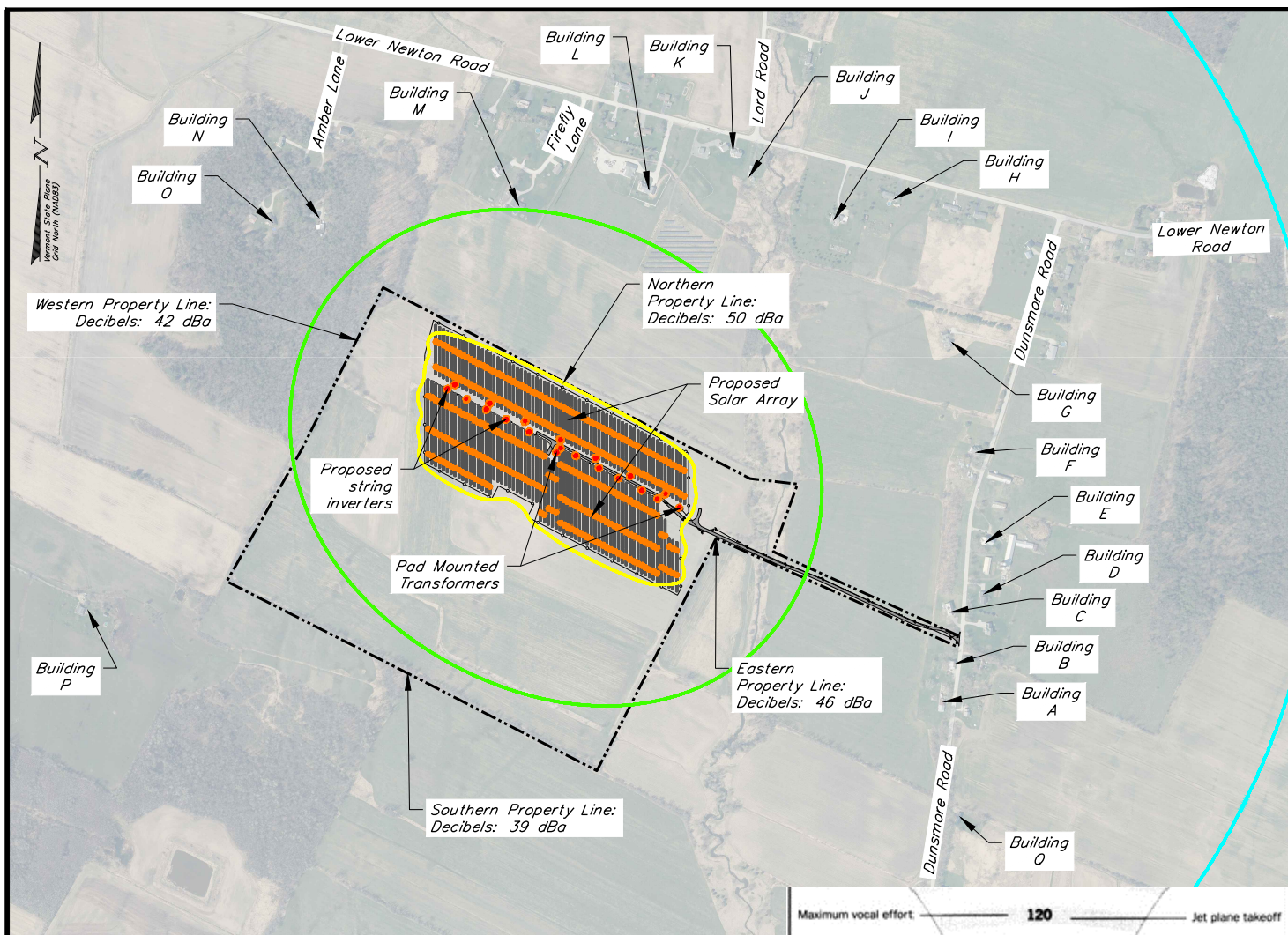


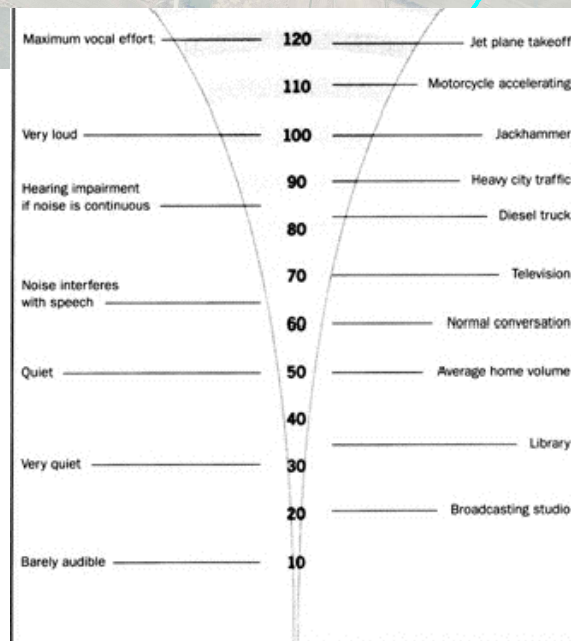
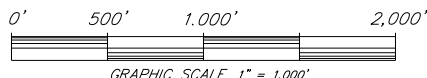


