

# Załącznik - Wartości nastawcze przetwornicy częstotliwości Lean-Lift Mitsubishi FR-A740 / 741 / 840 (A-Frequen1\_V4301.FRA)

Wartości nastawcze dla Hänel Lean-Lift  
przetwornicy częstotliwości U1  
MP12N (samo Wersja programu CPU 1:  
V4.3)

|    |                                                              |                                            | HS27 HS28                       | HS37 HS38        | HS52              | HS34             | HS44             |
|----|--------------------------------------------------------------|--------------------------------------------|---------------------------------|------------------|-------------------|------------------|------------------|
|    | Frequency Converter U1                                       |                                            | FR-A 740 / FR-A840 / FR-A741 HS |                  |                   |                  |                  |
|    |                                                              |                                            | -00170                          | -00250           | -00250            | -00170           | -00250           |
|    |                                                              |                                            | 5,5 KW                          | 7,5 KW           | 7,5 KW            | 5,5 KW           | 7,5 KW           |
|    |                                                              |                                            | High-Speed                      |                  |                   |                  |                  |
|    | Parameter                                                    | Setting Range<br>MP12N V4.3                | /250 HS<br>PMS35                | /500 HS<br>PMS36 | /1000 HS<br>PMS23 | /500 HS<br>PMS31 | /700 HS<br>PMS33 |
| 1  | 2                                                            | 1                                          | 2                               | 3                | 4                 | 6                | 7                |
| 1  | Maximum frequency                                            | 5 to 120 Hz                                | 100Hz                           | 100Hz            | 120Hz             | 100Hz            | 100Hz            |
| 2  | Minimum frequency                                            |                                            | 1,5Hz                           | 1,5Hz            | 1,5Hz             | 1,5Hz            | 1,5Hz            |
| 3  | Base frequency                                               |                                            | 63Hz                            | 63Hz             | 60Hz              | 200Hz            | 200Hz            |
| 7  | Acceleration time                                            |                                            | 1,5sec.                         | 1,5sec.          | 1,5sec.           | 1,5sec.          | 1,5sec.          |
| 8  | Deceleration time                                            |                                            | 0,3sec.                         | 0,3sec.          | 1,1sec.           | 0,3sec.          | 0,3sec.          |
| 9  | Electronic thermal O/L relay                                 | 8,00 to 17,00 A                            | 11,14A                          | 13,74A           | 9,99A             | 8,73A            | 11,55A           |
| 11 | DC injection brake operation time                            |                                            | 0sec.                           | 0sec.            | 0sec.             | 0sec.            | 0sec.            |
| 13 | Starting frequency                                           |                                            | 0,5Hz                           | 0,5Hz            | 0,5Hz             | 0,5Hz            | 0,5Hz            |
| 14 | Load pattern selection                                       |                                            | 40                              | 40               | 40                | 40               | 40               |
| 18 | High speed maximum frequency                                 | 120 – 150 Hz                               | 150Hz                           | 150Hz            | 128Hz             | 102Hz            | 102Hz            |
| 19 | Base frequency voltage                                       |                                            | 400V                            | 400V             | 400V              | 400V             | 400V             |
| 20 | Acceleration/deceleration reference frequency                |                                            | 200Hz                           | 200Hz            | 200Hz             | 200Hz            | 200Hz            |
| 21 | Acceleration/deceleration time increments                    |                                            | 1                               | 1                | 1                 | 1                | 1                |
| 22 | Stall prevention operation level (torque limit level )       | ES: 70,0 to 135,0 %<br>HS: 70,0 to 150,0 % | 125%                            | 125%             | 125%              | 131,2%           | 107,7%           |
| 22 | 0840a 2 -635 Strombegrenzung P22-1                           | 840-635                                    | 98,6%                           | 120,6%           | 85%               |                  |                  |
| 22 | 1300a 2 -635 Strombegrenzung P22-2                           | 1300-635                                   | 101,6%                          | 123,3%           | 86,4%             |                  |                  |
| 22 | 1640a 2 -635 Strombegrenzung P22-3                           | 1640-635                                   | 104,3%                          | 125,6%           | 81,5%             |                  |                  |
| 22 | 1860a 2 -635 Strombegrenzung P22-4                           | 1860-635                                   | 96,8%                           | 127,1%           | 82,5%             |                  |                  |
| 22 | 2060a 2 -635 Strombegrenzung P22-5                           | 2060-635                                   | 98,4%                           | 129,7%           | 80,9%             |                  |                  |
| 22 | 2300a 2 -635 Strombegrenzung P22-6                           | 2300-635                                   | 101,4%                          | 126,8%           | 78,6%             |                  |                  |
| 22 | 2460a 2 -635 Strombegrenzung P22-7                           | 2460-635                                   | 103,1%                          | 128,2%           | 80,7%             |                  |                  |
| 22 | 2860a 2 L -635 Strombegrenzung P22-8                         | 2860-635 L                                 | 94,7%                           | 122,2%           |                   |                  |                  |
| 22 | 3060a 2 L -635 Strombegrenzung P22-9                         | 3060-635 L                                 | 107,1%                          | 116,3%           |                   |                  |                  |
| 22 | 3260a 2 L -635 Strombegrenzung P22-10                        | 3260-635 L                                 | 95,9%                           | 106,7%           |                   |                  |                  |
| 22 | 2860a 2 -635 Strombegrenzung P22-11                          | 2860-635                                   | 109,8%                          | 131,2%           | 76,6%             |                  |                  |
| 22 | 3060a 2 -635 Strombegrenzung P22-12                          | 3060-635                                   | 111,8%                          | 133%             | 75,6%             |                  |                  |
| 22 | 3260a 2 -635 Strombegrenzung P22-13                          | 3260-635                                   | 113,7%                          | 126,6%           | 74,6%             |                  |                  |
| 22 | 0840a 1 -635 / 825 Strombegrenzung P22-14                    | 840-635 / 825                              | 97,8%                           | 92,2%            | 86,3%             |                  |                  |
| 22 | 1300a 1 -635 / 825 Strombegrenzung P22-15                    | 1300-635 / 825                             | 101,3%                          | 94,2%            | 87,7%             |                  |                  |
| 22 | 1640a 1 -635 / 825 Strombegrenzung P22-16                    | 1640-635 / 825                             | 104,1%                          | 96,2%            | 82,9%             |                  |                  |
| 22 | 1860a 1 -635 / 825 Strombegrenzung P22-17                    | 1860-635 / 825                             | 97,2%                           | 97,3%            | 84,2%             |                  |                  |
| 22 | 2060a 1 -635 / 825 Strombegrenzung P22-18                    | 2060-635 / 825                             | 99,8%                           | 98,8%            | 82,6%             |                  |                  |
| 22 | 2300a 1 -635 / 825 Strombegrenzung P22-19                    | 2300-635 / 825                             | 101,3%                          | 97,3%            | 80,4%             |                  |                  |
| 22 | 2460a 1 -635 / 825 Strombegrenzung P22-20                    | 2460-635 / 825                             | 102,7%                          | 99,3%            | 83,4%             |                  |                  |
| 22 | 2860a 1 L -635 / 825 Strombegrenzung P22-21                  | 2860-635 / 825 L                           | 96,7%                           | 95,2%            |                   |                  |                  |
| 22 | 3060a 1 L -635 / 825 Strombegrenzung P22-22                  | 3060-635 / 825 L                           | 96,8%                           | 87,8%            |                   |                  |                  |
| 22 | 3260a 1 L -635 / 825 Strombegrenzung P22-23                  | 3260-635 / 825 L                           | 98,4%                           | 80,1%            |                   |                  |                  |
| 22 | 2860a 1 -635 / 825 Strombegrenzung P22-24                    | 2860-635 / 825                             | 111,9%                          | 102,1%           | 79,1%             |                  |                  |
| 22 | 3060a 1 -635 / 825 Strombegrenzung P22-25                    | 3060-635 / 825                             | 112,3%                          | 100,6%           | 78,2%             |                  |                  |
| 22 | 3260a 1 -635 / 825 Strombegrenzung P22-26                    | 3260-635 / 825                             | 112,5%                          | 99,2%            | 77,3%             |                  |                  |
| 22 | 0840b 3 -1047 / 1270 Strombegrenzung P22-40                  | 840-1047 / 1270                            | 104,3%                          | 96,4%            | 89%               |                  |                  |
| 22 | 1300b 3 -1047 / 1270 Strombegrenzung P22-41                  | 1300-1047 / 1270                           | 109,4%                          | 99,3%            | 84,7%             |                  |                  |
| 22 | 1640b 3 -1047 / 1270 Strombegrenzung P22-42                  | 1640-1047 / 1270                           | 104,2%                          | 101,7%           | 80,4%             |                  |                  |
| 22 | 1860b 3 -1047 / 1270 Strombegrenzung P22-43                  | 1860-1047 / 1270                           | 89,4%                           | 97,3%            | 81,8%             |                  |                  |
| 22 | 2060b 3 -1047 / 1270 Strombegrenzung P22-44                  | 2060-1047 / 1270                           | 109,7%                          | 98,5%            | 80,7%             |                  |                  |
| 22 | 2300b 3 -1047 / 1270 Strombegrenzung P22-45                  | 2300-1047 / 1270                           | 113,2%                          | 101,2%           | 79,1%             |                  |                  |
| 22 | 2460b 3 -1047 / 1270 Strombegrenzung P22-46                  | 2460-1047 / 1270                           | 115,6%                          | 102,9%           | 80,2%             |                  |                  |
| 22 | 2860b 3 L -1047 / 1270 Strombegrenzung P22-47                | 2860-1047 / 1270 L                         |                                 | 80,2%            |                   |                  |                  |
| 22 | 3060b 3 L -1047 / 1270 Strombegrenzung P22-48                | 3060-1047 / 1270 L                         |                                 | 82%              |                   |                  |                  |
| 22 | 3260b 3 L -1047 / 1270 Strombegrenzung P22-49                | 3260-1047 / 1270 L                         |                                 | 83,7%            |                   |                  |                  |
| 22 | 2860b 3 -1047 / 1270 Strombegrenzung P22-50                  | 2860-1047 / 1270                           |                                 | 93,6%            | 92,2%             |                  |                  |
| 22 | 3060b 3 -1047 / 1270 Strombegrenzung P22-51                  | 3060-1047 / 1270                           |                                 | 89,5%            | 90,1%             |                  |                  |
| 22 | 3260b 3 -1047 / 1270 Strombegrenzung P22-52                  | 3260-1047 / 1270                           |                                 | 91,2%            | 88%               |                  |                  |
| 22 | 3660a 2 -635 Strombegrenzung P22-53                          | 3660-635                                   |                                 |                  |                   | 131,3%           | 107,7%           |
| 22 | 4060a 2 -635 Strombegrenzung P22-54                          | 4060-635                                   |                                 |                  |                   | 133,3%           | 109,4%           |
| 22 | 4460a 2 -635 Strombegrenzung P22-55                          | 4460-635                                   |                                 |                  |                   | 122,5%           | 100,5%           |
| 22 | 3660a 1 -635 / 825 Strombegrenzung P22-56                    | 3660-635 / 825                             |                                 |                  |                   | 135,4%           | 111,1%           |
| 22 | 4060a 1 -635 / 825 Strombegrenzung P22-57                    | 4060-635 / 825                             |                                 |                  |                   | 137,6%           | 113%             |
| 22 | 4460a 1 -635 / 825 Strombegrenzung P22-58                    | 4460-635 / 825                             |                                 |                  |                   | 126,9%           | 104,2%           |
| 22 | Stall prevention Special Version Kom.Nr.:                    |                                            |                                 |                  |                   |                  |                  |
| 23 | Stall prevention operation level compensation factor at doub |                                            | 150%                            | 100%             | 150%              | 100%             | 100%             |
| 29 | Acceleration/deceleration pattern selection                  |                                            | 00                              | 00               | 00                | 10               | 10               |
| 30 | Regenerative function selection (only FR-A 740/840)          |                                            | 1                               | 1                | 1                 | 1                | 1                |

