



PowerSafe[®] DU

Telecommunications

NEBS[™] Certified

Battery Performance Specifications



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RESERVE
POWER

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Features and Benefits

- Capacity range 310 – 780Ah
- Flat plate, lead-calcium grid alloy, well suited for long duration float applications
- Proven Slide-Lock™ post seal design
- Positive and negative posts on each cell allow for monitoring of individual cells
- Standard UL94 V-0 flame retardant cover and container
- NEBS™ level 3 certified for systems with a nominal voltage under 80V
- 20 year life expectancy in float service at 77°F (25°C) ambient temperature

Construction

- 0.25" thick positive plates provide long discharge rates and long life
- Lead plated copper posts - one positive and one negative post per cell
- Cover - standard PVC UL94 V-0 LOI>28%
- Container - standard PC UL94 V-0 LOI>28%
- Separator - microporous phenolic with "Vitrex" glass fiber retainers
- 1.215 specific gravity nominal at 77°F (25°C)
- Intercell connectors - lead plated copper; optional tin plated copper

Installation and Operation

- Maintenance connectors available
- Flat plate, lead-calcium grid alloy, well suited for long duration float applications
- 20 year life expectancy in float service at 77°F (25°C) ambient temperature
- Operating temperature: 32°F (0°C) to 104°F (40°C)
Recommended temperature: 68°F (20°C) to 86°F (30°C)

Standards

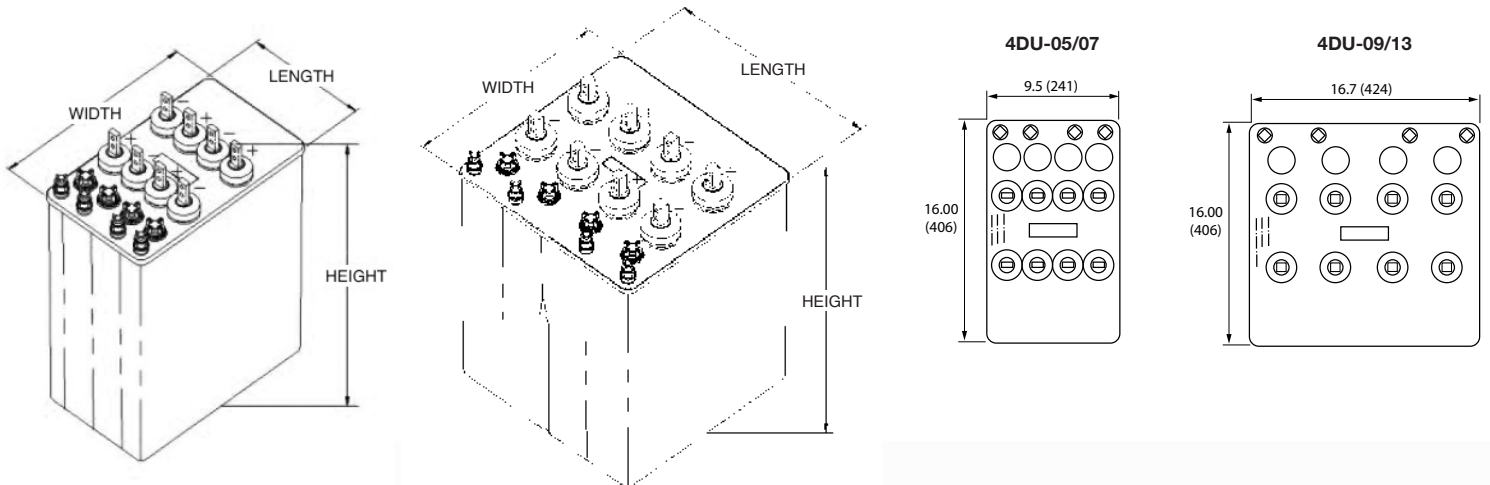
- The management systems governing the manufacture of this product are ISO 9001:2008 and ISO 14001:2004 certified

