



PRODUCT PRESENTATION PROTECT C (1-3kVA)

SEPTEMBER 2014
BU COMMERCIAL COMPACT-UPS, PM/SR



CLASSIFICATION

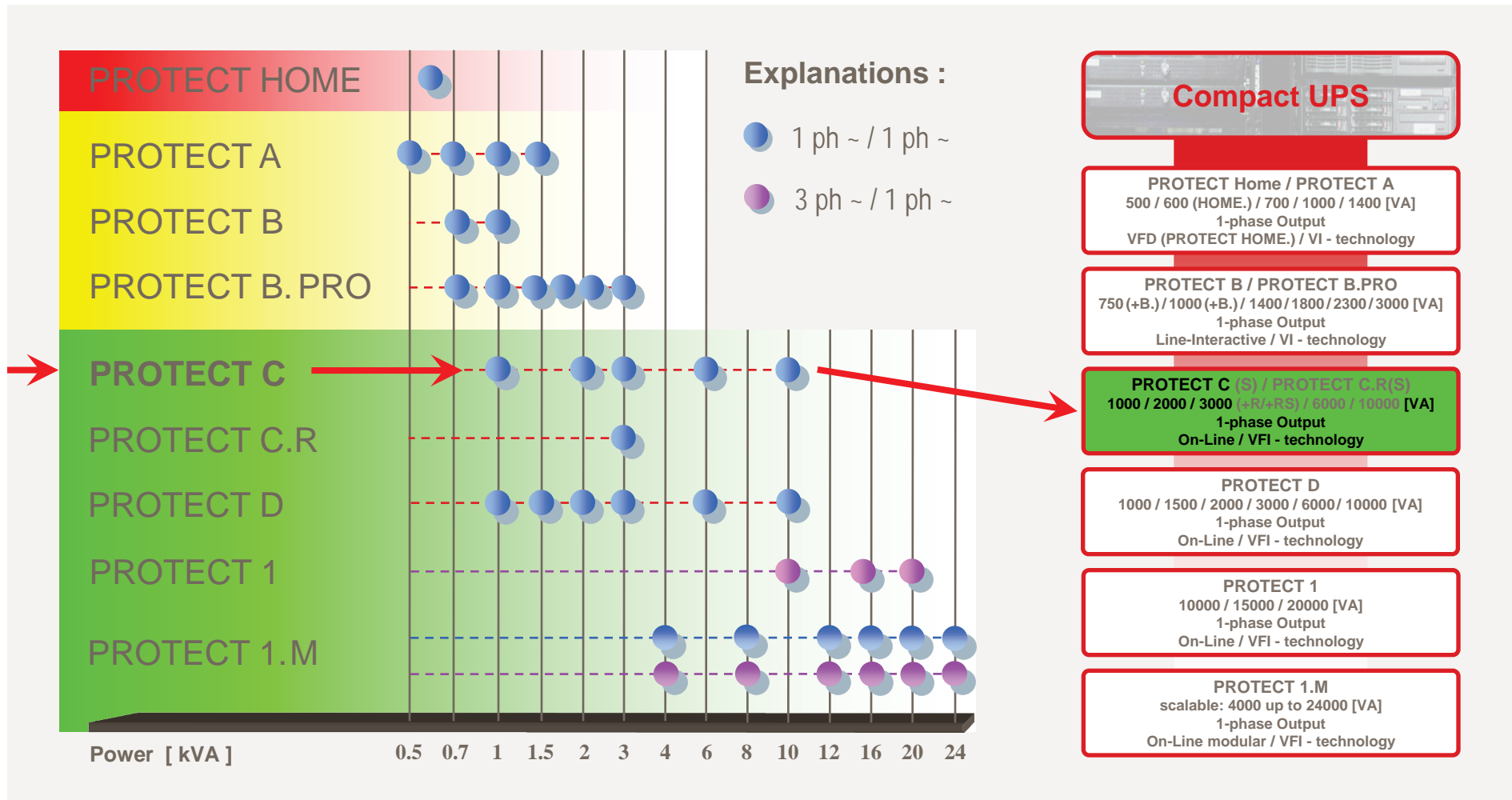
CLASSIFICATION ACC. TO

- AEG'S UPS PRODUCT PORTFOLIO

- UPS PRODUCT NORM IEC 62040-3



CLASSIFICATION ACC. TO AEG'S COMPACT-UPS PRODUCT PORTFOLIO



VFD technology
(offline)

VI technology
(line-interactive)

VFI technology
(double-conversion)

