PowerSafe® V

# Battery Accommodation

EnerSys®
Power/Full Solutions

RESERVE POWER

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# Steel Stands

A comprehensive range of steel stands has been specifically designed to provide a compact and effective arrangement for PowerSafe® V batteries whilst retaining the requirements of electrical and mechanical safety, ease of installation and access during operation for taking meter readings.

Steel stands are available as free standing units (complete with adjustable insulating feet), anti-shock units (for offshore or unpredictable environments) or seismic units (for areas of geological unpredictability or sites such as nuclear power stations). Each stand type is configured to provide optimum access for both installation and maintenance and supplied complete with accessories for wall or floor fixing and attachment of ancillary equipment.

Cabinets and other special designs can be engineered and supplied to meet particular specifications.

# Constructional & Component Details

Each stand assembly, which is individually tailored to the battery type, is built from 3 basic components:

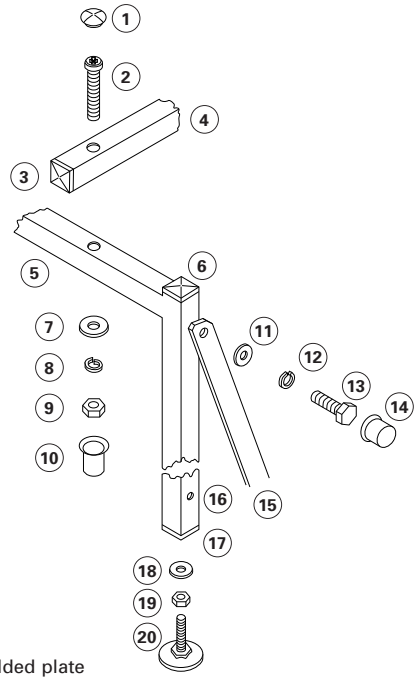
- frame, fabricated from square steel tube
- runner, fabricated from square steel tube
- flat steel tie-bar

These component parts are factory finished with a high quality electro-statically deposited epoxy powder coating which, in addition to its high dielectric resistance, is acid and saline resistant, fireproof, vermin proof, scratch resistant and impact resistant.

The base of each frame leg is fitted with an adjustable insulating foot assembly to allow precise levelling on uneven floors. Each stand kit includes all the necessary fastener sets, which are dimensionally matched to the pre-drilled holes in frames, runners and tie-bars, to ensure a rigid assembly.

For front terminal monoblocs, the rear runner of each tier has an extended top back edge for locating the rear face of the unit during battery installation.

| | |
|---|---|
| **1** | Runner hole plug |
| **2** | Set-screw |
| **3** | Runner end bung |
| **4** | Runner |
| **5** | Crossbearer |
| **6** | Frame end bung |
| **7** | Plain washer |
| **8** | Spring washer |
| **9** | Nut |
| **10** | Nut-cap |
| **11** | Plain washer |
| **12** | Spring washer |
| **13** | Set-screw |
| **14** | Nut-cap |
| **15** | Tie-bar |
| **16** | Frame plug |
| **17** | Threaded insert |
| **18** | Plain washer |
| **19** | Lock-nut |
| **20** | Adjustable foot |



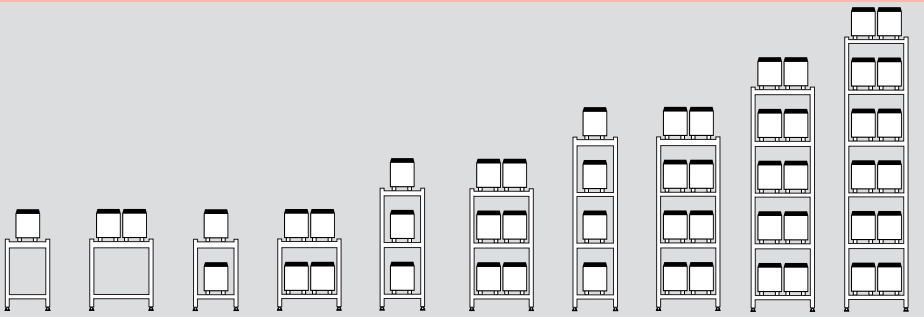

Note: Item 17 (threaded insert) is replaced by a welded plate drilled and tapped to suit the foot for heavy duty applications.

# Stand Dimensions, Sizing Method & Examples

**By following the simple guidelines hereafter, the user can readily calculate the space required by the various standard range of steel stand options to make best use of the accommodation available.**

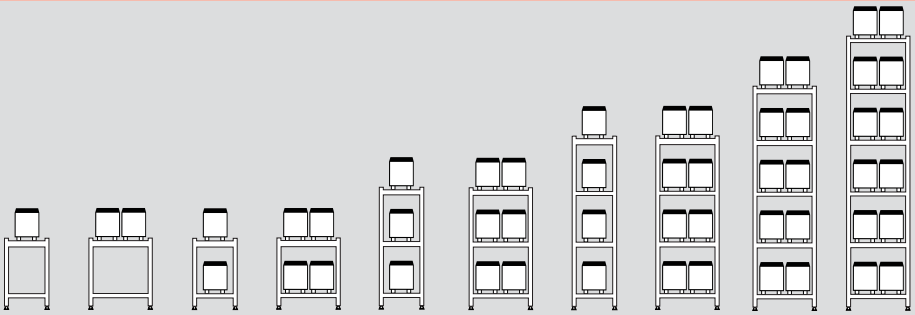
**a) PowerSafe® V**

For these stand designs, cells/units of rectangular plan dimensions (ie. all except 12V80) are accommodated in a 'side-by-side' arrangement along the stand to minimise battery length dimension. If depth of accommodation is restricted, non-standard design steel stands can be provided to accommodate an 'end to end' cell/unit configuration, but this will result in an increase of required stand length (approx 1.5 times increase).



