3 PHASE

POWERSHIELD

CENTURION PRO SERIES

Australian Designed
Power Protection
Solutions

CONTENTS

PowerShield®

Australian Designed
Power Protection
Solutions

WHY POWERSHIELD?

- Fully Australian owned and operated company
- Committed to delivering consistent, clean power to our customers through engineering excellence, exceptional support and a localised approach
- Have built a reputation over more than 20 years as the Power Protection Company to rely on
- Local sales and service teams based in Australia
- Extensive partner network throughout Oceania
- Custom project support with unique products designed in Australia
- Perth and Sydney based local stock

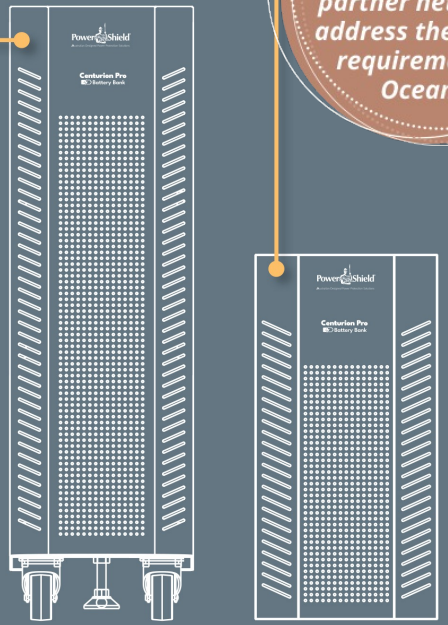
PowerShield®

Australian Designed
Power Protection
Solutions

THE CENTURION PRO RANGE

Centurion Pro
Three Phase
10/20kVA
30/40kVA
60/80kVA

Battery Banks
BB40
BB80



Designed in collaboration with PowerShield's extensive service partner network to address the specific requirements of Oceania.

WHY CENTURION PRO? **Form Factor**

Small form factor

40K 3/3 model shown

WHY CENTURION PRO? **Features**

Colour touch screen LCD

- Active Voice Warning
- Designed for Australia/New Zealand requirements
- Speed of deployment (line up and match batteries)

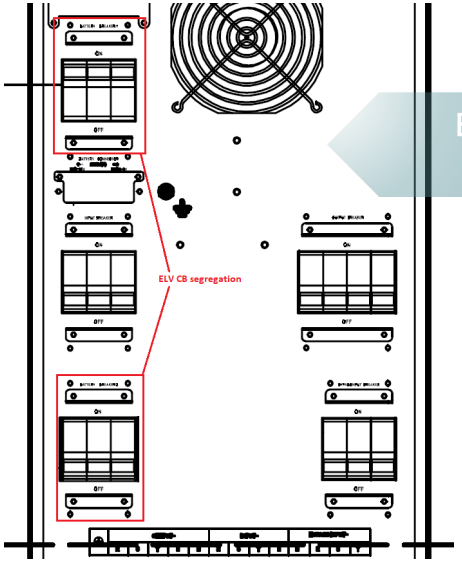
WHY CENTURION PRO? **Features (cont).**

Additional features:

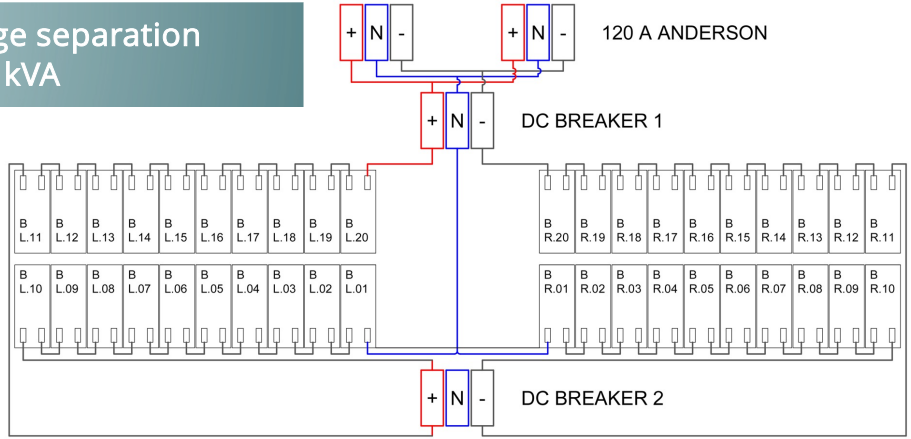
- Safety
  - ELV separation on 10 & 20kVA
  - Built-in back feed protection
- Angled tunnel terminals (ease of connection)
- **Split terminal box** (ease of inspection)
- **Common battery bank compatibility** optimize battery usage and reduce maintenance costs.
- **Multiple battery bank options** – plug & play, modular, custom.
- Paralleling up to four (4) units
- Power Conditioner mode (no batteries)
- Detuning up to 50% i.e. 30kVA → 15kVA.

WHY CENTURION PRO? **Safety**

Safety: Extra low voltage (ELV) 120V or less (ripple-free DC).