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Wartości nastawcze dla Hänel Lean-Lift  
przetwornicy częstotliwości U1  
MP12N (samo Wersja programu CPU 1:  
V4.3)

|    |                                                         |                                          | HS27                            | HS28     | HS37 HS38 | HS52     | HS34     | HS44 |
|----|---------------------------------------------------------|------------------------------------------|---------------------------------|----------|-----------|----------|----------|------|
|    |                                                         |                                          | FR-A 740 / FR-A840 / FR-A741 HS |          |           |          |          |      |
|    | Frequency Converter U1                                  |                                          | -00170                          | -00250   | -00250    | -00170   | -00250   |      |
|    |                                                         |                                          | 5,5 KW                          | 7,5 KW   | 7,5 KW    | 5,5 KW   | 7,5 KW   |      |
|    |                                                         |                                          | High-Speed                      |          |           |          |          |      |
|    |                                                         | Setting Range                            | /250 HS                         | /500 HS  | /1000 HS  | /500 HS  | /700 HS  |      |
|    | Parameter                                               | MP12N V4.3                               | PMS35                           | PMS36    | PMS23     | PMS31    | PMS33    |      |
| 1  | 2                                                       | 1                                        | 2                               | 3        | 4         | 6        | 7        |      |
| 42 | Output frequency detection                              |                                          | 0.5Hz                           | 0.5Hz    | 0.5Hz     | 0.5Hz    | 0.5Hz    |      |
| 43 | Output frequency detection for reverse rotation         |                                          | 99.99Hz                         | 99.99Hz  | 99.99Hz   | 99.99Hz  | 99.99Hz  |      |
| 44 | Second acceleration/deceleration time                   |                                          | 0.35sec.                        | 0.35sec. | 0.35sec.  | 0.15sec. | 0.15sec. |      |
| 45 | Second deceleration time                                |                                          | 0.2sec.                         | 0.2sec.  | 0.2sec.   | 0.1sec.  | 0.1sec.  |      |
| 46 | Second torque boost                                     | 4.0 to 15.0 %                            | 6.7%                            | 6.7%     | 6.7%      | 7.8%     | 7.8%     |      |
| 47 | Second V/F (base frequency)                             |                                          | 87Hz                            | 87Hz     | 87Hz      | 87Hz     | 87Hz     |      |
| 48 | Second stall prevention operation current               | ES: 15.0 to 45.0 %<br>HS: 15.0 to 45.0 % | 33%                             | 40%      | 33%       |          |          |      |
| 48 | 0840a 2 -635 2. Stromgrenze P48-1                       | 840-635                                  | 22.7%                           | 30.3%    | 38.4%     |          |          |      |
| 48 | 1300a 2 -635 2. Stromgrenze P48-2                       | 1300-635                                 | 23.2%                           | 30.7%    | 39%       |          |          |      |
| 48 | 1640a 2 -635 2. Stromgrenze P48-3                       | 1640-635                                 | 23.6%                           | 31%      | 34.5%     |          |          |      |
| 48 | 1860a 2 -635 2. Stromgrenze P48-4                       | 1860-635                                 | 20.2%                           | 31.2%    | 35.1%     |          |          |      |
| 48 | 2060a 2 -635 2. Stromgrenze P48-5                       | 2060-635                                 | 20.4%                           | 31.5%    | 33.3%     |          |          |      |
| 48 | 2300a 2 -635 2. Stromgrenze P48-6                       | 2300-635                                 | 20.8%                           | 30.1%    | 31.4%     |          |          |      |
| 48 | 2460a 2 -635 2. Stromgrenze P48-7                       | 2460-635                                 | 20.9%                           | 30.3%    | 32.6%     |          |          |      |
| 48 | 2860a 2 L -635 2. Stromgrenze P48-8                     | 2860-635 L                               | 17.6%                           | 28%      |           |          |          |      |
| 48 | 3060a 2 L -635 2. Stromgrenze P48-9                     | 3060-635 L                               | 21.5%                           | 26.1%    |           |          |          |      |
| 48 | 3260a 2 L -635 2. Stromgrenze P48-10                    | 3260-635 L                               | 17.4%                           | 23.1%    |           |          |          |      |
| 48 | 2860a 2 -635 2. Stromgrenze P48-11                      | 2860-635                                 | 23%                             | 30.9%    | 25.7%     |          |          |      |
| 48 | 3060a 2 -635 2. Stromgrenze P48-12                      | 3060-635                                 | 23.4%                           | 31.2%    | 25%       |          |          |      |
| 48 | 3260a 2 -635 2. Stromgrenze P48-13                      | 3260-635                                 | 23.7%                           | 28.8%    | 24.3%     |          |          |      |
| 48 | 0840a 1 -635 / 825 2. Stromgrenze P48-14                | 840-635 / 825                            | 23%                             | 25.8%    | 38.7%     |          |          |      |
| 48 | 1300a 1 -635 / 825 2. Stromgrenze P48-15                | 1300-635 / 825                           | 23.6%                           | 26.1%    | 39.4%     |          |          |      |
| 48 | 1640a 1 -635 / 825 2. Stromgrenze P48-16                | 1640-635 / 825                           | 24.1%                           | 26.5%    | 35%       |          |          |      |
| 48 | 1860a 1 -635 / 825 2. Stromgrenze P48-17                | 1860-635 / 825                           | 20.6%                           | 26.7%    | 35.6%     |          |          |      |
| 48 | 2060a 1 -635 / 825 2. Stromgrenze P48-18                | 2060-635 / 825                           | 21%                             | 26.9%    | 34.1%     |          |          |      |
| 48 | 2300a 1 -635 / 825 2. Stromgrenze P48-19                | 2300-635 / 825                           | 21.3%                           | 25.9%    | 32.2%     |          |          |      |
| 48 | 2460a 1 -635 / 825 2. Stromgrenze P48-20                | 2460-635 / 825                           | 21.5%                           | 26.2%    | 33.5%     |          |          |      |
| 48 | 2860a 1 L -635 / 825 2. Stromgrenze P48-21              | 2860-635 / 825 L                         | 18%                             | 24.1%    |           |          |          |      |
| 48 | 3060a 1 L -635 / 825 2. Stromgrenze P48-22              | 3060-635 / 825 L                         | 17.7%                           | 21.6%    |           |          |          |      |
| 48 | 3260a 1 L -635 / 825 2. Stromgrenze P48-23              | 3260-635 / 825 L                         | 17.8%                           | 19.2%    |           |          |          |      |
| 48 | 2860a 1 -635 / 825 2. Stromgrenze P48-24                | 2860-635 / 825                           | 23.9%                           | 26.8%    | 26.1%     |          |          |      |
| 48 | 3060a 1 -635 / 825 2. Stromgrenze P48-25                | 3060-635 / 825                           | 23.5%                           | 25.8%    | 25.5%     |          |          |      |
| 48 | 3260a 1 -635 / 825 2. Stromgrenze P48-26                | 3260-635 / 825                           | 23.1%                           | 24.9%    | 24.8%     |          |          |      |
| 48 | 0840b 3 -1047 / 1270 2. Stromgrenze P48-40              | 840-1047 / 1270                          | 23.6%                           | 26.2%    | 39.5%     |          |          |      |
| 48 | 1300b 3 -1047 / 1270 2. Stromgrenze P48-41              | 1300-1047 / 1270                         | 24.9%                           | 26.8%    | 35.3%     |          |          |      |
| 48 | 1640b 3 -1047 / 1270 2. Stromgrenze P48-42              | 1640-1047 / 1270                         | 21.5%                           | 27.2%    | 31.5%     |          |          |      |
| 48 | 1860b 3 -1047 / 1270 2. Stromgrenze P48-43              | 1860-1047 / 1270                         | 16%                             | 25%      | 32.2%     |          |          |      |
| 48 | 2060b 3 -1047 / 1270 2. Stromgrenze P48-44              | 2060-1047 / 1270                         | 22.3%                           | 24.9%    | 30.9%     |          |          |      |
| 48 | 2300b 3 -1047 / 1270 2. Stromgrenze P48-45              | 2300-1047 / 1270                         | 22.7%                           | 25.3%    | 29.3%     |          |          |      |
| 48 | 2460b 3 -1047 / 1270 2. Stromgrenze P48-46              | 2460-1047 / 1270                         | 23%                             | 25.7%    | 29.7%     |          |          |      |
| 48 | 2860b 3 L -1047 / 1270 2. Stromgrenze P48-47            | 2860-1047 / 1270 L                       | 17.9%                           | 17.9%    |           |          |          |      |
| 48 | 3060b 3 L -1047 / 1270 2. Stromgrenze P48-48            | 3060-1047 / 1270 L                       | 18.1%                           | 18.1%    |           |          |          |      |
| 48 | 3260b 3 L -1047 / 1270 2. Stromgrenze P48-49            | 3260-1047 / 1270 L                       | 18.3%                           | 18.3%    |           |          |          |      |
| 48 | 2860b 3 -1047 / 1270 2. Stromgrenze P48-50              | 2860-1047 / 1270                         | 21.7%                           | 31.2%    |           |          |          |      |
| 48 | 3060b 3 -1047 / 1270 2. Stromgrenze P48-51              | 3060-1047 / 1270                         | 20.2%                           | 29.6%    |           |          |          |      |
| 48 | 3260b 3 -1047 / 1270 2. Stromgrenze P48-52              | 3260-1047 / 1270                         | 20.4%                           | 28.1%    |           |          |          |      |
| 48 | 3660a 2 -635 2. Stromgrenze P48-53                      | 3660-635                                 |                                 |          |           | 32.3%    | 37.6%    |      |
| 48 | 4060a 2 -635 2. Stromgrenze P48-54                      | 4060-635                                 |                                 |          |           | 32.9%    | 38.2%    |      |
| 48 | 4460a 2 -635 2. Stromgrenze P48-55                      | 4460-635                                 |                                 |          |           | 28.2%    | 32.9%    |      |
| 48 | 3660a 1 -635 / 825 2. Stromgrenze P48-56                | 3660-635 / 825                           |                                 |          |           | 33.2%    | 38.6%    |      |
| 48 | 4060a 1 -635 / 825 2. Stromgrenze P48-57                | 4060-635 / 825                           |                                 |          |           | 33.8%    | 39.3%    |      |
| 48 | 4460a 1 -635 / 825 2. Stromgrenze P48-58                | 4460-635 / 825                           |                                 |          |           | 29.1%    | 33.9%    |      |
| 49 | Second stall prevention Special Version Kom.Nr.:        |                                          |                                 |          |           |          |          |      |
| 49 | Second stall prevention operation frequency             |                                          | 9999                            | 9999     | 9999      | 9999     | 9999     |      |
| 51 | Second electronic thermal O/L relay                     | 1.0 to 4.00 A                            | 1.6A                            | 1.78A    | 2.25A     | 2.25A    | 2.25A    |      |
| 52 | DU/PU main display data selection                       |                                          | 11                              | 11       | 11        | 11       | 11       |      |
| 54 | FM terminal function selection                          | 1 to 7                                   | 1                               | 1        | 1         | 1        | 1        |      |
| 55 | Frequency monitoring reference                          | 100 to 150 Hz                            | 150Hz                           | 150Hz    | 150Hz     | 150Hz    | 150Hz    |      |
| 56 | Current monitoring reference                            | 6.00 to 34.00 A                          | 17A                             | 25A      | 17A       | 25A      | 25A      |      |
| 65 | Retry selection                                         |                                          | 4                               | 4        | 4         | 4        | 4        |      |
| 66 | Stall prevention operation reduction starting frequency |                                          | 100Hz                           | 63Hz     | 100Hz     | 50Hz     | 50Hz     |      |
| 67 | Number of retries at alarm occurrence                   |                                          | 3                               | 3        | 3         | 3        | 3        |      |

# Załącznik - Wartości nastawcze przetwornicy częstotliwości Lean-Lift Mitsubishi FR-A740 / 741 / 840 (A-Frequen1\_V4301.FRA)

Wartości nastawcze dla Hänel Lean-Lift  
przetwornicy częstotliwości U1  
MP12N (samo Wersja programu CPU 1:  
V4.3)