| DIMENSIONS | | Single Tier Single Row | Single Tier Double Row | Double Tier Single Row | Double Tier Double Row | Triple Tier Single Row | Triple Tier Double Row | 4 Tier Single Row | 4 Tier Double Row | 5 Tier Double Row | 6 Tier Double Row |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Types** | **Dimensions (mm)** | | | | | | | | | | |
| **12V45** | Width | 275 | 450 | 275 | 450 | 275 | 450 | 305 | 480 | 480 | 480 |
| | Height over Terminals | 621 | 621 | 791 | 791 | 1186 | 1186 | 1581 | 1581 | 1976 | 2371 |
| | Overall Height Required | 771 | 771 | 941 | 941 | 1336 | 1336 | 1731 | 1731 | 2126 | 2521 |
| | Cell Centres | 220 | 220 | 220 | 220 | 220 | 220 | 220 | 220 | 220 | 220 |
| **12V55** | Width | 275 | 450 | 275 | 450 | 275 | 450 | 305 | 480 | 480 | 480 |
| | Height over Terminals | 621 | 621 | 791 | 791 | 1186 | 1186 | 1581 | 1581 | 1976 | 2371 |
| | Overall Height Required | 771 | 771 | 941 | 941 | 1336 | 1336 | 1731 | 1731 | 2126 | 2521 |
| | Cell Centres | 273 | 273 | 273 | 273 | 273 | 273 | 273 | 273 | 273 | 273 |
| **12V70** | Width | 275 | 450 | 275 | 450 | 275 | 450 | 305 | 480 | 480 | 480 |
| | Height over Terminals | 621 | 621 | 791 | 791 | 1186 | 1186 | 1581 | 1581 | 1976 | 2371 |
| | Overall Height Required | 771 | 771 | 941 | 941 | 1336 | 1336 | 1731 | 1731 | 2126 | 2521 |
| | Cell Centres | 316 | 316 | 316 | 316 | 316 | 316 | 316 | 316 | 316 | 316 |
| **12V80** | Width | 320 | 520 | 320 | 520 | 320 | 520 | 320 | 520 | 520 | 520 |
| | Height over Terminals | 800 | 800 | 800 | 800 | 1195 | 1195 | 1590 | 1590 | 1985 | 2380 |
| | Overall Height Required | 950 | 950 | 950 | 950 | 1345 | 1345 | 1740 | 1740 | 2135 | 2530 |
| | Cell Centres | 368 | 368 | 368 | 368 | 368 | 368 | 368 | 368 | 368 | 368 |
| **4V105 6V105** | Width | 320 | 520 | 320 | 520 | 320 | 520 | 320 | 520 | 520 | 520 |
| | Height over Terminals | 800 | 800 | 800 | 800 | 1195 | 1195 | 1590 | 1590 | 1985 | 2380 |
| | Overall Height Required | 950 | 950 | 950 | 950 | 1345 | 1345 | 1740 | 1740 | 2135 | 2530 |
| | Cell Centres | 193 | 193 | 193 | 193 | 193 | 193 | 193 | 193 | 193 | 193 |
| **6V130** | Width | 325 | 550 | 325 | 550 | 325 | 550 | 355 | 580 | 580 | 580 |
| | Height over Terminals | 635 | 635 | 805 | 805 | 1200 | 1200 | 1595 | 1595 | 1990 | 2385 |
| | Overall Height Required | 785 | 785 | 955 | 955 | 1350 | 1350 | 1745 | 1745 | 2140 | 2535 |
| | Cell Centres | 245 | 245 | 245 | 245 | 245 | 245 | 245 | 245 | 245 | 245 |
| **4V155** | Width | 320 | 520 | 320 | 520 | 320 | 520 | 320 | 520 | 520 | 520 |
| | Height over Terminals | 800 | 800 | 800 | 800 | 1195 | 1195 | 1590 | 1590 | 1985 | 2380 |
| | Overall Height Required | 950 | 950 | 950 | 950 | 1345 | 1345 | 1740 | 1740 | 2135 | 2530 |
| | Cell Centres | 204 | 204 | 204 | 204 | 204 | 204 | 204 | 204 | 204 | 204 |
| **6V155** | Width | 430 | 700 | 430 | 700 | 430 | 700 | 430 | 700 | 700 | 700 |
| | Height over Terminals | 800 | 800 | 800 | 800 | 1195 | 1195 | 1590 | 1590 | 1985 | 2380 |
| | Overall Height Required | 950 | 950 | 950 | 950 | 1345 | 1345 | 1740 | 1740 | 2135 | 2530 |
| | Cell Centres | 204 | 204 | 204 | 204 | 204 | 204 | 204 | 204 | 204 | 204 |
| **6V170** | Width | 430 | 700 | 430 | 700 | 430 | 700 | 430 | 700 | 700 | 700 |
| | Height over Terminals | 825 | 825 | 825 | 825 | 1220 | 1220 | 1615 | 1615 | 2010 | 2405 |
| | Overall Height Required | 975 | 975 | 975 | 975 | 1370 | 1370 | 1765 | 1765 | 2160 | 2555 |
| | Cell Centres | 177 | 177 | 177 | 177 | 177 | 177 | 177 | 177 | 177 | 177 |

