

OMCO SOLAR®

omco Choice™

Direct-Bolt Mounting System

Pre-Assembled Tilt Brackets

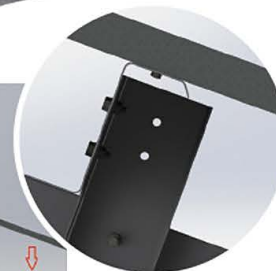
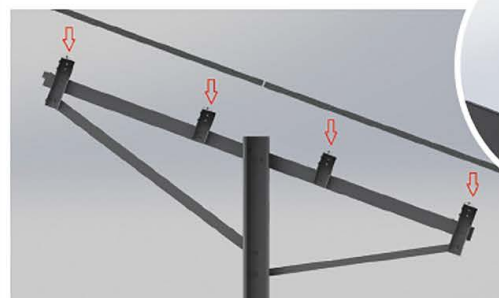
- Optimizes packaging and shipping
- Reduces on-site labor requirements
- Accelerates total build time
- Eliminates loose hardware

Integrated Grounding

- Eliminates third party grounding devices
- Accelerates assembly



www.omcosolar.com



Manufacturing:	OEM direct, shipped to project sites from OMCO Solar's manufacturing facilities, conveniently located nationwide.
Pre-assembly:	Each rack consists of pre-assembled components, which reduces the bill of material items, allowing rapid site staging and installation.
Materials:	Galvanized steel, per ASTM A653 - latest edition
Hardware:	Zinc-coated to 15 microns per UL 2703, the hardware arrives pre-sorted for easy identification. Additional plating options are available for corrosive environments.
Module compatibility:	OMCO Solar racks are optimized for all commercially available framed solar modules.
In-field flexibility:	Built-in adjustability features account for post misalignment and terrain elevation changes with no additional components. Proprietary custom slot configurations come standard on every fixed-tilt mounting system.
Table configuration:	2-in-portrait is standard, other configurations evaluated per site-specific requirements
Terrain articulation:	Accommodates up to 20% grade change
Foundation options:	Driven piles (C-posts or I-beams)
Tilt angle:	Accommodates from 5° - 45°
Wire management:	Integrated wire management system
Bonding/grounding:	UL 2703 compliant
Post-tolerances:	East to West tolerance 3/4" or 0.75" 1° North to South tolerance 3/4" or 0.75" 1°
Load capacities:	Wind - up to 180 MPH Snow - up to 90 PSF
Certifications:	ISO 9001:2015 standard, UL 2703 Ed. 1, CPP wind tunnel-tested, NEC compliant
Warranty:	20-year limited warranty



- ✓ Reduced lead times
- ✓ Lower shipping costs
- ✓ Responsive customer service
- ✓ Enhanced flexibility

OMCO SOLAR®

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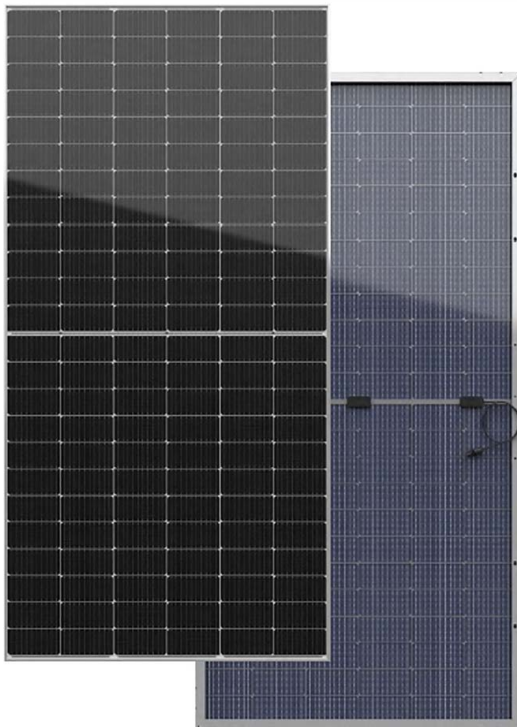


HT72-18X Transparent

High Efficiency Low LID and Bifacial cell with Half-cut Technology
 Big Size: Cell 182 × 91 Monocrystalline

540W / 545W

550W / 555W / 560W



Half cut cell technology can reduce the internal power loss and improve component overall power. Excellent heat dissipation avoids hot spot production.



10BB The optimized number and width of main gate lines, Maximize the light receiving area of components and reduce component power consumption



Designed for high voltage systems of up to 1500 VDC, increasing the string length of solar systems and saving on BoS costs



Entire module certified to with stand extreme wind (2400 Pa) and snow loads (5400 Pa)



All the modules are sorted and packaged by amperage, reducing mismatch losses and maximizing system output.

