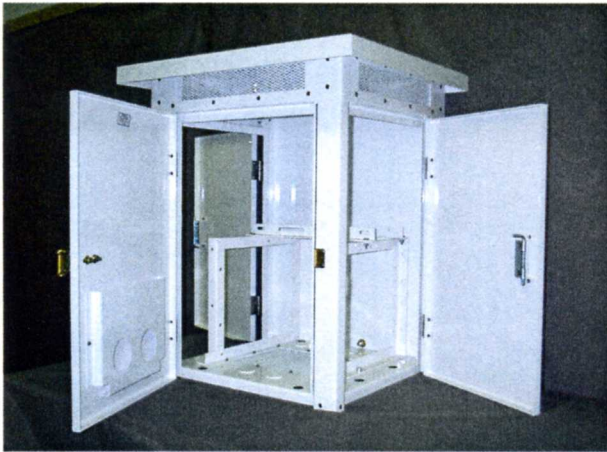


Cathodic Protection Rectifier Advantage Air Series:

Integrated Rectifier Technologies Advantage Series of rectifier provides a quality product with the intention to meet the requirements of our clients. Used in the majority of applications; this series has a multitude of options available.

Standard Features



- Removable 3-door cabinet c/w slide out frame
 - Nema 3R rated cabinet, lockable
 - Available in 12 gauge polyester powder coated steel or 11 gauge hot dipped galvanized steel
 - All cabinet hardware stainless steel, all brass/copper hardware has electroless nickel plated finish
 - Available with pole / wall or base mounting bracket
 - Single and three phase inputs available
 - 25 output steps, tap link bar adjustment
 - Transformer min. 95% efficient, Class H temperature rated
-
- Overload / short protection provided by fully magnetic trip circuit breaker and fusing
 - Silicon diode rectification bridge c/w surge protection
 - 3 ½ " continuous readout DC metering, Accuracy +/- 2%
 - High energy AC and DC lightning protection on all rectifiers
 - -50 to +45 Celsius operating ambient
 - One year Warranty
 - Full line of options available
 - CSA approved
-

INTEGRATED RECTIFIER TECHNOLOGIES, INC.

15360 - 116 Avenue
Edmonton, Alberta, Canada T5M 3Z6



Advantage Air Series Model Coding

ADASFS 60-42 B

ADVANTAGE LINE MODEL

AIR-COOLED TYPE

SILICON RECTIFIER TYPE

AC INPUT

A - 115 VAC F - 115/230 VAC
B - 208 VAC G - 230/460 VAC
C - 230 VAC H - 600 VAC
D - 416 VAC Z - OTHER INPUT
E - 460 VAC CONSULT
 FACTORY

AC PHASE

S - SINGLE PHASE
T - THREE PHASE

DC VOLTAGE RATING

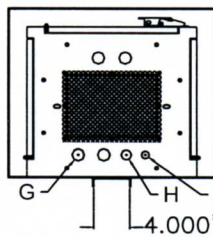
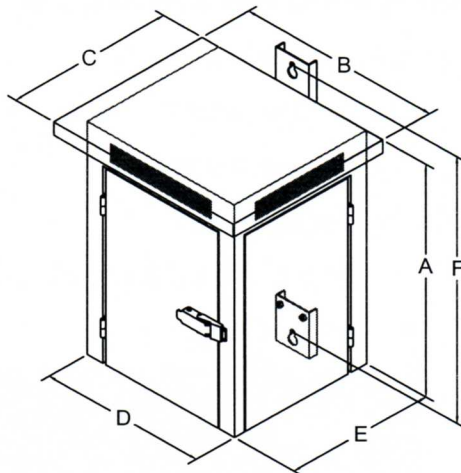
DC CURRENT RATING

