



Superior door control  
for rigorous, high-use applications

# 6000 SERIES

LOW ENERGY OPERATOR

CATALOG

**Norton**<sup>®</sup>

**ASSA ABLOY**

ASSA ABLOY, the global leader  
in door opening solutions

### 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.



### TABLE OF CONTENTS

Features, Functions, Electrical Data, Certifications .....	3
Specifications .....	4
Sustainability Contributions .....	5
Standard Applications .....	6-7
Accessories .....	8-9
Operational Signage .....	10
Parts List .....	10-11
How to Order .....	12

## FUNCTIONS

- » Push and Go selector
  - › As the door is manually opened, the operator "senses" movement and opens door to the full-open position
- » Open/Close obstruction detection
  - › Open
    - › Door closes if it hits an obstruction while opening
  - › Close
    - › Door re-opens (once) if it hits an obstruction while closing – if the door hits the obstruction again, the door will rest against the obstruction until it is removed
- » Motor startup delay adjustment
  - › Delays operator opening
- » Vestibule delay adjustment
- » Hold open delay adjustment
- » Single Pole Double Throw (SPDT) relay output
  - › SPDT relay output time adjustment
  - › SPDT alarm output
- » Blow open for smoke ventilation
- » Presence detector input
- » Selector mode switch
  - › Off – Disables signal inputs except blow open
  - › On – Activates signal inputs
  - › Infinite Hold Open - Door will hold open at set position until power is turned off


## FEATURES

- » Push or pull side mounting
- » Non-handed
- » 1.3A onboard power supply
- » Activated by push button, hands-free, and RF devices
- » Infinite hold open
- » Maximum door size 4'0" x 8'0", 250 lbs
- » Push and Go opens door to full-open position upon manual activation
- » Obstruction Detection on both open and close cycle
- » 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
- » 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
- » This product is manufactured in an ISO 9001 facility

## 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 closes 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.

## 6000 SERIES

LOW ENERGY POWER OPERATOR

### SUSTAINABILITY CONTRIBUTIONS

This product has been documented to help facilities meet sustainable building certification programs, including LEED, WELL, Living Building Challenge & Net Zero Energy.

- » Environmental Product Declaration
- » Health Product Declaration
- » Declare Label
- » GreenCircle Certification
- » Verified to offer 24% energy savings as compared to similar operators



### STANDARD APPLICATIONS



#### 6010/6050

HINGE (PULL) SIDE OF DOOR

- » Buffered stop assembly in slide track

6010 RIGID ARM AND SLIDE TRACK

- » 85° to 110° templated door openings in 5° increments
- » 1/8" (3mm) maximum frame reveal

6050 DOUBLE EGRESS ARM AND SLIDE TRACK

- » From 1/8" to 3" (3 to 76mm) frame reveal
- » Specify hand when ordering

An auxiliary stop is suggested where severe conditions exist.



#### 6020/6030

STOP (PUSH) SIDE OF DOOR

STANDARD-DUTY DOUBLE LEVER ARM

- » Frame reveals 2-3/4" to 6-7/8" (70 to 175mm)
- » An auxiliary door stop is required for these applications

Series	Door Opening
6020	Up to 110°
6030	From 110° to 180°

Note: Drop applications are needed if the ceiling clearance is less than 5". Specify 6020-D (minimum door width = 33" (84cm)) or 6030-D (minimum door width = 31" (79cm))



#### 6060/6070

STOP (PUSH) SIDE OF DOOR

HEAVY-DUTY DOUBLE LEVER ARM

- » Maximum frame reveals (see chart)
- » 85° to 110° templated door openings in 5° increments
- » Spring buffered stop in arm shoe assembly

Series	Reveal Range
6060	2-1/4" to 4-3/4"* (57 to 121mm)
6070	4-13/16" to 7-3/8" (122 to 187mm)

