



**Customer: Lenze BO**

Contacts: Lenze

Phone:

E-mail:

**Project:**

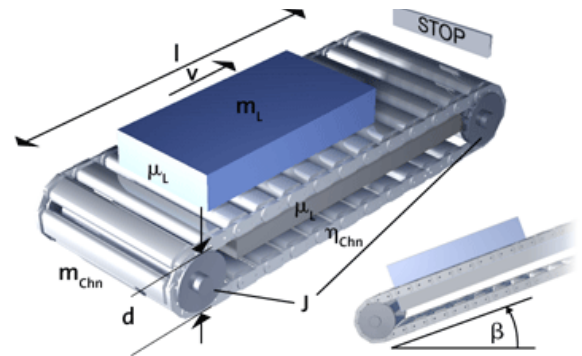
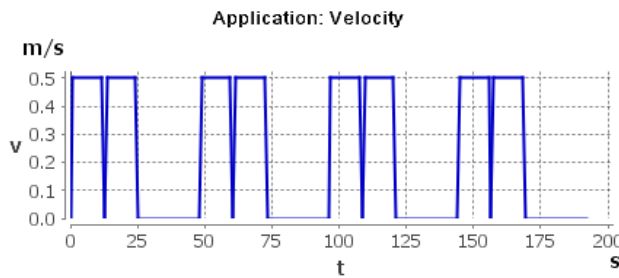
Drive axis: Kettenförderer 2000kg, 0,5 ms<sup>-2</sup> 0,5ms<sup>2</sup>

**Chain conveyor**

Diameter of the drive roll	d	91.0 mm
Mass of the chain	m <sub>chn</sub>	13.0 kg
Coefficient of friction chain/bearing	μ <sub>Gdn</sub>	0.120
Chain efficiency	η <sub>chn</sub>	0.950
Additional force	F <sub>add</sub>	0 N
Angle of tilt	β	0 °
Coefficient of friction of load/chain		
Moment of inertia of rollers	J <sub>sum</sub>	2.64E-03 kgm <sup>2</sup>

**Kinematic key data**

Cycle time	t	192 s
Max. velocity	v <sub>max</sub>	0.500 m/s
Max. acceleration	a <sub>max</sub>	0.500 m/s <sup>2</sup>
Max. mass in motion	m <sub>sum,max</sub>	4013 kg



**Electrical supply and ambient conditions**

Electrical supply system

Max. motor/inverter ambient temperature

Site altitude

	3AC 400 V 50 Hz
θ <sub>opr</sub>	30 °C / 40 °C
h	1000 m

**Calculated requirement of the application**

Max. working point

Effective base process power of the application

Moment of inertia application

Max. load-matching factor

opr <sub>max</sub>	105 1/min / 547 Nm / 3.54 kW
P <sub>rms,cto</sub>	1.33 kW
J <sub>min</sub> / J <sub>max</sub>	0.0296 kgm <sup>2</sup> / 8.31 kgm <sup>2</sup>
K <sub>J,max</sub>	4.6

**Selected products**

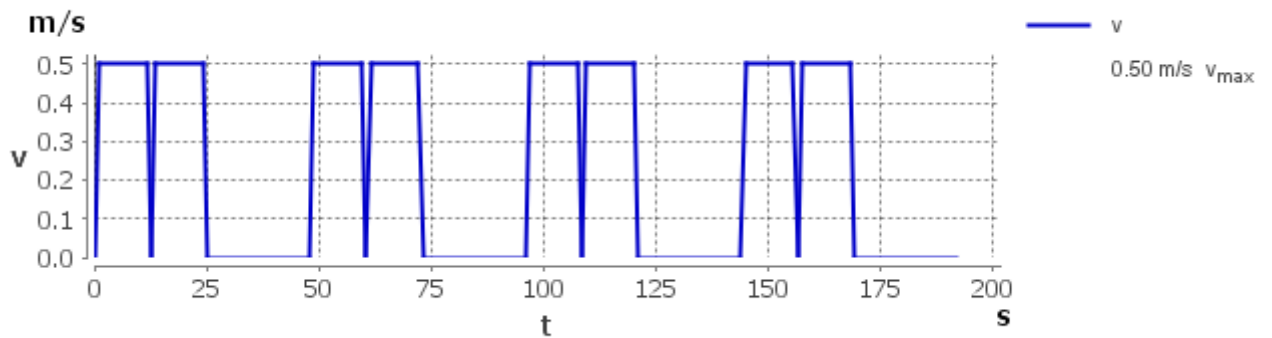
**Rated data**

**Utilisation**

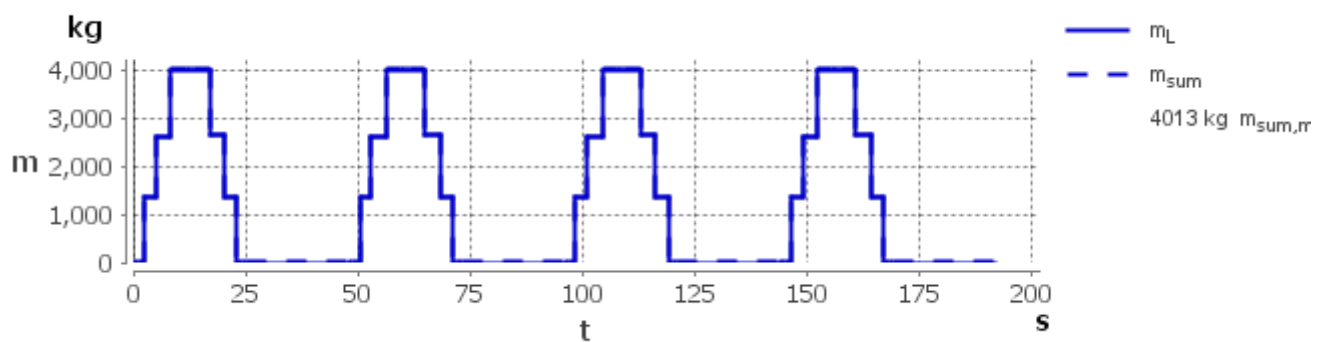
				Thermal	Maximum
Motor	1 x m550 P90L4				
	P <sub>N</sub> , n <sub>N</sub> , M <sub>N</sub>	2.6 kW / 2552 1/min / 9.9 Nm	M	57 %	
Gearboxes	1 x g500-S400 (Direct mounting)				
	i <sub>G</sub> , M <sub>per,out</sub>	22.4000 / 400 Nm	M	45 %	137 %
			n	32 %	52 %
Inverters	1 x E84DGxxB3024				
	I <sub>N</sub> , I <sub>max</sub>	7.30 A / 14.6 A	I	77 %	85 %
Integrated brake transistor			P	3.E-05 %	0.04 %
Electromechanical brake	without brake				
Feedback	without				



Application: Velocity



Application: Mass in motion



Application: Counterforce

