

*Power You Can
Depend On*

C&D TECHNOLOGIES
Power Solutions

Chemical and Petroleum Application

The best power solution of C&D battery

CPHS Series

—— *Reliability and Full Models*



HIGH RATE MAX^{XT}



Valve Regulated Lead Acid Battery

Designed for UPS Standby Power Applications

Chemical and Petroleum Application

- On shore and off shore platform, chemical and petroleum industry.
- UPS power back up for switchgear operation, fire and distributed control system (DCS)
- Longer design life by special design
- Suitable for harsh installation conditions of chemical and petroleum industry (e.g. corrosion resistance, outdoor etc.)
- Used in other application fields of chemical and petroleum industry

Features

- 12 year design life @ 25°C
- Stable discharge performance and longer service life with new technology and material
- Absorbent Glass Mat (AGM) technology for efficient gas recombination of up to 99% and freedom from electrolyte maintenance.
- 3 Years Warranty (refer Dynasty warranty card, 41-9027)
- Patented Long Life Alloy having the lowest calcium levels in the industry -minimizing grid growth, reducing gassing, and extending battery life
- Patented UL Recognized Flame-arresting vents in each cell for safety and long life.
- Designed with the same recombination, thermal runaway prevention, gassing and flame retardant characteristics of the Bellcore 4228 compliant

- Dynasty Telecom products.
- Flame retardant polypropylene case and cover compliant with UL94V-2
- Proprietary Fixed Orifice Plate Pasting technology applying active materials on both sides of the grid for consistent cell-to-cell performance, higher capacity and uniform grid protection.
- Can be operated in upright, side or end mounting orientation.
- Not restricted for air transport -Complies with IATA/ICAO Special Provisions A67.
- Not restricted for surface transport -Classified as non-hazardous material as related to DOT-CFR Title 49 parts 171-189
- Not restricted for water transport -Classified as non-hazardous material per IMDG Amendment 27.

Specifications

Model	V	Watts/Cell @ 15min	Dimensions/mm				Weight/ Kg	Terminal Type (Bolt)
			L	W	H	TH		
CPHS 12-100	12	100	197	132	166	173	10.7	Insert (#10-32 UNF)
CPHS 12-130	12	130	197	132	166	173	11.5	Insert (#10-32 UNF)
CPHS 12-150	12	150	197	132	166	173	12.4	Insert (#10-32 UNF)
CPHS 12-200	12	200	229	139	200	205	17.7	Insert (#10-32 UNF)
CPHS 12-220	12	225	229	139	200	205	19.0	Insert (#10-32 UNF)
CPHS 12-280	12	280	261	174	200	204	25.7	Insert (1/4-20 UNC)
CPHS 12-320	12	320	261	174	200	204	27.0	Insert (1/4-20 UNC)
CPHS 12-370	12	370	306	174	202	205	31.5	Insert (1/4-20 UNC)
CPHS 12-400	12	400	341	173	213	216	35.3	Insert (1/4-20 UNC)
CPHS 12-440	12	440	341	173	213	216	36.0	Insert (1/4-20 UNC)
CPHS 12-475	12	475	341	173	213	216	38.0	Insert (1/4-20 UNC)
CPHS 12-490	12	490	345	173	275	278	46.6	Insert (1/4-20 UNC)
CPHS 12-520	12	520	345	173	275	278	47.2	Insert (1/4-20 UNC)
CPHS 12-550	12	550	345	173	275	278	48.6	Insert (1/4-20 UNC)
CPHS 12-600	12	600	345	173	275	278	49.4	Insert (1/4-20 UNC)
CPHS 12-615*	12	615	517	123	279	559*	55.2	Insert (M8)
CPHS 12-700*	12	700	517	123	322	559*	64.9	Insert (M8)
Operating Temperature Range with temperature compensation			Discharge: -40°F (-40°C) to +160°F (71°C) Charge: -10°F (-23°C) to +140°F (60°C)					
Nominal Operating Temperature Range			+74°F (23°C) to +80°F (27°C)					
Recommended Maximum Charging Current Limit			C/5 amperes @ 20hr rate					
Float Charging Voltage			13.65 ± 0.15 VDC average per 12V unit					
Maximum AC Ripple (Charger)			0.5% RMS or 1.5% P-P of float charge voltage recommended for best results. Max voltage allowed = 1.4% RMS (4% P-P) Max current allowed = C/20					
Self Discharge			Battery can be stored up to 6 months at 77°F (25°C) before a freshening charge is required. Batteries stored at temperatures greater than 77°F (25°C) will require recharge sooner than batteries stored at lower temperatures. See C&D brochure 41-7272, Self-Discharge and Inventory Control for details.					
Equalize charge and cycle service voltage			14.40 to 14.80 VDC average per 12V unit @ 77°F (25°C)					
Terminal Hardware Initial Torque: Inserted Terminal			30 in.-lbs. (3.4 N-m) for all models below UPS12-220MRX. 110 in.-lbs. (12.4 N-m) for all models above UPS120-280MRX. 160 in.-lbs. (18 N-m) for all models above UPS120-615MRX.					

PS: *the front access battery, total length with the front access

All dimensions are for reference only. Contact a C&D Representative for complete dimensional information.