CLASSIFICATION ACC. TO UPS PRODUCT NORM IEC 62040-3



	Voltage Phenomenon	Time	e.g.	IEC 62040-3	UPS solution	Arrester solution
↑ PROTECT C ↓	1. Outage - blackouts	> 10 ms		VFD Voltage + Frequency Dependent	Classification 3 Offline	—
	2. Sags / brownouts					—
	3. Dynamic overvoltage					—
	4. Undervoltage	continuous		VI Voltage Independent	Classification 2 Line-Interactive	—
	5. Overvoltage	continuous				—
	6. Transients (Surge)	< 4 ms		VFI Voltage + Frequency Independent	Classification 1 (true) Online real Double-Conversion	Limited protection via UPS (extended protection recommended (10.))
	7. Frequency variations	sporadic				—
	8. Voltage distortion (Burst)	periodic				see as well 10.
	9. Voltage harmonics	continuous				—
10.	Lightning	sporadic			—	Surge- and Over-voltage protection (IEC 60364-5-534)

Publication by ZVEI: UPS Guide

PRODUCT HIGHLIGHTS



POWER STEPS (FIRST STAGE OF FURTHER DEVELOPMENT)



1000 VA



2000 VA



3000 VA

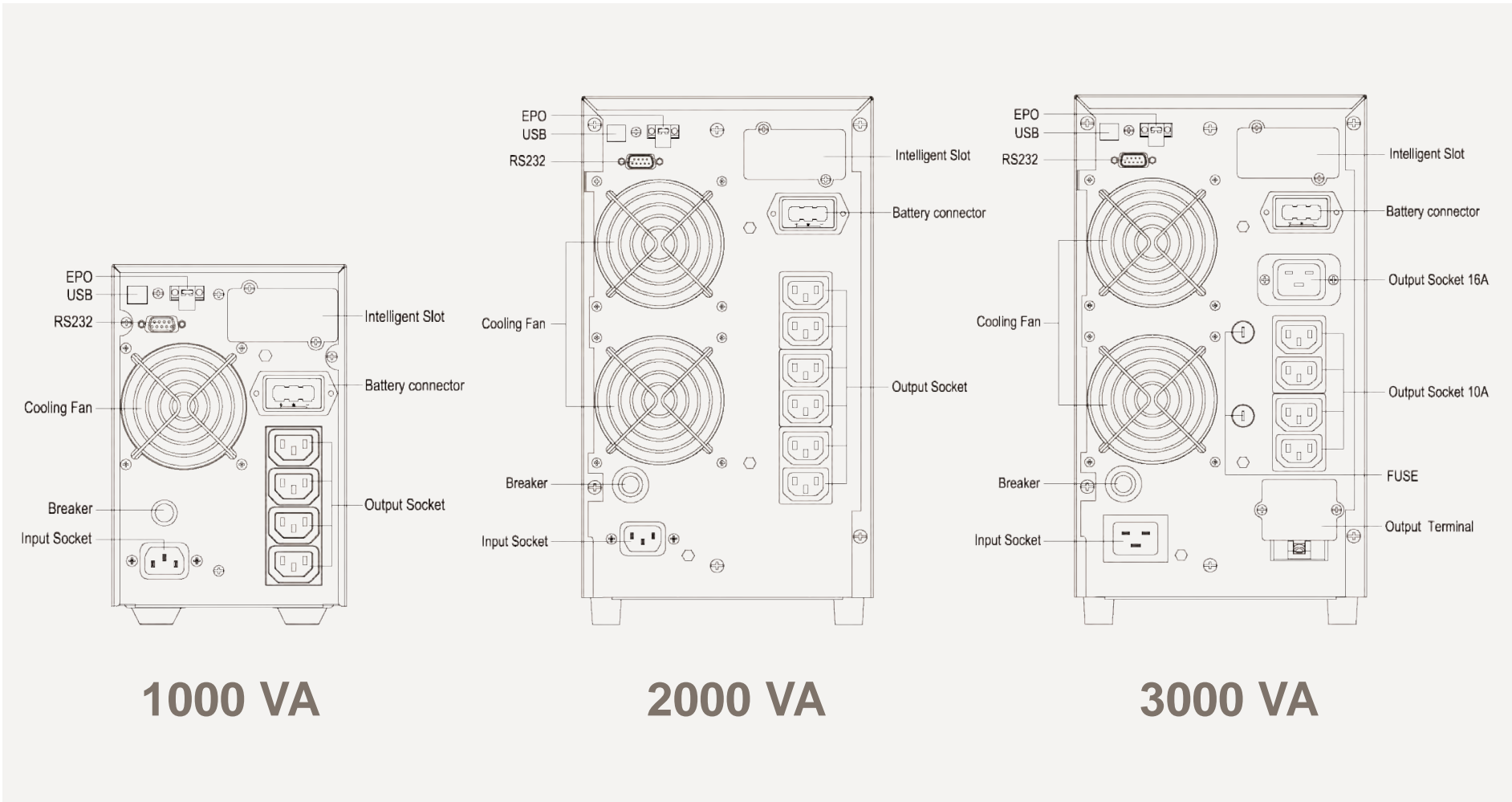
PRODUCT HIGHLIGHTS



- On-Line technology VFI SS 111* (double-conversion)
- Power factor 0.8 lagging
- Same compact size as predecessor
- Graphical multilingual LCD display
- Data logger for 50 events (saving events inside UPS)
- Dual monitoring interface USB or RS232 / communication slot
- Emergency Power Off contact
- Frequency converter mode