# Stand Dimensions, Sizing Method & Examples



| DIMENSIONS | | Single Tier Single Row | Single Tier Double Row | Double Tier Single Row | Double Tier Double Row | Triple Tier Single Row | Triple Tier Double Row | 4 Tier Single Row | 4 Tier Double Row | 5 Tier Double Row | 6 Tier Double Row |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Types** | **Dimensions (mm)** | | | | | | | | | | |
| **2V200** | Width | 325 | 550 | 325 | 550 | 325 | 550 | 355 | 580 | 580 | 580 |
| | Height over Terminals | 661 | 661 | 831 | 831 | 1226 | 1226 | 1621 | 1621 | 2016 | 2411 |
| | Overall Height Required | 811 | 811 | 981 | 981 | 1376 | 1376 | 1771 | 1771 | 2166 | 2561 |
| | Cell Centres | 112 | 112 | 112 | 112 | 112 | 112 | 112 | 112 | 112 | 112 |
| **4V230** | Width | 430 | 700 | 430 | 700 | 430 | 700 | 430 | 700 | 700 | 700 |
| | Height over Terminals | 800 | 800 | 800 | 800 | 1195 | 1195 | 1590 | 1590 | 1985 | 2380 |
| | Overall Height Required | 950 | 950 | 950 | 950 | 1345 | 1345 | 1740 | 1740 | 2135 | 2530 |
| | Cell Centres | 204 | 204 | 204 | 204 | 204 | 204 | 204 | 204 | 204 | 204 |
| **2V275** | Width | 250 | 400 | 250 | 400 | 250 | 400 | 280 | 430 | 430 | 430 |
| | Height over Terminals | 661 | 661 | 831 | 831 | 1226 | 1226 | 1621 | 1621 | 2016 | 2411 |
| | Overall Height Required | 811 | 811 | 981 | 981 | 1376 | 1376 | 1771 | 1771 | 2166 | 2561 |
| | Cell Centres | 209 | 209 | 209 | 209 | 209 | 209 | 209 | 209 | 209 | 209 |
| **2V310** | Width | 320 | 520 | 320 | 520 | 320 | 520 | 320 | 520 | 520 | 520 |
| | Height over Terminals | 800 | 800 | 800 | 800 | 1195 | 1195 | 1590 | 1590 | 1985 | 2380 |
| | Overall Height Required | 950 | 950 | 950 | 950 | 1345 | 1345 | 1740 | 1740 | 2135 | 2530 |
| | Cell Centres | 204 | 204 | 204 | 204 | 204 | 204 | 204 | 204 | 204 | 204 |
| **2V320** | Width | 320 | 520 | 320 | 520 | 320 | 520 | 320 | 520 | 520 | 520 |
| | Height over Terminals | 815 | 815 | 815 | 815 | 1210 | 1210 | 1605 | 1605 | 2000 | 2395 |
| | Overall Height Required | 965 | 965 | 965 | 965 | 1360 | 1360 | 1755 | 1755 | 2150 | 2545 |
| | Cell Centres | 209 | 209 | 209 | 209 | 209 | 209 | 209 | 209 | 209 | 209 |
| **2V400/2** | Width | 320 | 520 | 320 | 520 | 320 | 520 | 320 | 520 | 520 | 520 |
| | Height over Terminals | 840 | 840 | 840 | 840 | 1235 | 1235 | 1630 | 1630 | 2025 | 2420 |
| | Overall Height Required | 990 | 990 | 990 | 990 | 1385 | 1385 | 1780 | 1780 | 2175 | 2570 |
| | Cell Centres | 209 | 209 | 209 | 209 | 209 | 209 | 209 | 209 | 209 | 209 |
| **2V460/4**<br>**2V460/6** | Width | 430 | 700 | 430 | 700 | 430 | 700 | 430 | 700 | 700 | 700 |
| | Height over Terminals | 800 | 800 | 800 | 800 | 1195 | 1195 | 1590 | 1590 | 1985 | 2380 |
| | Overall Height Required | 950 | 950 | 950 | 950 | 1345 | 1345 | 1740 | 1740 | 2135 | 2530 |
| | Cell Centres | 204 | 204 | 204 | 204 | 204 | 204 | 204 | 204 | 204 | 204 |
| **2V500/2** | Width | 350 | 600 | 350 | 600 | 350 | 600 | 380 | 630 | 630 | 630 |
| | Height over Terminals | 661 | 661 | 831 | 831 | 1226 | 1226 | 1621 | 1621 | 2016 | 2411 |
| | Overall Height Required | 811 | 811 | 981 | 981 | 1376 | 1376 | 1771 | 1771 | 2166 | 2561 |
| | Cell Centres | 209 | 209 | 209 | 209 | 209 | 209 | 209 | 209 | 209 | 209 |
| **2V500/6** | Width | 430 | 700 | 430 | 700 | 430 | 700 | 430 | 700 | 700 | 700 |
| | Height over Terminals | 815 | 815 | 815 | 815 | 1210 | 1210 | 1605 | 1605 | 2000 | 2395 |
| | Overall Height Required | 965 | 965 | 965 | 965 | 1360 | 1360 | 1755 | 1755 | 2150 | 2545 |
| | Cell Centres | 209 | 209 | 209 | 209 | 209 | 209 | 209 | 209 | 209 | 209 |

