

Material Substitution for Additional Four Substances Restricted by EU RoHS Recast Directive for Sensorless Servo Drive Units and Options

Thank you for your continued patronage of Mitsubishi Electric drive control products.

To amend EU RoHS Recast Directive 2011/65/EU (RoHS II), the Directive (EU) 2015/863 was published. Four phthalates (DEHP, BBP, DBP, and DIBP) were added to the list of restricted substances, thus the list contains 10 substances in total.

Mitsubishi Electric sensorless servo drive units and options are included in "Category 9: Industrial monitoring and control instruments". The products sold and used in Europe should be compliant with EU 2015/863 from July 22, 2021.

The products manufactured in January 2021 or later will be compliant with EU 2015/863 as described in the document on page 3).

General specifications, performance specifications, functions, and outline dimensions of the products will not be affected.

1. Products to Be Compliant with EU 2015/863

(1) Sensorless servo drive units and option units

Classification		Series name / model	Remarks
Drive unit	700 series	FR-E700EX	
		FR-D700-G	
Option unit	Brake unit	FR-BU2	400 V class (FR-BU2-H) only
	High power factor converter	FR-HC2	

(2) Options

Classification	Applicable drive unit	Series name / model	Remarks
Plug-in option / control terminal option	FR-E700EX	FR-A7AP-EX kit/A7NC E kit/E7DS/E7TR	
Cable	FR-E700EX FR-D700-G	FR-CB20	
Operation panel / parameter unit		FR-PU07/PA07	
EMC Directive compliant noise filter		SF1306/1309, FR-E5NF-H0.75K/H3.7K	
Filter/reactor		FR-HAL-(H)K, FR-HEL-(H)K, FR-BLF, FR-BSF01	
Brake resistor		FR-ABR-(H)0.4K to 3.7K	
Attachment		FR-UDA01 to 03, FR-E7CN01/02, FR-E7CV01 to 03, FR-E5T	

2. Manufacture Date of the Compliant Products

The products manufactured in January 2021 or later will be compliant with EU 2015/863.

Date of issue	November 2020	Title	Material Substitution for Additional Four Substances Restricted by EU RoHS Recast Directive for Sensorless Servo Drive Units and Options	Mitsubishi Electric Corp., Nagoya Works 5-1-14 Yada-minami, Higashi-ku, Nagoya 461-8670 Tel.: +81 (52) 721-2111 Main line
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3. Product Identification

An <H> mark*1 will be indicated on the packaging label or packaging of the product in which the concentrations of 10 restricted substances are less than the values specified by the RoHS II Directive. (A mark may be indicated on a different place depending on the model.)
 <H> marks will be indicated for the products after the factory shipment in December 2020.

Example of the <H> mark indicated on the packaging label

The <H> mark is indicated near the model code (six characters) in the following example.

Before	After
<p><G> Indicating that the concentrations of six restricted substances are less than restricted values*2.</p>	<p><H> Indicating that the concentrations of 10 restricted substances are less than restricted values*2.</p>
<p>Packaging label Model code</p>	<p>Packaging label Model code</p>

*1 The <H> mark does not assure the product is compliant with EU 2015/863. It is an indication, used for Mitsubishi Electric products only, just indicating that the concentrations of 10 restricted substances are less than the values specified by the RoHS II Directive.

The indication method may differ when the way to identify products changes.

*2 For the applications mentioned in the exemptions in the RoHS II Directive, the concentrations of the restricted substances may exceed restricted values.

4. Others

(1) Notes

- Even after January 2021, non-compliant products will be shipped unless the remaining inventory is consumed. If you require compliant products, please contact your sales representative.
- If you have our reply to the inquiry about the manufacture date of compliant products, check the reply.

(2) EU Directives

For information on compliance with EU Directives other than RoHS Directive, please contact your sales representative.

(3) Appendix

"Action for the phthalates added to the EU RoHS Directive list of restricted substances"

[Appendix] "Action for the phthalates added to the EU RoHS Directive list of restricted substances"

Aug. 2018

Action for the phthalates added to the EU RoHS Directive list of restricted substances

In June 2015 the EU commission published a new Directive (EU) 2015/863 amending EU RoHS 2 Directive 2011/65/EU by adding 4 phthalates to the list of restricted substances. It will apply to products that are included in "Category 9 : Industrial monitoring and control instruments" from 22 July 2021. After that day only products that comply with Directive (EU) 2015/863 may be sold and used in Europe.

We would like to inform you how to response to our subject products.

1. Outline of Directive(EU)2015/863**(1) Restricted substances added to the list and maximum concentration values**

* The denominator for calculating the content shall be the mass of the homogeneous material^{*1}

* A review of the list of restricted substances will be carried out periodically.

Restricted substances added to the list	Maximum concentration values
Bis(2-ethylhexyl) phthalate (DEHP)	Maximum 0.1%(1000ppm) by weight of the homogeneous material.
Benzyl butyl phthalate (BBP)	
Dibutyl phthalate (DBP)	
Diisobutyl phthalate (DIBP)	

*1 "Homogeneous material" means one material of uniform composition throughout that cannot be disjoined or separated into different materials by mechanical actions such as unscrewing, cutting, crushing, grinding and abrasive processes.

(2) Product categories and deadlines

Deadlines differ by each product category

Categories		Deadlines
1	Large household appliances	22 July 2019
2	Small household appliances	
3	IT and communications equipment	
4	Consumer equipment	
5	Lighting equipment	
6	Electrical and electronic tools	
7	Toys, leisure and sports equipment	
8	Medical devices	22 July 2021
	In-vitro diagnostic medical devices	
9	Monitoring and control instruments	
	Industrial monitoring and control instruments	
10	Automatic dispensers	22 July 2019
11	All other electrical and electronic equipment not covered by any of these categories	

2. Company's actions**(1) Start of compliant production**

Appropriate measures will be taken for products produced from Jan.2021. (Exempted products and dedicated products for Japanese domestic market are not included).

Please refer to the sales and documents published by each product group from now on.

(2) Identification of products that do not use the restricted substances

In addition to the original 6 restricted substances, products that contain less than the permitted level of substances shown in 1-(1) will have the following mark on packing labels: "<H>".

Note) The "<H>" mark does NOT indicate conformity with the RoHS directive, it is an indicator used for stock control within the Mitsubishi Electric Group.

Phthalates are a type of plasticizer added to plastics to increase their flexibility, transparency, durability and life.

Mitsubishi Electric Corporation
Factory Automation Systems Group