



Customer: Lenze BO

Contacts: Lenze
Phone:
E-mail:

Project:

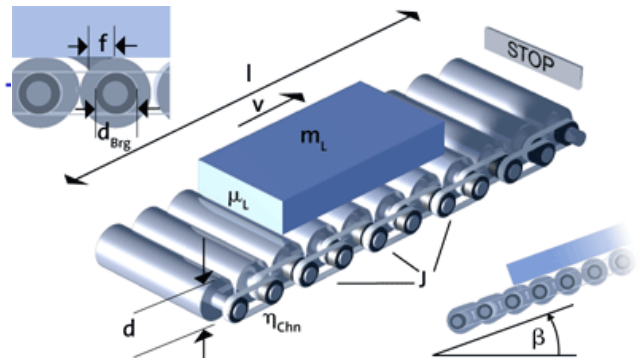
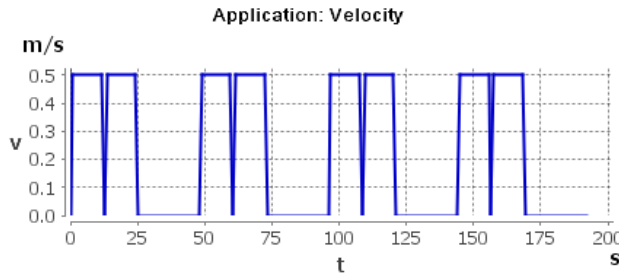
Drive axis: Rollenförderer 3000kg 0,5m/s 0,5m/s²

Roller conveyor

Diameter of the transport rolls	d	89.0 mm
Leverage of rolling friction	f	1.20 mm
Chain efficiency	η_{Chn}	0.990
Bearing diameter	d_{Brg}	100 mm
Number of wrapped chain turns	N_{Chn}	26
Moment of inertia of transport rollers	J	1.00E-04 kgm ²
Angle of tilt	β	0 °
Coefficient of friction of load/roll		
Coefficient of friction of the bearing	μ_{Brg}	2.00E-03

Kinematic key data

Cycle time	t	192 s
Max. velocity	v_{max}	0.500 m/s
Max. acceleration	a_{max}	0.500 m/s ²
Max. mass in motion	$m_{\text{sum,max}}$	4000 kg



Electrical supply and ambient conditions

Electrical supply system		3AC 400 V 50 Hz
Max. motor/inverter ambient temperature	ϑ_{opr}	30 °C / 40 °C
Site altitude	h	1000 m

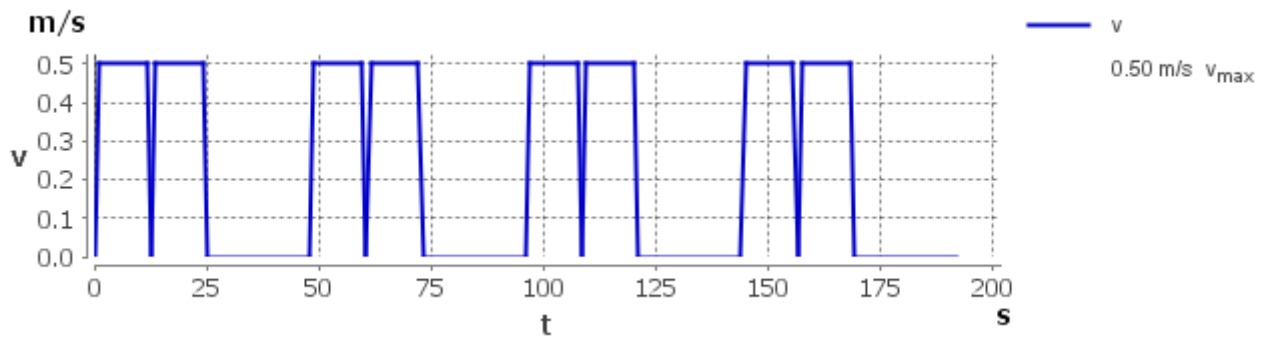
Calculated requirement of the application

Max. working point	opr_{max}	107 1/min / 182 Nm / 2.04 kW
Effective base process power of the application	$P_{\text{rms,cto}}$	0.462 kW
Moment of inertia application	$J_{\text{min}} / J_{\text{max}}$	1.00E-04 kgm ² / 7.92 kgm ²
Max. load-matching factor	$k_{J,\text{max}}$	6.1

Selected products	Rated data	Utilisation	
		Thermal	Maximum
Motor	1 x MSEMXX080-32 P_N, n_N, M_N	43 %	
Gearboxes	1 x g500-B240 (Direct mounting)		
	$i_G, M_{\text{per,out}}$	25 %	76 %
Additional drive element	1 x Chain --- ($i=1.07$)	27 %	53 %
Integrated brake transistor			
Brake resistor	1 x 20W / 390Ω		
Electromechanical brake	without brake		
Feedback	without		



Application: Velocity



Application: Mass in motion

