

## Sectional Door Operators



### SD series

-  QUICK AND EASY INSTALLATION
-  FITTED FOR ALL TYPES OF SPRING-BALANCED SECTIONAL DOORS
-  COMES IN 3-PHASE AND 1-PHASE

## Sectional Door Operators

- SD/SW operators are designed to operate counterbalanced sectional doors
- Mounted directly on the door shaft
- Equipped with a quiet and self-braking worm gear box with a high static holding torque
- Output torque from 50 Nm to 140 Nm and output speed from 18 -30 rpm in 400 V, 3-phase, 230 V, 3-phase and 230 V,1-phase

## Supply voltage

Choose between the following versions: • 230 V 3~ / 400 V 3~ • 230 V 1~

## Special configurations

On demand it is possible to adjust our operators to meet higher requirements (i.e. UL/CSA- or IEC- Certification, higher duty ratio) with the mounting of special motors. We also offer increased protection for the operators for harsh and corrosive environment (i.e. outdoor, coastal, cold storage)

Standard Version 230 V 3~ / 400 V 3~



Version 230 V 1~



## Limit switch

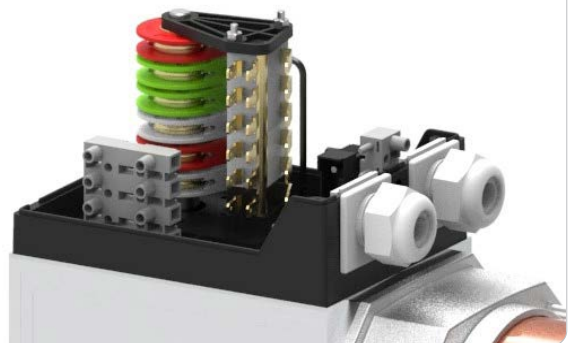
The door position is monitored by a separate directly integrated camshaft, with an internal limit ratio of 10:1, 15:1 or 20:1. All operators can be supplied with two different limit switch systems:

- Cam Switch
- Digital Encoder (single-turn, multi-turn)

Digital Encoder



Cam Switch



## Emergency Operation

In order to maneuver the door in case of a power failure, all operators are equipped with an emergency manual operation. Choose between the following systems:

- Compact Haul Chain Mechanism (KS)
- Short Hand Crank (KU)
- Chain Hoist Mechanism (KC)
- Haul Chain Mechanism (KE)
- Declutch (E)

### Compact Chain (KS)



### Haul Chain Mechanism (KE)



### Short Hand Crank (KU)



### Declutch (E)



### Chain Hoist Mechanism (KC)



## Plug-in connections

All connections are pluggable and reverse polarity protected. Using push-in fittings, we guarantee a quick and easy mounting

## External or integrated control panel

All sectional door operators can be supplied with an external or an integrated control panel.

### External Control Panel



### Integrated Control Panel



## Integrated control Panel

Integrated control panels are designed for direct mounting on the operator.

The control panel and in particular its power section are tailored to each motor.

Operation is via a special 3-push button station, to which also the necessary accessories can be connected.

## External control Panel

The external control panels offer a higher ease of use and the possibility to connect a wide range of accessories.

## Holding Torque

The gearboxes are designed to carry the load of the door in case of any failure of the suspension system. This prevents the fall of the door leaf. The static holding torque of the operator indicates the maximum load capacity of the gearbox.

If the product from door weight and cable-drum radius exceeds this value, it is mandatory to equip the door with spring-brake protection devices.

## Mounting

The sectional door operators can be fixed with different torque brackets.

### L - Torque bracket



### S - Torque bracket





## Selecting the right operator

The calculations are based on a weight of the door leaf of 12,5 kg/m<sup>2</sup>.

Furthermore a proper spring counterbalance is necessary.

In certain situations the friction can have influence, this has to be taken into account, by using a correction factor. For door constructions with operations above average an operator with high duty ratio (HD) is needed.

Operator Type	Door Size						
	18 m <sup>2</sup>	20 m <sup>2</sup>	30 m <sup>2</sup>	35 m <sup>2</sup>	45 m <sup>2</sup>	50 m <sup>2</sup>	60 m <sup>2</sup>
SW-50.24	OK	-	-	-	-	-	-
SD-70.18		OK	-	-	-	-	-
SD-90.30			OK	-	-	-	-
SW-100.18			OK	-	-	-	-
SD-100.24				OK	-	-	-
SD-120.30					OK	-	-
SD-130.24						OK	
SD-140.18						OK	OK (HD only)

Operators with a higher starting torque (300 Nm, 350 Nm, 550 Nm, 750 Nm, 1000 Nm) with integrated safety catch for sectional doors without spring are available on request (See SDA catalog).