|     |                                                                                              |                    | HS27                            | HS28    | HS37     | HS38     | HS52     | HS34 | HS44 |
|-----|----------------------------------------------------------------------------------------------|--------------------|---------------------------------|---------|----------|----------|----------|------|------|
|     | Frequency Converter U1                                                                       |                    | FR-A 740 / FR-A840 / FR-A741 HS |         |          |          |          |      |      |
|     |                                                                                              |                    | -00170                          | -00250  | -00250   | -00170   | -00250   |      |      |
|     |                                                                                              |                    | 5,5 KW                          | 7,5 KW  | 7,5 KW   | 5,5 KW   | 7,5 KW   |      |      |
|     |                                                                                              |                    | High-Speed                      |         |          |          |          |      |      |
|     |                                                                                              | Setting Range      | /250 HS                         | /500 HS | /1000 HS | /500 HS  | /700 HS  |      |      |
|     | Parameter                                                                                    | MP12N V4.3         | PMS35                           | PMS36   | PMS23    | PMS31    | PMS33    |      |      |
| 1   | 2                                                                                            | 1                  | 2                               | 3       | 4        | 6        | 7        |      |      |
| 70  | Special regenerative brake duty (only FR-A 740/840) Lift Height <= 9m and Firmware <= 7992/4 | 10.0 to 90.0 %     | 10%                             | 13%     | 13%      | 13%      | 13%      |      |      |
| 70  | Special regenerative brake duty (only FR-A 740/840) Lift Height > 9m and Firmware 7992/5     | 10.0 to 90.0 %     | 50 %                            | 50 %    | 50 %     | 50 %     | 50 %     |      |      |
| 71  | Applied motor                                                                                |                    | 3                               | 3       | 3        | 17       | 17       |      |      |
| 72  | PWM frequency selection                                                                      |                    | 15                              | 15      | 15       | 15       | 15       |      |      |
| 73  | Analog input selection                                                                       |                    | 0                               | 0       | 0        | 0        | 0        |      |      |
| 74  | Input filter time constant                                                                   |                    | 1                               | 1       | 1        | 1        | 1        |      |      |
| 80  | Motor capacity                                                                               |                    | 3KW                             | 4KW     | 4KW      | 4KW      | 5.5KW    |      |      |
| 81  | Number of motor poles                                                                        |                    | 14                              | 14      | 14       | 14       | 14       |      |      |
| 83  | Motor rated voltage                                                                          |                    | 400V                            | 400V    | 400V     | 400V     | 400V     |      |      |
| 84  | Rated motor frequency                                                                        |                    | 63Hz                            | 63Hz    | 63Hz     | 50Hz     | 50Hz     |      |      |
| 89  | Speed control gain (magnetic flux vector)                                                    |                    | 35%                             | 75%     | 35%      | 75%      | 75%      |      |      |
| 95  | Online auto tuning selection                                                                 |                    | 1                               | 1       | 1        | 1        | 1        |      |      |
| 96  | Auto tuning setting/status                                                                   | 0 or 1             | 1                               | 1       | 1        | 1        | 1        |      |      |
| 110 | Third acceleration/deceleration time                                                         | 0 to 2 sec.        | 2sec.                           | 2sec.   | 2sec.    | 0.87sec. | 0.87sec. |      |      |
| 111 | Third deceleration time                                                                      |                    | 0sec.                           | 0sec.   | 0sec.    | 0sec.    | 0sec.    |      |      |
| 112 | Third torque boost                                                                           | 2.0 to 14.0 %      | 14%                             | 14%     | 14%      | 9%       | 9%       |      |      |
| 113 | Third V/F (base frequency)                                                                   |                    | 87Hz                            | 87Hz    | 87Hz     | 87Hz     | 87Hz     |      |      |
| 114 | Third stall prevention operation current                                                     | 6.0 to 40.0 %      | 25.6%                           | 18.1%   | 18.1%    | 27%      | 19.1%    |      |      |
| 115 | Thrid stall prevention operation frequency                                                   |                    | 99Hz                            | 99Hz    | 99Hz     | 99Hz     | 99Hz     |      |      |
| 145 | PU display language selection                                                                | 0 to 7             | 1                               | 1       | 1        | 1        | 1        |      |      |
| 150 | 0840a 2 -635 Ausgangstromüberwachung P150-1                                                  | 840-635            | 10.5%                           | 15.8%   | 13.9%    |          |          |      |      |
| 150 | 1300a 2 -635 Ausgangstromüberwachung P150-2                                                  | 1300-635           | 10.6%                           | 15.9%   | 13.9%    |          |          |      |      |
| 150 | 1640a 2 -635 Ausgangstromüberwachung P150-3                                                  | 1640-635           | 10.7%                           | 16%     | 13.2%    |          |          |      |      |
| 150 | 1860a 2 -635 Ausgangstromüberwachung P150-4                                                  | 1860-635           | 10%                             | 16%     | 13.3%    |          |          |      |      |
| 150 | 2060a 2 -635 Ausgangstromüberwachung P150-5                                                  | 2060-635           | 10%                             | 16.1%   | 13%      |          |          |      |      |
| 150 | 2300a 2 -635 Ausgangstromüberwachung P150-6                                                  | 2300-635           | 10.1%                           | 15.7%   | 12.7%    |          |          |      |      |
| 150 | 2460a 2 -635 Ausgangstromüberwachung P150-7                                                  | 2460-635           | 10.1%                           | 15.8%   | 12.9%    |          |          |      |      |
| 150 | 2860a 2 L -635 Ausgangstromüberwachung P150-8                                                | 2860-635 L         | 9.3%                            | 15%     |          |          |          |      |      |
| 150 | 3060a 2 L -635 Ausgangstromüberwachung P150-9                                                | 3060-635 L         | 10.3%                           | 14.2%   |          |          |          |      |      |
| 150 | 3260a 2 L -635 Ausgangstromüberwachung P150-10                                               | 3260-635 L         | 9.3%                            | 12.9%   |          |          |          |      |      |
| 150 | 2860a 2 -635 Ausgangstromüberwachung P150-11                                                 | 2860-635           | 10.6%                           | 15.9%   | 11.7%    |          |          |      |      |
| 150 | 3060a 2 -635 Ausgangstromüberwachung P150-12                                                 | 3060-635           | 10.7%                           | 16%     | 11.6%    |          |          |      |      |
| 150 | 3260a 2 -635 Ausgangstromüberwachung P150-13                                                 | 3260-635           | 10.8%                           | 15.2%   | 11.5%    |          |          |      |      |
| 150 | 0840a 1 -635 / 825 Ausgangstromüberwachung P150-14                                           | 840-635 / 825      | 10.6%                           | 11.2%   | 13.9%    |          |          |      |      |
| 150 | 1300a 1 -635 / 825 Ausgangstromüberwachung P150-15                                           | 1300-635 / 825     | 10.7%                           | 11.3%   | 14%      |          |          |      |      |
| 150 | 1640a 1 -635 / 825 Ausgangstromüberwachung P150-16                                           | 1640-635 / 825     | 10.8%                           | 11.3%   | 13.3%    |          |          |      |      |
| 150 | 1860a 1 -635 / 825 Ausgangstromüberwachung P150-17                                           | 1860-635 / 825     | 10%                             | 11.4%   | 13.4%    |          |          |      |      |
| 150 | 2060a 1 -635 / 825 Ausgangstromüberwachung P150-18                                           | 2060-635 / 825     | 10.1%                           | 11.4%   | 13.2%    |          |          |      |      |
| 150 | 2300a 1 -635 / 825 Ausgangstromüberwachung P150-19                                           | 2300-635 / 825     | 10.2%                           | 11.2%   | 12.9%    |          |          |      |      |
| 150 | 2460a 1 -635 / 825 Ausgangstromüberwachung P150-20                                           | 2460-635 / 825     | 10.3%                           | 11.3%   | 13.1%    |          |          |      |      |
| 150 | 2860a 1 L -635 / 825 Ausgangstromüberwachung P150-21                                         | 2860-635 / 825 L   | 9.4%                            | 10.7%   |          |          |          |      |      |
| 150 | 3060a 1 L -635 / 825 Ausgangstromüberwachung P150-22                                         | 3060-635 / 825 L   | 9.4%                            | 9.8%    |          |          |          |      |      |
| 150 | 3260a 1 L -635 / 825 Ausgangstromüberwachung P150-23                                         | 3260-635 / 825 L   | 9.4%                            | 9%      |          |          |          |      |      |
| 150 | 2860a 1 -635 / 825 Ausgangstromüberwachung P150-24                                           | 2860-635 / 825     | 10.8%                           | 11.4%   | 11.8%    |          |          |      |      |
| 150 | 3060a 1 -635 / 825 Ausgangstromüberwachung P150-25                                           | 3060-635 / 825     | 10.7%                           | 11.2%   | 11.7%    |          |          |      |      |
| 150 | 3260a 1 -635 / 825 Ausgangstromüberwachung P150-26                                           | 3260-635 / 825     | 10.6%                           | 10.9%   | 11.6%    |          |          |      |      |
| 150 | 0840b 3 -1047 / 1270 Ausgangstromüberwachung P150-40                                         | 840-1047 / 1270    | 10.7%                           | 11.3%   | 14%      |          |          |      |      |
| 150 | 1300b 3 -1047 / 1270 Ausgangstromüberwachung P150-41                                         | 1300-1047 / 1270   | 11%                             | 11.4%   | 13.4%    |          |          |      |      |
| 150 | 1640b 3 -1047 / 1270 Ausgangstromüberwachung P150-42                                         | 1640-1047 / 1270   | 10.3%                           | 11.5%   | 12.8%    |          |          |      |      |
| 150 | 1860b 3 -1047 / 1270 Ausgangstromüberwachung P150-43                                         | 1860-1047 / 1270   | 8.9%                            | 10.9%   | 12.9%    |          |          |      |      |
| 150 | 2060b 3 -1047 / 1270 Ausgangstromüberwachung P150-44                                         | 2060-1047 / 1270   | 10.4%                           | 10.9%   | 12.6%    |          |          |      |      |
| 150 | 2300b 3 -1047 / 1270 Ausgangstromüberwachung P150-45                                         | 2300-1047 / 1270   | 10.5%                           | 11%     | 12.4%    |          |          |      |      |
| 150 | 2460b 3 -1047 / 1270 Ausgangstromüberwachung P150-46                                         | 2460-1047 / 1270   | 10.6%                           | 11.1%   | 12.4%    |          |          |      |      |
| 150 | 2860b 3 L -1047 / 1270 Ausgangstromüberwachung P150-47                                       | 2860-1047 / 1270 L | 8.8%                            | 8.6%    | 12.7%    |          |          |      |      |
| 150 | 3060b 3 L -1047 / 1270 Ausgangstromüberwachung P150-48                                       | 3060-1047 / 1270 L |                                 | 8.7%    |          |          |          |      |      |
| 150 | 3260b 3 L -1047 / 1270 Ausgangstromüberwachung P150-49                                       | 3260-1047 / 1270 L |                                 | 8.7%    |          |          |          |      |      |
| 150 | 2860b 3 -1047 / 1270 Ausgangstromüberwachung P150-50                                         | 2860-1047 / 1270   |                                 | 9.9%    | 12.7%    |          |          |      |      |
| 150 | 3060b 3 -1047 / 1270 Ausgangstromüberwachung P150-51                                         | 3060-1047 / 1270   |                                 | 9.4%    | 12.4%    |          |          |      |      |
| 150 | 3260b 3 -1047 / 1270 Ausgangstromüberwachung P150-52                                         | 3260-1047 / 1270   |                                 | 9.4%    | 12.2%    |          |          |      |      |
| 150 | 3660a 2 -635 Ausgangstromüberwachung P150-53                                                 | 3660-635           |                                 |         |          | 17.4%    | 14.3%    |      |      |
| 150 | 3660a 2 -635 Ausgangstromüberwachung P150-53                                                 | 3660-635           |                                 |         |          | 17.4%    | 14.3%    |      |      |
| 150 | 4060a 2 -635 Ausgangstromüberwachung P150-54                                                 | 4060-635           |                                 |         |          | 17.6%    | 14.4%    |      |      |
| 150 | 4460a 2 -635 Ausgangstromüberwachung P150-55                                                 | 4460-635           |                                 |         |          | 16.4%    | 13.5%    |      |      |
| 150 | 3660a 1 -635 / 825 Ausgangstromüberwachung P150-56                                           | 3660-635 / 825     |                                 |         |          | 17.6%    | 14.5%    |      |      |
| 150 | 4060a 1 -635 / 825 Ausgangstromüberwachung P150-57                                           | 4060-635 / 825     |                                 |         |          | 17.8%    | 14.6%    |      |      |
| 150 | 4460a 1 -635 / 825 Ausgangstromüberwachung P150-58                                           | 4460-635 / 825     |                                 |         |          | 16.7%    | 13.7%    |      |      |

# Załącznik - Wartości nastawcze przetwornicy częstotliwości Lean-Lift Mitsubishi FR-A740 / 741 / 840 (A-Frequen1\_V4301.FRA)

Wartości nastawcze dla Hänel Lean-Lift  
przetwornicy częstotliwości U1  
MP12N (samo Wersja programu CPU 1:  
V4.3)

|     |                                                          |                             | HS27                            | HS28    | HS37 HS38 | HS52    | HS34    | HS44    |
|-----|----------------------------------------------------------|-----------------------------|---------------------------------|---------|-----------|---------|---------|---------|
|     |                                                          |                             | FR-A 740 / FR-A840 / FR-A741 HS |         |           |         |         |         |
|     |                                                          |                             | -00170                          | -00250  | -00250    | -00170  | -00250  | -00250  |
|     | Frequency Converter U1                                   |                             | 5,5 KW                          | 7,5 KW  | 7,5 KW    | 5,5 KW  | 7,5 KW  | 7,5 KW  |
|     |                                                          |                             | High-Speed                      |         |           |         |         |         |
|     |                                                          |                             | /250 HS                         | /500 HS | /1000 HS  | /500 HS | /700 HS |         |
|     | Parameter                                                | Setting Range<br>MP12N V4.3 | PMS35                           | PMS36   | PMS23     | PMS31   | PMS33   |         |
| 1   | 2                                                        | 1                           | 2                               | 3       | 4         | 6       | 7       |         |
| 151 | Output current detection signal delay time               |                             | 0,1                             | 0,1     | 0,1       | 0,1     | 0,1     | 0,1     |
| 155 | RT signal function validity condition selection          |                             | 1                               | 1       | 1         | 1       | 1       | 1       |
| 156 | Stall prevention operation selection                     |                             | 9                               | 9       | 9         | 9       | 9       | 9       |
| 157 | OL signal output timer                                   |                             | 0sec.                           | 0sec.   | 0sec.     | 0sec.   | 0sec.   | 0sec.   |
| 158 | Output AM Torque                                         |                             | 7                               | 7       | 7         | 7       | 7       | 7       |
| 180 | RL terminal function selection                           |                             | 3                               | 3       | 3         | 3       | 3       | 3       |
| 181 | RM terminal function selection                           |                             | 18                              | 18      | 18        | 18      | 18      | 18      |
| 182 | RH terminal function selection                           |                             | 9                               | 9       | 9         | 9       | 9       | 9       |
| 183 | RT terminal function selection                           |                             | 18                              | 18      | 18        | 18      | 18      | 18      |
| 184 | AU terminal function selection                           |                             | 4                               | 4       | 4         | 4       | 4       | 4       |
| 185 | JOG terminal function selection                          |                             | 17                              | 17      | 17        | 17      | 17      | 17      |
| 190 | RUN terminal function selection                          |                             | 20                              | 20      | 20        | 20      | 20      | 20      |
| 192 | IPF terminal function selection                          |                             | 164                             | 164     | 164       | 164     | 164     | 164     |
| 193 | OL terminal function selection                           |                             | 12                              | 12      | 12        | 12      | 12      | 12      |
| 194 | FU terminal function selection                           |                             | 4                               | 4       | 4         | 4       | 4       | 4       |
| 195 | ABC1 terminal function selection                         |                             | 199                             | 199     | 199       | 199     | 199     | 199     |
| 196 | ABC2 terminal function selection                         | 145 and 9999                | 9999                            | 9999    | 9999      | 9999    | 9999    | 9999    |
| 244 | Cooling fan operation selection                          |                             | 1                               | 1       | 1         | 1       | 1       | 1       |
| 251 | Output phase failure protection selection                |                             | 1                               | 1       | 1         | 1       | 1       | 1       |
| 260 | PWM frequency automatic switchover                       |                             | 0,1sec.                         | 0,1sec. | 0,1sec.   | 0,1sec. | 0,1sec. | 0,1sec. |
| 265 | Power-failure deceleration time 2                        |                             | 0sec.                           | 0sec.   | 0sec.     | 0sec.   | 0sec.   | 0sec.   |
| 278 | Brake opening frequency                                  |                             | 0,5Hz                           | 0,5Hz   | 0,5Hz     | 0,8Hz   | 0,8Hz   | 0,8Hz   |
| 279 | Brake opening current                                    |                             | 20%                             | 20%     | 20%       | 28,2%   | 40,5%   | 40,5%   |
| 280 | Brake opening current detection time                     |                             | 0,1sec.                         | 0,1sec. | 0,1sec.   | 0,1sec. | 0,1sec. | 0,1sec. |
| 281 | Brake operation time at start                            |                             | 0,3sec.                         | 0,3sec. | 0,3sec.   | 0,3sec. | 0,3sec. | 0,3sec. |
| 282 | Brake operation frequency                                |                             | 1,5Hz                           | 1,5Hz   | 1,5Hz     | 1,5Hz   | 1,5Hz   | 1,5Hz   |
| 283 | Brake operation time at stop                             |                             | 0,1sec.                         | 0,1sec. | 0,1sec.   | 0,1sec. | 0,1sec. | 0,1sec. |
| 284 | Deceleration detection function selection                |                             | 0                               | 0       | 0         | 0       | 0       | 0       |
| 292 | Automatic acceleration/deceleration                      |                             | 8                               | 8       | 8         | 8       | 8       | 8       |
| 331 | RS-485 FU-Adress                                         |                             | 0                               | 0       | 0         | 0       | 0       | 0       |
| 332 | RS-485 Baud                                              |                             | 96                              | 96      | 96        | 96      | 96      | 96      |
| 333 | RS-485 stop-bit                                          |                             | 0                               | 0       | 0         | 0       | 0       | 0       |
| 335 | RS-485 communication retry count                         |                             | 9999                            | 9999    | 9999      | 9999    | 9999    | 9999    |
| 336 | RS-485 communication check time interval                 |                             | 9999                            | 9999    | 9999      | 9999    | 9999    | 9999    |
| 341 | RS-485 communication CRL/F selection                     |                             | 2                               | 2       | 2         | 2       | 2       | 2       |
| 342 | Communication EEPROM write selection                     |                             | 1                               | 1       | 1         | 1       | 1       | 1       |
| 450 | Second applied motor                                     | 0 to 20 and 9999            | 9999                            | 9999    | 9999      | 9999    | 9999    | 9999    |
| 451 | Second motor control method selection                    | 20 and 9999                 | 9999                            | 9999    | 9999      | 9999    | 9999    | 9999    |
| 453 | Second Motor capacity                                    | 0,0 to 2,0 KW               | 0,4KW                           | 0,4KW   | 0,55KW    | 0,55KW  | 0,55KW  | 0,55KW  |
| 454 | Number of second motor poles                             |                             | 4                               | 4       | 4         | 4       | 4       | 4       |
| 456 | Rated second motor voltage                               |                             | 400V                            | 400V    | 400V      | 400V    | 400V    | 400V    |
| 457 | Rated second motor frequency                             |                             | 87Hz                            | 87Hz    | 87Hz      | 87Hz    | 87Hz    | 87Hz    |
| 463 | Second motor auto tuning setting/status                  | 0 or 1                      | 103                             | 103     | 103       | 103     | 103     | 103     |
| 574 | Second Motor online tuning                               | 0 or 1                      | 1                               | 1       | 1         | 1       | 1       | 1       |
| 506 | Parameter 1 for User (only FR-A 740)                     |                             | 4301                            | 4301    | 4301      | 4301    | 4301    | 4301    |
| 507 | Parameter 2 for user (only FR-A 740)                     |                             | 35                              | 36      | 23        | 31      | 33      | 33      |
| 632 | Output current stability waiting time (only FR-A741/840) |                             | 12                              | 12      | 12        | 12      | 12      | 12      |
| 633 | Output current filter (only FR-A741/840)                 |                             | 5                               | 5       | 5         | 5       | 5       | 5       |
| 634 | Output phase failure deection time (only FR-A741/840)    |                             | 3                               | 3       | 3         | 3       | 3       | 3       |
| 684 | Tuning data increment switchover                         |                             | 1                               | 1       | 1         | 1       | 1       | 1       |
| 699 | Adjusting the response of Input terminal (only FR-A840)  |                             | 5                               | 5       | 5         | 5       | 5       | 5       |
| 730 | Output current stability waiting time (only FR-A 740)    |                             | 12                              | 12      | 12        | 12      | 12      | 12      |
| 731 | Output current filter (only FR-A 740)                    |                             | 5                               | 5       | 5         | 5       | 5       | 5       |
| 732 | Output phase failure deection time (only FR-A 740)       |                             | 3                               | 3       | 3         | 3       | 3       | 3       |
| 800 | Control method selection                                 |                             | 20                              | 20      | 20        | 20      | 20      | 20      |
| 866 | Torque Monitoring reference                              |                             | 150%                            | 150%    | 150%      | 150%    | 150%    | 150%    |
| 888 | Parameter 1 for User (only FR-A741/840)                  |                             | 4301                            | 4301    | 4301      | 4301    | 4301    | 4301    |
| 889 | Parameter 2 for user (only FR-A741/840)                  |                             | 35                              | 36      | 23        | 31      | 33      | 33      |
| 872 | Input Phase fault                                        |                             | 1                               | 1       | 1         | 1       | 1       | 1       |
| 902 | Terminal 2 frequency setting bias frequency              |                             | 0Hz                             | 0Hz     | 0Hz       | 0Hz     | 0Hz     | 0Hz     |
| 903 | Terminal 2 frequency setting gain frequency              | 95 to 105                   | 0,0%                            | 0,0%    | 0,0%      | 0,0%    | 0,0%    | 0,0%    |
|     |                                                          |                             | 150Hz                           | 150Hz   | 150Hz     | 150Hz   | 150Hz   | 150Hz   |
|     |                                                          |                             | 100,0%                          | 100,0%  | 100,0%    | 100,0%  | 100,0%  | 100,0%  |