* excl. ECO mode

REAR VIEW >> CONNECTIONS



REAR VIEW >> CONNECTIONS



1000 VA

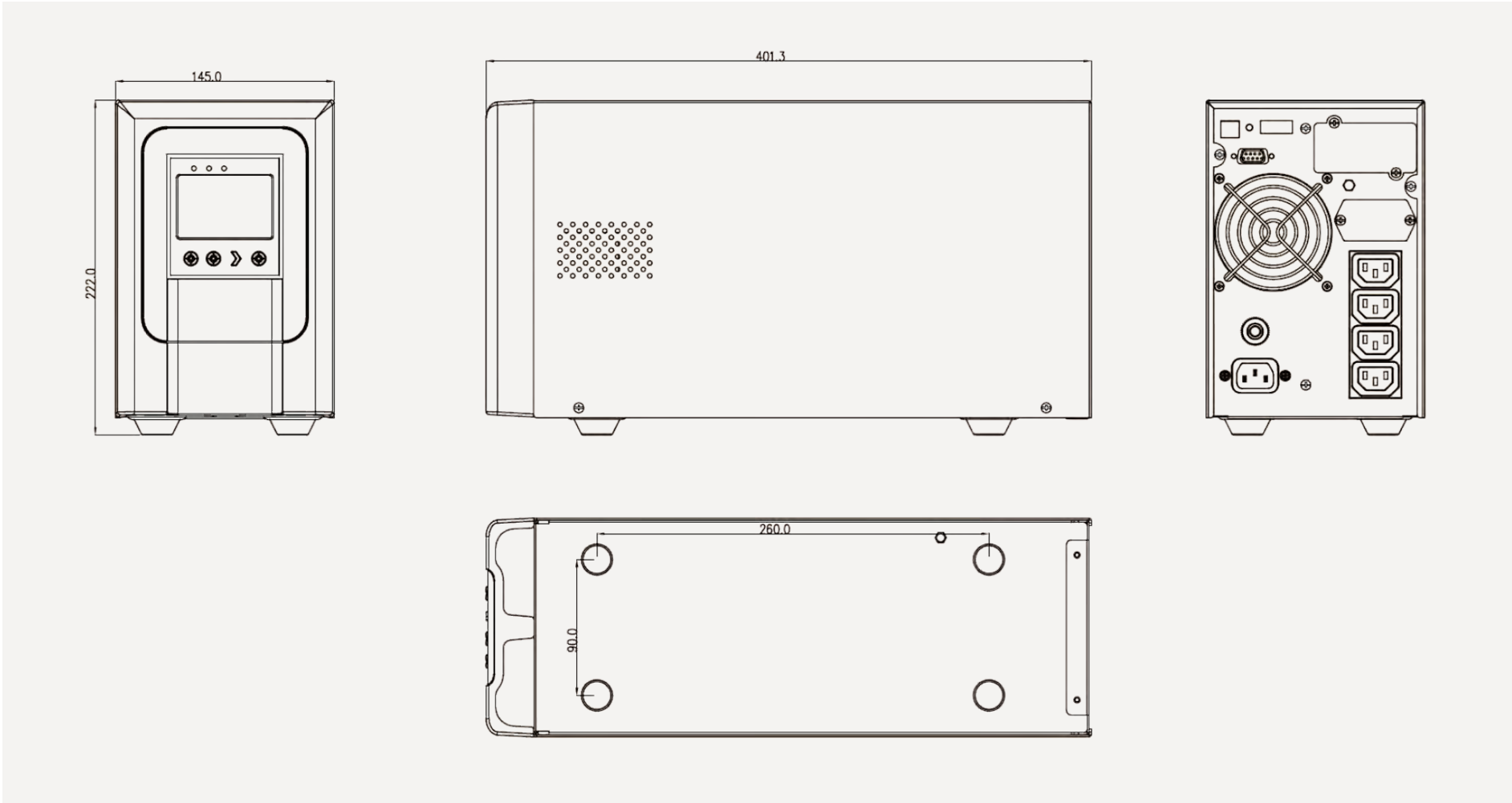


2000 VA