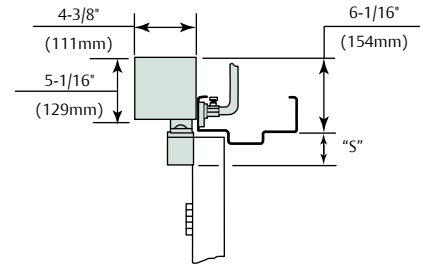
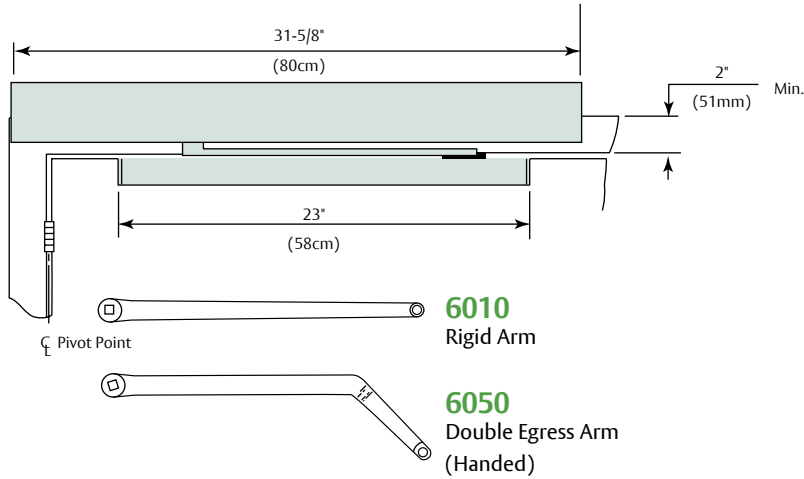
\* Reveals less than 2-1/4" (57mm) may be achieved by field cutting the adjusting rod

Note: Drop applications are needed if the ceiling clearance is less than 5". Specify 6060-D or 6070-D

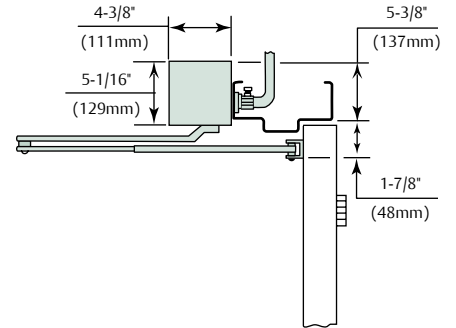
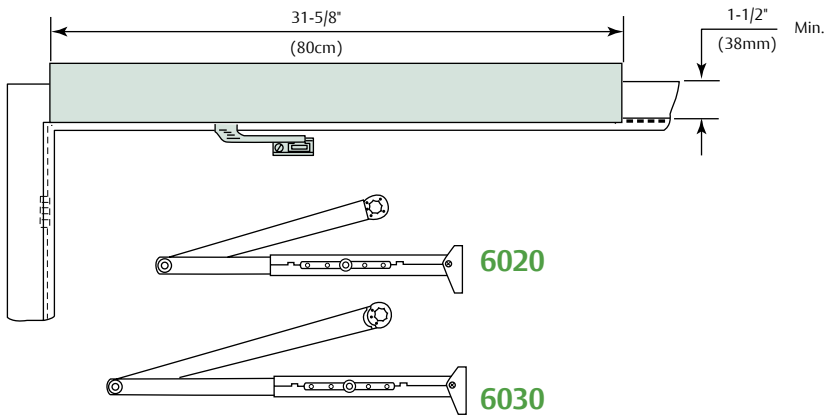
**NOTE: Contact factory if door weight exceeds 250 lbs.**

**6000 SERIES**  
LOW ENERGY POWER OPERATOR

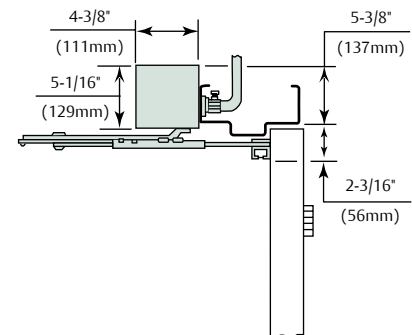
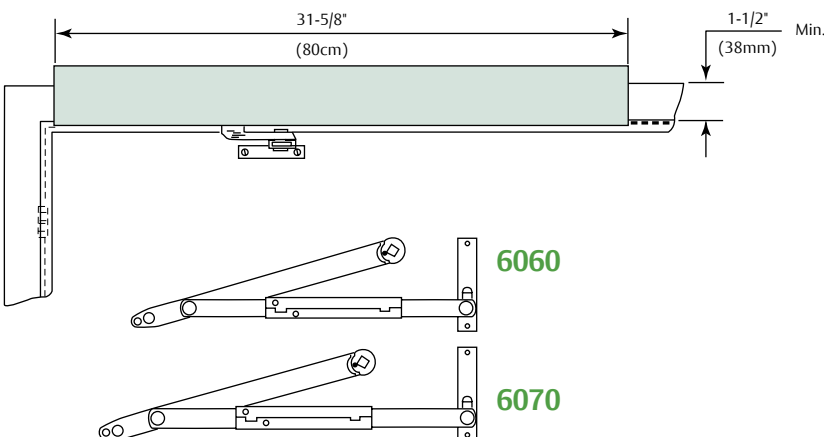
**STANDARD APPLICATIONS**



