

# Runtime Charts

## For Eaton 93PM 30-100kW UPS

### 93PM UPS on-battery runtimes with different load ratings

UPS internal batteries + external batteries with 93P/E Small battery cabinet

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# Runtime Charts

## For Eaton 93PM 30-100kW UPS

### Internal batteries for 30-60kVA

#### 5-year internal battery (9Ah)

Internal battery back-up table for UPS ratings 30-60 kVA, **p.f. 0.8:**

| Battery | Qty  | 10kVA | 15kVA | 20kVA | 25kVA | 30kVA | 35kVA | 40kVA | 45kVA | 50kVA | 60kVA |     |
|---------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----|
| 9Ah 12V | 3x36 | 42    | 27    | 18    | 14    | 10    | -     | -     | -     | -     | -     | min |
| 9Ah 12V | 4x36 | 65    | 37    | 27    | 20    | 16    | 13    | 10    | 9     | 7     | -     | min |
| 9Ah 12V | 5x36 | 88    | 48    | 35    | 27    | 21    | 17    | 14    | 12    | 10    | 9     | min |
| 9Ah 12V | 6x36 | 110   | 66    | 42    | 33    | 27    | 22    | 18    | 16    | 14    | 12    | min |

*Table 1. The battery backup table is given with end voltage 1.70 VPC and temperature +25°C.  
The batteries are fully charged and measured after min. (5) full discharge cycles.*

Internal battery back-up table for UPS ratings 30-60 kVA, **p.f. 0.9:**

| Battery | Qty  | 10kVA | 15kVA | 20kVA | 25kVA | 30kVA | 35kVA | 40kVA | 45kVA | 50kVA | 60kVA |     |
|---------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----|
| 9Ah 12V | 3x36 | 37    | 23    | 16    | 12    | 9     | -     | -     | -     | -     | -     | min |
| 9Ah 12V | 4x36 | 54    | 32    | 23    | 17    | 13    | 11    | 9     | 7     | 6     | -     | min |
| 9Ah 12V | 5x36 | 76    | 42    | 29    | 23    | 18    | 14    | 12    | 10    | 9     | 7     | min |
| 9Ah 12V | 6x36 | 95    | 53    | 38    | 28    | 23    | 19    | 16    | 13    | 12    | 10    | min |

*Table 2. The battery backup table is given with end voltage 1.70 VPC and temperature +25°C.  
The batteries are fully charged and measured after min. (5) full discharge cycles.*

Internal battery back-up table for UPS ratings 30-50 kVA, **p.f. 1.0:**

| Battery | Qty  | 10kVA | 15kVA | 20kVA | 25kVA | 30kVA | 35kVA | 40kVA | 45kVA | 50kVA |     |
|---------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----|
| 9Ah 12V | 3x36 | 33    | 20    | 14    | 10    | 7     | -     | -     | -     | -     | min |
| 9Ah 12V | 4x36 | 44    | 28    | 20    | 15    | 12    | 9     | 7     | 6     | 5     | min |
| 9Ah 12V | 5x36 | 65    | 37    | 27    | 20    | 16    | 13    | 10    | 9     | 7     | min |
| 9Ah 12V | 6x36 | 84    | 44    | 33    | 26    | 20    | 16    | 15    | 12    | 10    | min |

*Table 3. The battery backup table is given with end voltage 1.70 VPC and temperature +25°C.  
The batteries are fully charged and measured after min. (5) full discharge cycles.*

**Note!**

The specifications are subject to change without a notice.

# Runtime Charts

## For Eaton 93PM 30-100kW UPS

### 10-year internal battery (7Ah)

Internal battery back-up table for UPS ratings 30-60 kVA, **p.f. 0.8:**

| Battery | Qty  | 10kVA | 15kVA | 20kVA | 25kVA | 30kVA | 35kVA | 40kVA | 45kVA | 50kVA | 60kVA |     |
|---------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----|
| 7Ah 12V | 4x36 | 57    | 33    | 22    | 15    | 12    | -     | -     | -     | -     |       | min |
| 7Ah 12V | 5x36 | 77    | 47    | 29    | 22    | 16    | 13    | 10    | 8     | 6     | 5     | min |
| 7Ah 12V | 6x36 | 95    | 57    | 41    | 28    | 22    | 17    | 14    | 12    | 9     | 7     | min |

*Table 4. The battery backup table is given with end voltage 1.70 VPC and temperature +25°C.  
The batteries are fully charged and measured after min. (5) full discharge cycles.*

Internal battery back-up table for UPS ratings 30-60 kVA, **p.f. 0.9:**

| Battery | Qty  | 10kVA | 15kVA | 20kVA | 25kVA | 30kVA | 35kVA | 40kVA | 45kVA | 50kVA | 60kVA |     |
|---------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----|
| 7Ah 12V | 4x36 | 51    | 28    | 18    | 13    | 9     | -     | -     | -     | -     |       | min |
| 7Ah 12V | 5x36 | 65    | 40    | 26    | 18    | 13    | 11    | 8     | 6     | 5     | 3     | min |
| 7Ah 12V | 6x36 | 82    | 51    | 34    | 25    | 18    | 14    | 12    | 9     | 8     | 5     | min |

*Table 5. The battery backup table is given with end voltage 1.70 VPC and temperature +25°C.  
The batteries are fully charged and measured after min. (5) full discharge cycles.*

Internal battery back-up table for UPS ratings 30-50 kVA, **p.f. 1.0:**

| Battery | Qty  | 10kVA | 15kVA | 20kVA | 25kVA | 30kVA | 35kVA | 40kVA | 45kVA | 50kVA |     |
|---------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----|
| 7Ah 12V | 4x36 | 45    | 24    | 15    | 11    | 7     | -     | -     | -     | -     | min |
| 7Ah 12V | 5x36 | 57    | 33    | 22    | 15    | 12    | 9     | 7     | -     | -     | min |
| 7Ah 12V | 6x36 | 73    | 45    | 28    | 21    | 15    | 12    | 10    | 8     | 6     | min |

*Table 6. The battery backup table is given with end voltage 1.70 VPC and temperature +25°C.  
The batteries are fully charged and measured after min. (5) full discharge cycles.*

**Note!**

The specifications are subject to change without a notice.

# Runtime Charts

## For Eaton 93PM 30-100kW UPS

### External batteries (Small battery cabinet)

#### **10-year battery (CSB HRL12110W) in Small Battery Cabinet**

External battery back-up table for UPS ratings 30-60 kVA, **p.f. 0.8**:

| Battery  | Qty  | 10 kVA | 15 kVA | 20 kVA | 25 kVA | 30 kVA | 35 kVA | 40 kVA | 45 kVA | 50 kVA | 60 kVA |     |
|----------|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-----|
| 110W 12V | 1x36 | 61     | 35     | 24     | 18     | 15     | 11     | 9      | 7      | 6      | -      | min |
| 110W 12V | 2x36 | 149    | 87     | 61     | 48     | 36     | 28     | 24     | 20     | 18     | 14     | min |
| 110W 12V | 3x36 | 233    | 149    | 102    | 79     | 62     | 53     | 44     | 36     | 29     | 24     | min |
| 110W 12V | 4x36 | 331    | 205    | 149    | 112    | 88     | 75     | 62     | 55     | 48     | 35     | min |

External battery back-up table for UPS ratings 80-100 kVA, **p.f. 0.8**:

| Battery  | Qty  | 50kVA | 60kVA | 70kVA | 80kVA | 90kVA | 100kVA |     |
|----------|------|-------|-------|-------|-------|-------|--------|-----|
| 110W 12V | 1x36 | 6     | -     | -     | -     | -     | -      | min |
| 110W 12V | 2x36 | 18    | 14    | 11    | 8     | 7     | 5      | min |
| 110W 12V | 3x36 | 29    | 24    | 20    | 17    | 15    | 12     | min |
| 110W 12V | 4x36 | 48    | 35    | 27    | 24    | 20    | 18     | min |

*Table 7. The battery backup table is given with end voltage 1.70 VPC and temperature +25°C. The batteries are fully charged and measured after min. (5) full discharge cycles.*

