

Vertiv U12V120P/B

Valve-regulated lead-acid battery | P Series high-rate discharge

Electrical and mechanical specifications

Parameter	Specification
Nominal voltage	12 V
Capacity at 10-hour rate	38 Ah at 1.80 V/cell, 25°C
15-minute constant-power rating	120 W/cell at 1.67 V/cell, 25°C
Approximate weight	11.6 kg
Terminal / tightening torque	M6 / 8-10 N·m
Dimensions: L / W / case H / total H (mm)	197 ±2 / 165 ±1 / 170 ±2 / 170 ±2
Case material	ABS
Design float life at 25°C	10-12 years
Cycle life	>60 cycles; 15-minute constant-power discharge, 100% depth of discharge
Short-circuit current	940 A
Maximum discharge current	380 A for 5 seconds
Approximate internal resistance, fully charged	10 mΩ

Charging, environment and applications

Operating parameters

Parameter	Specification
Operating temperature	-15 to 50°C
Recommended operating temperature	25 ±3°C
Float voltage	13.38-13.8 V at 25°C; recommended 13.62 V
Equalization voltage	14.1-14.4 V at 25°C; recommended 14.1 V
Maximum charging current	9.5 A
Temperature compensation	-3 mV/cell/°C
10-hour capacity at 40 / 25 / 0°C	106 / 100 / 86 %
Storage / refresh interval	6 months at 25°C
Self-discharge	<2% per month
Refresh charging	2.35 V/cell, current limit 0.1C, 16 hours

Applications and source-listed standards

High-power UPS, emergency power systems, banking and commercial systems, medical equipment, automation control systems and data centers.

Standards listed in the supplied datasheet: IEC 61056-1; BS 6290 Part 4.

Discharge performance at 25°C

Constant-power discharge (W/cell)

End V/cell	5m	10m	15m	20m	30m	45m	1h	1.5h	2h	3h	4h	5h	8h	10h
1.85	149.5	115.9	101	85.5	76.3	57.1	46.1	34.7	27.8	20	15.9	13.3	9.11	7.66
1.80	169.7	126.5	106.8	92	83.1	61.6	49.8	36.2	29	20.5	16.3	13.6	9.32	7.78
1.75	191.1	140.6	111.8	97.2	85.9	63.5	51	37	29.4	21	16.6	13.8	9.46	7.88
1.70	208	150.8	115	102.9	89.3	65	51.9	37.6	29.9	21.3	16.9	14.1	9.55	7.96
1.67	228.2	163	120	107.3	92.6	66.7	53.2	38.2	30.2	21.5	17.1	14.2	9.67	8.05
1.60	248.1	174	125	112.3	95.4	68.1	53.9	38.6	30.6	21.7	17.3	14.3	9.78	8.13

Constant-current discharge (A)

End V/cell	5m	10m	15m	20m	30m	45m	1h	1.5h	2h	3h	4h	5h	8h	10h
1.85	76.8	59.2	50.4	42.3	35	26	21	17.6	14.1	9.91	7.84	6.52	4.45	3.7
1.80	88.2	65.3	57.5	52.1	42.2	31.1	25	18.2	14.5	10.2	8.08	6.71	4.57	3.8
1.75	100.3	73.3	62.4	53.2	42	32.3	25.8	18.7	14.8	10.5	8.28	6.89	4.67	3.9
1.70	110.4	79.5	66.6	56.8	44.2	32.4	26.5	19.1	15.2	10.7	8.49	7.04	4.75	3.9
1.67	122.1	86.5	71.2	61.5	47.6	34.5	27.3	19.5	15.5	10.9	8.62	7.16	4.83	4
1.60	134.3	93.4	75.2	64.7	50.1	35.5	27.9	19.9	15.7	11.1	8.8	7.28	4.93	4.1

Values are reproduced from the model-specific supplied datasheet. End voltage is per cell. C denotes nominal capacity in Ah; charge current expressed as C is in amperes. Design life is not a service-life guarantee.

Source and edition notes

Independently prepared English technical edition by IWELL, 22 October 2026. This is not an official Vertiv English publication. Specifications refer to the cited source revision; confirm the exact model and supplied configuration before selection.

Source: U12V120P-B-Supplied-Datasheet-ZH.pdf

Model-specific sheet, pages 1-2; the English edition includes all tabulated parameters and discharge data. Original dimensional drawings and characteristic curves remain available in the unchanged source PDF.