## METHOD

**Battery height:** Dimension as per table according to number of tiers (1, 2, 3, 4, 5 or 6) selected

**Battery width:** Dimension as per table according to number of rows (single or double) selected

**Battery length:** 1) Calculate stand runner length $L_1$ by applying formula $L_1$ = (number of cells/units per row x cell centres) + 25mm
2) Add 100mm (50mm per end) for inter-tier connectors
Hence, battery length L = $L_1$ + 100mm

## EXAMPLE

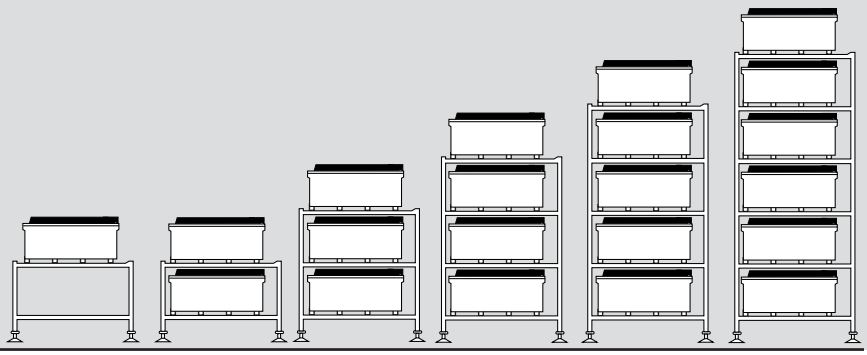
**Example: 56 units type 6V105 on TTDR steel stand**

- Battery height: 1195mm (over terminals)
- Battery width: 520mm
- Battery length:
  1) (a) Divide the total number of units by the total number of rows and round up to next full number
  56 units / 6 rows = 9.33
  Therefore stand needs to be '10 units long'
  (b) $L_1$ = (10 x 193) + 25mm = 1955mm
  2) Add 100mm for inter-tier connectors
  Battery length L = 2055mm

Note: The maximum length of a single stand is approximately 3 metres. For lengths in excess of 3 metres multiple stands are supplied.

# Stand Dimensions, Sizing Method & Examples

## b) PowerSafe® V Front Terminal



| DIMENSIONS | | Single Tier | Double Tier | Triple Tier | 4 Tier | 5 Tier | 6 Tier |
|---|---|---|---|---|---|---|---|
| **Types** | **Dimensions (mm)** | | | | | | |
| **12V30F** | Width | 450 | 450 | 450 | 455 | 455 | 455 |
| | Height | 335 | 585 | 835 | 1085 | 1335 | 1585 |
| | Unit Centres | 107 | 107 | 107 | 107 | 107 | 107 |
| **12V38F** | Width | 450 | 450 | 450 | 455 | 455 | 455 |
| | Height | 360 | 635 | 910 | 1185 | 1460 | 1735 |
| | Unit Centres | 107 | 107 | 107 | 107 | 107 | 107 |
| **12V62F** | Width | 450 | 450 | 450 | 455 | 455 | 455 |
| | Height | 440 | 790 | 1140 | 1490 | 1840 | 2190 |
| | Unit Centres | 107 | 107 | 107 | 107 | 107 | 107 |
| **12V92F** | Width | 550 | 550 | 550 | 555 | 555 | 555 |
| | Height | 440 | 800 | 1160 | 1520 | 1880 | 2240 |
| | Unit Centres | 115 | 115 | 115 | 115 | 115 | 115 |
| **12V100FC** | Width | 550 | 550 | 550 | 555 | 555 | 555 |
| | Height | 463 | 838 | 1213 | 1588 | 1963 | 2338 |
| | Unit Centres | 118 | 118 | 118 | 118 | 118 | 118 |
| **12V101F** | Width | 700 | 700 | 700 | 705 | 705 | 705 |
| | Height | 411 | 786 | 1161 | 1536 | 1911 | 2286 |
| | Unit Centres | 120 | 120 | 120 | 120 | 120 | 120 |
| **12V125F** | Width | 750 | 750 | 750 | 755 | 755 | 755 |
| | Height | 492 | 892 | 1292 | 1692 | 2092 | 2492 |
| | Unit Centres | 115 | 115 | 115 | 115 | 115 | 115 |
| **12V155FS** | Width | 750 | 750 | 750 | 755 | 755 | 755 |
| | Height | 459 | 834 | 1209 | 1584 | 1959 | 2334 |
| | Unit Centres | 135 | 135 | 135 | 135 | 135 | 135 |
| **12V170FS** | Width | 750 | 750 | 750 | 755 | 755 | 755 |
| | Height | 459 | 834 | 1209 | 1584 | 1959 | 2334 |
| | Unit Centres | 135 | 135 | 135 | 135 | 135 | 135 |
| **12V170F** | Width | 750 | 750 | 750 | 755 | 755 | 755 |
| | Height | 492 | 892 | 1292 | 1692 | 2092 | 2492 |
| | Unit Centres | 135 | 135 | 135 | 135 | 135 | 135 |
| **12V190F** | Width | 750 | 750 | 750 | 755 | 755 | 755 |
| | Height | 492 | 892 | 1292 | 1692 | 2092 | 2492 |
| | Unit Centres | 135 | 135 | 135 | 135 | 135 | 135 |

