

## ASWD Wheel Disc Sorter

Gearless  
BLDC  
Motors

up to  
9 modules

Plug and  
Play

AS DUAL  
24 V I.O.

Stepper  
Drives

48 V  
960 Watt

### Intended Use

AS has developed a Wheel Disc Sorter module that can allow easy integration of sorting applications. The Wheel Disc Sorter is applicable in almost any application and at every angle.

### Common applications

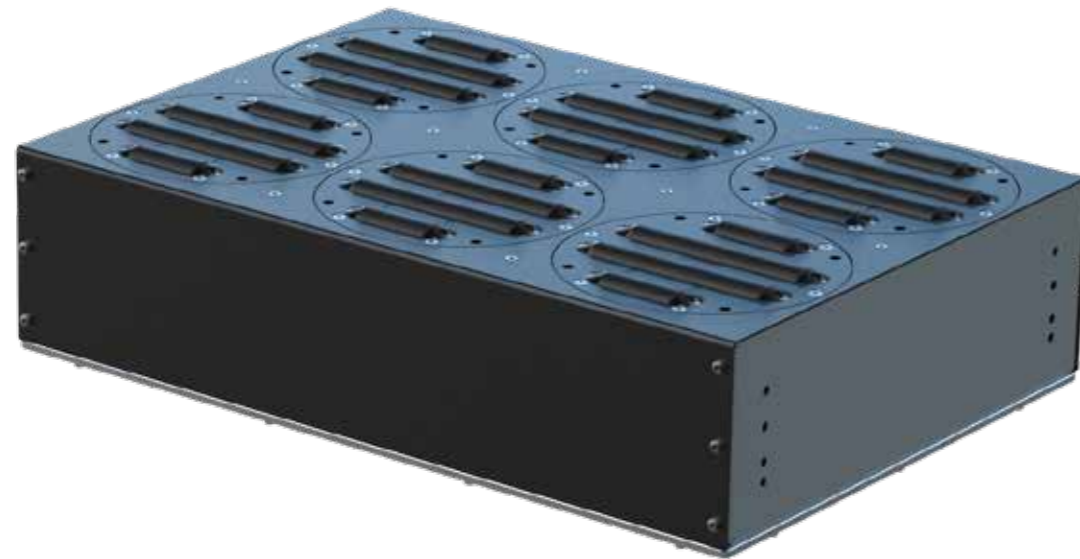
- High Speed Sorting
- Large product weight range
- Workstations
- Singulation

### Designed for the future

AS Wheel Disc Sorter modules are developed by AS in order to meet today's and tomorrow's application areas.

Operational specifications and state of the art features.

- Upgradable firmware
- Independent disc control
- Ultra low noise
- Auto calibration



### Scope of delivery

Our Wheel Disc Sorter requires the below components to function correctly, you are however free to use other components if they are compatible with our technology platform.

	Information	Specifications	Details
1	AS WD Controller	Controls up to 9 Sorter Modules	- 960 Watt max Included *
2	AS WD Module	Single Sorter Module	48 VDC, rotation + transport - Included *
3	Control Box	Control Box for I.O. control	Controls and powers up to 9 discs - Included
4	WD Mounting plate	Aluminum mounting plate	6 mm Clear Aluminium - Included
5	WD Covers	2 mm powder coated covers	RAL 9005 Black Matt - Included
6	Cable Set	Internal Cables   Control Cable	Euro Plug   M8 4-pin - Included
7	48 V PSU	48V 20A Power Supply	960 Watt - Included

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### Technical Specifications

