

## Sales and Service

### Corrections of Overload Protection Characteristics

Thank you for your continued patronage of the Mitsubishi Electric AC servo system. For some models of the rotary servo motors, linear servo motors, and the direct drive motors, there were errors in the overload protection characteristics described in the MR-J5, MR-JET, and MR-J4 series manuals/instruction manuals. Therefore, corrections will be made as follows.

Please confirm the following details.

These corrections do not affect the functions and performance of the products.

#### 1. Target Model

- Rotary servo motors  
HG-UR series : HG-UR72
  
- Linear servo motors  
LM-H3 series : LM-H3P2A-07P-BSS0, LM-H3P3A-12P-CSS0, LM-H3P3B-24P-CSS0, LM-H3P3C-36P-CSS0, LM-H3P3D-48P-CSS0, LM-H3P7A-24P-ASS0, LM-H3P7B-48P-ASS0, LM-H3P7C-72P-ASS0, LM-H3P7D-96P-ASS0  
LM-K2 series : LM-K2P1A-01M-1SS1, LM-K2P1C-03M-2SS1, LM-K2P2A-02M-1SS1, LM-K2P2C-07M-1SS1, LM-K2P2E-12M-1SS1, LM-K2P3C-14M-1SS1, LM-K2P3E-24M-1SS1  
LM-U2 series : LM-U2PBD-15M-1SS0  
LM-F series : LM-FP2B-06M-1SS0 (liquid cooling)
  
- Direct drive motors  
TM-RF series : TM-RFM048G20, TM-RFM072G20

#### 2. Applicable Manuals and Instruction Manuals

- Manual : MR-J5 User's Manual (Hardware) (SH(NA)-030298ENG)  
MR-JET User's Manual (Hardware) (IB(NA)-0300453ENG)
- Instruction manual : MR-J4-\_A\_(-RJ) MR-J4-03A6(-RJ) Servo Amplifier Instruction Manual (SH(NA)-030107ENG)  
MR-J4-\_B\_(-RJ) Servo Amplifier Instruction Manual (SH(NA)-030106ENG)  
MR-J4W2-\_B MR-J4W3-\_B MR-J4W2-0303B6 Servo Amplifier Instruction Manual (SH(NA)-030105ENG)  
MR-J4-\_GF\_(-RJ) Servo Amplifier Instruction Manual (Motion Mode) (SH(NA)-030218ENG)  
MR-J4-\_TM\_ Servo Amplifier Instruction Manual (SH(NA)-030193ENG)

#### 3. Details of the Corrections

For specific details of the corrections, refer to "5. Details of the Corrections of the Overload Protection Characteristics".

#### 4. Schedule

The manual and the instruction manuals will be corrected sequentially from the edition in or after January 2024.

<b>Date of issue</b>	January 2024	<b>Title</b>	Corrections of Overload Protection Characteristics	Mitsubishi Electric Corp., Nagoya Works 1-14, Yada-minami 5-chome, Higashi-ku, Nagoya 461-8670 Tel.: +81 (52) 721-2111 Main line
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## 5. Details of the Corrections of the Overload Protection Characteristics

The corrections of the target models are shown in the following tables.

Model		Correction	Detail
HG-UR series	HG-UR72	The overload protection characteristics will be corrected.	1)
LM-H3 series	All models	The overload protection characteristics will be corrected.	2)
LM-K2 series	All models	The overload protection characteristics will be corrected.	3)
LM-U2 series	LM-U2PBD-15M-1SS0	The overload protection characteristics will be corrected.	4)
	All models except for the one mentioned above	Unchanged	
LM-F series	LM-FP2B-06M-1SS0 (liquid cooling)	The overload protection characteristics will be corrected.	5)
	All models except for the one mentioned above	Unchanged	
TM-RF series	TM-RFM048G20, TM-RFM072G20	The overload protection characteristics will be corrected.	6)
	All models except for the one mentioned above	Unchanged	

The overload protection characteristics before and after the corrections of the target models are shown in the following tables. The changes are shown with a red line.