COMMON OPTIONAL FEATURES

A - ALARM CIRCUIT **
B - BASE MOUNTING LEGS (12" Typical) **
C - COMMUNICATIONS FILTER (CAPACITOR / CHOKE)
D - UPGRADED DIODE VOLTAGE (PIV) RATING
E - EFFICIENCY FILTER (CHOKE)
F - NON-STANDARD ENCLOSURE FINISH **
G - GFI CONVENIENCE OUTLET **
I - INTERRUPTER CIRCUIT
J - NON-STANDARD AC INPUT FREQUENCY (50 Hz.)
L - NON-STANDARD DC LUG TERMINALS **
M - EXTRA RECTIFIER METER **
N - AUXILIARY NEGATIVE OUTPUT CIRCUIT **
O - METER SWITCH **
P - AUXILIARY POSITIVE OUTPUT CIRCUIT **
Q - NON-STANDARD TRANSFORMER ADJUSTMENT **
R - POTENTIAL METER
T - EXTENDED TEMPERATURE RATING
X - EXPORT CRATING
Y - SPECIAL TEST, DOCUMENT OR LABEL REQUIREMENT
Z - NON-LISTED OPTIONAL FEATURE (consult factory)

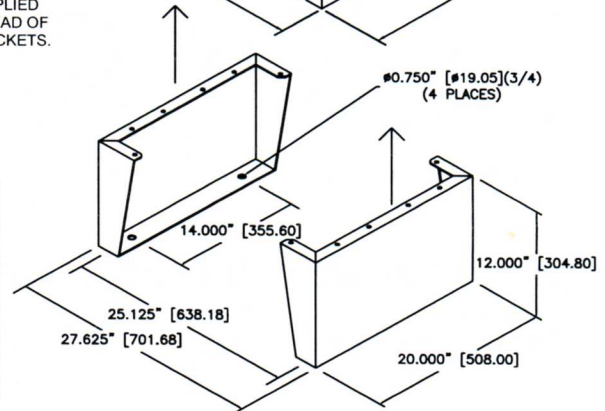
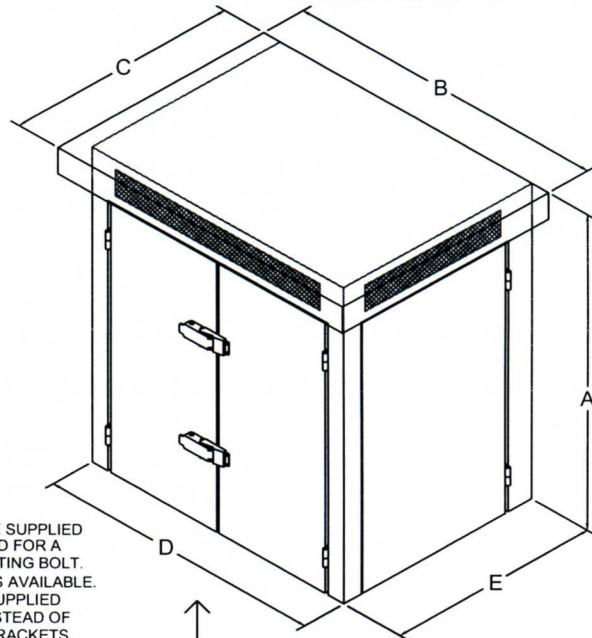
** - Option details available on Website: www.irtrectifier.com

TYPICAL A-2 OR A-3 SIZE ENCLOSURE

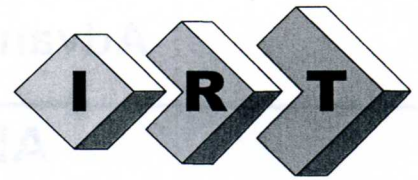


NOTE: A-2 & A-3 ENCLOSURES ARE SUPPLIED WITH (2) KEYHOLES SIZED FOR A MAXIMUM 5/8 (0.625") MOUNTING BOLT. OPTIONAL BASE MOUNTING IS AVAILABLE. A-4 ENCLOSURES ARE SUPPLIED WITH BASE MOUNTING INSTEAD OF WALL / POLE MOUNTING BRACKETS.