#### ASWD | Wheel Disc Sorter

Required Controllers	AS Dual or AS Quatro in combination with WD Controller
Power Input	48VDC 20A
Power consumption (Rated)	100 W per disc at 2.5 m/s
Module Connector	6-pin Molex connector <sup>1</sup>
I.O. Connector	4-pin M8 [1x] <sup>2</sup>
Emergency connector	Yes 3-pin Snap-in connector
Overvoltage protection	Only in combination with AS Dual and AS Quatro controllers
Protection rate	IP 54
Motor types	AS Integrated Solution   AS Sorter Module
Drive types	Gearless BLDC motor for transportation  Stepper Motor for rotation
Certifications	CE   ETL <sup>3</sup>
Minimum and Maximum Speed	Min Speed 0.5 m/s   Max Speed 2.5 m/s
Standard Configuration	3.000 products per hour at 35 kg   600 x 480 x 240 mm max package size <sup>4</sup>
High Speed Configuration	5.000 products per hour at 25 kg   480 x 480 x 240 mm max package size <sup>4</sup>
Sortable items	Cartons   Plastic Crates   Bags
Minimum item size	150 x 150 mm
Minimum and Maximum item weight	Minimum item weight: 100 g   Maximum item weight: 35 kg

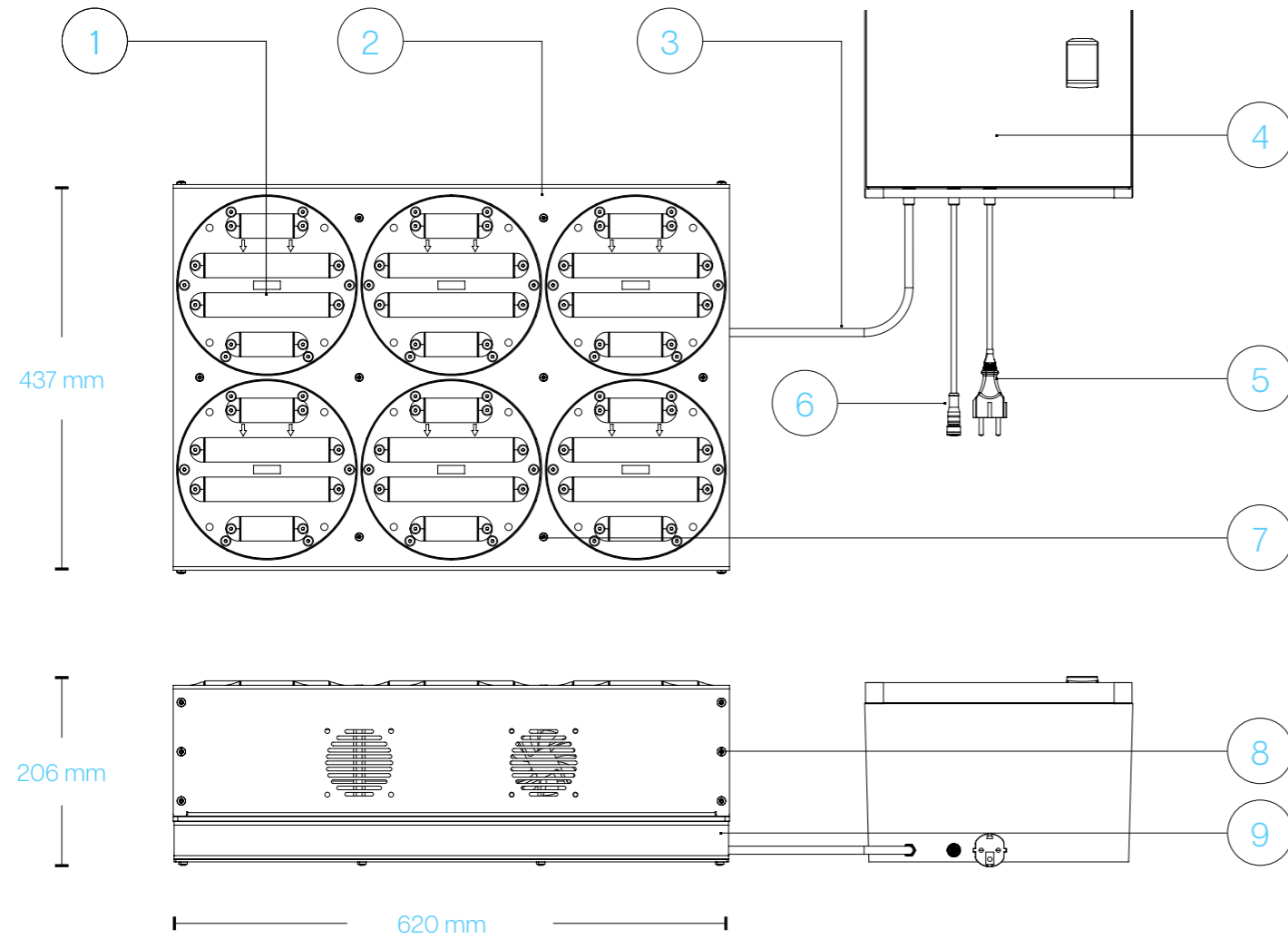
