From: Scala, Mary Joy
Sent: Monday, May 22, 2017 1:57 PM
To: accountmanagement@sigorasolar.com; Zach Snider
Cc: Zimmerman, Dan
Subject: BAR Action- 615 Lexington- May 16, 2017

May 22, 2017

Sigora Solar
ATTN Deven Barkley
1222 Harris Street
Charlottesville VA, 22903

RE: **Certificate of Appropriateness Application**
BAR 17-04-05
615 Lexington Avenue
Tax Parcel 520170000
Francesco Ronchetti, Owner/ Sigora Solar, Applicant
Proposed Solar Panel

Dear Applicant,

The above referenced projects were discussed before a meeting of the City of Charlottesville Board of Architectural Review (BAR) on May 16, 2017. The following action was taken:

Clayborne moved: Having considered the standards set forth within the City Code, including City Historic Conservation District Design Guidelines for New Construction and Additions, I move to find that the proposed solar panels satisfy the BAR's criteria and guidelines and are compatible with this property and other properties in the Martha Jefferson Historic Conservation district, and that the BAR approves the application as submitted. Balut seconded.
Approved 8-1 with Miller opposed.

This certificate of appropriateness shall expire in 18 months (November 16, 2018), unless within that time period you have either: been issued a building permit for construction of the improvements if one is required, or if no building permit is required, commenced the project. The expiration date may differ if the COA is associated with a valid site plan. You may request an extension of the certificate of appropriateness before this approval expires for one additional year for reasonable cause.

If you have any questions, please contact me at 434-970-3130 or scala@charlottesville.org.

Sincerely yours,

Mary Joy Scala, AICP
Preservation and Design Planner

Mary Joy Scala, AICP
Preservation and Design Planner
City of Charlottesville
Department of Neighborhood Development Services
City Hall – 610 East Market Street
P.O. Box 911
Charlottesville, VA 22902
Ph 434.970.3130 FAX 434.970.3359
scala@charlottesville.org

CITY OF CHARLOTTESVILLE
BOARD OF ARCHITECTURAL REVIEW
STAFF REPORT
May 16, 2017

Certificate of Appropriateness Application (Historic Conservation District)
BAR 17-04-05
615 Lexington Avenue
Tax Parcel 520170000
Francesco Ronchetti, Owner/ Sigora Solar, Applicant
Proposed Solar Panel System

Background

615 Lexington Av e is a contributing structure in the Martha Jefferson Historic Conservation District. The rear outbuildings were non-contributing. The 2007 survey describes the property as a two story single dwelling built in 1913. The 2-story, 2-bay, stucco-finished dwelling has a hipped roof and a hipped-roof porch that covers most of the façade. The lot is double facing with the front on Lexington Ave and the rear on Kelly Ave. The historic survey is attached.

January 17, 2017 – The BAR moved to find that the proposed accessory apartment/studio, carport, and screened porch addition satisfy the BAR's criteria and guidelines and are compatible with this property and other properties in the Martha Jefferson Historic Conservation district and the motion passed 4-2.

April 18, 2017- The BAR moved to defer the application, feeling that the owner of the structure needs to be in attendance in order to hear the neighborhood's concerns about the building.

Application

The applicant wishes to install an array of solar panels on the roof of the recently built accessory apartment/studio, to reduce the structure's carbon footprint by generating a portion of its electrical service needs through an onsite solar energy collector.

Nine solar panels would be located on the south side of the roof and extend up from the roof by less than one foot, which does not significantly change the profile of the roofline.

The application was deferred last month because the applicant and property owner were not present to hear neighbors' concerns.

Criteria, Standards, and Guidelines

Review Criteria Generally

Sec. 34-341(a) of the City Code states that,
In considering a particular application the BAR shall approve the application unless it finds:
(1) That the proposal does not meet specific standards set forth within this division or applicable provisions of the conservation district design guidelines; and
(2) The proposal is incompatible with the historic, cultural or architectural character of the conservation district in which the property is located.

