

# Synchronous motors

## Dimension drawings

### 1FK7 Compact motors with/without DRIVE-CLiQ Natural cooling

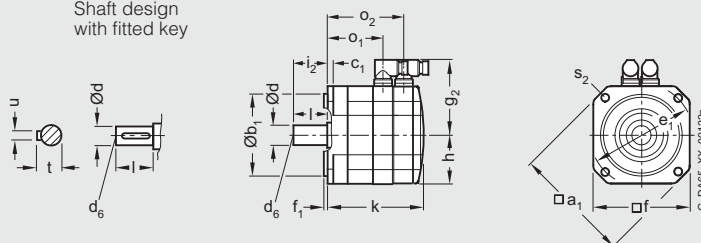
4

| For motor                                                                     |           | Dimensions in mm (in) |                  |                  |                   |                  |               |                  |                  |                |                  |                  | Encoder system:                  |                  |                  |               |                  |                  |
|-------------------------------------------------------------------------------|-----------|-----------------------|------------------|------------------|-------------------|------------------|---------------|------------------|------------------|----------------|------------------|------------------|----------------------------------|------------------|------------------|---------------|------------------|------------------|
|                                                                               |           |                       |                  |                  |                   |                  |               |                  |                  |                |                  |                  | Resolver                         |                  |                  |               |                  |                  |
|                                                                               |           |                       |                  |                  |                   |                  |               |                  |                  |                |                  |                  | Absolute encoder EnDat 16 S/R    |                  |                  |               |                  |                  |
|                                                                               |           |                       |                  |                  |                   |                  |               |                  |                  |                |                  |                  | 15 bit absolute encoder (16 S/R) |                  |                  |               |                  |                  |
|                                                                               |           |                       |                  |                  |                   |                  |               |                  |                  |                |                  |                  | without brake                    |                  |                  | with brake    |                  |                  |
| Shaft height                                                                  | Type      | DIN IEC               | a <sub>1</sub> P | b <sub>1</sub> N | c <sub>1</sub> LA | e <sub>1</sub> M | f AB          | f <sub>1</sub> T | g <sub>2</sub> – | h H            | i <sub>2</sub> – | s <sub>2</sub> S | k LB                             | o <sub>1</sub> – | o <sub>2</sub> – | k LB          | o <sub>1</sub> – | o <sub>2</sub> – |
| 1FK7 Compact, type IM B5, natural cooling, with connector, with/without brake |           |                       |                  |                  |                   |                  |               |                  |                  |                |                  |                  |                                  |                  |                  |               |                  |                  |
