

Superior door control
for rigorous, high-use applications

6000 SERIES

LOW ENERGY OPERATOR

CATALOG

Norton®

ASSA ABLOY

Experience a safer
and more open world

INTRODUCTION

The 6000 Series low energy operator is a heavy-duty unit designed for rigorous, high-use applications. Built-in intelligence enables the operator to safeguard users while providing better door control. Simple installation and adjustment features combined with the unit's high level of versatility allows for seamless integration with a multitude of facilities and systems.



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FUNCTIONS

- Adjustable Hold Open
- Amount of time a door will stay in the full open position after an activation
- Blow open for smoke ventilation
- Door opens when signal is received from alarm system allowing air or smoke to flow through opening.
- Door will stay open until signal from alarm system is stopped
- Infinite Hold Open
  - Door will hold open at set position until power is turned off
- Obstruction Detection
  - Open: door closes if it hits an obstruction while opening
  - Close: door reopens (once) if it hits an obstruction while closing. If it hits the obstruction again, the door will rest against the obstruction until it is removed
- Open Delay
  - Delays operator opening for locking hardware
- Overload Safety Shut-Off
  - After 3 minutes of receiving a door activation signal, inverter times out and door closes
  - Prevents motor/inverter damage
- Presence Detector Input
  - Input for external sensor to detect presence at door open or close position only
- Push & Go
  - As the door is manually opened, the operator "senses" movement and opens door to the full-open position
- Selector mode switch
  - Off - Disables signal inputs unless Blow Open is activated
  - On - Activates signal inputs
  - Hold Open - Activates the unit (unless blow closed is activated on 6300) to the hold open position
- Two Selectable Output relay
  - Multi-function relay outputs
- Vestibule Delay
  - When the push button is pressed, first door in vestibule will open. Second door will open once vestibule door delay has expired. Delay is adjustable.

FEATURES

- Push or pull side mounting
- Non-handed
- Modular design for one person install
- Full cover option on double/pair of doors
- 1.3A onboard power supply
- Activated by push button, hands-free, and RF devices
- Maximum door size 4'0" x 8'0", 250 lbs
- Operates as a mechanical surface closer when power is off
- On board electronics collect usage and cycle count data to facilitate preventative maintenance/diagnostics
- 2 year limited warranty

ELECTRICAL DATA

- Power input 120 VAC, 60 Hz (+10%, -15%)
- Current draw 0.9A (single), 1.8A (double)
- Auxiliary output 24 VDC @ 1.3A
- SPDT relay output for controlling electric strikes or electric locks not to exceed 1 amp @ 30 VDC

CERTIFICATIONS

- ANSI/BHMA A156.19 certified
- ETL tested to UL / cUL standards for automatic doors used on fire and smoke barrier doors and CSA C22.2 No. 247 for operators and systems of doors
- UL10C listed for positive pressure fire test
- Comply with requirements for the Americans with Disabilities Act (A.D.A)
- California State Fire Marshall Listing 3266-0944:0110
- Manufactured in an ISO 9001 and ISO 14001 facility
- Verified by Green Circle to offer the following energy savings as compared to similar products:
  - 19% efficiency
- Health product declaration and UL certified environmental product declaration

ARCHITECTURAL SPECIFICATIONS

General Specifications

Door Controls (interior)(exterior) swinging door(s) shall be of rack and pinion design contained within a precision cast aluminum housing. Door closing force shall be adjustable to ensure adequate closing control. Door closing speed shall be controlled by independent hydraulic adjustment valves in the sweep and latch range of the closing cycle. Door Operator shall provide conventional door closer opening and closing forces unless the power operator motor is activated. Door Operator opening force and speed shall be adjustable in the inverter/interface module's LCD screen to ensure adequate opening control per accessibility codes. Door Operator shall have an adjustable hydraulic back-check valve to cushion the door speed if opened violently. Door Operator shall utilize the inverter/interface module's LCD screen and joystick to establish door closed and open positions. [(Door Operator shall be AUTOMATICALLY ACTIVATED by either a slight push or pull in the direction of opening swing – Push and Go.) (Door Operator shall be SELECTIVELY ACTIVATED by external initiating device, i.e. wall switch, etc.) (Door Operator shall be both AUTOMATICALLY ACTIVATED and SELECTIVELY ACTIVATED.)] Unit shall include "E-saver" feature to automatically recognize abled body traffic and immediately trigger door to close after sensing no forces on door. Unit shall have delay for motor activation, electric lock interfacing, and hold open time. Units shall have SPDT relay for interfacing latch retraction exit devices or similar products and have 24VDC @ 1.3A output for connection of electric strike, lock, radio frequency receiver, etc. Units shall have Vestibule sequencing input for operation of two or more units. Unit shall have smoke ventilation inputs to power open doors when activated by fire or smoke alarm. Unit shall have a three-position Selector Mode Switch that will permit the unit to be switched “ON” to monitor for function inputs, switched to “H/O” for indefinite hold open function or switched “OFF” which will disable function inputs allowing unit to be used as a manual door closer. Unit shall be ETL tested to UL standards for automatic closing door. The Unit shall be adjustable to provide compliance with the requirements of the Americans With Disabilities Act (ADA). Unit shall be certified by BHMA to meet ANSI A117.1 and A156.19 requirements. Unit shall meet UL, cUL, UL10C and UL10B standards.
2 year limited warranty.