# Załącznik - Wartości nastawcze przetwornicy częstotliwości Lean-Lift Mitsubishi FR-A740 / 741 / 840 (A-Frequen1\_V4301.FRA)

Wartości nastawcze dla Hänel Lean-Lift przetwornicy częstotliwości U1 MP12N (samo Wersja programu CPU 1: V4.3)

|        |                        |                          | HS27 HS28                       | HS37 HS38 | HS52     | HS34    | HS44    |
|--------|------------------------|--------------------------|---------------------------------|-----------|----------|---------|---------|
|        | Frequency Converter U1 |                          | FR-A 740 / FR-A840 / FR-A741 HS |           |          |         |         |
|        |                        |                          | -00170                          | -00250    | -00250   | -00170  | -00250  |
|        |                        |                          | 5,5 KW                          | 7,5 KW    | 7,5 KW   | 5,5 KW  | 7,5 KW  |
|        |                        |                          | High-Speed                      |           |          |         |         |
|        | Parameter              | Setting Range MP12N V4.3 | /250 HS                         | /500 HS   | /1000 HS | /500 HS | /700 HS |
| 1      | 2                      | 1                        | PMS35                           | PMS36     | PMS23    | PMS31   | PMS33   |
|        |                        |                          | 2                               | 3         | 4        | 6       | 7       |
|        | Container max. payload |                          |                                 |           |          |         |         |
| GewZul | 840-635///75.0/ S1     | 840-635                  | 300 Kg                          | 500 Kg    | 1000 Kg  |         |         |
| GewZul | 1300-635///75.0/ S1    | 1300-635                 | 300 Kg                          | 500 Kg    | 1000 Kg  |         |         |
| GewZul | 1640-635///75.0/ S1    | 1640-635                 | 300 Kg                          | 500 Kg    | 900 Kg   |         |         |
| GewZul | 1860-635///75.0/ S1    | 1860-635                 | 250 Kg                          | 500 Kg    | 900 Kg   |         |         |
| GewZul | 2060-635///75.0/ S1    | 2060-635                 | 250 Kg                          | 500 Kg    | 850 Kg   |         |         |
| GewZul | 2300-635///75.0/ S1    | 2300-635                 | 250 Kg                          | 470 Kg    | 800 Kg   |         |         |
| GewZul | 2460-635///75.0/ S1    | 2460-635                 | 250 Kg                          | 470 Kg    | 800 Kg   |         |         |
| GewZul | 2860-635///75.0/ S1    | 2860-635 L               | 190 Kg                          | 400 Kg    |          |         |         |
| GewZul | 3060-635///75.0/ S1    | 3060-635 L               | 250 Kg                          | 350 Kg    |          |         |         |
| GewZul | 3260-635///75.0/ S1    | 3260-635 L               | 180 Kg                          | 270 Kg    |          |         |         |
| GewZul | 2860-635///75.0/ H1    | 2860-635                 | 250 Kg                          | 450 Kg    | 650 Kg   |         |         |
| GewZul | 3060-635///75.0/ H1    | 3060-635                 | 250 Kg                          | 450 Kg    | 625 Kg   |         |         |
| GewZul | 3260-635///75.0/ H1    | 3260-635                 | 250 Kg                          | 400 Kg    | 600 Kg   |         |         |
| GewZul | 840-825///75.0/ S1     | 840-825                  | 300 Kg                          | 500 Kg    | 1000 Kg  |         |         |
| GewZul | 1300-825///75.0/ S1    | 1300-825                 | 300 Kg                          | 500 Kg    | 1000 Kg  |         |         |
| GewZul | 1640-825///75.0/ S1    | 1640-825                 | 300 Kg                          | 500 Kg    | 900 Kg   |         |         |
| GewZul | 1860-825///75.0/ S1    | 1860-825                 | 250 Kg                          | 500 Kg    | 900 Kg   |         |         |
| GewZul | 2060-825///75.0/ S1    | 2060-825                 | 250 Kg                          | 500 Kg    | 850 Kg   |         |         |
| GewZul | 2300-825///75.0/ S1    | 2300-825                 | 250 Kg                          | 470 Kg    | 800 Kg   |         |         |
| GewZul | 2460-825///75.0/ S1    | 2460-825                 | 250 Kg                          | 470 Kg    | 800 Kg   |         |         |
| GewZul | 2860-825///75.0/ S1    | 2860-825 L               | 190 Kg                          | 400 Kg    |          |         |         |
| GewZul | 3060-825///75.0/ S1    | 3060-825 L               | 180 Kg                          | 325 Kg    |          |         |         |
| GewZul | 3260-825///75.0/ S1    | 3260-825 L               | 180 Kg                          | 250 Kg    |          |         |         |
| GewZul | 2860-825///75.0/ H1    | 2860-825                 | 250 Kg                          | 450 Kg    | 650 Kg   |         |         |
| GewZul | 3060-825///75.0/ H1    | 3060-825                 | 240 Kg                          | 425 Kg    | 625 Kg   |         |         |
| GewZul | 3260-825///75.0/ H1    | 3260-825                 | 230 Kg                          | 400 Kg    | 600 Kg   |         |         |
| GewZul | 840-1047///75.0/ S1    | 840-1047                 | 300 Kg                          | 500 Kg    | 1000 Kg  |         |         |
| GewZul | 1300-1047///75.0/ S1   | 1300-1047                | 300 Kg                          | 500 Kg    | 950 Kg   |         |         |
| GewZul | 1640-1047///75.0/ S1   | 1640-1047                | 250 Kg                          | 500 Kg    | 850 Kg   |         |         |
| GewZul | 1860-1047///75.0/ S1   | 1860-1047                | 250 Kg                          | 450 Kg    | 850 Kg   |         |         |
| GewZul | 2060-1047///75.0/ S1   | 2060-1047                | 250 Kg                          | 450 Kg    | 800 Kg   |         |         |
| GewZul | 2300-1047///75.0/ S1   | 2300-1047                | 250 Kg                          | 400 Kg    | 750 Kg   |         |         |
| GewZul | 2460-1047///75.0/ S1   | 2460-1047                | 250 Kg                          | 400 Kg    | 750 Kg   |         |         |
| GewZul | 2860-1047///75.0/ S1   | 2860-1047 L              |                                 | 250 Kg    |          |         |         |
| GewZul | 3060-1047///75.0/ S1   | 3060-1047 L              |                                 | 220 Kg    |          |         |         |
| GewZul | 3260-1047///75.0/ S1   | 3260-1047 L              |                                 | 220 Kg    |          |         |         |
| GewZul | 2860-1047///75.0/ H1   | 2860-1047                |                                 | 350 Kg    | 700 Kg   |         |         |
| GewZul | 3060-1047///75.0/ H1   | 3060-1047                |                                 | 300 Kg    | 650 Kg   |         |         |
| GewZul | 3260-1047///75.0/ H1   | 3260-1047                |                                 | 300 Kg    | 600 Kg   |         |         |
| GewZul | 840-1270///75.0/ S1    | 840-1270                 | 300 Kg                          | 500 Kg    | 1000 Kg  |         |         |
| GewZul | 1300-1270///75.0/ S1   | 1300-1270                | 300 Kg                          | 500 Kg    | 900 Kg   |         |         |
| GewZul | 1640-1270///75.0/ S1   | 1640-1270                | 250 Kg                          | 500 Kg    | 800 Kg   |         |         |
| GewZul | 1860-1270///75.0/ S1   | 1860-1270                | 150 Kg                          | 450 Kg    | 800 Kg   |         |         |
| GewZul | 2060-1270///75.0/ S1   | 2060-1270                | 250 Kg                          | 400 Kg    | 750 Kg   |         |         |
| GewZul | 2300-1270///75.0/ S1   | 2300-1270                | 250 Kg                          | 400 Kg    | 700 Kg   |         |         |
| GewZul | 2460-1270///75.0/ S1   | 2460-1270                | 250 Kg                          | 400 Kg    | 700 Kg   |         |         |
| GewZul | 2860-1270///75.0/ S1   | 2860-1270 L              |                                 | 200 Kg    |          |         |         |
| GewZul | 3060-1270///75.0/ S1   | 3060-1270 L              |                                 | 200 Kg    |          |         |         |
| GewZul | 3260-1270///75.0/ S1   | 3260-1270 L              |                                 | 200 Kg    |          |         |         |
| GewZul | 2860-1270///75.0/ H1   | 2860-1270                |                                 | 300 Kg    | 700 Kg   |         |         |
| GewZul | 3060-1270///75.0/ H1   | 3060-1270                |                                 | 250 Kg    | 650 Kg   |         |         |
| GewZul | 3260-1270///75.0/ H1   | 3260-1270                |                                 | 250 Kg    | 600 Kg   |         |         |
| GewZul | 3660-635///37.5/ UB1   | 3660-635                 |                                 |           |          | 500 Kg  | 700 Kg  |
| GewZul | 4060-635///37.5/ UB1   | 4060-635                 |                                 |           |          | 500 Kg  | 700 Kg  |
| GewZul | 4460-635///37.5/ UB1   | 4460-635                 |                                 |           |          | 400 Kg  | 600 Kg  |
| GewZul | 3660-825///37.5/ UB1   | 3660-825                 |                                 |           |          | 500 Kg  | 700 Kg  |
| GewZul | 4060-825///37.5/ UB1   | 4060-825                 |                                 |           |          | 500 Kg  | 700 Kg  |
| GewZul | 4460-825///37.5/ UB1   | 4460-825                 |                                 |           |          | 400 Kg  | 600 Kg  |

# Załącznik - Wartości nastawcze przetwornicy częstotliwości Lean-Lift Mitsubishi FR-A740 / 741 / 840 (A-Frequen1\_V4301.FRA)