| 20                                                                            | 1FK7011-5 | –                     |                  | 30<br>(1.18)     | 7<br>(0.28)       | 46<br>(1.81)     | 40<br>(1.57)  | 2.5<br>(0.10)    | 65.5<br>(2.58)   | 20<br>(0.79)   | 18<br>(0.71)     | 4.5<br>(0.18)    | 140<br>(5.51)                    | 89<br>(3.50)     | 118<br>(4.65)    | 140<br>(5.51) | 89<br>(3.50)     | 118<br>(4.65)    |
|                                                                               | 1FK7015-5 |                       |                  |                  |                   |                  |               |                  |                  |                |                  |                  | 165<br>(6.50)                    | 114<br>(4.49)    | 143<br>(5.63)    | 165<br>(6.50) | 114<br>(4.49)    | 143<br>(5.63)    |
| 28                                                                            | 1FK7022-5 | –                     |                  | 40<br>(1.57)     | 10<br>(0.39)      | 63<br>(2.48)     | 55<br>(2.17)  | 2.5<br>(0.10)    | 75<br>(2.95)     | 27.5<br>(1.08) | 20<br>(0.79)     | 5.4<br>(0.21)    | 153<br>(6.02)                    | 95<br>(3.74)     | 128<br>(5.04)    | 175<br>(6.89) | 95<br>(3.74)     | 150<br>(5.91)    |
|                                                                               | 1FK7032-5 |                       | 92<br>(3.62)     | 60<br>(2.36)     | 8<br>(0.31)       | 75<br>(2.95)     | 72<br>(2.83)  | 3<br>(0.12)      | 81<br>(3.19)     | 36<br>(1.42)   | 30<br>(1.18)     | 6.5<br>(0.26)    | 150<br>(5.91)                    | 90<br>(3.54)     | 125<br>(4.92)    | 175<br>(6.89) | 90<br>(3.54)     | 149<br>(5.87)    |
| 36                                                                            | 1FK7034-5 |                       |                  |                  |                   |                  |               |                  |                  |                |                  |                  | 175<br>(6.89)                    | 115<br>(4.53)    | 150<br>(5.91)    | 200<br>(7.87) | 115<br>(4.53)    | 174<br>(6.85)    |
|                                                                               | 1FK7040-5 |                       | 120<br>(4.72)    | 80<br>(3.15)     | 10<br>(0.39)      | 100<br>(3.94)    | 96<br>(3.78)  | 3<br>(0.12)      | 90<br>(3.54)     | 48<br>(1.89)   | 40<br>(1.57)     | 7<br>(0.28)      | 134<br>(5.28)                    | 73<br>(2.87)     | 106<br>(4.17)    | 163<br>(6.42) | 73<br>(2.87)     | 135<br>(5.31)    |
| 48                                                                            | 1FK7042-5 |                       |                  |                  |                   |                  |               |                  |                  |                |                  |                  | 162<br>(6.38)                    | 101<br>(3.98)    | 134<br>(5.28)    | 191<br>(7.52) | 101<br>(3.98)    | 163<br>(6.42)    |
|                                                                               | 1FK7060-5 |                       | 155<br>(6.10)    | 110<br>(4.33)    | 10<br>(0.39)      | 130<br>(5.12)    | 126<br>(4.96) | 3.5<br>(0.14)    | 105<br>(4.13)    | 63<br>(2.48)   | 50<br>(1.97)     | 9<br>(0.35)      | 157<br>(6.18)                    | 94<br>(3.70)     | 126<br>(4.96)    | 200<br>(7.87) | 94<br>(3.70)     | 169<br>(6.65)    |
| 63                                                                            | 1FK7063-5 |                       |                  |                  |                   |                  |               |                  |                  |                |                  |                  | 202<br>(7.95)                    | 139<br>(5.47)    | 171<br>(6.73)    | 245<br>(9.65) | 139<br>(5.47)    | 214<br>(8.43)    |