External battery back-up table for UPS ratings 30-60 kVA, **p.f. 0.9**:

| Battery  | Qty  | 10 kVA | 15 kVA | 20 kVA | 25 kVA | 30 kVA | 35 kVA | 40 kVA | 45 kVA | 50 kVA | 60 kVA |     |
|----------|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-----|
| 110W 12V | 1x36 | 54     | 29     | 20     | 16     | 12     | 9      | 7      | 6      | 5      | -      | min |
| 110W 12V | 2x36 | 126    | 77     | 54     | 40     | 29     | 25     | 20     | 18     | 16     | 11     | min |
| 110W 12V | 3x36 | 205    | 126    | 87     | 69     | 55     | 45     | 36     | 29     | 26     | 20     | min |
| 110W 12V | 4x36 | 283    | 177    | 126    | 96     | 78     | 64     | 55     | 48     | 40     | 28     | min |

External battery back-up table for UPS ratings 80-100 kVA, **p.f. 0.9**:

| Battery  | Qty  | 50kVA | 60kVA | 70kVA | 80kVA | 90kVA | 100kVA |     |
|----------|------|-------|-------|-------|-------|-------|--------|-----|
| 110W 12V | 2x36 | 16    | 11    | 8     | 7     | 5     | -      | min |
| 110W 12V | 3x36 | 26    | 20    | 17    | 14    | 11    | 9      | min |
| 110W 12V | 4x36 | 40    | 28    | 24    | 20    | 18    | 16     | min |

*Table 8. The battery backup table is given with end voltage 1.70 VPC and temperature +25°C. The batteries are fully charged and measured after min. (5) full discharge cycles.*

# Runtime Charts

## For Eaton 93PM 30-100kW UPS

External battery back-up table for UPS ratings 30-50 kVA, **p.f. 1.0**:

| Battery  | Qty  | 10kVA | 15kVA | 20kVA | 25kVA | 30kVA | 35kVA | 40kVA | 45kVA | 50kVA |     |
|----------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----|
| 110W 12V | 1x36 | 48    | 26    | 18    | 14    | 10    | 8     | 6     | 5     | -     | min |
| 110W 12V | 2x36 | 111   | 68    | 48    | 32    | 26    | 21    | 18    | 16    | 14    | min |
| 110W 12V | 3x36 | 179   | 111   | 79    | 59    | 48    | 38    | 29    | 26    | 23    | min |
| 110W 12V | 4x36 | 251   | 160   | 111   | 85    | 69    | 56    | 48    | 40    | 32    | min |

External battery back-up table for UPS ratings 80-100 kVA, **p.f. 1.0**:

| Battery  | Qty  | 50kVA | 60kVA | 70kVA | 80kVA | 90kVA | 100kVA |     |
|----------|------|-------|-------|-------|-------|-------|--------|-----|
| 110W 12V | 2x36 | 14    | 9     | 7     | 5     | -     | -      | min |
| 110W 12V | 3x36 | 23    | 18    | 15    | 12    | 9     | 8      | min |
| 110W 12V | 4x36 | 32    | 25    | 21    | 18    | 16    | 13     | min |

*Table 9. The battery backup table is given with end voltage 1.70 VPC and temperature +25°C.  
The batteries are fully charged and measured after min. (5) full discharge cycles.*

**Note!**

The specifications are subject to change without a notice.

For 30-60kVA models only 36 battery block strings are used. For 80kVA-200kVA models 36 and 40 battery block strings are available. There are either 36 or 40 battery blocks in one cabinet.

**Small battery cabinet with CSB HRL12110W batteries, for 30-60kVA UPSs:**

P-105000017-002      93P/E-BAT-S-1x36-110W (200A)

# Runtime Charts

## For Eaton 93PM 30-100kW UPS

### 10-year battery (CSB HRL12200W) in Small Battery Cabinet

External battery back-up table for UPS ratings 30-50 kVA, **p.f. 0.8:**

| Battery  | Qty  | 10 kVA | 15 kVA | 20 kVA | 25 kVA | 30 kVA | 35 kVA | 40 kVA | 45 kVA | 50 kVA | 60 kVA |     |
|----------|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-----|
| 200W 12V | 1x36 | 114    | 82     | 56     | 42     | 34     | 28     | 23     | 19     | 17     | 12     | min |
| 200W 12V | 2x36 | 257    | 157    | 115    | 99     | 83     | 68     | 56     | 48     | 42     | 33     | min |
| 200W 12V | 3x36 | 441    | 257    | 175    | 140    | 115    | 104    | 93     | 83     | 73     | 56     | min |
| 200W 12V | 4x36 | 592    | 390    | 257    | 192    | 158    | 131    | 115    | 107    | 99     | 83     | min |

External battery back-up table for UPS ratings 80-100 kVA, **p.f. 0.8:**

| Battery  | Qty  | 50kVA | 60kVA | 70kVA | 80kVA | 90kVA | 100kVA |     |
|----------|------|-------|-------|-------|-------|-------|--------|-----|
| 200W 12V | 1x36 | 17    | 12    | 9     | 7     | 5     | -      | min |
| 200W 12V | 1x40 | 19    | 14    | 11    | 8     | 6     | 5      | min |
| 200W 12V | 2x36 | 42    | 33    | 27    | 23    | 19    | 16     | min |
| 200W 12V | 2x40 | 48    | 38    | 31    | 26    | 22    | 19     | min |
| 200W 12V | 3x36 | 73    | 56    | 46    | 38    | 33    | 29     | min |
| 200W 12V | 3x40 | 82    | 65    | 52    | 44    | 38    | 33     | min |
| 200W 12V | 4x36 | 99    | 83    | 68    | 56    | 48    | 42     | min |
| 200W 12V | 4x40 | 106   | 91    | 78    | 65    | 55    | 48     | min |

*Table 10. The battery backup table is given with end voltage 1.70 VPC and temperature +25°C. The batteries are fully charged and measured after min. (5) full discharge cycles.*

External battery back-up table for UPS ratings 30-50 kVA, **p.f. 0.9:**

| Battery  | Qty  | 10 kVA | 15 kVA | 20 kVA | 25 kVA | 30 kVA | 35 kVA | 40 kVA | 45 kVA | 50 kVA | 60 kVA |     |
|----------|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-----|
| 200W 12V | 1x36 | 106    | 71     | 48     | 37     | 29     | 24     | 19     | 17     | 14     | 10     | min |
| 200W 12V | 2x36 | 219    | 136    | 106    | 88     | 72     | 57     | 48     | 42     | 37     | 28     | min |
| 200W 12V | 3x36 | 390    | 219    | 157    | 119    | 107    | 94     | 83     | 72     | 61     | 48     | min |
| 200W 12V | 4x36 | 524    | 333    | 219    | 169    | 138    | 116    | 107    | 97     | 88     | 72     | min |

External battery back-up table for UPS ratings 80-100 kVA, **p.f. 0.9:**

| Battery  | Qty  | 50kVA | 60kVA | 70kVA | 80kVA | 90kVA | 100kVA |     |
|----------|------|-------|-------|-------|-------|-------|--------|-----|
| 200W 12V | 1x36 | 14    | 10    | 7     | 5     | -     | -      | min |
| 200W 12V | 1x40 | 16    | 12    | 9     | 6     | 5     | -      | min |
| 200W 12V | 2x36 | 36    | 28    | 23    | 19    | 16    | 14     | min |
| 200W 12V | 2x40 | 41    | 33    | 27    | 22    | 19    | 16     | min |
| 200W 12V | 3x36 | 61    | 48    | 39    | 33    | 28    | 25     | min |
| 200W 12V | 3x40 | 71    | 55    | 45    | 38    | 33    | 28     | min |
| 200W 12V | 4x36 | 88    | 72    | 57    | 48    | 42    | 37     | min |
| 200W 12V | 4x40 | 97    | 81    | 67    | 55    | 47    | 41     | min |

*Table 11. The battery backup table is given with end voltage 1.70 VPC and temperature +25°C. The batteries are fully charged and measured after min. (5) full discharge cycles.*

## Runtime Charts For Eaton 93PM 30-100kW UPS

External battery back-up table for UPS ratings 30-50 kVA, **p.f. 1.0**:

| Battery  | Qty  | 10kVA | 15kVA | 20kVA | 25kVA | 30kVA | 35kVA | 40kVA | 45kVA | 50kVA |     |
|----------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----|
| 200W 12V | 1x36 | 98    | 60    | 42    | 31    | 26    | 20    | 17    | 14    | 12    | min |
| 200W 12V | 2x36 | 189   | 119   | 98    | 78    | 61    | 50    | 42    | 37    | 32    | min |
| 200W 12V | 3x36 | 339   | 189   | 139   | 112   | 99    | 85    | 73    | 61    | 53    | min |
| 200W 12V | 4x36 | 467   | 283   | 189   | 150   | 119   | 109   | 99    | 88    | 79    | min |