Wartości nastawcze dla Hänel Lean-Lift  
przetwornicy częstotliwości U1  
MP12N (samo Wersja programu CPU 1:  
V4.3)

|                        |                                                              |                                            | ES12                            | ES22   | ES32   | ES42   | ES52   |
|------------------------|--------------------------------------------------------------|--------------------------------------------|---------------------------------|--------|--------|--------|--------|
|                        |                                                              |                                            | FR-A 740 / FR-A840 / FR-A741 ES |        |        |        |        |
| Frequency Converter U1 |                                                              |                                            | -0085                           | -00126 | -00170 | -00170 | -00250 |
|                        |                                                              |                                            | 2.2 KW                          | 3.7 KW | 5.5 KW | 5.5 KW | 7.5 KW |
|                        |                                                              |                                            | Economy-Speed                   |        |        |        |        |
| Parameter              |                                                              | Setting Range<br>MP12N V4.3                | /150                            | /250   | /500   | /700   | /1000  |
| 1                      | 2                                                            | 1                                          | PMS24                           | PMS25  | PMS26  | PMS27  | PMS28  |
| 1                      | Maximum frequency                                            | 5 to 120 Hz                                | 9                               | 10     | 11     | 12     | 13     |
| 2                      | Minimum frequency                                            |                                            | 120Hz                           | 120Hz  | 120Hz  | 120Hz  | 120Hz  |
| 3                      | Base frequency                                               |                                            | 3Hz                             | 3Hz    | 3Hz    | 3Hz    | 3Hz    |
| 7                      | Acceleration time                                            |                                            | 60Hz                            | 60Hz   | 60Hz   | 60Hz   | 60Hz   |
| 8                      | Deceleration time                                            |                                            | 1.1sec                          | 1.1sec | 1.1sec | 1.1sec | 1.1sec |
| 9                      | Electronic thermal O/L relay                                 | 8.00 to 17.00 A                            | 0.5sec                          | 0.5sec | 0.5sec | 0.5sec | 0.5sec |
| 11                     | DC injection brake operation time                            |                                            | 7.87A                           | 7.87A  | 10.97A | 10.97A | 14.93A |
| 13                     | Starting frequency                                           |                                            | 0sec                            | 0sec   | 0sec   | 0sec   | 0sec   |
| 14                     | Load pattern selection                                       |                                            | 0.5Hz                           | 0.5Hz  | 0.5Hz  | 0.5Hz  | 0.5Hz  |
| 18                     | High speed maximum frequency                                 | 120 – 150 Hz                               | 40                              | 40     | 40     | 40     | 40     |
| 19                     | Base frequency voltage                                       |                                            | 120Hz                           | 120Hz  | 120Hz  | 120Hz  | 120Hz  |
| 20                     | Acceleration/deceleration reference frequency                |                                            | 400V                            | 400V   | 400V   | 400V   | 400V   |
| 21                     | Acceleration/deceleration time increments                    |                                            | 200Hz                           | 200Hz  | 200Hz  | 200Hz  | 200Hz  |
| 22                     | Stall prevention operation level (torque limit level )       | ES: 70.0 to 135.0 %<br>HS: 70.0 to 150.0 % | 1                               | 1      | 1      | 1      | 1      |
| 22                     | 0840a 2 -635 Strombegrenzung P22-1                           | 840-635                                    | 125%                            | 110%   | 115%   | 125%   | 105%   |
| 22                     | 1300a 2 -635 Strombegrenzung P22-2                           | 1300-635                                   | 99.5%                           | 84.8%  | 96.4%  | 108.7% | 96.8%  |
| 22                     | 1640a 2 -635 Strombegrenzung P22-3                           | 1640-635                                   | 102%                            | 87.3%  | 98.7%  | 111%   | 98.4%  |
| 22                     | 1860a 2 -635 Strombegrenzung P22-4                           | 1860-635                                   | 104.5%                          | 89.6%  | 100.7% | 114.4% | 92.9%  |
| 22                     | 2060a 2 -635 Strombegrenzung P22-5                           | 2060-635                                   | 105.9%                          | 83.4%  | 101.9% | 109.8% | 94.1%  |
| 22                     | 2300a 2 -635 Strombegrenzung P22-6                           | 2300-635                                   | 107.5%                          | 84.7%  | 104%   | 112.5% | 92.3%  |
| 22                     | 2460a 2 -635 Strombegrenzung P22-7                           | 2460-635                                   | 110.5%                          | 87.1%  | 101.6% | 110.3% | 89.8%  |
| 22                     | 2860a 2 L -635 Strombegrenzung P22-8                         | 2860-635 L                                 | 112.2%                          | 88.6%  | 102.8% | 111.6% | 92%    |
| 22                     | 3060a 2 L -635 Strombegrenzung P22-9                         | 3060-635 L                                 |                                 | 81.9%  | 107.1% |        |        |
| 22                     | 3260a 2 L -635 Strombegrenzung P22-10                        | 3260-635 L                                 |                                 | 83.2%  | 101.2% |        |        |
| 22                     | 2860a 2 -635 Strombegrenzung P22-11                          | 2860-635                                   |                                 | 82.9%  | 91.4%  |        |        |
| 22                     | 3060a 2 -635 Strombegrenzung P22-12                          | 3060-635                                   | 114.6%                          | 94.7%  | 115.8% | 114%   | 89%    |
| 22                     | 3260a 2 -635 Strombegrenzung P22-13                          | 3260-635                                   | 114.7%                          | 96.5%  | 117.5% | 115.3% | 87.9%  |
| 22                     | 0840a 1 -635 / 825 Strombegrenzung P22-14                    | 840-635 / 825                              | 114.6%                          | 98.2%  | 111.4% | 116.8% | 86.8%  |
| 22                     | 1300a 1 -635 / 825 Strombegrenzung P22-15                    | 1300-635 / 825                             | 101.2%                          | 86.5%  | 98.4%  | 110.4% | 98.3%  |
| 22                     | 1640a 1 -635 / 825 Strombegrenzung P22-16                    | 1640-635 / 825                             | 104.7%                          | 89.8%  | 100.7% | 113.2% | 99.9%  |
| 22                     | 1860a 1 -635 / 825 Strombegrenzung P22-17                    | 1860-635 / 825                             | 107.3%                          | 92.2%  | 102.9% | 117.2% | 94.5%  |
| 22                     | 2060a 1 -635 / 825 Strombegrenzung P22-18                    | 2060-635 / 825                             | 109.2%                          | 86.1%  | 104.2% | 112.6% | 95.9%  |
| 22                     | 2300a 1 -635 / 825 Strombegrenzung P22-19                    | 2300-635 / 825                             | 112%                            | 88.4%  | 105.9% | 115.8% | 94.2%  |
| 22                     | 2460a 1 -635 / 825 Strombegrenzung P22-20                    | 2460-635 / 825                             | 113.7%                          | 89.8%  | 104%   | 113.6% | 91.8%  |
| 22                     | 2860a 1 L -635 / 825 Strombegrenzung P22-21                  | 2860-635 / 825 L                           | 114.2%                          | 91%    | 106.5% | 115.9% | 95%    |
| 22                     | 3060a 1 L -635 / 825 Strombegrenzung P22-22                  | 3060-635 / 825 L                           |                                 | 86%    | 111.8% | 115.2% |        |
| 22                     | 3260a 1 L -635 / 825 Strombegrenzung P22-23                  | 3260-635 / 825 L                           |                                 | 85.9%  | 102.3% | 110.9% |        |
| 22                     | 2860a 1 -635 / 825 Strombegrenzung P22-24                    | 2860-635 / 825                             |                                 | 87.5%  | 93.2%  | 106.7% |        |
| 22                     | 3060a 1 -635 / 825 Strombegrenzung P22-25                    | 3060-635 / 825                             | 114.7%                          | 100.1% | 121.2% | 118.1% | 91.7%  |
| 22                     | 3260a 1 -635 / 825 Strombegrenzung P22-26                    | 3260-635 / 825                             | 113.9%                          | 100.3% | 119.1% | 119.8% | 90.7%  |
| 22                     | 0840b 3 -1047 / 1270 Strombegrenzung P22-40                  | 840-1047 / 1270                            | 114.3%                          | 100.7% | 117.1% | 121.6% | 89.7%  |
| 22                     | 1300b 3 -1047 / 1270 Strombegrenzung P22-41                  | 1300-1047 / 1270                           | 107.5%                          | 92.4%  | 103%   | 114.7% | 101.4% |
| 22                     | 1640b 3 -1047 / 1270 Strombegrenzung P22-42                  | 1640-1047 / 1270                           | 112.7%                          | 97.3%  | 106.4% | 121%   | 96.5%  |
| 22                     | 1860b 3 -1047 / 1270 Strombegrenzung P22-43                  | 1860-1047 / 1270                           | 114%                            | 92.5%  | 109.4% | 118.2% | 91.7%  |
| 22                     | 2060b 3 -1047 / 1270 Strombegrenzung P22-44                  | 2060-1047 / 1270                           | 113.8%                          | 79.5%  | 104.2% | 120.4% | 93.3%  |
| 22                     | 2300b 3 -1047 / 1270 Strombegrenzung P22-45                  | 2300-1047 / 1270                           | 113.7%                          | 97.5%  | 105.5% | 118%   | 92%    |
| 22                     | 2460b 3 -1047 / 1270 Strombegrenzung P22-46                  | 2460-1047 / 1270                           | 114.3%                          | 100.8% | 108.7% | 121.3% | 90.3%  |
| 22                     | 2860b 3 L -1047 / 1270 Strombegrenzung P22-47                | 2860-1047 / 1270 L                         | 113.6%                          | 103%   | 110.8% | 123.3% | 91.5%  |
| 22                     | 3060b 3 L -1047 / 1270 Strombegrenzung P22-48                | 3060-1047 / 1270 L                         | 0%                              | 85.7%  | 93.3%  |        |        |
| 22                     | 3260b 3 L -1047 / 1270 Strombegrenzung P22-49                | 3260-1047 / 1270 L                         |                                 |        | 97.1%  |        |        |
| 22                     | 2860b 3 -1047 / 1270 Strombegrenzung P22-50                  | 2860-1047 / 1270                           |                                 |        | 97.4%  |        |        |
| 22                     | 3060b 3 -1047 / 1270 Strombegrenzung P22-51                  | 3060-1047 / 1270                           |                                 |        | 109.7% | 128.9% | 107.1% |
| 22                     | 3260b 3 -1047 / 1270 Strombegrenzung P22-52                  | 3260-1047 / 1270                           |                                 |        | 104.3% | 124.4% | 104.5% |
| 22                     | 3660a 2 -635 Strombegrenzung P22-53                          | 3660-635                                   |                                 |        | 106.6% | 127.4% | 102%   |
| 22                     | 4060a 2 -635 Strombegrenzung P22-54                          | 4060-635                                   |                                 |        |        |        |        |
| 22                     | 4460a 2 -635 Strombegrenzung P22-55                          | 4460-635                                   |                                 |        |        |        |        |
| 22                     | 3660a 1 -635 / 825 Strombegrenzung P22-56                    | 3660-635 / 825                             |                                 |        |        |        |        |
| 22                     | 4060a 1 -635 / 825 Strombegrenzung P22-57                    | 4060-635 / 825                             |                                 |        |        |        |        |
| 22                     | 4460a 1 -635 / 825 Strombegrenzung P22-58                    | 4460-635 / 825                             |                                 |        |        |        |        |
| 22                     | Stall prevention Special Version Kom.Nr.:                    |                                            |                                 |        |        |        |        |
| 23                     | Stall prevention operation level compensation factor at doub |                                            | 9999                            | 9999   | 9999   | 100%   | 9999   |
| 29                     | Acceleration/deceleration pattern selection                  |                                            | 00                              | 00     | 00     | 00     | 00     |
| 30                     | Regenerative function selection (only FR-A 740/840)          |                                            | 1                               | 1      | 1      | 1      | 1      |

# Załącznik - Wartości nastawcze przetwornicy częstotliwości Lean-Lift Mitsubishi FR-A740 / 741 / 840 (A-Frequen1\_V4301.FRA)

