DATASHEET

CC1600 Small Cell Rectifier

Advanced Technology to Simplify Your Network

The CC1600-SC55 Outdoor single-phase convection cooled rectifier is designed to efficiently transform energy from available outdoor AC sources into the 48 Volt Nominal DC power needed for small cell radios. The CC1600 provides 1600W output to power small cell radios while offering a feature set that simplifies installation combined with zero maintenance. Screw terminal input and output connections eliminate the need for custom cables, thus simplifying the inventory needed to support installation.

Power for Easy Installations

The CC1600 Rectifier was developed to maximize power for small cell radios while offering a feature set that simplifies installation.

- Dual DC output connections share the total available power to allow dual connection solutions.
- Screw terminal input and output connections eliminate the need for custom cables, thus simplifying the inventory needed to support installation.
- Robust performance with AC in – DC out simplicity.
- Integrated heat sink with included mounting holes provide solid connection points.
- Flexible installation in pedestal, cabinet, vault, wall, pole, shroud, or platform mounting locations.
- Available Pole Mount and Solar Shield Options for any environment.

Features & Advantages

- Outdoor rated convection cooled rectifier
- Externally connectorized input/output connections
- Flexibly provides 1600 Watts of -48 Volt power
- Full power operating temperature range for outdoor (–40°C through +46°C).
- Starts and runs at any AC voltage from 95 to 275 Vac
- Fail safe performance – soft start and inrush current protection prevent nuisance tripping of upstream breakers, electronic controlled short-circuit protection on the output
- Flexible Output – dual DC output terminals provide shared output for two loads, or full output for a single load

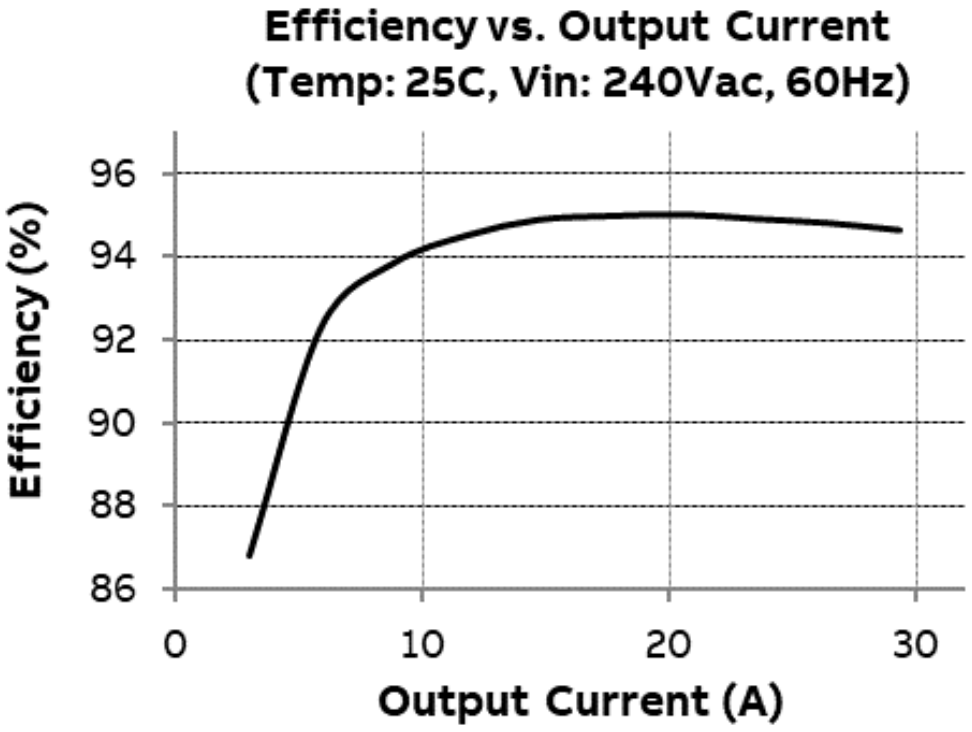
Electrical Specifications for System Design

ABB's CC1600-SC55 Outdoor single-phase rectifier is designed to efficiently transform energy from available outdoor AC sources into the 48 Volt Nominal DC power needed for small cell radios.