CPHS 12-100

Constant Power Discharge Table - Watts Per Cell @ 25°C (77°F)

EPV	5 min	10 min	15 min	20 min	25 min	30 min	45 min	60 min	90 min	2 hr	3 hr	4 hr	5 hr	8 hr	10 hr	12 hr	20 hr
1.85	142.5	105.3	86.4	72.7	63.6	57.0	44.2	36.9	27.4	22.2	15.9	12.6	10.5	7.2	5.9	5.0	3.2
1.80	157.1	117.1	95.2	79.3	68.8	61.3	47.0	39.0	28.6	22.9	16.5	13.0	10.9	7.4	6.1	5.2	3.3
1.75	165.8	126.4	99.5	82.8	71.8	63.9	48.6	40.0	29.0	23.1	16.6	13.2	11.0	7.5	6.2	5.3	3.4
1.70	172.2	131.0	103.3	85.5	73.7	65.4	49.4	40.5	29.3	23.3	16.7	13.3	11.1	7.5	6.2	5.3	3.4
1.67	176.1	133.3	105.7	87.1	74.9	66.3	49.9	40.8	29.4	23.4	16.8	13.3	11.1	7.5	6.2	5.3	3.4
1.65	178.8	135.8	107.3	88.2	75.7	66.9	50.2	41.0	29.6	23.4	16.8	13.3	11.1	7.6	6.2	5.3	3.4

CPHS 12-130

Constant Power Discharge Table - Watts Per Cell @ 25°C (77°F)

EPV	5 min	10 min	15 min	20 min	25 min	30 min	45 min	60 min	90 min	2 hr	3 hr	4 hr	5 hr	8 hr	10 hr	12 hr	20 hr
1.85	185.5	140.7	112.4	92.3	79.1	69.8	52.5	42.8	31.3	25.1	17.8	14.0	11.6	7.7	6.3	5.3	3.3
1.80	204.3	155.4	123.8	100.4	85.4	74.8	55.7	45.2	33.0	26.3	18.6	14.5	12.1	8.0	6.5	5.5	3.4
1.75	214.0	165.7	129.7	105.1	89.3	78.2	57.7	46.5	33.5	26.6	18.9	14.8	12.3	8.1	6.6	5.6	3.5
1.70	220.8	172.1	133.8	108.0	91.4	79.8	58.8	47.3	33.9	26.8	19.1	14.9	12.3	8.1	6.6	5.6	3.5
1.67	225.0	176.1	135.0	109.1	92.4	80.7	59.3	47.6	34.1	26.9	19.1	14.9	12.4	8.1	6.6	5.6	3.5
1.65	227.8	178.7	137.0	110.4	93.3	81.4	59.7	47.9	34.3	27.0	19.2	15.0	12.4	8.1	6.6	5.6	3.5

CPHS 12-150

Constant Power Discharge Table - Watts Per Cell @ 25°C (77°F)

EPV	5 min	10 min	15 min	20 min	25 min	30 min	45 min	60 min	90 min	2 hr	3 hr	4 hr	5 hr	8 hr	10 hr	12 hr	20 hr
1.85	204.6	156.5	124.0	101.6	87.1	76.7	57.0	46.2	32.6	25.5	18.0	14.1	11.6	7.8	6.4	5.3	3.2
1.80	226.1	172.7	137.0	110.7	93.8	82.0	59.7	47.7	33.7	26.3	18.6	14.6	12.0	8.0	6.6	5.5	3.3
1.75	236.0	179.8	143.0	114.7	96.6	84.0	60.6	48.1	33.9	26.5	18.7	14.7	12.2	8.2	6.7	5.6	3.4
1.70	245.9	185.4	147.0	117.7	99.0	86.0	61.5	48.5	34.2	26.7	18.9	14.9	12.2	8.2	6.8	5.6	3.4
1.67	249.2	189.2	150.0	119.4	100.0	86.5	61.8	48.7	34.3	26.8	18.9	14.9	12.3	8.2	6.8	5.7	3.4
1.65	250.8	192.2	152.0	120.6	100.7	87.0	62.1	48.9	34.5	26.9	19.0	15.0	12.3	8.3	6.8	5.7	3.4

CPHS 12-200

Constant Power Discharge Table - Watts Per Cell @ 25°C (77°F)

EPV	5 min	10 min	15 min	20 min	25 min	30 min	45 min	60 min	90 min	2 hr	3 hr	4 hr	5 hr	8 hr	10 hr	12 hr	20 hr
1.85	279.3	209.2	169.2	140.0	120.8	107.1	81.2	66.8	47.8	37.7	27.0	21.3	17.7	11.8	9.7	8.2	5.2
1.80	306.3	230.1	185.6	151.8	129.8	114.2	85.8	70.0	49.9	39.3	28.1	22.1	18.3	12.3	10.0	8.5	5.3
1.75	323.5	242.1	194.0	158.1	134.8	118.4	87.6	70.8	50.7	40.0	28.5	22.4	18.6	12.5	10.2	8.6	5.4
1.70	332.9	249.2	198.0	161.0	137.1	120.2	88.6	71.3	50.7	39.8	28.5	22.6	18.8	12.5	10.2	8.7	5.4
1.67	338.7	253.6	200.0	162.4	138.2	121.1	89.0	71.5	50.9	40.1	28.7	22.7	18.9	12.6	10.2	8.7	5.5
1.65	342.1	256.5	202.0	163.9	139.3	122.0	89.4	71.7	51.1	40.2	28.8	22.7	19.0	12.6	10.3	8.7	5.5

CPHS 12-220

Constant Power Discharge Table - Watts Per Cell @ 25°C (77°F)