Wartości nastawcze dla Hänel Lean-Lift  
przetwornicy częstotliwości U1  
MP12N (samo Wersja programu CPU 1:  
V4.3)

|    |                                                         |                                          | ES12                            | ES22          | ES32          | ES42          | ES52           |
|----|---------------------------------------------------------|------------------------------------------|---------------------------------|---------------|---------------|---------------|----------------|
|    |                                                         |                                          | FR-A 740 / FR-A840 / FR-A741 ES |               |               |               |                |
|    | Frequency Converter U1                                  |                                          | -0085                           | -00126        | -00170        | -00170        | -00250         |
|    |                                                         |                                          | 2.2 KW                          | 3.7 KW        | 5.5 KW        | 5.5 KW        | 7.5 KW         |
|    |                                                         |                                          | Economy-Speed                   |               |               |               |                |
|    | Parameter                                               | Setting Range<br>MP12N V4.3              | /150<br>PMS24                   | /250<br>PMS25 | /500<br>PMS26 | /700<br>PMS27 | /1000<br>PMS28 |
| 1  | 2                                                       | 1                                        | 9                               | 10            | 11            | 12            | 13             |
| 42 | Output frequency detection                              |                                          | 0.5Hz                           | 0.5Hz         | 0.5Hz         | 0.5Hz         | 0.5Hz          |
| 43 | Output frequency detection for reverse rotation         |                                          | 99.99Hz                         | 99.99Hz       | 99.99Hz       | 99.99Hz       | 99.99Hz        |
| 44 | Second acceleration/deceleration time                   |                                          | 0.35sec.                        | 0.35sec.      | 0.35sec.      | 0.35sec.      | 0.35sec.       |
| 45 | Second deceleration time                                |                                          | 0.2sec.                         | 0.2sec.       | 0.2sec.       | 0.2sec.       | 0.2sec.        |
| 46 | Second torque boost                                     | 4.0 to 15.0 %                            | 4.5%                            | 6.4%          | 6.7%          | 7.8%          | 7.8%           |
| 47 | Second V/F (base frequency)                             |                                          | 87Hz                            | 87Hz          | 87Hz          | 87Hz          | 87Hz           |
| 48 | Second stall prevention operation current               | ES: 15.0 to 45.0 %<br>HS: 15.0 to 45.0 % | 41.2%                           | 33.3%         | 50%           | 51.7%         | 41.2%          |
| 48 | 0840a 2 -635 2. Stromgrenze P48-1                       | 840-635                                  | 20.8%                           | 26%           | 30.3%         | 30.1%         | 38.4%          |
| 48 | 1300a 2 -635 2. Stromgrenze P48-2                       | 1300-635                                 | 21.2%                           | 26.7%         | 30.7%         | 30.5%         | 39%            |
| 48 | 1640a 2 -635 2. Stromgrenze P48-3                       | 1640-635                                 | 21.4%                           | 27.1%         | 31%           | 31.3%         | 34.5%          |
| 48 | 1860a 2 -635 2. Stromgrenze P48-4                       | 1860-635                                 | 21.6%                           | 23.2%         | 31.2%         | 29.5%         | 35.1%          |
| 48 | 2060a 2 -635 2. Stromgrenze P48-5                       | 2060-635                                 | 21.8%                           | 23.4%         | 31.5%         | 29.9%         | 33.3%          |
| 48 | 2300a 2 -635 2. Stromgrenze P48-6                       | 2300-635                                 | 22.1%                           | 23.8%         | 30.1%         | 28.9%         | 31.4%          |
| 48 | 2460a 2 -635 2. Stromgrenze P48-7                       | 2460-635                                 | 22.3%                           | 24%           | 30.3%         | 29.2%         | 32.6%          |
| 48 | 2860a 2 L -635 2. Stromgrenze P48-8                     | 2860-635 L                               |                                 | 20.1%         | 28%           |               |                |
| 48 | 3060a 2 L -635 2. Stromgrenze P48-9                     | 3060-635 L                               |                                 | 20.3%         | 26.1%         |               |                |
| 48 | 3260a 2 L -635 2. Stromgrenze P48-10                    | 3260-635 L                               |                                 | 19.9%         | 23.1%         |               |                |
| 48 | 2860a 2 -635 2. Stromgrenze P48-11                      | 2860-635                                 | 22.4%                           | 26.4%         | 30.9%         | 26.9%         | 25.7%          |
| 48 | 3060a 2 -635 2. Stromgrenze P48-12                      | 3060-635                                 | 22.1%                           | 26.8%         | 31.2%         | 27.1%         | 25%            |
| 48 | 3260a 2 -635 2. Stromgrenze P48-13                      | 3260-635                                 | 21.8%                           | 27.2%         | 28.8%         | 27.3%         | 24.3%          |
| 48 | 0840a 1 -635 / 825 2. Stromgrenze P48-14                | 840-635 / 825                            | 21%                             | 26.3%         | 30.5%         | 30.3%         | 38.7%          |
| 48 | 1300a 1 -635 / 825 2. Stromgrenze P48-15                | 1300-635 / 825                           | 21.4%                           | 27.1%         | 30.9%         | 30.8%         | 39.4%          |
| 48 | 1640a 1 -635 / 825 2. Stromgrenze P48-16                | 1640-635 / 825                           | 21.7%                           | 27.6%         | 31.3%         | 31.7%         | 35%            |
| 48 | 1860a 1 -635 / 825 2. Stromgrenze P48-17                | 1860-635 / 825                           | 21.9%                           | 23.6%         | 31.6%         | 29.9%         | 35.6%          |
| 48 | 2060a 1 -635 / 825 2. Stromgrenze P48-18                | 2060-635 / 825                           | 22.3%                           | 24.1%         | 31.8%         | 30.6%         | 34.1%          |
| 48 | 2300a 1 -635 / 825 2. Stromgrenze P48-19                | 2300-635 / 825                           | 22.6%                           | 24.4%         | 30.6%         | 29.7%         | 32.2%          |
| 48 | 2460a 1 -635 / 825 2. Stromgrenze P48-20                | 2460-635 / 825                           | 22.4%                           | 24.6%         | 31%           | 30%           | 33.5%          |
| 48 | 2860a 1 L -635 / 825 2. Stromgrenze P48-21              | 2860-635 / 825 L                         |                                 | 20.7%         | 28.5%         | 26.6%         |                |
| 48 | 3060a 1 L -635 / 825 2. Stromgrenze P48-22              | 3060-635 / 825 L                         |                                 | 20.2%         | 25.5%         | 25.2%         |                |
| 48 | 3260a 1 L -635 / 825 2. Stromgrenze P48-23              | 3260-635 / 825 L                         |                                 | 20.5%         | 22.8%         | 23.9%         |                |
| 48 | 2860a 1 -635 / 825 2. Stromgrenze P48-24                | 2860-635 / 825                           | 21.3%                           | 27.4%         | 31.7%         | 27.4%         | 26.1%          |
| 48 | 3060a 1 -635 / 825 2. Stromgrenze P48-25                | 3060-635 / 825                           | 20.8%                           | 26.9%         | 30.5%         | 27.6%         | 25.5%          |
| 48 | 3260a 1 -635 / 825 2. Stromgrenze P48-26                | 3260-635 / 825                           | 20.5%                           | 26.5%         | 29.5%         | 27.8%         | 24.8%          |
| 48 | 0840b 3 -1047 / 1270 2. Stromgrenze P48-40              | 840-1047 / 1270                          | 21.4%                           | 27.1%         | 30.9%         | 30.6%         | 39.5%          |
| 48 | 1300b 3 -1047 / 1270 2. Stromgrenze P48-41              | 1300-1047 / 1270                         | 22.3%                           | 28.5%         | 31.7%         | 32.1%         | 35.3%          |
| 48 | 1640b 3 -1047 / 1270 2. Stromgrenze P48-42              | 1640-1047 / 1270                         | 21.8%                           | 24.6%         | 32.1%         | 30.6%         | 31.5%          |
| 48 | 1860b 3 -1047 / 1270 2. Stromgrenze P48-43              | 1860-1047 / 1270                         | 21.4%                           | 18.3%         | 29.5%         | 31%           | 32.2%          |
| 48 | 2060b 3 -1047 / 1270 2. Stromgrenze P48-44              | 2060-1047 / 1270                         | 20.7%                           | 25.6%         | 29.4%         | 29.7%         | 30.9%          |
| 48 | 2300b 3 -1047 / 1270 2. Stromgrenze P48-45              | 2300-1047 / 1270                         | 20.3%                           | 26%           | 30%           | 30.2%         | 29.3%          |
| 48 | 2460b 3 -1047 / 1270 2. Stromgrenze P48-46              | 2460-1047 / 1270                         | 20.3%                           | 26.4%         | 30.4%         | 30.5%         | 29.7%          |
| 48 | 2860b 3 L -1047 / 1270 2. Stromgrenze P48-47            | 2860-1047 / 1270 L                       |                                 |               | 21.2%         |               |                |
| 48 | 3060b 3 L -1047 / 1270 2. Stromgrenze P48-48            | 3060-1047 / 1270 L                       |                                 |               | 21.5%         |               |                |
| 48 | 3260b 3 L -1047 / 1270 2. Stromgrenze P48-49            | 3260-1047 / 1270 L                       |                                 |               | 21.7%         |               |                |
| 48 | 2860b 3 -1047 / 1270 2. Stromgrenze P48-50              | 2860-1047 / 1270                         |                                 |               | 25.6%         | 28.3%         | 31.2%          |
| 48 | 3060b 3 -1047 / 1270 2. Stromgrenze P48-51              | 3060-1047 / 1270                         |                                 |               | 23.9%         | 26.9%         | 29.6%          |
| 48 | 3260b 3 -1047 / 1270 2. Stromgrenze P48-52              | 3260-1047 / 1270                         |                                 |               | 24.2%         | 27.3%         | 28.1%          |
| 48 | 3660a 2 -635 2. Stromgrenze P48-53                      | 3660-635                                 |                                 |               |               |               |                |
| 48 | 4060a 2 -635 2. Stromgrenze P48-54                      | 4060-635                                 |                                 |               |               |               |                |
| 48 | 4460a 2 -635 2. Stromgrenze P48-55                      | 4460-635                                 |                                 |               |               |               |                |
| 48 | 3660a 1 -635 / 825 2. Stromgrenze P48-56                | 3660-635 / 825                           |                                 |               |               |               |                |
| 48 | 4060a 1 -635 / 825 2. Stromgrenze P48-57                | 4060-635 / 825                           |                                 |               |               |               |                |
| 48 | 4460a 1 -635 / 825 2. Stromgrenze P48-58                | 4460-635 / 825                           |                                 |               |               |               |                |
| 48 | Second stall prevention Special Version Kom.Nr.:        |                                          |                                 |               |               |               |                |
| 49 | Second stall prevention operation frequency             |                                          | 9999                            | 9999          | 9999          | 9999          | 9999           |
| 51 | Second electronic thermal O/L relay                     | 1.0 to 4.00 A                            | 1.6A                            | 1.6A          | 1.78A         | 2.25A         | 2.25A          |
| 52 | DU/PU main display data selection                       |                                          | 11                              | 11            | 11            | 11            | 11             |
| 54 | FM terminal function selection                          | 1 to 7                                   | 1                               | 1             | 1             | 1             | 1              |
| 55 | Frequency monitoring reference                          | 100 to 150 Hz                            | 120Hz                           | 120Hz         | 120Hz         | 120Hz         | 120Hz          |
| 56 | Current monitoring reference                            | 6.00 to 34.00 A                          | 9A                              | 12A           | 17A           | 17A           | 25A            |
| 65 | Retry selection                                         |                                          | 4                               | 4             | 4             | 4             | 4              |
| 66 | Stall prevention operation reduction starting frequency |                                          | 87Hz                            | 87Hz          | 87Hz          | 87Hz          | 87Hz           |
| 67 | Number of retries at alarm occurrence                   |                                          | 3                               | 3             | 3             | 3             | 3              |

# Załącznik - Wartości nastawcze przetwornicy częstotliwości Lean-Lift Mitsubishi FR-A740 / 741 / 840 (A-Frequen1\_V4301.FRA)

Wartości nastawcze dla Hänel Lean-Lift przetwornicy częstotliwości U1 MP12N (samo Wersja programu CPU 1: V4.3)