External battery back-up table for UPS ratings 80-100 kVA, **p.f. 1.0**:

| Battery  | Qty  | 50kVA | 60kVA | 70kVA | 80kVA | 90kVA | 100kVA |     |
|----------|------|-------|-------|-------|-------|-------|--------|-----|
| 200W 12V | 1x36 | 11    | 8     | 5     | -     | -     | -      | min |
| 200W 12V | 1x40 | 14    | 10    | 7     | 5     | -     | -      | min |
| 200W 12V | 2x36 | 31    | 25    | 20    | 16    | 14    | 11     | min |
| 200W 12V | 2x40 | 36    | 28    | 23    | 19    | 16    | 14     | min |
| 200W 12V | 3x36 | 53    | 42    | 35    | 29    | 25    | 21     | min |
| 200W 12V | 3x40 | 61    | 48    | 39    | 33    | 28    | 25     | min |
| 200W 12V | 4x36 | 79    | 61    | 50    | 42    | 37    | 32     | min |
| 200W 12V | 4x40 | 88    | 71    | 57    | 48    | 41    | 36     | min |

*Table 12. The battery backup table is given with end voltage 1.70 VPC and temperature +25°C. The batteries are fully charged and measured after min. (5) full discharge cycles.*

**Note!**

The specifications are subject to change without a notice.

For 30-60kVA models only 36 battery block strings are used. For 80kW-200kW models 36 and 40 battery block strings are available. There are either 36 or 40 battery blocks in one cabinet.

**Small battery cabinet with CSB HRL12200W batteries for 30-60kVA UPSs:**

P-105000017-004      93P/E-BAT-S-1x36-200W (200A)

**Small battery cabinet with CSB HRL12200W batteries for 80-100kVA UPS:**

P-105000018-002      93P/E-BAT-S-1x36-200W (400A)

P-105000018-003      93P/E-BAT-S-1x40-200W (400A)

# Runtime Charts

## For Eaton 93PM 30-100kW UPS

### 10-year battery (GNB XP12V1800) in Small Battery Cabinet

External battery back-up table for UPS ratings 30-50 kVA, **p.f. 0.8**:

| Battery   | Qty  | 10<br>kVA | 15<br>kVA | 20<br>kVA | 25<br>kVA | 30<br>kVA | 35<br>kVA | 40<br>kVA | 45<br>kVA | 50<br>kVA | 60<br>kVA |     |
|-----------|------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----|
| XP12V1800 | 1x36 | 153       | 99        | 66        | 49        | 40        | 32        | 27        | 22        | 19        | 14        | min |
| XP12V1800 | 1x40 | 171       | 109       | 79        | 56        | 44        | 38        | 31        | 26        | 22        | 17        | min |
| XP12V1800 | 2x36 | 348       | 220       | 153       | 115       | 99        | 82        | 66        | 56        | 49        | 40        | min |
| XP12V1800 | 2x40 | 396       | 250       | 171       | 130       | 109       | 94        | 79        | 64        | 56        | 44        | min |
| XP12V1800 | 3x36 | 528       | 348       | 254       | 187       | 153       | 122       | 110       | 99        | 88        | 66        | min |
| XP12V1800 | 3x40 | 587       | 396       | 281       | 220       | 171       | 144       | 119       | 109       | 99        | 79        | min |
| XP12V1800 | 4x36 | >600      | 466       | 348       | 271       | 220       | 176       | 153       | 130       | 115       | 99        | min |
| XP12V1800 | 4x40 | >600      | 520       | 396       | 296       | 250       | 205       | 171       | 151       | 130       | 109       | min |

External battery back-up table for UPS ratings 80-100 kVA, **p.f. 0.8**:

| Battery   | Qty  | 50kVA | 60kVA | 70kVA | 80kVA | 90kVA | 100kVA |     |
|-----------|------|-------|-------|-------|-------|-------|--------|-----|
| XP12V1800 | 1x36 | 19    | 14    | 11    | 9     | 8     | 7      | min |
| XP12V1800 | 1x40 | 22    | 17    | 13    | 11    | 9     | 8      | min |
| XP12V1800 | 2x36 | 49    | 40    | 32    | 27    | 22    | 19     | min |
| XP12V1800 | 2x40 | 56    | 44    | 38    | 31    | 26    | 22     | min |
| XP12V1800 | 3x36 | 88    | 66    | 54    | 45    | 40    | 35     | min |
| XP12V1800 | 3x40 | 99    | 79    | 60    | 52    | 44    | 40     | min |
| XP12V1800 | 4x36 | 115   | 99    | 82    | 66    | 56    | 49     | min |
| XP12V1800 | 4x40 | 130   | 109   | 94    | 79    | 64    | 56     | min |

Table 13. The battery backup table is given with end voltage 1.70 VPC and temperature +25°C.  
The batteries are fully charged and measured after min. (5) full discharge cycles.



## Runtime Charts For Eaton 93PM 30-100kW UPS

External battery back-up table for UPS ratings 30-50 kVA, **p.f. 0.9**:

| Battery   | Qty  | 10 kVA | 15 kVA | 20 kVA | 25 kVA | 30 kVA | 35 kVA | 40 kVA | 45 kVA | 50 kVA | 60 kVA |     |
|-----------|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-----|
| XP12V1800 | 1x36 | 130    | 86     | 56     | 43     | 34     | 27     | 22     | 18     | 15     | 12     | min |
| XP12V1800 | 1x40 | 151    | 98     | 64     | 48     | 39     | 32     | 26     | 22     | 18     | 14     | min |
| XP12V1800 | 2x36 | 296    | 183    | 130    | 105    | 86     | 68     | 56     | 48     | 43     | 34     | min |
| XP12V1800 | 2x40 | 343    | 217    | 151    | 114    | 98     | 81     | 64     | 55     | 48     | 39     | min |
| XP12V1800 | 3x36 | 466    | 296    | 220    | 164    | 130    | 111    | 99     | 86     | 74     | 56     | min |
| XP12V1800 | 3x40 | 520    | 343    | 250    | 183    | 151    | 120    | 109    | 98     | 86     | 64     | min |
| XP12V1800 | 4x36 | >600   | 422    | 296    | 239    | 183    | 156    | 130    | 114    | 105    | 86     | min |
| XP12V1800 | 4x40 | >600   | 462    | 343    | 267    | 217    | 174    | 151    | 127    | 114    | 98     | min |

External battery back-up table for UPS ratings 80-100 kVA, **p.f. 0.9**:

| Battery   | Qty  | 50kVA | 60kVA | 70kVA | 80kVA | 90kVA | 100kVA |     |
|-----------|------|-------|-------|-------|-------|-------|--------|-----|
| XP12V1800 | 1x36 | 15    | 12    | 10    | 8     | 7     | 5      | min |
| XP12V1800 | 1x40 | 18    | 14    | 11    | 9     | 8     | 7      | min |
| XP12V1800 | 2x36 | 43    | 34    | 27    | 22    | 18    | 15     | min |
| XP12V1800 | 2x40 | 48    | 39    | 32    | 26    | 22    | 18     | min |
| XP12V1800 | 3x36 | 74    | 56    | 46    | 40    | 34    | 29     | min |
| XP12V1800 | 3x40 | 86    | 64    | 53    | 44    | 39    | 34     | min |
| XP12V1800 | 4x36 | 105   | 86    | 68    | 56    | 48    | 43     | min |
| XP12V1800 | 4x40 | 114   | 98    | 81    | 64    | 55    | 48     | min |

*Table 14. The battery backup table is given with end voltage 1.70 VPC and temperature +25°C. The batteries are fully charged and measured after min. (5) full discharge cycles.*

