



GRIDCORE™ COMPOSITE UTILITY POLES

OVERVIEW

The GridCore™ Composite Utility Poles from MacLean Power Systems are engineered to enhance grid resilience and reliability as a superior alternative to traditional wood, steel, or concrete poles used in electric power distribution. Manufactured from advanced fiber reinforced polymer (FRP) composites, these poles provide exceptional durability, reduced maintenance requirements, and an extended service life. Their lightweight construction enables safer, faster installation while delivering a robust and cost-effective solution for modern utility infrastructure.

KEY FEATURES

- **Long Service Life:** Expected lifespan of up to 80 years, significantly longer than traditional wood poles
- **Lightweight Design:** Easier handling and installation using lighter-duty equipment, reducing strain on crews and machinery
- **Corrosion and Pest Resistant:** Not susceptible to woodpeckers, insects, or environmental degradation
- **One-Piece Composite Construction:** Pultruded, uniform-diameter pole design eliminates field assembly and improves consistency
- **Low Maintenance:** Requires only visual inspections and allows for simple on-site repair of superficial damage

TECHNICAL HIGHLIGHTS

- Composite alternative to wood, steel, and concrete poles
- Supports grid resilience and reliability
- Uniform engineered material for consistent performance

ORDERING & AVAILABILITY

- Refer to MPS website for detailed product information and availability
- For items not listed, please contact MPS Customer Service



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FRP POLE SECTION PROPERTIES

GRIDCORE FRP POLE SECTIONAL PROPERTIES	GRIDCORE FRP POLE ^a 14.0 x 0.5 in	GRIDCORE FRP POLE ^a 14.0 x 0.75 in
Nominal Fiber Stress, F^b (psi)	45000	45000
NESC Construction ^b	Grade B	Grade B
Strength Factor, Φ^b	1.0	1.0
Modulus of Elasticity E (10^6 psi)	5.00	5.63
Density (lb/ft ³)	120	120
Outer Diameter (in)	14	14
Wall Thickness (in)	0.50	0.75
Inner Diameter (in)	13.00	12.50
Moment of Inertia, I (in ⁴)	484	687
Flex. Stiff., EI (lb-in ² 10 ⁶)	2419	3870
Section Modulus, S (in ³)	69.10	98.20
Allowable Moment., ΦFS (kip-ft)	259	368
Cross Section Area, A (in ²)	21	31
Weight (lb/ft)	17.70	26.00



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