TYPICAL A-4 SIZE ENCLOSURE



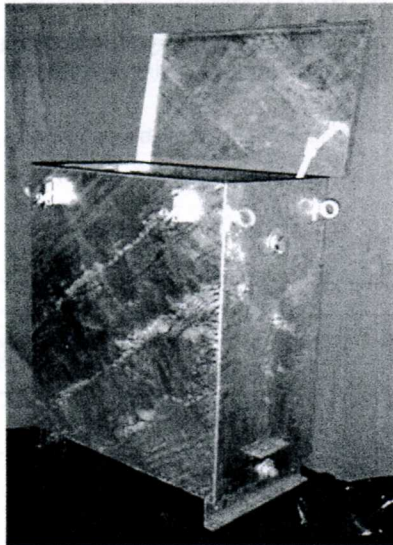
ENCL. SIZE	ENCLOSURE DIMENSIONS (")								
	A	B	C	D	E	F	G	H	I
A-2	26.625	23.25	19.25	19.00	17.00	30.50	1.375 (4) 1" KO	1.125 (1) 3/4" KO	0.875 (1) 1/2" KO
A-3	32.625	26.25	24.25	22.00	22.00	36.50	1.375 (4) 1" KO	1.125 (1) 3/4" KO	0.875 (1) 1/2" KO
A-4	36.00	36.25	26.25	32.00	24.00	N/A	1.984 (4) 1 1/2" KO	1.375 (1) 1" KO	1.125 (1) 3/4" KO



Cathodic Protection Rectifier Advantage Oil Series:

Integrated Rectifier Technologies Advantage Series of rectifier provides a quality product with the intention to meet the requirements of our clients. Used in harsh areas where a vented enclosure is not suitable; this series has a multitude of options available.

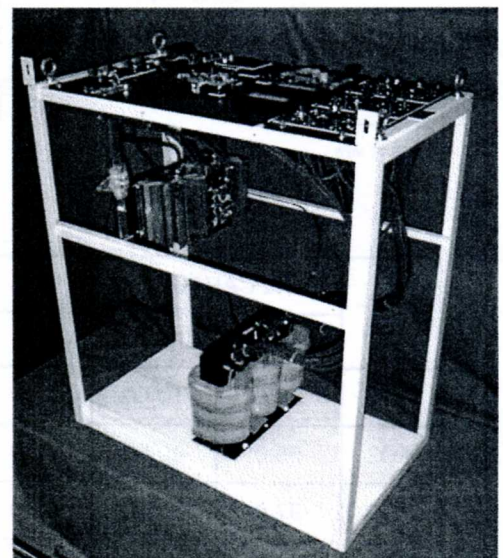
Standard Features



- Welded frame chassis c/w eyebolts for lift out capabilities
 - Nema 4 rated cabinet, lockable
 - Available in 12 gauge polyester powder coated steel or 11 gauge hot dipped galvanized steel
 - All cabinet hardware stainless steel, all brass/copper hardware has electroless nickel plated finish
 - Available with base channel for floor or pad mounting
 - Single and three phase inputs available, 50 hz optional
 - Minimum 25 output steps, tap link bar adjustment
 - Transformer min. 95% efficient, Class H temperature rated
-
- Overload / short protection provided by fully magnetic trip circuit breaker and fusing
 - Silicon diode rectification bridge c/w surge protection
 - 3 ½ " continuous readout DC metering, Accuracy +/- 2%
 - High energy AC and DC lightning protection on all rectifiers
 - -50 to +45 Celsius operating ambient
 - One year Warranty
 - Full line of options available
 - CSA approved

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Edmonton, Alberta, Canada T5M 3Z6



Phone: 780 447-1114

Fax: 780 454-0004

E-mail: sales@irtrectifier.com

Advantage Oil Series Model Coding

ADOSET 80-60 T

ADVANTAGE LINE MODEL

OIL-COOLED TYPE

SILICON RECTIFIER TYPE

AC INPUT

A - 115 VAC F - 115/230 VAC
 B - 208 VAC G - 230/460 VAC
 C - 230 VAC H - 600 VAC
 D - 416 VAC Z - OTHER INPUT
 E - 460 VAC CONSULT
 FACTORY

