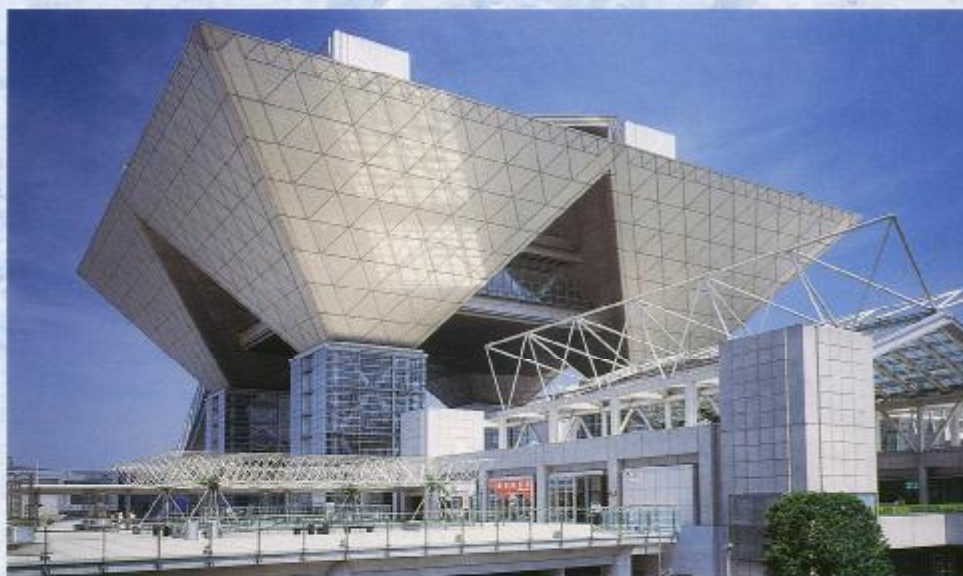


SAFE-TECH & AMENI-TECH
NABCO



NABCO Automatic Sliding Door DS-60/75/150

Thinking a Step Ahead

NABCO aims comforts with higher quality



Overview

EOS battery unit (option)

Opens or closes the door during power failures or in emergency conditions.
(To be used with EOS-corresponded controller)

Electric lock (option)

Fail-secure type
Fail-safe type

Pulley

Hanger rail

Longer durability is achieved by using stainless steel.

Door hanger

Strengthened by using aluminum for roller with resin coating.
Stability in operation is attained by introducing a new anti-riser.
Reduced operating sound is attained by coating the rollers with resin.

Debut of DS-60/75/150

NABCO Automatic Doors have been developed to respond to the requirements of high level comforts. Since we introduced Automatic Door to Japan in 1956, we have always led the Japanese Automatic Door industry.

In early 1990, we introduced DS-11/21/41 series which became the leading sliding door operators of the 1990s. The DS-11/21/41 series has earned good reputations for quality and reliability by various customers. We are now introducing a new products lineup of DS-60/75/150 series which has been developed to be advanced automatic doors for the 21st century under the theme of "The next generation in comfort".

The new series offers improved strength and durability through brushless DC motors, high accuracy gears, aluminum strengthened rollers and stainless steel hanger rails. We will also provide new levels of comfort to our automatic door users by introducing various new structures like a controller with self-diagnosis function, thermal protector equipped operators, program switches for selecting door operation modes, and other features.

The DS-60/75/150 series provides a wide range of features to meet the specifications of fast operation required in light doors used in store fronts as well as heavy doors in office buildings. These units provide the high level of comfortable performance to meet the requirements of the next generation.



Controller
Microcomputer-equipped NABCO original software.

Low noise timing belt

Door operator
Thermal protector-equipped brushless DC motor. Mono-composition of precise hypoid reduction gear.

Aluminum rail base
Ensures accurate assembly of equipment.

Power switch module
Consists of on-off switch for maintenance and Handy Terminal connector

Door stopper

* This overview is an installation example of DS-75 with EOS emergency control system and Electric Lock.