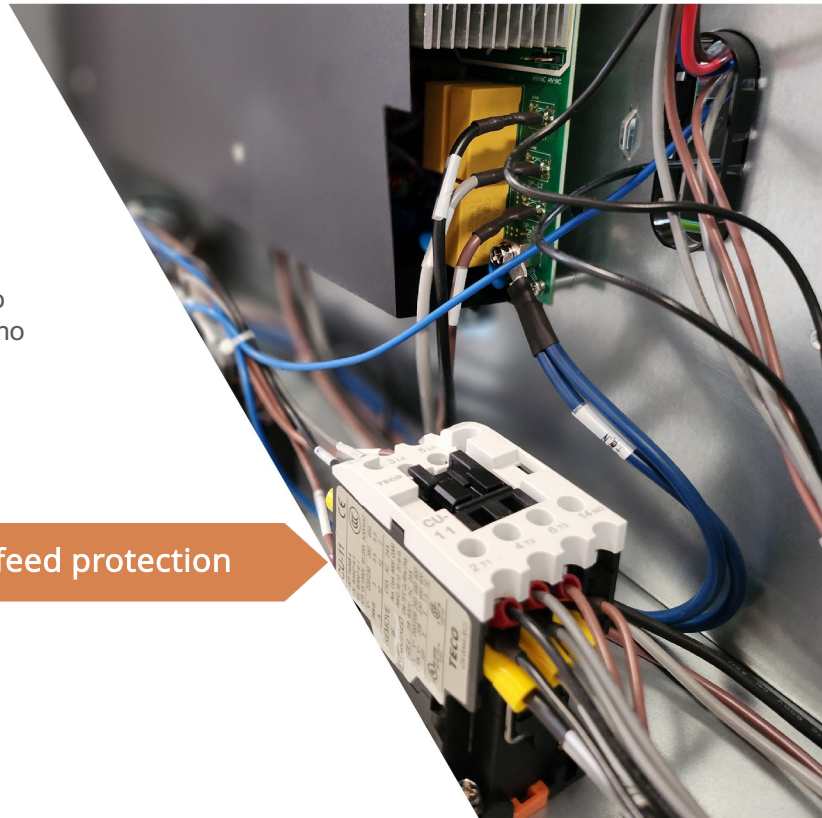
Extra low voltage separation
10/20 kVA



WHY CENTURION PRO? **Safety**

Backfeed Protection in UPS
Among the most critical components of UPS is backfeed protection, which prevents electric shocks due to current feedback from the UPS output. It is a safety measure both to the people working on the device and your data.

What Happens When the Mains Supply Fails?
One of the possible outcomes is that current can start feeding back from the UPS to isolated circuits. Without backfeed protection, this can be very harmful to anyone who handles that circuit.

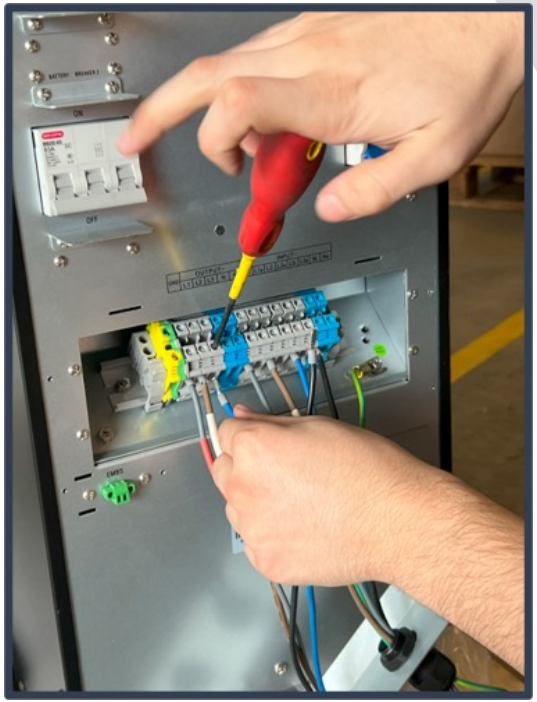


Built-in back feed protection

WHY CENTURION PRO? **Safety**

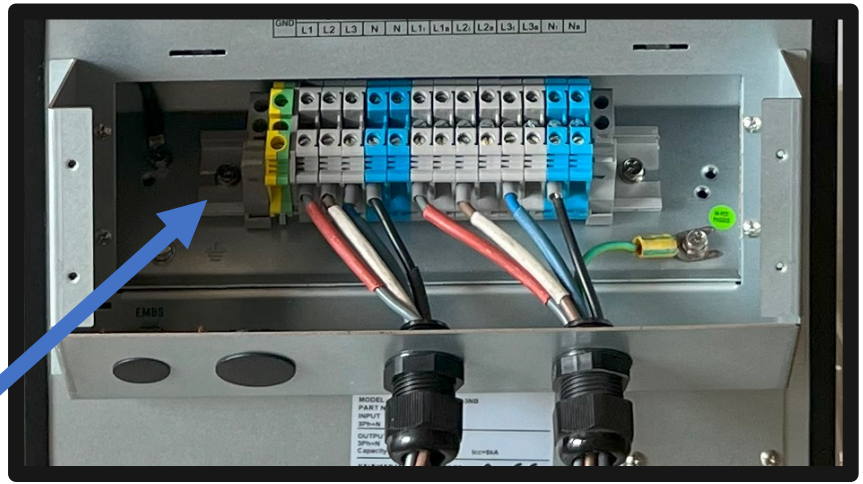
Safety:

- **Angled tunnel terminals** (ease of connection)