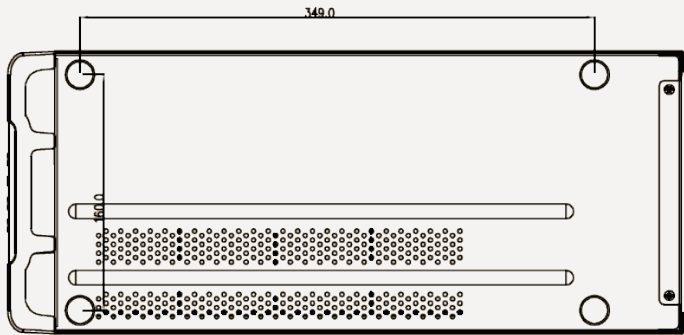
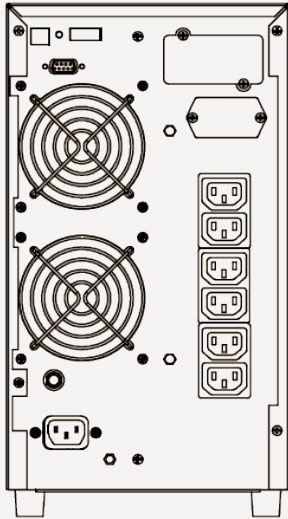
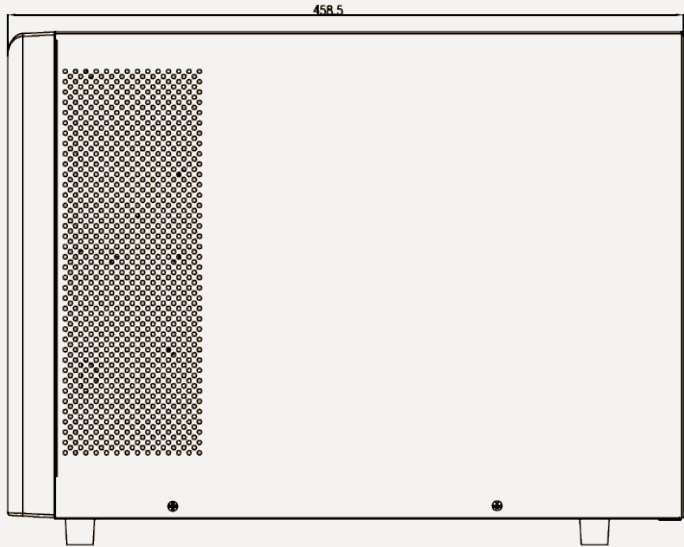
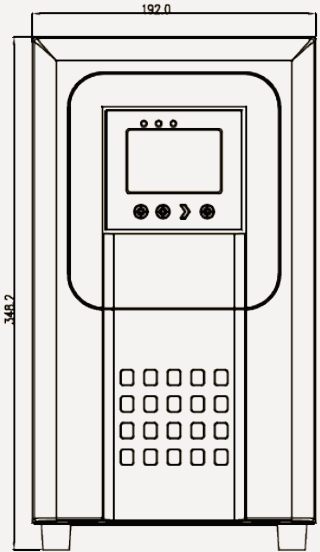