Standards for Review of New Construction and Additions include:

(1) *Whether the form, height, scale, mass and placement of the proposed construction are visually and architecturally compatible with the site and the applicable conservation district;*

(2) The harmony of the proposed changes in terms of overall proportion and the size and placement of entrances and windows;

(3) The impact of the proposed change on the essential architectural form and integrity of the existing building;

(4) The effect, with respect to architectural considerations, of the proposed change on the conservation district neighborhood;

(5) Any applicable provisions of the city's conservation district design guidelines.

Pertinent Design Review Guidelines for New Construction and Additions

Building Location – Setback and Orientation

1. Align a new building close to the average building setback line on the same street, if established, or consistent with the surrounding area.
2. Maintain existing consistency in spacing between buildings on the same street.
3. The front elevation should be respectful of the neighborhood characteristics and features of adjacent buildings.

Building Scale – Height and Massing

1. Keep the footprint, and massing of new buildings consistent with the neighborhood characteristics and compatible with the character of buildings on the same street.
2. Keep the height and width of new buildings within 200% of the prevailing height and width in the surrounding neighborhood.
3. An addition should not visually overpower the existing building.
4. Multi-lot buildings (commercial or multi-family) should be designed and articulated to be compatible with the scale of the majority of adjacent buildings on the same street or block.

Building Form – Roofs and Porches

1. Roof forms should be respectful of contributing buildings on the same street or surrounding area.
2. If many of the contributing buildings on the same street have porches, then including a porch or similar form in the design of a new residence is strongly recommended.

Building Openings - Doors and Windows

1. A single entrance door (or both doors, if a two-family dwelling, or main entrance if a multifamily dwelling) facing the street is recommended.
2. Window and door patterns and the ratio of solids (wall area) to voids (window and door area) of new buildings should be compatible with contributing buildings in the surrounding area.
3. Windows should be simple shapes compatible with those on contributing buildings, and should be oriented vertically (taller than they are wide).

Building Materials and Textures

1. The selection of materials and textures for a new building should relate architecturally to the Charlottesville locality, and should be compatible with and complementary to neighboring buildings.
2. Sustainable materials are preferred, including brick, wood, stucco, and cementitious siding and trim, and standing seam metal roofs. Clear glass windows are preferred.

Building Colors

1. The selection and use of colors for a new building should be coordinated and compatible with adjacent buildings, not intrusive.
2. More lively color schemes may be appropriate in certain sub-areas dependent on the context of the sub-areas and the design of the building.

Site
1. Fences or walls in front yards (including fences in the side yards between the street and the front of the house) should not exceed three and one-half feet in height.

Discussion and Recommendations

The proposed location for the solar panels is appropriate.

Staff made an error in last month's staff report. The skylights were indeed shown on the drawings for the accessory building, which were approved by the BAR in January.

Suggested Motion

Having considered the standards set forth within the City Code, including City Historic Conservation District Design Guidelines for New Construction and Additions, I move to find that the proposed solar panels satisfy the BAR's criteria and guidelines and are compatible with this property and other properties in the Martha Jefferson Historic Conservation district, and that the BAR approves the application as submitted.

615 Lexington Avenue

TM/P: 52/170 **DHR: 104-5144-0051**

Primary Resource Information: **Single Dwelling, Stories 2.00, Style: Other, 1913.** August 2007: District Manager of Mutual Life Insurance Company of New York Robert C. Nicholas built 615 Lexington Avenue in 1913. Nicholas and his family would later be buried in Maplewood Cemetery. The 2-story, 2-bay, stucco-finished dwelling has a hipped roof and a hipped-roof porch that covers most of the façade. 5 wooden steps with a simple wooden balustrade lead up to the porch on the north side of the east-facing façade and have simple wooden handrails. 2 slender Doric columns, 2 engaged columns at the point where the porch terminates against the house, a turned post balustrade, and an undecorated entablature support the porch. The front door occupies the north bay and has a transom above, while the south bay of the façade has a 2/2-sash replacement window. Each of the bays on the 2nd story have single 2/2-sash replacement windows as well and all of the windows are shuttered. The cornice features a small central cross-gable with boxed cornice and return flush and in the center of the facade, as well as a small, circular louvered vignette directly under the gable's peak. A brick chimney emerges out of the asphalt shingle roof towards the south of the rear of the building.