### Additional information

1. The Module Connector connects the control box to the first Sorter Module. Sorter Modules are connected via the the same connector type connecting each Sorter Module in daisy chain.
2. The I.O. Connector is used to move **ALL** the Sorter Modules to a configured angle, CW and CCW. More WD Controllers can be used to configure different angles per row or even different angles per Sorter Module. Each WD Controller requires an additional I.O. Connector.
3. Contact us for information about applications in countries that require ETL listed components.
4. Min and maximum speed can vary based on application, speeds and angles types, contact our sales team for the right requirements for your system.
5. The WD Controller is designed to work in relation to AS DUAL and AS QUATRO Controllers, please contact our sales team for more information.
6. Depending on the version a number of sorter modules is included, for example the WD22 (2 rows of 2 discs) includes 4 Sorter Modules.

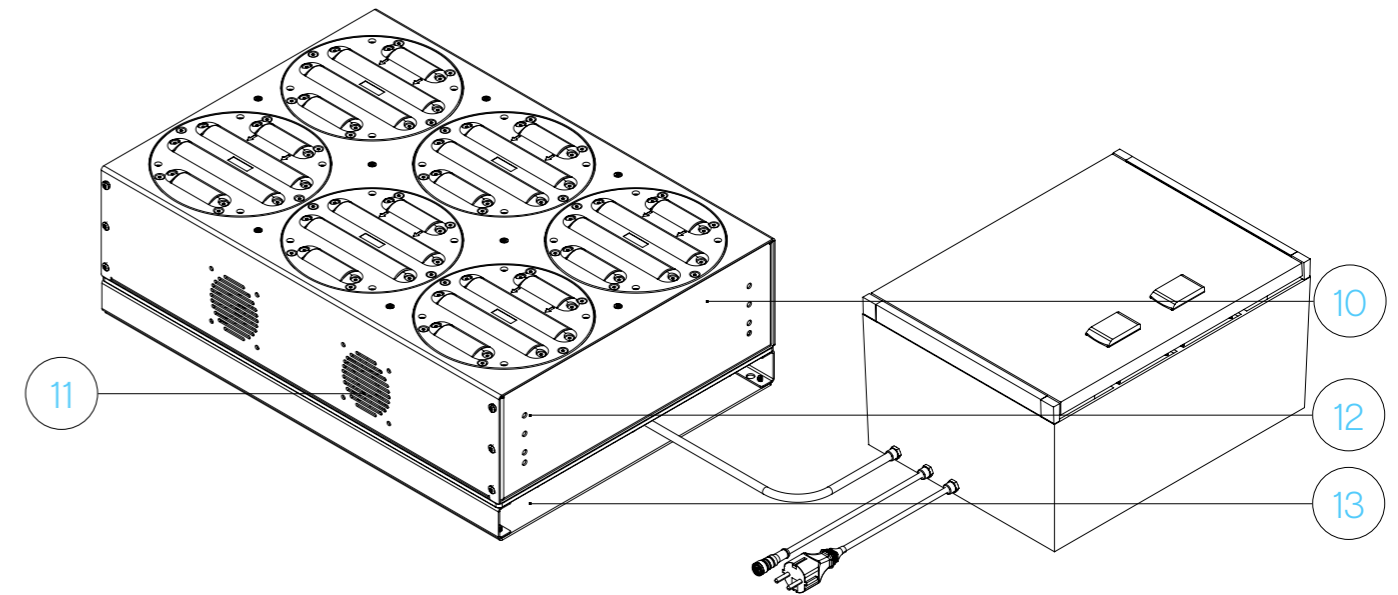
Please visit our website for the latest 3D CAD drawings and variations in dimensions/ configurations.