|              |                  | Encoder system:<br>Incremental encoder sin/cos1 V <sub>pp</sub><br>22 bit incremental encoder (2048 S/R)<br>Absolute encoder EnDat 32 S/R<br>16 bit absolute encoder (32 S/R)<br>without brake                      with brake<br>k                      o <sub>1</sub> o <sub>2</sub> k                      o <sub>1</sub> o <sub>2</sub><br>LB                      –                      –                      LB                      –                      – |                     |                     |                |                     |                     |               |                     |                     |                |                     |                     | DE shaft extension         |                     |              |                |             |
|--------------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|---------------------|----------------|---------------------|---------------------|---------------|---------------------|---------------------|----------------|---------------------|---------------------|----------------------------|---------------------|--------------|----------------|-------------|
| Shaft height | Type             | k<br>LB                                                                                                                                                                                                                                                                                                                                                                                                                                                               | o <sub>1</sub><br>– | o <sub>2</sub><br>– | k<br>LB        | o <sub>1</sub><br>– | o <sub>2</sub><br>– | k<br>LB       | o <sub>1</sub><br>– | o <sub>2</sub><br>– | k<br>LB        | o <sub>1</sub><br>– | o <sub>2</sub><br>– | <b>d</b><br><b>D</b>       | d <sub>6</sub><br>– | l<br>E       | t<br>GA        | u<br>F      |
|              |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                     |                     |                |                     |                     |               |                     |                     |                |                     |                     |                            |                     |              |                |             |
| 20           | <b>1FK7011-5</b> | 155<br>(6.10)                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 89<br>(3.50)        | 118<br>(4.65)       | 155<br>(6.10)  | 89<br>(3.50)        | 118<br>(4.65)       | 155<br>(6.10) | 89<br>(3.50)        | 118<br>(4.65)       | 155<br>(6.10)  | 89<br>(3.50)        | 118<br>(4.65)       | <b>8</b><br><b>(0.31)</b>  | –                   | 18<br>(0.71) | 8.8<br>(0.35)  | 2<br>(0.08) |
|              | <b>1FK7015-5</b> | 180<br>(7.09)                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 114<br>(4.49)       | 143<br>(5.63)       | 180<br>(7.09)  | 114<br>(4.49)       | 143<br>(5.63)       | 180<br>(7.09) | 114<br>(4.49)       | 143<br>(5.63)       | 180<br>(7.09)  | 114<br>(4.49)       | 143<br>(5.63)       |                            |                     |              |                |             |
