|  |  |
| --- | --- |
| KABA logo_PMS648 | Kaba Access Controls |
| PowerPlex 2000 Series Self-Powered Locks  **CSI Specifications** |

**PART 1 GENERAL**

**1.1 SECTION INCLUDES**

A. Keyless, self-powered electronic access control using a PIN (Personal Identification Number)

**1.2 RELATED SECTIONS**

A. Section 08710 - Door Hardware.

**1.3 REFERENCES**

A. BHMA (Builders Hardware Manufacturers Association) – A156 series.

B. DHI (Door and Hardware Institute) – Standard hardware positioning dimensions.

C. NFPA 80 – Fire Doors and Windows.

D. NFPA 101 – Life Safety Code.

E. NFPA 252 – Fire Tests of Door Assemblies.

F. ANSI/NFPA Pamphlet No. 80, Table 2-8A – Installation of Swinging Doors with Builders Hardware

G. ANSI A 117.1 – Accessible and Useable Buildings and Facilities.

H. A156.1 – American National Standard for Materials and Finishes.

1. LEED – Leadership in Environmental Energy and Design

J. USGBC – United States Green Building Council

**1.4 REGULATORY AGENCIES**

1. Hardware for Doors in Fire Separations and Exit Doors: Conform to ACO (American Certification Organization) accredited by UL (Underwriters Laboratories Incorporated).
2. ADA (Americans with Disabilities Act).

**1.5 SUBMITTALS**

A. Section 01300 – Submittals: Submit one (1) sample of each hardware component with each specified finish.

B. Samples:

1. Identify each sample by label indicating applicable manufacturer’s brand number, required finish, and hardware package number.

2. Approval samples will be returned for incorporation into the work.

C. Hardware List:

1. Indicate specific hardware; identify make, model, material, function, size, finish, and other pertinent information.

**1.6 CLOSEOUT SUBMITTALS**

A. Section 01780 – Closeout Submittals: Requirements for operation and maintenance manual.

B. Provide operation and maintenance data for electronic access control for incorporation into manual.

C. Advise maintenance staff regarding proper care, cleaning, and general maintenance.

**1.7 QUALITY ASSURANCE**

1. Perform Work in accordance with the following requirements:

1. ANSI-BHMA, A156 Series.

2. DHI – A115 Series.

3. NFPA 80.

4. NFPA 101.

5. NFPA 252.

B. Hardware Supplier Qualifications: Company specializing in supplying [commercial] [institutional] [\_\_\_\_\_\_\_\_\_\_\_\_\_] door hardware with [\_\_\_\_\_] years [documented] experience. [approved by manufacturers].

C. Hardware Supplier Personnel: Employ [an Architectural Hardware Consultant (AHC)] [a quail-fied person] to assist in the Work of this section.

**1.8 EXTRA MATERIALS**

A. Section 01780 – Closeout Submittals: Provide maintenance materials.

**1.9 DELIVERY AND STORAGE**

A. Section 01600 – Product Requirements: Deliver, store, handle, and protect products.

B. Deliver materials in original package with identification labels intact.

C. Package each item of hardware including fastenings, separately or in like groups of hardware. Label each package as to item definition and location.

D. Store finishing hardware in locked, clean, dry area.

**1.10 PROJECT CONDITIONS**

A. Section 01300 – Administrative Requirements: Coordination and meetings.

B. Coordinate the Work with other directly affected sections involving manufacture or fabrication of internal reinforcement for door/frame hardware and recessed items.

**1.11 WARRANTY**

A. Section 01700 – Execution Requirements: Warranties.

B. Manufacturer’s Warranty: [two (2)] [\_\_\_\_\_] year limited warranty that begins once power is applied.

**1.12 MAINTENANCE PRODUCTS**

A. Section 01700 – Execution Requirements: Operation and maintenance data.

B. Provide special tools applicable to each different or special hardware component.

**PART 2 PRODUCTS**

**2.1 MANUFACTURER**

1. Acceptable Manufacturer: KABA Access Controls
2. Substitutions: Not permitted.
3. Access Control products must be manufactured in the USA
4. Access Control Products must meet BAA (Buy American Act) and NAFTA Guidelines

**2.2 STAND-ALONE ELECTRONIC ACCESS CONTROL**

Stand-Alone Electronic Access Control for High Security Applications

1. Access Control System:

1. Self-powered access control; no batteries or external power needed

2. Access using unique User PIN (Personal Identification Number) as a credential

3. Software Lock Programming and Auditing Unit: Laptop or Netbook PC with IrDA communications

4. Number of Users: 100

5. Audit Trail: 1,000 most recent events with software, including Key Override use

6. Authority Levels (5) - Allows control of who has access to specific lock operations:

Master Manager Maintenance Unit (PC M-Unit) User

Service User Access User

7. Passage Mode: Manually toggled on/off at the lock keypad with preset duration from 1-24 hours using authorized PIN code