General Specifications

PowerSafe® DU Battery Type	Nominal Capacity (Ah)*	Nominal Dimensions										Electrolyte (1.215 S.G.)				Pure Acid (H ₂ SO ₄) Acid					
		Length		Width		Height to Post		Height to Term Plate		Typical Weight		Volume Per Container		Weight Per Container		Volume Per Container		Weight Per Container			
		in	mm	in	mm	in	mm	in	mm	in	mm	lbs	kg	lbs	kg	lbs	kg	L	gal	lbs	kg
4DU-05	310	9.50	241	16.0	406	22.7	576	26.9	683	267	121	520		6.30	23.8	64.0	29.0	1.23	4.67	19.0	8.60
4DU-07	395	9.50	241	16.0	406	22.7	576	26.9	683	328	149	360		5.82	22.0	59.2	26.8	1.14	4.32	17.5	7.95
4DU-09	625	16.7	424	16.0	406	22.7	576	28.8	732	494	224	270		13.2	49.8	134	60.6	2.58	9.75	39.6	18.0
4DU-11	715	16.7	424	16.0	406	22.7	576	28.8	732	555	252	220		12.2	46.0	124	56.0	2.38	9.01	36.6	16.6
4DU-13	780	16.7	424	16.0	406	22.7	576	28.8	732	617	280	190		11.1	42.1	113	51.3	2.18	8.25	33.5	15.2

*Nominal Ah capacity is based on an 8 hour rate to 1.75 volts per cell @ 77°F (25°C).

**Resistance values are for reference only and not intended to represent an Ohmic Value or Baseline Measurement.



Battery Performance Specifications

Constant Current

PowerSafe® DU Battery Constant Current Discharge Rates (Amps to 1.75 Vpc at 77°F / 25°C - 1.215 S.G.)*

PowerSafe® DU Battery Type	Nominal Capacity ¹ (Ah)	Minutes		Hours										
		15	30	1	1.5	2	3	4	5	8	10	12	24	72
4DU-05	310	322	245	169	131	108	80.7	65.1	55.2	38.7	31.9	27.6	16.2	6.6
4DU-07	395	474	354	238	182	149	109.4	87.0	72.7	49.5	40.6	34.6	19.2	7.2
4DU-09	625	636	485	336	262	216	161.5	130.3	110.5	77.9	64.4	55.7	32.9	13.6
4DU-11	715	786	594	406	313	257	191.7	153.2	129.0	89.3	73.6	63.2	36.3	14.4
4DU-13	780	932	699	472	360	293	216.6	172.4	143.8	97.6	80.1	68.4	37.7	14.1

PowerSafe® DU Battery Constant Current Discharge Rates (Amps to 1.80 Vpc at 77°F / 25°C - 1.215 S.G.)*

PowerSafe® DU Battery Type	Nominal Capacity ¹ (Ah)	Minutes		Hours										
		15	30	1	1.5	2	3	4	5	8	10	12	24	72
4DU-05	310	278	220	158	125	104	79.5	64.9	55.2	38.7	31.9	27.6	16.2	6.6
4DU-07	395	403	313	218	169	140	104.8	84.5	71.3	49.1	40.5	34.6	19.2	7.2
4DU-08	625	542	428	308	245	205	157.5	129.0	110.2	77.9	64.4	55.7	32.9	13.6
4DU-11	715	667	522	371	291	242	183.7	148.9	126.4	88.6	73.3	63.2	36.3	14.4
4DU-13	780	788	611	428	332	274	204.7	164.5	138.4	94.9	78.4	67.2	37.4	14.1

PowerSafe® DU Battery Constant Current Discharge Rates (Amps to 1.84 Vpc at 77°F / 25°C - 1.215 S.G.)*

PowerSafe® DU Battery Type	Nominal Capacity ¹ (Ah)	Minutes		Hours										
		15	30	1	1.5	2	3	4	5	8	10	12	24	72
4DU-05	310	229	192	142	114	97	74.6	61.5	52.7	37.5	31.3	27.1	16.1	6.6
4DU-07	395	326	269	193	153	127	96.4	78.2	66.3	45.8	37.9	32.6	18.3	7.0
4DU-09	625	437	369	275	222	188	146.4	121.0	104.0	74.5	62.3	54.3	32.5	13.6
4DU-11	715	531	449	329	263	221	169.2	138.6	118.3	83.0	69.3	60.0	35.0	14.0
4DU-13	780	618	524	377	298	248	187.0	151.7	128.4	88.3	73.3	63.0	35.3	13.3

*Values listed represent 100% of the cell's capacity. Initial capacity shall be a minimum of 90% of these values per IEEE 450.