| 28           | <b>1FK7022-5</b> | 178<br>(7.01)                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 95<br>(3.74)        | 128<br>(5.04)       | 200<br>(7.87)  | 95<br>(3.74)        | 150<br>(5.91)       | 178<br>(7.01) | 95<br>(3.74)        | 128<br>(5.04)       | 200<br>(7.87)  | 95<br>(3.74)        | 150<br>(5.91)       | <b>9</b><br><b>(0.35)</b>  | M3                  | 20<br>(0.79) | 10.2<br>(0.40) | 3<br>(0.12) |
| 36           | <b>1FK7032-5</b> | 175<br>(6.89)                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 90<br>(3.54)        | 125<br>(4.92)       | 200<br>(7.87)  | 90<br>(3.54)        | 149<br>(5.87)       | 175<br>(6.89) | 90<br>(3.54)        | 125<br>(4.92)       | 200<br>(7.87)  | 90<br>(3.54)        | 149<br>(5.87)       | <b>14</b><br><b>(0.55)</b> | M5                  | 30<br>(1.18) | 16<br>(0.63)   | 5<br>(0.20) |
|              | <b>1FK7034-5</b> | 200<br>(7.87)                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 115<br>(4.53)       | 150<br>(5.91)       | 225<br>(8.86)  | 115<br>(4.53)       | 174<br>(6.85)       | 200<br>(7.87) | 115<br>(4.53)       | 150<br>(5.91)       | 225<br>(8.86)  | 115<br>(4.53)       | 174<br>(6.85)       |                            |                     |              |                |             |
| 48           | <b>1FK7040-5</b> | 155<br>(6.10)                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 73<br>(2.87)        | 106<br>(4.17)       | 184<br>(7.24)  | 73<br>(2.87)        | 135<br>(5.31)       | 163<br>(6.42) | 73<br>(2.87)        | 106<br>(4.17)       | 192<br>(7.56)  | 73<br>(2.87)        | 135<br>(5.31)       | <b>19</b><br><b>(0.75)</b> | M6                  | 40<br>(1.57) | 21.5<br>(0.85) | 6<br>(0.24) |
|              | <b>1FK7042-5</b> | 182<br>(7.17)                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 101<br>(3.98)       | 134<br>(5.28)       | 211<br>(8.31)  | 101<br>(3.98)       | 163<br>(6.42)       | 191<br>(7.52) | 101<br>(3.98)       | 134<br>(5.28)       | 220<br>(8.66)  | 101<br>(3.98)       | 163<br>(6.42)       |                            |                     |              |                |             |
| 63           | <b>1FK7060-5</b> | 180<br>(7.09)                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 94<br>(3.70)        | 126<br>(4.96)       | 223<br>(8.78)  | 94<br>(3.70)        | 169<br>(6.65)       | 188<br>(7.40) | 94<br>(3.70)        | 126<br>(4.96)       | 231<br>(9.09)  | 94<br>(3.70)        | 169<br>(6.65)       | <b>24</b><br><b>(0.94)</b> | M8                  | 50<br>(1.97) | 27<br>(1.06)   | 8<br>(0.31) |
|              | <b>1FK7063-5</b> | 225<br>(8.86)                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 139<br>(5.47)       | 171<br>(6.73)       | 268<br>(10.55) | 139<br>(5.47)       | 214<br>(8.43)       | 233<br>(9.17) | 139<br>(5.47)       | 171<br>(6.73)       | 276<br>(10.87) | 139<br>(5.47)       | 214<br>(8.43)       |                            |                     |              |                |             |