## METHOD

**Battery height:** Dimension as per table according to number of tiers (1, 2, 3, 4, 5 or 6) selected

**Battery width:** Dimension as per table depending upon type of unit

**Battery length:** Calculate stand length by applying formula L = (number of units per tier x unit centres) + 25mm

## EXAMPLE

**Example: 12 units type 12V170F on 4 tier steel stand**

- Battery height: 1692mm
- Battery width: 755mm
- Battery length:
  1) Divide the total number of units by the total number of tiers and round up to next full number
  12 units / 4 tiers = 3
  Therefore stand needs to be '3 units long'
  2) L = (3 x 135) + 25mm = 430mm
  Battery length L = 430mm

Note: PowerSafe V front terminal batteries have been purposely designed for accommodation in customer power racks and cabinets where depth restrictions may preclude multi-row arrangements. In addition the standard inter-unit connector effects a 10mm space between units in accordance with EN 50272-2.

# Electrical Connections

Where batteries are ordered complete with stands, all necessary inter-cell/unit connectors (including insulated inter-row and inter-tier connectors, depending upon battery type) are provided.

The following general notes indicate the standard methods employed for the electrical connection sequence within the battery and the resulting battery terminal position.

**a) Single Series Battery on Single Row Stand**
The series connector run is along the length of the stand and then, in the case of multi-tier stand vertically down, via inter-tier connector, to the next tier such that main battery terminals are located:
• at opposite ends of the stand for odd numbers of tiers or
• at the same end of the stand for an even number of tiers

**b) Single Series Battery on Double Row Stand**
The series connector run is along the length of the stand on back (or front) row then horizontal across to front (or back) row via the inter-row connector and back towards starting point end of the stand.

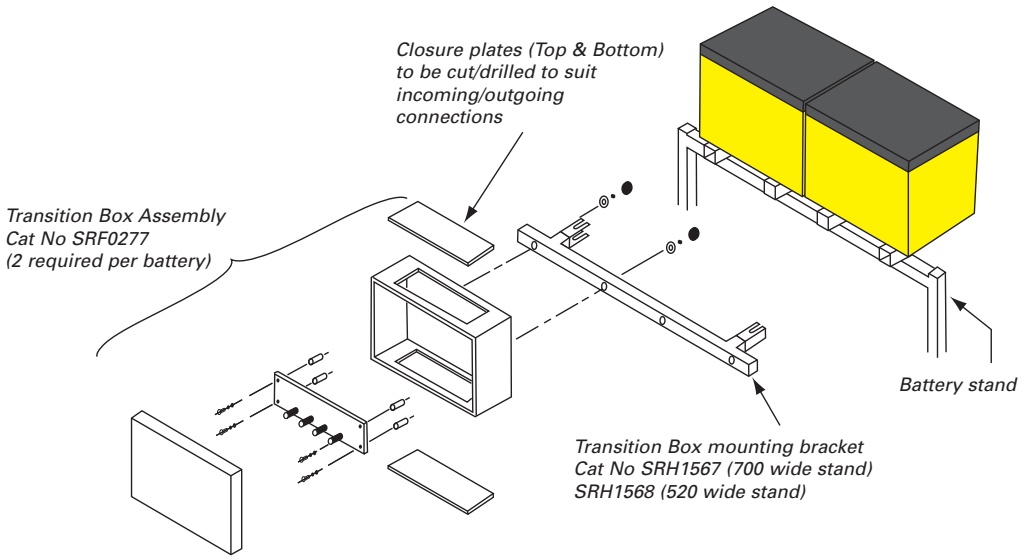
In the case of a multi-tier stand, the connection sequence is continued vertically down via the inter-tier connector and maintained by connecting along the row to the opposite end of the stand, followed by horizontal across row connection as the previous tier, such that the main battery terminals are at the same end of the stand irrespective of the number of tiers.

**c) Series Parallel Batteries**
It is normal practice to effect the electrical paralleling via the battery terminals as opposed to paralleling of individual cells. Therefore, where each series battery circuit is accommodated on its own stand and the parallel connection is made at a common bus bar point, the notes contained in a) and b) above are applicable.

However, where it is desirable to accommodate the total series parallel battery on the same stand, in order to effect a practical connection arrangement, it is essential that the stand design chosen not only matches the number of parallel strings involved (3 parallel strings on a single tier, double tier, 4 tier or 5 tier stand, would be impractical) but allows the main battery terminals to be suitably positioned to correspond with the desired locations of bus bars.

**d) Transition Boxes**
Transition boxes are also available to connect the battery main end leads (separate boxes for positive and negative) to outgoing cables or bus bars. Where necessary, it also affords a safe and convenient method of paralleling banks of cells. Transition boxes come complete with mounting plates and connectors.

Customers not using transition boxes should ensure that connections to the battery end terminals are well supported to avoid stress on the pillar seals.



# Battery Room Layout

Space around a battery is not only highly desirable for safety reasons, but is a practical necessity to give sufficient access during installation and operation.

Batteries and stands should be installed in accordance with national/local standards (for instance EN 50272-2). In cases where there is currently no legislation to determine these aspects, the following minimum requirement recommendations are offered.

**a) Height**

The steel stands are designed to give sufficient working height above the units/cells. The overall height required dimension indicates the absolute minimum room height necessary to access the top tier cells/units (refer to tables on pages 3-5).

The main consideration in determining room height required is access for the operator (i.e. with low height battery arrangements, sufficient height for the operator to stand in and, with high battery arrangements, the need to reach up to the top tiers).