 **Technical data**

	Starting Torque	Nominal Torque	Output Speed	Holding Torque	Limit capacity <sup>1)</sup>	Hollowshaft Diameter <sup>2)</sup>	Operating Voltage (50 Hz)	Motor Output	Motor Duty Cycle <sup>3)</sup>	Nominal Current 230 / 400 V	Type of manual operation	Protection Category	Weight
Operator Type	M <sub>A</sub> [Nm]	M <sub>N</sub> [Nm]	n <sub>2</sub> [min <sup>-1</sup> ]	i <sub>stw</sub>	i <sub>stw</sub>	D [mm]	U [V]	P [kW]		I <sub>N</sub> [A]		IP	m [kg]
SW-50.24	50	40	24	> 600	15	25.4	1~230	0.18	LD	3.7	E/KU/KS/KE	54	12
SW-100.18	100	80	18	> 600	15	25.4	1~230	0.55	MD HD	4.3	E/KU/KE	54	14
SD-70.18	70	55	18	> 600	15	25.4	3~230 3~400	0.37	MD HD	2.6 1.5	E/KU/KS/KE	54	12
SD-90.30	80	65	30	> 600	15	25.4	3~230 3~400	0.37	MD HD	2.6 1.5	E/KU/KS/KE	54	12
SD-100.24	100	80	24	> 600	15	25.4	3~230 3~400	0.37	MD HD	2.6 1.5	E/KU/KS/KE	54	12
SD-120.30	100	80	30	> 600	20	31.75	3~230 3~400	0.55	MD HD	3.45 3.0	E/KU/KS/KE	54	13
SD-130.24	130	100	24	> 600	15	31.75	3~230 3~400	0.55	MD HD	3.45 3.0	E/KU/KS/KE	54	13
SD-140.18	140	115	18	> 600	15	31.75	3~230 3~400	0.55	MD HD	3.45 3.0	E/KU/KS/KE	54	12

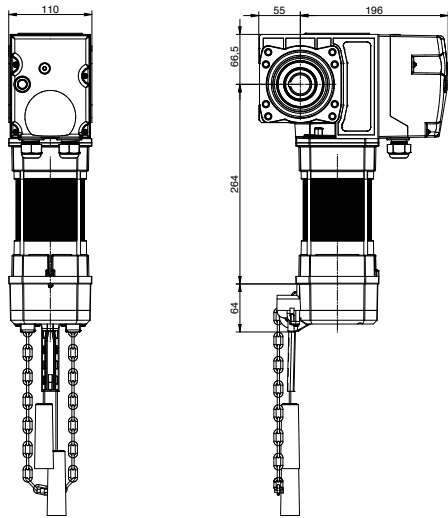
1) Limit ratio can be changed on request

2) Hollow shaft diameter can be changed on request

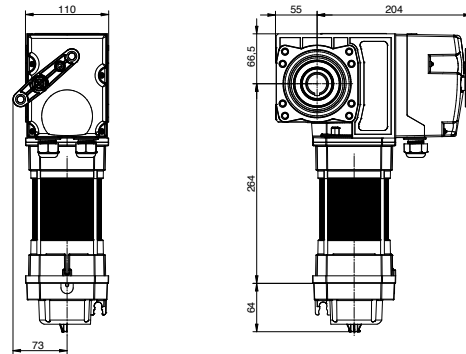
3) Duty Ratio HD available on request

\*) Temperature range: -5°C ... 40°C

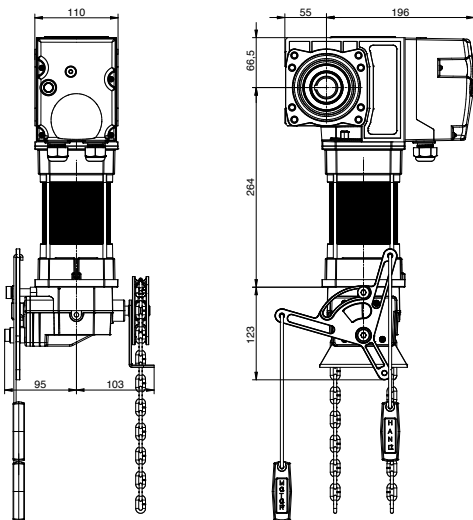
### Version KS



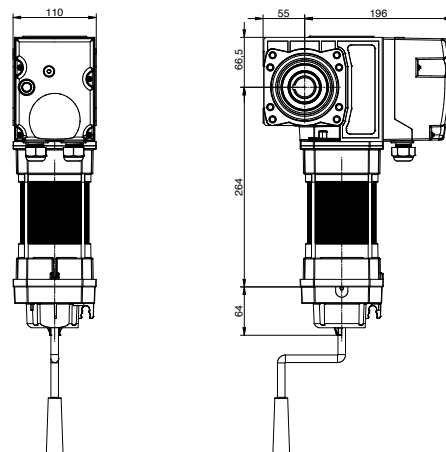
### Version E



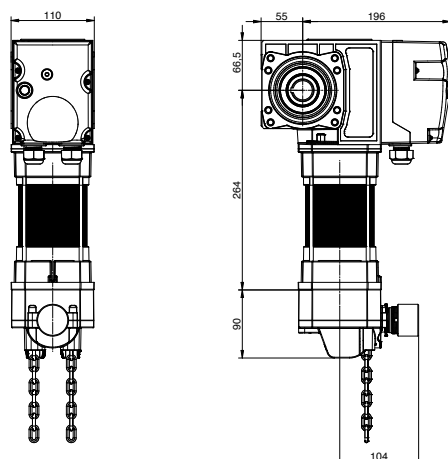
### Version KE



### Version KU



### Version KC



## Accessories

Complete your sectional door operator with our wide range of accessories and control panels to a customized automation package. Find more information in our special catalogs

### Mechanical Accessories



### Electronic Accessories



### Control Panels (Relay)



### Control Panels (VFD)



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