Additional Specifications for Functions

For Power Operator Function:

When activated, the unit shall, by means of a motor, chain and closer, power open the door at both a speed and force that are adjustable to accessibility codes. The door shall be powered from a door closed position to a full door open position and remain in momentary hold open for 5 seconds minimum (adjustable 0 to 30 seconds in 1 second increments). [(Unit shall power open door to full open position up to 110°.) (Unit shall be capable of opening door manually from 110° – 180°.)] Once unit reaches full hold open position, if reinitiated, unit’s momentary hold open time shall restart from the maximum set time. If unit is initiated during the closing cycle, unit shall revert to opening cycle beginning at that door position. Unit shall have a toggled hold open input that upon first initiation will power door to a maintained hold open position; a second initiation will allow door to close. Unit shall have obstruction detection on closing, which will reverse the closing door to the full open position then re-attempt to close door after momentary hold open time has elapsed. Obstruction detection on opening shall shut motor off, allowing door to close under spring force. These obstruction detection features shall be integral to unit. During closing cycle, the unit shall close door under full spring power not to exceed a closing force of 15 lbf.

APPLICATIONS

6011 Shown
HINGE (PULL) SIDE OF DOOR
RIGID ARM AND SLIDE TRACK



6031 Shown
STOP (PUSH) SIDE OF DOOR
STANDARD-DUTY DOUBLE LEVER ARM



D6011-36 Shown
DOUBLE DOOR (PAIR)
RIGID ARM AND SLIDE TRACK



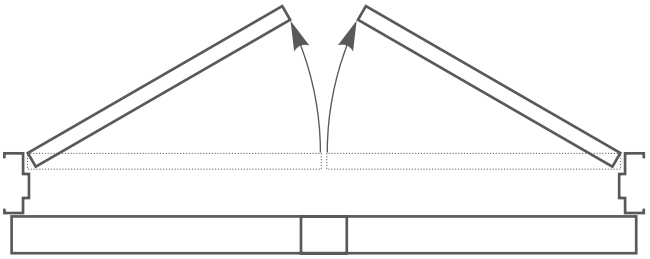
6061 Shown
STOP (PUSH) SIDE OF DOOR
HEAVY-DUTY DOUBLE LEVER ARM



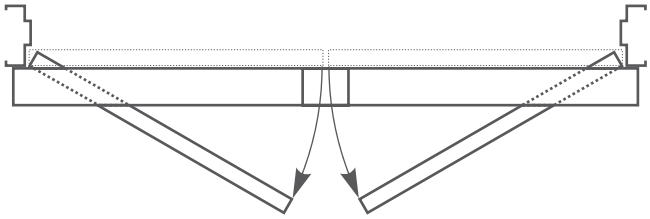
Model	Mounting			Arms			
	Pull Side	Push Side	Double Egress	Rigid Arm & Slide Track	Double Egress & Slide Track	Standard-Duty Double Lever	Heavy-Duty Double Lever
6011, D6011	•			•			
6051, D6051	•				•		
6021, D6021		•				•	
6031, D6031		•				•	
6061, D6061		•					•
6071, D6071		•					•
D6001DE			•		•		•

For application assistance, Norton offers complete services from specifying product to engineering a door system which includes riser and wiring diagrams. Consult Norton Technical Product Support for additional information.

