DOORspec Solutions Inc



Belt Drive Type Side Door Operator External Sliding Doors



Product Background

The Belt Drive Type Door electric operator for External Sliding passenger doors is specifically designed for use in rapid operation, high passenger density environments such as mass transit metro vehicles. The door suspension and belt drive system is mounted outside of the car structure just above the door panels and DOORspec can tailor the layout of the suspension and drive belt system to adapt to any vehicle cantrail layout.

The door operating mechanism, installed inside the car, is comprised of an electric motor and gearbox unit driving the belt system through the cantrail, an unlocking mechanism and the system control ECU. All these components are linked together by a wiring harness connected to the TMS.

The design provides the following features:

- Reduced force push back
- Obstacle detection
- Internal and external Emergency release
- Crew access switches
- Fault Diagnostics
- Communications Link with TMS
- Audible and visual door close warning
- Monitoring and diagnostics on PC

Specifications

Operation:	Electric I
Control:	Electroni
Input Voltage:	24, 36, 4
Power Consumption:	60 W (R
Opening Time:	Adjustab
Closing Time:	Adjustab
Clear Opening:	Up to 15
System Weight:	30 to 40

Electric Motor Drive Electronic Control Unit (ECU) 24, 36, 48 and 110 Vdc 60 W (Run) / 220 W (Peak) Adjustable from 2.0 sec. and up Adjustable from 3.0 sec. and up Up to 1500 mm (Width) 30 to 40 Kg

Construction

The door operator complete with ECU is supplied with a fully assembled external suspension and belt drive system and factory tested ready for inside installation above the doorway motor gearbox and door unlocking system.

Drive Motor:	"Step free" permanent magnet with position encoder
Microprocessor:	Multi-Layer PCB of the latest surface mounting Technology
Suspension	External mounted above door panels hard anodized "C" track and molded polyurethane roller system.
Drive System:	Lubrication free belt and pulleys System
Locking System:	Activated by Door Movement and Released by Solenoid
Obstacle Detection:	Encoder counts and ECU Current Monitoring system
Wiring:	Low smoke, low halogen cable for all wiring within the door operator
Interlocks:	Switches for Closed and Locked Indication

Tested To

Shock and Vibration	RIA 20
Climate Conditions	RIA 13
EMC	RIA 18
Cycling Endurance	2 million operations

Typical Belt Drive Side Door Operator Systems







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