3000 VA

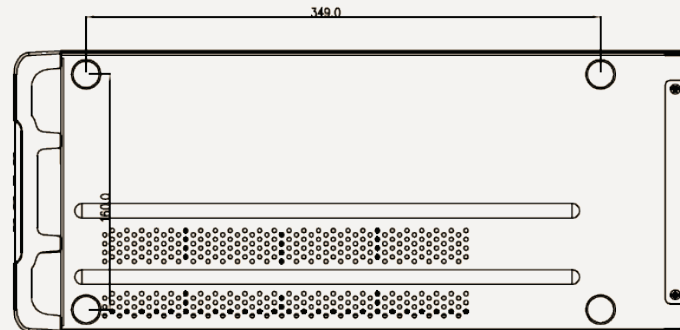
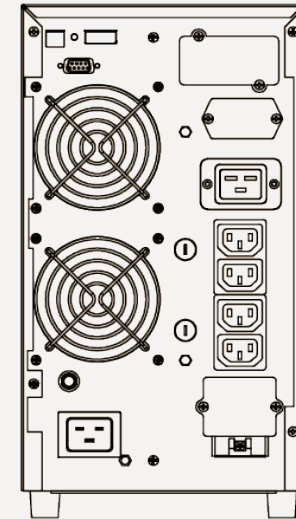
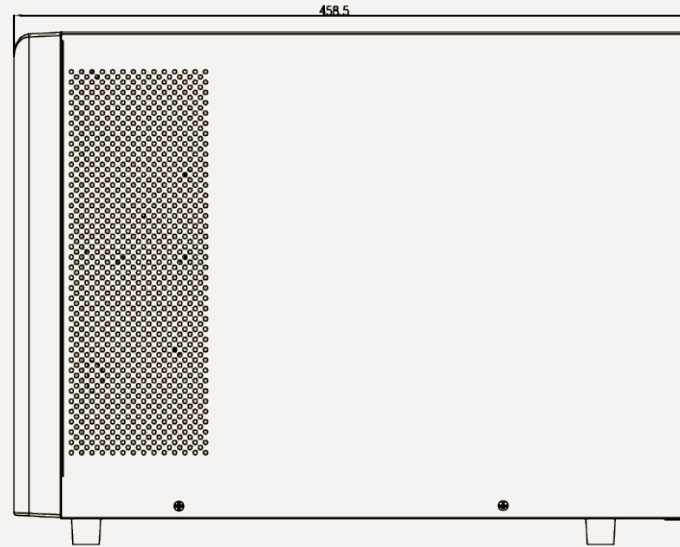
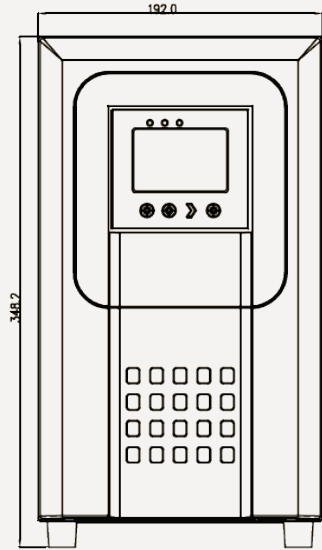
PROTECT C.1000 >> DIMENSIONS



PROTECT C.2000 >> DIMENSIONS



PROTECT C.3000 >> DIMENSIONS



EXTERNAL BATTERY PACKS



Locked external battery pack connection

AUTONOMY TIME DATA



Autonomy time ($\cos \varphi = 0.7 \text{ lag.}$)
Data at full load / half load [min.]

UPS with integrated battery system
UPS with integrated battery system plus 1 additional battery extension
UPS with integrated battery system plus 2 additional battery extensions

	C.1000	C.2000	C.3000
UPS with integrated battery system	6 / 21	10 / 30	5 / 16
UPS with integrated battery system plus 1 additional battery extension	38 / 97	55 / 130	30 / 85
UPS with integrated battery system plus 2 additional battery extensions	76 / 170	106 / 237	60 / 149

AUTONOMY TIME DATA AT PART LOAD



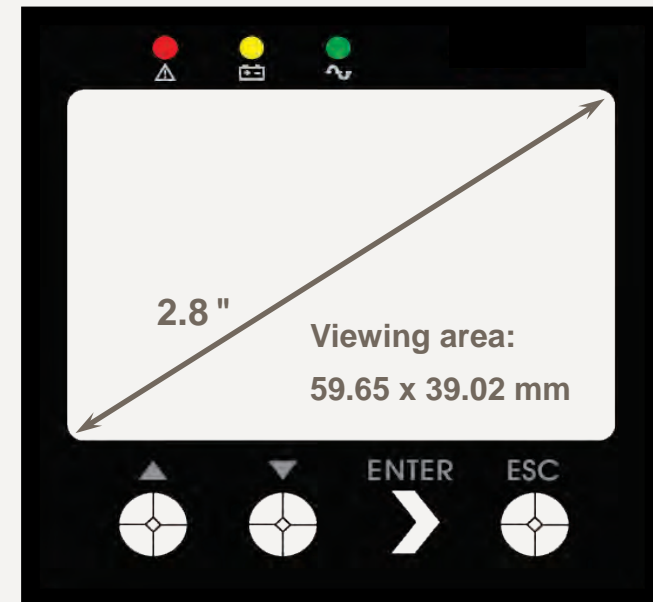
PROTECT C (LCD version) at $\cos \varphi = 0.8$ lag. and at ...	25% load	50% load	75% load	100% load
PROTECT C.1000 (1000VA) with integrated battery system	= 200 W 35 min.	= 400 W 13.5 min.	= 600 W 7 min.	= 800 W 4.5 min.
with 1x PROTECT C.1000 BP	165 min.	58 min.	38 min.	25 min.
with 2x PROTECT C.1000 BP	297 min.	137 min.	70 min.	51 min.
PROTECT C.2000 (2000VA) with integrated battery system	= 400 W 52 min.	= 800 W 20 min.	= 1200 W 12 min.	= 1600 W 7 min.
with 1x PROTECT C.2030 BP	225 min.	85 min.	54 min.	38.5 min.
with 2x PROTECT C.2030 BP	416 min.	184 min.	108 min.	70 min.
PROTECT C.3000 (3000VA) with integrated battery system	= 600 W 29 min.	= 1200 W 11 min.	= 1800 W 6 min.	= 2400 W 3.5 min.
with 1x PROTECT C.2030 BP	154 min.	53 min.	31 min.	21 min.
with 2x PROTECT C.2030 BP	254 min.	98 min.	59 min.	45 min.