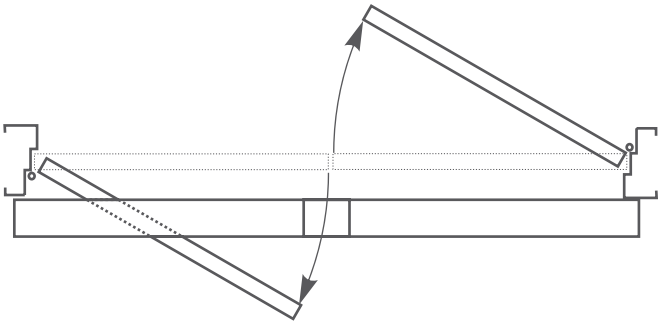
DOOR OPENING EXAMPLES



D6021/D6031/D6061/D6071 Series
Operator mounted on Push Side
Left Hand/Right Hand Outswing Doors



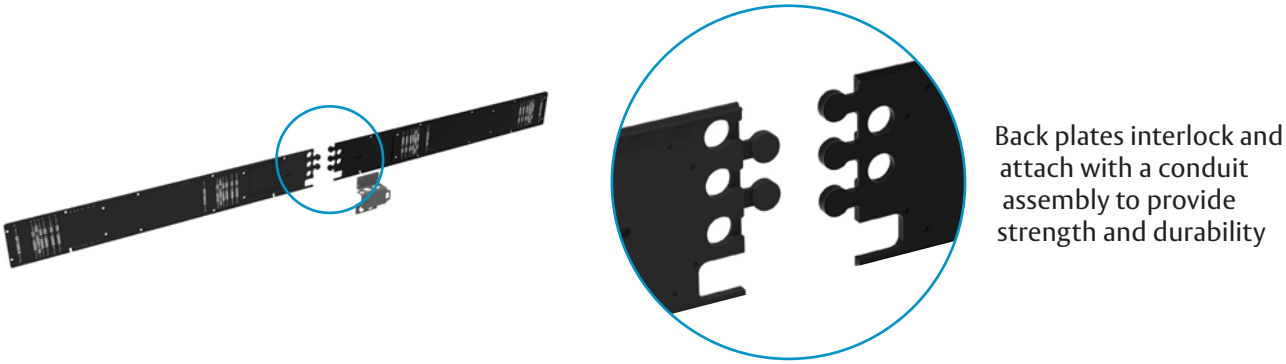
D6011/D6051 Series
Operator mounted on Pull Side
Left Hand/Right Hand Inswing Doors



D6001DER (Right Hand)
D6001DEL (Left Hand)
Right or Left Hand Double Egress Doors
(Right hand doors illustrated)

OPERATOR DETAILS

Heavy Duty Back Plates (Double Door Shown)



Back plates interlock and attach with a conduit assembly to provide strength and durability

Cover Union - Double and Single Doors



The 3-position switch (ON/OFF/HOLD OPEN) is easily accessible via a "door" on the cover union. The door is located in the middle for double doors and on the end for single doors.

End Cap



If needed, spring adjustment is accessible through the door on the end cap. Door can be "locked" with a screw for security.

TECHNICAL INFORMATION

Models	Minimum Frame Height	Minimum Top Rail (Door)	Minimum Door Width	Door Opening	Frame Reveal
6011, D6011	2" (51mm)	1-3/4" (44mm)	36"	85° to 110° (5° increments)	1/8" (3mm)
6051, D6051		2-3/8" (60mm)			1/8" to 3" (3 - 76mm)
6021, D6021	1-1/2" (38mm)	1-7/8" (48mm)		Up to 110°	2-3/4" to 6-7/8" (70 - 175mm)
6031, D6031				From 110° to 180°	
6061, D6061		2-3/16" (56mm)		85° to 110° (5° increments)	2-1/4" to 4-3/4" * (57 - 121mm)
6071, D6071					4-13/16" to 7-3/8" (122 to 187mm)
D6001DE	2" (51mm)	2-3/8" (60mm)		Up to 110°	1/8" to 3" (3-76mm) - Pull Side 2-1/4" to 4-3/4" (57-121mm) - Push Side

Notes:

- Auxiliary stops are recommended for the models 6011 and 6051 and required for models 6021 and 6031.
- Models 6061 and 6071 have a spring buffered stop in the arm shoe assembly.
- Models 6011 and 6051 have a buffered stop assembly in the slide track.
- Drop applications are needed if the required ceiling clearance is less than 5". Available for models 6021, 6031, 6061 and 6071. Suffix D to model number when ordering.

*Reveals less than 2-1/4" (57mm) may be achieved by field cutting the adjusting rod.

