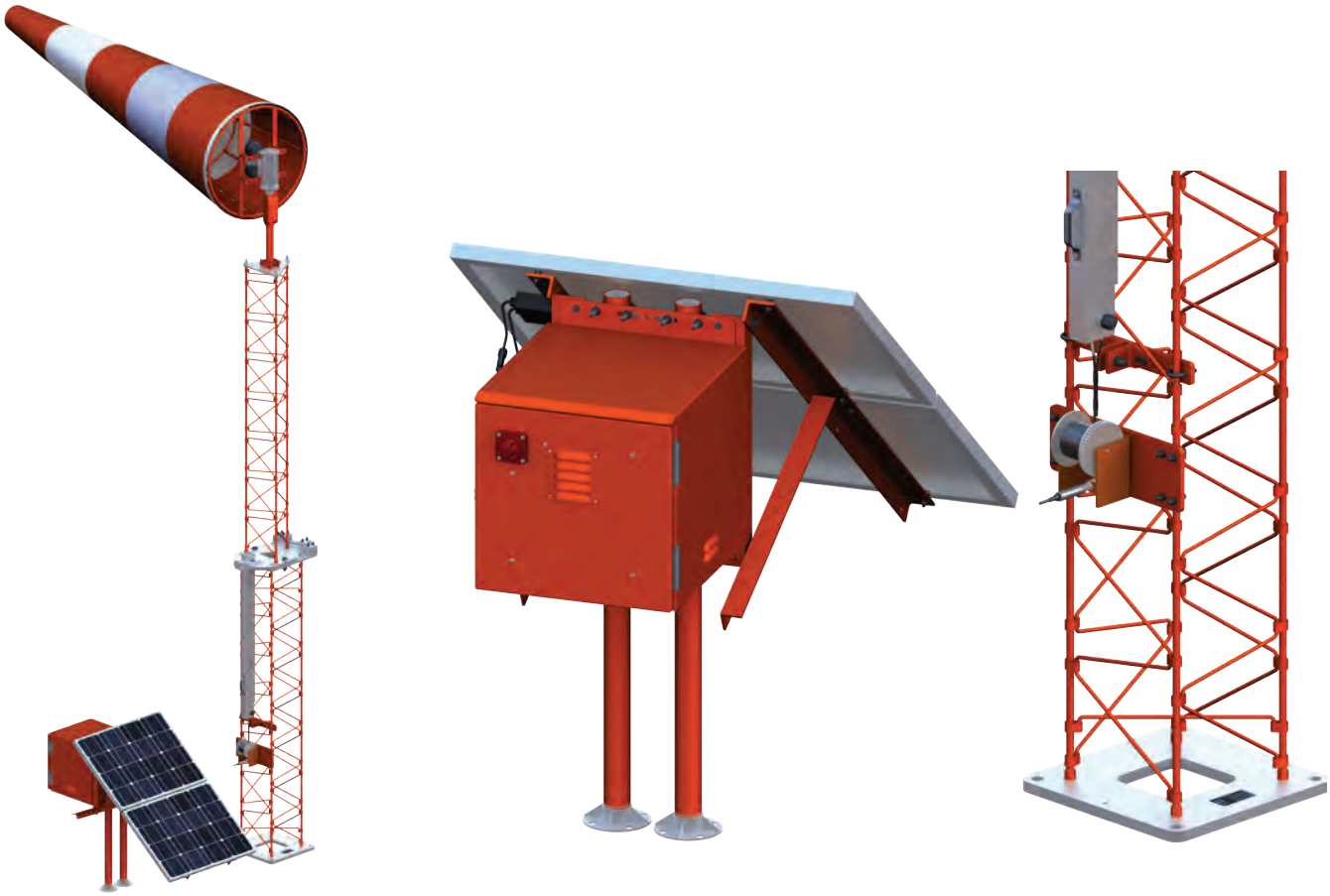
MILLARD TOWERS LTD.

SOLAR WINDSOCKS



Millard Towers offers a reliable solar powered windsock as an alternative to traditional power sources. The windsock is the same as its typical 12VDC aviation design, but equipped with a solar power supply. The payback on this off-grid solution is immediate as it doesn't require the signfiicant infrastructure needed to run power into the field via trenching and cable runs. Operating costs are minimal with no ongoing utility demands.

The power supply is engineered based on site specific irradiation data and designed to meet minimum autonomy requirements during the darkest time of year. Heavy duty, deep cycle 110Ah batteries offer reliable performance and a high-cycle lifespan, while integrated 90W solar panels ensure batteries are being charged efficiently, making full use of the available sun.

A bluetooth-enabled controller allows the power supply to be monitored remotely. It can also be programmed to run on a set schedule, or to be turned on automatically at dusk. An intelligent battery monitor feature maximizes battery life by preventing over-discharge and partial charge issues. Its functionality greatly reduces the uncertainty surrounding performance and maintenance ensuring the windsock experiences little to no downtime, while maximizing lifecycle.

Millard also offers a complete line of frangible towers and tiltable aluminum poles used to support the windsock.

