

# ≡ Dynamic module DM3...ZR... XL with toothed belt drive

| DM        | Toothed belt drive |                                    | Axial load rating   | Positioning accuracy   | Repeating accuracy   | Acceleration                            |
|-----------|--------------------|------------------------------------|---------------------|------------------------|----------------------|-----------------------------------------|
| Size      | Stroke/R<br>[mm]   | Elongation <sup>3)</sup><br>[mm/m] | F<br>[N]            | [μm/mm]                | .../1000 mm<br>[mm]  | a <sub>max</sub><br>[m/s <sup>2</sup> ] |
| DM3.ZR... | 392                | 0.023                              | ..... <sup>1)</sup> | 200/1000 <sup>2)</sup> | ± 0.05 <sup>2)</sup> | 50.0 <sup>4)</sup>                      |

<sup>1)</sup> Depends on speed and load

<sup>2)</sup> Without considering backlash and load

<sup>3)</sup> Belt elongation/metre [mm/m] per 100 N tensile force

<sup>4)</sup> Maximum possible value; precise value for your specific application to be determined with our technical sales department

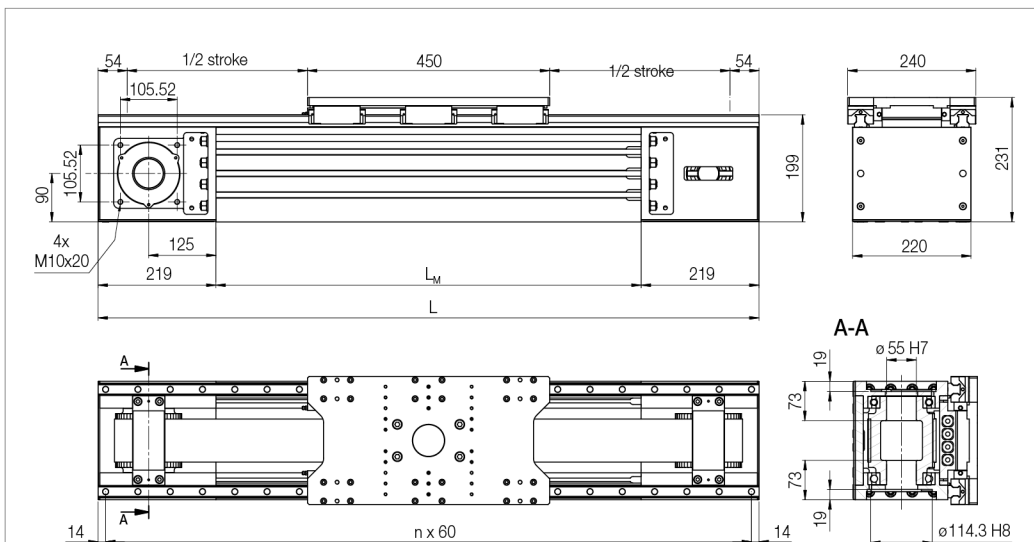
| DM                              | Travel speed                         |                                      | Area moment of inertia               |                                      | Stroke max.             | Feed and friction force | Mass transported       |
|---------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|-------------------------|-------------------------|------------------------|
| Type                            | Guide<br>v <sub>max</sub><br>[m/min] | Drive<br>v <sub>max</sub><br>[m/min] | I <sub>y</sub><br>[cm <sup>4</sup> ] | I <sub>z</sub><br>[cm <sup>4</sup> ] | [mm]                    | F <sub>V</sub><br>[N]   | m <sub>b</sub><br>[kg] |
| DM3.ZR...A/B/C... <sup>8)</sup> | 360 <sup>7)</sup>                    | <sup>5)</sup>                        | 5183                                 | 8917                                 | XL: 13050 <sup>6)</sup> | 80                      | 12.3                   |
| DM3.ZR...D/E/F... <sup>8)</sup> | 360 <sup>7)</sup>                    | <sup>5)</sup>                        | 5183                                 | 8917                                 | XL: 13050 <sup>6)</sup> | 100                     | 13.7                   |

<sup>5)</sup> Depends on load, rotation speed, and permissible travel speed of the guides

<sup>6)</sup> Longer strokes on request

<sup>7)</sup> Higher speeds on request

<sup>8)</sup> ...A/B/C... = 4 runner blocks / ...D/E/F... = 6 runner blocks



| Nominal size                    | Dimensions     |                        |                     |                                    |
|---------------------------------|----------------|------------------------|---------------------|------------------------------------|
| Designation                     | L<br>[mm]      | L <sub>M</sub><br>[mm] | Belt length<br>[mm] | Weight (excluding gearbox)<br>[kg] |
| DM3.ZR...A/B/C... <sup>1)</sup> | Stroke * + 558 | L – 438                | 2 x Stroke + 1124   | 55.1 kg + 4.63 kg/100 mm Stroke    |
| DM3.ZR...D/E/F... <sup>1)</sup> | Stroke * + 558 | L – 438                | 2 x Stroke + 1124   | 56.5 kg + 4.63 kg/100 mm Stroke    |

\* Possible strokes = 430 mm / 490 mm / 550 mm / ... every 60 mm ... / 5650 mm / 5710 mm / 5770 mm ... XL: 13050 mm

**XL** Please contact LINE TECH for  
Consulting & Engineering →

Enquiry (technical/quote)

Load ratings

Torques

| Dynamic module<br>Type          | Maximum permissible forces [kN] |              |               |               | Maximum permissible torques [Nm] |          |          |           |           |           |
|---------------------------------|---------------------------------|--------------|---------------|---------------|----------------------------------|----------|----------|-----------|-----------|-----------|
|                                 | static                          |              | dynamic       |               | static                           |          |          | dynamic   |           |           |
|                                 | $C_{y0,1,2}$                    | $C_{z0,1,2}$ | $C_{y1,2,50}$ | $C_{z1,2,50}$ | $M_{x0}$                         | $M_{y0}$ | $M_{z0}$ | $M_{x50}$ | $M_{y50}$ | $M_{z50}$ |
| DM3.ZR...A/B/C... <sup>1)</sup> | 207.7                           | 207.7        | 139.2         | 139.2         | 19730                            | 35310    | 35310    | 13220     | 23670     | 23670     |
| DM3.ZR...D/E/F... <sup>1)</sup> | 311.5                           | 311.5        | 208.8         | 208.8         | 29600                            | 35950    | 35950    | 19840     | 24470     | 24470     |

<sup>1)</sup> ...A/B/C... = 4 runner blocks / ...D/E/F... = 6 runner blocks

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