Notes:

1. Chint specifies that the CPS SCH275KTL String Inverter creates less than 72 dBA at a distance of 1 meter from the unit, the calculated sound level at 3 meters is 62.5 dBA. Sound levels for the Cooper 2,500 kVA pad mounted transformer have sound levels of 62 dBA, assuming sound at 3 meters to be conservative. OMCO specifies that the tracker motors create 61 dBA at a distance of 2 meters from the unit, the calculated sound level at 3 meters is 57.5 dBA.
2. Other decibel ranges were derived using the following distance damping equation $[L2 = L1 - 20 \text{ Log}(d1/d2)]$. This damping equation was the only factor considered in decibel range attenuation estimates. Elevation, ambient noise, vegetation, proposed solar array and other structures which would further effect the attenuation of sound levels were not considered in this study. Sound levels depicted are for all (18) Chint CPS SCH275KTL string inverters, (305) OMCO Tracker Motors, and (2) 2,500 kVA Cooper pad mounted transformers for the solar array operating simultaneously at maximum noise level. See additional calculation information on Sound 2, Sound 3 and Sound 4.
3. Plans Sound 3 & Sound 4 run the calculations for nighttime operation. Site inverters make negligible noise when not loaded with power. For this calculation we assume they will make no noise. The site transformers and Tracker motors do still operate at night, to be conservative the nighttime calculation models the transformers and tracker motors running at maximum noise.
4. Sound levels reported do not account for any background noise. Local background noise may exceed sound created by project equipment.

Legend:

- +70 dBA range
- 60 dBA range
- 50 dBA range
- 40 dBA range
- 30 dBA range



Decibel Breakdown Compared to Everyday Noises

**FULL OPERATION DAYTIME
SOUND LEVEL PLAN**

**Basic Sound Level Estimates for
Noise Produced by Project Equipment**

DRAWN BY:

GTD

CHECKED BY:

GTD

Project: ER Dunsmore Solar LLC

Location: Dunsmore Road, Saint Albans, VT

Source Data:

Chart found at
www.soundinstitute.com/article_detail.cfm/ID/95

Revision Date:

Plan ID:

Sound 1

Scale:

1" = 1,000'

Date:

04/09/25

ER Dunsmore Solar Project - 2642 Dunsmore Road, Saint Albans, Vermont - DAYTIME

Sound Source #	Easting (feet)	Northing (feet)	Noise Level (dBa @ 3 Meters)
Chint CPS SCH275KTL (18)	See Plan	See Plan	62.5
Cooper 2,500 kVA Pad Mounted Trans. (2)	See Plan	See Plan	62.0
OMCO Tracker Motors (305)	See Plan	See Plan	57.5
Formulas used for Calculations			
Adding of Noise Levels			
$L_T = 10 \times \log_{10} (10^{L_1/10} + 10^{L_2/10} + \dots + 10^{L_n/10})$			
Where:			
L _T = Total noise level of all equipment			
L _n = Noise level for each piece of equipment			
Noise Level Changes with Distance			
$L_b = L_a - 20 \times \log_{10} (D_b/D_a)$			
Where:			
L _b = Noise level at new distance			
L _a = Noise level at original distance			
D _b = New distance from source of noise			
D _a = Original distance from source of noise			
Equipment:	Specification	3 Meter	
Chint CPS SCH275KTL - String Inverters	72 @ 1m	62.458	
Cooper 2,500 kVA Pad Mounted Transformer	-	62.000	
OMCO Tracker Motors	61 @ 2m	57.478	
Points of Interest	Easting (feet)	Northing (feet)	Estimated Noise Level Based on Project Components (Sound Pressure, dBa)
Northern Property Line	1,470,338.81	858,121.30	50
Eastern Property Line	1,471,237.52	857,195.67	46
Southern Property Line	1,469,416.03	856,398.53	39
Western Property Line	1,469,114.11	858,367.23	42
Residential Building A	1,472,551.72	856,244.12	35
Residential Building B	1,472,608.55	856,456.44	35
Residential Building C	1,472,582.57	856,810.65	36
Residential Building D	1,472,793.45	856,878.06	35
Residential Building E	1,472,796.72	857,187.18	35
Residential Building F	1,472,729.84	857,703.25	36
Residential Building G	1,472,568.17	858,323.34	36
Residential Building H	1,472,271.50	859,180.13	35
Residential Building I	1,471,920.03	859,041.35	36
Residential Building J	1,471,426.50	859,328.07	37
Residential Building K	1,471,329.29	859,445.05	37
Residential Building L	1,470,860.02	859,219.30	39
Residential Building M <i>Closest to Project</i>	1,470,082.76	859,120.89	40
Residential Building N	1,468,885.54	859,082.38	38
Residential Building O	1,468,621.02	859,036.99	37
Residential Building P	1,467,526.44	856,791.85	34
Residential Building Q	1,472,643.66	855,537.98	33

Points of Interest
were chosen based
on close proximity
to the proposed
project.