Series	Dim "S" Min. Top Rail of Door
6010	1-3/4" (44mm)
6050	2-3/8" (60mm)



Door Swing	90°	180°
Min. Door Width	32" (81cm)	29" (74cm)



### ACCESSORIES



501

502

### Activating Door Switches

- » 4-1/2" W. x 4-1/2" H.
- » 15 amp @ 125 VAC
- » Flush mounted – hard wired
- » Fits single or 2 gang electrical box
- » **501** – Stainless steel with black letters
- » **502** – Blue powder coat with white letters
- » Specify #542 to order surface mount box for 501 or 502 switch



505, 531

507, 532

- » 6" W. x 6" H.
- » 9 volt battery
- » 15 amp @ 125 VAC
- » Flush mounted
- » Stainless steel with blue letters
- » **531, 532, 533** and **535** radio frequency (433MHz). Used with RF option and 539. Supplied with surface mount boxes.



506, 533

534, 535

- » **507, 505, 506** and **534** hard wired\*. Surface mounted boxes are not supplied. If required, specify:  
555 - 6" square surface mount box  
557 - 6" round surface mount box

\* Switches may also be installed with single or double gang electrical box using fasteners included.



503

- » 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
- » Specify #5459 to order surface mount box for 503 switch



504

### Vestibule Switches

- » 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
- » Specify #542 to order surface mount box for 504 switch

### Wave-to-Open Wall Switch



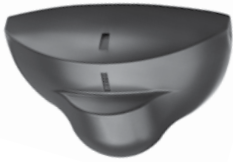
507

- » 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)



# 6000 SERIES LOW ENERGY POWER OPERATOR

## 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 & 530

### 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; specify when ordering
- » Standard formed plastic cap
- » Surface mounted (above ground)
- » 530 - radio frequency transmitter
- » 500 - hard wired switch
- » 530POST - post only; switch not included



6000SEC

### Security Plate Package

- » Conceals the ON/OFF/HOLD OPEN (ON/OFF) switch to deter tampering. Packed standard with the operator.



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.

## Transmitters



536

- » 2-3/8"w x 4-3/16"h x 15/16"d
- » Single channel



538

- » 2-3/8"w x 4-3/16"h x 15-16"d
- » Two channel



548

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

## Radio Frequency Receiver

- » 433 MHz



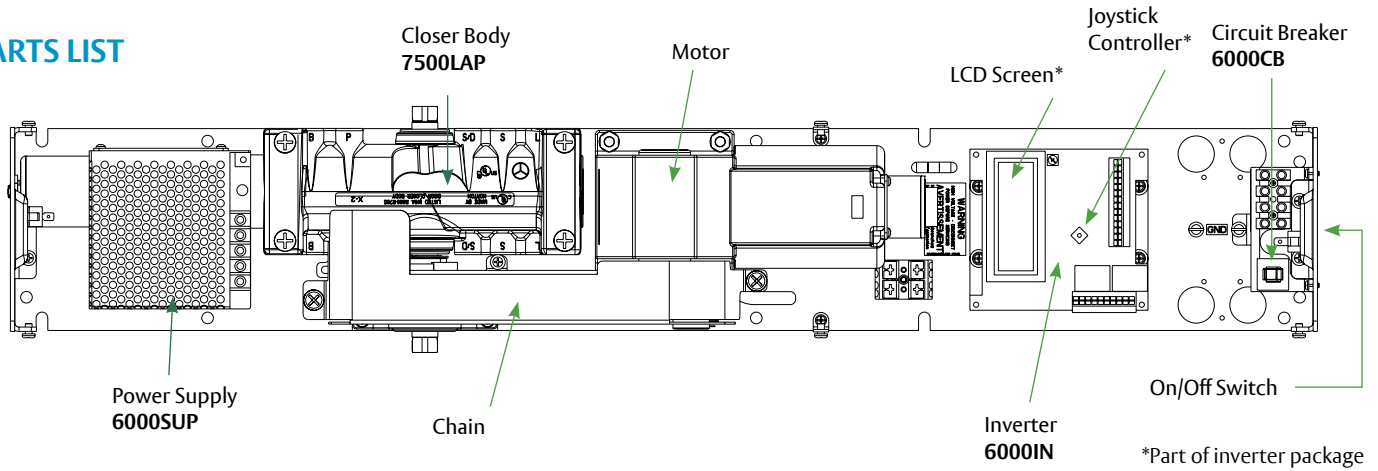
539

## Low Profile Push Plate

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



#### PARTS LIST



#### UNIT SUB-ASSEMBLY

Part Number	Description
6010LAP**	6010, 6050 Unit Sub-Assembly (NHO)
6020LAP**	6020, 6030, 6060, 6070 Unit Sub-Assembly (NHO)