EPV	5 min	10 min	15 min	20 min	25 min	30 min	45 min	60 min	90 min	2 hr	3 hr	4 hr	5 hr	8 hr	10 hr	12 hr	20 hr
1.85	305.1	229.7	184.9	154.0	133.6	119.0	90.8	75.0	54.1	42.9	29.7	22.8	18.6	12.1	9.9	8.4	5.3
1.80	336.9	255.6	202.2	166.3	142.9	126.3	95.4	78.2	56.2	44.5	30.7	23.6	19.3	12.5	10.2	8.7	5.4
1.75	355.0	267.5	211.0	172.5	147.6	129.9	96.9	78.7	57.1	45.5	31.4	24.1	19.7	12.8	10.4	8.8	5.5
1.70	366.6	273.8	217.0	176.3	150.0	131.5	97.9	79.4	57.5	45.7	31.5	24.2	19.7	12.8	10.5	8.9	5.5
1.67	371.6	277.6	220.0	178.2	151.3	132.4	98.5	79.8	57.7	45.8	31.6	24.3	19.8	12.9	10.5	8.9	5.6
1.65	375.0	280.2	222.0	179.5	152.2	133.0	98.8	80.0	57.9	46.0	31.7	24.3	19.8	12.9	10.5	8.9	5.6

CPHS 12-280

Constant Power Discharge Table - Watts Per Cell @ 25°C (77°F)

EPV	5 min	10 min	15 min	20 min	25 min	30 min	45 min	60 min	90 min	2 hr	3 hr	4 hr	5 hr	8 hr	10 hr	12 hr	20 hr
1.85	364.2	280.3	229.9	193.8	169.7	152.2	118.3	98.9	73.6	59.7	42.2	33.0	27.3	18.2	14.9	12.6	7.9
1.80	413.6	312.0	255.8	212.6	184.2	163.9	125.7	104.1	76.8	61.9	43.7	34.1	28.2	18.9	15.4	13.0	8.1
1.75	452.8	333.8	272.0	224.8	193.8	171.7	130.3	107.1	78.5	63.0	44.4	34.7	28.6	19.2	15.6	13.2	8.2
1.70	473.0	345.1	279.0	230.1	198.1	175.3	132.4	108.5	79.3	63.4	44.7	34.9	28.8	19.3	15.7	13.3	8.3
1.67	481.6	351.4	284.0	234.0	201.3	178.0	133.9	109.4	79.7	63.7	44.9	35.0	28.9	19.4	15.7	13.3	8.3
1.65	494.6	358.2	288.0	236.9	203.5	179.8	135.2	110.4	80.3	64.0	45.1	35.3	29.1	19.4	15.8	13.3	8.3

CPHS 12-320

Constant Power Discharge Table - Watts Per Cell @ 25°C (77°F)

EPV	5 min	10 min	15 min	20 min	25 min	30 min	45 min	60 min	90 min	2 hr	3 hr	4 hr	5 hr	8 hr	10 hr	12 hr	20 hr
1.85	458.4	346.7	277.8	230.4	199.2	176.9	134.5	110.7	80.5	64.2	44.5	34.4	28.1	18.4	15.1	12.8	8.1
1.80	502.6	378.1	304.6	249.7	213.9	188.6	141.9	115.9	83.9	66.7	46.2	35.6	29.1	19.0	15.5	13.2	8.3
1.75	526.2	395.1	314.2	257.2	220.2	194.0	145.4	118.5	85.5	67.9	47.0	36.2	29.5	19.3	15.8	13.4	8.4
1.70	535.3	406.2	321.4	263.2	225.4	198.6	147.0	118.8	85.9	68.3	47.3	36.4	29.7	19.4	15.8	13.4	8.4
1.67	544.3	413.0	326.3	266.6	227.8	200.4	147.7	119.0	86.2	68.6	47.4	36.5	29.8	19.5	15.9	13.5	8.5
1.65	547.5	417.7	329.3	269.3	230.3	202.7	148.7	119.4	86.5	68.8	47.6	36.6	29.9	19.5	15.9	13.5	8.5

Power Solutions for Chemical and Petroleum Application

CPHS 12-370

Constant Power Discharge Table - Watts Per Cell @ 25°C (77°F)

EPV	5 min	10 min	15 min	20 min	25 min	30 min	45 min	60 min	90 min	2 hr	3 hr	4 hr	5 hr	8 hr	10 hr	12 hr	20 hr
1.85	523.1	391.5	310.7	262.1	229.7	206.2	158.6	131.6	93.4	73.2	52.0	40.8	33.8	22.5	18.4	15.5	9.8
1.80	572.1	435.3	339.8	283.3	245.9	219.2	167.0	137.7	97.4	76.1	53.8	42.8	34.6	23.0	18.8	16.0	10.1
1.75	605.2	461.0	359.5	297.3	256.5	227.4	171.3	140.1	98.8	77.1	54.4	42.6	34.9	23.2	19.0	16.2	10.4
1.70	622.7	474.8	369.9	304.5	261.8	231.5	174.3	142.5	100.2	78.0	54.9	42.8	35.2	23.4	19.1	16.3	10.4
1.67	633.5	484.7	376.3	309.0	265.1	234.0	175.9	143.7	100.8	78.4	55.2	43.0	35.4	23.5	19.2	16.4	10.4
1.65	640.8	491.5	380.6	312.0	267.3	235.7	177.3	144.9	101.5	78.8	55.3	43.1	35.5	23.5	19.2	16.4	10.5

CPHS 12-400

Constant Power Discharge Table - Watts Per Cell @ 25°C (77°F)

