

# QM Series Electromechanical Relay Specifications

QM Series Specification Table								
Part Numbers	QM2N1-A120	QM2N1-A220	QM4N1-A120	QM4N1-A220	QM2N1-D24	QM2X1-D24	QM4N1-D24	QM4X1-D24
<b>Contact Specifications</b>								
<b>Current Rating</b>	5A		3A		5A	3A		
<b>Contact Type</b>	DPDT		4PDT		DPDT	4PDT		
<b>Terminal Type</b>	Spade plug-in socket							
<b>Rated Max. Resistive Load</b>	5A @ 220VAC/5A @ 24VDC		3A @ 220VAC/3A @ 24VDC		5A @ 220VAC/5A @ 24VDC		3A @ 220VAC/3A @ 24VDC	
<b>Rated Max. Inductive Load</b>	2A @ 220VAC/2A @ 24VDC		1.5 A @ 220VAC/0.8 A @ 24VDC		2A @ 220VAC/2A @ 24VDC		1.5A @ 220VAC/0.8 A @ 24VDC	
<b>Minimum Recommended Load</b>	1mA @ 1VDC							
<b>Max. Switching Cap. (Resistive Load)</b>	1,100VA/120W		660VA/72W		1,100VA/120W		660VA/72W	
<b>Max. Switching Cap. (Inductive Load)</b>	440VA/48W		176VA/36W		440VA/48W		176VA/36W	
<b>Max. Contact Rating</b>	250VAC/125VDC				250VAC/125VDC			
<b>Coil Specifications</b>								
<b>Options</b>	LED Indicator				LED Indicator/ Diode Protection	LED Indicator	LED Indicator/ Diode Protection	
<b>Coil Input Voltage</b>	110/120 VAC	220/240 VAC	110/120 VAC	220/240 VAC	24VDC			
<b>Rated Current at 50Hz</b>	9.9 /10.8 mA	6.2/6.8 mA	9.9/10.8 mA	6.2/6.8 mA	36.9 mA			
<b>Rated Current at 60Hz</b>	8.4/ 9.2 mA	5.3/5.8 mA	8.4/9.2 mA	5.3/5.8 mA	650Ω			
<b>Coil Resistance</b>	4.43 kΩ	12.95 kΩ	4.43 kΩ	12.95 kΩ	Approx. 0.9 W			
<b>Power Consumption</b>	Approx. 0.9 W to 1.1 W (at 60Hz)				Min. 10%			
<b>Dropout Voltage (% of rated voltage)</b>	Min. 30%				Max. 80% of the rated coil voltage			
<b>Pick-Up Voltage (Must operate voltage)</b>	110% of the rated coil voltage							
<b>Max. Voltage (Max. continuous voltage)</b>	80% of the rated coil voltage							
<b>Min. Operating Voltage</b>								
<b>General Specifications</b>								
<b>Service Life</b>	Mechanical: AC: Min. 50 million operations; DC: Min. 100 million operations (at operating frequency of 18,000 operations/hour)							
	Electrical: DPDT: Min. 500k operations; 4PDT: Min. 200k operations (at operating frequency of 1,800 operations/hour)							
<b>Operate Time</b>	20ms max							
<b>Release Time</b>	20ms max							
<b>Ambient Temperature</b>	-25° C to 75° C (-13° F to 167° F)							
<b>Ambient Humidity</b>	45% RH to 85% RH							
<b>Contact Material</b>	Fine Silver	Gold-plated Silver		Fine Silver	Gold-plated Silver			
<b>Contact Resistance</b>	50mΩ max							
<b>Operating Frequency</b>	Mechanical: 18,000 operations/hour; Electrical: 1,800 operations/hour							
<b>Vibration Resistance</b>	10Hz to 55Hz at double amplitude of 1.0mm							
<b>Shock Resistance</b>	1,000m/s <sup>2</sup> (approx. 100G)							
<b>Weight</b>	35g (1.24oz.)							
<b>Agency Approvals and Standards</b>	UL Recognized (#E222847), CE Certified (9667186-9811), CSA Certified (218218)							