|     |                                                                                              |                             | ES12                            | ES22          | ES32          | ES42          | ES52           |
|-----|----------------------------------------------------------------------------------------------|-----------------------------|---------------------------------|---------------|---------------|---------------|----------------|
|     | Frequency Converter U1                                                                       |                             | FR-A 740 / FR-A840 / FR-A741 ES |               |               |               |                |
|     |                                                                                              |                             | -0085                           | -00126        | -00170        | -00170        | -00250         |
|     |                                                                                              |                             | 2.2 KW                          | 3.7 KW        | 5.5 KW        | 5.5 KW        | 7.5 KW         |
|     |                                                                                              |                             | Economy-Speed                   |               |               |               |                |
|     | Parameter                                                                                    | Setting Range<br>MP12N V4.3 | /150<br>PMS24                   | /250<br>PMS25 | /500<br>PMS26 | /700<br>PMS27 | /1000<br>PMS28 |
| 1   | 2                                                                                            | 1                           | 9                               | 10            | 11            | 12            | 13             |
| 70  | Special regenerative brake duty (only FR-A 740/840) Lift Height <= 9m and Firmware <= 7992/4 | 10.0 to 90.0 %              | 10%                             | 10%           | 13%           | 13%           | 13%            |
| 70  | Special regenerative brake duty (only FR-A 740/840) Lift Height > 9m and Firmware 7992/5     | 10.0 to 90.0 %              | 50 %                            | 50 %          | 50 %          | 50 %          | 50 %           |
| 71  | Applied motor                                                                                |                             | 3                               | 3             | 3             | 3             | 3              |
| 72  | PWM frequency selection                                                                      |                             | 15                              | 15            | 15            | 15            | 15             |
| 73  | Analog input selection                                                                       |                             | 0                               | 0             | 0             | 0             | 0              |
| 74  | Input filter time constant                                                                   |                             | 1                               | 1             | 1             | 1             | 1              |
| 80  | Motor capacity                                                                               |                             | 1,5KW                           | 1,5KW         | 2,2KW         | 2,2KW         | 3KW            |
| 81  | Number of motor poles                                                                        |                             | 14                              | 14            | 14            | 14            | 14             |
| 83  | Motor rated voltage                                                                          |                             | 320V                            | 400V          | 400V          | 400V          | 400V           |
| 84  | Rated motor frequency                                                                        |                             | 87Hz                            | 87Hz          | 87Hz          | 87Hz          | 87Hz           |
| 89  | Speed control gain (magnetic flux vector)                                                    |                             | 35%                             | 35%           | 35%           | 35%           | 35%            |
| 95  | Online auto tuning selection                                                                 |                             | 1                               | 1             | 1             | 1             | 1              |
| 96  | Auto tuning setting/status                                                                   | 0 or 1                      | 1                               | 1             | 1             | 1             | 1              |
| 110 | Third acceleration/deceleration time                                                         | 0 to 2 sec.                 | 2sec.                           | 2sec.         | 2sec.         | 2sec.         | 2sec.          |
| 111 | Third deceleration time                                                                      |                             | 0sec.                           | 0sec.         | 0sec.         | 0sec.         | 0sec.          |
| 112 | Third torque boost                                                                           | 2.0 to 14.0 %               | 14%                             | 14%           | 14%           | 14%           | 14%            |
| 113 | Third V/F (base frequency)                                                                   |                             | 87Hz                            | 87Hz          | 87Hz          | 87Hz          | 87Hz           |
| 114 | Third stall prevention operation current                                                     | 6.0 to 40.0 %               | 51.2%                           | 34.2%         | 25.6%         | 25.6%         | 18.1%          |
| 115 | Thrid stall prevention operation frequency                                                   |                             | 99Hz                            | 99Hz          | 99Hz          | 99Hz          | 99Hz           |
| 145 | PU display language selection                                                                | 0 to 7                      | 1                               | 1             | 1             | 1             | 1              |
| 150 | 0840a 2 -635 Ausgangstromüberwachung P150-1                                                  | 840-635                     | 17.1%                           | 14%           | 15.8%         | 17.3%         | 13.9%          |
| 150 | 1300a 2 -635 Ausgangstromüberwachung P150-2                                                  | 1300-635                    | 17.2%                           | 14.2%         | 15.9%         | 17.3%         | 13.9%          |
| 150 | 1640a 2 -635 Ausgangstromüberwachung P150-3                                                  | 1640-635                    | 17.3%                           | 14.3%         | 16%           | 17.6%         | 13.2%          |
| 150 | 1860a 2 -635 Ausgangstromüberwachung P150-4                                                  | 1860-635                    | 17.4%                           | 13.3%         | 16%           | 17.1%         | 13.3%          |
| 150 | 2060a 2 -635 Ausgangstromüberwachung P150-5                                                  | 2060-635                    | 17.5%                           | 13.3%         | 16.1%         | 17.2%         | 13%            |
| 150 | 2300a 2 -635 Ausgangstromüberwachung P150-6                                                  | 2300-635                    | 17.6%                           | 13.5%         | 15.7%         | 16.9%         | 12.7%          |
| 150 | 2460a 2 -635 Ausgangstromüberwachung P150-7                                                  | 2460-635                    | 17.6%                           | 13.5%         | 15.8%         | 17%           | 12.9%          |
| 150 | 2860a 2 L -635 Ausgangstromüberwachung P150-8                                                | 2860-635 L                  |                                 | 12.4%         | 15%           |               |                |
| 150 | 3060a 2 L -635 Ausgangstromüberwachung P150-9                                                | 3060-635 L                  |                                 | 12.5%         | 14.2%         |               |                |
| 150 | 3260a 2 L -635 Ausgangstromüberwachung P150-10                                               | 3260-635 L                  |                                 | 12.4%         | 12.9%         |               |                |
| 150 | 2860a 2 -635 Ausgangstromüberwachung P150-11                                                 | 2860-635                    | 17.7%                           | 14.1%         | 15.9%         | 16.4%         | 11.7%          |
| 150 | 3060a 2 -635 Ausgangstromüberwachung P150-12                                                 | 3060-635                    | 17.6%                           | 14.2%         | 16%           | 16.4%         | 11.6%          |
| 150 | 3260a 2 -635 Ausgangstromüberwachung P150-13                                                 | 3260-635                    | 17.5%                           | 14.3%         | 15.2%         | 16.5%         | 11.5%          |
| 150 | 0840a 1 -635 / 825 Ausgangstromüberwachung P150-14                                           | 840-635 / 825               | 17.2%                           | 14.1%         | 15.8%         | 17.3%         | 13.9%          |
| 150 | 1300a 1 -635 / 825 Ausgangstromüberwachung P150-15                                           | 1300-635 / 825              | 17.3%                           | 14.3%         | 15.9%         | 17.4%         | 14%            |
| 150 | 1640a 1 -635 / 825 Ausgangstromüberwachung P150-16                                           | 1640-635 / 825              | 17.4%                           | 14.4%         | 16.1%         | 17.7%         | 13.3%          |
| 150 | 1860a 1 -635 / 825 Ausgangstromüberwachung P150-17                                           | 1860-635 / 825              | 17.5%                           | 13.4%         | 16.1%         | 17.2%         | 13.4%          |
| 150 | 2060a 1 -635 / 825 Ausgangstromüberwachung P150-18                                           | 2060-635 / 825              | 17.6%                           | 13.5%         | 16.2%         | 17.4%         | 13.2%          |
| 150 | 2300a 1 -635 / 825 Ausgangstromüberwachung P150-19                                           | 2300-635 / 825              | 17.7%                           | 13.6%         | 15.9%         | 17.1%         | 12.9%          |
| 150 | 2460a 1 -635 / 825 Ausgangstromüberwachung P150-20                                           | 2460-635 / 825              | 17.7%                           | 13.7%         | 16%           | 17.2%         | 13.1%          |
| 150 | 2860a 1 L -635 / 825 Ausgangstromüberwachung P150-21                                         | 2860-635 / 825 L            |                                 | 12.6%         | 15.1%         | 16.3%         |                |
| 150 | 3060a 1 L -635 / 825 Ausgangstromüberwachung P150-22                                         | 3060-635 / 825 L            |                                 | 12.5%         | 13.9%         | 15.9%         |                |
| 150 | 3260a 1 L -635 / 825 Ausgangstromüberwachung P150-23                                         | 3260-635 / 825 L            |                                 | 12.5%         | 12.8%         | 15.5%         |                |
| 150 | 2860a 1 -635 / 825 Ausgangstromüberwachung P150-24                                           | 2860-635 / 825              | 17.3%                           | 14.4%         | 16.2%         | 16.5%         | 11.8%          |
| 150 | 3060a 1 -635 / 825 Ausgangstromüberwachung P150-25                                           | 3060-635 / 825              | 17.1%                           | 14.3%         | 15.8%         | 16.6%         | 11.7%          |
| 150 | 3260a 1 -635 / 825 Ausgangstromüberwachung P150-26                                           | 3260-635 / 825              | 17%                             | 14.1%         | 15.5%         | 16.6%         | 11.6%          |
| 150 | 0840b 3 -1047 / 1270 Ausgangstromüberwachung P150-40                                         | 840-1047 / 1270             | 17.3%                           | 14.3%         | 16%           | 17.4%         | 14%            |
| 150 | 1300b 3 -1047 / 1270 Ausgangstromüberwachung P150-41                                         | 1300-1047 / 1270            | 17.6%                           | 14.7%         | 16.2%         | 17.8%         | 13.4%          |
| 150 | 1640b 3 -1047 / 1270 Ausgangstromüberwachung P150-42                                         | 1640-1047 / 1270            | 17.5%                           | 13.7%         | 16.3%         | 17.4%         | 12.8%          |
| 150 | 1860b 3 -1047 / 1270 Ausgangstromüberwachung P150-43                                         | 1860-1047 / 1270            | 17.3%                           | 11.9%         | 15.5%         | 17.5%         | 12.9%          |
| 150 | 2060b 3 -1047 / 1270 Ausgangstromüberwachung P150-44                                         | 2060-1047 / 1270            | 17.1%                           | 13.9%         | 15.5%         | 17.1%         | 12.6%          |
| 150 | 2300b 3 -1047 / 1270 Ausgangstromüberwachung P150-45                                         | 2300-1047 / 1270            | 16.9%                           | 14%           | 15.7%         | 17.3%         | 12.4%          |
| 150 | 2460b 3 -1047 / 1270 Ausgangstromüberwachung P150-46                                         | 2460-1047 / 1270            | 16.7%                           | 14.1%         | 15.8%         | 17.4%         | 12.4%          |
| 150 | 2860b 3 L -1047 / 1270 Ausgangstromüberwachung P150-47                                       | 2860-1047 / 1270 L          | 0%                              | 11.7%         | 12.2%         | 16.8%         | 12.7%          |
| 150 | 3060b 3 L -1047 / 1270 Ausgangstromüberwachung P150-48                                       | 3060-1047 / 1270 L          |                                 |               | 12.3%         |               |                |
| 150 | 3260b 3 L -1047 / 1270 Ausgangstromüberwachung P150-49                                       | 3260-1047 / 1270 L          |                                 |               | 12.4%         |               |                |
| 150 | 2860b 3 -1047 / 1270 Ausgangstromüberwachung P150-50                                         | 2860-1047 / 1270            |                                 |               | 14%           | 16.8%         | 12.7%          |
| 150 | 3060b 3 -1047 / 1270 Ausgangstromüberwachung P150-51                                         | 3060-1047 / 1270            |                                 |               | 13.3%         | 16.4%         | 12.4%          |
| 150 | 3260b 3 -1047 / 1270 Ausgangstromüberwachung P150-52                                         | 3260-1047 / 1270            |                                 |               | 13.4%         | 16.5%         | 12.2%          |
| 150 | 3660a 2 -635 Ausgangstromüberwachung P150-53                                                 | 3660-635                    |                                 |               |               |               |                |
| 150 | 3660a 2 -635 Ausgangstromüberwachung P150-53                                                 | 3660-635                    |                                 |               |               |               |                |
| 150 | 4060a 2 -635 Ausgangstromüberwachung P150-54                                                 | 4060-635                    |                                 |               |               |               |                |
| 150 | 4460a 2 -635 Ausgangstromüberwachung P150-55                                                 | 4460-635                    |                                 |               |               |               |                |
| 150 | 3660a 1 -635 / 825 Ausgangstromüberwachung P150-56                                           | 3660-635 / 825              |                                 |               |               |               |                |
| 150 | 4060a 1 -635 / 825 Ausgangstromüberwachung P150-57                                           | 4060-635 / 825              |                                 |               |               |               |                |
| 150 | 4460a 1 -635 / 825 Ausgangstromüberwachung P150-58                                           | 4460-635 / 825              |                                 |               |               |               |                |

# Załącznik - Wartości nastawcze przetwornicy częstotliwości Lean-Lift Mitsubishi FR-A740 / 741 / 840 (A-Frequen1\_V4301.FRA)

Wartości nastawcze dla Hänel Lean-Lift przetwornicy częstotliwości U1 MP12N (samo Wersja programu CPU 1: V4.3)

|     |                                                          |                             | ES12                            | ES22    | ES32    | ES42    | ES52    |
|-----|----------------------------------------------------------|-----------------------------|---------------------------------|---------|---------|---------|---------|
|     | Frequency Converter U1                                   |                             | FR-A 740 / FR-A840 / FR-A741 ES |         |         |         |         |
|     |                                                          |                             | -0085                           | -00126  | -00170  | -00170  | -00250  |
|     |                                                          |                             | 2.2 KW                          | 3.7 KW  | 5.5 KW  | 5.5 KW  | 7.5 KW  |
|     |                                                          |                             | Economy-Speed                   |         |         |         |         |
|     | Parameter                                                | Setting Range<br>MP12N V4.3 | /150                            | /250    | /500    | /700    | /1000   |
| 1   | 2                                                        | 1                           | PMS24                           | PMS25   | PMS26   | PMS27   | PMS28   |
| 151 | Output current detection signal delay time               |                             | 9                               | 10      | 11      | 12      | 13      |
| 155 | RT signal function validity condition selection          |                             | 0.1                             | 0.1     | 0.1     | 0.1     | 0.1     |
| 156 | Stall prevention operation selection                     |                             | 1                               | 1       | 1       | 1       | 1       |
| 157 | OL signal output timer                                   |                             | 9                               | 9       | 9       | 9       | 9       |
| 158 | Output AM Torque                                         |                             | 0sec.                           | 0sec.   | 0sec.   | 0sec.   | 0sec.   |
| 180 | RL terminal function selection                           |                             | 7                               | 7       | 7       | 7       | 7       |
| 181 | RM terminal function selection                           |                             | 3                               | 3       | 3       | 3       | 3       |
| 182 | RH terminal function selection                           |                             | 18                              | 18      | 18      | 18      | 18      |
| 183 | RT terminal function selection                           |                             | 9                               | 9       | 9       | 9       | 9       |
| 184 | AU terminal function selection                           |                             | 18                              | 18      | 18      | 18      | 18      |
| 185 | JOG terminal function selection                          |                             | 4                               | 4       | 4       | 4       | 4       |
| 190 | RUN terminal function selection                          |                             | 17                              | 17      | 17      | 17      | 17      |
| 192 | IPF terminal function selection                          |                             | 20                              | 20      | 20      | 20      | 20      |
| 193 | OL terminal function selection                           |                             | 164                             | 164     | 164     | 164     | 164     |
| 194 | FU terminal function selection                           |                             | 12                              | 12      | 12      | 12      | 12      |
| 195 | ABC1 terminal function selection                         |                             | 4                               | 4       | 4       | 4       | 4       |
| 196 | ABC2 terminal function selection                         | 145 and 9999                | 199                             | 199     | 199     | 199     | 199     |
| 244 | Cooling fan operation selection                          |                             | 9999                            | 9999    | 9999    | 9999    | 9999    |
| 251 | Output phase failure protection selection                |                             | 1                               | 1       | 1       | 1       | 1       |
| 260 | PWM frequency automatic switchover                       |                             | 1                               | 1       | 1       | 1       | 1       |
| 265 | Power-failure deceleration time 2                        |                             | 0.1sec.                         | 0.1sec. | 0.1sec. | 0.1sec. | 0.1sec. |
| 278 | Brake opening frequency                                  |                             | 0sec.                           | 0sec.   | 0sec.   | 0sec.   | 0sec.   |
| 279 | Brake opening current                                    |                             | 1.3Hz                           | 1.3Hz   | 1.3Hz   | 1.3Hz   | 1.3Hz   |
| 280 | Brake opening current detection time                     |                             | 20%                             | 20%     | 20%     | 20%     | 20%     |
| 281 | Brake operation time at start                            |                             | 0.1sec.                         | 0.1sec. | 0.1sec. | 0.1sec. | 0.1sec. |
| 282 | Brake operation frequency                                |                             | 0.3sec.                         | 0.3sec. | 0.3sec. | 0.3sec. | 0.3sec. |
| 283 | Brake operation time at stop                             |                             | 2Hz                             | 2Hz     | 2Hz     | 2Hz     | 2Hz     |
| 284 | Deceleration detection function selection                |                             | 0.1sec.                         | 0.1sec. | 0.1sec. | 0.1sec. | 0.1sec. |
| 292 | Automatic acceleration/deceleration                      |                             | 0                               | 0       | 0       | 0       | 0       |
| 331 | RS-485 FU-Adress                                         |                             | 8                               | 8       | 8       | 8       | 8       |
| 332 | RS-485 Baud                                              |                             | 0                               | 0       | 0       | 0       | 0       |
| 333 | RS-485 stop-bit                                          |                             | 96                              | 96      | 96      | 96      | 96      |
| 335 | RS-485 communication retry count                         |                             | 0                               | 0       | 0       | 0       | 0       |
| 336 | RS-485 communication check time interval                 |                             | 9999                            | 9999    | 9999    | 9999    | 9999    |
| 341 | RS-485 communication CRLF selection                      |                             | 9999                            | 9999    | 9999    | 9999    | 9999    |
| 342 | Communication EEPROM write selection                     |                             | 2                               | 2       | 2       | 2       | 2       |
| 450 | Second applied motor                                     | 0 to 20 and 9999            | 1                               | 1       | 1       | 1       | 1       |
| 451 | Second motor control method selection                    | 20 and 9999                 | 3                               | 9999    | 9999    | 9999    | 9999    |
| 453 | Second Motor capacity                                    | 0.0 to 2.0 KW               | 20                              | 9999    | 9999    | 9999    | 9999    |
| 454 | Number of second motor poles                             |                             | 0.4KW                           | 0.4KW   | 0.4KW   | 0.55KW  | 0.55KW  |
| 456 | Rated second motor voltage                               |                             | 4                               | 4       | 4       | 4       | 4       |
| 457 | Rated second motor frequency                             |                             | 360V                            | 400V    | 400V    | 400V    | 400V    |
| 463 | Second motor auto tuning setting/status                  | 0 or 1                      | 87Hz                            | 87Hz    | 87Hz    | 87Hz    | 87Hz    |
| 574 | Second Motor online tuning                               | 0 or 1                      | 103                             | 3       | 103     | 103     | 103     |
| 506 | Parameter 1 for User (only FR-A 740)                     |                             | 1                               | 1       | 1       | 1       | 1       |
| 507 | Parameter 2 for user (only FR-A 740)                     |                             | 4301                            | 4301    | 4301    | 4301    | 4301    |
| 632 | Output current stability waiting time (only FR-A741/840) |                             | 24                              | 25      | 26      | 27      | 28      |
| 633 | Output current filter (only FR-A741/840)                 |                             | 12                              | 12      | 12      | 12      | 12      |
| 634 | Output phase failure deection time (only FR-A741/840)    |                             | 5                               | 5       | 5       | 5       | 5       |
| 684 | Tuning data increment switchover                         |                             | 3                               | 3       | 3       | 3       | 3       |
| 699 | Adjusting the response of Input terminal (only FR-A840)  |                             | 1                               | 1       | 1       | 1       | 1       |
| 730 | Output current stability waiting time (only FR-A 740)    |                             | 5                               | 5       | 5       | 5       | 5       |
| 731 | Output current filter (only FR-A 740)                    |                             | 12                              | 12      | 12      | 12      | 12      |
| 732 | Output phase failure deection time (only FR-A 740)       |                             | 5                               | 5       | 5       | 5       | 5       |
| 800 | Control method selection                                 |                             | 3                               | 3       | 3       | 3       | 3       |
| 866 | Torque Monitoring reference                              |                             | 20                              | 20      | 20      | 20      | 20      |
| 888 | Parameter 1 for User (only FR-A741/840)                  |                             | 150%                            | 150%    | 150%    | 150%    | 150%    |
| 889 | Parameter 2 for user (only FR-A741/840)                  |                             | 4301                            | 4301    | 4301    | 4301    | 4301    |
| 872 | Input Phase fault                                        |                             | 24                              | 25      | 26      | 27      | 28      |
| 902 | Terminal 2 frequency setting bias frequency              |                             | 1                               | 1       | 1       | 1       | 1       |
| 903 | Terminal 2 frequency setting gain frequency              | 95 to 105                   | 0Hz                             | 0Hz     | 0Hz     | 0Hz     | 0Hz     |
|     |                                                          |                             | 0.0%                            | 0.0%    | 0.0%    | 0.0%    | 0.0%    |
|     |                                                          |                             | 150Hz                           | 150Hz   | 150Hz   | 150Hz   | 150Hz   |
|     |                                                          |                             | 100.0%                          | 100.0%  | 100.0%  | 100.0%  | 100.0%  |