AC PHASE

S - SINGLE PHASE
 T - THREE PHASE

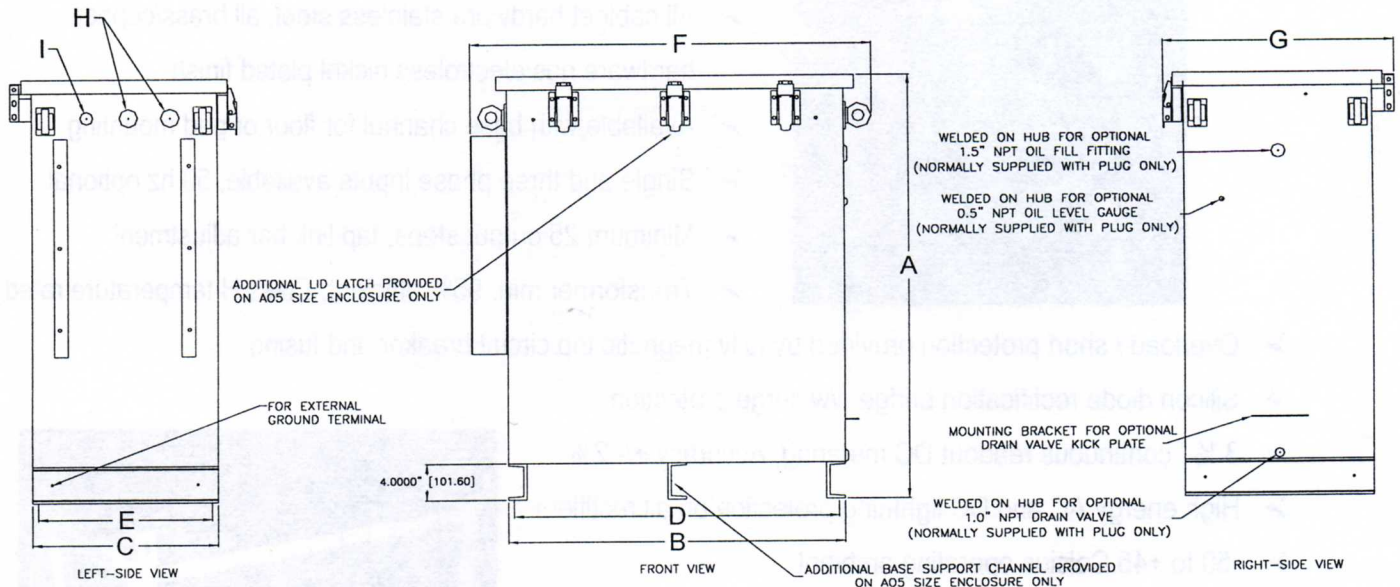
DC VOLTAGE RATING

DC CURRENT RATING

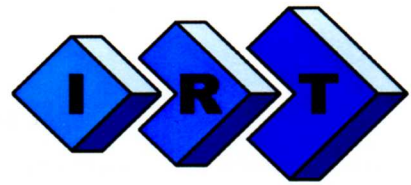
COMMON OPTIONAL FEATURES

A - ALARM CIRCUIT **
 C - COMMUNICATIONS FILTER (CAPACITOR / CHOKE)
 D - UPGRADED DIODE VOLTAGE (PIV) RATING
 E - EFFICIENCY FILTER (CHOKE)
 F - NON-STANDARD ENCLOSURE FINISH **
 I - INTERRUPTER CIRCUIT
 J - NON-STANDARD AC INPUT FREQUENCY (50 Hz.)
 L - NON-STANDARD DC LUG TERMINALS **
 M - EXTRA RECTIFIER METER **
 O - METER SWITCH **
 Q - NON-STANDARD TRANSFORMER ADJUSTMENT **
 R - POTENTIAL METER
 T - EXTENDED TEMPERATURE RATING
 W - NON-STANDARD ENCLOSURE CONSTRUCTION **
 X - EXPORT CRATING
 Y - SPECIAL TEST, DOCUMENT OR LABEL REQUIREMENT
 Z - NON-LISTED OPTIONAL FEATURE (consult factory)

** - Option details available on Website: www.irtrectifier.com



ENCL. SIZE	OIL CAPACITY		ENCLOSURE DIMENSIONS							CONDUIT KNOCKOUT SIZE	
	GALLONS	LITERS	A	B	C	D	E	F	G	H	I
AO1	28.0	107.0	27.50	24.00	18.00	22.75	16.75	31.00	22.50	1.375 (2) 1" KO	1.125 (1) 3/4" KO
AO2	55.0	207.0	36.50	30.00	20.00	28.75	18.50	37.00	24.50	1.984 (2) 1 1/2" KO	1.375 (1) 1" KO
AO3	97.0	367.0	46.50	36.00	20.00	34.75	18.50	43.00	24.50	1.984 (2) 1 1/2" KO	1.375 (1) 1" KO
AO4	196.0	742.0	50.50	54.00	24.00	52.75	22.75	61.00	28.50	1.984 (2) 1 1/2" KO	1.375 (1) 1" KO
AO5	306.0	1158.0	50.50	72.00	28.00	70.75	26.75	79.00	32.50	1.984 (2) 1 1/2" KO	1.375 (1) 1" KO

