

Belt conveyors feature large capacity, high gradability, low operating cost, and convenient use and maintenance, and facilitate automated control of the conveying system.

- b) Fixed belt conveyors are designed according to component series and the process route. The model selection, design, calculation, and assembly should accord to different landforms and working conditions. The manufacturer should produce and supply products according to the general plan or the list of components. The designer should be responsible for the performance of the entire machine. The manufacturer should be responsible for the performance and quality of the components.

This series of products can satisfy the level and elevation conditions. A conveying pattern which combines convex arc segments, concave arc segments, and linear segments may be used.

3.2 Technical parameters

Table 1: Schedule of basic parameters of belt conveyors

Equipment title		CVY-501A/B	CVY-502A/B	CVY-505/506	CVY-507A/B	CVY-508A/B	Remark
Belt width B (mm)		1600	1600	1600	1400	1400	
Belt speed V (m/s)		3.3	3.3	3.3	3.15	3.15	
Rated capacity (t/h)		2500	2500	2500	1700	1700	
Drive power (kW)		250	2*400	2*250	160	280	
Voltage(V)		10000	3000	3000	3000	3000	
Horizontal center distance Lh (m)	For A	388.098	1764.329	586.9	78.18	633.55	
	For B	386.102	1764.918				
Belt Length L (m)	For A	789	3586	1258	176	1283	
	For B	785	3588	1258	176	1283	
Max. inclination α (°)		10	8	12	13	8	
Lifting height H (m)		8.05	10.60	10.80	15.70	11.50	
Conveying direction		Single	Single	Single	Single	Single	
Belt Type		ST630	ST1000	ST800	EP150/5P	ST630	
Qty.		Dual-lines	Dual-lines	Dual-lines	Dual-lines	Dual-lines	

Equipment title	CVY-509A/B	TCVY-512A/B	CVY-513 A/B	CVY-515A/B	CVY-516A /B	Remark
Belt width B (mm)	1400	1850	1400	1400	1400	
Belt speed V (m/s)	3.15	4.4	3.15	3.15	3.15	
Rated capacity Q (t/h)	1700	1700	1700	1700	1700	
Drive power (kW)	160	3*450	200	2*280	250	
Voltage(V)	3000	3000	3000	3000	3000	
Horizontal length (m)	For A	301.858	1212.254	159.575	367.4	250.65
	For B	303.982	1210.342	163.695		
Belt Length L (m)	For A	624	2535	338	811	547
	For B	627	2531	347	811	547
Max. inclination $\alpha(^{\circ})$	15	9	13.42	9	15	
Lifting height H (m)	7.45	8.826	19.21	56.25	18.90	
Conveying direction	Single	Single	Single	Single	Single	
Belt Type	EP150/5P	EP300/5P	EP150/5P	EP250/5P	EP150/5P	
Qty.	Dual-lines	Dual-lines	Dual-lines	Dual-lines	Dual-lines	

Chapter 4 Components Introduction

4.1 Overall arrangement of machine

See the following figure 1 for the arrangement of all belt conveyors in the project:

