



# FLEXware Integration Enclosures and Hardware

## FLEXware 500 Enclosure

### FLEXware™ 500 Integration Hardware

For applications with medium power requirements such as larger homes, light commercial or larger back-up power systems, the FLEXware 500 system architecture can support up to two OutBack FX Series Inverter/Chargers, up to two OutBack charge controllers and all associated AC and DC components.



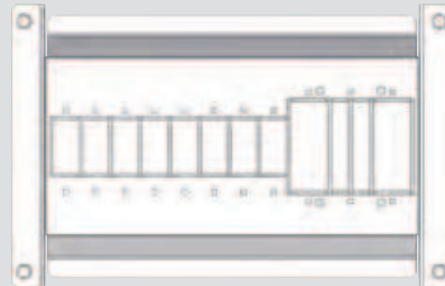
With their compact design, FLEXware 500 AC and DC enclosures can mount with a FLEXware MP in either a horizontal or vertical orientation to allow installation in more space-limited locations for a fast, professional-looking wall-mounted installation. The FLEXware 500 accommodates all of the essential protective devices in two enclosures. The powder-coated aluminum FLEXware 500 enclosure is ETL listed to UL508A.

### Breaker Configuration Diagram



AC Side

Holds up to sixteen DIN mount AC breakers (not included). Support for optional AC Input-Output-Bypass Assembly. AC breakers are rated from 10-60 amps of AC current.



DC Side

Holds up to eight 0.75" (19 mm) wide breakers rated for 1-80 amps of DC current, three 1" (26 mm) wide breakers rated for 100 or 125 amps of DC current, or two 1.5" (32 mm) wide breakers rated for 175 or 250 amps of DC current.

### Knockout Location Diagram

#### Back

- (2) 2" knockout (2.468" diameter)

#### Left

- (5) 1" knockout (1.359" diameter)
- (2) 2" knockout (2.468" diameter)
- (2) Duplex GFCI Outlet knockout

#### Right

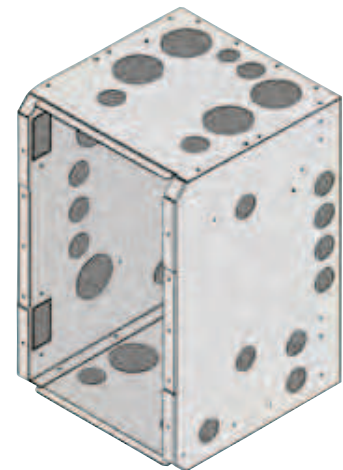
- (9) 1" knockout (1.357" diameter)

#### Top

- (3) 1" knockout (1.359" diameter)
- (1) ¾" knockout (1.093" diameter)
- (4) 2" knockout (2.468" diameter)

#### Bottom

- (3) 1" knockout (1.359" diameter)
- (1) ¾" knockout (1.093" diameter)
- (4) 2" knockout (2.468" diameter)





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### FLEXware 500 Integration Hardware

**Model: FW500-DC**

Description: DC enclosure which mounts at the DC side of one or two FX Series Inverter/Chargers. Supports up to six terminal bus bars (not including ground bus-bar) and up to three shunt assemblies depending on configuration

Includes: Ground bus bar, 500 amp DC shunt assembly, positive bus, breaker mounting hardware, FW-BBUS and enclosure mounting hardware

Unit Dimensions (H x W x D)	Shipping Dimensions (H x W x L)	Shipping Weight	Enclosure Type
18.2 x 11.4 x 12.1" (46.2 x 29 x 30.7 cm)	14.5 x 13.4 x 20.3" (36.8 x 34.1 x 51.6 cm)	15 lbs. (6.8 kg)	Type-1 indoor (IP30)

**Model: FW500-AC**

Description: AC enclosure which mounts at the AC side of one or two FX Series Inverter/Chargers. Supports six terminal bus bars and one FW-X240

Includes: Ground bus bar, DIN mounting bracket, communication cable conduit and enclosure mounting hardware

Unit Dimensions (H x W x D)	Shipping Dimensions (H x W x L)	Shipping Weight	Enclosure Type
18.2 x 11.4 x 12.1" (46.2 x 29 x 30.7 cm)	14.5 x 13.4 x 20.3" (36.8 x 34.1 x 51.6 cm)	15 lbs. (6.8 kg)	Type-1 indoor (IP30)

- The FW500 system utilizes one FW-MP (mounting plate) and a set of the DCA and FW-ACA conduit adapters for each inverter/charger.
- DC and AC breakers, Input-Output-Bypass Assemblies and all other additional components sold separately.

### FLEXware 500 AC Input-Output-Bypass Assemblies

Field-installable kit for bypassing the AC input to the AC output for inverter maintenance or installation. Also provides over-current protection.