EPV	5 min	10 min	15 min	20 min	25 min	30 min	45 min	60 min	90 min	2 hr	3 hr	4 hr	5 hr	8 hr	10 hr	12 hr	20 hr
1.85	547.6	411.9	338.7	286.4	251.4	226.0	175.4	146.5	104.3	81.9	58.3	45.8	38.0	25.2	20.5	17.3	10.8
1.80	614.9	461.7	372.7	311.0	270.2	241.0	185.4	153.9	109.2	85.6	60.7	47.6	39.4	26.2	21.3	17.9	11.2
1.75	640.3	483.1	386.1	323.7	282.2	252.4	191.3	157.2	111.4	87.2	61.8	48.4	40.0	26.6	21.6	18.2	11.3
1.70	664.0	502.9	399.8	333.3	289.4	257.9	194.0	158.5	112.3	87.9	62.2	48.7	40.3	27.0	21.8	18.4	11.3
1.67	674.0	516.7	407.7	339.0	293.8	261.4	195.6	159.3	112.8	88.3	62.5	48.9	40.5	27.1	21.9	18.4	11.4
1.65	679.3	522.4	411.6	342.2	296.4	263.7	196.7	159.8	113.1	88.6	62.7	49.1	40.6	27.1	22.0	18.5	11.4

CPHS 12-440

Constant Power Discharge Table - Watts Per Cell @ 25°C (77°F)

EPV	5 min	10 min	15 min	20 min	25 min	30 min	45 min	60 min	90 min	2 hr	3 hr	4 hr	5 hr	8 hr	10 hr	12 hr	20 hr
1.85	570.9	437.8	346.0	292.1	256.2	230.1	179.1	149.9	109.2	87.2	61.4	47.8	39.4	26.4	21.5	18.1	11.3
1.80	635.6	485.2	385.2	320.0	277.2	246.5	189.5	157.2	113.6	90.2	63.6	49.6	40.8	27.1	22.1	18.7	11.7
1.75	680.3	521.3	412.3	339.2	291.5	257.5	195.1	160.2	114.7	90.5	64.1	50.2	41.5	27.6	22.4	19.0	11.8
1.70	704.4	538.4	426.9	349.2	298.7	263.0	199.0	163.2	116.1	91.2	64.5	50.5	41.7	27.7	22.6	19.1	11.9
1.67	719.2	552.3	435.9	355.4	303.2	266.4	201.1	164.7	116.9	91.6	64.8	50.7	41.9	27.8	22.6	19.1	11.9
1.65	729.3	561.8	442.0	359.5	306.3	268.7	202.7	166.0	117.5	91.9	65.0	50.8	42.0	27.9	22.7	19.2	11.9

CPHS 12-475

Constant Power Discharge Table - Watts Per Cell @ 25°C (77°F)

EPV	5 min	10 min	15 min	20 min	25 min	30 min	45 min	60 min	90 min	2 hr	3 hr	4 hr	5 hr	8 hr	10 hr	12 hr	20 hr
1.85	552.4	472.4	378.0	315.7	274.6	245.0	189.1	157.3	109.9	85.1	59.5	46.1	37.8	25.0	20.5	17.4	11.1
1.80	664.2	527.6	415.0	343.4	296.4	262.9	200.6	165.6	115.3	89.2	62.1	48.0	39.3	25.9	21.2	18.0	11.4
1.75	727.7	575.5	441.0	362.4	311.1	274.7	207.0	169.3	117.7	90.9	63.2	48.9	40.0	26.2	21.5	18.2	11.5
1.70	759.0	604.1	460.0	375.2	320.3	281.5	210.4	171.2	118.9	91.8	63.8	49.2	40.3	26.4	21.6	18.3	11.6
1.67	783.8	621.9	475.0	384.7	326.6	285.8	212.6	172.3	119.6	92.3	64.1	49.5	40.5	26.5	21.7	18.4	11.6
1.65	790.4	634.0	479.0	388.2	329.8	288.7	214.1	173.2	120.1	92.7	64.3	49.6	40.6	26.6	21.7	18.4	11.6

CPHS 12-490

Constant Power Discharge Table - Watts Per Cell @ 25°C (77°F)

EPV	5 min	10 min	15 min	20 min	25 min	30 min	45 min	60 min	90 min	2 hr	3 hr	4 hr	5 hr	8 hr	10 hr	12 hr	20 hr
1.85	545.6	447.3	372.8	323.0	288.9	263.8	208.2	176.0	129.4	104.0	73.8	57.9	48.1	32.1	26.5	22.7	14.6
1.80	641.0	520.5	421.8	359.0	316.8	286.1	222.4	186.0	136.8	110.0	77.8	60.7	50.0	33.3	27.5	23.5	15.1
1.75	695.0	560.6	449.5	379.0	332.0	298.0	229.0	190.0	138.5	110.7	78.2	61.7	50.9	33.8	27.9	23.8	15.3
1.70	752.8	602.9	478.9	400.3	348.2	310.8	235.9	194.0	140.1	111.2	78.6	61.4	50.8	34.0	28.1	24.0	15.5
1.67	794.3	624.0	494.9	411.4	356.4	317.0	238.6	195.0	140.7	111.6	78.9	61.7	50.9	34.1	28.1	24.1	15.5
1.65	825.2	643.2	505.8	419.0	362.0	321.3	240.6	196.0	141.2	111.9	79.1	61.8	51.1	34.1	28.2	24.1	15.6

