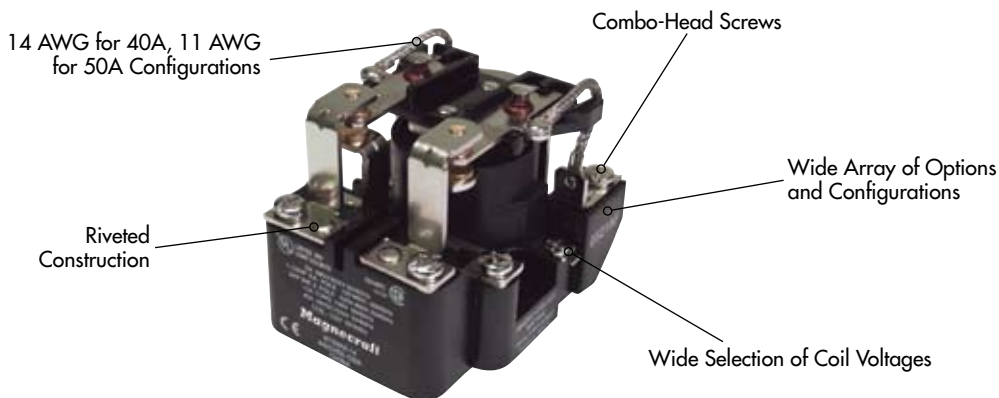
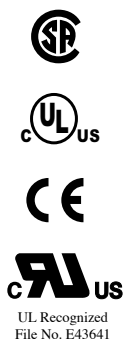


W199 Open Style Power Relay/Single and Two Pole 40 and 50 Amp Rating (DC and AC)



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