For safety reasons, brackets designed to steady the stand are supplied with stands of 5 tier and above, depending upon type. Please note that the space between the stand and wall may need to be reduced to accommodate the anchor bracket.

**b) Width**

The stands are designed so that they can be located along a wall with access from the front of the stand. In order to assemble the stand in situ, a minimum space of 100mm is required between the wall and the back of stand to facilitate the fitting of the stand tier-bar. In front of the stand, a working space of 600mm minimum will be necessary. This working space can be used as a common gangway if it is necessary to locate another battery on the opposite wall.

**c) Length**

In the case of a single stand located along a wall or where 2 stands are located, one along each side wall with centre gangway access, the minimum room length required is:

| PowerSafe® V |
|---|
| the calculated battery length L (see pages 3-4)<br>+ 50mm at each end of the battery for access to connections etc.<br>Note: Where transition boxes are fitted, access of 600mm should be allowed at one end of the stand. |
| **PowerSafe® V Front Terminal** |
| the calculated battery length L (see page 5)<br>+ 100mm at each end of the stand.<br>Note: Where transition boxes are fitted, the minimum room length required is the calculated stand length L + 450mm at each end of the stand. |

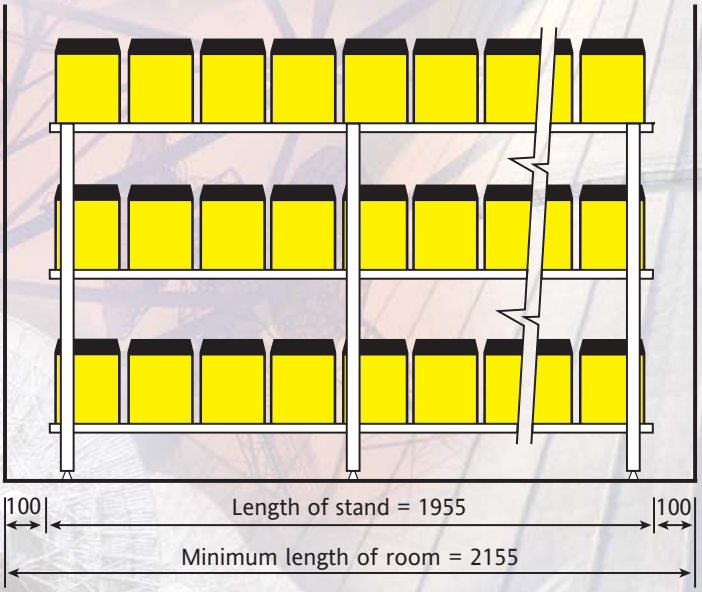
Note: Where multiple stands are to be accommodated, then access to battery room will need to be at one end in order to access each gangway. In this case, a minimum space of 600mm at the access end of the battery stand should be allowed.