WHY CENTURION PRO? **Safety**

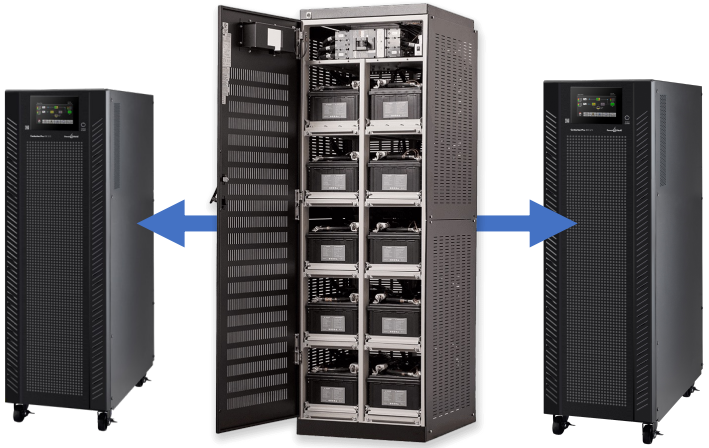
Safety:



- Split terminal box

WHY CENTURION PRO? **Features (cont).**

Common battery bank compatibility



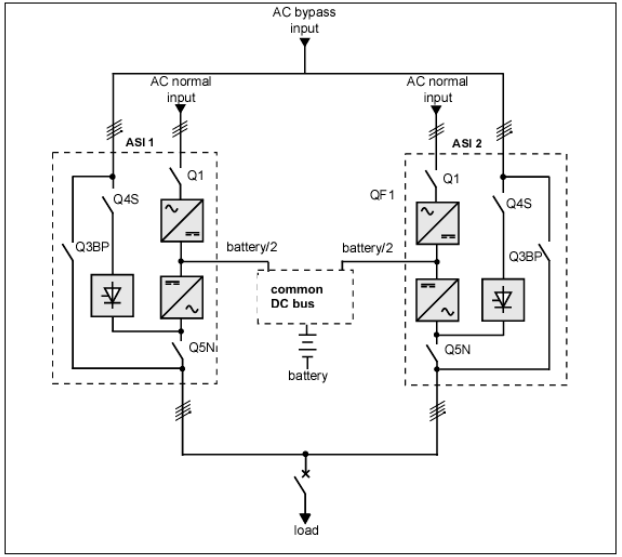


Fig. 2.19. Active redundancy with multi-bypass UPS and a common battery.

UPS AND BATTERY BANK CONFIGURATIONS

Increase battery backup time by adding additional battery banks

UPS AND BATTERY BANK CONFIGURATIONS

Extended run times:

- **PSCEPBB40** (40 x batteries)
- **PSCEPBB80** (80 x Batteries)

- **10 – 40kVA** via Anderson connection
- **60 & 80kVA** terminal connection onto UPS

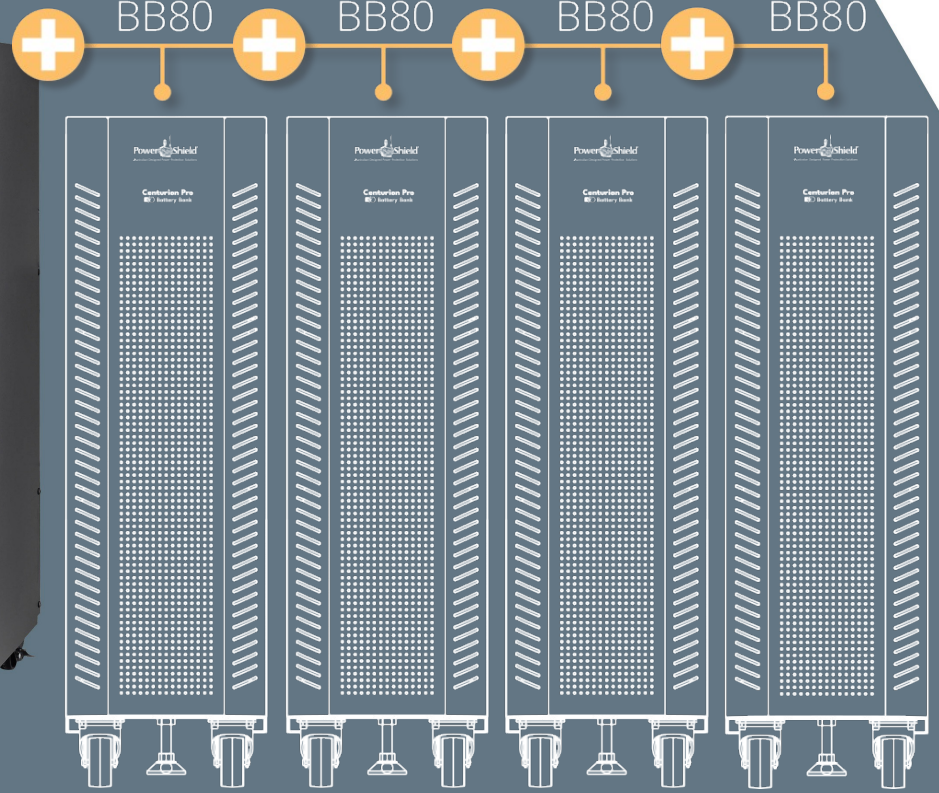
UPS AND BATTERY BANK CONFIGURATIONS

Centurion Pro
Three Phase
30/40kVA

Extension Options

Increase battery backup time by adding additional battery banks

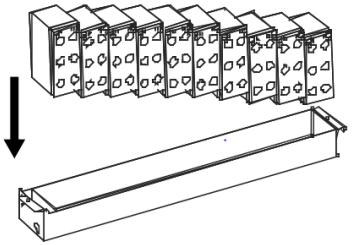
Up to 30% of the UPS rating for battery recharge

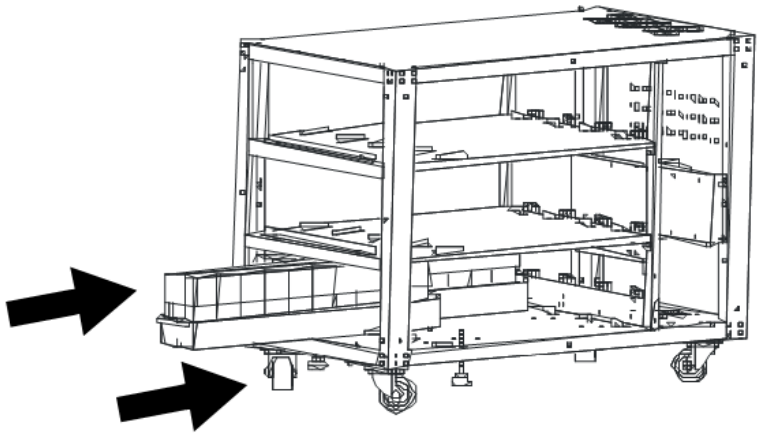


UPS AND BATTERY BANK CONFIGURATIONS

Extended run times (cont.):

- **PSCEPBB120** (120 x batteries).
  10 x batteries per tray.





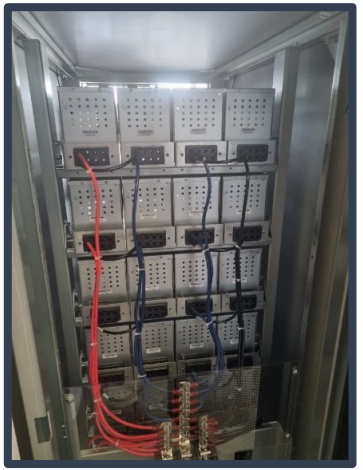
UPS AND BATTERY BANK CONFIGURATIONS

Extended run times (cont.):

- **PSCEPBB280** (280 x batteries)
- **PSCEPBB400** (400 x Batteries)
  10 x batteries per tray.

UPS AND BATTERY BANK CONFIGURATIONS

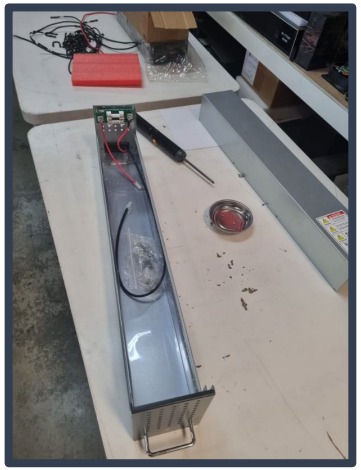
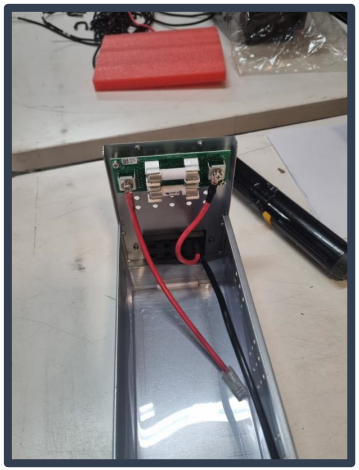
Extended run times (cont.):



UPS AND BATTERY BANK CONFIGURATIONS

Power Shield

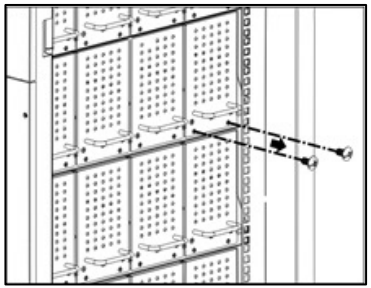
Battery module:

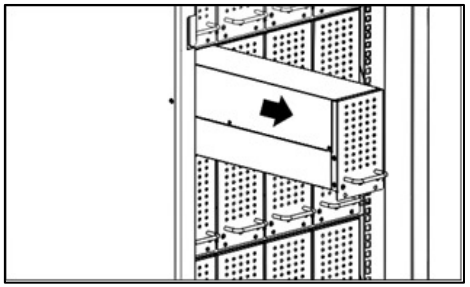



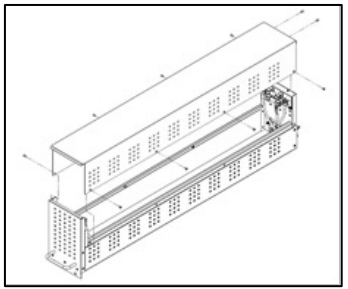


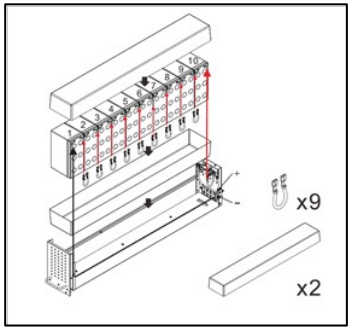
UPS AND BATTERY BANK CONFIGURATIONS

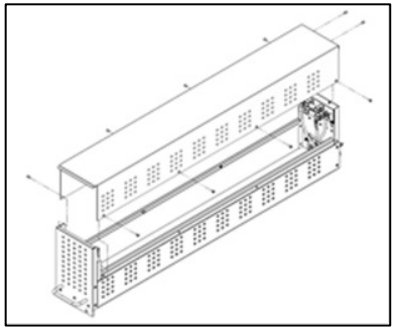
Battery module cont:

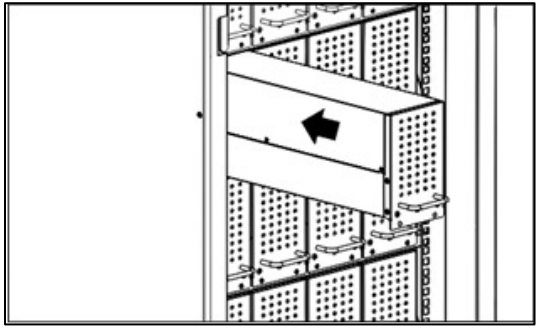




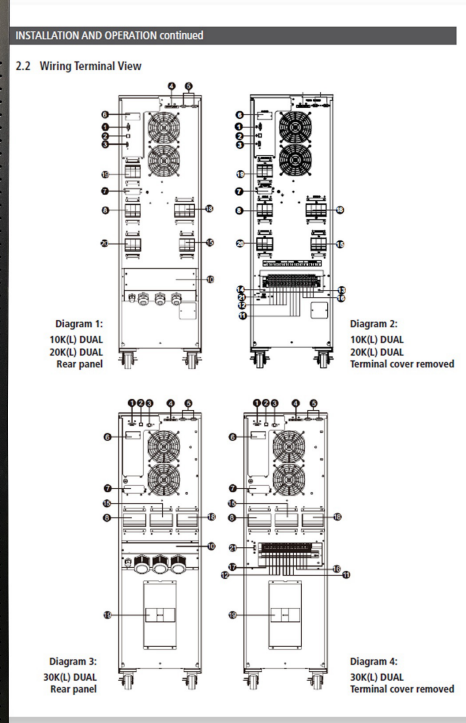








EASY ACCESS USER MANUAL



INSTALLATION AND OPERATION continued

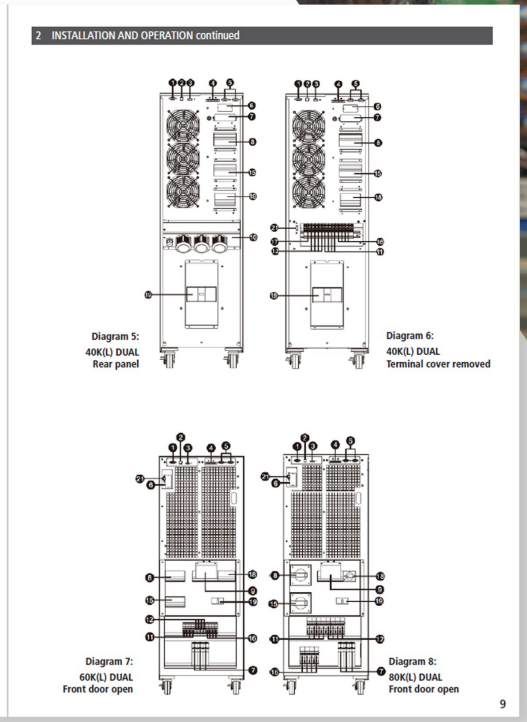
2.2 Wiring Terminal View

Diagram 1:
10K(L) DUAL
20K(L) DUAL
Rear panel

Diagram 2:
10K(L) DUAL
20K(L) DUAL
Terminal cover removed

Diagram 3:
30K(L) DUAL
Rear panel

Diagram 4:
30K(L) DUAL
Terminal cover removed



2 INSTALLATION AND OPERATION continued

Diagram 5:
40K(L) DUAL
Rear panel

Diagram 6:
40K(L) DUAL
Terminal cover removed

Diagram 7:
60K(L) DUAL
Front door open

Diagram 8:
80K(L) DUAL
Front door open

9

Planning Guides - UPS

			20 kVA
BATTERIES	CBL SIZE LONG RUN (+V, -V, N, PE)	(120A ANDERSON - mm²)	16,16,16,16
	CBL SIZE STD RUN (+V, -V, N,PE)	(120A ANDERSON - mm²)	16,16,16,16
	CB RATING	(A)	63 3P
	MAX CURRENT 32 BAT	(A)	36
	NOMINAL CURRENT 40 BAT	(A)	29
OUTPUT	TERMINAL SIZE	(mm²)	16
	CBL SIZE (L1,L2,L3,N,PE)	(mm²)	6,6,6,16,16
	CB RATING	(A)	4P 32A
	MAX CURRENT	(A)	40
	NOMINAL CURRENT	(A)	28
BYPASS	TERMINAL SIZE	(mm²)	16
	CBL SIZE (L1,L2,L3,N,PE)	(mm²)	6,6,6,16,16
	CB RATING	(A)	3P 40A
	MAX CURRENT	(A)	40
	NOMINAL CURRENT	(A)	28
MAINS	TERMINAL SIZE	(mm²)	16
	CBL SIZE (L1,L2,L3,N,PE)	(mm²)	6,6,6,16,16
	CB RATING	(A)	3P 40A
	MAX CURRENT	(A)	40
	NOMINAL CURRENT	(A)	28

