

**RQ Series — General Purpose Relays**

IDEC's RQ relays are low-profile, PCB relays that provide quality within a compact package. Size equals value. RQ relays are small, yet maintain high contact ratings and long operational life. For larger power needs, a 16A model is also available.

Key features of the RQ series include:

- Low profile: 29 x 12.7 x 15 mm
- Contact rating: 8A (DPDT) and 12A (SPDT)
- Power relay model with 16A contact rating (SPDT)
- Operational life:  
100K cycles at full resistive load  
10 million cycles, no load
- LED/Diode Plug-in modules available with DIN rail socket
- Lead-free



**Relays**

		RQ1	RQ2	RQ1 HC	
<b>Specifications</b>	No. of poles	1	2	1	
	Contact Configuration	SPDT	DPDT	SPDT	
	Contact Rating	12A	8A	16A	
	Contact Material	Silver-Nickel alloy			
	Contact Resistance	100 milliohms max			
	Operating Time	12 ms max			
	Release Time	8 ms max			
	Dielectric Strength	Between contact & coil	5,000VAC, 1 minute		
		Between contacts	1,000VAC, 1 minute		
	Vibration Resistance	Damage limits	10-55 Hz, amplitude 1.5mm		
Operating extremes		10-55 Hz, amplitude 1.5mm			
Shock Resistance	Damage limits	100m/s <sup>2</sup> min (10G)			
	Operating extremes	1,000m/s <sup>2</sup> min (100G)			
Mechanical Life		10,000,000 operations			
Electrical Life @ Full Rated Load		100,000 operations			
Operating Temperature		-40 to 85° C			
Operating Humidity		45 to 85% RH			
Dimensions (H x W x D mm)		29 x 12.7 x 15			
Weight (Approx.)		15g			



UL Recognized  
File No. E59804, Vol 1



**Ordering Information**

Consult factory for other voltages.

Basic Part No.      Coil Voltage:

RQ  V - C  -

# of Contacts  
1 = SPDT  
2 = DPDT

Pin Spacing  
M = 3.5mm, SPDT 12A  
H\* = 5mm, SPDT 16A  
N = 5mm, DPDT 8A

Coil Voltage Code  
D12 = DC12V  
D24 = DC24V  
A24 = AC24V  
A115 = AC120V  
A230 = AC240V

\*DPDT footprint

**Part Numbers**

Coil Voltage	SPDT 12A	DPDT 8A	SPDT 16A
12V DC	RQ1V-CM-D12	RQ2V-CN-D12	RQ1V-CH-D12
24V DC	RQ1V-CM-D24	RQ2V-CN-D24	RQ1V-CH-D24
24V AC	RQ1V-CM-A24	RQ2V-CN-A24	RQ1V-CH-A24
120V AC	RQ1V-CM-A115	RQ2V-CN-A115	RQ1V-CH-A115
240V AC	RQ1V-CM-A230	RQ2V-CN-A230	RQ1V-CH-A230

## Ratings

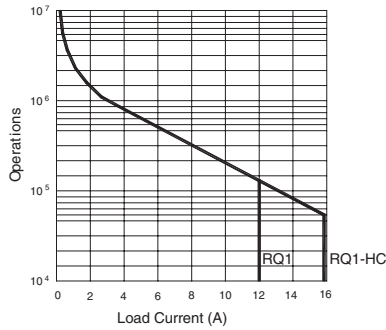
### Coil Ratings

Coil Sensitivity	Nominal Voltage	Nominal Current	Coil Resistance	Power Consumption	Pull-in Voltage	Drop-Out Voltage	Max Allowable Voltage
DC Coil	12V	33.3mA	360Ω	0.40W	80% Max	5% Min	130%
	24V	16.7mA	1,440Ω				
	110V	4.1mA	26,530Ω				
AC Coil (60 Hz)	24V	25.35mA	350Ω	0.61W	80% Max	30% Min	130%
	115V	6.3mA	8,100Ω	0.73W			
	230V	2.72mA	32,500Ω	0.63W			

