BFT
tuned to you

Discover A Whole New Solar System

Introducing new solar powered gate operators

ECOSOL
Solar Gate Automation Solutions

With ECOSOL Technology the system is put to sleep when not in use, providing optimized use of stored battery power supplied by the sun. Proven BFT 24V gate operator systems offer reliable, efficient and attractive solutions that are economical and provide years of trouble free operation.

12" x 14" pre-wired Ecosol Libra enclosure with batteries

Ecosol easy to connect interface with batteries

ECOSOL Charger for rapid charging of batteries from standard electrical outlet

Phobos BT & BT L 24V DC operators for swing gates up to 16.5' & 550 lbs

Deimos BT 24V rack & pinion slider operator for gates up to 1,100 lbs

Igea BT 24V articulated arm for gates up to 550 lbs

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How does ECOSOL work?

When a BFT 24VDC Gate Automation Solution is connected to a solar panel, the most important factor beyond reliability is to consume the least amount of power both during the gate operation and in standby mode, while keeping the necessary safety devices and functions activated. BFT has managed to achieve both these goals with the development of the revolutionary ECOSOL board.

Revolutionary Technology - ECOSOL Board: The BFT Ecosol System has been designed with enhanced technology that puts the BFT Control Board to sleep when not in use for more than 5 minutes. This provides for an optimized system that allows for minimal power consumption from the batteries throughout the day. The result is an ultra efficient system that will provide optimized results even in geographical areas that are not in bright sunlight every day. The ECOSOL control board can be woken up by an impulse of a BFT Mitto remote control device, BFT T-Box radio digital keypad, BFT wall radio switch, wired keypad or a loop detector to open the gate.

BFT 24V DC Operators: BFT operators draw minimal power when activating a gate; for example, a Phobos BT 24VDC electromechanical linear arm, or an Igea BT 24VDC articulated arm for swinging gate applications consume a maximum of 40 watts for gates up to 550Lbs. A Deimos BT 24VDC for rack & pinion sliding only a maximum of 70 watts for gates up to 1,100 Lbs.

Solar Panel: New Phobos BT operators have been designed specifically for ECOSOL. Speed for opening 90 degrees with standard geometry and full batteries: ECOSOL Phobos BT: 14 seconds, ECOSOL Phobos BT L: 19 seconds, ECOSOL Igea BT: 15 seconds. A highly efficient small in size 10W, 24V solar panel is supplied by BFT to quickly charge the batteries. For higher traffic or low sun exposure, it is an option to add a set of larger capacity batteries and/or one or two extra solar panels. The panel can be wall mounted or post mounted (optional bracket necessary).

BFT USA is distributing two main options to connect a BFT automated gate to solar power.

1. An ECOSOL control box with a handle and rapid connectors, including 2-7.2Amp/h batteries (a second battery box can be added for increased capacity in low sun exposure areas)

2. An ECOSOL 12" x 14" pre-wired enclosure with Libra UL/CSA control panel, including 2-9Amp/h batteries (2 additional 9Amp/h batteries can be connected and added inside the enclosure for increased capacity in low sun exposure areas)

All BFT USA ECOSOL kits, slide or swing, single or dual operators come in only two boxes including necessary installation accessories. ECOSOL Phobos BT and BTL single and dual kits are packaged in easy to identify green boxes.

Number of Cycles*

ECOSOL has been designed for residential or low traffic applications.

- 10 cycles per day – 21 days without sun
- Up to 3 10W BFT ECOSOL solar panels can be connected to one ECOSOL board
- Choice of 2 or 4 x 7.2 Amp/h (standard on ECOSOL Interface box) or 2 or 4 9 Amp/h (standard on ECOSOL Libra UL/CSA enclosure) batteries for greater capacity
- 30+ cycles per day in optimum conditions

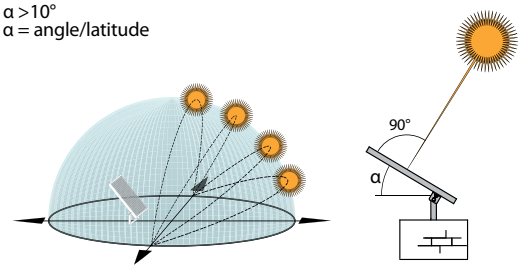
* Note: Based on one Single Phobos BT operator with FL 130B Photocells. Conditions may vary from installation to installation and alternative results may occur dependent on environmental conditions and geographical position.

ECOSOL Batteries Capacity Chart - Number of Cycles

	Deimos BT	Ares 1500	1 Phobos / Igea BT	2 Phobos / Igea BT	Moovi BT
Watts	70	400	40	80	300
Based on dimensions	1,100Lbs - 20Ft		550Lbs - 16.5Ft	550Lbs - 16.5Ft	16.5Ft
Opening angle			90 degrees	90 degrees	90 degrees
NUMBER OF CONTINUOUS CYCLES ON FULLY CHARGED					
Ecosol Box 2 x 7.2 Amp/h	100	35	560	280	800
Ecosol Box + Ecosol Double 4 x 7.2 Amp/h	200	70	1120	560	1000
Ecosol Box 2 x 9 Amp/h *	120	42	670	330	960
Ecosol Box + Ecosol Double 4 x 9 Amp/h *	240	84	1340	660	1920
Ecosol Libra Enclosure 2 x 9 Amp/h			670	330	

* ECOSOL boxes are supplied with 7.2 Amp/h batteries. 9 Amp/h batteries can be purchased to increase capacity.

α >10°
α = angle/latitude



Cities	
Seattle (WA)	47°
New York (NY)	41°
San Francisco (CA)	38°
Atlanta (GA)	34°
Los Angeles (CA)	34°
Phoenix (AZ)	33°
Dallas (TX)	33°
Houston (TX)	30°
Miami (FL)	26°
San Juan (PR)	18°

TECHNICAL

	ECOSOL® PANEL
Voltage	24 Volts
Power	10 Watts
Operating temperature	-4 ° F + 122 ° F
Dimensions	11.4"W x 14"H x 1.2"D
Weight	4.4 Lbs

	ECOSOL® BOX	ECOSOL® LIBRA UL/CSA
Voltage	24 Volts	
Peak Current	10 Amperes	
Nom. Battery Capacity	7.2 Amp/Hour	9 Amp/Hour
Degree o-f Protection	IP55	IP66
Operating Temperature	-4 ° F + 122 ° F	
Battery	2 x 12V 7.2 Amp/Hour batteries	2 x 12V 9 Amp/Hour batteries
Weight	14 Lbs	22 Lbs
Dimensions	8.6"W x 12.5"H x 4.7"D	13.25"W x 15.5"H x 7"D
Panel Maximum Power	35 Watts	
Standby Mode	0.15 Watts	
Number of Combinations	4 billion	
Number of Transmitters	63	
Boards	Ecosol	Ecosol + Libra UL/CSA
Application	All BFT 24V operators	Phobos BT, Igea BT

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