Individual Resource Status: **Single Dwelling** **Contributing: 1**

Board of Architectural Review (BAR) Certificate of Appropriateness

RECEIVED
MAR 28 2017
NEIGHBORHOOD DEVELOPMENT SERVICES

Please Return To: City of Charlottesville
Department of Neighborhood Development Services
P.O. Box 911, City Hall
Charlottesville, Virginia 22902
Telephone (434) 970-3130 Email scala@charlottesville.org

Please submit ten (10) hard copies and one (1) digital copy of application form and all attachments.
Please include application fee as follows: New construction project $375; Demolition of a contributing structure $375; Appeal of BAR decision $125; Additions and other projects requiring BAR approval $125; Administrative approval $100.
Make checks payable to the City of Charlottesville.
The BAR meets the third Tuesday of the month.
Deadline for submittals is Tuesday 3 weeks prior to next BAR meeting by 3:30 p.m

Owner Name Francesco Ronchetti Applicant Name Sigora Solar
Project Name/Description 3.015 kWp Rooftop Solar System Parcel Number 520170000
Project Property Address 615 Lexington Ave, charlottesville, VA, 22902

Applicant Information

Address 1222 Harris Street, Charlottesville, VA, 22903
Email: Accountmanagement@SigoraSolar.com
Phone: (W) (540)-449-6553 (C)

Property Owner Information (if not applicant)

Address 615 Lexington Ave, Charlottesville, VA. 22902
Email: zach@alloyworkshop.com
Phone: (W) 434-977-[illegible] (C)

Do you intend to apply for Federal or State Tax Credits for this project? yes

Signature of Applicant

I hereby attest that the information I have provided is, to the best of my knowledge, correct

Deven Barkley 3/27/17
Signature Date

Deven Barkley 3/27/17
Print Name Date

Property Owner Permission (if not applicant)

I have read this application and hereby give my consent to its submission

March 28, '17
Signature Date

Francesco Ronchetti March 28, '17
Print Name Date

Description of Proposed Work (attach separate narrative if necessary): 3.015 kWp Solar System

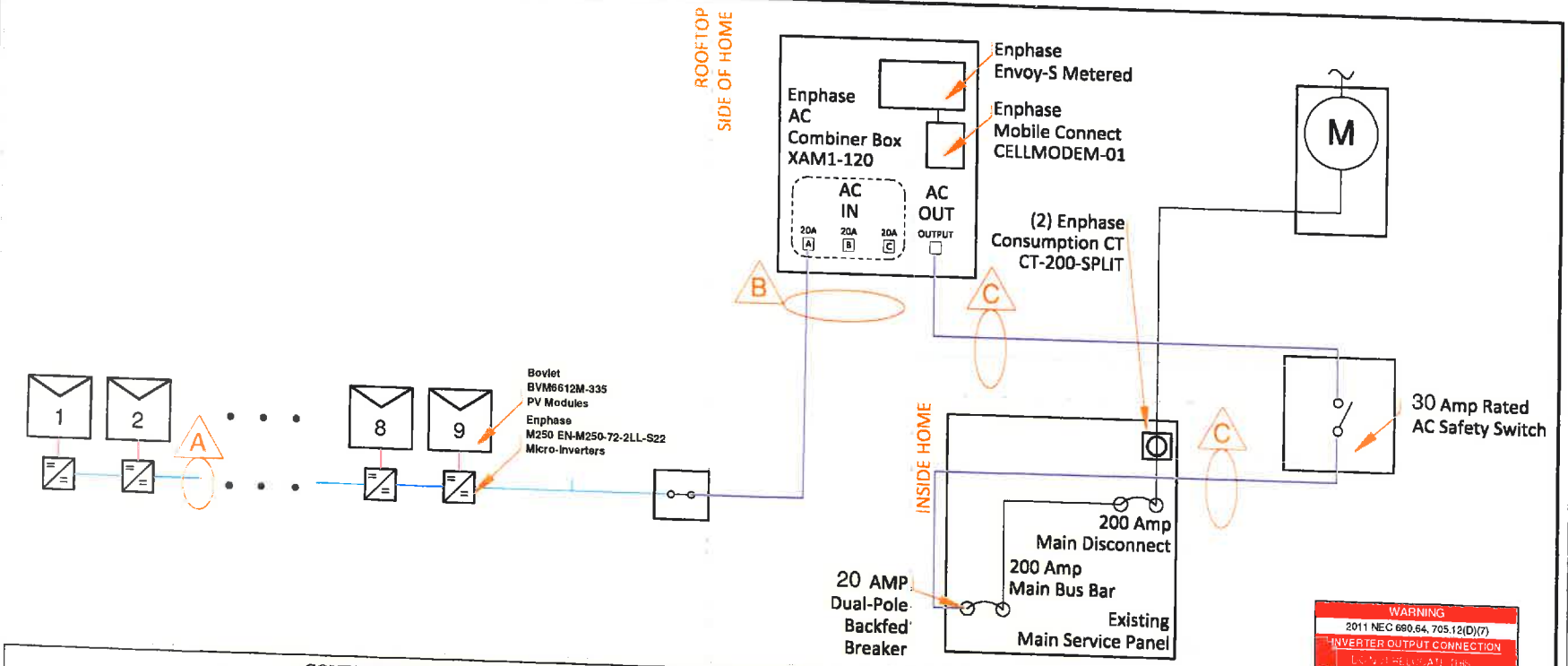
List All Attachments (see reverse side for submittal requirements):