P.O. Box 1072
Burlington, VT 05401
T: (802) 861-3023
EncoreRenewableEnergy.com

FULL OPERATION DAYTIME SOUND LEVEL PLAN

Basic Sound Level Estimates for Noise Produced by Project Equipment

DRAWN BY: GTD

CHECKED BY: GTD

Project: ER Dunsmore Solar LLC

Location: Dunsmore Road, Saint Albans, VT

Source Data:

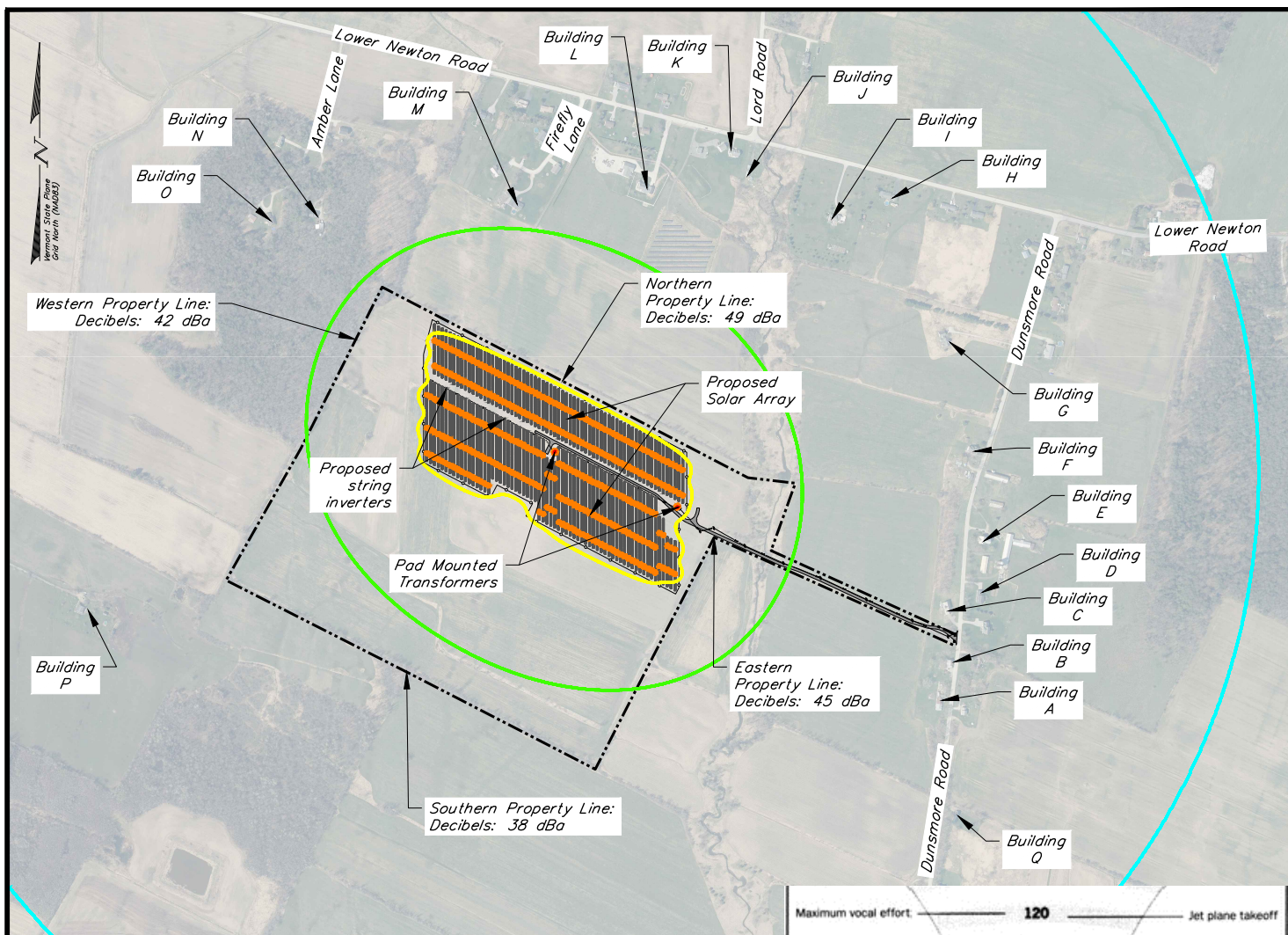
Revision Date:

Plan ID:

Sound 2

Scale:
N/A

Date:
04/09/25

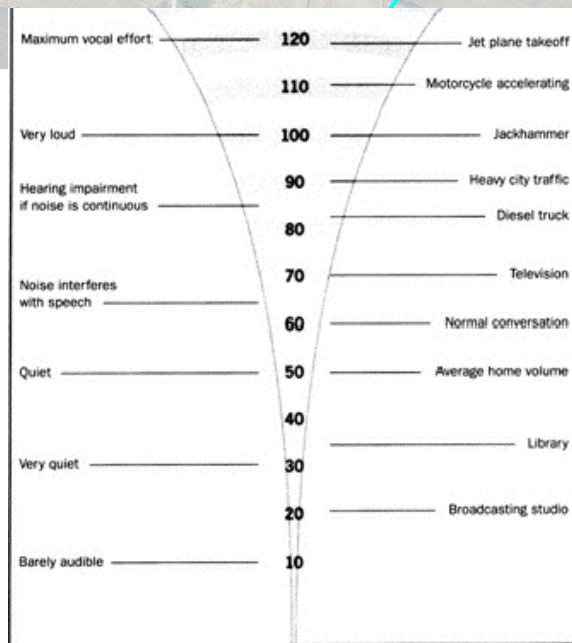


Notes:

1. Sound levels for the Cooper 2,500 kVA pad mounted transformer have sound levels of 62 dBA, assuming sound at 3 meters to be conservative. OMCO specifies that the tracker motors create 61 dBA at a distance of 2 meters from the unit, the calculated sound level at 3 meters is 57.5 dBA.
2. Other decibel ranges were derived using the following distance damping equation $[L_2 = L_1 - 20 \log(d_1/d_2)]$. This damping equation was the only factor considered in decibel range attenuation estimates. Elevation, ambient noise, vegetation, proposed solar array and other structures which would further effect the attenuation of sound levels were not considered in this study. Sound levels depicted are for all (305) OMCO Tracker Motors, and (2) 2,500 kVA Cooper pad mounted transformers for the solar array operating simultaneously at maximum noise level.
3. Sound levels reported do not account for any background noise. Local background noise may exceed sound created by project equipment.

Legend:

- +70 dBA range
- 60 dBA range
- 50 dBA range
- 40 dBA range
- 30 dBA range



Decibel Breakdown Compared to Everyday Noises

NIGHTTIME OPERATION SOUND LEVEL PLAN

Basic Sound Level Estimates for Noise Produced by Project Equipment

DRAWN BY: GTD

CHECKED BY: GTD

Project: ER Dunsmore Solar LLC

Location: Dunsmore Road, Saint Albans, VT

Source Data:
Chart found at
www.soundinstitute.com/article_detail.cfm/ID/95

Revision Date:

Plan ID:

Sound 3

Scale:
1" = 1,000'

Date:
04/09/25

ER Dunsmore Solar Project - 2642 Dunsmore Road, Saint Albans, Vermont - NIGHTTIME

Sound Source #	Easting (feet)	Northing (feet)	Noise Level (dBa @ 3 Meters)
Cooper 2,500 kVA Pad Mounted Trans. (2)	See Plan	See Plan	62.0
OMCO Tracker Motors (305)	See Plan	See Plan	57.5
Formulas used for Calculations			
Adding of Noise Levels			
$L_T = 10 \times \log_{10} (10^{L_1/10} + 10^{L_2/10} + \dots + 10^{L_n/10})$			
Where:			
L_T = Total noise level of all equipment			
L_n = Noise level for each piece of equipment			
Noise Level Changes with Distance			
$L_b = L_a - 20 \times \log_{10} (D_b/D_a)$			
Where:			
L_b = Noise level at new distance			
L_a = Noise level at original distance			
D_b = New distance from source of noise			
D_a = Original distance from source of noise			
Equipment:	Specification	3 Meter	
Cooper 2,500 kVA Pad Mounted Transformer	-	62.000	
OMCO Tracker Motors	61 @ 2m	57.478	
Points of Interest	Easting (feet)	Northing (feet)	Estimated Noise Level Based on Project Components (Sound Pressure, dBa)
Northern Property Line	1,470,338.81	858,121.30	49
Eastern Property Line	1,471,237.52	857,195.67	45
Southern Property Line	1,469,416.03	856,398.53	38
Western Property Line	1,469,114.11	858,367.23	42
Residential Building A	1,472,551.72	856,244.12	34
Residential Building B	1,472,608.55	856,456.44	34
Residential Building C	1,472,582.57	856,810.65	35
Residential Building D	1,472,793.45	856,878.06	34
Residential Building E	1,472,796.72	857,187.18	35
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Residential Building G	1,472,568.17	858,323.34	35
Residential Building H	1,472,271.50	859,180.13	34
Residential Building I	1,471,920.03	859,041.35	36
Residential Building J	1,471,426.50	859,328.07	36
Residential Building K	1,471,329.29	859,445.05	36
Residential Building L	1,470,860.02	859,219.30	38
Residential Building M <i>Closest to Project</i>	1,470,082.76	859,120.89	39
Residential Building N	1,468,885.54	859,082.38	37
Residential Building O	1,468,621.02	859,036.99	36
Residential Building P	1,467,526.44	856,791.85	33
Residential Building Q	1,472,643.66	855,537.98	33

