

2. Description

2.1. General Description

The Multidrive system is a lightweight automatic sliding door opener for single panel or multi-panel patio doors, pocket doors, and barn style doors including stacking and bi-parting type door systems in the residential and light duty commercial (i.e. small offices etc) environment. The main components of the system are the motor, PCB, power supply, back-up battery, Wi-Fi module for smartphone app, and access control sensors and remote controls. The operator is built around a single piece aluminum extrusion, on which the other components are assembled. Main components include a motor/gearbox and electronic controller. The MultiDrive is a belt driven, actuated system. Therefore, the belt is attached to the door's lead panel(s) to be automated and is driven by the geared motor.

2.2. Installation

The operator is not intended to and will not support the sliding door structurally. The MultiDrive system attaches to a new or existing door's structure and must be present prior to installation of the system. In this way, it is a simple task to retro-fit the Multidrive system to any existing sliding doors. Fixing points are provided on the base extrusion to allow for reliable fixing into the head or wall (flush mount), whichever is best suited to the application. Two end caps and an extruded cover that runs the length of the entire door system (jamb to jamb) are also provided such that, when installed, the mechanics of the device are fully concealed.

2.3. Power

Power is supplied to the Multidrive system by means of a self-contained low voltage power pack. The power pack has a removable kettle plug to connect to your power source and is mounted within the main extrusion.

2.4. Sensors and Remote Controls

The Multidrive operator is activated by means of one of several types of sensors and remote controls. The sensors available include: active IR beam presence detector, active IR hand wave sensor, active IR pet sensor, microwave motion sensor, numeric keypad, pressure mat sensor, RFID proximity tags, and radio frequency push button remote controls. Wireless activation options include motion sensor, wall button, remote control, pressure mat, and numeric keypad.

3. Specifications

3.1. General Specifications

Data	Value	Unit
Rated door opening speed	600	mm/sec
Rated door closing speed	300	mm/sec
Maximum opening force	35	lbs.
Door maximum Opening Width	20	ft.

3.2. Drive System Specifications

Data	Value	Unit
Motor type	Brushed dc motor with integral worm gearbox and position encoder	
Motor power	45	W
Motor rated speed	3450	rpm
Motor rated torque	86.7	mNm
Gearbox ratio	15:1	-
Gearbox output speed	230	rpm
Gearbox output torque	1.3	Nm
Gearbox maximum output torque	2.6	Nm
Gearbox output shaft Ø	8.0	mm
Pinion type	5 Module x 30	-
Rack Type	Belt	-
Temperature Conditions	Above 0°C	-

3.3. Material Specification

Data	Material	Grade	Finish
Base extrusion	Aluminum	6063	Mill finish
Cover extrusion	Aluminum	6063	Mill finish
End caps	ABS		Texture
Motor/gearbox housings	Nylon	6/6 – 30% GF	Texture
PCB enclosure	PLASTIC		Texture
Worm gear	PEEK	6	Smooth
Worm wheel	Nylon	6 –Mineral Filled	Smooth
Drive Pinion	Acetal		Smooth

3.4. Electrical Specification

Data	Value	Unit
Power supply input voltage	100-240/60-50	V. ac/Hz
Power supply input current max	1.7	A
Power supply output power	24dc	W
Power supply output voltage	15	V
Power supply current max	6.00	A
Protection (Polyswitch)	7	A

The switch is to be install in a location from which operation of the door can be observed by the person operating the switch

The glazing material employed is to comply with the requirement in UL30.5.1. The glazing material in both fixed and sliding panels of all sliding doors and in all unframed swinging doors shall comply with the requirements in the Performance Specifications and Methods of Test for Safety Glazing Material Used in Buildings, referenced in Annex A. Ref. No 27. Glazing material for other pedestrian doors shall also comply with the same standard, except that single strength or heavier glass may be used for those portions of doors involving a glazed area of less than 0.9m² (1 ft²) and having no dimension greater than 457mm (18 in).

The pedestrian door operator that is intended for connection to the source of supply by a flexible is to be cautious/warn, against risks of associated with allowing the cord to become entrapped in moving parts of the operator, door, or system

Maximum size of door ; Bi-parting sliding door : (2.3 metre height x 4 metre width)

Weight :

singe slide : 150kg mobile leaf,

Bi-parting : 75kg per mobile leaf

The weight is the most concern, if the door is make of light material, door can be made bigger than 4m for bi-parting. As long as the total weight for mobile panel (total mobile panels weight) does not exceed 150 kg.

The installer shall fix a 3 pin wall socket nearest to the left side of the operator, where the 3 pin AC power supply will be then plug into this socket. Any access wire has to be well tied/ or dressed, preventing tangling wire .

Note the cord should not be :-

1. Routed through doorways, window openings, walls , ceilings, floors or the like;
2. Attached or otherwise secured to the building structure ; or
3. Concealed behind walls and the like.

As per 60.1.7 For equipment having a grounding-type attachment plug, the following instructions, or the equivalent, shall be provided. " To reduce the risk of electric shock, this equipment has a grounding type plug, that has a third (grounding) pin. This plug will only fit into a grounding type outlet. If the plug does not fit into the outlet, contact a qualified electrician to install the proper outlet. Do not change the plug in any way. "

Detachable Power Supply Cord Marking- " **WARNING** : USE ONLY ADAPTOR PROVIDED FOR USE WITH OPERATOR, OTHER ADAPTOR MAY RESULT IN RISK OF FIRE. SEE INSTALLATION INSTRUCTIONS FOR DETAIL" or equivalent.

Manufacturer's Name	AUTOSLIDE PTY LTD
Trademark	MULTIDRIVE
Catalogue number	AS8
Voltage	100VAC-240VAC, OUTPUT: 24VDC , 2.7A
Frequency	50Hz, 60 Hz
Adaptor maximum input current	2.7A