COVER DIMENSIONS





Single & Double Covers:
Projection: 4-3/4" (121mm)
Height: 5-3/16" (132mm)

Overall Lengths:
Single: 37-1/2" (95.3cm)
Double-36: 74-1/4" (188.6cm)
Double-42: 86-1/4" (219.1cm)
Double-48: 98-1/2" (249.6cm)

PARTS LIST

Arm and Track Assemblies



6610-1 Arm and Track Assembly
7210-1A Arm Assembly
7200-1T Track Assembly



6660-1 Arm Assembly
6660-11 Rod & Snubber Assembly



6020-1 Arm Assembly
6020-1W Main Arm & Rod
6620-12 Adjusting Tube & Shoe



6670-1 Arm Assembly
6670-11 Rod & Snubber Assembly



6030-1 Arm Assembly
6030-1W Main Arm & Rod
6620-12 Adjusting Tube & Shoe



6061-1 Unitrol® Arm Assembly
6660-11 Rod & Snubber Assembly



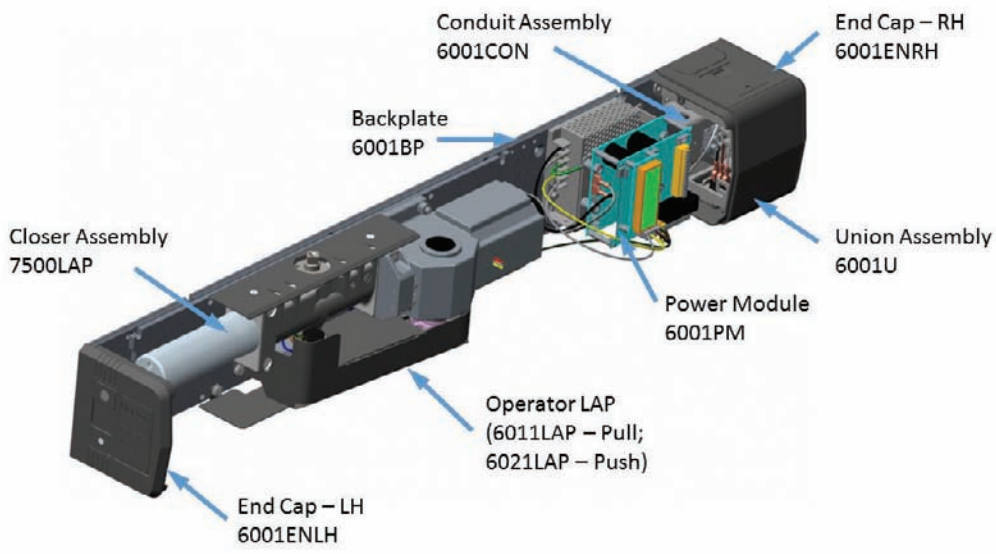
Left hand shown

6050-1L Arm and Track Assembly (LH)
6050-1R Arm and Track Assembly (RH)
7250-1L Arm Assembly (LH)
7250-1R Arm Assembly (RH)
7200-1T Track Assembly

REPLACEMENT PARTS FOR MODELS ENDING IN "0" i.e. 6010, 6030, etc.

Part Number	Description
H6010LAP	6010, 6050 Unit Sub-Assembly
H6020LAP	6020, 6030, 6060, 6070 Unit Sub-Assembly
6000IN	Inverter
H6000COV	Cover
5700SW	On/Off Switch
6000DAB	Drop Angle Bracket
6000DAB180	Drop Angle Bracket - 180° Swing
6000CB	Circuit Breaker
6000SUP	Power Supply
6000SEC	Security Plate Pack
6000SFB	Aluminum Storefront Bracket
SP6000	Screw Pack

PARTS LIST - SINGLE UNIT SHOWN



UNIT SUB-ASSEMBLY

Part Number	Description
6011LAP**	6011, 6051 Unit Sub-Assembly
6021LAP**	6021, 6031, 6061, 6071 Unit Sub-Assembly

COVERS, BACK PLATES

Part Number	Description
6001COV	Cover - Single
D6001COV-36	Cover - Double 36"
D6001COV-42	Cover - Double 42"
D6001COV-48	Cover - Double 48"
6001BP	Back Plate - Single
D6001BP-36-LH	Back Plate - Double 36" - Left Hand
D6001BP-36-RH	Back Plate - Double 36" - Right Hand
D6001BP-42-LH	Back Plate - Double 42" - Left Hand
D6001BP-42-RH	Back Plate - Double 42" - Right Hand
D6001BP-48-LH	Back Plate - Double 48" - Left Hand
D6001BP-48-RH	Back Plate - Double 48" - Right Hand