Input	MIN	TYPICAL	MAX
Voltage Range			
• High-Line	175VAC	220VAC	265VAC
• Low-Line	85VAC	110VAC	140VAC
Frequency	45Hz	60Hz	66Hz
Power Factor @ >50%	98%	99.5%	99.8%
Total Harmonic Distortion			5%

Mechanical	
Height (in./mm)	17 / 432
Width (in./mm)	9.5 / 241
Depth (in./mm)	4.4 / 112
Weight (Lb/Kg)	20.75 / 9.4

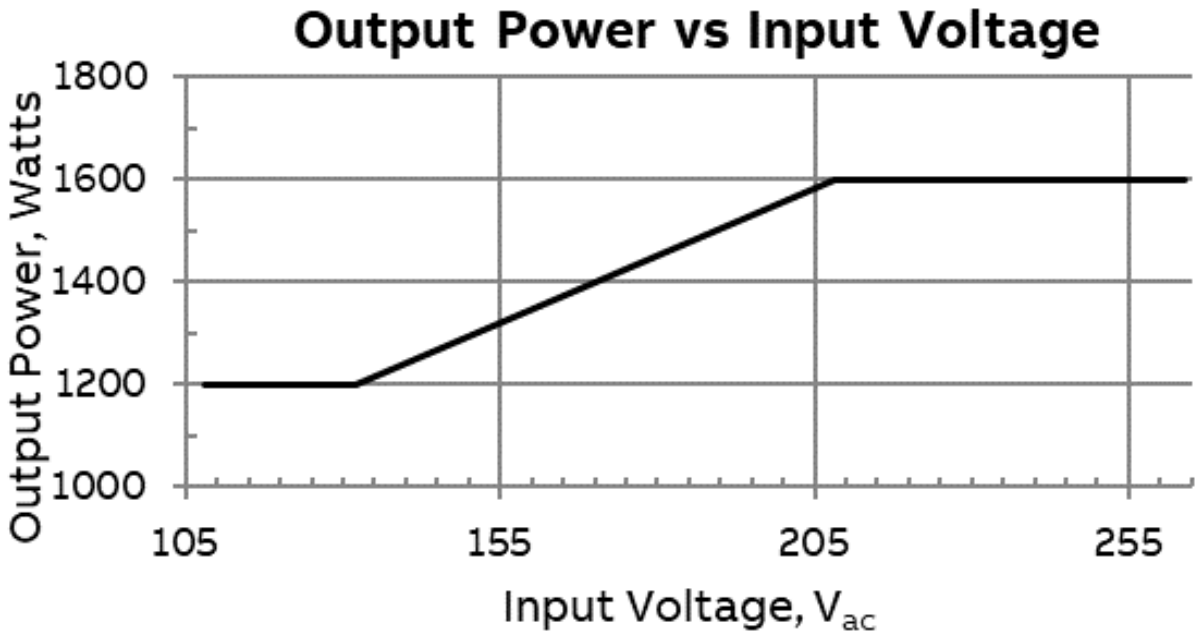
Environmental	
Operating Temperature	-40°C to +65°C (-40°F to 115°F) Output derates 2%/C beginning at +46°C
Storage Temperature	-40°C to +85°C (-40°F to 185°F)
Relative Humidity	0 - 100%
Protection Class	GR487 Wind Driven Rain, IP65
Altitude	4800 feet