For Office Use Only

Received by: O. Eubanks
Fee paid: 125.00 Cash/Ck. # 4324
Date Received: 3/28/17
Revised 2016

Approved/Disapproved by:
Date:
Conditions of approval

PM-0037



CONDUCTOR SCHEDULE

TAG	QUANT.	CONDUCTORS	QUANT.	GROUND	CONDUIT
A	1	PREMANUFACTURED TRUNK CABLE		MICRO TO RACK TO MOD	WIRE
B	2	#10 AWG CU THWN-2 (L1, L2)	1	#10 AWG CU THWN-2	3/4" EMT
	1	#10 AWG CU THWN-2 (N)			
C	2	#10 AWG CU THWN-2 (L1, L2)	1	#10 AWG CU THWN-2	3/4" EMT
	1	#10 AWG CU THWN-2 (N)			
	4	#16 AWG CU THWN-2 (CONSUMPTION CTs)			

MODULES:	Boviet BVM6612M 335		
Performance under STC	Maximum Power (Pmax)	335	Wp
	Open Circuit Voltage (Voc)	46.99	V
	Maximum Power Point Voltage (Vmpp)	38.49	V
	Short Circuit Current (Isc)	9.18	A
	Maximum Power Point Current (Impp)	8.7	A
	Module Efficiency	0	%
Thermal Characteristics	NOCT	0	℃
	Temperature Coeficcient Voc	0.00%	/ ℃
	Temperature Coeficcient Isc	0.00%	/ ℃
	Temperature Coeficcient Pmpp	0.00%	/ ℃

MICRO-INVERTERS:	Enphase M250 EN-M250-72-2LL-S22		
Input	Maximum Input Current	15	Adc
	Minimum Operating Voltage	16	Vdc
	Minimum MPPT Voltage	27	Vdc
	Maximum MPPT Voltage	48	Vdc
	Maximum Operating Voltage	60	Vdc
	Number of MPPTs	1	
Output	Maximum Continuous Output Power	240	Wac
	Maximum Continuous Output Current	1	Aac
	Maximum OCPD Rating	20	Aac
	CEC Weighted Efficiency	96.5	%

WIRE LEGEND

- DC CONDUCTOR
- AC CONDUCTOR
- Enphase TRUNK CABLE
- CONSUMPTION CT WIRE

SYMBOL LEGEND

- PV MODULE
- MICRO-INVERTER
- DISCONNECT
- FUSE
- CIRCUIT BREAKER
- TERMINAL
- UTILITY METER (M)

WARNING
2011 NEC 690.64, 705.12(D)(7)
INVERTER OUTPUT CONNECTION
Located on the inside of the door of the Main Service Panel

NEC 690.14(C)(2)
PHOTOVOLTAIC AC DISCONNECT
Located on the AC Safety Switch

2011 NEC 690.54
NOMINAL AC VOLTAGE 240
RATED AC OUTPUT CURRENT 9.0
Located on the AC Safety Switch

WARNING
2011 NEC 705.12(D)(4), 690.56(B)
DUAL POWER SOURCES
SOURCES: UTILITY GRID & PV SOLAR ELECTRIC SYSTEM
Located on the outside of the door of the Main Service Panel