12Ys
products

30Ys
warranty on power output

PID
PID resistant

5W
positive tolerance 0/+5W guaranteed

EL
microcrack resistant high performance transparent backsheet structure enhance reliability, triple EL tested of high quality control.

Comprehensive and First-rate Certification System

IEC61215: 2016.IEC61730: 2016 Latest Standard ISO14001 and ISO45001, meeting the highest international standards Sreict quality control



- Module Efficiency
21.7%
- No.of Cells
144 (6 × 24)
- Weight
27.4kg
- Dimensions
2279mm × 1134mm × 35mm



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



CPS SCH275KTL-DO/US-800

The 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 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
DC Input	
Max. DC Input Voltage	1500V
Operating DC Input Voltage Range	500-1500Vdc
Start-up DC Input Voltage / Power	600Vdc / 300W
Number of MPP Trackers	12
MPPT Voltage Range @ PF>0.99 ¹	900-1300Vdc
Max. PV Short-Circuit Current	600A, 50A per MPPT
Number of DC Inputs	36 Fused Inputs, 3 per MPPT or 24 Non-Fused Inputs, 2 per MPPT (determined by SKU)
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	250A
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)	26.8 x 41.3 x 15.7in (680 x 1050 x 400mm)
Weight	Approx. 260lbs / 118kg
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	UL1741SA-2018, CSA-22.2 NO.107.1-01, IEEE1547-2018, FCC PART15
Selectable Grid Standard	IEEE 1547-2018, CA Rule 21, ISO-NE, HECO Rule 14H
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.

Three-phase pad-mounted compartmental type transformer



General

At Eaton, we are constantly striving to introduce new innovations to the transformer industry, bringing you the highest quality, most reliable transformers. Eaton's Cooper Power series Transformer Products are ISO 9001 compliant, emphasizing process improvement in all phases of design, manufacture, and testing. In order to drive this innovation, we have invested both time and money in the Thomas A. Edison Technical Center, our premier research facility in Franksville, Wisconsin. Such revolutionary products as distribution-class UltraSIL™ Polymer-Housed Evolution™ surge arresters and Envirotemp™ FR3™ fluid have been developed at our Franksville lab.

With transformer sizes ranging from 45 kVA to 12 MVA and high voltages ranging from 2400 V to 46 kV, Eaton has you covered. From fabrication of the tanks and cabinets to winding of the cores and coils, to production of arresters, switches, tap changers, expulsion fuses, current limit fuses, bushings (live and dead) and molded rubber goods, Eaton does it all. Eaton's Cooper Power series transformers are available with electrical grade mineral oil or Envirotemp™ FR3™ fluid, a less-flammable and bio-degradable fluid. Electrical codes recognize the advantages of using Envirotemp™ FR3™ fluid both indoors and outdoors for fire sensitive applications. The bio-based fluid meets Occupational Safety and Health Administration (OSHA) and Section 450.23 NEC Requirements.

