Technical datasheet

PU Linear XL Steel

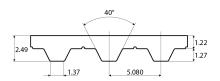
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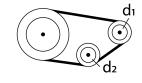
| Productgroup Timing belts, PU Linear Industry segment General industry; Containe & packaging; Paper & print Main product feature Positive drive, Wear resistant Belt construction Surface Surface Surface Dody Polyurethane back side Polyurethane Surface Surface Food Grade (FG) no Surface XL Surface Old Fat resistance yes Surface XL Surface Surface Bett width no Surface XL Surface | General information | | | | | | | |
|---|-------------------------|--------------------|--------------|------------------------|----------|-------|----------|---------|
| Industry segment General industry; Container & packaging; Paper & print Main product feature Positive drive, Wear resistant Belt construction Surface Body Polyurethane Surface tooth side Polyurethane Surface Surface Polyurethane Characteristics Polyurethane Surface <thsurface< th=""> Surface</thsurface<> | | Timing belts, PU | Linear | | | | | |
| Main product feature Positive drive, Wear resistant Beit construction Tension member Setel Material body Polyurethane Surface tooth side Polyurethane back side Polyurethane tooth side Food Grade (FG) no tooth side control tooth side Oil & Fat resistance yes tooth side tooth side Technical data Tooth profile south side South side South side Beit thickness total South side South side South side Coefficient of friction cont side to steel dynamic South side south side Operating temperature continuous from / to -10/80 °C 14/176 F Minimum pulley diameter A) without counter flexing number of teeth, ti 10 118 in. Beit width maximum umber of teeth, ti 101.6 mm 0.44 in. Beit width maximum liminum South side in the in. South side in the in. South sin. | | . . | | ckaging: Paper & print | | | | |
| Beit construction Bet construction Tension member body Polyurethane Material body Polyurethane Surface Polyurethane Surface Characteristics Surface Polyurethane Characteristics Surface Surface Surface Characteristics Surface Surface Surface Characteristics Surface Surface Surface Surface Technical data Technical data Surface Surface Surface Surface Surface Surface Surface Surface Surface Surface Surface Surface Surface Surface Surface Surface Surface Surface Technical data Surface Surface Surface Surface Surface Surface Surface Surface Surface Surface Surface Surface | | | | | | | | |
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| Material body Polyurethane Surface body Polyurethane back side Polyurethane Characteristics Polyurethane Characteristics Surface No Antistatic (AS) no No Surface Surface Oil & Fat resistance yes Surface Surface Surface Surface Surface Toth no Surface Surface Surface Surface Surface Surface Surface Continue Surface Surface Surface Toth NL Surface Surface Surface Surface Bit hickness Surface Surface Surface Surface Surface Surface Surface Surface Surface Surface Surface Surface Surface | Belt construction | | | | | | | |
| Surface tooth side oply wethane back side Poly wethane P | Tension member | | steel | | | | | |
| back side Polyurethane Characteristics Polyurethane Food Grade (FG) no Image: State St | Material | body | Polyurethane | | | | | |
| Characteristics Food Grade (F6) no Antistatic (A5) no Oil & Fat resistance yes Technical data Technical data Tooth profile XL o pitch Antistatic (A5) No 101 101 Belt thickness total Attistatic Belt thickness total Attistatic (A5) Belt thickness total XL in Belt thickness total 2.4 kg/m² 0.09 in. Belt weight Coefficient of friction total data 2.4 kg/m² 0.09 in. Coefficient of friction total data 0.09 in. Coefficient of friction total data 0.09 in. All without counter flexing number of teeth, t1 10 Operating temperature continuous frond 1.6 and | Surface | tooth side | Polyurethane | | | | | |
| Characteristics Food Grade (FG) no Antistatic (AS) no Oil & Fat resistance yes Technical data Technical data Tooth profile x no jitch 5.08 mm 0.2 in. Hardness body material S0868 Oli & 2.3 mm 0.9 ID office Belt weight Coefficient of friction tots ide to steel dynamic 0.10 / 80 °C 14 / 176 °F Minimum pulley diameter A) without counter flexing number of teeth, ttl 10 res Minimum pulley diameter A) with counter flexing number of teeth, ttl 10 res Belt with Counter flexing number of teeth, ttl 10 res 10 res Belt width maximum number of teeth, ttl 10.5 res 10.16 mm 4 in. Belt width maximum 10.16 mm 4 in. 10.6 mm 4 in. | | back side | Polyurethane | | | | | |
| Food Grade (FG) no Antistatic (AS) no Oil & Fat resistance yes Technical data Technical data Tooth profile Antistatic (AS) mm 0.0 Belt thickness total Antistatic (AS) mm 0.0 in. Belt weight Coefficient of friction total side to steel dynamic 0.0 Total mm 0.09 in. Minimum pulley diameter A) without counter flexing number of teeth, t1 10 Coefficient of and the counter flexing number of teeth, t1 10 mm 0.62 in. Belt weight Counter flexing number of teeth, t1 10 mm 0.62 in. Belt weight Counter flexing number of teeth, t1 10 mm 0.62 in. Belt width B) with counter flexing number of teeth, t1 10 mm 0.62 in. Belt weight Counter flexing number of teeth, t1 10 mm 0.62 in. Belt width maximum Counter flexing num | | | , | | | | | |