SPECIFICATIONS

CONSTRUCTION.

SUPPORTS & CABINET (ASTM): 6000 Series Aluminum

HARDWARE (ASTM): ECO GUARD Grade 5 Steel

POWDER COATING (AAMA): Orange, RAL 2002

RECYCLABLE (LEED): Made from 75% recycled Aluminum

WARRANTY: Electrical 1 year, Structural 5 years

PERFORMANCE.

BATTERY: 110Ah, 12VDC, Deep Cycle AGM, Sealed

PANEL: 90W, 12VDC, Class 1 Division 2

CONTROLLER: 12VDC, 75V Max PV, 15A Charge

- Bluetooth-Enabled and Programmable via App

WIND LOAD: 220km/h Peak Gust

DESIGN

(A) 90W SOLAR PANELS

• Available as 1 or 2 panel systems

VOLTAGE: 12VDC
OPERATING TEMPERATURE: -40°C to +85°C
CERTIFICATION: UL1703, cUL1703
HAZARD RATING: C1D2

(B) ADJUSTABLE PANEL MOUNT

• To optimize irradiation

MATERIAL: Powder coated Aluminum (orange)
ADJUSTMENT: 15° to 55° (5° increments)

(C) FRANGIBLE POLE, DOUBLE

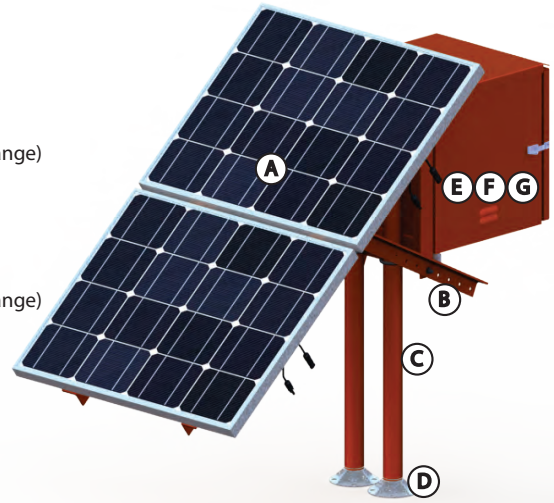
• Mounts both Enclosure and Panels

MATERIAL: Powder coated Aluminum (orange)
THREAD: 2" NPT
SIZE: 1.20m x 60mm OD
FRANGIBILITY: ICAO Doc 9157

(D) FLANGE MOUNT

• For installation on concrete pad or pile

MATERIAL: Anodized Aluminum
THREAD: 2" NPT
MOUNTING: Ø16mm (x4)
MOUNT LAYOUT: Ø121mm



(E) WEATHERPROOF ENCLOSURE

• Available in two sizes to suit 1 or 2 batteries

MATERIAL: Powder coated Aluminum (orange)
CERTIFICATION: UL 508A, NEMA 3R
CLOSURE: Lockable clasp, gasket lined
MOUNTING: Double pole (60mm OD)

(F) BATTERY (not shown)

• Available as 1 or 2 battery systems

VOLTAGE: 12VDC
CAPACITY: 110Ah
TYPE: Deep Cycle AGM Lead
FEATURES: Sealed and Spillproof

(G) CONTROLLER (not shown)

• Bluetooth App used for remote monitoring
• Programmable schedule or dusk/dawn operation
• Intelligent Battery Management to prolong life

VOLTAGE: 12V or 24V (factory programmed)
CHARGE CURRENT: 15A
MAX PV VOLTAGE: 75V
PEAK EFFICIENCY: 98%
OPERATING TEMPERATURE: -30°C to +60°C

DATA

PART NO	BATTERY QTY	PANEL QTY	AUTONOMY (HOURS)*			RECHARGE TIME (DAYS)**			
			45cm	60cm	90cm	2,000 Wh/m²	3,000 Wh/m²	4,000 Wh/m²	5,000 Wh/m²
AEP-DCDC-0007	1	1	132	55	37	3.91	2.60	1.95	1.56
AEP-DCDC-0008	1	2	132	55	37	1.95	1.30	0.98	0.78
AEP-DCDC-0009	2	1	264	110	74	7.82	5.20	3.90	3.12
AEP-DCDC-0003	2	2	264	110	74	3.90	2.60	1.96	1.56

* Autonomy is presented using our standard 12VDC Windsocks, by diameter. *50% Rule* has not been applied.

** Recharge Time is the number of days it takes for the panels to fully charge the batteries from 50%. Calculations are based on the given Daily Average Direct Irradiation values. These are reference calculations only as site-specific data is used for each project.

RELATED

This datasheet is for the Windsock Solar Power Supply only. For details and specifications on other Windsock related assemblies, please refer to:

- Aviation Windsocks datasheet (D_WSKAV)
- Frangible Windsock Towers datasheet (D_WSTWR)
- Aluminum Windsock Pole datasheet (D_WSPLE)

+1 (905) 377-9808
Sales@MillardTowers.com
www.MillardTowers.com

300 White Street
Cobourg, Ontario K9A 1X1
Canada