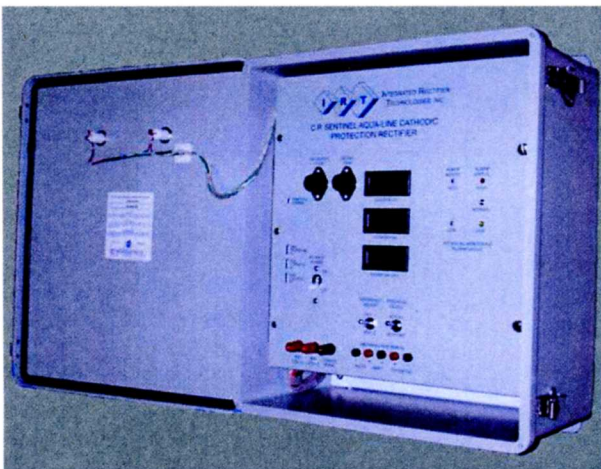


Cathodic Protection Rectifier

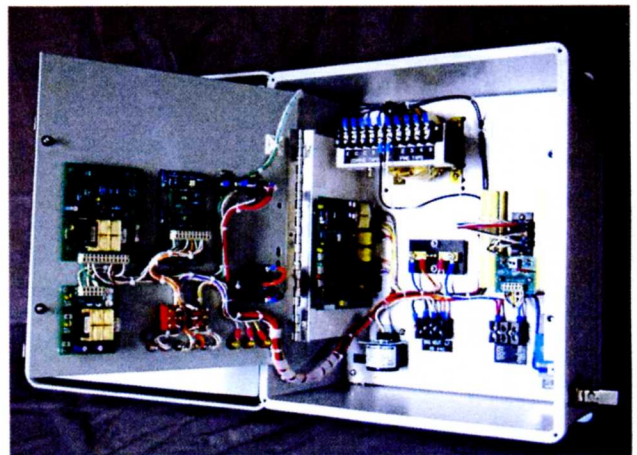
C.P. Sentinel Aqua-Line:

Integrated Rectifier Technologies C.P. Sentinel Aqua-Line rectifiers provide the precise control requirements needed in today's waterworks applications. Utilizing the state of the art **SENTRY CONTROLLER™**, the C.P. Sentinel Aqua-line units deliver unmatched performance and features to the water and wastewater industries.

Standard Features



- "Touch-Safe" hinged instrument panel segregates operator functions from "live" rectifier components
 - NEMA 4X, FRP enclosure with stainless steel hardware
 - Lightweight, powder coated aluminum instrument panel and chassis
 - Fully automatic, IR-Free control of C.P. system potential
 - Potential control accuracy within ± 5 mV of set point
 - Current & Voltage control within $\pm 1\%$ of set points
 - Automatic Potential, Current & Voltage Mode operation with seamless, automatic transfer between operational modes
 - Reference Cell input resistance > 20 Meg-Ohms
 - LED status indication for operating mode and controller power
 - Innovative "anti-spiking" circuitry prevents current overshoot during current interrupt mode
 - Manual mode operation: DC output is adjusted via 25 steps of transformer taps exclusive of controller circuit
 - SCR / Diode rectification module with surge protection
-
- Transformer: min. 95% efficient, Class "H" rated
 - Overload / short-circuit protection by fully magnetic circuit breaker including AC secondary & DC output fusing
 - $3\frac{1}{2}$ digit, high intensity LED metering, accuracy $\pm 0.2\%$
 - High energy AC & DC surge & lightning protection
 - -40 to $+50^{\circ}\text{C}$ (-40 to 122°F) operating ambient
 - Operating humidity range: 0 – 100%
 - **SENTRY CONTROLLER™** maintains protection criteria required by AWWA Standard D104-97
 - One year Warranty
 - CSA approved



INTEGRATED RECTIFIER TECHNOLOGIES, INC.