CPHS 12-520

Constant Power Discharge Table - Watts Per Cell @ 25°C (77°F)

EPV	5 min	10 min	15 min	20 min	25 min	30 min	45 min	60 min	90 min	2 hr	3 hr	4 hr	5 hr	8 hr	10 hr	12 hr	20 hr
1.85	577.3	483.2	397.4	344.7	308.6	282.0	219.0	183.0	132.0	104.7	74.4	58.3	48.2	32.0	26.3	22.3	14.2
1.80	700.1	566.0	456.3	388.4	342.8	309.5	239.2	199.2	141.1	110.5	78.3	61.5	51.4	33.5	27.3	23.1	14.5
1.75	783.7	611.0	487.4	411.5	360.7	324.0	247.8	204.8	144.7	113.1	79.9	62.5	52.0	34.0	27.8	23.6	14.9
1.70	843.3	647.7	510.5	427.5	372.4	332.8	252.2	207.1	146.2	114.2	80.6	63.3	52.4	34.2	28.0	23.7	15.0
1.67	884.2	665.5	525.0	437.4	379.7	338.2	254.8	208.5	147.1	114.8	81.0	63.6	52.6	34.4	28.1	23.8	15.0
1.65	913.6	677.7	534.8	444.3	384.7	342.0	257.1	209.9	147.8	115.2	81.3	63.9	52.8	34.5	28.2	23.9	15.0

CPHS 12-550

Constant Power Discharge Table - Watts Per Cell @ 25°C (77°F)

EPV	5 min	10 min	15 min	20 min	25 min	30 min	45 min	60 min	90 min	2 hr	3 hr	4 hr	5 hr	8 hr	10 hr	12 hr	20 hr
1.85	583.7	493.2	408.3	350.6	311.5	282.8	224.4	190.4	135.6	106.6	76.0	59.7	49.5	33.4	27.2	23.1	14.5
1.80	709.7	579.3	467.7	393.2	343.7	307.9	239.8	200.8	142.3	111.4	79.0	61.9	51.2	34.6	28.4	24.0	15.0
1.75	795.0	635.6	508.7	422.0	365.0	324.2	248.9	206.3	145.9	114.0	80.6	63.0	52.1	35.2	28.7	24.2	15.2
1.70	854.9	675.4	534.1	439.4	377.5	333.6	253.4	208.5	147.2	115.0	81.2	63.5	52.4	35.3	28.8	24.4	15.3
1.67	896.9	704.1	550.1	453.9	391.0	346.2	258.2	209.7	148.0	115.6	81.6	63.7	52.6	35.4	28.8	24.4	15.3
1.65	927.7	715.2	561.1	461.5	396.5	350.3	259.8	210.2	148.5	116.0	81.8	63.9	52.7	35.5	28.9	24.4	15.3

CPHS 12-600

Constant Power Discharge Table - Watts Per Cell @ 25°C (77°F)

EPV	5 min	10 min	15 min	20 min	25 min	30 min	45 min	60 min	90 min	2 hr	3 hr	4 hr	5 hr	8 hr	10 hr	12 hr	20 hr
1.85	698.8	568.5	463.7	389.9	340.7	305.3	235.2	195.5	141.4	112.4	78.0	60.2	49.2	32.2	26.3	22.3	14.1
1.80	790.5	637.7	518.8	430.0	371.6	329.9	252.6	209.0	147.8	115.6	80.5	62.2	51.0	33.5	27.4	23.3	14.7
1.75	867.7	681.6	550.8	453.4	389.9	344.6	259.4	212.0	150.6	118.2	82.1	63.4	51.9	34.0	27.8	23.6	14.9
1.70	927.7	724.9	583.2	474.7	404.5	355.1	264.8	215.0	152.3	119.2	82.8	63.9	52.3	34.3	28.0	23.8	15.0
1.67	968.8	745.1	600.8	486.2	412.6	360.8	267.6	216.5	153.2	119.8	83.2	64.2	52.5	34.4	28.1	23.9	15.1
1.65	998.6	755.6	608.2	491.9	417.2	364.7	269.9	218.0	153.9	120.2	83.4	64.4	52.7	34.5	28.2	23.9	15.1

CPHS 12-615*

Constant Power Discharge Table - Watts Per Cell @ 25°C (77°F)

EPV	5 min	10 min	15 min	20 min	30 min	40 min	45 min	50 min	60 min	90 min
1.75	973.6	731.7	583.0	494.2	386.0	313.6	288.0	266.9	234.0	169.0
1.70	1010.4	759.3	605.0	508.0	391.0	317.4	291.4	269.9	236.5	170.7
1.67	1027.1	771.8	615.0	513.8	392.5	318.8	292.8	271.3	237.8	171.5
1.65	1035.4	778.1	620.0	516.8	393.5	319.5	293.4	271.8	238.2	172.0

CPHS 12-700*

Constant Power Discharge Table - Watts Per Cell @ 25°C (77°F)

EPV	5 min	10 min	15 min	20 min	30 min	40 min	45 min	50 min	60 min	90 min
1.75	1020.6	780.0	630.0	544.1	437.0	358.7	330.8	307.7	271.5	196.5
1.70	1083.8	839.6	669.0	570.2	449.0	365.5	336.0	311.6	273.5	198.6
1.67	1117.8	866.0	700.0	583.0	453.0	368.1	338.1	313.3	274.7	199.3
1.65	1134.0	878.5	703.0	590.1	457.0	370.3	339.7	314.5	275.2	199.7