SERVICE CLEARANCES

RECOMENDED: 1000mm front and rear
MINIMUM: 500mm front and rear

HEAT LOSS DATA

20kVA: 954 W 3254 BTU

DC CABLES (SUPPLIED)

STD 1500mm double insulated cable supplied, 120A Anderson each end
LONG 120A Anderson - not terminated

BYPASS SIGNAL N/C

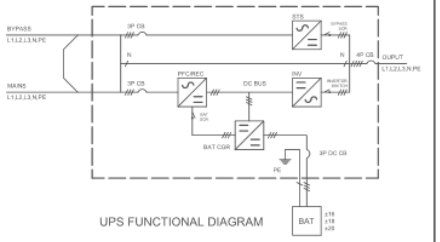
ELECTRICAL NOTES:

UPS is fitted with back feed protection as standard

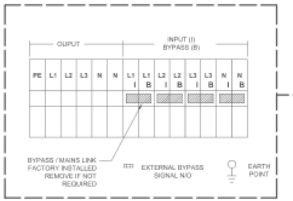
UPS is fitted with ELV segregation on the battery strings (std version only)

Final cable sizing, breaker selection needs to be completed by a licensed electrician. Including as required integrating into discrimination and cascading studies.

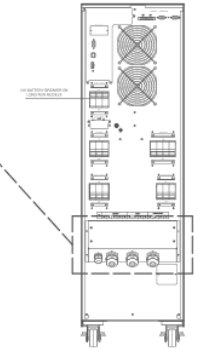
UPS is designed to work with standard IT earthing with a single MEN. For non standard earthing arrangement please contact PowerShield.



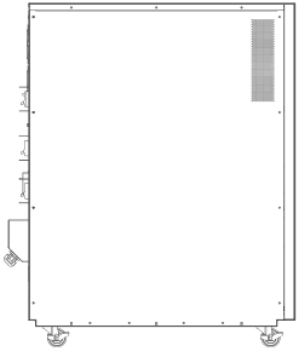
UPS FUNCTIONAL DIAGRAM



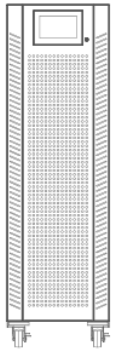
TERMINAL BLOCK VIEW



REAR VIEW



SIDE VIEW



FRONT VIEW

			20 kVA
LONG RUN	SHIPPED WEIGHT	(kg)	55
	SHIPPED DIMENSIONS (D,W,H)	(mm)	900 x 420 x 900
	UPS WEIGHT	(kg)	45
	UPS DIMENSIONS (D,W,H)	(mm)	626 x 250 x 826
STD	SHIPPED WEIGHT 40 BAT	(kg)	151
	SHIPPED DIMENSIONS (D,W,H)	(mm)	900 x 420 x 900
	UPS WEIGHT 40 BAT	(kg)	141
	UPS DIMENSIONS (D,W,H)	(mm)	626 x 250 x 826

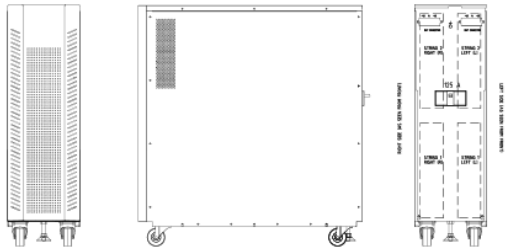
Power Shield
UNIT 3/255
Camboon Road
MALAGA, WA, 6090
info@powershield.com.au
1300 305 383 +61 8 9209 3839
www.powershield.com.au

REV.	DESCRIPTION	DATE		
			DRAWN	P.W.
			CHECKED	L.M.

Description: CENTURION PRO 20 KVA 3:3 UPS
Title: FACILITIES PLANNING REFERENCE
Dm No.: PS.FPR.CP20K3:3.001
Scale: N.T.S.
Rev.: 0

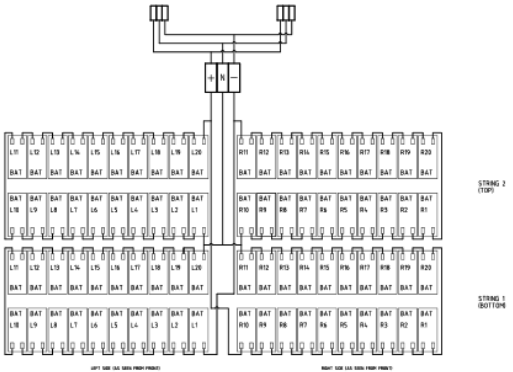
Planning Guides – EBM's

		BB80	NOTE: SUPPLIED DC CABLE
BATTERIES	INPUT ANDERSON	125A	LENGTH: 1500mm
	OUPUT ANDERSON	125A	DOUBLE INSULATED
	CB RATING (500V DC)	125A	EARTH CABLE TO BE FIXED
	DC CBL SIZE +,N,-,E (mm²)	25,25,25,10	TO UPS AND BATTERY BANK
	NOMINAL BATTERY	CSB HR1234W	WITH SUPPLIED HARDWARE