DROP ANGLE BRACKETS

Part Number	Description
6001DAB	Drop Angle Bracket - Single 36"
6001DAB2	Drop Angle Bracket - Single 42" and 48"
D6001DAB-36	Drop Angle Bracket - Double 36"
D6001DAB-42	Drop Angle Bracket - Double 42"
D6001DAB-48	Drop Angle Bracket - Double 48"

MISCELLANEOUS PARTS

Part Number	Description
6001PM	Power Module Sub Assembly
6001U	Union - Single
D6001U	Union - Double
6001US	Union Spacer
6001SK	Shim Kit^
5700SW	On/Off Switch
6000CB	Circuit Breaker
6000MS	Motor Support
6001SC-1	Screw Pack - Back Plate
6001SC-2	Screw Pack - Standard
D6001SYNC	Sync Cable

** Part Numbers may differ based on legacy models. Contact Norton Technical Product Support to verify for accuracy based on unit on hand.

^ Shim kit supplied standard. Kit includes (6) 1/16", (6) 1/8", and (12) 1/4" shims.

ACCESSORIES

Activating Door Switches



501 502



671

671 and 672 switches meet new state accessibility logo requirements in NY, CA, and CT

- 4-1/2" W. x 4-1/2" H.
- 15 amp @ 125 VAC
- Flush mounted
- Fits single or 2 gang electrical box

Model	Description	Hard wired	RF (433MHz)
501	Press to Operate Door	✓	
502	Press to Open x logo	✓	
671	Press to Open x alternative logo	✓	
672	Press to Open x alternative logo		✓
542	4-1/2" surface mount box		



505 532



506 534

505, 506, 507 and 534 switches may also be installed with single or double gang electrical box using fasteners included

- 6" W. x 6" H.
- 9 volt battery
- 15 amp @ 125 VAC
- Flush mounted
- Stainless steel with blue letters

Model	Description	Hard wired	RF (433MHz)
505	Square button: Push to Open x Logo	✓	
506	Round button: Push to Open x Logo	✓	
507	Square button: Push to Open	✓	
531	Square button: Push to Open x Logo		✓
532	Square button: Push to Open		✓
533	Round button: Push to Open x Logo		✓
534	Round button: Push to Open	✓	
535	Round button: Push to Open		✓
555	6" square surface mount box		
557	6" round surface mount box		

Wave-to-Open Wall Switch



700

- Single gang and double gang packaged together
- Sensor requires movement for activation
- Variable relay – hold time from 0 – 35 seconds
- Range 0" to 4"
- Dimensions:
  3" W x 4-3/4" H (single);
  4-1/2" W x 4-1/2" H (double)

ACCESSORIES



638

Low Profile Push Plate

- 36" x 6" activation zone
- 1" low profile depth
- Stainless steel face plate
- Adapts to either wireless or hard wired installations
- 638 - Wireless
- 639 - Hard wired



503

Vestibule Switches

- 1-1/2" x 4-3/4" face plate
- SPDT UL listed switch-mom.
- 15 amp @ 125 VAC
- Fits 1-3/4" frame
- Stainless steel with blue letters



504

- 5" W. x 4-3/4" H.
- 2 – SPDT UL listed switches-mom.
- 15 amp @ 125 VAC
- Fits 2-gang electrical box
- Stainless steel with blue letters
- 559 optional surface mount box

Note:
- All hard wired switches are Momentary Contact SPDT, UL Listed.
- Optional DPDT switches are available; suffix "D" to model number.

ACCESSORIES



663*

Motion Sensor

- 4-3/4" x 3-3/16" x 2" projection
- Unidirectional
- Black cover
- SPDT relay
- Adjustable angle pattern
- 24 VDC input
- Must not be placed where motion of door can be sensed



500

Switch Post

- 4" x 6" x 40" x 3/16" wall thickness
- 9 volt battery
- RF temperature range: -4° F to 122° F
- 689 (aluminum) or 690 (dark bronze) finishes
- Standard formed plastic cap
- Surface mounted (above ground)
- 530 - radio frequency transmitter
- 500 - hard wired switch
- 530POST - post only; switch not included



585

Presence Detector

- Diffused active infrared technology
- 11.8" l x 1.9" h x 1.9" w
- Black anodized aluminum
- 9'x0" maximum mounting height
- Supply voltage: 24VAC/DC

* Use of motion sensor must be approved by local authority having jurisdiction.

