The Institute of Materials Handling

Client logo

Data sheet Belt conveyor

Project name
Project no.
Tag no.
Tag description

Document no.
Revision no.
P&ID no.
Status

	Originator	Date	Checked by	Date
Process				
Mechanical				
Electrical				
	Approved by	**Date**	**Professional registration no.**	
Client (if applicable)				
Lead engineer				

General information

Corrosion protection	Reference drawing no.
Engineering specifications	Service
Installation	

Remarks

Site

Altitude(AMSL)		m	Location		
Ambient temperature maximum		°C	Rainfall		mm/y
Ambient temperature minimum		°C	Wind velocity		km/h
Barometric pressure		kPa	Humidity		%
Underground atmospheric classification			Class	Division	

Process

Material handled					
Capacity maximum		tph	Particle density		kg/m^3
Capacity normal		tph	Bulk density		kg/m^3
Temperature		^oC	Particle shape		
Feed from static head			Angle of repose		degree
Drop height		mm	Angle of surcharge		degree
Feed type	intermittent/continuous		Moisture content (free)		%m/m
Covered	yes/no		Particle size maximum		mm
No. of feed points			Particle size median		mm
			Particle size minimum		mm
Material characteristics					
Abrasive	yes/no		Erosive	yes/no	
Combustible	yes/no		Flowability	free/poor/sticky	
Corrosive	yes/no		Friable	yes/no	
Dusty	yes/no		Hygroscopic	yes/no	
Explosive	yes/no		Toxic	yes/no	
Conveyor containment					
Dust tight			Enclosed		

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Mechanical

Design data			
Maximum capacity	tph	Horizontal pulley centres	mm
Maximum temperature	°C	Angle of inclination	degree
Maximum loading	%	Troughing angle	degree
Belt speed maximum	m/s	Slope at feed point	degree
Belt speed minimum	m/s	Idler spacing carrying	mm
Belt width	mm	Idler spacing return	mm
Belt length	mm	Idler spacing loading point	mm
Height of lift / fall	mm	Power absorbed	kW
Information to be supplied by the vendor			
Belt data			
Manufacturer		Breaker strip	
Minimum top / bottom cover		Edge cut	
Tension maximum operating	N	Material carcase	
Tension rated	N	Material cover	
Minimum no. of plies		Rip stop	
Maximum no. of plies		Splice mechanical	
Total length	mm		
Belt cleaning data			
Cleaner locations		Cleaner disposal	
Cleaner types			
Pulley data			
Angle of belt wrap on drive pulley	degree	Bearings type	
Drive bearings diameter	mm	Bearings centers	mm
		Tail bearings diameter	mm

Pulley materials of construction

	Material	Thickness
Shell		mm
Discharge		mm
Shaft		

Pulley diameter			
Drive pulley diameter	mm	Tail diameter pulley	mm
Drive pulley shaft diameter	mm	Tail pulley shaft diameter	mm
Drive pulley profile		Tail pulley profile	
Drive pulley width	mm		
Take up data		**Idlers data**	
Travel	mm	Carrying	
Location		Carrying training	
Ballast mass	kg	Impact	
Ballast type for gravity		Return	
Gross mass	kg	Return training	
Supplied by		Transition	

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Chain drive data		**V-belt data**	
Casing dust tight		Antistatic	
Chain drive casing		Guards type	
No. of strands		Overload protection	
No. of teeth drive sprocket		Pitch diameter	mm
Service factor		Pitch drive pulley	mm
Size	mm	Pitch driven pulley	mm
		Section	
		Service factor	
Supporting structure data			
Enclosure		Walkway required	
Guards location		Walkway placing	
Minimum section	mm	Supporting structure type	
Minimum stringer	mm	Windhoops	
Drive data			
Type			
Gear reducer data			
Manufacturer		Base type	
Output speed	rpm	Casing material	
Power rating	kW	Input/output ratio	
Size	mm	Service factor	
Type			
Coupling data			
Gearbox manufacturer			
Gearbox input		Gearbox output	
Fitted by		Fitted by	
Size	mm	Size	mm
Supplied by		Supplied by	
Type		Type	

Electrical

System information			
Supply voltage	V	Type of system earthing	
Voltage variations	V	Area classification (SABS 0108)	
Maximum voltage unbalance	%	Hazardous gas/dust	
Total voltage harmonic content	%	Cable size	mm^2
Supply frequency	Hz	Cable type	
Variable speed	yes/no		
Temperature classification of gas/dust			

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Data to be supplied by vendor			
Manufacturer		Equivalent circuit	
Frame size		Winding connection	
Year of manufacture		Insulation class	
Serial number		Insulation type	
Rating	kW	Method of cooling (IC Code)	
Full load current	A	Method of mounting (IM Code)	
Class of rating (IEC 60034-1 class 4 2)		Lubricant type/grade	
Enclosure classification IP code		Type of explosion protection	
Power factor at 100% load		Efficiency at 100% load	%
Power factor at 75% load		Efficiency at 75% load	%
Power factor at 50% load		Efficiency at 50% load	%
Temperature rise	^{o}C	Break away torque	Nm
Locked rotor current	A	Pull out torque	Nm
Locked rotor power factor		Pull up torque	Nm
Locked rotor withstand time cold	s	Full load torque	Nm
Locked rotor withstand time warm	s	Moment of inertia of load (MIL)	kg/m^2
Allowable no. of starts per hour cold		Moment of inertia of motor rotor	kg/m^2
Allowable no. of starts per hour warm		MIL referred to motor shaft	kg/m^2
Maximum thrust continuous (down)		Temperature rating	
Maximum thrust momentary (down)		Sound intensity	db
Type of bearing non-drive end		Type of bearing drive end	
Direction of rotation viewed from non-drive end			
Terminal box position viewed from non-drive end			
Speed vs. torque curve at full volts required			
Speed vs. torque curve at 85% full volts required			
Speed vs. current curve at full volts required			
Speed vs. current curve at 85% full volts required			
Speed vs. power curve at full volts required			
Speed vs. power curve at 85% full volts required			
Inspection & testing			
Electrical			
Shop inspection required		Type test	
Routine test			

Shipping & installation

Information to be supplied by vendor shipping and installation			
Heaviest lift	kg	Overall height	mm
Heaviest maintenance lift	kg	Overall length	mm
Weight driver	kg	Overall width	mm
Maximum foundation loading	kg	Total shipping weight	kg
Net weight	kg	Total shipping volume	m^3
Operating weight	kg		