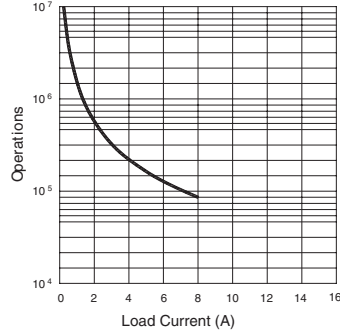
## Electrical Life Curves/Maximum Switching Capacity

### Electrical Life Curves

#### RQ1 & RQ1 High Capacity

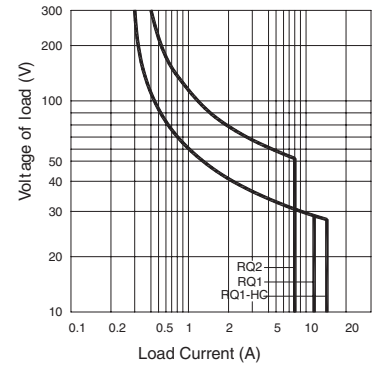


#### RQ2



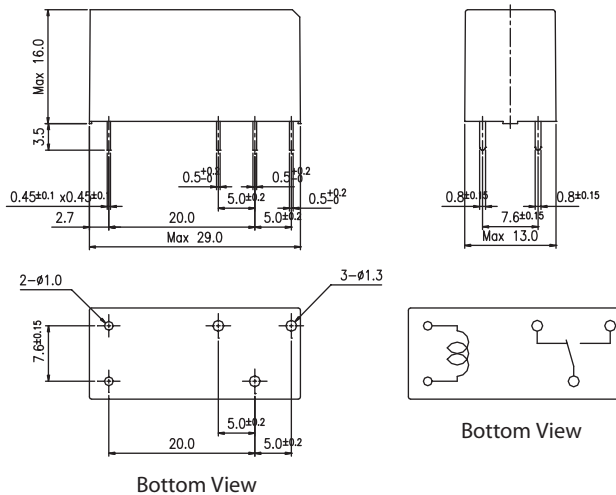
### Maximum Switching Capacity

#### RQ1, RQ1 High Capacity & RQ2

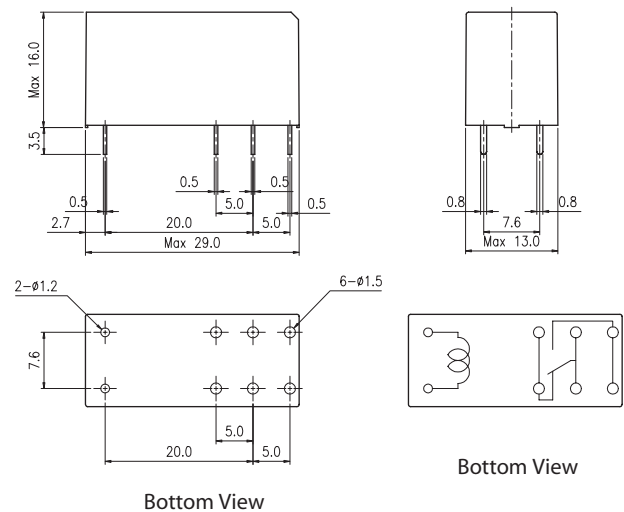


## Dimensions & Mounting Hole Layouts

### RQ1



### RQ2/RQ1 HC



### Part Numbers: Accessories

Part Numbers	Description
SQ1V-07B	SPDT Finger-safe Socket
SQ2V-07B	DPDT Finger-safe Socket
SQ9Z-C	Replacement Retaining Clip
SQ9Z-LD	Socket Plug-in LED & Diode Module (6-24V DC)
SQ9Z-LR	Socket Plug-in LED & RC Module (110-230V AC)
SQ9Z-P	Replacement Marking Plate

Dimensions are in mm.