Points of Interest were chosen based on close proximity to the proposed project.

Site inverters make negligible noise when not loaded with power. For this calculation we assume they will make no noise.



NIGHTTIME OPERATION SOUND LEVEL PLAN		Project: ER Dunsmore Solar LLC	Plan ID: Sound 4
Basic Sound Level Estimates for Noise Produced by Project Equipment		Location: Dunsmore Road, Saint Albans, VT	
		Source Data:	Scale: N/A
DRAWN BY: GTD	CHECKED BY: GTD	Revision Date:	Date: 04/09/25

Three-phase pad-mounted PEAK™ transformer



General

Eaton's Cooper Power™ series PEAK™ transformers represent the next generation of transformer design, and with three distinct product offerings there is a PEAK transformer to fit your needs. The first PEAK transformer option is a 75 °C average winding rise (AWR) design that offers users a potentially smaller and lighter footprint than today's 65 °C AWR transformers. This design is ideal for applications with cost, weight, or dimensional constraints. The second PEAK transformer option is a 65/75 °C AWR design that offers users sustained overload capacity while maintaining IEEE Std C57.91™-2011 standard per unit life requirements. This design offers customers flexibility in transformer sizing by offering the ability to accommodate future load growth without oversizing relative to current load, or the ability to meet periods of peak demand without oversizing based on continuous load. The third PEAK transformer option is a 55/75 °C AWR design that provides up to 22% additional loading capacity when compared to traditional mineral oil-filled transformers.

With all PEAK product offerings utilizing thermally upgraded kraft paper and Envirotemp™ FR3™ dielectric fluid, PEAK transformers offer customers a solution that is fully compatible with the new IEEE® standard for transformers using high-temperature insulation systems, IEEE Std C57.154™-2012 standard. In addition, all PEAK transformers provide the high fire point and environmental benefits of Envirotemp™ FR3™ fluid. PEAK transformers are available in various designs and configurations to match almost every application.