| Antistatic (A) 01 & Fat resistance no Ves Ves Technical data Tooth profile X 0 1 Mardness body material ISO 868 0 928 Shore 0 Belt thickness total 0.01 0.02 in. 1 | Characteristics | | | | | | | |
| Yes Technical data Tooth profile XL | Food Grade (FG) | no | | | | | | |
| Technical data Tooth profile XL Mathematical state hardness body material ISO 868 920 Shore in. Belt thickness total 2.3 mm 0.09 in. Belt weight 000 0.01 2.4 kg/m² 0.49 lbs/ft² Coefficient of friction tooth side to steel dynamic 0,5 14 / 176 °F Minimum pulley diameter A) without counter flexing number of teeth, t1 10 14 / 176 °F Be) with counter flexing number of teeth, t1 10 0.62 in. Belt width B) with counter flexing number of teeth, t1 15 11.18 in. Generation 101.6 mm 0.92 in. in. in. Generation 101.6 mm 1.18 in. in. in. Generation 101.6 mm 1.18 in. in. in. Generation 101.6 mm 1.18 in. in. in. Generation 101.6 mm | Antistatic (AS) | no | | | | | | |
| Toothprofilenon-NLNLNLNLpitch0.040.05.08mm0.0.2in.Hardness body materialISO 8680.040.02Shore0.09in.Belt thicknesstotal0.040.09in.0.09in.Belt weighttotal0.040.040.09in.0.09in.Coefficient of frictiontooth side to steeldynamic0.050000Operating temperaturecontinuous0.01from / to0.08000 <th>Oil & Fat resistance</th> <th>yes</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> | Oil & Fat resistance | yes | | | | | | |
| Toothprofilenon-NLNLNLNLpitch0.040.05.08mm0.0.2in.Hardness body materialISO 8680.040.02Shore0.09in.Belt thicknesstotal0.040.09in.0.09in.Belt weighttotal0.040.040.09in.0.09in.Coefficient of frictiontooth side to steeldynamic0.050000Operating temperaturecontinuous0.01from / to0.08000 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> | | | | | | | | |
| inch marking hardness body materialpichinch soldinch | Technical data | | | | | | | |
| Hardness body materialISO 868Iso 868 <th< th=""><th>Tooth</th><th>profile</th><th></th><th></th><th>XL</th><th></th><th></th><th></th></th<> | Tooth | profile | | | XL | | | |
| Belt thicknesstotaltotalmm0.09iBelt weightImage: Construction of frictiontooth side to steeldynamic0.2.4kg/m20.4.9bs/ft2Coefficient of frictiontooth side to steeldynamic0.5Image: Construction14/176FOperating temperaturecontinuousfrom/ to-10/80C14/176FMinimum pulley diameterA) without counter flexingnumber of teeth, ti100Image: ConstructionFImage: Construction of teeth, tiImage: Construction of teeth, ti15.66mm0.62in.Image: Construction of teeth, tiImage: Construction of teeth, tiImage | | pitch | | | 5.08 | mm | 0.2 | in. |
| Belt weightinformationinformatio | Hardness body material | ISO 868 | | | 92A | Shore | | |
| Coefficient of frictiontooth side to steeldynamicdynamic0,5ininOperating temperaturecontinuousfrom/to-10/80°C14/176°FMinimum pulley diameterA) without counter flexingnumber of teeth, t110°C14/176°FMinimum pulley diameterA) without counter flexingnumber of teeth, t110°C14/176°FMinimum pulley diameterB) with counter flexingnumber of teeth, t110°C11.18in.Minimum pulley diameterB) with counter flexingnumber of teeth, t115°C14/176in.Minimum pulley diameterB) with counter flexingnumber of teeth, t115°C11.18in.Minimum pulley diameterGo mm0.94in.11.18in.in.Minimum pulley diametermaximumGo mm101.6mm4in.Minimum pulley diametermaximumGo minimum15.65mm19.69in. | Belt thickness | total | | | 2.3 | mm | 0.09 | in. |
| Operating temperaturecontinuousfrom / to-10 / 80°C14 / 176°FMinimum pulley diameterA) without counter flexingnumber of teeth, t110Image: ContinuousImage: Continuous <t< th=""><th>Belt weight</th><th></th><th></th><th></th><th>2.4</th><th>kg/m²</th><th>0.49</th><th>lbs/ft²</th></t<> | Belt weight | | | | 2.4 | kg/m² | 0.49 | lbs/ft² |
| Minimum pulley diameterA) without counter flexingnumber of teeth, t110Image: constraint of teeth, t1Minimum pulley diameterA) without counter flexingnumber of teeth, t115.66mm0.62in.B) with counter flexingnumber of teeth, t115Image: constraint of teeth, t115Image: constraint of teeth, t115B) with counter flexingnumber of teeth, t115Image: constraint of teeth, t115Image: constraint of teeth, t115Belt widthmaximumconstraint of teeth, t1101.6mm1.18in.Belt widthmaximumconstraint of teeth, t1101.6mm4in.Indless lengthminimumconstraint of teeth, t2500mm19.69in. | Coefficient of friction | tooth side to stee | el | dynamic | 0,5 | | | |
| And the second | Operating temperature | continuous | | from / to | -10 / 80 | °C | 14 / 176 | °F |
| And the second | Minimum pulley diameter | A) without count | er flexing | number of teeth, t1 | 10 | | | |
| B) with counter flexing number of teeth, t1 15 000000000000000000000000000000000000 | | | | d1 | 15.66 | mm | 0.62 | in. |
| Belt width maximum maximum 0.94 in. Endless length minimum 101.6 mm 4 in. | | | | d2 | 30 | mm | 1.18 | in. |
| d2 30 mm 1.18 in. Belt width maximum 101.6 mm 4 in. Endless length minimum 500 mm 19.69 in. | | B) with counter f | lexing | number of teeth, t1 | 15 | | | |
| Belt width maximum 101.6 mm 4 in. Endless length minimum 500 mm 19.69 in. | | | | d1 | 23.75 | mm | 0.94 | in. |
| Endless length minimum 500 mm 19.69 in. | | | | d2 | 30 | mm | 1.18 | in. |
| | Belt width | maximum | | | 101.6 | mm | 4 | in. |
| Manufacturing length standard 10000 mm 328.08 ft. | Endless length | minimum | | | 500 | mm | 19.69 | in. |
| | Manufacturing length | standard | | | 100000 | mm | 328.08 | ft. |