# Runtime Charts

## For Eaton 93PM 30-100kW UPS

External battery back-up table for UPS ratings 30-50 kVA, **p.f. 1.0**:

| Battery   | Qty  | 10<br>kVA | 15<br>kVA | 20<br>kVA | 25<br>kVA | 30<br>kVA | 35<br>kVA | 40<br>kVA | 45<br>kVA | 50<br>kVA | 60<br>kVA |     |
|-----------|------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----|
| XP12V1800 | 1x36 | 115       | 74        | 49        | 38        | 29        | 23        | 19        | 15        | 13        | 10        | min |
| XP12V1800 | 1x40 | 130       | 86        | 56        | 43        | 34        | 27        | 22        | 18        | 15        | 12        | min |
| XP12V1800 | 2x36 | 271       | 164       | 115       | 95        | 74        | 57        | 49        | 43        | 38        | 29        | min |
| XP12V1800 | 2x40 | 296       | 183       | 130       | 105       | 86        | 68        | 56        | 48        | 43        | 34        | min |
| XP12V1800 | 3x36 | 427       | 271       | 187       | 145       | 115       | 102       | 88        | 74        | 60        | 49        | min |
| XP12V1800 | 3x40 | 466       | 296       | 220       | 164       | 130       | 111       | 99        | 86        | 74        | 56        | min |
| XP12V1800 | 4x36 | 565       | 378       | 271       | 208       | 164       | 136       | 115       | 105       | 95        | 74        | min |
| XP12V1800 | 4x40 | >600      | 422       | 296       | 239       | 183       | 156       | 130       | 114       | 105       | 86        | min |

External battery back-up table for UPS ratings 80-100 kVA, **p.f. 1.0**:

| Battery   | Qty  | 50kVA | 60kVA | 70kVA | 80kVA | 90kVA | 100kVA |     |
|-----------|------|-------|-------|-------|-------|-------|--------|-----|
| XP12V1800 | 1x36 | 13    | 10    | 8     | 7     | 5     | -      | min |
| XP12V1800 | 1x40 | 15    | 12    | 10    | 8     | 7     | 5      | min |
| XP12V1800 | 2x36 | 38    | 29    | 23    | 19    | 15    | 13     | min |
| XP12V1800 | 2x40 | 43    | 34    | 27    | 22    | 18    | 15     | min |
| XP12V1800 | 3x36 | 60    | 49    | 41    | 35    | 29    | 25     | min |
| XP12V1800 | 3x40 | 74    | 56    | 46    | 40    | 34    | 29     | min |
| XP12V1800 | 4x36 | 95    | 74    | 57    | 49    | 43    | 38     | min |
| XP12V1800 | 4x40 | 105   | 86    | 68    | 56    | 48    | 43     | min |

Table 15. The battery backup table is given with end voltage 1.70 VPC and temperature +25°C.  
The batteries are fully charged and measured after min. (5) full discharge cycles.

**Note!**

The specifications are subject to change without a notice.

For 30-60kVA models only 36 battery block strings are used. For 80kW-200kW models 36 and 40 battery block strings are available. There are either 36 or 40 battery blocks in one cabinet.

**Small battery cabinet with GNB XP12V1800 batteries for 30-60kVA UPSs:**

P-105000017-007      93P/E-BAT-S-1x36-GNB XP12V1800 (200A)

**Small battery cabinets with GNB XP12V1800 batteries for 80-100kVA UPSs:**

P-105000018-004      93P/E-BAT-S-1x36-GNB XP12V1800 (400A)

P-105000018-005      93P/E-BAT-S-1x40-GNB XP12V1800 (400A)

# Runtime Charts

## For Eaton 93PM 30-100kW UPS

### 10-year battery (GNB P12V875) in Small Battery Cabinet

External battery back-up table for UPS ratings 30-60 kVA, **p.f. 0.8**:

| Battery | Qty  | 10<br>kVA | 15<br>kVA | 20<br>kVA | 25<br>kVA | 30<br>kVA | 35<br>kVA | 40<br>kVA | 45<br>kVA | 50<br>kVA | 60<br>kVA |     |
|---------|------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----|
| P12V875 | 1x36 | 102       | 54        | 36        | 26        | 19        | 16        | 13        | 11        | 9         | 7         | min |
| P12V875 | 2x36 | 245       | 144       | 102       | 75        | 54        | 44        | 37        | 30        | 26        | 20        | min |
| P12V875 | 3x36 | 382       | 245       | 167       | 122       | 102       | 85        | 67        | 55        | 47        | 37        | min |
| P12V875 | 4x36 | 497       | 330       | 245       | 178       | 144       | 116       | 103       | 89        | 76        | 55        | min |

*Table 16. The battery backup table is given with end voltage 1.70 VPC and temperature +25°C. The batteries are fully charged and measured after min. (5) full discharge cycles.*

External battery back-up table for UPS ratings 30-60 kVA, **p.f. 0.9**:

| Battery | Qty  | 10<br>kVA | 15<br>kVA | 20<br>kVA | 25<br>kVA | 30<br>kVA | 35<br>kVA | 40<br>kVA | 45<br>kVA | 50<br>kVA | 60<br>kVA |     |
|---------|------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----|
| P12V875 | 1x36 | 89        | 45        | 29        | 22        | 16        | 14        | 11        | 9         | 8         | 5         | min |
| P12V875 | 2x36 | 211       | 119       | 89        | 59        | 45        | 38        | 30        | 26        | 22        | 17        | min |
| P12V875 | 3x36 | 330       | 211       | 144       | 109       | 89        | 69        | 55        | 46        | 40        | 30        | min |
| P12V875 | 4x36 | 448       | 287       | 211       | 157       | 119       | 105       | 89        | 74        | 60        | 46        | min |

*Table 17. The battery backup table is given with end voltage 1.70 VPC and temperature +25°C. The batteries are fully charged and measured after min. (5) full discharge cycles.*

External battery back-up table for UPS ratings 30-50 kVA, **p.f. 1.0**:

| Battery | Qty  | 10<br>kVA | 15<br>kVA | 20<br>kVA | 25<br>kVA | 30<br>kVA | 35<br>kVA | 40<br>kVA | 45<br>kVA | 50<br>kVA |     |
|---------|------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----|
| P12V875 | 1x36 | 75        | 40        | 26        | 18        | 14        | 12        | 9         | 8         | 6         | min |
| P12V875 | 2x36 | 178       | 109       | 75        | 51        | 40        | 32        | 26        | 22        | 19        | min |
| P12V875 | 3x36 | 290       | 178       | 122       | 98        | 75        | 57        | 47        | 40        | 34        | min |
| P12V875 | 4x36 | 409       | 262       | 178       | 136       | 109       | 93        | 76        | 60        | 52        | min |

*Table 18. The battery backup table is given with end voltage 1.70 VPC and temperature +25°C. The batteries are fully charged and measured after min. (5) full discharge cycles.*

**Note!**

The specifications are subject to change without a notice.

**Small battery cabinet with GNB P12V875 batteries for 30-60kVA UPSs:**

P-105000017-006      93P/E-BAT-S-1x36-GNB P12V875 (200A)

# Runtime Charts

## For Eaton 93PM 30-100kW UPS

### External batteries with internal batteries (5-year)

#### **CSB HRL12110W with 9Ah 5-year battery**

External battery and 6 internal strings back-up table for UPS ratings 30-50 kVA, **p.f. 0.8:**

| Internal battery |      | External battery |      | 10kVA | 15kVA | 20kVA | 25kVA | 30kVA | 35kVA | 40kVA | 45kVA | 50kVA | 60kVA |
|------------------|------|------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Battery          | Qty  | Battery          | Qty  |       |       |       |       |       |       |       |       |       |       |
| 9Ah              | 6x36 | 110W             | 1x36 | 171   | 101   | 66    | 51    | 42    | 33    | 27    | 23    | 20    | 17    |
| 9Ah              | 6x36 | 110W             | 2x36 | 259   | 153   | 103   | 81    | 63    | 50    | 42    | 36    | 32    | 26    |
| 9Ah              | 6x36 | 110W             | 3x36 | 343   | 215   | 144   | 112   | 89    | 75    | 62    | 52    | 43    | 36    |
| 9Ah              | 6x36 | 110W             | 4x36 | 441   | 271   | 191   | 145   | 115   | 97    | 80    | 71    | 62    | 47    |

Table 19. The battery backup table is given with end voltage 1.70 VPC and temperature +25°C.  
The batteries are fully charged and measured after min. (5) full discharge cycles.