Powering Business Worldwide

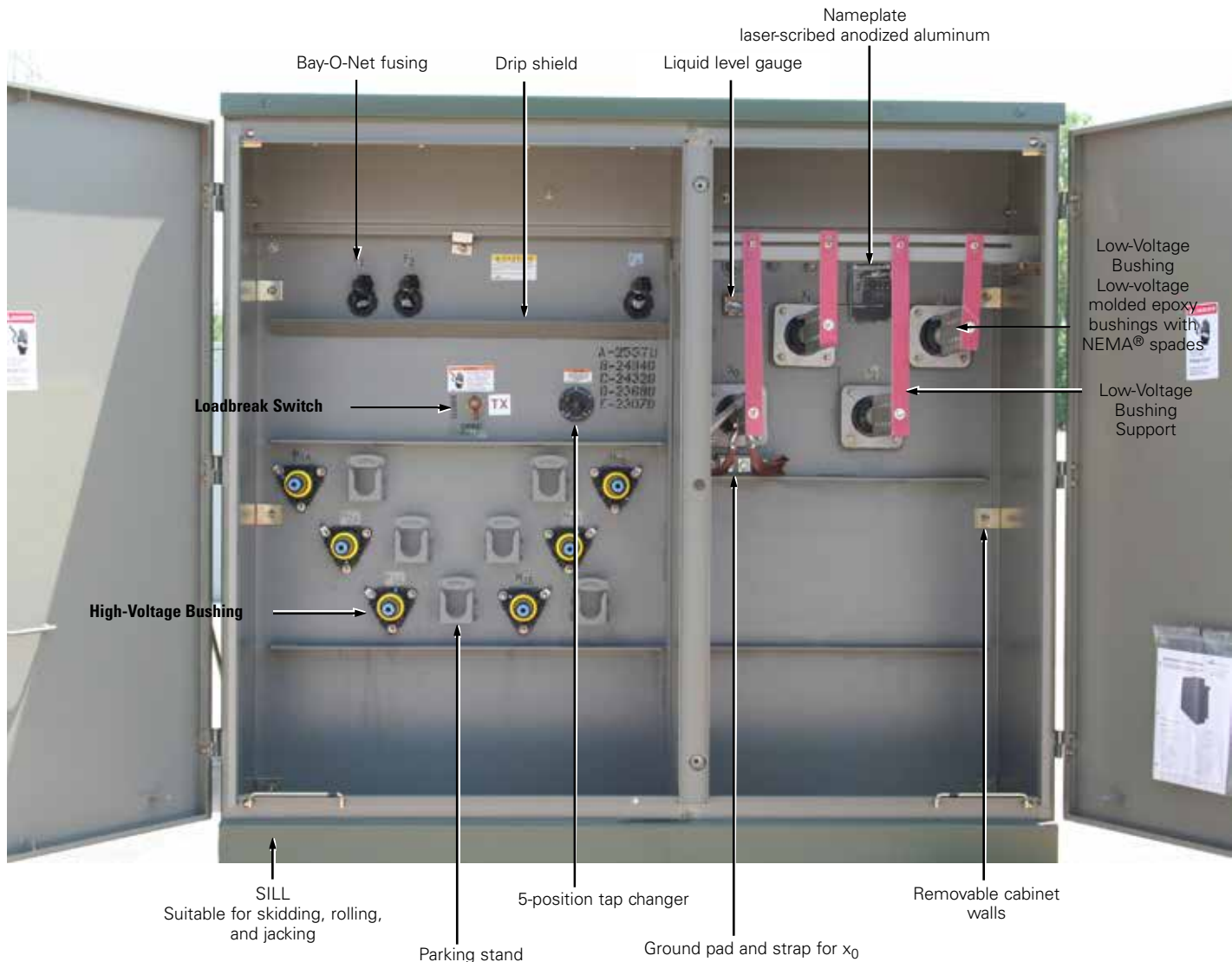


Figure 1. Three-phase pad-mounted PEAK transformer.

Table 1. Product scope

Type	Three-Phase, 50 or 60 Hz, 75 °C Rise and 65 °C/75 °C and 55/75 °C
Fluid Type	Only Envirotemp™ FR3™ fluid
Coil Configuration	2-winding or 4-winding or 3-winding (Low-High-Low), 3-winding (Low-Low-High)
Size	45 – 10,000 kVA
Primary Voltage	2,400 – 46,000 V
Secondary Voltage	208Y/120 V to 14,400 V
Specialty Designs	Inverter/Rectifier Bridge
	K-Factor (up to K-19)
	Solar/Wind Designs
	Differential Protection
	Seismic Applications (including OSHPD)
	Hardened Data Center
	UL® Listed & Label and Classified

Table 2. Three-Phase Ratings**Three-Phase 50 or 60 Hz**

kVA Available¹:
 45, 75, 112.5, 150, 225, 300, 500, 750, 1000, 1500, 2000, 2500, 3000, 3750, 5000, 7500, 10000

¹Transformers are available in the standard ratings and configurations shown or can be customized to meet specific needs.

Table 3. Impedance Voltage

Rating (kVA)	Low-voltage rating		
	≤ 600 V	2400 Δ through 4800 Δ	6900 Δ through 13800GY/7970 or 13800 Δ
45-75	2.70-5.75	2.70-5.75	2.70-5.75
112.5-300	3.10-5.75	3.10-5.75	3.10-5.75
500	4.35-5.75	4.35-5.75	4.35-5.75
750-2500	5.75	5.75	5.75
3750	5.75	5.75	6.00
5000		6.00	6.50

Note: The standard tolerance is ± 7.5%

Table 4. Audible Sound Levels

Self-Cooled, Two Winding kVA Rating	NEMA® TR-1 Average
	Decibels (dB)
45-500	56
501-700	57
701-1000	58
1001-1500	60
1501-2000	61
2001-2500	62
2501-3000	63
3001-4000	64
4001-5000	65
5001-6000	66
6001-7500	67
7501-10000	68

Table 5. Insulation Test Levels

KV Class	Induced Test 180 or 400 Hz 7200 Cycle	kV BIL Distribution	Applied Test 60 Hz (kV)
1.2	Twice Rated Voltage	30	10
2.5		45	15
5		60	19
8.7		75	26
15		95	34
25		125	40
34.5		150	50

Table 6. Temperature Rise Ratings 0-3300 Feet (0-1000 meters)

	Unit Rating (Temperature Rise Winding)
	75, 65/75, 55/75 °C
Ambient Temperature Max.	40 °C
Ambient Temperature 24 Hour Average	30 °C
Temperature Rise Hotspot	90 °C

250/275kW, 1500Vdc String Inverters for North America



CPS SCH275KTL-DO/US-800

The 250/275kW high power CPS three phase string inverters are designed for ground mount applications. The units are high performance, advanced and reliable inverters designed specifically for the North American environment and grid. High efficiencies, wide operating voltages, broad temperature ranges and NEMA Type 4X enclosure enable this inverter platform to operate at high performance across many applications. The SCH275KTL inverters include a selectable Active Power of either 250kW or 275kW (factory default) with 12 MPPTs and are available with either 36 fused PV string inputs or 24 unfused PV string inputs. The CPS FlexOM solution enables communication, controls and remote product upgrades.