CPHS 12-100

Constant Current Discharge Table - Amps @ 25°C (77°F)

EPV	5 min	10 min	15 min	30 min	60 min	90 min	2 hr	3 hr	4 hr	5 hr	6 hr	7 hr	8 hr	10 hr	12 hr	20 hr	24 hr
1.90	68.2	52.4	42.2	28.4	18.2	13.2	10.5	7.5	5.9	4.9	4.2	3.7	3.3	2.7	2.3	1.5	1.3
1.85	80.0	61.1	48.5	31.4	20.1	14.4	11.4	8.2	6.4	5.4	4.6	4.0	3.6	2.9	2.5	1.6	1.4
1.80	88.6	68.0	53.7	33.6	21.0	15.1	11.9	8.5	6.7	5.6	4.8	4.2	3.7	3.1	2.6	1.7	1.4
1.75	93.3	71.3	56.3	34.9	21.5	15.4	12.1	8.6	6.8	5.7	4.9	4.3	3.8	3.1	2.6	1.7	1.4

CPHS 12-130

Constant Current Discharge Table - Amps @ 25°C (77°F)

EPV	5 min	10 min	15 min	30 min	60 min	90 min	2 hr	3 hr	4 hr	5 hr	6 hr	7 hr	8 hr	10 hr	12 hr	20 hr	24 hr
1.90	78.4	68.3	54.0	34.5	21.4	15.0	11.6	8.1	6.3	5.2	4.4	3.9	3.4	2.8	2.4	1.5	1.3
1.85	101.7	77.8	61.7	38.2	23.8	16.6	12.9	9.0	7.0	5.7	4.9	4.2	3.8	3.1	2.6	1.7	1.4
1.80	111.5	85.0	67.6	40.8	25.1	17.5	13.5	9.4	7.3	6.0	5.1	4.4	3.9	3.2	2.7	1.7	1.5
1.75	117.5	89.0	70.5	42.4	25.5	17.7	13.7	9.6	7.4	6.1	5.2	4.5	4.0	3.3	2.8	1.8	1.5

CPHS 12-150

Constant Current Discharge Table - Amps @ 25°C (77°F)

EPV	5 min	10 min	15 min	30 min	60 min	90 min	2 hr	3 hr	4 hr	5 hr	6 hr	7 hr	8 hr	10 hr	12 hr	20 hr	24 hr
1.90	103.4	79.3	62.7	38.4	23.0	16.0	12.4	8.7	6.7	5.5	4.7	4.1	3.6	3.0	2.5	1.6	1.4
1.85	118.6	90.9	71.8	42.6	25.2	17.5	13.5	9.4	7.3	5.9	5.0	4.4	3.9	3.2	2.7	1.7	1.5
1.80	128.4	98.5	77.8	45.3	26.4	18.3	14.2	9.8	7.6	6.2	5.2	4.6	4.0	3.3	2.8	1.8	1.5
1.75	134.1	102.7	80.0	46.7	26.8	18.6	14.3	9.9	7.6	6.2	5.3	4.6	4.1	3.4	2.8	1.8	1.5

CPHS 12-200

Constant Current Discharge Table - Amps @ 25°C (77°F)

EPV	5 min	10 min	15 min	30 min	60 min	90 min	2 hr	3 hr	4 hr	5 hr	6 hr	7 hr	8 hr	10 hr	12 hr	20 hr	24 hr
1.90	116.4	100.6	80.2	51.7	32.3	22.8	17.7	12.5	9.7	8.0	6.9	6.0	5.3	4.4	3.8	2.4	2.1
1.85	151.6	115.6	91.9	57.2	35.7	25.1	19.5	13.7	10.7	8.8	7.5	6.5	5.8	4.8	4.1	2.6	2.2
1.80	165.4	126.6	100.3	60.8	37.5	26.3	20.5	14.3	11.1	9.2	7.8	6.8	6.1	5.0	4.3	2.7	2.3
1.75	171.1	130.3	103.7	62.6	37.9	26.7	20.9	14.6	11.4	9.3	8.0	7.0	6.2	5.1	4.3	2.8	2.4

CPHS 12-490

Constant Current Discharge Table - Amps @ 25°C (77°F)

EPV	5 min	10 min	15 min	30 min	60 min	90 min	2 hr	3 hr	4 hr	5 hr	6 hr	7 hr	8 hr	10 hr	12 hr	20 hr	24 hr
1.90	214.2	212.4	188.8	131.0	80.0	58.2	46.4	33.4	26.4	22.0	19.1	16.7	14.8	12.0	10.2	6.4	5.4
1.85	295.0	269.1	220.2	147.6	91.5	65.5	51.6	36.9	29.1	24.2	21.0	18.4	16.3	13.3	11.3	7.1	6.0
1.80	383.7	312.2	249.6	160.0	97.2	69.2	54.4	38.7	30.4	25.2	21.8	19.1	16.9	13.8	11.7	7.3	6.2
1.75	422.3	334.0	266.5	166.3	98.5	70.0	55.0	39.4	31.2	25.8	22.3	19.6	17.3	14.1	11.9	7.5	6.3

CPHS 12-520

Constant Current Discharge Table - Amps @ 25°C (77°F)