2

Leads the Field

DS-60/75/150 Changing the image of entrances

Operates light door smoothly
To improve the service of your store

DS-60 -N (Concealed side mount type) ※
-S (Surface mount type)

For operation of the medium-sized doors in office buildings and other buildings
Creates high-quality entrances

DS-75 -N (Concealed side mount type) ※
-S (Surface mount type)
-F (Concealed flat bar mount type)

Used in heavy doors of large buildings
For operation of heavy doors up to 150kg

DS-150

-N (Concealed flat bar mount type- φ30 rollers, for doors up to 120kgf)
-S (Surface mount type, for doors up to 120kgf)
-F12 (Concealed flat bar mount type- φ55 rollers, for doors up to 120kgf)
-F15 (Concealed flat bar mount type, for doors up to 150kgf)

※DS-60N/75N can also be mounted on flat bar.

Suitable for a wide variety of doors

We have prepared products with high quality and performance from the DS-60 for doors less than 60 kg to the DS-150 for doors up to 150 kg.

Equipped with high-power brushless DC motors

Luxurious designs realize both high performance and compactness. Our powerful motors provide a smooth and comfortable image to passers-by. Main controllers have microcomputer with upgraded control software.

Strengthened door hanger structure

Increased durability is attained by attaching stainless steel hanger rails to the aluminum rail base. Also, the quiet operation is achieved by using resin coated aluminum rollers in the door hangers.



Reduced the sound of operation by 15% (compared to previous door operators)

Surpassing the DS-11/21/41 series' good reputation for low noise operation, the DS-60/75/150 series have recorded 15% less noise in sound meter values. The quietness of the DS-60/75/150 series is suitable for high-grade series automatic doors.

■ Standardizing thermal protector

Thermal protector prevents damage to the operator. When excess load on the door operator is detected, operation will slow down but will not be suspended. As operations will continue, passers-by can walk through. After the excess load on the operator has been removed, the operation speed of doors will recover automatically. However, when the excess load continues, the door shall stop for protecting the motor.

■ Program switch (option)

Mounting this small switch makes automatic doors to be much more convenient to use. An easy-to-use program switch allows selection of the most suitable door operation. The program switch has a protective cover to prevent tampering and misoperation.



- A. FULL OPEN
- B. PARTIAL OPEN
- 1. AUTO mode
- 2. OPEN mode
- 3. ONE-WAY mode
- 4. CLOSE mode

Comparison data of door operation sound

Peak door operation sound has decreased 15% compared to previous products.



■ Handy Terminal

(Used by NABCO distributors)

The Handy Terminal, a special tool for NABCO distributors, accesses the microcomputer of the controller directly and quickly sets the most suitable door operation.



Function of Handy Terminal

- Sets the door stroke, right/left hand, speed, open timer, and other functions.
- Indicates automatic door condition. (Self-diagnosis function)
- Indicates maintenance data.



Responding customer needs for reliability with a world-standard quality system ISO 9001

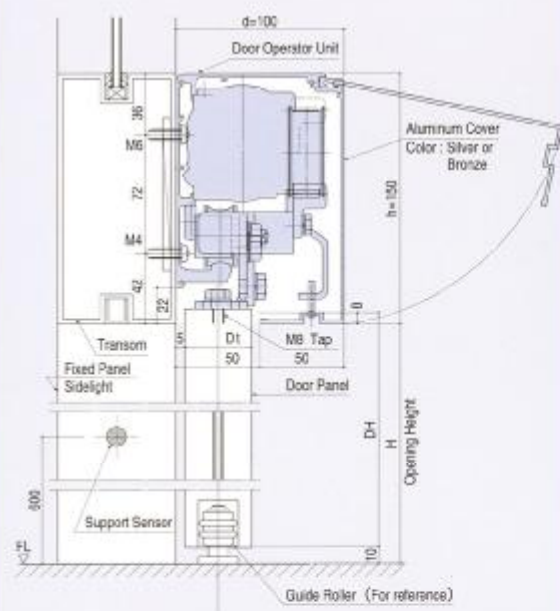
DS-60/75/150 Sliding Door Specifications