Key Features

- NFPA 70, NEC 2017 compliant
- Touch safe DC Fuse holders adds convenience and safety
- CPS FlexOM Gateway enables remote FW upgrades
- Integrated DC disconnect switch
- Protection Functions for enhanced reliability and safety
- Selectable Max AC Active Power of 250kW or 275kW
- 12 MPPTs with 36 fused inputs or 24 unfused inputs
- Copper and Aluminum compatible AC connections
- NEMA Type 4X outdoor rated, tough tested enclosure
- Full power capacity up to 42°C
- Standard 5 year warranty with extensions to 20 years
- Supported comm protocols (Modbus RTU, TCP/IP, PLC, CAN)

Model Name	CPS SCH275KTL-DO/US-800-36	CPS SCH275KTL-DO/US-800-24
DC Input		
Max. DC Input Voltage	1500V	
Operating DC Input Voltage Range	500-1450Vdc	
Start-up DC Input Voltage / Power	550Vdc / 500W	
MPPT Voltage Range @ PF>0.99 ¹	900-1300Vdc	
Number of MPP Trackers	12	12
Max. PV Input Current	26A per MPPT	30A per MPPT
Max. PV Short-Circuit Current	600A, 50A per MPPT	600A, 50A per MPPT
Number of DC Inputs	36 Fused Inputs, 3 per MPPT	24 Non-Fused Inputs
DC Disconnection Type	Load-rated DC switches	
DC Surge Protection	Type II	
AC Output		
Max AC Output Power (Selectable) @ PF>0.99	250kW / 275kW	
Max. AC Apparent Power	275kVA	
Rated Output Voltage	800Vac	
Output Voltage Range ²	704-880Vac	
Grid Connection Type	3-Phase / PE	
Max. AC Output Current @800Vac	198.5A	
Rated Output Frequency	60Hz	
Output Frequency Range ²	57 - 63Hz	
Power Factor	>0.99 (±0.8 adjustable)	
Current THD @ Rated Load	<3%	
Max. Fault Current Contribution (1 Cycle RMS)	215.2A	
Max. OCPD Rating	300A	
AC Surge Protection	Type II	
System and Performance		
Max. Efficiency	99.0%	
CEC Efficiency	98.5%	
Stand-by / Night Consumption	5W	
Environment		
Enclosure Protection Degree	NEMA Type 4X	
Cooling Method	Variable speed cooling fans	
Operating Temperature Range ³	-22°F to +140°F / -30°C to +60°C (derating from +107°F / +42°C)	
Operating Humidity	0 to 100%	
Operating Altitude	8202ft / 2500m (no derating)	
Audible Noise	<80dBA @ 1m and 25°C	
Display and Communication		
User Interface and Display	LED indicators, WiFi + APP	
Inverter Monitoring	Modbus RS485 / Ethernet TCP/IP / PLC / CAN	
Site Level Monitoring	CPS FlexOM (1 per 32 inverters)	
Modbus Data Mapping	SunSpec / CPS	
Remote Diagnostics / FW Upgrade Functions	Standard / (with FlexOM Gateway)	
Mechanical		
Dimensions (HxWxD)	27.2 x 41.3 x 15.7in (690 x 1050 x 400mm)	
Weight	Approx. 262lbs / 119kg	
Mounting / Installation Angle	Vertical installation	
AC Termination	Stud Type Terminal (Wire range: 3/0AWG – 600kcmil AL/CU, Lugs not supplied)	
DC Termination	36 Fused Input: Screw Clamp Fuse Holder (Wire range: #14 - #6 AWG CU) 24 Non-Fused Input: Screw Clamp Terminal (Wire range: #14 - #8 and #6 - #4 AWG CU)	
Fused String Inputs (3 per MPPT) ⁴	20A fuses provided (Fuse values up to 30A acceptable)	
Safety		
Certifications and Standards	UL1741-SA Ed. 2, CSA-22.2 NO.107.1-16, IEEE1547-2018, FCC PART15	
Selectable Grid Standard	IEEE 1547a-2014, CA Rule 21, ISO-NE	
Smart-Grid Features	Volt-RideThru, Freq-RideThru, Ramp-Rate, Specified-PF, Volt-Var, Freq-Watt, Volt-Watt	
Protection Functions		
Reactive Power at Night	Yes	
IV Curve Tracing	Yes	
Insulation Resistance Monitoring	Yes	
Onboard Fault Oscillography	Yes	
PV String Current Monitoring	Yes	
Residual Current Monitoring	Yes	
Input Reverse Polarity Protection	Yes	
Output Overcurrent Protection	Yes	
Output Short-Circuit Protection	Yes	
Output Overvoltage Protection	Yes	
Warranty		
Standard	5 Years	
Extended Terms	10, 15 and 20 years	

1) See user manual for further information regarding MPPT Voltage Range when operating at non-unity PF

2) The "Output Voltage Range" and "Output Frequency Range" may differ according to the specific grid standard.