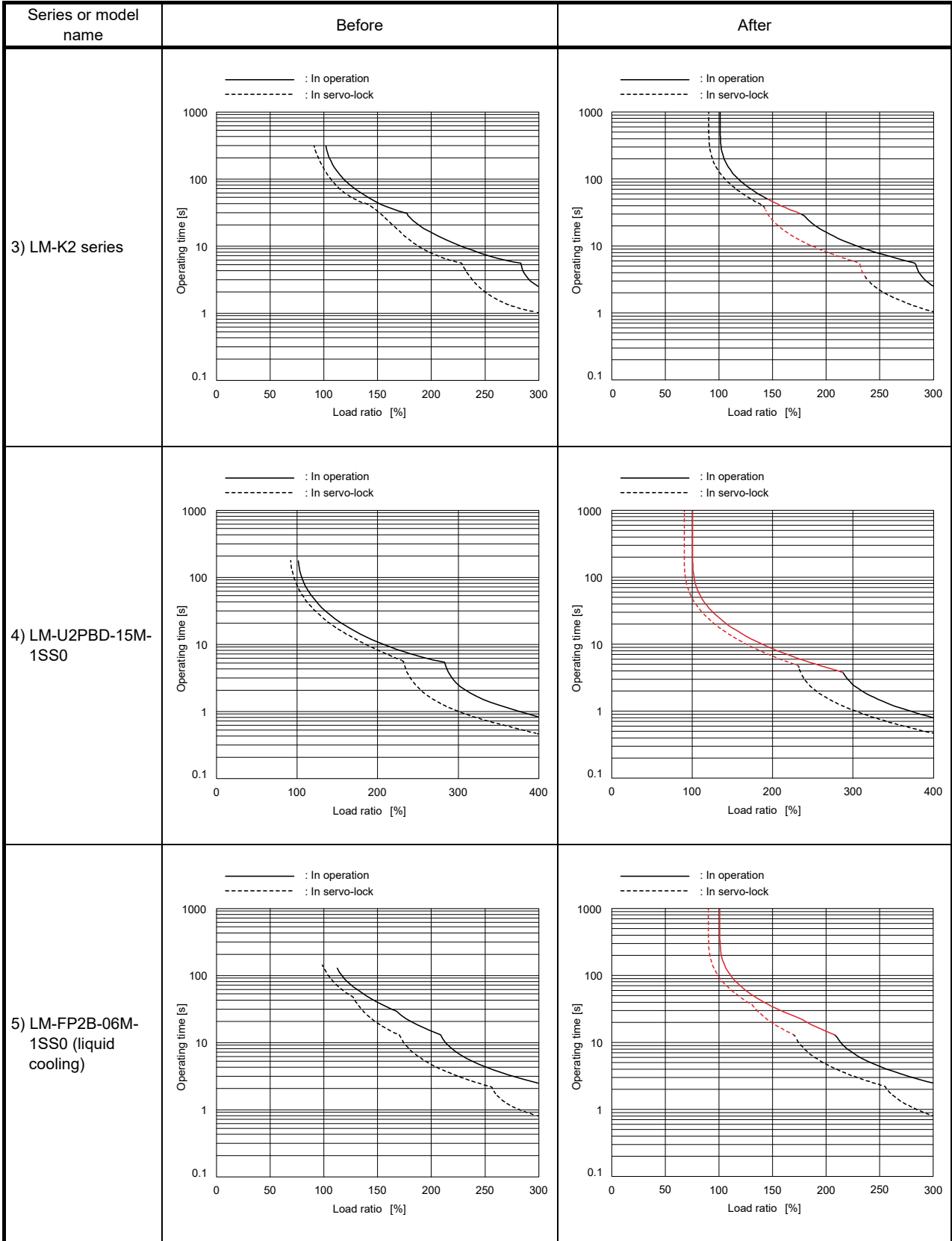
The overload protection characteristics of the rotary servo motors

Series or model name	Before	After																																																																																																														
1) HG-UR72	<table border="1"> <thead> <tr> <th colspan="6">Rotary servo motor</th> <th rowspan="2">Graph of overload protection characteristics</th> </tr> <tr> <th>HG-KR</th> <th>HG-MR</th> <th>HG-SR</th> <th>HG-UR</th> <th>HG-RR</th> <th>HG-JR</th> </tr> </thead> <tbody> <tr> <td>053</td> <td>053</td> <td></td> <td>72</td> <td></td> <td></td> <td>Characteristics a</td> </tr> <tr> <td>13</td> <td>13</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>23</td> <td>23</td> <td>51</td> <td></td> <td></td> <td>53</td> <td>Characteristics b</td> </tr> <tr> <td>43</td> <td>43</td> <td>81</td> <td></td> <td></td> <td>73</td> <td></td> </tr> <tr> <td>73</td> <td>73</td> <td>52</td> <td></td> <td></td> <td>103</td> <td></td> </tr> <tr> <td></td> <td></td> <td>102</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Rotary servo motor						Graph of overload protection characteristics	HG-KR	HG-MR	HG-SR	HG-UR	HG-RR	HG-JR	053	053		72			Characteristics a	13	13						23	23	51			53	Characteristics b	43	43	81			73		73	73	52			103				102					<table border="1"> <thead> <tr> <th colspan="6">Rotary servo motor</th> <th rowspan="2">Graph of overload protection characteristics</th> </tr> <tr> <th>HG-KR</th> <th>HG-MR</th> <th>HG-SR</th> <th>HG-UR</th> <th>HG-RR</th> <th>HG-JR</th> </tr> </thead> <tbody> <tr> <td>053</td> <td>053</td> <td></td> <td>72</td> <td></td> <td></td> <td>Characteristics a</td> </tr> <tr> <td>13</td> <td>13</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>23</td> <td>23</td> <td>51</td> <td></td> <td></td> <td>53</td> <td>Characteristics b</td> </tr> <tr> <td>43</td> <td>43</td> <td>81</td> <td></td> <td></td> <td>73</td> <td></td> </tr> <tr> <td>73</td> <td>73</td> <td>52</td> <td></td> <td></td> <td>103</td> <td></td> </tr> <tr> <td></td> <td></td> <td>102</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Rotary servo motor						Graph of overload protection characteristics	HG-KR	HG-MR	HG-SR	HG-UR	HG-RR	HG-JR	053	053		72			Characteristics a	13	13						23	23	51			53	Characteristics b	43	43	81			73		73	73	52			103				102				
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The overload protection characteristics of the linear servo motors

