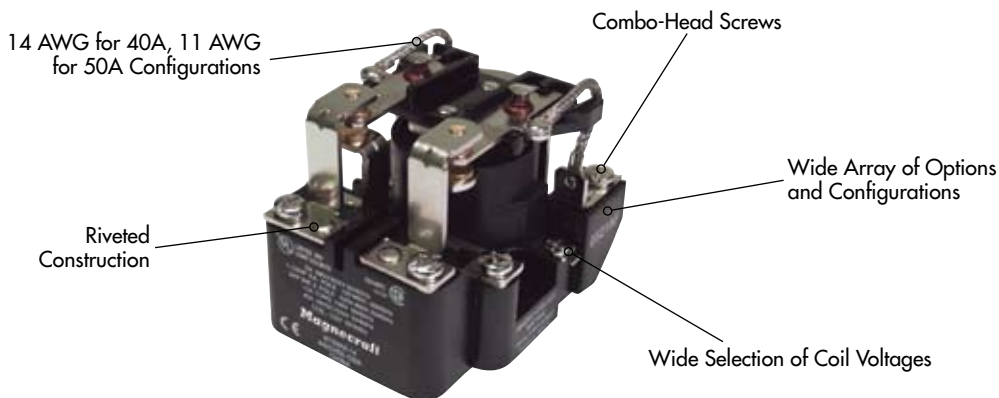
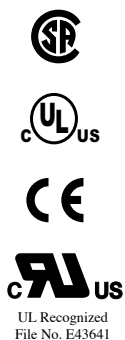


W199 Open Style Power Relay/Single and Two Pole 40 and 50 Amp Rating (DC and AC)



General Specifications (UL 508)

| Contact Characteristics | | Units | 199, 199A |
|---|----------------------------|------------------------|--|
| Number and type of Contacts | | | SPST, SPDT, DPST, DPDT |
| Contact materials | | | Silver Alloy |
| Thermal (Carrying) Current rating | | A | 40 |
| Maximum Switching Voltage | | V | 600V |
| Switching Current @ Voltage | ~ | Resistive | 40A @ 277V 50/60Hz, 5A @ 600VAC 50/60Hz |
| | ⋮ | Resistive | 40A @ 28VDC |
| Blowout magnet | ⋮ | Resistive | See table A below |
| | | HP | 1 1/2 @ 120-600 VAC |
| | | Tungsten | 15A @ 120VAC |
| | | Pilot Duty | A600 |
| Minimum Switching Requirement | Minimum | mA | 100 @ 12 VAC/VDC |
| Coil Characteristics | | | |
| Voltage Range | ~ | V | 6...600 |
| | % of Nominal | ⋮ | 6...600 |
| Operating Range | ~ | | 85% to 110% |
| | ⋮ | | 80% to 110% |
| Average consumption | ~ | VA | 10 |
| | ⋮ | W | 4 |
| Drop-out voltage threshold | ~ | | 10% |
| | ⋮ | | 10% |
| Performance Characteristics | | | |
| Electrical Life (UL 508) | Operations @ Rated Current | (Resistive) | 6,000 |
| Operating time (response time) | | ms | 30 |
| Dielectric | Between coil and contact | ~ | 2200 |
| | Between poles | ~ | 2200 |
| | Between contacts | ~ | 1500 |
| Environment | | | |
| Product certifications | Standard version | | UL, CSA, CE |
| Ambient air temperature around the device | Storage | °C | -40...+85 |
| | Operation | °C | -40...+55 |
| Connection | | AWG (mm ²) | 8 (10) |
| Terminal Tightening Torque | | in-lb (Nm) | 7...9 (0.8...1.0) |
| Weight | | grams | 227 to 312 |

Table A:

| Additional DC Rating with Magnetic Blowout | Single Make/Break | Double Make/Break |
|--|-------------------|-------------------|
| 110 VDC | 10 A | 20 A |
| 144 VDC | — | 15 A |
| 220 VDC | 4 A | 8 A |
| 325 VDC | 2 A | 4 A |
| 500 VDC | — | 2 A |



**Optional Cover
(50-1289-1)**
See Section 3 p.22

| 199D, 199DY, 199AD, 199ADY | 199P, 199AP | 199DE, 199DYE, 199ADE, 199ADYE |
|---|--|---|
| SPST-DM, SPST-DB | SPST, SPDT, DPST, DPDT | SPST-DM, SPST-DB |
| Silver Alloy | Silver Alloy | Silver Alloy |
| 40 | 50 | 50 |
| 600V | 600V | 600V |
| 40A @ 277V 50/60Hz, 10A @ 600VAC 50/60Hz | 50A @ 277V 50/60Hz, 5A @ 600VAC 50/60Hz | 50A @ 277V 50/60Hz, 10A @ 600VAC 50/60Hz |
| 40A @ 28VDC | 50A @ 28VDC | 50A @ 28VDC |
| See table A below | See table A below | See table A below |
| 2 @ 120-600 VAC | 1 1/2 @ 120-600 VAC | 2 @ 120-600 VAC |
| 15A @ 120VAC | 15A @ 120VAC | 15A @ 120VAC |
| A600 | A600 | A600 |
| 100 @ 12 VAC/VDC | 100 @ 12 VAC/VDC | 100 @ 12 VAC/VDC |
| 6...600 | 6...600 | 6...600 |
| 6...600 | 6...600 | 6...600 |
| 85% to 110% | 85% to 110% | 85% to 110% |
| 80% to 110% | 80% to 110% | 80% to 110% |
| 10 | 10 | 10 |
| 4 | 4 | 4 |
| 10% | 10% | 10% |
| 10% | 10% | 10% |
| 6,000 | 6,000 | 6,000 |
| 30 | 30 | 30 |
| 2200 | 2200 | 2200 |
| 2200 | 2200 | 2200 |
| 1500 | 1500 | 1500 |
| UL, CSA, CE | UL, CSA, CE | UL, CSA, CE |
| -40...+85 | -40...+85 | -40...+85 |
| -40...+55 | -40...+55 | -40...+55 |
| 8 (10) | 8 (10) | 8 (10) |
| 7...9 (0.8...1.0) | 7...9 (0.8...1.0) | 7...9 (0.8...1.0) |
| 227 to 312 | 227 to 312 | 227 to 312 |

Table B:

| Auxiliary Switch Ratings | SPDT | DPDT |
|---------------------------------|-------------|-------------|
| Up to 240 VAC 50/60Hz | 10 A (AC1) | 10 A (AC1) |
| Motor Load, 120-240 VAC 50/60Hz | 1/4 HP | 1/4 HP |
| Pilot Duty, 120-240 VAC 50/60Hz | 278 VA | 278 VA |
| 125 VDC | 0.4 A (DC1) | 0.4 A (DC1) |
| 250 VDC | 0.2 A (DC1) | 0.2 A (DC1) |
| Tungsten, 120 VAC 50/60Hz | 3 A | 3 A |