

# 631 Series

## 1.5 Amp Power Controllers



Access control system power requirements are uniquely different from other systems. Unlike camera system power requirements, access control systems draw more current for locking hardware and during access control-related events. 75 – 85% of access control operating problems and technical support calls are due to power issues.\* Access control systems require steady and clean (filtered) low-voltage DC current with surge suppression to protect printed circuit boards and connected devices from damage due to dirty power (transients and voltage spikes).

SDC power supplies have been developed specifically to help reduce power system issues and to support electric locks and access control requirements. Our hybrid design combines the efficiency of switching power supplies with the inductive load handling capability of linear power supplies in various 12/24 VDC current output capabilities and enclosure sizes. Filtering and output voltage regulation provide protection and ensure the longevity of all system components.

The high performance, heavy-duty circuitry is ideal for inductive loads and multi-door applications. With the addition of SDC programmable controllers or relay modules, the user-friendly modular designs ensure versatility, interface capability and easy installation of virtually any electric locking devices, access controls and related fire & life safety equipment.

\* SDC technical support logs.

### MODELS

**631RF** 1.5 Amp DC Power Controller With Cabinet

**631RFA** 1.5 Amp DC Power Controller With Large Cabinet

**631RFL** 1.5 Amp DC Power Controller Less Cabinet

### STANDARD FEATURES

- Regulated and filtered linear DC power
- Class 2 output
- Field selectable dual voltage
- Fire/emergency release input
- Isolated battery charging circuit
- Low battery disconnect
- Input and output surge protection
- Visual status indicator (LED)
- Cabinet enclosures with pre-configured control module mounting holes\*

\* Applies to RF and RFA models only.

### OPTIONAL FEATURES

- System on/off switches
- 6' power cord
- Key lock cover
- 230 VAC, 50/60 Hz input
- Choice of compatible door control modules



## APPLICATIONS

### FIRE/EMERGENCY RELEASE INPUT

A fire alarm input provides simultaneous release of all fail safe locks and door holders in case of an emergency.

### ISOLATED BATTERY CHARGING CIRCUIT

A separate charging output provides 13.5 or 27 volts to fully charge the batteries. The secondary output is always precisely maintained at 12 or 24VDC to protect locking devices and components from over voltage while the batteries are charging. The specified secondary output current is also maintained while batteries are charging. Derating of the secondary output current is not required when charging batteries.

### LOW BATTERY DISCONNECT

Batteries are disconnected from the output circuit prior to deep discharge, preventing battery destruction. Batteries are not included and should be ordered separately.\*

### DOOR CONTROL MODULES

Door control relay modules are available to meet virtually any application need. All wiring for lock hardware, access controls, remote controls and monitoring is terminated at one central location. Installation and troubleshooting is simplified. Modules may be factory installed or ordered separately for field installation as needed. Cabinet enclosures are pre-configured with mounting holes to accommodate door control modules. All modules are individually fused for protection of multiple station systems.

### INPUT & OUTPUT SURGE PROTECTION

Input and output surge protection is built-in. The AC input voltage is circuit breaker protected and the outputs are PTC protected.

\* See related products for backup batteries.

### VISUAL STATUS INDICATOR (LED)

LED tri-color status indicators provide information regarding the AC input, DC output and battery backup status. Outputs for remote annunciation are available.

### SYSTEM ON/OFF SWITCHES

Optional System On/Off switches are available both inside the cabinet enclosure or on the cabinet enclosure cover.

### 6' POWER CORD

An optional 6' power cord simplifies installations that do not require conduit where permitted by code.

### KEY LOCK COVER

Optional key lock cover available where tamper-resistance is required.

### INTERNATIONAL STANDARD INPUT

Additionally an alternative 230VAC international standard input is an available option.



## CROSS REFERENCE



	602	631	632	634	636
<b>DC Output Rating</b>	1 Amp	1.5 Amp	2 Amp	4 Amp	6 Amp
<b>Small Cabinet</b>	602RF	631RF	632RF	-----	-----
<b>Large Cabinet</b>	602RFA	631RFA	632RFA	634RF	636RF
<b>Less Cabinet</b>	602RFL	631RFL	632RFL	-----	-----
	<a href="#">CLICK TO VIEW</a>		<a href="#">CLICK TO VIEW</a>	<a href="#">CLICK TO VIEW</a>	<a href="#">CLICK TO VIEW</a>

 SPECIFICATIONS

	631RF	631RFA	631RFL
<b>Input</b>	115 VAC 800 mA 50/60 Hz	115 VAC 800 mA 50/60 Hz	115 VAC 800 mA 50/60 Hz
<b>Output</b>	12/24 VDC 1.5 Amp	12/24 VDC 1.5 Amp	12/24 VDC 1.5 Amp
<b>Battery Charger</b>	13.5/27 VDC 250 mA	13.5/27 VDC 250 mA	13.5/27 VDC 250 mA
<b>Cabinet</b>	12" x 12" x 4" 20 Gauge	16" x 14" x 6½" 16 Gauge	-----
<b>Weight</b>	9 lbs	20 lbs	3 lbs