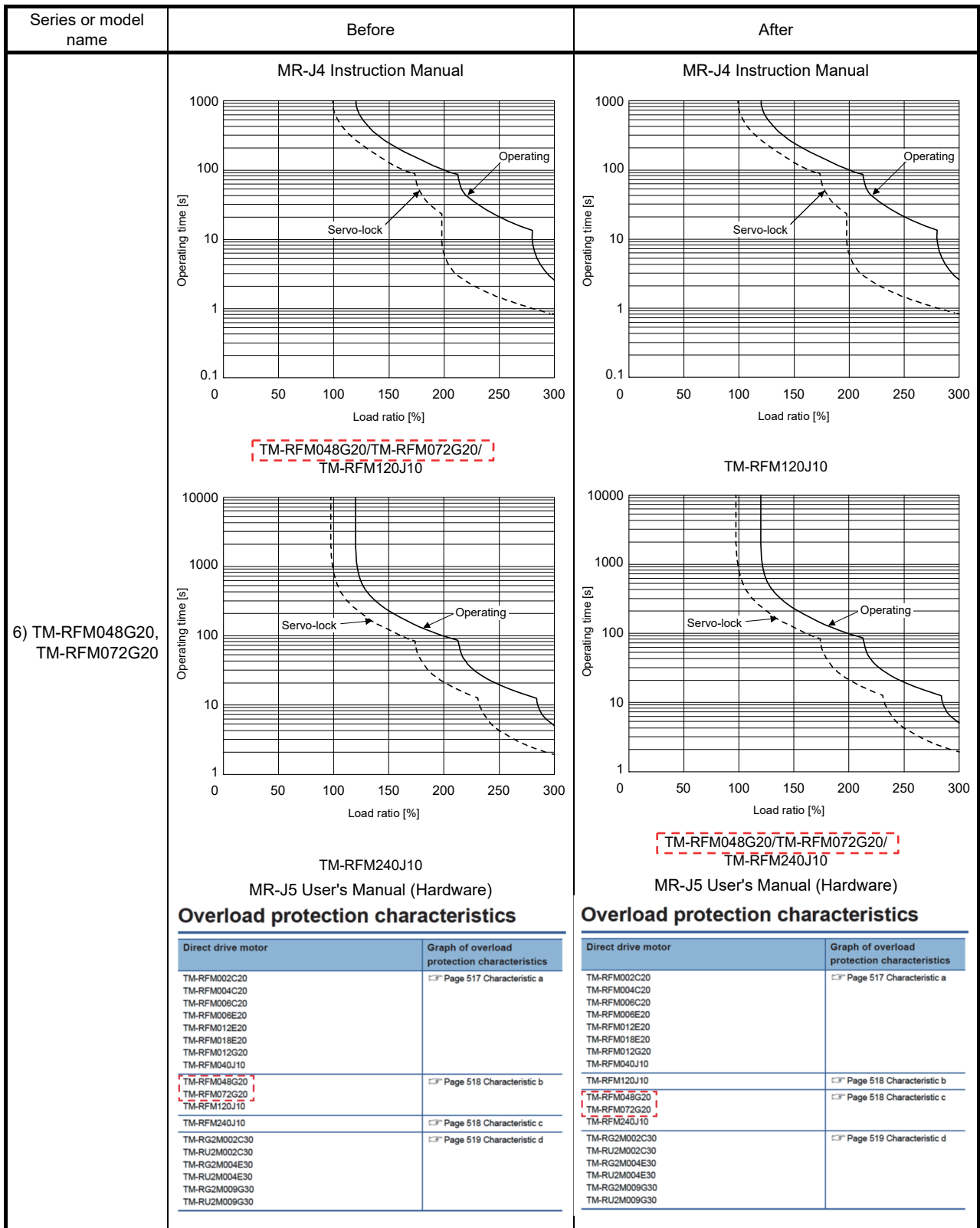
Series or model name	Before	After
2) LM-H3 series		

The horizontal axis of each graph shows the load ratio, and the vertical axis shows the time until stop. Along with the correction, the vertical axis of the graph was extended to 1000[s].



The horizontal axis of each graph shows the load ratio, and the vertical axis shows the time until stop. Along with the correction, the vertical axis of the graph was extended to 1000[s].

The overload protection characteristics of the direct drive motors



The horizontal axis of each graph shows the load ratio, and the vertical axis shows the time until stop.