3) See user manual for further requirements regarding non-operating conditions.

4) Fused string inputs only applicable to the SCH275KTL 36 input model.

From: Xiaofeng Xu <Xiaofeng.Xu@chintpower.com>
Sent: Friday, August 16, 2024 10:07 AM
To: Brian Baxter <brian.baxter@chintpower.com>; Zhehan Yi <Zhehan.yi@chintpower.com>
Subject: RE: CPS275kW dBA listing

Hi Brian,

Confirmed that the sound data is accurate, and the measurement was taken at 1 meter.

Thanks,
Xiaofeng

Chart that CPS provided in June:

Doug

Please see the updated table below.

I was informed there was a lower duty ratio on the fans per the previous data set that showed <65 dBA. Our firmware was updated and the duty ratio and therefore noise is now higher.

Table 6.6	Noise			
Measurement location	Environment noise(dB)	Inverter noise(dB)	Correction factor	Results (dB)
Front	49.6	69.3	0	69.3
Back	49.7	71.5	0	71.5
Left	49.7	70.7	0	70.7
Right	49.2	69.2	0	69.2
☐>80dB		☐<80dB		

Sorry for any confusion on the data but these values above are going to be more accurate. How will this affect your sound report?

Thanks
Brian

OMCO SOLAR®



omco Origin™

FACTORY-DIRECT TRACKERS

One-In-Portrait

- ADJUSTABLE BEARINGS = FASTER INSTALLATION AND COMPENSATION FOR POST MISALIGNMENT
- 4 STRINGS = FEWER MOTORS AND CONTROLLERS PER MW
- WIDEST RANGE OF MOTION = HIGHEST KWH PRODUCTION
- BALANCED TRACKER = LOW ENERGY CONSUMPTION & LONG, STRAIGHT ROWS
- HIGH DOMESTIC CONTENT - MADE BY OMCO SOLAR IN OUR 6 US MANUFACTURING PLANTS
- ADDED STRUCTURE FOR LARGE FORM FACTOR MODULES = REDUCED RISK OF MICRO-CRACKS

Tracking Technology	Single-row, horizontal, balanced, single-axis
Tracking Range	120°
Modules and Configurations	1-in-portrait Monofacial and bifacial modules Framed silicon module – Up to 120 per tracker First Solar Series 6 & Series 7 modules – Up to 96 per tracker
Dimensions	Height – Modules at 60° – 2.4 m (7.8 feet) Width – Modules horizontal – 2.0 m (6.5 feet) Length – Up to 122 m (400 feet)
Foundations	Driven C posts – OMCO produced, lower cost, faster lead time Driven I or W posts – OMCO sourced OMCO Ground Screw Foundations
Structural Materials	Galvanized steel per ASTM A653
Drive	1 slew drive per tracker 20 drives per MW (typical)
Motor	1 24-volt dc motor per tracker 20 motors per MW (typical)
Control System	1 tracker control unit mounted to each tracker with internal inclinometer DC with 30 or 60-watt module and long-life LiFePO ₄ battery AC up to 264 vac input 1 network controller per 100 – 150 trackers (wireless) 1 or more meteorological stations per site 1 remote access unit per site – datalogger and modem
Communication	Network controller to tracker controllers: MODBUS over Zigbee wireless Network controller to SCADA: MODBUS TCP/IP over ethernet Cloud app available for remote monitoring and predictive maintenance
Step Size	1°
Tracking Algorithm	Based on United States Naval Observatory Solar Position Algorithm Tracking accuracy $\pm 2^\circ$
Backtracking	Optional – Optimized for each tracker based on topography
Night Stow	Yes
Wind Stow	Yes
Snow Stow	Yes
Snow Sensor	Optional
Flood Sensor	Optional
Bearings	Self-lubricating, long-life polymer blend wear surfaces Adjustable in multiple dimensions to take up post misalignment Delivered fully assembled from the OMCO Solar factory
North-South Slopes	Up to 15%
Installation	No welding or cutting in the field
Compliance	UL3703, ASCE7



omcosolar.com

Arizona | Ohio | Indiana | Alabama
602-352-2700 | info@omcosolar.com