**BACKUP BATTERY DISCHARGE TIME**

Standby Power	12 VDC			
<b>Battery</b>	RB12V4	RB12V4	RB12V4	RB12V4
<b>Battery Qty*</b>	1	2	3	4
<b>Current Load</b>	Power Backup Time (Hours)			
250 mA	19.6	49.4	84.8	124.4
500 mA	7.8	19.5	33.5	49.2
750 mA	4.5	11.3	19.5	28.6
1 Amp	3.1	7.7	13.3	19.4
1.5 Amp	1.8	4.5	7.7	11.3

Standby Power	24 VDC**	
<b>Battery</b>	RB12V4	RB12V4
<b>Battery Qty*</b>	2	4
<b>Current Load</b>	Power Backup Time (Hours)	
250 mA	19.6	49.4
500 mA	7.8	19.5
750 mA	4.5	11.3
1 Amp	3.1	7.7
1.5 Amp	1.8	4.5

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**DOOR CONTROL MODULE CAPACITY\*\*\***

Power Supply	631RF		631RFA	
<b>Battery Qty*</b>	0-2	3-4	0-2	3-4
<b>FB4</b>	2	2	2	2
<b>12VR</b>	1	1	1	1
<b>UR-1</b>	4	2	4	2
<b>UR2-4</b>	-----	-----	2	1
<b>UR4-8</b>	-----	-----	2	1
<b>CR4</b>	2	1	2	1
<b>ACM-1</b>	2	2	2	2
<b>EMC</b>	1	1	2	1

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\* Battery quantity based on size of SDC's RB12V4 backup batteries.

\*\* For 24 VDC standby power, minimum order of (2) batteries. Batteries must be ordered in pairs.

\*\*\* Total combined load of modules and access control hardware may not exceed power supply rating.

## CERTIFICATIONS

UL 294 Access Control System Units

UL 603 Power Supplies for Use with Burglar-Alarm Systems

ULC-S318 Power Supplies for Buglar Alarm Systems

UL 864 Control Units and Accessories for Fire Alarm Systems

UL 1481 Power Supplies for Fire-Protective Signaling Systems

## HOW TO ORDER

### FOLLOW STEPS FOR ORDERING

 Designates optional step

<p>1  SPECIFY MODEL</p> <p><b>631RF</b> 1.5 Amp DC Power Controller With Cabinet</p> <p><b>631RFA</b> 1.5 Amp DC Power Controller With Large Cabinet</p> <p><b>631RFL</b> 1.5 Amp DC Power Controller Less Cabinet</p>											
<p>2  SPECIFY OPTIONS</p> <p><b>PS-1</b> Power On/Off Inside Cabinet Enclosure</p> <p><b>PS-1A</b> Power On/Off On Cabinet Enclosure Cover</p> <p><b>PC</b> 6' Power Cord</p> <p><b>KL</b> Key Lock Cover</p> <p><b>-220</b> 230 VAC, 50/60 Hz</p>		<p>3  SPECIFY DOOR CONTROL MODULES</p> <p><b>UR-1</b> Microprocessor Controller, Two Relays</p> <p><b>UR2-4*</b> Microprocessor Controller, Four Relays</p> <p><b>UR4-8*</b> Microprocessor Controller, Eight Relays</p> <p><b>FB4</b> Multiple Fused Output Relay</p> <p><b>CR4</b> Four Station Control Relay</p> <p><b>ACM-1</b> Six Station Input Control Relay</p> <p><b>EMC</b> Exit Device Sequencer</p> <p><b>12VR</b> Voltage Control Regulator, 12VDC</p> <p><small>*UR2-4 and UR4-8 boards can only be accommodated in the RFA large cabinet enclosure.</small></p>									
<table border="1"> <tr> <td>STEP NUMBER:</td> <td>1</td> <td>2</td> <td>3</td> </tr> <tr> <td>ORDERING EXAMPLE:</td> <td><b>631RF</b></td> <td><b>PS-1 PC KL</b></td> <td><b>UR-1</b></td> </tr> </table>				STEP NUMBER:	1	2	3	ORDERING EXAMPLE:	<b>631RF</b>	<b>PS-1 PC KL</b>	<b>UR-1</b>
STEP NUMBER:	1	2	3								
ORDERING EXAMPLE:	<b>631RF</b>	<b>PS-1 PC KL</b>	<b>UR-1</b>								

## RELATED PRODUCTS

### BACKUP BATTERIES

SDC power supplies equipped with batteries provide continuous operation of access controls, locking devices and peripheral components during a power failure.

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**RB12V4** 12V/5Ah Battery

**RB12V4-2** 12V/5Ah Battery, Qty 2 Pack

**RB12V7** 12V/7Ah Battery

**RB12V7-2** 12V/7Ah Battery, Qty 2 Pack