EATON

Powering Business Worldwide

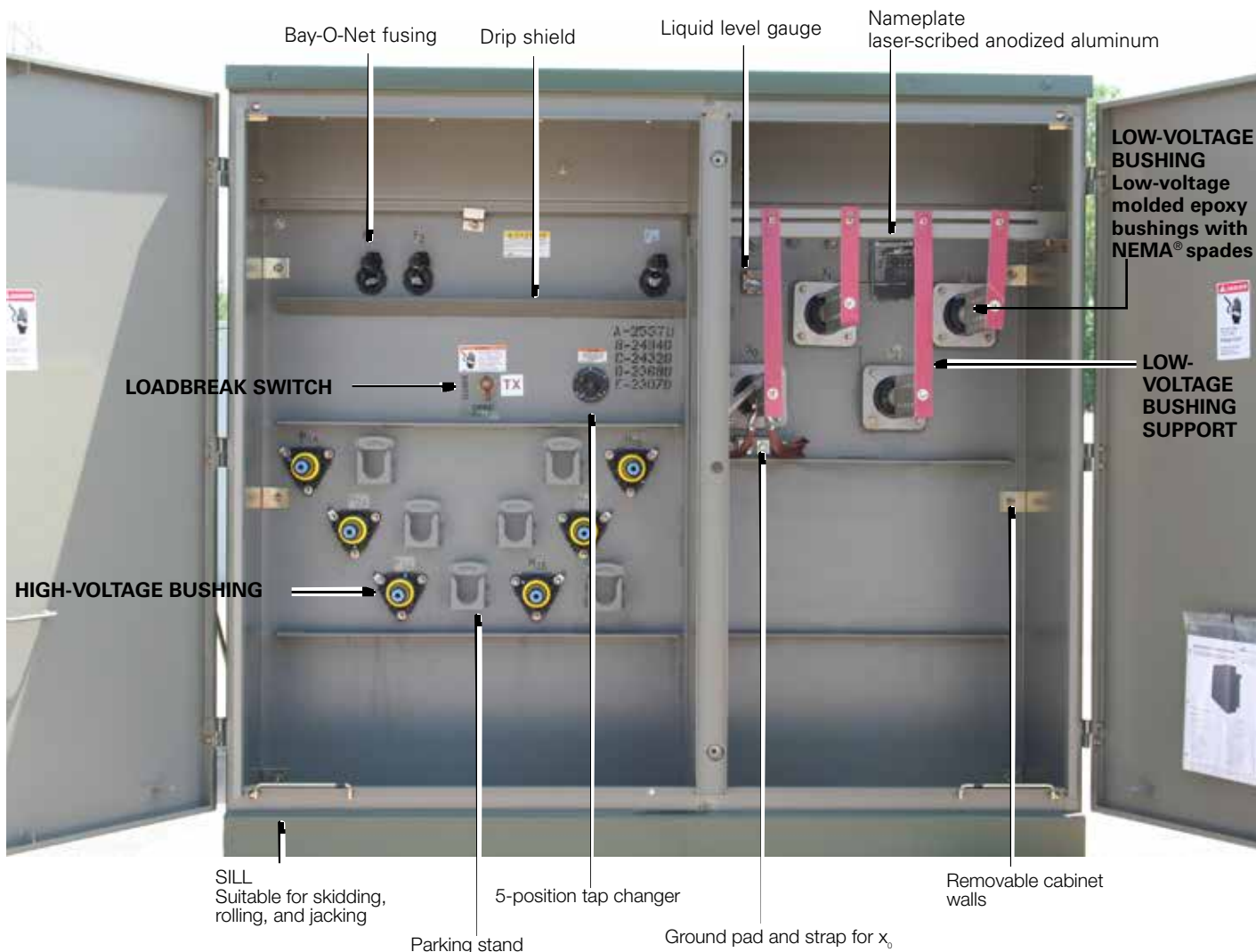


Figure 1. Three-phase pad-mounted compartmental type transformer.

Table 1. Product Scope

Type	Three Phase, 50 or 60 Hz, 65 °C Rise (55 °C, 55/65 °C), 65/75 °C, 75 °C
Fluid Type	Mineral oil or 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)
	Vacuum Fault Interrupter (VFI)
	UL® Listed & Labeled and Classified
	Factory Mutual (FM) Approved®
	Solar/Wind Designs
	Differential Protection
	Seismic Applications (including OSHPD)
	Hardened Data Center

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)

	Standard	Optional
Unit Rating (Temperature Rise Winding)	65 °C	55 °C, 55/65 °C, 75 °C
Ambient Temperature Max	40 °C	50 °C
Ambient Temperature 24 Hour Average	30 °C	40 °C
Temperature Rise Hotspot	80 °C	65 °C

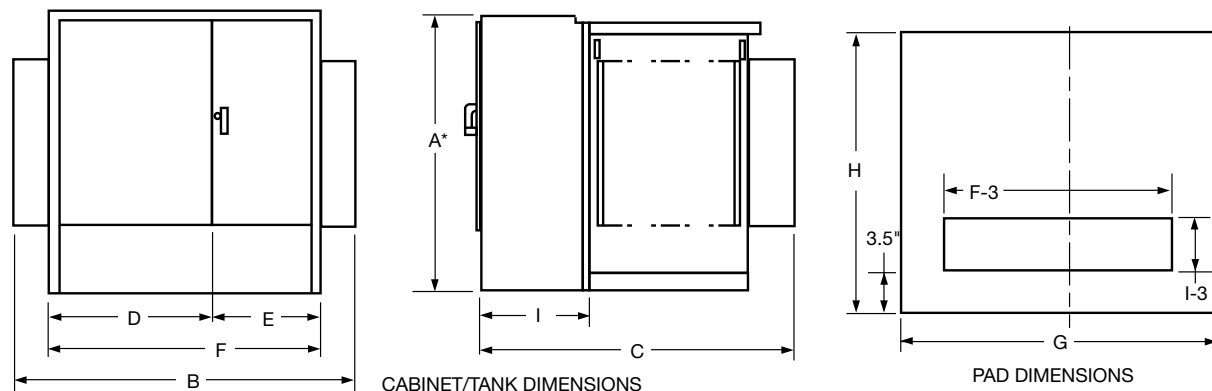


Figure 2. Transformer and pad dimensions.