1FK701.-5  
1FK702.-5  
1FK703.-5  
1FK704.-5  
1FK706.-5

Shaft design  
with fitted key



# Synchronous motors

## Dimension drawings

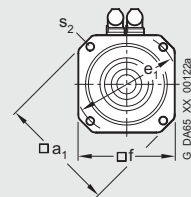
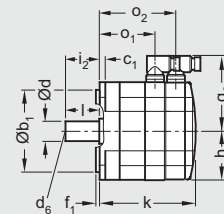
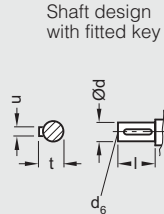
### 1FK7 Compact motors with/without DRIVE-CLiQ Natural cooling

| For motor                                                                     |           | Dimensions in mm (in) |                     |                     |                      |                     |               |                     |                     |                |                     |                     | Encoder system:<br>Resolver |                     |                     |                |                     |                     |
|-------------------------------------------------------------------------------|-----------|-----------------------|---------------------|---------------------|----------------------|---------------------|---------------|---------------------|---------------------|----------------|---------------------|---------------------|-----------------------------|---------------------|---------------------|----------------|---------------------|---------------------|
| Shaft height                                                                  | Type      | DIN IEC               | a <sub>1</sub><br>P | b <sub>1</sub><br>N | c <sub>1</sub><br>LA | e <sub>1</sub><br>M | f<br>AB       | f <sub>1</sub><br>T | g <sub>2</sub><br>– | h<br>H         | i <sub>2</sub><br>– | s <sub>2</sub><br>S | without brake               |                     |                     | with brake     |                     |                     |
|                                                                               |           |                       |                     |                     |                      |                     |               |                     |                     |                |                     |                     | k<br>LB                     | o <sub>1</sub><br>– | o <sub>2</sub><br>– | k<br>LB        | o <sub>1</sub><br>– | o <sub>2</sub><br>– |
| 1FK7 Compact, type IM B5, natural cooling, with connector, with/without brake |           |                       |                     |                     |                      |                     |               |                     |                     |                |                     |                     |                             |                     |                     |                |                     |                     |
| 80                                                                            | 1FK7080-5 |                       | 186<br>(7.32)       | 130<br>(5.12)       | 13<br>(0.51)         | 165<br>(6.50)       | 155<br>(6.10) | 3.5<br>(0.14)       | 119.5<br>(4.70)     | 77.5<br>(3.05) | 58<br>(2.28)        | 11<br>(0.43)        | 156<br>(6.14)               | 91<br>(3.58)        | 124<br>(4.88)       | 184<br>(7.24)  | 91<br>(3.58)        | 151<br>(5.94)       |
|                                                                               | 1FK7083-5 |                       |                     |                     |                      |                     |               |                     |                     |                |                     |                     | 194<br>(7.64)               | 129<br>(5.08)       | 162<br>(6.38)       | 245<br>(9.65)  | 129<br>(5.08)       | 207<br>(8.15)       |
| 100                                                                           | 1FK7100-5 |                       | 240<br>(9.45)       | 180<br>(7.09)       | 13<br>(0.51)         | 215<br>(8.46)       | 192<br>(7.56) | 4<br>(0.16)         | 138<br>(5.43)       | 96<br>(3.78)   | 80<br>(3.15)        | 14<br>(0.55)        | 185<br>(7.28)               | 113<br>(4.45)       | 153<br>(6.02)       | 204<br>(8.03)  | 113<br>(4.45)       | 172<br>(6.77)       |
|                                                                               | 1FK7101-5 |                       |                     |                     |                      |                     |               |                     |                     |                |                     |                     | 211<br>(8.31)               | 139<br>(5.47)       | 179<br>(7.05)       | 240<br>(9.45)  | 139<br>(5.47)       | 208<br>(8.19)       |
|                                                                               | 1FK7103-5 |                       |                     |                     |                      |                     |               |                     |                     |                |                     |                     | 237<br>(9.33)               | 165<br>(6.50)       | 205<br>(8.07)       | 266<br>(10.47) | 165<br>(6.50)       | 234<br>(9.21)       |
|                                                                               | 1FK7105-5 |                       |                     |                     |                      |                     |               |                     |                     |                |                     |                     | 289<br>(11.38)              | 217<br>(8.54)       | 257<br>(10.12)      | 318<br>(12.52) | 217<br>(8.54)       | 286<br>(11.26)      |