MORE EASY TO OPERATE

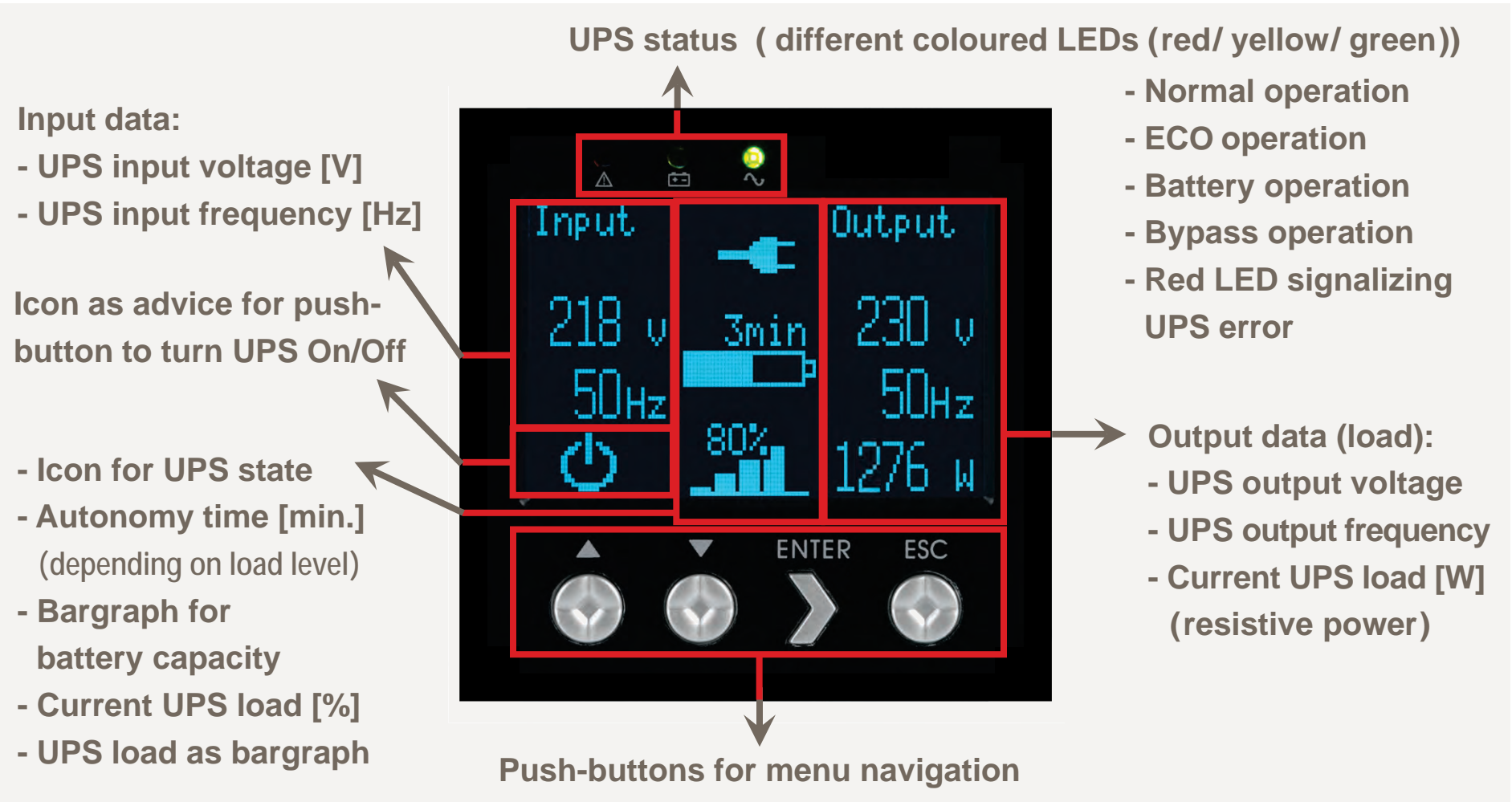


- LCD Display for UPS status, Control, Settings, Measurements, Event Log, Identification
- Real time clock (synchronized automatically)
- Data logger for 50 events
- Display operation lockable; settings password protected

