



# Spark Quenchers

## For Arc and Noise Suppression

### HE-SQ0, HE-SQ1, HE-SQ2, HE-SQ3



#### 1 Introduction

Horner APG offers a selection of Spark Quenchers, manufactured by Okaya. Spark Quenchers are electronic components designed to prevent or substantially minimize the occurrence of arcing and noise generation in relay and switch contacts.

Spark Quenchers consist of specially designed capacitors and resistors connected in series. Spark discharges and induced noise are absorbed over a wide range by the accumulation characteristic and impedance of the capacitor, while the RC time constant delays and averages surge voltage and oscillations.

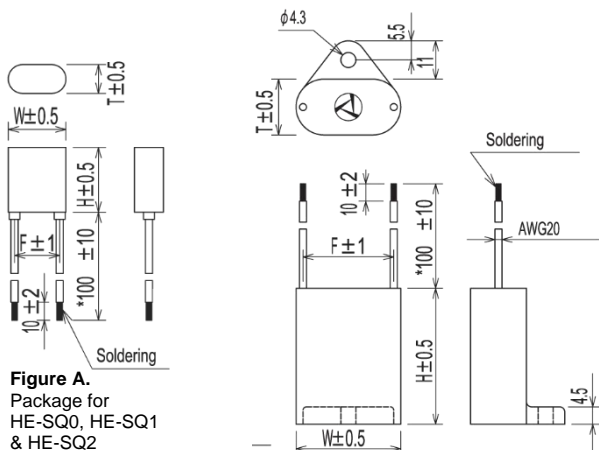
The Spark Quenchers can be installed across the load (ie motor contactor coil) – or across the output contacts switching the load (ie XLe OCS relay contacts). These two approaches are illustrated in Example #1 and Example #2 shown at right.

#### 2 Models offered by Horner APG

Available Models				
Horner Part #	Okaya Part #	Cap.	Res.	Recommended Use
HE-SQ0	XEB12001	0.01uF	120 ohm, 0.25W	For leakage sensitive loads <0.1A
HE-SQ1	XEB0471	0.1uF	47 ohm, 0.5W	For AC/DC loads <0.5A
HE-SQ2	XEB1201	0.1uF	120 ohm, 0.5W	For >200VAC loads <0.5A
HE-SQ3	XEB1203	0.3uF	220 ohm, 1.0W	For AC/DC loads >0.5A

#### 3 Mechanical Dimensions

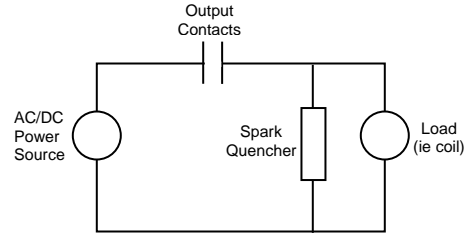
Mechanical Dimensions						
Horner Part #	Okaya Part #	W	H	T	F	Figure
		all dimensions in mm				
HE-SQ0	XEB12001	16	20	8	12.5	A
HE-SQ1	XEB0471	19	25	8.5	15	
HE-SQ2	XEB1201	19	25	8.5	15	
HE-SQ3	XEB1203	30	39	16	26	B



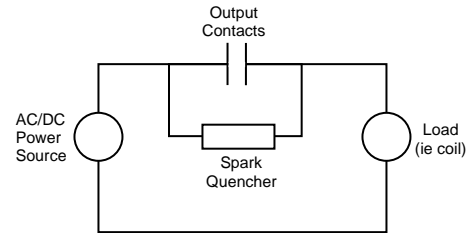
**Figure A.** Package for HE-SQ0, HE-SQ1 & HE-SQ2

**Figure B.** Package for HE-SQ3

#### 4 Application Examples



Example #1. Installing Spark Quencher across the load (ie motor starter coil).



Example #2. Installing Spark Quencher across the output contacts.

#### 5 Installation / safety

**Warning:** Remove power from the OCS controller and any peripheral equipment connected to this local system before adding or replacing this or any component to the system.

a. All applicable codes and standards should be followed in the installation of this product.

When found on the product, the following symbols specify:



#### 6 Technical Support

Technical Support at the following locations:

**North America:**  
 Tel: 317 916-4274  
 Fax: 317 639-4279  
 Web: <http://www.heapg.com>  
 Email: [techsptt@heapg.com](mailto:techsptt@heapg.com)

**Europe:**  
 Tel: +353-21-4321266  
 Fax: +353-21-4321826  
 Web: <http://www.horner-apg.com>  
 Email: [tech.support@horner-apg.com](mailto:tech.support@horner-apg.com)

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#### Manufacturer's Approvals (Okaya)