# Załącznik - Wartości nastawcze przetwornicy częstotliwości Lean-Lift Mitsubishi FR-A740 / 741 / 840 (A-Frequen1\_V4301.FRA)

Wartości nastawcze dla Hänel Lean-Lift  
przetwornicy częstotliwości U1  
MP12N (samo Wersja programu CPU 1:  
V4.3)

|                        |                      |               | ES12                            | ES22   | ES32   | ES42   | ES52    |
|------------------------|----------------------|---------------|---------------------------------|--------|--------|--------|---------|
|                        |                      |               | FR-A 740 / FR-A840 / FR-A741 ES |        |        |        |         |
| Frequency Converter U1 |                      |               | -0085                           | -00126 | -00170 | -00170 | -00250  |
|                        |                      |               | 2.2 KW                          | 3.7 KW | 5.5 KW | 5.5 KW | 7.5 KW  |
|                        |                      |               | Economy-Speed                   |        |        |        |         |
| Parameter              |                      | Setting Range | /150                            | /250   | /500   | /700   | /1000   |
|                        |                      | MP12N V4.3    | PMS24                           | PMS25  | PMS26  | PMS27  | PMS28   |
| 1                      | 2                    | 1             | 9                               | 10     | 11     | 12     | 13      |
| Container max. payload |                      |               |                                 |        |        |        |         |
| GewZul                 | 840-635///75.0/ S1   | 840-635       | 150 Kg                          | 300 Kg | 500 Kg | 700 Kg | 1000 Kg |
| GewZul                 | 1300-635///75.0/ S1  | 1300-635      | 150 Kg                          | 300 Kg | 500 Kg | 700 Kg | 1000 Kg |
| GewZul                 | 1640-635///75.0/ S1  | 1640-635      | 150 Kg                          | 300 Kg | 500 Kg | 700 Kg | 900 Kg  |
| GewZul                 | 1860-635///75.0/ S1  | 1860-635      | 150 Kg                          | 250 Kg | 500 Kg | 650 Kg | 900 Kg  |
| GewZul                 | 2060-635///75.0/ S1  | 2060-635      | 150 Kg                          | 250 Kg | 500 Kg | 650 Kg | 850 Kg  |
| GewZul                 | 2300-635///75.0/ S1  | 2300-635      | 150 Kg                          | 250 Kg | 470 Kg | 600 Kg | 800 Kg  |
| GewZul                 | 2460-635///75.0/ S1  | 2460-635      | 150 Kg                          | 250 Kg | 470 Kg | 600 Kg | 800 Kg  |
| GewZul                 | 2860-635///75.0/ S1  | 2860-635 L    |                                 | 190 Kg | 400 Kg |        |         |
| GewZul                 | 3060-635///75.0/ S1  | 3060-635 L    |                                 | 190 Kg | 350 Kg |        |         |
| GewZul                 | 3260-635///75.0/ S1  | 3260-635 L    |                                 | 180 Kg | 270 Kg |        |         |
| GewZul                 | 2860-635///75.0/ H1  | 2860-635      | 125 Kg                          | 250 Kg | 450 Kg | 550 Kg | 650 Kg  |
| GewZul                 | 3060-635///75.0/ H1  | 3060-635      | 115 Kg                          | 250 Kg | 450 Kg | 550 Kg | 625 Kg  |
| GewZul                 | 3260-635///75.0/ H1  | 3260-635      | 105 Kg                          | 250 Kg | 400 Kg | 550 Kg | 600 Kg  |
| GewZul                 | 840-825///75.0/ S1   | 840-825       | 150 Kg                          | 300 Kg | 500 Kg | 700 Kg | 1000 Kg |
| GewZul                 | 1300-825///75.0/ S1  | 1300-825      | 150 Kg                          | 300 Kg | 500 Kg | 700 Kg | 1000 Kg |
| GewZul                 | 1640-825///75.0/ S1  | 1640-825      | 150 Kg                          | 300 Kg | 500 Kg | 700 Kg | 900 Kg  |
| GewZul                 | 1860-825///75.0/ S1  | 1860-825      | 150 Kg                          | 250 Kg | 500 Kg | 650 Kg | 900 Kg  |
| GewZul                 | 2060-825///75.0/ S1  | 2060-825      | 150 Kg                          | 250 Kg | 500 Kg | 650 Kg | 850 Kg  |
| GewZul                 | 2300-825///75.0/ S1  | 2300-825      | 150 Kg                          | 250 Kg | 470 Kg | 600 Kg | 800 Kg  |
| GewZul                 | 2460-825///75.0/ S1  | 2460-825      | 145 Kg                          | 250 Kg | 470 Kg | 600 Kg | 800 Kg  |
| GewZul                 | 2860-825///75.0/ S1  | 2860-825 L    |                                 | 190 Kg | 400 Kg | 500 Kg |         |
| GewZul                 | 3060-825///75.0/ S1  | 3060-825 L    |                                 | 180 Kg | 325 Kg | 450 Kg |         |
| GewZul                 | 3260-825///75.0/ S1  | 3260-825 L    |                                 | 180 Kg | 250 Kg | 400 Kg |         |
| GewZul                 | 2860-825///75.0/ H1  | 2860-825      | 95 Kg                           | 250 Kg | 450 Kg | 550 Kg | 650 Kg  |
| GewZul                 | 3060-825///75.0/ H1  | 3060-825      | 80 Kg                           | 240 Kg | 425 Kg | 550 Kg | 625 Kg  |
| GewZul                 | 3260-825///75.0/ H1  | 3260-825      | 70 Kg                           | 230 Kg | 400 Kg | 550 Kg | 600 Kg  |
| GewZul                 | 840-1047///75.0/ S1  | 840-1047      | 150 Kg                          | 300 Kg | 500 Kg | 700 Kg | 1000 Kg |
| GewZul                 | 1300-1047///75.0/ S1 | 1300-1047     | 150 Kg                          | 300 Kg | 500 Kg | 700 Kg | 950 Kg  |
| GewZul                 | 1640-1047///75.0/ S1 | 1640-1047     | 150 Kg                          | 250 Kg | 500 Kg | 650 Kg | 850 Kg  |
| GewZul                 | 1860-1047///75.0/ S1 | 1860-1047     | 145 Kg                          | 250 Kg | 450 Kg | 600 Kg | 800 Kg  |
| GewZul                 | 2060-1047///75.0/ S1 | 2060-1047     | 135 Kg                          | 250 Kg | 450 Kg | 600 Kg | 800 Kg  |
| GewZul                 | 2300-1047///75.0/ S1 | 2300-1047     | 120 Kg                          | 250 Kg | 400 Kg | 600 Kg | 750 Kg  |
| GewZul                 | 2460-1047///75.0/ S1 | 2460-1047     | 110 Kg                          | 250 Kg | 400 Kg | 600 Kg | 750 Kg  |
| GewZul                 | 2860-1047///75.0/ S1 | 2860-1047 L   |                                 | 250 Kg | 250 Kg |        |         |
| GewZul                 | 3060-1047///75.0/ S1 | 3060-1047 L   |                                 |        | 220 Kg |        |         |
| GewZul                 | 3260-1047///75.0/ S1 | 3260-1047 L   |                                 |        | 220 Kg |        |         |
| GewZul                 | 2860-1047///75.0/ H1 | 2860-1047     |                                 |        | 350 Kg | 500 Kg | 700 Kg  |
| GewZul                 | 3060-1047///75.0/ H1 | 3060-1047     |                                 |        | 300 Kg | 450 Kg | 650 Kg  |
| GewZul                 | 3260-1047///75.0/ H1 | 3260-1047     |                                 |        | 300 Kg | 450 Kg | 600 Kg  |
| GewZul                 | 840-1270///75.0/ S1  | 840-1270      | 150 Kg                          | 300 Kg | 500 Kg | 700 Kg | 1000 Kg |
| GewZul                 | 1300-1270///75.0/ S1 | 1300-1270     | 150 Kg                          | 300 Kg | 500 Kg | 700 Kg | 900 Kg  |
| GewZul                 | 1640-1270///75.0/ S1 | 1640-1270     | 135 Kg                          | 250 Kg | 500 Kg | 650 Kg | 800 Kg  |
| GewZul                 | 1860-1270///75.0/ S1 | 1860-1270     | 125 Kg                          | 150 Kg | 450 Kg | 650 Kg | 800 Kg  |
| GewZul                 | 2060-1270///75.0/ S1 | 2060-1270     | 105 Kg                          | 250 Kg | 400 Kg | 600 Kg | 750 Kg  |
| GewZul                 | 2300-1270///75.0/ S1 | 2300-1270     | 90 Kg                           | 250 Kg | 400 Kg | 600 Kg | 700 Kg  |
| GewZul                 | 2460-1270///75.0/ S1 | 2460-1270     | 75 Kg                           | 250 Kg | 400 Kg | 600 Kg | 700 Kg  |
| GewZul                 | 2860-1270///75.0/ S1 | 2860-1270 L   |                                 | 250 Kg | 200 Kg |        |         |
| GewZul                 | 3060-1270///75.0/ S1 | 3060-1270 L   |                                 |        | 200 Kg |        |         |
| GewZul                 | 3260-1270///75.0/ S1 | 3260-1270 L   |                                 |        | 200 Kg |        |         |
| GewZul                 | 2860-1270///75.0/ H1 | 2860-1270     |                                 |        | 300 Kg | 500 Kg | 700 Kg  |
| GewZul                 | 3060-1270///75.0/ H1 | 3060-1270     |                                 |        | 250 Kg | 450 Kg | 650 Kg  |
| GewZul                 | 3260-1270///75.0/ H1 | 3260-1270     |                                 |        | 250 Kg | 450 Kg | 600 Kg  |
| GewZul                 | 3660-635///37.5/ UB1 | 3660-635      |                                 |        |        |        |         |
| GewZul                 | 4060-635///37.5/ UB1 | 4060-635      |                                 |        |        |        |         |
| GewZul                 | 4460-635///37.5/ UB1 | 4460-635      |                                 |        |        |        |         |
| GewZul                 | 3660-825///37.5/ UB1 | 3660-825      |                                 |        |        |        |         |
| GewZul                 | 4060-825///37.5/ UB1 | 4060-825      |                                 |        |        |        |         |
| GewZul                 | 4460-825///37.5/ UB1 | 4460-825      |                                 |        |        |        |         |