BATTERY BANK ELECTRICAL DIAGRAM

(80 BATTERIES SHOWN)



NOTES:

FOR 72 BATTERY OPTION PLEASE DO NOT INSTALL L/R 20,19 BOTH STRING 1 & 2

FOR 64 BATTERY OPTION PLEASE DO NOT INSTALL L/R 20,19,18,17 BOTH STRING 1 & 2

FOR 40 BATTERY OPTION PLEASE DO NOT INSTALL STRING 2

FOR 36 BATTERY OPTION PLEASE DO NOT INSTALL STRING 2 & L/R 20,19

FOR 32 BATTERY OPTION PLEASE DO NOT INSTALL STRING 2 & L/R 20,19,18,17

	BB80		BB80
BB 80/64 WEIGHT (kg) 64 BAT (2 x ±16)	223	SHIPPED WEIGHT (kg) 64 BAT (2 x ±16)	233
BB 80/72 WEIGHT (kg) 72 BAT (2 x ±18)	243	SHIPPED WEIGHT (kg) 72 BAT (2 x ±18)	253
BB 80/80 WEIGHT (kg) 80 BAT (2 x ±20)	263	SHIPPED WEIGHT (kg) 80 BAT (2 x ±20)	273
BB 80/NB WEIGHT (kg) NO BAT	63	SHIPPED WEIGHT (kg) NO BAT	76
BB DIMENSIONS (D,W,H mm)	777 X 250 X 837	SHIPPED DIMMENSIONS (D,W,H mm)	900 X 370 X 900

TITLE	PRODUCT FAMILY	SIZE	REV.
FACILITIES PLANNING REFERENCE	CENTURION PRO - BATTERY BANK	BB 80	1

RANGE AND RUNTIME TABLE

UPS	LOAD		UPS	LOAD	
	50% (5kW)	100% (10kW)		50% (5kW)	100% (10kW)
10kVA	24	10	10kVA L	–	–
10kVA + 1 BB40	57	24	10kVA L + 1 BB40	24	10
10kVA + 2 BB40	91	40	10kVA L + 2 BB40	57	24
10kVA + 3 BB40	130	57	10kVA L + 3 BB40	91	40
10kVA + 4 BB40	173	76	10kVA L + 4 BB40	130	57
10kVA + 1 BB80	91	40	10kVA L + 1 BB80	57	24
10kVA + 2 BB80	173	76	10kVA L + 2 BB80	130	57
	50% (10kW)	100% (20kW)		50% (10kW)	100% (20kW)
20kVA	10	2	20kVA L	–	–
20kVA + 1 BB40	24	10	20kVA L + 1 BB40	10	2
20kVA + 2 BB40	40	17	20kVA L + 2 BB40	24	10
20kVA + 3 BB40	57	24	20kVA L + 3 BB40	40	17
20kVA + 4 BB40	76	31	20kVA L + 4 BB40	57	24
20kVA + 1 BB80	40	17	20kVA L + 1 BB80	24	10
20kVA + 2 BB80	76	31	20kVA L + 2 BB80	57	24