8. Lockout Mode: Manually toggled on/off at the lock keypad with authorized PIN code

B. Locks – General Information:

1. Style –PIN-based with vandal-resistant Keypad with metal pushbuttons.

2. Lockset Electronic: ANSI/BHMA A156.25, Grade 1 Certification

3. Extra heavy-duty solid cast housings and solid cast levers, wear-tested for extensive use in both indoor and outdoor applications

4 Mounting: All electronics should be on the unsecured side of the door to prevent cables or wires through the door.

5. Standard Lock Finish: Satin Chrome 26D (626) housings & levers

6. Other Finish Available: Satin Brass 04 (606)

7. Items supplied with: Lock Assembly, Installation Manual, Template, Quick Reference Guide, Operations Manual, and required Hardware

Additional Items supplied with Key-in-Lever Cylinder model ONLY:

Universal Kaba 1539 6-pin cylinder and two (2) nickel silver keys

8. Key Override if equipped: Key-in lever cylinders or small format interchangeable cores

9. Authority Levels: Six (5) different Options:

Master Level - Performs all set-up and programming functions

Manager Level - Administers common programming functions

Access User Level - Entry granted with valid credential

Service Level –Single event, or up to 24 hour access in 1 hour increments

Maintenance Level – no access is granted, but information can be uploaded/ downloaded from the lock

10. User Parameters:

PIN Length – adjustable to accept 4 to 8 digits

Anti-Tamper Lockout – adjustable from 3 to 9 invalid attempts, with an adjustable period of 3 to 90 seconds

Re-Lock Time – adjustable from 2 to 20 seconds

11. Power Options:

Self powered (no batteries or external power required)

12. Certification and Testing

ANSI-BHMA Certified:

A156.2 Cylindrical Locks Grade 1

A156.3 Exit Device Locks Grade 1

A156.13 Mortise Locks Grade 1

A156.25 Electronic Locks Grade 1

Accessibility Standard:

Americans with Disabilities Act (ADA) Compliant

Fire Rating: Three (3) hour UL/ULC fire door rating for “A” rated doors

Environmental: Indoor /Outdoor approved

-31°F (-35°C) to +130°F (66°C)

C. Locks – Cylindrical:

1. Style – PIN-based, vandal-resistant Keypad with metal pushbuttons.

2. Locking Device Options: Cylindrical ½” (13mm) throw latch with floating face plate and 2¾” (70mm) bkst Cylindrical ½” (13mm) throw latch with floating face plate and 23/8” (60mm) bkst

3. Backsets:

2-3/4” (70mm), 2-3/8”(60mm); 3-3/4” (95mm) and 5” (130mm) extensions available

4. Lockset Cylindrical: ANSI/BHMA A156.2, Grade 1 Certification

5. Extra heavy-duty cylindrical drive wear-tested for extensive use in both indoor and outdoor applications; knobs available if required

6. Key Override: Key-in lever cylinders and small format interchangeable cores

##### 7. Lock Functions: Cylindrical, Cylindrical with Privacy

D. Locks – Mortise:

1. Style – PIN-based, vandal-resistant Keypad with metal pushbuttons.

2. Locking Device Options:

Mortise ASM, 1 ¼” Face Plate No Deadbolt (Non Handed, Field Reversible) Mortise ASM, 1 ¼” Face Plate With Deadbolt (Non Handed, Field Reversible)

Mortise ASM, 1 ¼” Face Plate Auto Deadbolt (Non Handed, Field Reversible)

3. Backset: 2-3/4” (70mm)

4. Lockset ASM Mortise: ANSI/BHMA A156.13, Grade 1 Certification

5. Extra heavy-duty ASM Mortise wear-tested for extensive use in both indoor and outdoor applications

6. Key Override: Key-in lever cylinders and small format interchangeable cores

7. Lock Function Customization: Mortise Locks are easily customized on-site via keypad to work as various BHMA lock functions, eliminating the requirement to stock multiple locks to meet different applications. Built-in Options include: Entry, Privacy, and Residence lock (thumbturn required for Privacy and Residence functions)

E. Locks – Exit Trim:

1. Style – PIN-based, vandal-resistant Keypad with metal pushbuttons.

##### 2. Exit Device compatibility:

Arrow 3888 Corbin 5000 Detex F1001

Detex 20/F20 Dorma 9300/9300F Precision 21/FL21 Precision 22/FL22 Sargent 8888 Von Duprin 9847/9947 Von Duprin 9875/9975 Von Duprin 89/99 Von Duprin 9827/9927 Yale 7100 Yale 7160

##### 3. Backset: Dictated by chosen Exit Device Manufacturer

4. Exit Trim: ANSI/BHMA 156.3, Grade 1 Certification

5. Tailpiece or spindle interfaces with all specified Exit Devices

6. Key Override: Key-in lever cylinders and small format interchangeable cores

7. Lock Function: Exit Trim

**2.2 USE OF FASTENERS AND FUNCTIONAL DETAILS**

2.2.0 Fasteners supplied by manufacturer must include three though bolts. Cables or wires through the door are not allowed.

### 2.2.1.1 Numeric Keypad: Vandal resistant, 12 button, metal keys with key override. Records [3] [4] [5] [6] [7] [8] [9] attempts.