# ASWD Wheel Disc Sorter

Gearless BLDC Motors	up to 9 modules	Plug and Play	AS DUAL 24 V I.O.	Stepper Drives	48 V 960 Watt
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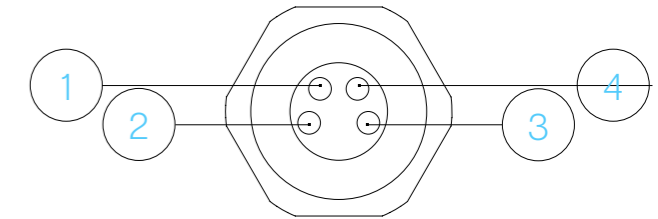


## Connection Specifications

Control Connector  
M8 4-pin

6

- 24V | Red | 0.25 mm<sup>2</sup>
- GND | Blue | 0.25 mm<sup>2</sup>
- Sig 1 | Black | 0.25 mm<sup>2</sup>
- Sig 2 | White | 0.25 mm<sup>2</sup>



## Additional information

1. The Control box includes the 48 VDC and 24 VDC power supply, including the peripherals can be delivered in system cabinets of 480 x 240, 480 x 480 or 480 x 600 mm depending on the complexity of the application. Please let us know your requirements during the ordering process. Take the following into account:

- What is the configuration/ behavior of the sorter?
- Does each Sorter Module move in the same angle and speed?
- Do you want to control each row of Sorter Modules in a different angle and speed?
- Do you want to control each Sorter Module independently?