External battery and 6 internal strings back-up table for UPS ratings 30-50 kVA, **p.f. 0.9:**

| Internal battery |      | External battery |      | 10kVA | 15kVA | 20kVA | 25kVA | 30kVA | 35kVA | 40kVA | 45kVA | 50kVA | 60kVA |
|------------------|------|------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Battery          | Qty  | Battery          | Qty  |       |       |       |       |       |       |       |       |       |       |
| 9Ah              | 6x36 | 110W             | 1x36 | 149   | 82    | 58    | 44    | 35    | 28    | 23    | 19    | 17    | 14    |
| 9Ah              | 6x36 | 110W             | 2x36 | 221   | 130   | 92    | 68    | 52    | 44    | 36    | 31    | 28    | 21    |
| 9Ah              | 6x36 | 110W             | 3x36 | 300   | 179   | 125   | 97    | 78    | 64    | 52    | 42    | 38    | 30    |
| 9Ah              | 6x36 | 110W             | 4x36 | 378   | 230   | 164   | 124   | 101   | 83    | 71    | 61    | 52    | 38    |

Table 20. The battery backup table is given with end voltage 1.70 VPC and temperature +25°C.  
The batteries are fully charged and measured after min. (5) full discharge cycles.

External battery and 6 internal strings back-up table for UPS ratings 30-50 kVA, **p.f. 1.0:**

| Internal battery |      | External battery |      | 10kVA | 15kVA | 20kVA | 25kVA | 30kVA | 35kVA | 40kVA | 45kVA | 50kVA |
|------------------|------|------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Battery          | Qty  | Battery          | Qty  |       |       |       |       |       |       |       |       |       |
| 9Ah              | 6x36 | 110W             | 1x36 | 132   | 70    | 51    | 40    | 30    | 24    | 20    | 17    | 15    |
| 9Ah              | 6x36 | 110W             | 2x36 | 195   | 112   | 81    | 58    | 46    | 37    | 32    | 28    | 24    |
| 9Ah              | 6x36 | 110W             | 3x36 | 263   | 155   | 112   | 85    | 68    | 54    | 43    | 38    | 33    |
| 9Ah              | 6x36 | 110W             | 4x36 | 335   | 204   | 144   | 111   | 89    | 72    | 62    | 52    | 42    |

Table 21. The battery backup table is given with end voltage 1.70 VPC and temperature +25°C.  
The batteries are fully charged and measured after min. (5) full discharge cycles.

**Note!**

The specifications are subject to change without a notice.

# Runtime Charts

## For Eaton 93PM 30-100kW UPS

### CSB HRL12200W with 9Ah 5-year battery

External battery and 6 internal strings back-up table for UPS ratings 30-50 kVA, **p.f. 0.8:**

| Internal battery |      | External battery |      | 10kVA | 15kVA | 20kVA | 25kVA | 30kVA | 35kVA | 40kVA | 45kVA | 50kVA | 60kVA |
|------------------|------|------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Battery          | Qty  | Battery          | Qty  |       |       |       |       |       |       |       |       |       |       |
| 9Ah              | 6x36 | 200W             | 1x36 | 224   | 148   | 98    | 75    | 61    | 50    | 41    | 35    | 31    | 24    |
| 9Ah              | 6x36 | 200W             | 2x36 | 367   | 223   | 157   | 132   | 110   | 90    | 74    | 64    | 56    | 45    |
| 9Ah              | 6x36 | 200W             | 3x36 | 551   | 323   | 217   | 173   | 142   | 126   | 111   | 99    | 87    | 68    |
| 9Ah              | 6x36 | 200W             | 4x36 | 702   | 456   | 299   | 225   | 185   | 153   | 133   | 123   | 113   | 95    |

Table 22. The battery backup table is given with end voltage 1.70 VPC and temperature +25°C.  
The batteries are fully charged and measured after min. (5) full discharge cycles.

External battery and 6 internal strings back-up table for UPS ratings 30-50 kVA, **p.f. 0.9:**

| Internal battery |      | External battery |      | 10kVA | 15kVA | 20kVA | 25kVA | 30kVA | 35kVA | 40kVA | 45kVA | 50kVA | 60kVA |
|------------------|------|------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Battery          | Qty  | Battery          | Qty  |       |       |       |       |       |       |       |       |       |       |
| 9Ah              | 6x36 | 200W             | 1x36 | 201   | 124   | 86    | 65    | 52    | 43    | 35    | 30    | 26    | 20    |
| 9Ah              | 6x36 | 200W             | 2x36 | 314   | 189   | 144   | 116   | 95    | 76    | 64    | 55    | 49    | 38    |
| 9Ah              | 6x36 | 200W             | 3x36 | 485   | 272   | 195   | 147   | 130   | 113   | 99    | 85    | 73    | 58    |
| 9Ah              | 6x36 | 200W             | 4x36 | 619   | 386   | 257   | 197   | 161   | 135   | 123   | 110   | 100   | 82    |

Table 23. The battery backup table is given with end voltage 1.70 VPC and temperature +25°C.  
The batteries are fully charged and measured after min. (5) full discharge cycles.

External battery and 6 internal strings back-up table for UPS ratings 30-50 kVA, **p.f. 1.0:**

| Internal battery |      | External battery |      | 10kVA | 15kVA | 20kVA | 25kVA | 30kVA | 35kVA | 40kVA | 45kVA | 50kVA |
|------------------|------|------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Battery          | Qty  | Battery          | Qty  |       |       |       |       |       |       |       |       |       |
| 9Ah              | 6x36 | 200W             | 1x36 | 182   | 104   | 75    | 57    | 46    | 36    | 31    | 26    | 22    |
| 9Ah              | 6x36 | 200W             | 2x36 | 273   | 163   | 131   | 104   | 81    | 66    | 56    | 49    | 42    |
| 9Ah              | 6x36 | 200W             | 3x36 | 423   | 233   | 172   | 138   | 119   | 101   | 87    | 73    | 63    |
| 9Ah              | 6x36 | 200W             | 4x36 | 551   | 327   | 222   | 176   | 139   | 125   | 113   | 100   | 89    |

Table 24. The battery backup table is given with end voltage 1.70 VPC and temperature +25°C.  
The batteries are fully charged and measured after min. (5) full discharge cycles.

**Note!**

The specifications are subject to change without a notice.

# Runtime Charts

## For Eaton 93PM 30-100kW UPS

### GNB XP12V1800 with 9Ah 5-year battery

External battery and 6 internal strings back-up table for UPS ratings 30-50 kVA, **p.f. 0.8:**

| Internal battery |      | External battery |      | 10kVA | 15kVA | 20kVA | 25kVA | 30kVA | 35kVA | 40kVA | 45kVA | 50kVA | 60kVA |
|------------------|------|------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Battery          | Qty  | Battery          | Qty  |       |       |       |       |       |       |       |       |       |       |
| 9Ah              | 6x36 | XP12             | 1x36 | 263   | 165   | 108   | 82    | 67    | 54    | 45    | 38    | 33    | 26    |
| 9Ah              | 6x36 | XP12             | 2x36 | 458   | 286   | 195   | 148   | 126   | 104   | 84    | 72    | 63    | 52    |
| 9Ah              | 6x36 | XP12             | 3x36 | >600  | 414   | 296   | 220   | 180   | 144   | 128   | 115   | 102   | 78    |
| 9Ah              | 6x36 | XP12             | 4x36 | >600  | 532   | 390   | 304   | 247   | 198   | 171   | 146   | 129   | 111   |

Table 25. The battery backup table is given with end voltage 1.70 VPC and temperature +25°C.  
The batteries are fully charged and measured after min. (5) full discharge cycles.

External battery and 6 internal strings back-up table for UPS ratings 30-50 kVA, **p.f. 0.9:**

| Internal battery |      | External battery |      | 10kVA | 15kVA | 20kVA | 25kVA | 30kVA | 35kVA | 40kVA | 45kVA | 50kVA | 60kVA |
|------------------|------|------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Battery          | Qty  | Battery          | Qty  |       |       |       |       |       |       |       |       |       |       |
| 9Ah              | 6x36 | XP12             | 1x36 | 225   | 139   | 94    | 71    | 57    | 46    | 38    | 31    | 27    | 22    |
| 9Ah              | 6x36 | XP12             | 2x36 | 391   | 236   | 168   | 133   | 109   | 87    | 72    | 61    | 55    | 44    |
| 9Ah              | 6x36 | XP12             | 3x36 | 561   | 349   | 258   | 192   | 153   | 130   | 115   | 99    | 86    | 66    |
| 9Ah              | 6x36 | XP12             | 4x36 | >600  | 475   | 334   | 267   | 206   | 175   | 146   | 127   | 117   | 96    |

Table 26. The battery backup table is given with end voltage 1.70 VPC and temperature +25°C.  
The batteries are fully charged and measured after min. (5) full discharge cycles.