¹1.215 S.G. electrolyte at 77°F (25°C) includes intercell connector drop. Nominal Ah capacity is based on an 8 hour rate to 1.75 volts per cell @ 77°F (25°C).

Constant Current

PowerSafe® DU Battery Constant Current Discharge Rates (Amps to 1.86 Vpc at 77°F / 25°C - 1.215 S.G.)*

PowerSafe® DU Battery Type	Nominal Capacity ¹ (Ah)	Minutes		Hours										
		15	30	1	1.5	2	3	4	5	8	10	12	24	72
4DU-05	310	194	175	132	107	91	70.9	58.7	50.5	35.9	30.1	26.2	15.6	6.5
4DU-07	395	273	244	178	142	119	90.6	73.9	62.6	43.2	36.0	31.0	17.5	6.7
4DU-09	625	368	336	254	207	177	138.2	114.9	99.1	70.9	59.7	52.2	31.5	13.2
4DU-11	715	447	408	303	244	206	159.2	131.0	112.2	78.8	66.1	57.4	33.6	13.5
4DU-13	780	517	474	347	276	231	175.3	142.5	120.8	83.5	69.6	59.9	33.7	12.7

PowerSafe® DU Battery Constant Current Discharge Rates (Amps to 1.88 Vpc at 77°F / 25°C - 1.215 S.G.)*

PowerSafe® DU Battery Type	Nominal Capacity ¹ (Ah)	Minutes		Hours										
		15	30	1	1.5	2	3	4	5	8	10	12	24	72
4DU-05	310	161	157	120	99	85	66.2	55.1	47.5	33.8	28.5	24.9	14.9	6.2
4DU-07	395	225	217	161	130	109	83.7	68.5	58.2	40.2	33.6	29.0	16.4	6.3
4DU-09	625	305	299	231	190	163	128.2	107.2	92.9	66.4	56.3	49.4	29.9	12.5
4DU-11	715	369	362	274	223	190	147.1	121.7	104.5	73.5	61.9	54.0	31.8	12.7
4DU-13	780	427	421	312	251	211	161.1	131.9	112.0	77.5	64.7	55.9	31.6	11.9

PowerSafe® DU Battery Constant Current Discharge Rates (Amps to 1.90 Vpc at 77°F / 25°C - 1.215 S.G.)*

PowerSafe® DU Battery Type	Nominal Capacity ¹ (Ah)	Minutes		Hours										
		15	30	1	1.5	2	3	4	5	8	10	12	24	72
4DU-05	310	130	130	107	89	77	60.6	50.7	43.8	31.1	26.4	23.2	14.0	5.8
4DU-07	395	181	181	143	116	98	75.5	61.9	52.8	36.6	30.6	26.5	15.1	5.7
4DU-09	625	245	245	204	170	147	116.8	98.2	85.2	60.9	52.0	45.8	28.0	11.7
4DU-11	715	296	296	242	199	170	133.0	110.6	95.2	67.1	56.9	49.7	29.4	11.8
4DU-13	780	344	343	275	222	188	144.9	118.8	101.1	70.3	59.0	51.1	29.0	11.0

*Values listed represent 100% of the cell's capacity. Initial capacity shall be a minimum of 90% of these values per IEEE 450.

¹1.215 S.G. electrolyte at 77°F (25°C) includes intercell connector drop. Nominal Ah capacity is based on an 8 hour rate to 1.75 volts per cell @ 77°F (25°C).