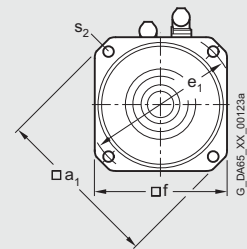
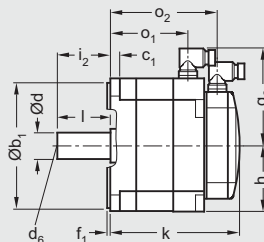
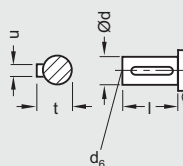
|              |           | Encoder system:<br>Incremental encoder sin/cos1 V <sub>pp</sub><br>22 bit incremental encoder (2048 S/R)<br>Absolute encoder EnDat 32 S/R<br>16 bit absolute encoder (32 S/R) |                     |                     |                |                     |                     |                |                     |                     |                |                     |                     | Absolute encoder EnDat 2048 S/R<br>22 bit absolute encoder (2048 S/R) |                     |              |              |              | DE shaft extension |  |  |  |  |
|--------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|---------------------|----------------|---------------------|---------------------|----------------|---------------------|---------------------|----------------|---------------------|---------------------|-----------------------------------------------------------------------|---------------------|--------------|--------------|--------------|--------------------|--|--|--|--|
| Shaft height | Type      | without brake                                                                                                                                                                 |                     |                     | with brake     |                     |                     | without brake  |                     |                     | with brake     |                     |                     | d<br>D                                                                | d <sub>6</sub><br>— | l<br>E       | t<br>GA      | u<br>F       |                    |  |  |  |  |
|              |           | k<br>LB                                                                                                                                                                       | o <sub>1</sub><br>— | o <sub>2</sub><br>— | k<br>LB        | o <sub>1</sub><br>— | o <sub>2</sub><br>— | k<br>LB        | o <sub>1</sub><br>— | o <sub>2</sub><br>— | k<br>LB        | o <sub>1</sub><br>— | o <sub>2</sub><br>— |                                                                       |                     |              |              |              |                    |  |  |  |  |
|              |           |                                                                                                                                                                               |                     |                     |                |                     |                     |                |                     |                     |                |                     |                     |                                                                       |                     |              |              |              |                    |  |  |  |  |
| 80           | 1FK7080-5 | 179<br>(7.05)                                                                                                                                                                 | 91<br>(3.58)        | 124<br>(4.88)       | 206<br>(8.11)  | 91<br>(3.58)        | 151<br>(5.94)       | 187<br>(7.36)  | 91<br>(3.58)        | 124<br>(4.88)       | 215<br>(8.46)  | 91<br>(3.58)        | 151<br>(5.94)       | 32<br>(1.26)                                                          | M12                 | 58<br>(2.28) | 35<br>(1.38) | 10<br>(0.39) |                    |  |  |  |  |
|              | 1FK7083-5 | 217<br>(8.54)                                                                                                                                                                 | 129<br>(5.08)       | 162<br>(6.38)       | 268<br>(10.55) | 153<br>(6.02)       | 213<br>(8.39)       | 225<br>(8.86)  | 129<br>(5.08)       | 162<br>(6.38)       | 276<br>(10.87) | 129<br>(5.08)       | 207<br>(8.15)       |                                                                       |                     |              |              |              |                    |  |  |  |  |
| 100          | 1FK7100-5 | 208<br>(8.19)                                                                                                                                                                 | 113<br>(4.45)       | 153<br>(6.02)       | 227<br>(8.94)  | 113<br>(4.45)       | 172<br>(6.77)       | 216<br>(8.50)  | 113<br>(4.45)       | 153<br>(6.02)       | 235<br>(9.25)  | 113<br>(4.45)       | 172<br>(6.77)       | 38<br>(1.50)                                                          | M12                 | 80<br>(3.15) | 41<br>(1.61) | 10<br>(0.39) |                    |  |  |  |  |
|              | 1FK7101-5 | 234<br>(9.21)                                                                                                                                                                 | 139<br>(5.47)       | 179<br>(7.05)       | 263<br>(10.35) | 139<br>(5.47)       | 208<br>(8.19)       | 242<br>(9.53)  | 139<br>(5.47)       | 179<br>(7.05)       | 271<br>(10.67) | 139<br>(5.47)       | 208<br>(8.19)       |                                                                       |                     |              |              |              |                    |  |  |  |  |
|              | 1FK7103-5 | 260<br>(10.24)                                                                                                                                                                | 165<br>(6.50)       | 205<br>(8.07)       | 289<br>(11.38) | 165<br>(6.50)       | 234<br>(9.21)       | 268<br>(10.55) | 165<br>(6.50)       | 205<br>(8.07)       | 297<br>(11.69) | 165<br>(6.50)       | 234<br>(9.21)       |                                                                       |                     |              |              |              |                    |  |  |  |  |
|              | 1FK7105-5 | 312<br>(12.28)                                                                                                                                                                | 217<br>(8.54)       | 257<br>(10.12)      | 341<br>(13.43) | 217<br>(8.54)       | 286<br>(11.26)      | 320<br>(12.60) | 217<br>(8.54)       | 257<br>(10.12)      | 349<br>(13.74) | 217<br>(8.54)       | 286<br>(11.26)      |                                                                       |                     |              |              |              |                    |  |  |  |  |