External battery and 6 internal strings back-up table for UPS ratings 30-50 kVA, **p.f. 1.0:**

| Internal battery |      | External battery |      | 10kVA | 15kVA | 20kVA | 25kVA | 30kVA | 35kVA | 40kVA | 45kVA | 50kVA |
|------------------|------|------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Battery          | Qty  | Battery          | Qty  |       |       |       |       |       |       |       |       |       |
| 9Ah              | 6x36 | XP12             | 1x36 | 199   | 118   | 82    | 64    | 49    | 39    | 34    | 27    | 23    |
| 9Ah              | 6x36 | XP12             | 2x36 | 355   | 208   | 148   | 121   | 94    | 73    | 64    | 55    | 48    |
| 9Ah              | 6x36 | XP12             | 3x36 | 511   | 315   | 220   | 171   | 135   | 118   | 103   | 86    | 70    |
| 9Ah              | 6x36 | XP12             | 4x36 | >600  | 422   | 304   | 234   | 184   | 152   | 130   | 117   | 105   |

Table 27. The battery backup table is given with end voltage 1.70 VPC and temperature +25°C.  
The batteries are fully charged and measured after min. (5) full discharge cycles.

**Note!**

The specifications are subject to change without a notice.

# Runtime Charts

## For Eaton 93PM 30-100kW UPS

### GNB P12V875 with 9Ah 5-year battery

External battery and 6 internal strings back-up table for UPS ratings 30-50 kVA, **p.f. 0.8:**

| Internal battery |      | External battery |      | 10kVA | 15kVA | 20kVA | 25kVA | 30kVA | 35kVA | 40kVA | 45kVA | 50kVA | 60kVA |
|------------------|------|------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Battery          | Qty  | Battery          | Qty  |       |       |       |       |       |       |       |       |       |       |
| 9Ah              | 6x36 | P12              | 1x36 | 212   | 120   | 78    | 59    | 46    | 38    | 31    | 27    | 23    | 19    |
| 9Ah              | 6x36 | P12              | 2x36 | 355   | 210   | 144   | 108   | 81    | 66    | 55    | 46    | 40    | 32    |
| 9Ah              | 6x36 | P12              | 3x36 | 492   | 311   | 209   | 155   | 129   | 107   | 85    | 71    | 61    | 49    |
| 9Ah              | 6x36 | P12              | 4x36 | 607   | 396   | 287   | 211   | 171   | 138   | 121   | 105   | 90    | 67    |

Table 28. The battery backup table is given with end voltage 1.70 VPC and temperature +25°C.  
The batteries are fully charged and measured after min. (5) full discharge cycles.

External battery and 6 internal strings back-up table for UPS ratings 30-50 kVA, **p.f. 0.9:**

| Internal battery |      | External battery |      | 10kVA | 15kVA | 20kVA | 25kVA | 30kVA | 35kVA | 40kVA | 45kVA | 50kVA | 60kVA |
|------------------|------|------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Battery          | Qty  | Battery          | Qty  |       |       |       |       |       |       |       |       |       |       |
| 9Ah              | 6x36 | P12              | 1x36 | 184   | 98    | 67    | 50    | 39    | 33    | 27    | 22    | 20    | 15    |
| 9Ah              | 6x36 | P12              | 2x36 | 306   | 172   | 127   | 87    | 68    | 57    | 46    | 39    | 34    | 27    |
| 9Ah              | 6x36 | P12              | 3x36 | 425   | 264   | 182   | 137   | 112   | 88    | 71    | 59    | 52    | 40    |
| 9Ah              | 6x36 | P12              | 4x36 | 543   | 340   | 249   | 185   | 142   | 124   | 105   | 87    | 72    | 56    |

Table 29. The battery backup table is given with end voltage 1.70 VPC and temperature +25°C.  
The batteries are fully charged and measured after min. (5) full discharge cycles.

External battery and 6 internal strings back-up table for UPS ratings 30-50 kVA, **p.f. 1.0:**

| Internal battery |      | External battery |      | 10kVA | 15kVA | 20kVA | 25kVA | 30kVA | 35kVA | 40kVA | 45kVA | 50kVA |
|------------------|------|------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Battery          | Qty  | Battery          | Qty  |       |       |       |       |       |       |       |       |       |
| 9Ah              | 6x36 | P12              | 1x36 | 159   | 84    | 59    | 44    | 34    | 28    | 24    | 20    | 16    |
| 9Ah              | 6x36 | P12              | 2x36 | 262   | 153   | 108   | 77    | 60    | 48    | 41    | 34    | 29    |
| 9Ah              | 6x36 | P12              | 3x36 | 374   | 222   | 155   | 124   | 95    | 73    | 62    | 52    | 44    |
| 9Ah              | 6x36 | P12              | 4x36 | 493   | 306   | 211   | 162   | 129   | 109   | 91    | 72    | 62    |

Table 30. The battery backup table is given with end voltage 1.70 VPC and temperature +25°C.  
The batteries are fully charged and measured after min. (5) full discharge cycles.

**Note!**

The specifications are subject to change without a notice.



# Runtime Charts

## For Eaton 93PM 30-100kW UPS

### External batteries with internal batteries (10-year)

#### **CSB HRL12110W with 7Ah 10-year battery**

External battery and 6 internal strings back-up table for UPS ratings 30-50 kVA, **p.f. 0.8:**

| Internal battery |      | External battery |      | 10kVA | 15kVA | 20kVA | 25kVA | 30kVA | 35kVA | 40kVA | 45kVA | 50kVA | 60kVA |
|------------------|------|------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Battery          | Qty  | Battery          | Qty  |       |       |       |       |       |       |       |       |       |       |
| 7Ah              | 6x36 | 110W             | 1x36 | 156   | 92    | 65    | 46    | 37    | 28    | 23    | 19    | 15    | 12    |
| 7Ah              | 6x36 | 110W             | 2x36 | 244   | 144   | 102   | 76    | 58    | 45    | 38    | 32    | 27    | 21    |
| 7Ah              | 6x36 | 110W             | 3x36 | 328   | 206   | 143   | 107   | 84    | 70    | 58    | 48    | 38    | 31    |
| 7Ah              | 6x36 | 110W             | 4x36 | 426   | 262   | 190   | 140   | 110   | 92    | 76    | 67    | 57    | 42    |

Table 31. The battery backup table is given with end voltage 1.70 VPC and temperature +25°C.  
The batteries are fully charged and measured after min. (5) full discharge cycles.

External battery and 6 internal strings back-up table for UPS ratings 30-50 kVA, **p.f. 0.9:**

| Internal battery |      | External battery |      | 10kVA | 15kVA | 20kVA | 25kVA | 30kVA | 35kVA | 40kVA | 45kVA | 50kVA | 60kVA |
|------------------|------|------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Battery          | Qty  | Battery          | Qty  |       |       |       |       |       |       |       |       |       |       |
| 7Ah              | 6x36 | 110W             | 1x36 | 136   | 80    | 54    | 41    | 30    | 23    | 19    | 15    | 13    | 9     |
| 7Ah              | 6x36 | 110W             | 2x36 | 208   | 128   | 88    | 65    | 47    | 39    | 32    | 27    | 24    | 16    |
| 7Ah              | 6x36 | 110W             | 3x36 | 287   | 177   | 121   | 94    | 73    | 59    | 48    | 38    | 34    | 25    |
| 7Ah              | 6x36 | 110W             | 4x36 | 365   | 228   | 160   | 121   | 96    | 78    | 67    | 57    | 48    | 33    |

Table 32. The battery backup table is given with end voltage 1.70 VPC and temperature +25°C.  
The batteries are fully charged and measured after min. (5) full discharge cycles.