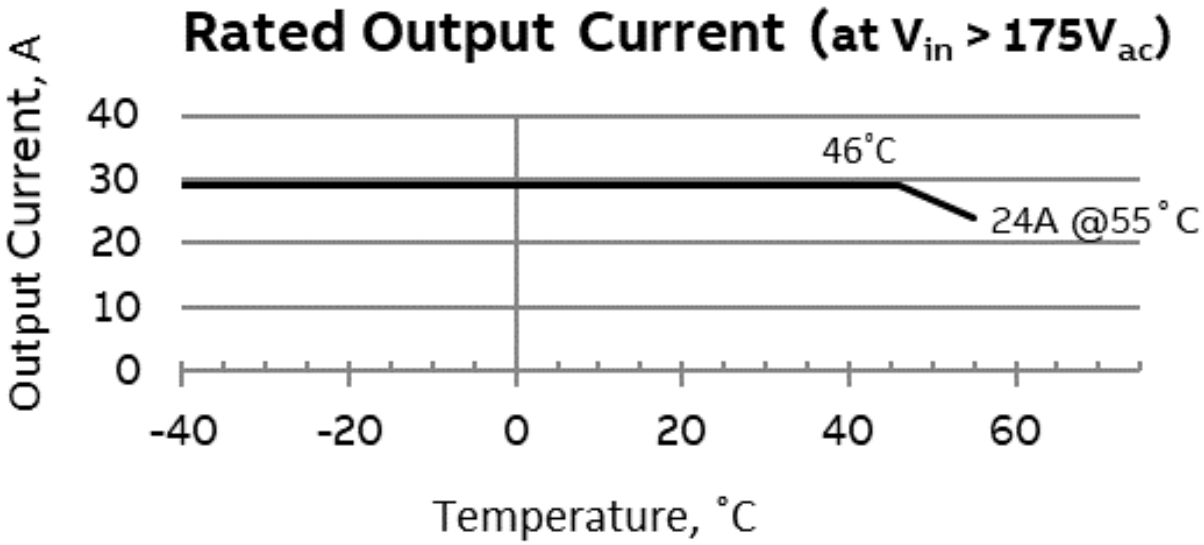


Electrical Specifications (continued)

Output

V_{out}	42–58 V_{DC} range. Default = 55.5Vdc±1%
I_{out}	22A @ Low line input; 29A @ High line input
Regulation	±0.5%
Ripple	100 mV_{rms}, 250 mV_{p-p}
Efficiency	95.7% Peak