2. Take into account that increased complexity of the product leads to additional components and higher pricing.

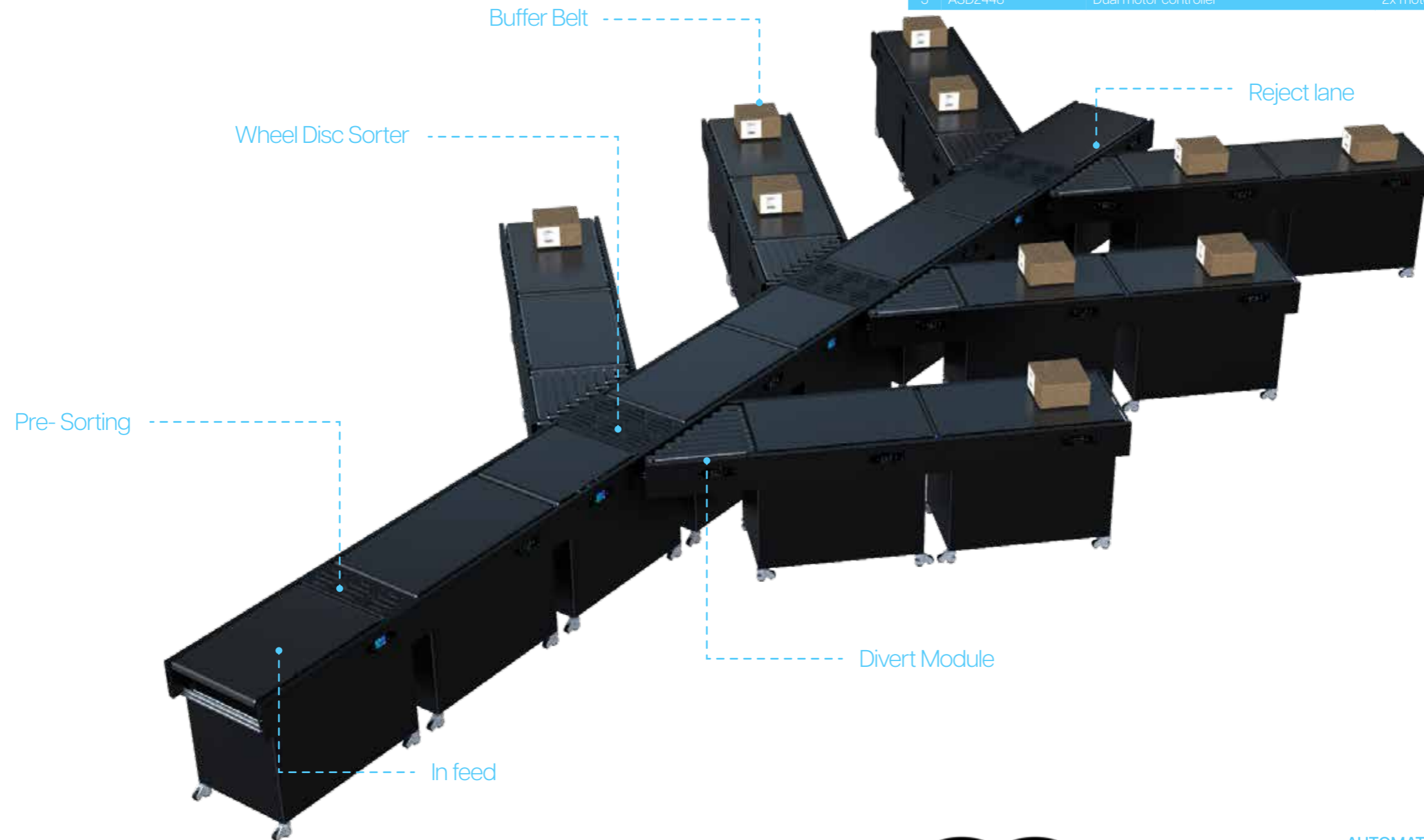
Description	Details	Description	Details
1 Sorter Module	48 VDC, rotation + transport	8 Sheet metal fixing	M6x10 bolt
2 Top Cover	2 mm powder coated steel	9 Sorter Support Bracket	2 mm powder coated steel
3 Internal Cable	10 mm PU Cable	10 Side plate	2 mm powder coated steel
4 System Cabinet	Steel Powder Coated	11 Air vent	Passive air vent
5 Power Plug	Euro Plug 230 VAC in	12 Mounting holes	M8x1.25
6 Control Cable I.O.	M8 4-pin	13 Bottom Cover	3 mm Composite Panel
7 Mounting hole cover	Countersunk M5x10		

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Example application: Modular Sorting System  
Learn more on [www.automationsupply.nl](http://www.automationsupply.nl)

\* In feed and sorting strategy to be processed by WMS system of end-customer



### Disclaimer

AS and AS partners are not responsible for integration and usage of our products outside of the specified application range, technical specifications and in combination with third party components.

Images may differ from the actual product due to our continuous product improvement.

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## Required Components and Modules

	Information	Specifications
1	ASWD Wheel Disc Sorter	Sorts up to 3.000 Packages per hour @ 35 kg
2	ASWD Wheel Disc Sorter   Presorting	Used for pre aligning smaller packages
3	ASBM Belt Module	Transport weights up to 35 kg @ 1.25 m/s
4	ASBDM Belt Divert Module	Used for 45 degree exit up to 35 kg @ 1.25 m/s
5	ASD2448 Dual motor controller	2x motor   6x I.O.   1x Power in   2x Emergency



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