External battery and 6 internal strings back-up table for UPS ratings 30-50 kVA, **p.f. 1.0:**

| Internal battery |      | External battery |      | 10kVA | 15kVA | 20kVA | 25kVA | 30kVA | 35kVA | 40kVA | 45kVA | 50kVA |
|------------------|------|------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Battery          | Qty  | Battery          | Qty  |       |       |       |       |       |       |       |       |       |
| 7Ah              | 6x36 | 110W             | 1x36 | 121   | 71    | 46    | 35    | 25    | 20    | 16    | 12    | 10    |
| 7Ah              | 6x36 | 110W             | 2x36 | 184   | 113   | 76    | 53    | 41    | 33    | 28    | 23    | 20    |
| 7Ah              | 6x36 | 110W             | 3x36 | 252   | 156   | 107   | 80    | 63    | 50    | 39    | 33    | 29    |
| 7Ah              | 6x36 | 110W             | 4x36 | 324   | 205   | 139   | 106   | 84    | 68    | 58    | 47    | 38    |

Table 33. The battery backup table is given with end voltage 1.70 VPC and temperature +25°C.  
The batteries are fully charged and measured after min. (5) full discharge cycles.

**Note!**

The specifications are subject to change without a notice.



# Runtime Charts

## For Eaton 93PM 30-100kW UPS

### CSB HRL12200W with 7Ah 10-year battery

External battery and 6 internal strings back-up table for UPS ratings 30-50 kVA, **p.f. 0.8:**

| Internal battery |      | External battery |      | 10kVA | 15kVA | 20kVA | 25kVA | 30kVA | 35kVA | 40kVA | 45kVA | 50kVA | 60kVA |
|------------------|------|------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Battery          | Qty  | Battery          | Qty  |       |       |       |       |       |       |       |       |       |       |
| 7Ah              | 6x36 | 200W             | 1x36 | 209   | 139   | 97    | 70    | 56    | 45    | 37    | 31    | 26    | 19    |
| 7Ah              | 6x36 | 200W             | 2x36 | 352   | 214   | 156   | 127   | 105   | 85    | 70    | 60    | 51    | 40    |
| 7Ah              | 6x36 | 200W             | 3x36 | 536   | 314   | 216   | 168   | 137   | 121   | 107   | 95    | 82    | 63    |
| 7Ah              | 6x36 | 200W             | 4x36 | 687   | 447   | 298   | 220   | 180   | 148   | 129   | 119   | 108   | 90    |

Table 34. The battery backup table is given with end voltage 1.70 VPC and temperature +25°C.  
The batteries are fully charged and measured after min. (5) full discharge cycles.

External battery and 6 internal strings back-up table for UPS ratings 30-50 kVA, **p.f. 0.9:**

| Internal battery |      | External battery |      | 10kVA | 15kVA | 20kVA | 25kVA | 30kVA | 35kVA | 40kVA | 45kVA | 50kVA | 60kVA |
|------------------|------|------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Battery          | Qty  | Battery          | Qty  |       |       |       |       |       |       |       |       |       |       |
| 7Ah              | 6x36 | 200W             | 1x36 | 188   | 122   | 82    | 62    | 47    | 38    | 31    | 26    | 22    | 15    |
| 7Ah              | 6x36 | 200W             | 2x36 | 301   | 187   | 140   | 113   | 90    | 71    | 60    | 51    | 45    | 33    |
| 7Ah              | 6x36 | 200W             | 3x36 | 472   | 270   | 191   | 144   | 125   | 108   | 95    | 81    | 69    | 53    |
| 7Ah              | 6x36 | 200W             | 4x36 | 606   | 384   | 253   | 194   | 156   | 130   | 119   | 106   | 96    | 77    |

Table 35. The battery backup table is given with end voltage 1.70 VPC and temperature +25°C.  
The batteries are fully charged and measured after min. (5) full discharge cycles.

External battery and 6 internal strings back-up table for UPS ratings 30-50 kVA, **p.f. 1.0:**

| Internal battery |      | External battery |      | 10kVA | 15kVA | 20kVA | 25kVA | 30kVA | 35kVA | 40kVA | 45kVA | 50kVA |
|------------------|------|------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Battery          | Qty  | Battery          | Qty  |       |       |       |       |       |       |       |       |       |
| 7Ah              | 6x36 | 200W             | 1x36 | 171   | 105   | 70    | 52    | 41    | 32    | 27    | 21    | 18    |
| 7Ah              | 6x36 | 200W             | 2x36 | 262   | 164   | 126   | 99    | 76    | 62    | 52    | 44    | 38    |
| 7Ah              | 6x36 | 200W             | 3x36 | 412   | 234   | 167   | 133   | 114   | 97    | 83    | 68    | 59    |
| 7Ah              | 6x36 | 200W             | 4x36 | 540   | 328   | 217   | 171   | 134   | 121   | 109   | 95    | 85    |

Table 36. The battery backup table is given with end voltage 1.70 VPC and temperature +25°C.  
The batteries are fully charged and measured after min. (5) full discharge cycles.

**Note!**

The specifications are subject to change without a notice.

# Runtime Charts

## For Eaton 93PM 30-100kW UPS

### GNB XP12V1800 with 7Ah 10-year battery

External battery and 6 internal strings back-up table for UPS ratings 30-50 kVA, **p.f. 0.8:**

| Internal battery |      | External battery |      | 10kVA | 15kVA | 20kVA | 25kVA | 30kVA | 35kVA | 40kVA | 45kVA | 50kVA | 60kVA |
|------------------|------|------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Battery          | Qty  | Battery          | Qty  |       |       |       |       |       |       |       |       |       |       |
| 7Ah              | 6x36 | XP12             | 1x36 | 248   | 156   | 107   | 77    | 62    | 49    | 41    | 34    | 28    | 21    |
| 7Ah              | 6x36 | XP12             | 2x36 | 443   | 277   | 194   | 143   | 121   | 99    | 80    | 68    | 58    | 47    |
| 7Ah              | 6x36 | XP12             | 3x36 | >600  | 405   | 295   | 215   | 175   | 139   | 124   | 111   | 97    | 73    |
| 7Ah              | 6x36 | XP12             | 4x36 | >600  | 523   | 389   | 299   | 242   | 193   | 167   | 142   | 124   | 106   |

Table 37. The battery backup table is given with end voltage 1.70 VPC and temperature +25°C.  
The batteries are fully charged and measured after min. (5) full discharge cycles.

External battery and 6 internal strings back-up table for UPS ratings 30-50 kVA, **p.f. 0.9:**

| Internal battery |      | External battery |      | 10kVA | 15kVA | 20kVA | 25kVA | 30kVA | 35kVA | 40kVA | 45kVA | 50kVA | 60kVA |
|------------------|------|------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Battery          | Qty  | Battery          | Qty  |       |       |       |       |       |       |       |       |       |       |
| 7Ah              | 6x36 | XP12             | 1x36 | 212   | 137   | 90    | 68    | 52    | 41    | 34    | 27    | 23    | 17    |
| 7Ah              | 6x36 | XP12             | 2x36 | 378   | 234   | 164   | 130   | 104   | 82    | 68    | 57    | 51    | 39    |
| 7Ah              | 6x36 | XP12             | 3x36 | 548   | 347   | 254   | 189   | 148   | 125   | 111   | 95    | 82    | 61    |
| 7Ah              | 6x36 | XP12             | 4x36 | >600  | 473   | 330   | 264   | 201   | 170   | 142   | 123   | 113   | 91    |

Table 38. The battery backup table is given with end voltage 1.70 VPC and temperature +25°C.  
The batteries are fully charged and measured after min. (5) full discharge cycles.

External battery and 6 internal strings back-up table for UPS ratings 30-50 kVA, **p.f. 1.0:**

| Internal battery |      | External battery |      | 10kVA | 15kVA | 20kVA | 25kVA | 30kVA | 35kVA | 40kVA | 45kVA | 50kVA |
|------------------|------|------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Battery          | Qty  | Battery          | Qty  |       |       |       |       |       |       |       |       |       |
| 7Ah              | 6x36 | XP12             | 1x36 | 188   | 119   | 77    | 59    | 44    | 35    | 29    | 23    | 19    |
| 7Ah              | 6x36 | XP12             | 2x36 | 344   | 209   | 143   | 116   | 89    | 69    | 59    | 51    | 44    |
| 7Ah              | 6x36 | XP12             | 3x36 | 500   | 316   | 215   | 166   | 130   | 114   | 98    | 82    | 66    |
| 7Ah              | 6x36 | XP12             | 4x36 | >600  | 423   | 299   | 229   | 179   | 148   | 125   | 113   | 101   |

Table 39. The battery backup table is given with end voltage 1.70 VPC and temperature +25°C.  
The batteries are fully charged and measured after min. (5) full discharge cycles.

**Note!**

The specifications are subject to change without a notice.