EPV	5 min	10 min	15 min	30 min	60 min	90 min	2 hr	3 hr	4 hr	5 hr	6 hr	7 hr	8 hr	10 hr	12 hr	20 hr	24 hr
1.90	262.7	243.8	199.9	139.7	87.2	63.4	50.6	35.4	27.5	22.6	19.2	16.8	14.9	12.3	10.5	6.7	5.7
1.85	336.4	290.7	233.8	157.5	96.3	68.8	54.2	38.1	29.6	24.4	20.8	18.2	16.2	13.3	11.4	7.3	6.2
1.80	412.0	326.0	264.2	171.6	101.8	72.6	57.1	40.0	31.0	25.5	21.7	19.0	16.9	13.9	11.8	7.5	6.4
1.75	463.0	351.2	282.3	178.1	104.7	74.5	58.5	40.9	31.7	26.1	22.2	19.4	17.2	14.1	12.0	7.7	6.5

CPHS 12-550

Constant Current Discharge Table - Amps @ 25°C (77°F)

EPV	5 min	10 min	15 min	30 min	60 min	90 min	2 hr	3 hr	4 hr	5 hr	6 hr	7 hr	8 hr	10 hr	12 hr	20 hr	24 hr
1.90	284.9	246.3	206.9	145.3	88.4	64.5	51.7	36.4	28.5	23.6	20.0	17.3	15.4	12.5	10.6	6.7	5.6
1.85	350.2	294.6	246.6	162.4	97.3	71.2	57.0	39.7	30.8	25.2	21.4	18.7	16.6	13.6	11.6	7.3	6.2
1.80	423.8	342.0	279.0	176.5	103.2	75.1	59.9	41.6	32.2	26.3	22.4	19.5	17.3	14.1	12.0	7.6	6.4
1.75	467.3	363.2	299.0	182.9	106.3	77.1	61.4	42.6	32.8	26.8	22.8	19.8	17.6	14.4	12.2	7.7	6.5

CPHS 12-600

Constant Current Discharge Table - Amps @ 25°C (77°F)

EPV	5 min	10 min	15 min	30 min	60 min	90 min	2 hr	3 hr	4 hr	5 hr	6 hr	7 hr	8 hr	10 hr	12 hr	20 hr	24 hr
1.90	293.6	250.2	214.0	148.8	89.3	64.3	51.0	36.0	28.1	23.1	19.9	17.2	15.1	12.3	10.3	6.4	5.4
1.85	360.6	304.3	253.0	166.0	98.0	70.0	55.1	38.8	30.3	25.1	21.6	18.7	16.5	13.3	11.2	6.9	5.8
1.80	435.7	351.4	290.0	179.0	103.8	73.8	58.0	40.7	31.9	26.3	22.4	19.4	17.1	13.9	11.7	7.2	6.1
1.75	484.8	370.6	302.0	185.0	106.4	75.4	59.0	41.7	32.5	26.7	22.8	19.7	17.4	14.1	11.9	7.4	6.2

CPHS 12-615*

Constant Current Discharge Table - Amps @ 25°C (77°F)

EPV	1 hr	2 hr	3 hr	5 hr	8 hr	10 hr	12 hr	20 hr	24 hr	72 hr
1.85	109	61.8	44.0	28.7	19.0	15.5	13.1	8.10	6.81	2.38
1.80	118	65.8	46.7	30.4	20.1	16.3	13.8	8.47	7.12	2.49
1.75	120	67.0	47.5	30.9	20.3	16.5	13.9	8.61	7.26	2.54

CPHS 12-700*

Constant Current Discharge Table - Amps @ 25°C (77°F)

EPV	1 hr	2 hr	3 hr	5 hr	8 hr	10 hr	12 hr	20 hr	24 hr	72 hr
1.85	121	71.4	51.1	33.5	22.1	18.0	15.2	9.48	8.01	2.80
1.80	130	75.1	53.9	35.2	23.2	18.8	15.9	9.88	8.34	2.92
1.75	134	76.6	54.6	35.7	23.6	19.2	16.2	10.07	8.51	2.98

Note: Specifications subject to change without notification.

Power Solutions for Chemical and Petroleum Application

CPHS 12-220

Constant Current Discharge Table - Amps @ 25°C (77°F)

EPV	5 min	10 min	15 min	30 min	60 min	90 min	2 hr	3 hr	4 hr	5 hr	6 hr	7 hr	8 hr	10 hr	12 hr	20 hr	24 hr
1.90	153.3	119.2	95.6	60.8	35.0	24.5	19.0	13.3	10.3	8.4	7.1	6.2	5.5	4.5	3.8	2.4	2.1
1.85	176.4	130.9	106.9	66.9	38.6	26.9	20.8	14.5	11.2	9.1	7.7	6.7	6.0	4.9	4.1	2.6	2.2
1.80	189.7	139.7	115.0	71.0	39.8	27.7	21.4	14.9	11.5	9.5	8.0	7.0	6.2	5.1	4.3	2.7	2.3
1.75	197.4	145.0	119.6	72.4	40.7	28.3	21.9	15.2	11.8	9.6	8.2	7.1	6.3	5.2	4.4	2.8	2.4

CPHS 12-280

Constant Current Discharge Table - Amps @ 25°C (77°F)

EPV	5 min	10 min	15 min	30 min	60 min	90 min	2 hr	3 hr	4 hr	5 hr	6 hr	7 hr	8 hr	10 hr	12 hr	20 hr	24 hr
1.90	179.6	146.8	121.5	80.6	49.5	34.8	27.1	19.0	14.8	12.2	10.4	9.1	8.1	6.7	5.7	3.6	3.1
1.85	226.6	171.2	137.3	88.8	54.3	38.1	29.6	20.7	16.1	13.2	11.3	9.8	8.8	7.2	6.1	3.9	3.3
1.80	247.9	186.0	150.3	93.9	57.0	40.0	31.1	21.8	16.9	13.9	11.8	10.3	9.2	7.5	6.4	4.1	3.5
1.75	258.9	194.4	156.9	96.4	57.8	40.6	31.7	22.2	17.2	14.1	12.0	10.5	9.3	7.7	6.5	4.2	3.5

