



**Customer: Lenze BO**

Contacts: Lenze

Phone:

E-mail:

**Project:**

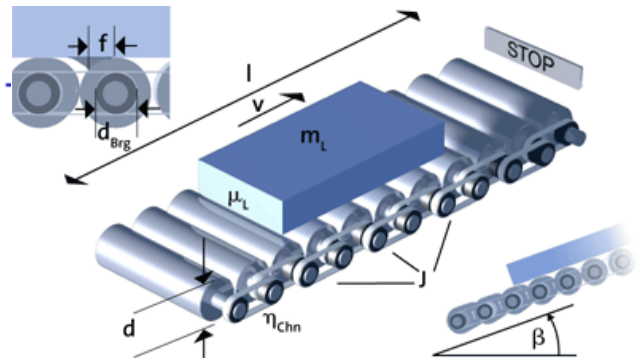
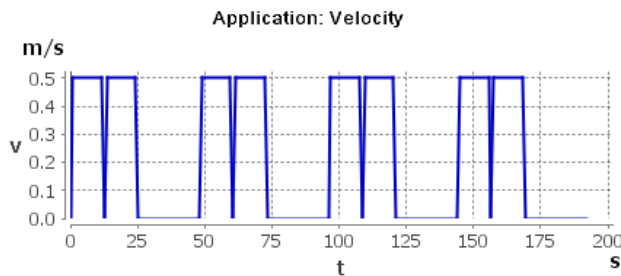
Drive axis: Rollenförderer 3000kg 0,5m/s 0,5m/s<sup>2</sup>

**Roller conveyor**

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

**Kinematic key data**

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



**Electrical supply and ambient conditions**

Electrical supply system

Max. motor/inverter ambient temperature

Site altitude

	$\vartheta_{\text{opr}}$	3AC 400 V 50 Hz
	h	30 °C / 40 °C
		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

	$opr_{\text{max}}$	107 1/min / 182 Nm / 2.04 kW
	$P_{\text{rms,cto}}$	0.462 kW
	$J_{\text{min}} / J_{\text{max}}$	1.00E-04 kgm <sup>2</sup> / 7.92 kgm <sup>2</sup>
	$k_{J,\text{max}}$	6.1

**Selected products**

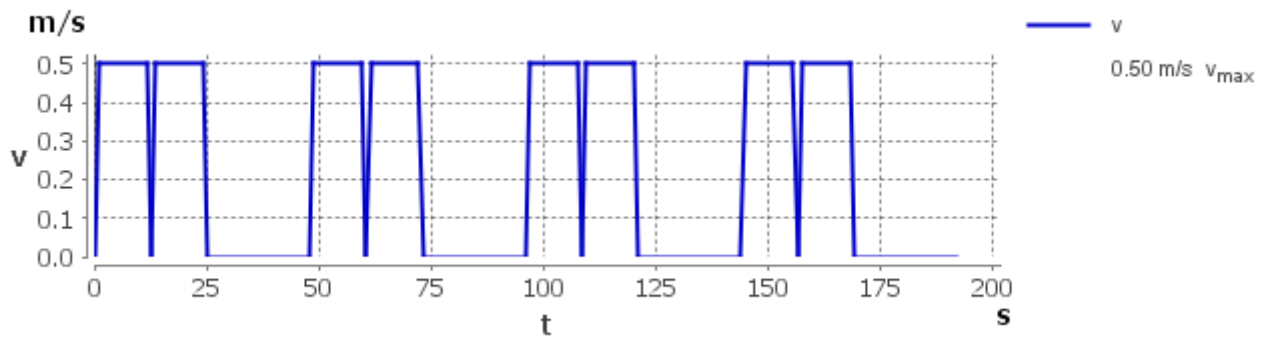
**Rated data**

**Utilisation**  
Thermal      Maximum

Selected products	Rated data	Thermal	Maximum
Motor	1 x MSEMXX080-32		
	$P_N, n_N, M_N$	41 %	
Gearboxes	1 x g500-H320 (Direct mounting)		
	$i_G, M_{\text{per,out}}$	20 %	61 %
		27 %	53 %
Additional drive element	1 x Chain --- (i=1.07)		
Integrated brake transistor			
Brake resistor	1 x 20W / 390Ω		
Electromechanical brake	without brake		
Feedback	without		



Application: Velocity



Application: Mass in motion