#### 2.2.1.2 Lock Housing: Extra heavy-duty solid cast housing, cast stainless steel cylindrical drive components, solid cast zinc lever, 70 mm (2-3/4 inch) backset.

##### 2.2.1.2.1 Function Options:

##### 1 Exit Trim (E.T.)

##### 2 Exit Trim (E.T.) Concealed Vertical Rod 3 Cylindrical Lock (cyl) 5 Cylindrical with Privacy (cyl) 6 American Steel Mortise (ASM)

##### 

##### 2.2.1.2.2 Electronics:

##### Self-powered with [visual] indicator when lever rotation for recharging is needed

##### 2.2.1.2.3 Locking Device Options: Exit Trim - interfaces with over 15 different exit device models Cylindrical ½” (13mm) throw latch with floating face plate and 2¾” (70mm) bkst Cylindrical ½” (13mm) throw latch with floating face plate and 23/8” (60mm) bkst Mortise ASM, 1 ¼” Face Plate No Deadbolt (Not Handed) Mortise ASM, 1 ¼” Face Plate With Deadbolt (Not Handed)

##### Mortise ASM, 1 ¼” Face Plate Auto Deadbolt (Not Handed)

##### [3-hour] [\_\_] UL/ULC Fire Door Rating.

##### 2.2.1.2.4 Strike: ASA and standard strike plate.

##### 2.2.1.2.5 Door Thickness: 1-3/8 inch (35 mm) to 2-1/4 inch (57 mm) [\_\_\_\_\_\_\_] (specify)

##### 2.2.1.2.6 Door handing: Non-handed, Field Reversible

##### 2.2.1.2.7 Weight: 3.63 kg (8 lbs).

##### 2.2.1.3 Finished to ANSI/BHMA standard for Materials and Finishes:

#### 2.2.1.4 Finish Options: 606 Satin Brass (04)

#### 626 Satin Chrome (26D)

## 2.3 ACCESSORIES

### 2.3.0 Fasteners: Must include three bolts from the secured side of the door and compensates for expansion and contraction of both metal and wood doors by maintaining the fastener in constant tension from both sides of the door.

#### 2.3.0.1 Screws, bolts, expansion shields and other fastening devices required for installation and smooth operation of hardware.

#### 2.3.0.2 Exposed fastening devices to be compatible with hardware finish.

### 2.3.1 Key Override Function Options: K-I-L Kaba Cylinder (Schlage C Keyway) Included (XS) I/C Best & Equivalents (6 or 7 Pin Length) , Cylinder Not Included (B)

#### 2.3.1.1 [Standard key-in-lever cylinder.] [Interchangeable core cylinder.]

#### 2.3.1.2 Compatible with KIL cylinders from Manufacturer: [ASSA,] [Abloy,] [Corbin/Russwin,] [Medeco,] [Sargent,] [Schlage,] [Schlage Primus,] [Arrow,] [Australian,] [Kaba,] [Marks].

#### 2.3.1.3 Interchangeable cores: small format Best and compatibles (6 or 7 pin length).

2.3.1.4 Key override usage indicated in audit events log

### 2.3.2 Type and Finish: Same surface finish with compatible material as substrate.

## 2.4 FABRICATION

### 2.4.0 Fabricate keyless lock with clutch free, direct-drive design.

2.4.1 Provide both Levers: Options: Long Lever (LL)

**PART 3 EXECUTION**

## 3.1 EXAMINATION

### 3.1.0 Section 01700 – Execution Requirements: Verification of existing conditions before starting work.

### 3.1.1 Verify that doors and frames are ready to receive work and dimensions are as [indicated on shop drawings.] [instructed by the manufacturer.]

### 3.1.2 Installation of Fasteners.

**3.2 INSTALLATION**

### Provide wood or metal door and frame manufacturers with instructions and templates for preparation of the work to receive hardware.

### Provide hardware manufacturers' instructions for installation of hardware components.

### Use fasteners recommended by manufacturer.

### Do not over tighten fasteners.

## 3.3 FIELD QUALITY CONTROL

### 3.3.0 Section 01400 – Quality Requirements: Field inspection, testing, and adjusting.

### 3.3.1 Architectural Hardware Consultant will inspect installation and certify that hardware and installation has been provided and installed in accordance with manufacturer's instructions [and as specified].

## 3.4 ADJUSTING

### 3.4.0 Section 01700: Adjusting installed work.

### 3.4.1 Adjust hardware for smooth operation.

**3.5 PROTECTION OF FINISHED WORK**

### 3.5.0 Section 01700: Protecting installed work.

### 3.5.1 Do not permit adjacent work to damage hardware or finish.

**3.6 SCHEDULE**

**\*\* NOTE TO SPECIFIER \*\* Insert a schedule of hardware required for project. Where possible, group hardware together that requires same hardware. Indicate keying and other specific requirements. For major projects consider using hardware groups.**

**3.7 PROTECTION**

### 3.7.1 Section 01700: Protecting installed work.

### Do not permit adjacent work to damage hardware or finish.

**END OF SECTION**