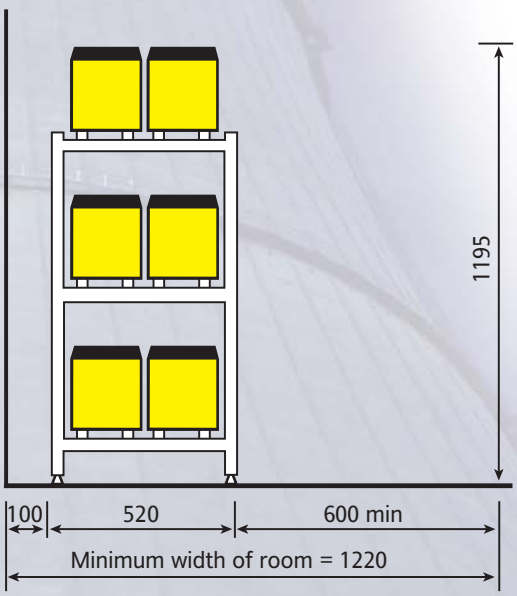
# Battery Room Layout

**d) Examples**

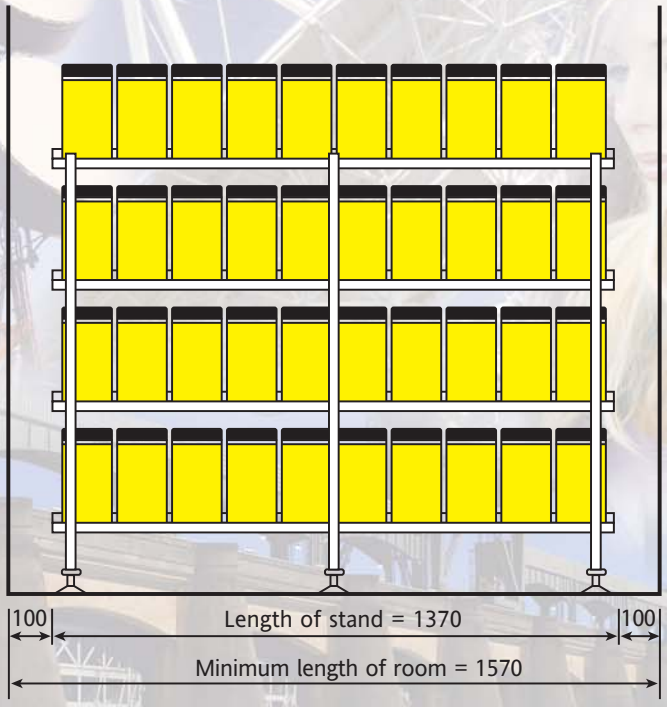
1. One stand located against wall

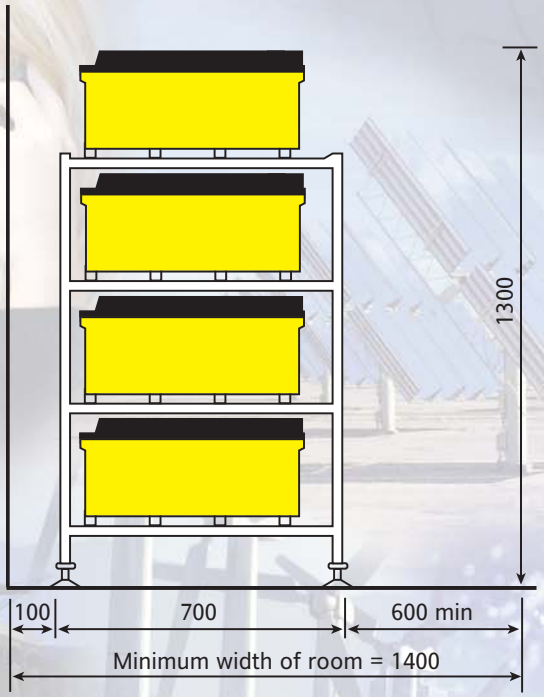
**PowerSafe® V**



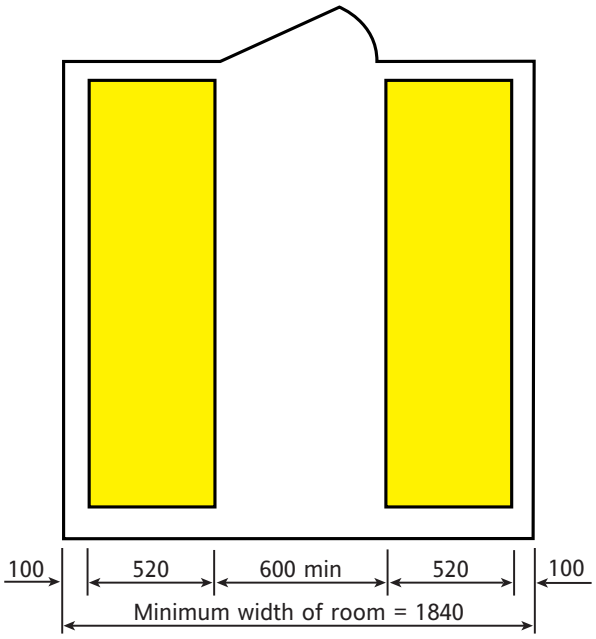

**PowerSafe® V Front Terminal**



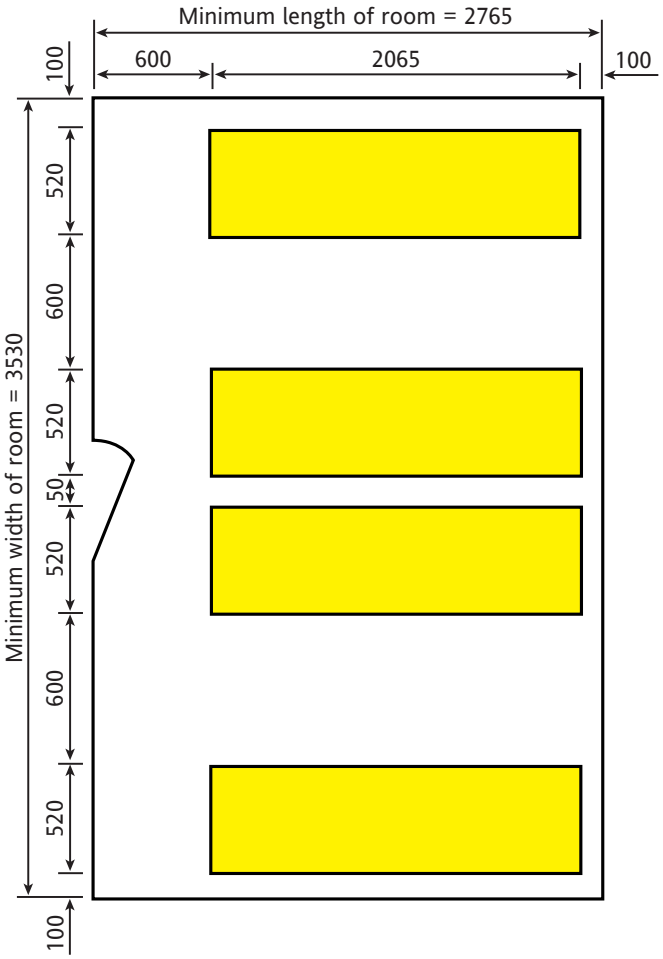
2. Two stands located against side walls

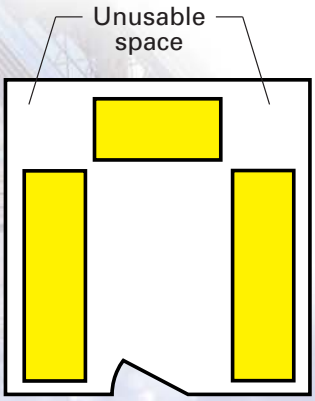
**PowerSafe® V & V Front Terminal**




3. Multiple Stands in room

**PowerSafe® V & V Front Terminal**




**Note: Unusable Space**
Where battery accommodation space is restricted to the extent that it is necessary to locate the battery around 2 (or 3) adjacent walls of the room, the corner space should not be used so that access to all the cells of the battery is available.