#### 1FK708 .-5

Shaft design  
with fitted key



#### 1FK7100-5 1FK7101-5 1FK7103-5 1FK7105-5



# Synchronous motors

## Dimension drawings

### 1FK7 High Dynamic motors with/without DRIVE-CLiQ Natural cooling

| For motor                                                                                 |                  |         |                     |                     |                      |                     |               |                     |                     |                |                     |                     | Encoder system:                  |                        |                         |
|-------------------------------------------------------------------------------------------|------------------|---------|---------------------|---------------------|----------------------|---------------------|---------------|---------------------|---------------------|----------------|---------------------|---------------------|----------------------------------|------------------------|-------------------------|
| Dimensions in mm (in)                                                                     |                  |         |                     |                     |                      |                     |               |                     |                     |                |                     |                     | Resolver                         |                        |                         |
|                                                                                           |                  |         |                     |                     |                      |                     |               |                     |                     |                |                     |                     | Absolute encoder EnDat 16 S/R    |                        |                         |
|                                                                                           |                  |         |                     |                     |                      |                     |               |                     |                     |                |                     |                     | 15 bit absolute encoder (16 S/R) |                        |                         |
|                                                                                           |                  |         |                     |                     |                      |                     |               |                     |                     |                |                     |                     | with/without brake               |                        |                         |
| Shaft height                                                                              | Type             | DIN IEC | a <sub>1</sub><br>P | b <sub>1</sub><br>N | c <sub>1</sub><br>LA | e <sub>1</sub><br>M | f<br>AB       | f <sub>1</sub><br>T | g <sub>2</sub><br>— | h<br>H         | i <sub>2</sub><br>— | s <sub>2</sub><br>S | k<br>LB                          | o <sub>1</sub><br>—    | o <sub>2</sub><br>—     |
| <b>1FK7 High Dynamic, type IM B5, natural cooling, with connector, with/without brake</b> |                  |         |                     |                     |                      |                     |               |                     |                     |                |                     |                     |                                  |                        |                         |
| 36                                                                                        | <b>1FK7033-7</b> |         | 92<br>(3.62)        | 60<br>(2.36)        | 8<br>(0.31)          | 75<br>(2.95)        | 72<br>(2.83)  | 3<br>(0.12)         | 78<br>(3.07)        | 36<br>(1.42)   | 30<br>(1.18)        | 6.5<br>(0.26)       | 170/195<br>(6.69/7.68)           | 108/108<br>(4.25/4.25) | 145/170<br>(5.71/6.69)  |
| 48                                                                                        | <b>1FK7043-7</b> |         | 120<br>(4.72)       | 80<br>(3.15)        | 10<br>(0.39)         | 100<br>(3.94)       | 96<br>(3.78)  | 3<br>(0.12)         | 90<br>(3.54)        | 48<br>(1.89)   | 40<br>(1.57)        | 7<br>(0.28)         | 191/220<br>(7.52/8.66)           | 130/130<br>(5.12/5.12) | 163/192<br>(6.42/7.56)  |
|                                                                                           | <b>1FK7044-7</b> |         |                     |                     |                      |                     |               |                     |                     |                |                     |                     | 216/245<br>(8.51/9.65)           | 155/155<br>(6.10/6.10) | 188/217<br>(7.40/8.54)  |
| 63                                                                                        | <b>1FK7061-7</b> |         | 155<br>(6.10)       | 110<br>(4.33)       | 10<br>(0.39)         | 130<br>(5.12)       | 126<br>(4.96) | 3.5<br>(0.14)       | 105<br>(4.13)       | 63<br>(2.48)   | 50<br>(1.97)        | 9<br>(0.35)         | 185/228<br>(7.28/8.98)           | 121/121<br>(4.76/4.76) | 153/196<br>(6.02/7.72)  |
|                                                                                           | <b>1FK7064-7</b> |         |                     |                     |                      |                     |               |                     |                     |                |                     |                     | 249/292<br>(9.80/11.50)          | 185/185<br>(7.28/7.28) | 217/260<br>(8.54/10.24) |
| 80                                                                                        | <b>1FK7085-7</b> |         | 186<br>(7.32)       | 130<br>(5.12)       | 13<br>(0.51)         | 165<br>(6.50)       | 155<br>(6.10) | 3.5<br>(0.14)       | 141.5<br>(5.57)     | 77.5<br>(3.05) | 60<br>(2.36)        | 11<br>(0.43)        | 261/303<br>(10.28/11.93)         | 192/192<br>(7.56/7.56) | 229/272<br>(9.02/10.71) |
|                                                                                           | <b>1FK7086-7</b> |         |                     |                     |                      |                     |               |                     | 140.5<br>(5.53)     |                |                     |                     |                                  |                        |                         |