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E-mail: sales@irtrectifier.com

C.P. Sentinel Aqua-Line Model Coding

CAASAS 30-16A_bP

C.P. SENTINEL AQUA-
LINE

AIR-COOLED TYPE

SILICON RECTIFIER TYPE

AC INPUT

A - 115 VAC

OPTIONAL INPUTS
(CONSULT FACTORY)

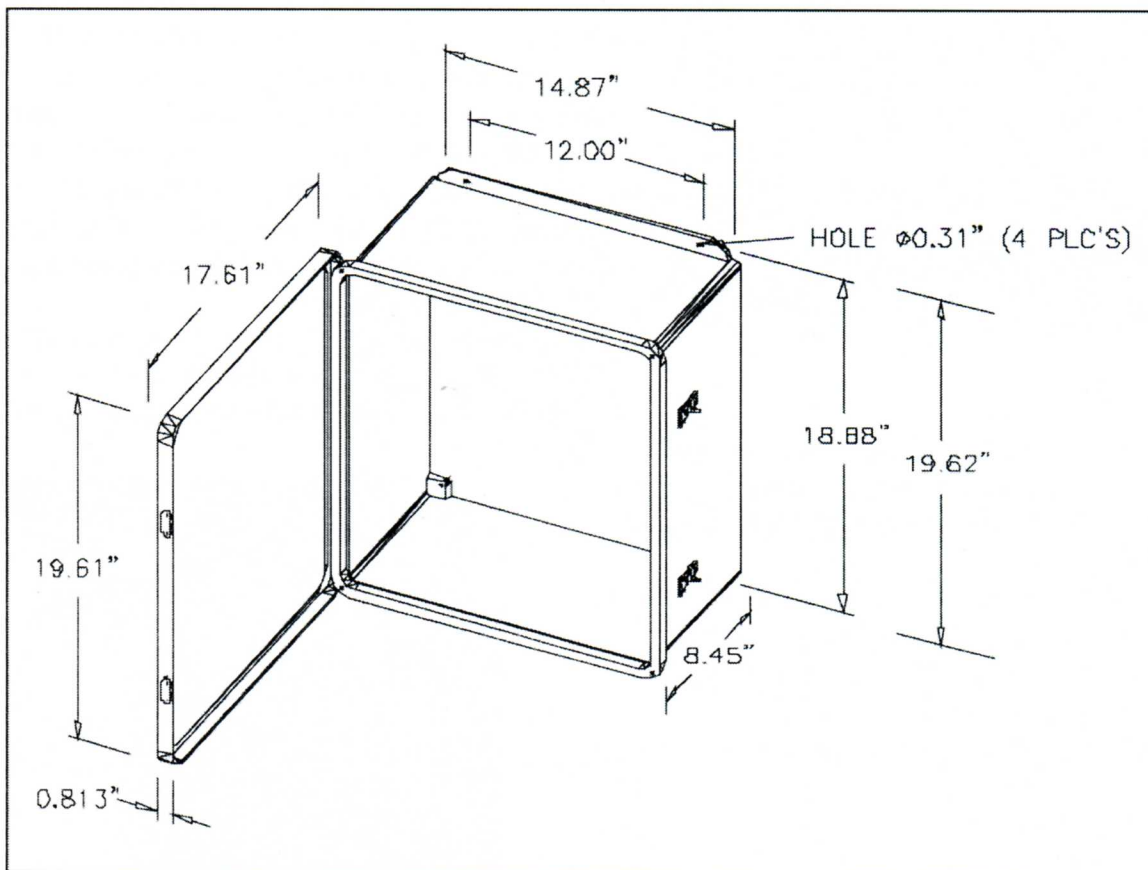
S - SINGLE PHASE

DC VOLTAGE RATING

DC CURRENT RATING

COMMON OPTIONAL FEATURES

- A_b - POTENTIAL MONITOR ALARM CIRCUIT
WITH DOOR MOUNTED LED ALARM LAMPS
- D - UPGRADED SCR - DIODE VOLTAGE (PIV) RATING
- F - UV RESISTANT SOLARGUARD™ FRP CABINET
- J - NON-STANDARD AC INPUT FREQUENCY (50 Hz.)
- P - AUXILIARY POSITIVE OUTPUT CIRCUIT
c/w 5 OHM 100 WATT RHEOSTAT
- W - SPECIAL ENCLOSURE CONSTRUCTION



STANDARD CP SENTINEL Aqua-Line MODELS & RATINGS

MODEL NUMBER	VOLTAGE	CURRENT
CAASAS 20-5	20 VOLTS	5 AMPERES
CAASAS 30-8	30 VOLTS	8 AMPERES
CAASAS 30-16	30 VOLTS	16 AMPERES