# PowerSafe® V General Specifications

| | | | Nominal Capacity (Ah) | | Nominal Dimensions | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Battery Type | Number of Cells | Nominal Voltage (V) | 10 hr rate to 1.80Vpc @ 20°C | 8 hr rate to 1.75Vpc @ 77°F | Length mm | Width [1] mm | Overall Height mm | Typical Weight kg | Short Circuit Current (A)[2] | Internal Resistance (mΩ)[2] | Terminals |
| 12V45 | 6 | 12 | 46 | 47 | 218 | 164 | 224 | 18.9 | 1783 | 6.94 | M6 Female |
| 12V55 | 6 | 12 | 56 | 59 | 271 | 164 | 224 | 22.9 | 1962 | 6.31 | M6 Female |
| 12V70 | 6 | 12 | 68 | 70 | 314 | 164 | 224 | 26.7 | 2440 | 5.07 | M6 Female |
| 12V80 | 6 | 12 | 79 | 82 | 360 | 164 | 229 | 31.5 | 2717 | 4.55 | M6 Female |
| 4V105 | 2 | 4 | 103 | 103 | 191 | 202 | 235 | 16.5 | 2740 | 1.51 | M8 Male |
| 6V105 | 3 | 6 | 103 | 103 | 191 | 202 | 235 | 22.0 | 2740 | 2.26 | M8 Male |
| 6V130 | 3 | 6 | 132 | 134 | 243 | 206 | 242 | 27.9 | 4348 | 1.43 | M8 Female |
| 4V155 | 2 | 4 | 154 | 155 | 202 | 202 | 228 | 23.0 | 4800 | 0.80 | M8 Male |
| 6V155 | 3 | 6 | 154 | 155 | 292 | 202 | 228 | 33.0 | 4800 | 1.20 | M8 Male |
| 6V170 | 3 | 6 | 173 | 173 | 302 | 175 | 256 | 34.0 | 3814 | 1.62 | M8 Female |
| 2V200 | 1 | 2 | 200 | 194 | 110 | 208 | 269 | 13.9 | 5295 | 0.39 | M8 Female |
| 4V230 | 2 | 4 | 231 | 232 | 292 | 202 | 228 | 32.5 | 6082 | 0.68 | M8 Male |
| 2V275 | 1 | 2 | 275 | 267 | 142 | 208 | 269 | 18.5 | 6596 | 0.32 | M8 Female |
| 2V310 | 1 | 2 | 308 | 309 | 202 | 202 | 228 | 23.0 | 9259 | 0.22 | M8 Male |
| 2V320 | 1 | 2 | 320 | 329 | 195 | 208 | 245 | 22.0 | 9675 | 0.22 | M8 Female |
| 2V400/2 | 1 | 2 | 400 | 388 | 195 | 208 | 270 | 26.2 | 8836 | 0.24 | M8 Female |
| 2V460/4 | 1 | 2 | 462 | 464 | 292 | 202 | 228 | 32.5 | 10929 | 0.18 | M8 Male |
| 2V460/6 | 1 | 2 | 462 | 464 | 292 | 202 | 228 | 33.0 | 10929 | 0.18 | M8 Male |
| 2V500/2 | 1 | 2 | 500 | 484 | 238 | 208 | 269 | 32.5 | 9237 | 0.22 | M8 Female |
| 2V500/6 | 1 | 2 | 518 | 516 | 296 | 204 | 240 | 34.7 | 14857 | 0.14 | M8 Female |
| 12V30F | 6 | 12 | 31 | 31 | 280 | 97 | 159 | 10.8 | 1327 | 9.87 | M8 Female |
| 12V38F | 6 | 12 | 38 | 38 | 280 | 97 | 184 | 12.5 | 1500 | 8.53 | M8 Female |
| 12V62F | 6 | 12 | 62 | 62 | 280 | 97 | 264 | 19.7 | 2100 | 5.87 | M8 Female |
| 12V92F | 6 | 12 | 92 | 92 | 395 | 105 | 264 | 28.0 | 2500 | 5.05 | M8 Female |
| 12V100FC | 6 | 12 | 100 | 100 | 395 | 108 | 287 | 30.8 | 1900 | 6.60 | M8 Female |
| 12V101F | 6 | 12 | 100 | 101 | 510 | 110 | 235 | 33.5 | 2108 | 5.92 | M8 Female |
| 12V125F | 6 | 12 | 125 | 126 | 561 | 105 | 316 | 46.5 | 2223 | 5.49 | M6 Male |
| 12V155FS | 6 | 12 | 150 | 155 | 561 | 125 | 283 | 50.0 | 2790 | 4.44 | M6 Male |
| 12V170FS | 6 | 12 | 170 | 170 | 561 | 125 | 283 | 50.5 | 2950 | 4.30 | M6 Male |
| 12V170F | 6 | 12 | 170 | 170 | 561 | 125 | 316 | 60.0 | 3131 | 3.94 | M6 Male |
| 12V190F | 6 | 12 | 190 | 190 | 561 | 125 | 316 | 57.3 | 3625 | 3.50 | M6 Male |

Notes:
[1] In horizontal installation, the width of PowerSafe V top terminal blocs becomes the height, irrespective of positive and negative polarities.
[2] Figures obtained via IEC method.

# Notes

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