# Runtime Charts

## For Eaton 93PM 30-100kW UPS

### GNB P12V875 with 7Ah 10-year battery

External battery and 6 internal strings back-up table for UPS ratings 30-50 kVA, **p.f. 0.8:**

| Internal battery |      | External battery |      | 10kVA | 15kVA | 20kVA | 25kVA | 30kVA | 35kVA | 40kVA | 45kVA | 50kVA | 60kVA |
|------------------|------|------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Battery          | Qty  | Battery          | Qty  |       |       |       |       |       |       |       |       |       |       |
| 7Ah              | 6x36 | P12              | 1x36 | 197   | 111   | 77    | 54    | 41    | 33    | 27    | 23    | 18    | 14    |
| 7Ah              | 6x36 | P12              | 2x36 | 340   | 201   | 143   | 103   | 76    | 61    | 51    | 42    | 35    | 27    |
| 7Ah              | 6x36 | P12              | 3x36 | 477   | 302   | 208   | 150   | 124   | 102   | 81    | 67    | 56    | 44    |
| 7Ah              | 6x36 | P12              | 4x36 | 592   | 387   | 286   | 206   | 166   | 133   | 117   | 101   | 85    | 62    |

Table 40. The battery backup table is given with end voltage 1.70 VPC and temperature +25°C.  
The batteries are fully charged and measured after min. (5) full discharge cycles.

External battery and 6 internal strings back-up table for UPS ratings 30-50 kVA, **p.f. 0.9:**

| Internal battery |      | External battery |      | 10kVA | 15kVA | 20kVA | 25kVA | 30kVA | 35kVA | 40kVA | 45kVA | 50kVA | 60kVA |
|------------------|------|------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Battery          | Qty  | Battery          | Qty  |       |       |       |       |       |       |       |       |       |       |
| 7Ah              | 6x36 | P12              | 1x36 | 171   | 96    | 63    | 47    | 34    | 28    | 23    | 18    | 16    | 10    |
| 7Ah              | 6x36 | P12              | 2x36 | 293   | 170   | 123   | 84    | 63    | 52    | 42    | 35    | 30    | 22    |
| 7Ah              | 6x36 | P12              | 3x36 | 412   | 262   | 178   | 134   | 107   | 83    | 67    | 55    | 48    | 35    |
| 7Ah              | 6x36 | P12              | 4x36 | 530   | 338   | 245   | 182   | 137   | 119   | 101   | 83    | 68    | 51    |

Table 41. The battery backup table is given with end voltage 1.70 VPC and temperature +25°C.  
The batteries are fully charged and measured after min. (5) full discharge cycles.

External battery and 6 internal strings back-up table for UPS ratings 30-50 kVA, **p.f. 1.0:**

| Internal battery |      | External battery |      | 10kVA | 15kVA | 20kVA | 25kVA | 30kVA | 35kVA | 40kVA | 45kVA | 50kVA |
|------------------|------|------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Battery          | Qty  | Battery          | Qty  |       |       |       |       |       |       |       |       |       |
| 7Ah              | 6x36 | P12              | 1x36 | 148   | 85    | 54    | 39    | 29    | 24    | 19    | 16    | 12    |
| 7Ah              | 6x36 | P12              | 2x36 | 251   | 154   | 103   | 72    | 55    | 44    | 36    | 30    | 25    |
| 7Ah              | 6x36 | P12              | 3x36 | 363   | 223   | 150   | 119   | 90    | 69    | 57    | 48    | 40    |
| 7Ah              | 6x36 | P12              | 4x36 | 482   | 307   | 206   | 157   | 124   | 105   | 86    | 68    | 58    |

Table 42. The battery backup table is given with end voltage 1.70 VPC and temperature +25°C.  
The batteries are fully charged and measured after min. (5) full discharge cycles.

**Note!**

The specifications are subject to change without a notice.

# Runtime Charts

## For Eaton 93PM 30-100kW UPS

### Internal battery and Small battery cabinet specifications

| Cabinet (P/N)             | Breaker | Net Weight            | Battery type                    | Design life | Blocks <sup>1</sup> | Used with     |
|---------------------------|---------|-----------------------|---------------------------------|-------------|---------------------|---------------|
| <i>Internal batteries</i> | 200 A   | <i>See Price list</i> | 9Ah                             | 5 years     | (1to6) x 36         | 93PM 30-50kW  |
| <i>Internal batteries</i> | 200 A   | <i>See Price list</i> | 7Ah long-life                   | 10 years    | (1to6) x 36         | 93PM 30-50kW  |
| P-105000017-001           | 200 A   | 167 kg                | EMPTY<br>M5 cables <sup>2</sup> | -           | For 36              | 93PM 30-50kW  |
| P-105000017-005           | 200 A   | 167 kg                | EMPTY<br>M6 cables <sup>2</sup> | -           | For 36              | 93PM 30-50kW  |
| P-105000017-002           | 200 A   | 517 kg                | CSB HRL 110WPC 12V              | 10 years    | 36                  | 93PM 30-50kW  |
| P-105000017-004           | 200 A   | 795 kg                | CSB HRL 200WPC 12V              | 10 years    | 36                  | 93PM 30-50kW  |
| P-105000017-006           | 200 A   | 689 kg                | GNB P12V875                     | 10 years    | 36                  | 93PM 30-50kW  |
| P-105000017-007           | 200 A   | 977 kg                | GNB XP12V1800                   | 10 years    | 36                  | 93PM 30-50kW  |
| P-105000018-001           | 400 A   | 167 kg                | EMPTY<br>M6 cables <sup>2</sup> | -           | For<br>36 or 40     | 93PM 80-100kW |
| P-105000018-002           | 400 A   | 795 kg                | CSB HRL 200WPC 12V              | 10 years    | 36                  | 93PM 80-100kW |
| P-105000018-003           | 400 A   | 872 kg                | CSB HRL 200WPC 12V              | 10 years    | 40                  | 93PM 80-100kW |
| P-105000018-004           | 400 A   | 977 kg                | GNB XP12V1800                   | 10 years    | 36                  | 93PM 80-100kW |
| P-105000018-005           | 400 A   | 1067 kg               | GNB XP12V1800                   | 10 years    | 40                  | 93PM 80-100kW |

<sup>1</sup> Amount of battery blocks that are provided with the cabinet or can be installed in the battery cabinet (if empty).

<sup>2</sup> M5 cables are used for e.g. CSB 110W and FIAMM FLB200 batteries. M6 cables are for e.g. CSB 200W, GNB XP12V1800 and P12V875 batteries. For other battery types, please see the battery datasheet.

Table 43. Eaton 93PM internal battery and Eaton 93P/E Small battery cabinet specifications

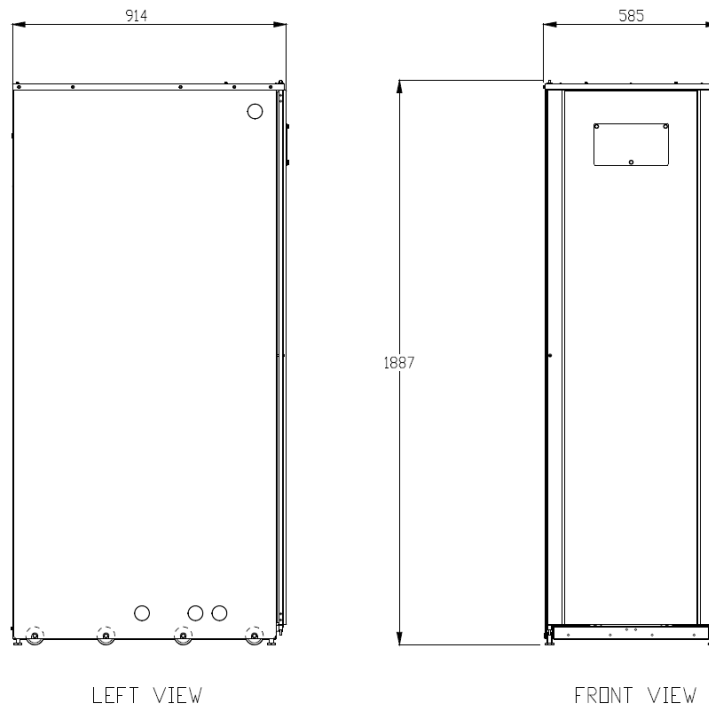


Figure 1. 93P/E Small battery cabinet dimensions. 585 x 914 x 1887mm (WxDxH).