* Add 9" for Bay-O-Net fusing.

Table 7. Fluid-filled—aluminum windings 55/65 °C Rise¹

65° Rise kVA Rating	DEAD-FRONT—LOOP OR RADIAL FEED—BAY-O-NET FUSING OIL FILLED—ALUMINUM WINDINGS									Gallons of Fluid	Approx. Total Weight (lbs.)
	OUTLINE DIMENSIONS (in.)										
	A*	B	C	D	E	F	G	H	I		
45	50	68	39	42	26	68	72	43	20	110	2,100
75	50	68	39	42	26	68	72	43	20	115	2,250
112.5	50	68	49	42	26	68	72	53	20	120	2,350
150	50	68	49	42	26	68	72	53	20	125	2,700
225	50	72	51	42	30	72	76	55	20	140	3,150
300	50	72	51	42	30	72	76	55	20	160	3,650
500	50	89	53	42	30	72	93	57	20	190	4,650
750	64	89	57	42	30	72	93	61	20	270	6,500
1000	64	89	59	42	30	72	93	63	20	350	8,200
1500	73	89	86	42	30	72	93	90	24	410	10,300
2000	73	72	87	42	30	72	76	91	24	490	12,500
2500	73	72	99	42	30	72	76	103	24	530	14,500
3000	73	84	99	46	37	84	88	103	24	620	16,700
3750	84	85	108	47	38	85	88	112	24	660	19,300
5000	84	96	108	48	48	96	100	112	24	930	25,000
7500	94	102	122	54	48	102	100	126	24	1,580	41,900

¹ Weights, gallons of fluid, and dimensions are for reference only and not for construction. Please contact Eaton for exact dimensions.

* Add 9" for Bay-O-Net fusing.

Table 8. Fluid-Filled—Copper Windings 55/65 °C Rise¹

65° Rise kVA Rating	DEAD-FRONT—LOOP OR RADIAL FEED—BAY-O-NET FUSING OIL FILLED—COPPER WINDINGS									Gallons of Fluid	Approx. Total Weight (lbs.)
	OUTLINE DIMENSIONS (in.)										
	A*	B	C	D	E	F	G	H	I		
45	50	64	39	34	30	64	69	43	20	110	2,100
75	50	64	39	34	30	64	69	43	20	115	2,350
112.5	50	64	49	34	30	64	69	53	20	115	2,500
150	50	64	49	34	30	64	69	53	20	120	2,700
225	50	64	51	34	30	64	73	55	20	140	3,250
300	50	64	51	34	30	64	75	55	20	160	3,800
500	50	81	53	34	30	64	85	57	20	200	4,800
750	64	89	57	42	30	72	93	61	20	255	6,500
1000	64	89	59	42	30	72	93	63	20	300	7,800
1500	73	89	86	42	30	72	93	90	24	410	10,300
2000	73	72	87	42	30	72	76	91	24	420	11,600
2500	73	72	99	42	30	72	76	103	24	500	14,000
3000	73	84	99	46	37	84	88	103	24	720	18,700
3750	84	85	108	47	38	85	88	112	24	800	20,500
5000	84	96	108	48	48	96	100	112	24	850	25,000
7500	94	102	122	54	48	102	100	126	24	1,620	46,900

¹ Weights, gallons of fluid, and dimensions are for reference only and not for construction. Please contact Eaton for exact dimensions.

* Add 9" for Bay-O-Net fusing.



PHOENIX FENCE

EDMONTON

12816-156 STREET T5V 1E9
 PHONE: (780) 447-1919
 FAX: (780) 447-2512
 TOLL FREE: 1-800-661-9847
 E-MAIL: phoenix@phoenixfence.ca