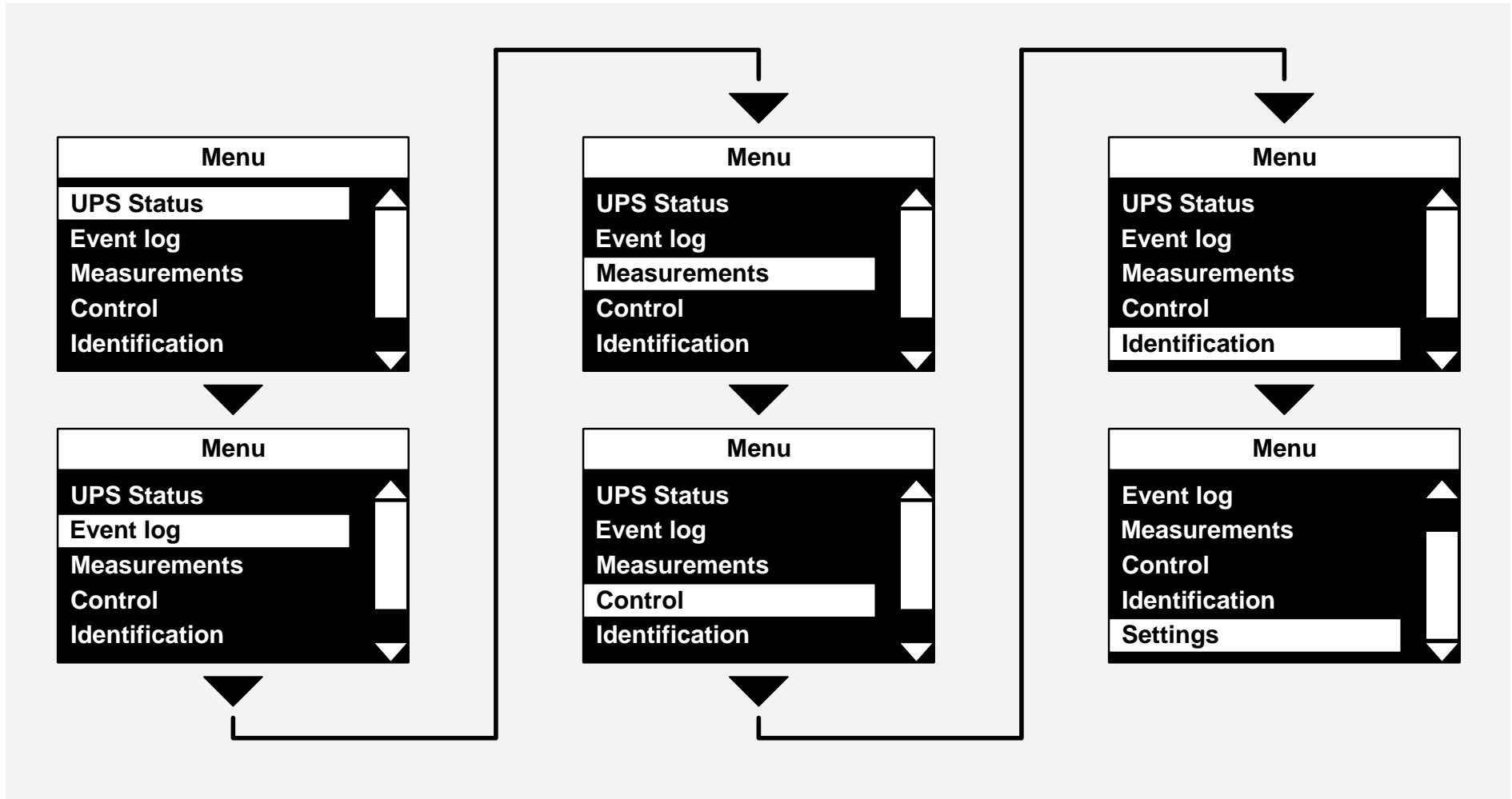
- Graphical LCD display (128 x 64 pixel)
- Multilingual > 5 languages (EN / DE / FR / ES / RU)



LCD DISPLAY – STATUS SCREEN – OVERVIEW, E.G. PROTECT C.2000 AT NORMAL (DOUBLE-CONVERSION) OPERATION



LCD DISPLAY – MAIN MENU

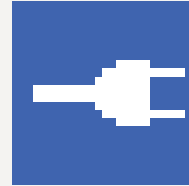


LCD DISPLAY – ICONS FOR STATUS

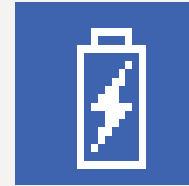


PROTECT C.2000 (normal operation)