SYSTEM INFORMATION

MODULES	(9) Boviet BVM6612M 335	3.02 kWp DC
MICRO-INVERTERS	(9) Enphase M250 EN-M250-72-2LL-S22	2.16 kW AC
DC/AC RATIO	1.40	RECORD LOW TEMP -17° C

SIGORA SOLAR
292 RACE AVE, BLDG #3
WAYNESBORO, VA 22980
540.949.6553
info@sigorasolar.com

PHOTOVOLTAIC SYSTEM INSTALLATION

Alloy Workshop - Owner
615 Lexington Ave.
Charlottesville, VA 22902

SHEET: ONE LINE DIAGRAM

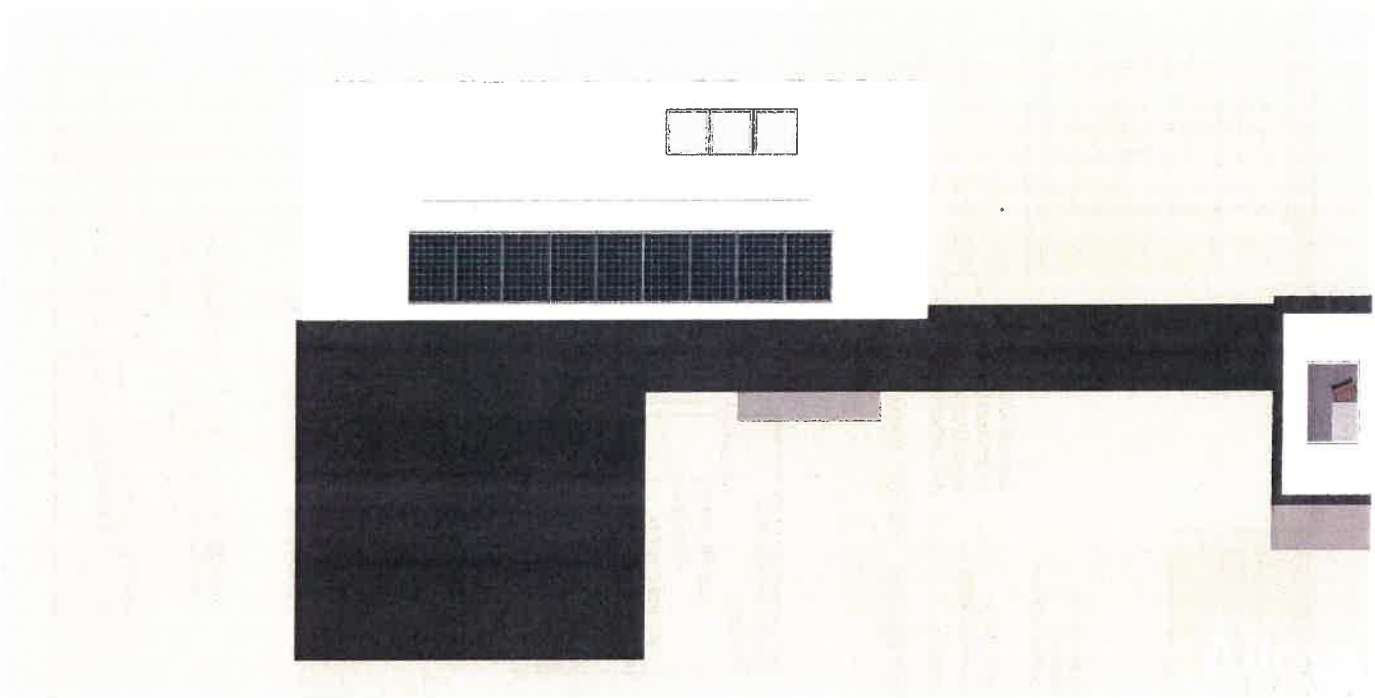
BUILDING CODES THAT APPLY:
Virginia Uniform Statewide Building Code - 2012
Virginia Construction Code - 2012
National Electric Code - 2011