|              |           |         | Encoder system:                                                                                                                                                                  |                        |                         |                                                                                                                                                                    |                        |                         | DE shaft extension |                     |              |                |              |
|--------------|-----------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|-------------------------|--------------------|---------------------|--------------|----------------|--------------|
|              |           |         | Incremental encoder sin/cos1 V <sub>pp</sub><br>22 bit incremental encoder (2048 S/R)<br>Absolute encoder EnDat 32 S/R<br>16 bit absolute encoder (32 S/R)<br>with/without brake |                        |                         | Absolute encoder EnDat 2048 S/R<br>22 bit absolute encoder (2048 S/R)<br>Absolute encoder EnDat 512 S/R<br>20 bit absolute encoder (512 S/R)<br>with/without brake |                        |                         |                    |                     |              |                |              |
| Shaft height | Type      | DIN IEC | k<br>LB                                                                                                                                                                          | o <sub>1</sub><br>—    | o <sub>2</sub><br>—     | k<br>LB                                                                                                                                                            | o <sub>1</sub><br>—    | o <sub>2</sub><br>—     | d<br>D             | d <sub>6</sub><br>— | l<br>E       | t<br>GA        | u<br>F       |
|              |           |         |                                                                                                                                                                                  |                        |                         |                                                                                                                                                                    |                        |                         |                    |                     |              |                |              |
| 36           | 1FK7033-7 |         | 194/219<br>(7.64/8.62)                                                                                                                                                           | 109/109<br>(4.29/4.29) | 144/168<br>(5.67/6.61)  | 194/219<br>(7.64/8.62)                                                                                                                                             | 109/109<br>(4.29/4.29) | 144/168<br>(5.67/6.61)  | 14<br>(0.55)       | M5                  | 30<br>(1.18) | 16<br>(0.63)   | 5<br>(0.20)  |
| 48           | 1FK7043-7 |         | 212/241<br>(8.35/9.49)                                                                                                                                                           | 130/130<br>(5.12/5.12) | 163/192<br>(6.42/7.56)  | 220/249<br>(8.66/9.80)                                                                                                                                             | 130/130<br>(5.12/5.12) | 163/192<br>(6.42/7.56)  | 19<br>(0.75)       | M6                  | 40<br>(1.57) | 21.5<br>(0.85) | 6<br>(0.24)  |
|              | 1FK7044-7 |         | 237/266<br>(9.33/10.47)                                                                                                                                                          | 155/155<br>(6.10/6.10) | 188/217<br>(7.40/8.54)  | 245/274<br>(9.65/10.79)                                                                                                                                            | 155/155<br>(6.10/6.10) | 188/217<br>(7.40/8.54)  |                    |                     |              |                |              |
| 63           | 1FK7061-7 |         | 208/251<br>(8.19/9.88)                                                                                                                                                           | 121/121<br>(4.76/4.76) | 154/197<br>(6.06/7.76)  | 217/260<br>(8.54/10.24)                                                                                                                                            | 121/121<br>(4.76/4.76) | 154/197<br>(6.06/7.76)  | 24<br>(0.94)       | M8                  | 50<br>(1.97) | 27<br>(1.06)   | 8<br>(0.31)  |
|              | 1FK7064-7 |         | 272/315<br>(10.71/12.40)                                                                                                                                                         | 185/185<br>(7.28/7.28) | 218/261<br>(8.58/10.28) | 281/324<br>(11.06/12.76)                                                                                                                                           | 185/185<br>(7.28/7.28) | 218/261<br>(8.58/10.28) |                    |                     |              |                |              |
| 80           | 1FK7085-7 |         | 283/326<br>(11.14/12.83)                                                                                                                                                         | 192/192<br>(7.56/7.56) | 229/272<br>(9.02/10.71) | 292/334<br>(11.50/13.15)                                                                                                                                           | 192/192<br>(7.56/7.56) | 229/272<br>(9.02/10.71) | 32<br>(1.26)       | M12                 | 58<br>(2.28) | 35<br>(1.38)   | 10<br>(0.39) |
|              | 1FK7086-7 |         |                                                                                                                                                                                  |                        |                         |                                                                                                                                                                    |                        |                         |                    |                     |              |                |              |

1FK703.-7  
1FK704.-7  
1FK706.-7  
1FK708.-7

Shaft design  
with fitted key