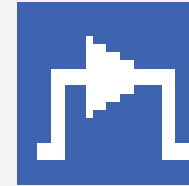
UPS normal



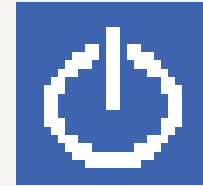
on battery



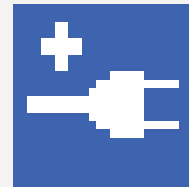
on bypass



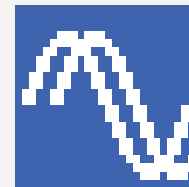
on stand-by



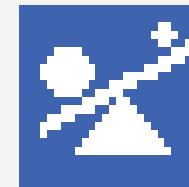
ECO mode



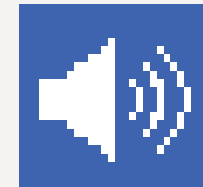
converter



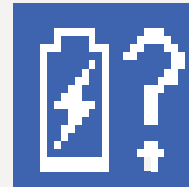
overload



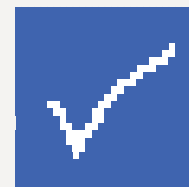
alarm active



battery check



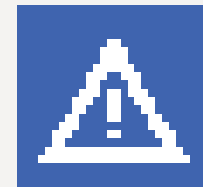
battery okay



no/ bad battery



critical fault



LCD DISPLAY – SETTINGS

Settings

- Change language ▲
- User password ▬
- Audible alarms
- Set date and time
- Control commands from serial port ▼

Settings

- Change language ▲
- User password ▬
- Audible alarms
- Set date and time
- Control commands from serial port ▼

Settings

- Change language ▲
- User password ▬
- Audible alarms
- Set date and time
- Control commands from serial port ▼

Settings

- Change language ▲
- User password ▬
- Audible alarms
- Set date and time
- Control commands from serial port ▼

Settings

- Change language ▲
- User password ▬
- Audible alarms
- Set date and time
- Control commands from serial port ▼

Settings

- User password ▲
- Audible alarms ▬
- Set date and time
- Control commands from serial port
- Output voltage ▼

Settings

- Audible alarms ▲
- Set date and time
- Control commands from serial port
- Output voltage
- Output frequency ▼

Settings

- Set date and time ▲
- Control commands from serial port ▬
- Output voltage
- Output frequency
- Load alarm level ▼

Settings

- Control commands from serial port ▲
- Output voltage ▬
- Output frequency
- Load alarm level
- Power strategy ▼

Settings

- Output voltage ▲
- Output frequency
- Load alarm level ▬
- Power strategy
- Start w/o mains ▼

Settings

- Output frequency ▲
- Load alarm level
- Power strategy ▬
- Start w/o mains
- Site wiring fault alarm ▼

Settings

- Power strategy ▲
- Start w/o mains
- Site wiring fault alarm ▬
- External battery modules ▼

Settings

- Site wiring fault alarm ▲
- External battery modules ▬
- Battery charge % to restart ▼

Settings

- External battery modules ▲
- Battery charge % to restart ▬
- Automatic battery tests ▼

Settings

- Battery charge % to restart ▲
- Automatic battery tests ▬
- Periodic battery test ▼

Settings

- Automatic battery tests ▲
- Periodic battery test
- Ambient temperature warning ▬

Settings

- Periodic battery test ▲
- Ambient temperature warning ▬
- REPO operation ▼

Settings

- Ambient temperature warning ▲
- REPO operation
- Reset Cumulative ▬
- Consumption kWh ▼

Settings

- Ambient temperature warning ▲
- REPO operation
- Reset Cumulative
- Consumption kWh ▬
- Battery limit time ▼

Settings

- REPO operation ▲
- Reset Cumulative
- Consumption kWh ▬
- Battery Limit Time
- Auto Reboot ▼

Settings

- REPO operation ▲
- Reset Cumulative
- Consumption kWh
- Battery Limit Time
- Auto Reboot ▬
- Auto Bypass ▼

Settings

- Battery Limit Time ▲
- Auto Reboot
- Auto Bypass
- Start Without Battery ▼

Settings

- Battery Limit Time ▲
- Auto Reboot
- Auto Bypass
- Start Without Battery
- Clear event log ▼

Settings

- Auto Reboot ▲
- Auto Bypass
- Start Without Battery
- Reset Cumulative
- Consumption kWh ▬
- Battery limit time ▼

Settings

- Start Without Battery ▲
- Clear event log
- LCD contrast ▼
- Restore factory settings ▼

SHIPMENT



- PROTECT C with 1000 VA or 2000 VA or 3000 VA
- Mains connection cable with safety plug
- 2 device connecting cables (10A) (when C.3000 1x 10A and 1x 16A)
- USB communication cable
- Management software “CompuWatch“ on CD incl. 5 network licences
- Safety instructions
- Operating instructions