#### DUMMY UNITS

Part Number	Description
6010-DMY	6010 Dummy Unit
6020-DMY	6020 Dummy Unit
6030-DMY	6030 Dummy Unit
6050-DMY	6050 Dummy Unit (Handed)
6060-DMY	6060 Dummy Unit
6070-DMY	6070 Dummy Unit

#### DROP ANGLE BRACKETS

Part Number	Description
6000DAB	Drop Angle Bracket†
6000DAB180	Drop Angle Bracket – 180° Swing†

#### MISCELLANEOUS PARTS

Part Number	Description
6000COV	Standard Cover
6000SFB	Aluminum Storefront Bracket
SP6000	Screw Pack



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

† Push side only.

#### OPERATIONAL SIGNAGE

#679 Signage Kit (supplied standard)



(1 per switch)



(1 per switch)



(2 per operator)

**PARTS LIST**

**Arm and Track Assemblies**



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



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



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

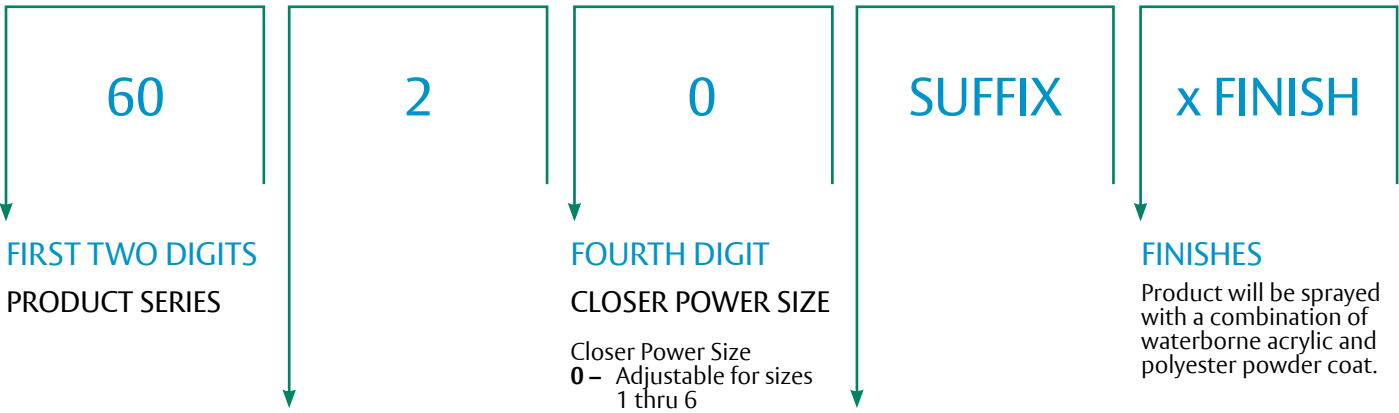


- #6030-1 Arm Assembly
- #6030-1W Main Arm & Rod
- #6620-12 Adjusting Tube & Shoe



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

## HOW TO ORDER



### THIRD DIGIT

#### IDENTIFIES TYPE OF APPLICATION

##### 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<sup>▲</sup>** – Standard-Duty Double Lever Arm 180° maximum door swing Reveals 2-3/4" to 6-7/8" (70 to 175mm)
- 6<sup>◆</sup>** – 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
  - » Factory Wired
  - » Requires 531, 532 door switch or 500 switch post (433MHz) (Maximum codes: 100)
- D** – Drop application for less than 5" minimum ceiling clearance. Refer to page 10 for bracket only.

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
Dull Bronze	691	612, 637, 639	DB
Black	693	315	315
Medium Amber	694	312	312
Gold	696	605, 606, 632, 633	GB
Prime Coat*	600	—	SRI

\*600 IS A SPECIAL RUST INHIBITING PRIME COAT. CLOSERS CAN BE ORDERED PRIME COAT ONLY (SPECIFY CLOSER X 600). AN ADDITIONAL CHARGE APPLIES IF FINISH COAT IS REQUIRED OVER PRIME COAT (EX: 6010 X 600 X 689).

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.

# Norton®

## ASSA ABLOY

ASSA ABLOY is the global leader in door opening solutions, dedicated to satisfying end-user needs for security, safety and convenience

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.

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