ACCESSORIES

Sensor



596

- Active infrared safety sensor
- Detection range 0-8'
- 36", 42" or 48" width (specify when ordering)
- 8'x0" maximum mounting height

Radio Frequency Receiver



539

- 433 MHz

Transmitters



536 538

- 2-3/8"w x 4-3/16"h x 15/16"d
- 536: single channel
- 538: two channel



548

- Converts existing hard wired push plates to work with RF receivers offered after June 2013
- Single channel
- 9 volt battery included

ACCESSORIES



565

Kits

Includes:
- (2) ADA1019-2 wall switches
- (2) 548 transmitters (with 9 volt batteries)
- (1) 539 receiver



564

Includes:
- (1) ADA1019-2 wall switch
- (1) 548 transmitter (with 9 volt battery)
- (1) 539 receiver

OPERATIONAL SIGNAGE

679 Signage Kit (supplied standard)



(1 per switch)



(1 per switch)



(2 per operator)

FINISHES

Description	Specify Norton Designation (BHMA)	Complements the following finishes	Old Designation
Aluminum	689	628, 625, 629, 630, 651	AL
Statuary Bronze	690	640, 613	STAT
Black Suede	BSP	—	—
White Suede	WSP	—	—

HOW TO ORDER

D | 60 | 2 | 1 | SUFFIX | x FINISH

PREFIX

Blank – Single
D – Double (pairs of doors) **Specify 36", 42" or 48" when ordering.**

FIRST TWO DIGITS

PRODUCT SERIES

THIRD DIGIT

IDENTIFIES TYPE OF APPLICATION

DOUBLE EGRESS

0 – Includes 6050-1L or 6050-1R arm and track assembly plus 6061-1 Unitrol® arm assembly. 110° maximum door swing. Frame reveals 1/8" to 3" (pull), 2-1/4" to 4-3/4" (push).

HINGE (PULL) SIDE OF DOOR*

1 – Rigid Arm & Slide Track 110° maximum door swing maximum reveal 1/8" (3mm)
5 – Double Egress Arm & Slide Track 110° maximum door swing for reveals 1/8" to 3" (3 to 76mm) (specify hand when ordering)

STOP (PUSH) SIDE OF DOOR

2 – Standard-Duty Double Lever Arm 110° maximum door swing. Reveals 2-3/4" to 6-7/8" (70 to 175mm).
3▲ – Standard-Duty Double Lever Arm 180° maximum door swing. Reveals 2-3/4" to 6-7/8" (70 to 175mm).
6◆ – Heavy-Duty Double Lever Arm 110° maximum door swing. Reveals 2-1/4" to 4-3/4" (57 to 121mm).
7 – Heavy-Duty Double Lever Arm 110° maximum door swing. Reveals 4-13/16" to 7-3/8" (122 to 187mm).

▲ Models will be power operated to 110° but can be manually opened to 180°
◆ Reveals less than 2-1/4" (57mm) may be achieved by field cutting the adjusting rod

**Consult Technical Support Department when door is* hung on offset pivots

SUFFIXES (OPTIONS)

RF – Radio Frequency Control
» Field Wired
» Requires 531, 532 door switch or 500 switch post (433MHz) (Maximum codes: 100)
D – Drop Application Double Doors Only
D1 – Drop Application 36" Single Door Only
D2 – Drop Application Single Doors Over 36"
DMY – Dummy unit
» Double unit includes (1) operator and (1) door closer
» Single unit includes (1) door closer
DE – Double Egress Application (Handed). Specify D6001DEL (LH) or D6001DER (RH)

FINISHES

REFER TO PAGE 13

Ordering Examples:

6021RF x 689
D6021-36 x 689
D6021-36RF-D x 689
D6001DEL-36 x 689

The ASSA ABLOY Group is the global leader in access solutions. Every day, we help billions of people experience a more open world.

ASSA ABLOY Opening Solutions leads the development within door openings and products for access solutions in homes, businesses and institutions. Our offering includes doors, frames, door and window hardware, locks, perimeter fencing, access control and service.

Since 1880, Norton door controls have been an integral part of schools, hospitals and businesses around the globe. When you need products and people that perform at the highest level, rely on Norton – From Open to Close.

Norton Door Controls | www.nortondoorcontrols.com
3000 Highway 74 East | Monroe, NC 28112 | 1.877.974.2255

ASSA ABLOY Opening Solutions
Door Security Solutions Canada | www.assaabloy.ca
160 Four Valley Drive | Vaughan, ON L4K 4T9 | 800.461.3007

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