General Application & Data	DS-60 N, S	DS-75 N, S, F	DS-150 N, S, F12	DS-150 F15
Max Door Weight, Single Sliding, in Kg	75	90	120	150
Max Door Weight, Bi-Parting, in Kg	60×2	75×2	120×2	150×2
Max Door Size, Single Sliding, in m ²	2.2	2.8	3.3	3.3
Max Door Size, Bi-Parting, in m ²	1.8×2	2.6×2	3×2	3×2
Single Door leaf Width, in mm	450~1250 (with standard aluminum base)			
Max Ratio of Door Height/Door Width	4			
Door Stroke, in mm	300~5000 (300~1200 with standard aluminum base)			
Average Door Speed, Single Sliding, m/sec	0.1~0.6	0.1~0.6	0.1~0.6	0.1~0.55
Average Door Speed, Bi-Parting, m/sec	0.1~0.55	0.1~0.55	0.1~0.55	0.1~0.50
Max Wind Speed in Operation	15m/sec.			
Power Source	100V AC±10% 50/60Hz 5A			
External Power Source	100V AC 1A and 12V DC 30mA			
Average Power Consumption (4 operations/minute)	16.5Wh	20.5Wh	29.5Wh	

Elevation drawings

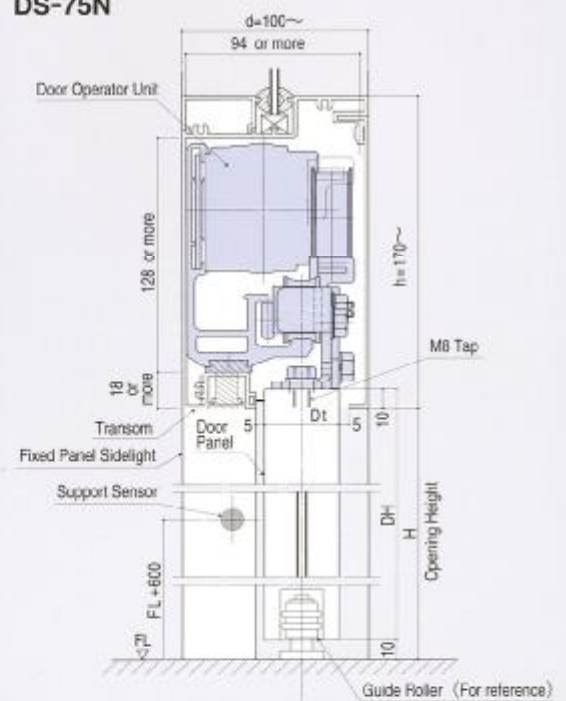
Surface mount

DS-60S
DS-75S
DS-150S



Concealed side mount

DS-60N
DS-75N



DS-60/75/150

Components

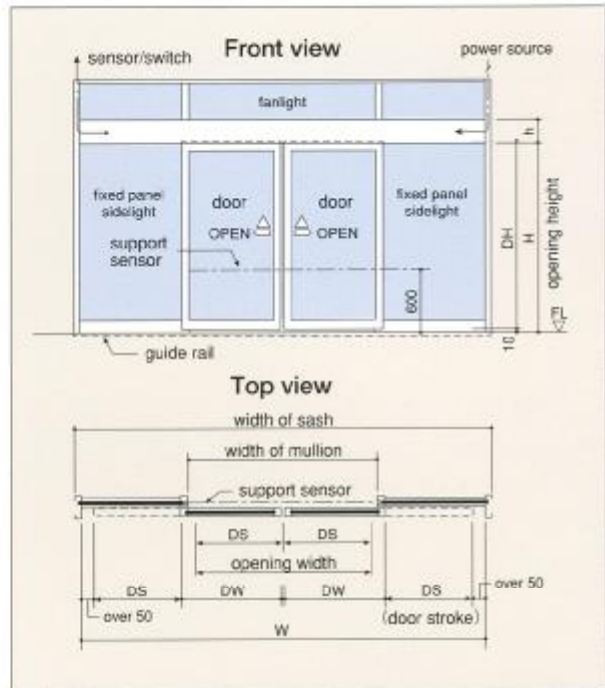
DS-75S (Basic set)