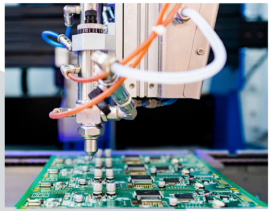
ACCESSORIES

Maintenance Bypass Switches

SNMP Cards

Filters

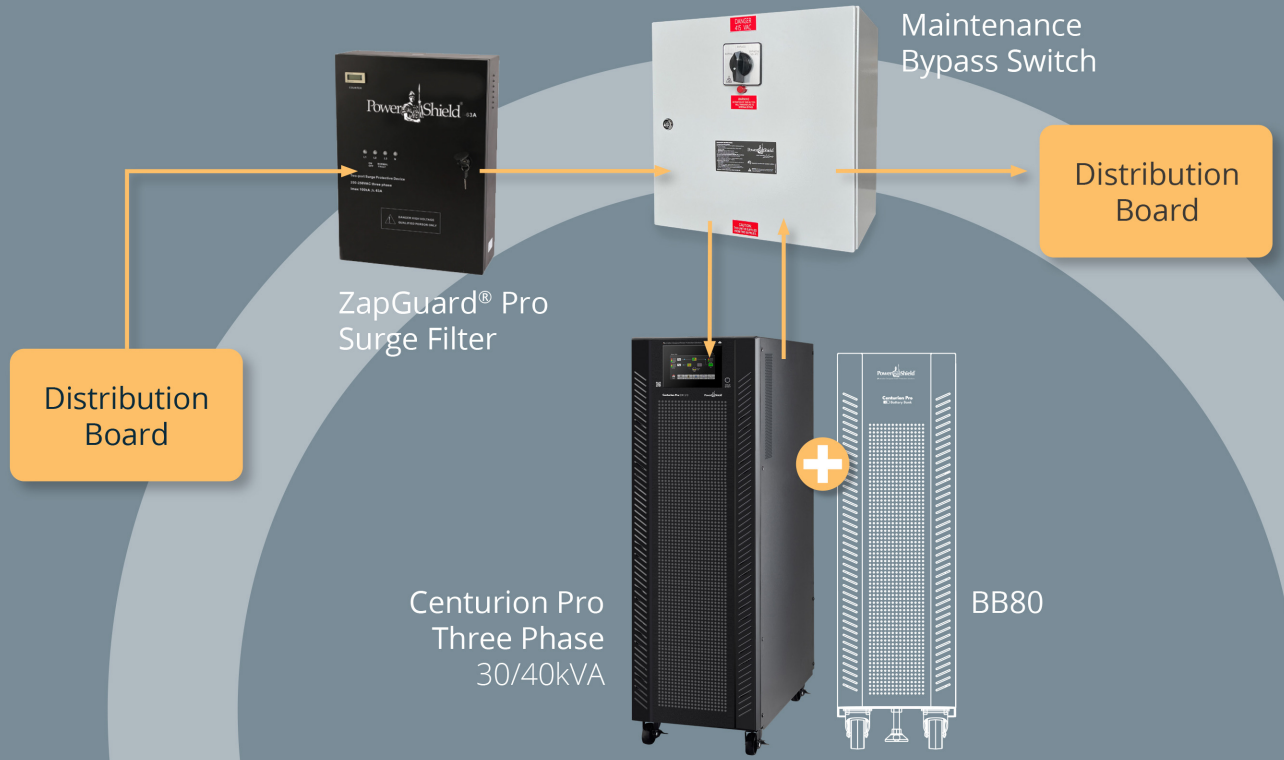
Centurion Pro
Three Phase
30/40kVA



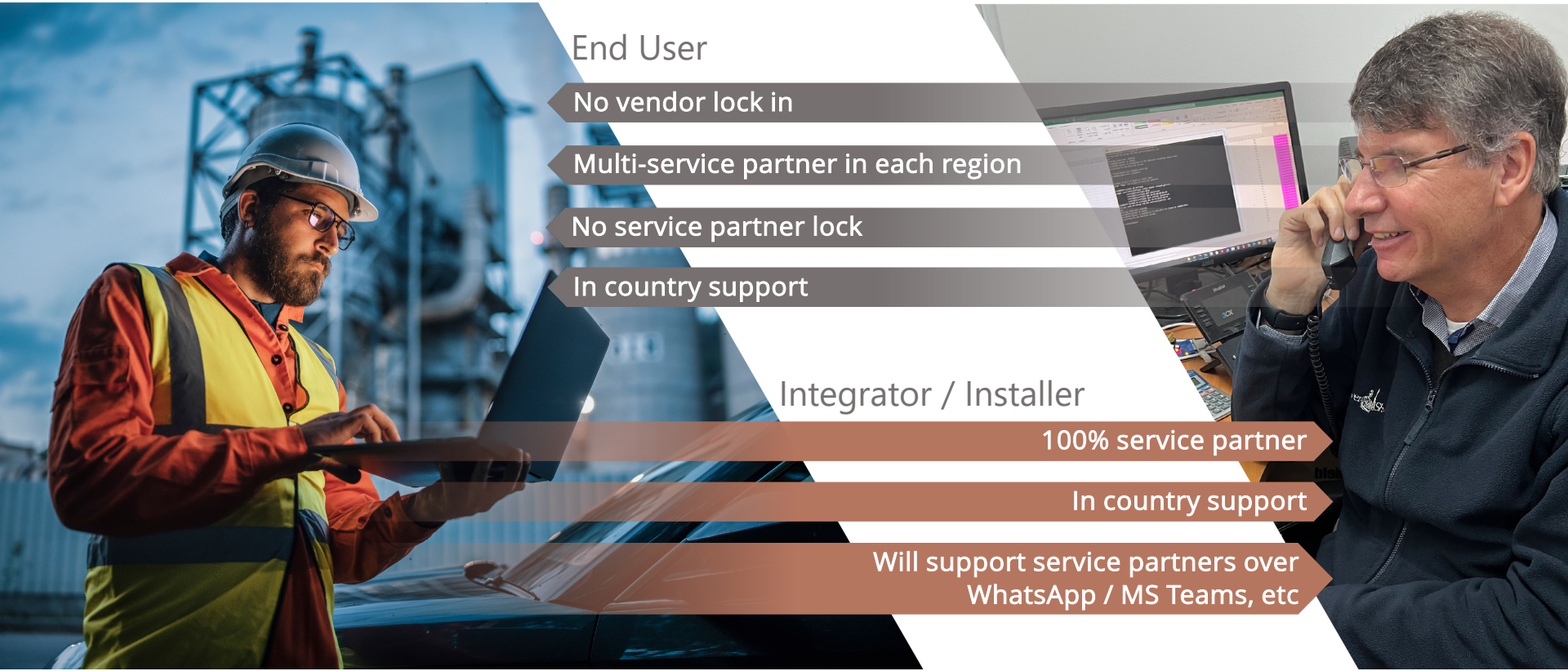
Conformal coating

External battery cabinets

BEST PRACTICE



SERVICING



End User

- No vendor lock in
- Multi-service partner in each region
- No service partner lock
- In country support

Integrator / Installer

- 100% service partner
- In country support
- Will support service partners over WhatsApp / MS Teams, etc

Centurion Pro 10...80kVA

Power Shield

Centurion Pro UPS Series

Power Beyond Expectation

TRUE ONLINE
PREMIUM PROTECTION

3 PHASE