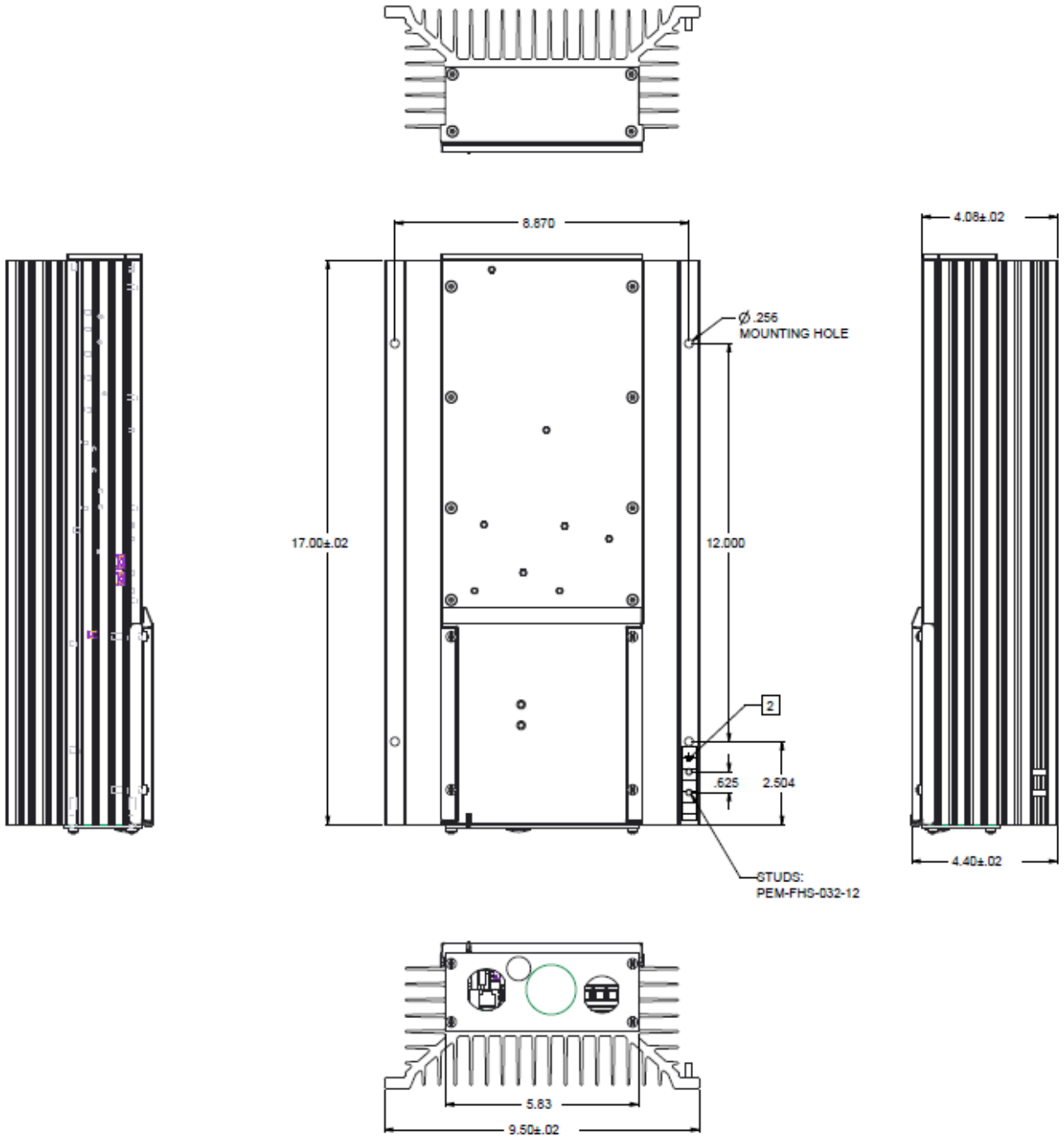


Specifications (continued)

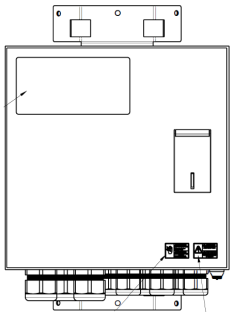
Agency Certifications

EMC Performance	FCC Part 15, EN 55032 (CISPR32), EN 55035, Level A, GR-1089
Safety	ANSI/UL60950-1-2014, EN60950-1 2nd ed+A1+A2, CAN/CSA C22.2 No. 60950-1- 07 +Am2: 2014, NEBS GR-1089, GR-63-CORE, CE, RoHS6/6, GR-3108 Class 4
Lightning Surge	EN/IEC 61000-4-5 Level 4 (Error free), ANSI C62.41 Category B 100 kHz ring and 1.2/50µs combination waves (6kV damage free); ITU-T K.45, Telcordia GR-1089

Drawings



CC1600 Ordering Information

Ordering Code	Description	Picture
1600131299A	CC1600AC55 Small Cell Rectifier	
1600269170A	SC Dist-DIN-01 Pole Mount Distribution Accepts inputs from up to 3 x CC1600-SC55 Rectifiers Supports 6 Outputs: Each load on breaker 4 x 10A 2 x 30A Cord Grips for each SO Cord	

Mounting and Connection Accessories

Ordering Code	Description	Picture
1600183817A	Pole Mount Bracket	
1600270672A	4.5” Stand-Off Pole Mount Bracket	
1600183819A	Solar Shield Kit	
1600270673A	Open Top Solar Shield	
1600270671A	Three Load Interface Kit	

ABB

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