CALGARY

6204-2nd STREET S.E. T2H 1J4
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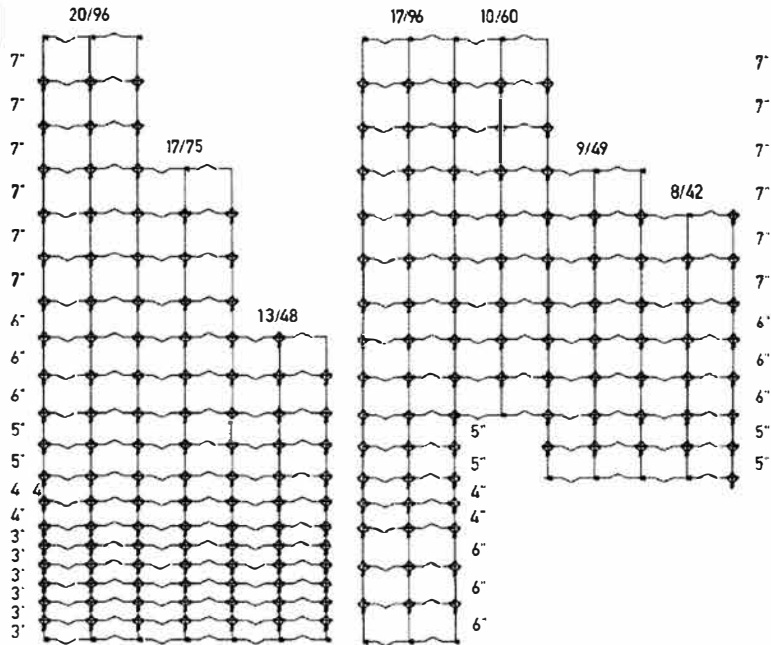
Fixed Knot Fence Specifications

Wire	Gauge	Tensile Strength	Breaking Load	Galvanization
Line Wires	12 1/2 ga.	Hi-Tensile 179K-210K	1350 lbs – 1584 lbs	.85 oz.-1.4oz. per sq.ft.
Stay Wires	12 1/2 ga.	Med-Tensile 125K-145K	943 lbs – 1094 lbs	.85 oz.-1.4oz. per sq.ft.
Knot Wires	13 ga.	Low Tensile 72K-95K	438 lbs – 580 lbs	.85 oz.-1.4oz. per sq.ft.

Wire Type	Length	Weight
20/96/6	330'	386 lbs
20/96/6	500'	585 lbs
20/96/12	330'	276 lbs
20/96/12	660'	552 lbs
17/96/6	330'	346 lbs
17/96/6	500'	525 lbs
17/96/12	330'	247 lbs
17/75/6	330'	318 lbs
17/75/12	330'	229 lbs
10/60/6	330'	205 lbs
10/60/12	660'	293 lbs
9/49/12	660'	256 lbs
13/48/6	330'	220 lbs
8/42/12	660'	220 lbs

Order Nomenclature:

The first number indicates the number of horizontal wires, while the second number indicates the height of the fence. The last number is the distance between vertical stays.
 Eg. 20/96/12 is a roll with 20 horizontal wires, is 96" high, with vertical stays 12" apart

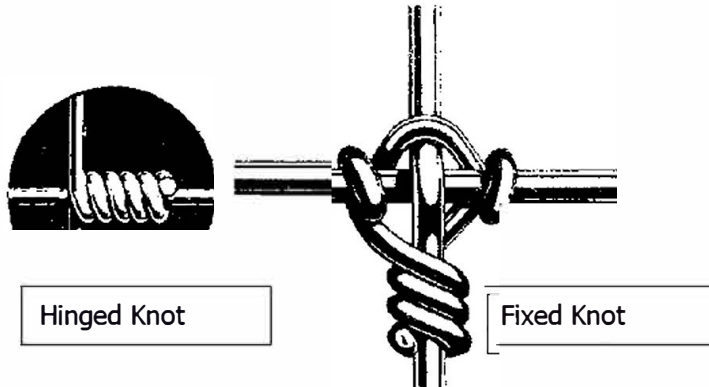


FIXED-KNOT fencing is designed specifically for wildlife and is not a domestic livestock fence being used as a wildlife fence. Here is the ultimate in fencing for all animals, large or small, wild or domestic. FIXED-KNOT, a North American product, gives excellent control for animal containment, exclusion and protection from predators.

FIXED-KNOT Hi-Tensile fencing is the best of its kind. Exceeding Class 3 galvanizing assures three times the life over conventional hinge joint fencing. The combination of Hi-Tensile wire (which provides three times the strength of conventional 12 1/2 ga. Wire) and fixed knot vertical stays allow fence installation using 20' post centers.

FIXED-KNOT vs. Hinge lock

Fixed lock (game fence) has continuous horizontal (line) and vertical (stay) wires, and the wires are fastened together using a fixed lock knot. Hinge lock (farm fence) has continuous horizontal (line) wires and vertical wires that are wrapped between the line wires using a hinge lock. The fixed knot is considerably stronger



Hinged Knot

Fixed Knot