



Product Change Notification

Date: January 1st, 2013
To: Cooper Bussmann® PowerStor® Customers
Subject: Shipping Methods of M, PM, HV, PHV and XV Product Lines

Dear Valued Customer,

Cooper Bussmann has been shipping the above supercapacitor product lines using the most conservative definition. As such, these products have been shipped under the same classification as one of the internal chemicals used, acetonitrile. They have been shipping as a Class 3 Hazardous Materials according to UN1648.

In December 2010, the UN adopted a classification specifically for supercapacitors or more technically, “electric double layer capacitors.” This classification becomes effective **January 1, 2013** under IATA regulations. The new entry is added to the Dangerous Goods list as follows:

(1)	(2)	(3)	(4)	(5)	(6)	(7a)	(7b)	(8)	(9)	(10)	(11)
3499	CAPACITOR, electric double layer (with an energy storage capacity greater than 0.3 Wh)	9			361	0	E0	P003			

Customers should consult the [UN regulations \(page 295\)](#), [IATA Dangerous Goods Regulations](#) or [USDOT \(CFR49 Part 171\)](#) for details. There are 3 definitions under the new classification, each with their own shipping requirements. Cooper Bussmann products only fall within the first two classifications.

Classification	Cooper Bussmann Products	Cells	Capacitor shipped in Modules
Cells <0.3Wh	HV, PHV, M, PM Series	No restrictions	No restrictions
Cells ≥0.3Wh, <10Wh	XV series XB series	Shipped uncharged	Must be protected against short circuit or be fitted with a metal strap connecting the terminals
Cells ≥10Wh		UN3499, Class 9. Must be shipped uncharged and shorting strap connected	Must be shipped with a shorting strap connected

In accordance with the regulations, all Cooper Bussmann products (XB and XV series) meet the following provisions also required by the new regulation: withstand 95 kPa pressure differential, designed with a safety pressure relief valve, are marked with the energy storage capacity in Wh and can withstand a 1.2m drop test.

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Further note that capacitors XV series capacitors when installed in equipment, only need to meet the following (excerpted from UN3499, note 361):

“Capacitors install in equipment and containing an electrolyte meeting the classification criteria of any class or division of dangerous goods, are not subject to other provisions of these Regulations provided the equipment is packaged in a strong outer packaging constructed of suitable materials and of adequate strength and design, in relation to the packaging’s intended use and in such a manner as to prevent the accidental functioning of capacitors during transport.”

For any questions in regards to this PCN, please contact CapacitorTech@cooperindustries.com.

Regards,

Jason Lee
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Cooper Bussmann PowerStor® Products