DS-SD (Bi-parting accessory)

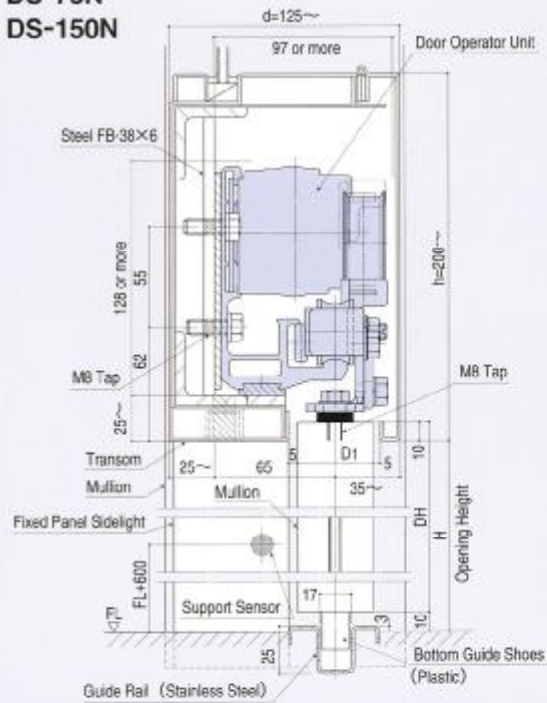


Bi-parting



Concealed flat bar mount (φ 30 Roller)

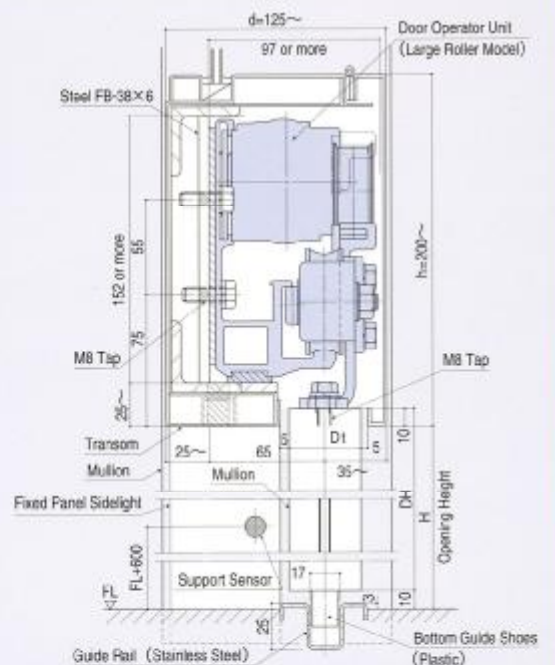
DS-60N
DS-75N
DS-150N



unit : mm

Concealed flat bar mount (φ 55 Roller)

DS-75F (Single Roller)
DS-150F12 (Single Roller)
DS-150F15 (Double Roller)



unit : mm

EOS Emergency Control System

The EOS emergency control system is used to operate the doors during power failures or in emergency conditions. To operate the EOS emergency control system, an EOS-corresponded controller (R-60/75/150 EOS controller) and EOS battery unit are necessary.

If power should fail or the EOS controller receives an emergency signal, the system will activate and the door will either open (panic open) or close (panic close) by using the power supplied from the EOS battery unit.

EOS Battery Unit



EOS Controller



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All specifications herein are subject to change without notice.