**Model: FW-IOBD-120/240VAC**

Includes: Six 60A 120VAC single pole DIN mount breakers, sliding bypass interlock plate, wire and hardware kit

System Rating	Bypass Breaker	Input Breaker	Output Breaker
Split Phase 120/240VAC 60A 14.4kW	Two Poles @ 60A 14.4kW	Two Poles @ 60A 14.4kW	Two Poles @ 60A 14.4kW

**Model: FW-IOBD-120VAC**

Includes: Four 60A 120VAC single pole DIN mount breakers, one 60A 120VAC dual pole DIN mount breaker, sliding bypass interlock plate, wire and hardware kit

System Rating	Bypass Breaker	Input Breaker	Output Breaker
Single-Phase 120VAC 120A 14.4kW	Two Poles @ 60A 14.4kW	Two Poles @ 60A 14.4kW	Two Poles @ 60A 14.4kW

**Model: FW-IOBD-230VAC**

Includes: Six 30A 230VAC single pole DIN mount breakers, sliding bypass interlock plate, wire and hardware kit

System Rating	Bypass Breaker	Input Breaker	Output Breaker
Single-Phase 230VAC 60A 13.8kW	Two Poles @ 30A 13.8kW	Two Poles @ 30A 13.8kW	Two Poles @ 30A 13.8kW



# FLEXware Integration Enclosures and Hardware

## FLEXware 500 Enclosure

### FW500 With FW-IOBD-120VAC

Example of system with one VFX3648 Outback Power Inverter/Charger

Part #	Description	Qty
VFX3648 Inverter/Charger	3600W, 48VDC, 45A charger, 60 amps AC input	1
FW-ACA	AC Conduit Adapter for all FX Series Inverter/Chargers to AC enclosure.	1
DCA	DC Conduit Adapter for all FX Series Inverter/Chargers to DC enclosure.	1
FW500-DC	DC breaker enclosure – fits at the DC side of one or two FX Series Inverter/Chargers	1
PNL-175-DC	175A, 125VDC breaker with 3/8" stud terminals	1
FW500-AC	AC breaker enclosure – fits at the AC side of one or two FX Series Inverter/Chargers	1
FW-IOBD-120VAC	Dual inverter Input-Output-Bypass for FW500	1
FW-MP	Mounting Plate for FW500 or FW1000 system	1
MATE	System Display and Controller	1
HUB4	Four Port, up to 4 devices and one MATE	1
FN-DC	FLEXnet DC Multi-channel Advanced DC System Monitor	1
FW-Cable175-36R	175A 2/0 AWG DC cable 36 inches (91.5 cm) long with ring terminals on both ends with red heat shrink	1
FW-Cable175-36W	175A 2/0 AWG DC cable 36 inches (91.5 cm) long with ring terminals on both ends with white heat shrink	2

### FW500 With FW-IOBD-120/240VAC

Example of system with dual VFX3648 Outback Power Inverter/Chargers in Series

Part #	Description	Qty
VFX3648 Inverter/Charger	3600W, 48VDC, 45A charger, 60 amps AC input	2
FW-ACA	AC Conduit Adapter for all FX Series Inverter/Chargers to AC enclosure.	2
DCA	DC Conduit Adapter for all FX Series Inverter/Chargers to DC enclosure.	2
FW500-DC	DC breaker enclosure – fits at the DC side of one or two FX Series Inverter/Chargers	1
PNL-175-DC	175A, 125VDC breaker with 3/8" stud terminals	2
FW500-AC	AC breaker enclosure – fits at the AC side of one or two FX Series Inverter/Chargers	1
FW-IOBD-120/240VAC	Dual inverter Input-Output-Bypass for FW500	1
FW-MP	Mounting Plate for FW500 or FW1000 system	1
MATE	System Display and Controller	1
HUB4	Four Port, up to 4 devices and one MATE	1
FN-DC	FLEXnet DC Multi-channel Advanced DC System Monitor	1
FW-X240	Auto-transformer 4kVA 120/240VAC 60Hz	1
FW-Cable175-36R	175A 2/0 AWG DC cable 36 inches (91.5 cm) long with ring terminals on both ends with red heat shrink	2
FW-Cable175-36W	175A 2/0 AWG DC cable 36 inches (91.5 cm) long with ring terminals on both ends with white heat shrink	2

### FW500 With FW-IOBD-230VAC

Example of system with dual VFX3024E OutBack Power Inverter/Charger in Parallel

Part#	Description	Qty
VFX3024E	3000W, 24VDC, 85 amps DC charger, 30 amps AC input	2
FW-ACA	AC Conduit adapter for all FX Series Inverter/Chargers to AC enclosure	2
DCA	DC Conduit adapter for all FX Series Inverter/Chargers to DC enclosure	2
FW500-DC	DC breaker enclosure - fits at the DC side of one or two FX Series Inverter/Chargers	1
PNL-250-DC	250A, 125VDC, 3/8" stud terminals	2
FW500-AC	AC breaker enclosure - fits at the AC side of one or two FX Series Inverter/Chargers	1
FW-IOBD-230VAC	Dual inverter Input-Output-Bypass for FW500	1
FW-MP	Mounting Plate for FW500 or FW1000 System	1
MATE	System Display and Controller	1
HUB4	Four Port, up to 4 devices and one MATE	1
FN-DC	FLEXnet DC Multi-channel Advanced DC System Monitor	1
FW-Cable250-36R	250A 4/0 AWG DC cable 36 inches (91.5 cm) long with ring terminals on both ends with red heat shrink	2
FW-Cable250-36W	250A 4/0 AWG DC cable 36 inches (91.5 cm) long with ring terminals on both ends with white heat shrink	2

This information is a sample only – additional system configurations and components are available.