Reference images

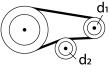
Side view



A) without counter flexing



B) with counter flexing



Fabrication

This information on the fabrication options is general, please contact Ammeraal Beltech for the specific fabrication possibilities of the timing belt of your choice.

Open end, prepared splice, spliced endless with mechanical fastener or a pin joint fastener.

Cleats welded or mechanically attached, metal teeth, guides welded or glued.

Covers can be welded, glued, coated or vulkanized onto the back side of the timing belt.

Thermoplastic covers can be embossed. Perforations, lateral and logitudinal slots, lateral and longitudinal profiles.

Additional Information

Tooth profile according to standard: metric ISO 17396 , imperial ISO 5296-1, curvilinear ISO 13050, depending on the belt type.

This sheet contains typical values, which apply to a temperature of approx. 20 °C (68 °F), unless otherwise stated, individual data may differ. Consult our specialists for further information like technical calculations. Instructions regarding joining, storage & maintenance and tracking & tensioning.

| Standard belt width [mm] | Allow. tensile load Linear open end & Torque [N] | Allow. tensile load Linear welded endless [N] | Spring force [N] |
|--------------------------|--|---|------------------|
| 6.35 | 180 | 90 | 45000 |
| 7.94 | 210 | 105 | 52500 |
| 9.53 | 270 | 135 | 67500 |
| 12.7 | 360 | 180 | 90000 |
| 19.1 | 570 | 285 | 142500 |
| 25.4 | 750 | 375 | 187500 |
| 38.1 | 1140 | 570 | 285000 |
| 50.81 | 1500 | 750 | 375000 |

| Speed rpm [1/min] | Specific tooth force [N/mm] | Specific power [W/mm] |
|-------------------|--------------------------------|-----------------------|
| 0 | 2.51 | 0 |
| 25 | 2.42 | 0.005 |
| 50 | 2.366 | 0.01 |
| 75 | 2.321 | 0.015 |
| 100 | 2.263 | 0.019 |
| 150 | 2.193 | 0.028 |
| 200 | 2.124 | 0.036 |
| 300 | 2.022 | 0.051 |
| 400 | 1.942 | 0.066 |
| 500 | 1.877 | 0.079 |
| 750 | 1.753 | 0.111 |
| 1000 | 1.665 | 0.141 |
| 1250 | 1.587 | 0.168 |
| 1500 | 1.526 | 0.194 |
| 1750 | 1.474 | 0.218 |
| 2000 | 1.428 | 0.242 |
| 3000 | 1.288 | 0.327 |
| 4000 | 1.187 | 0.402 |

Standard

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