DESIGNED & DRAFTED BY:
JCK

NABCEP CERTIFIED
PV INSTALLATION PROFESSIONAL
#PV-041115-011534

FOR PERMIT
3/2/2017

E.1




Alloy
WORKSHOP

BOVIET
SOLAR USA

Advancing the Power of the Sun

72 Cell Mono 325-340W

BVM6612M

0~+5W
Power Tolerance

17.5%
Maximum Efficiency

325-340W
Power Output Range

39.06 x 77.01 Inches
Silver Frame / White Backsheet

High Quality and Reliable Modules
- Withstand up to 5400 Pa snow load and 2400 Pa wind load
- 1000V DC (UL) / 1500V DC (UL)
- 2 EL inspections per cell/module for defect-free consistency
- Type 1 fire-rating per UL 1703 edition 3
- High salt and ammonia resistance certified by TUV Rheinland
- 0-+5 W guaranteed positive tolerance
- Rugged design for long-term durability; passed extended reliability tests

Warranty
- 12-year product warranty
- 25-year linear power output warranty

Comprehensive Certificates for Products and Management
- UL 1703, IEC 61215, IEC 61730, CEC listed, MCS and CE
- ISO 9001 for Quality Management Systems
- ISO 14001 for Environmental Management Systems
- ISO 18001 Occupational Health and Safety System

TÜVRheinland Intertek MCS solar

Boviet Solar USA ◆ 1740 Technology Dr., Suite 205 ◆ San Jose, CA 95110
BOVIETSOLARUSA.COM ◆ 877.253.2858 ◆ SALES@BOVIETSOLARUSA.COM

Electrical Characteristics STC

	BVM6612M-325	BVM6612M-330	BVM6612M-335	BVM6612M-340
Maximum Power (Pmax)	325W	330W	335W	340W
Maximum Power Current (Imp)	8.74A	8.83A	8.94A	9.05A
Maximum Power Voltage (Vmp)	37.2V	37.4V	37.5V	37.6V
Short Circuit Current (Isc)	9.35A	9.41A	9.49A	9.58A
Open Circuit Voltage (Voc)	45.6V	45.8V	46.0V	46.2V
Module Efficiency	16.7%	17.0%	17.2%	17.5%
Power Tolerance	0~+5W	0~+5W	0~+5W	0~+5W

STC: AM1.5, Irradiance 1000W/m², 25°C

Electrical Characteristics NOCT

	BVM6612M-325	BVM6612M-330	BVM6612M-335	BVM6612M-340
Maximum Power (Pmax)	237W	240W	244W	247W
Maximum Power Current (Imp)	6.99A	7.04A	7.12A	7.16A
Maximum Power Voltage (Vmp)	33.9V	34.1V	34.3V	34.5V
Short Circuit Current (Isc)	7.55A	7.60A	7.63A	7.69A
Open Circuit Voltage (Voc)	41.8V	41.9V	42.0V	42.1V

NOCT: AM1.5, Irradiance 800W/m², 20°C, Wind speed 1m/s

Mechanical Characteristics

Solar Cell	Monocrystalline 6.14 x 6.14 inch, 72 (6 x 12) pcs. in series
Glass	High transparency, low iron, tempered glass 4 mm (0.16 inch)
Frame	Anodized aluminum alloy
Junction Box	IP67 rated, with 3 bypass diode
Output Cable	4 mm² (EU)/12 AWG (US), 43.30/47.244 inch
Connector	MC4 compatible
Dimension	77.01 x 39.06 x 1.57 inch
Weight	58.42 lb

Thermal Characteristics

Pmax Temperature Coefficient	-0.43%/K
Voc Temperature Coefficient	-0.33%/K
Isc Temperature Coefficient	+0.05%/K
NOCT	113±3.6°F

Maximum Ratings

Operating Temperature	-40°F~185°F
Maximum Series Fuse Rating	15A
Maximum System Voltage	1000V DC / 1500V DC

Packing Information

Pieces per pallet	26
Pallets per container (40HQ)	24
Pieces per container (40HQ)	624
Pallet weight/size	1671.1 lb/78.41 x 44.49 x 45.08 inch

Specifications in this datasheet are subject to change without prior notice.