CPHS 12-320

Constant Current Discharge Table - Amps @ 25°C (77°F)

EPV	5 min	10 min	15 min	30 min	60 min	90 min	2 hr	3 hr	4 hr	5 hr	6 hr	7 hr	8 hr	10 hr	12 hr	20 hr	24 hr
1.90	200.2	170.7	135.2	87.3	53.4	37.6	29.4	20.7	16.2	13.4	11.4	9.8	8.7	7.1	6.0	3.7	3.1
1.85	248.3	185.0	150.5	95.9	58.0	40.8	31.8	22.4	17.5	14.5	12.3	10.6	9.4	7.6	6.5	4.0	3.4
1.80	267.8	196.8	162.3	101.8	60.7	42.6	33.1	23.3	18.2	15.1	12.8	11.1	9.8	7.9	6.7	4.1	3.5
1.75	277.5	203.2	168.2	105.4	62.0	43.5	33.8	23.7	18.5	15.4	13.0	11.2	9.9	8.0	6.8	4.2	3.5

CPHS 12-370

Constant Current Discharge Table - Amps @ 25°C (77°F)

EPV	5 min	10 min	15 min	30 min	60 min	90 min	2 hr	3 hr	4 hr	5 hr	6 hr	7 hr	8 hr	10 hr	12 hr	20 hr	24 hr
1.90	217.8	191.5	159.6	103.3	61.7	43.3	33.7	23.6	18.4	15.1	12.9	11.3	10.0	8.3	7.0	4.5	3.8
1.85	291.3	223.0	178.0	114.5	67.4	47.2	36.7	25.7	20.0	16.4	14.0	12.2	10.9	8.9	7.6	4.9	4.1
1.80	316.8	241.4	192.0	122.5	69.3	48.6	37.8	26.5	20.6	17.0	14.5	12.6	11.3	9.3	7.9	5.1	4.3
1.75	330.3	251.3	200.2	125.5	71.0	49.7	38.6	27.1	21.0	17.3	14.7	12.9	11.4	9.4	8.0	5.1	4.4

CPHS 12-400

Constant Current Discharge Table - Amps @ 25°C (77°F)

EPV	5 min	10 min	15 min	30 min	60 min	90 min	2 hr	3 hr	4 hr	5 hr	6 hr	7 hr	8 hr	10 hr	12 hr	20 hr	24 hr
1.90	214.4	201.5	162.3	109.9	68.2	47.6	36.9	25.8	20.0	16.4	14.0	12.2	10.8	8.9	7.6	4.8	4.1
1.85	295.7	236.8	189.0	122.2	74.8	52.2	40.4	28.2	21.8	17.9	15.2	13.3	11.8	9.7	8.2	5.2	4.4
1.80	346.5	262.6	210.0	131.0	78.7	54.7	42.3	29.4	22.7	18.6	15.8	13.8	12.2	10.0	8.5	5.4	4.6
1.75	363.0	277.5	220.0	134.8	79.7	55.5	42.9	29.8	23.2	19.0	16.1	14.0	12.5	10.2	8.6	5.5	4.6

CPHS 12-440

Constant Current Discharge Table - Amps @ 25°C (77°F)

EPV	5 min	10 min	15 min	30 min	60 min	90 min	2 hr	3 hr	4 hr	5 hr	6 hr	7 hr	8 hr	10 hr	12 hr	20 hr	24 hr
1.90	237.6	228.1	179.9	118.4	71.7	51.6	40.8	28.6	22.1	18.1	15.4	13.4	11.9	9.8	8.3	5.3	4.5
1.85	296.4	251.3	203.7	131.2	78.0	56.1	44.4	31.0	24.0	19.6	16.7	14.5	12.9	10.5	8.9	5.7	4.8
1.80	364.3	277.4	222.3	140.2	81.0	58.0	45.8	31.9	24.8	20.3	17.3	15.1	13.4	11.0	9.3	5.9	5.1
1.75	407.4	297.0	233.0	145.0	83.0	59.2	46.6	32.7	25.3	20.7	17.6	15.4	13.6	11.2	9.5	6.0	5.1

CPHS 12-475

Constant Current Discharge Table - Amps @ 25°C (77°F)

EPV	5 min	10 min	15 min	30 min	60 min	90 min	2 hr	3 hr	4 hr	5 hr	6 hr	7 hr	8 hr	10 hr	12 hr	20 hr	24 hr
1.90	267.5	238.1	187.5	119.2	73.8	51.4	39.7	27.6	21.4	17.5	14.9	13.0	11.5	9.4	8.0	5.1	4.3
1.85	358.9	276.7	217.5	132.9	81.5	56.5	43.6	30.3	23.3	19.1	16.2	14.1	12.5	10.2	8.7	5.5	4.6
1.80	397.7	305.2	241.0	142.7	85.7	59.4	45.8	31.7	24.4	19.9	16.9	14.7	13.0	10.6	9.0	5.7	4.8
1.75	424.5	325.8	257.3	148.8	86.6	60.5	46.9	32.4	24.9	20.3	17.2	15.0	13.2	10.8	9.1	5.7	4.9

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