



**Constant Current/Power Discharge Ratings Per Cell-PHR Series**

**PHR-1236**

Constant Current Discharge (Amperes) at 77° F (25° C)															
Final Voltage	5 min	10 min	15 min	20 min	30 min	45 min	1 hr	2 hr	3 hr	4 hr	5 hr	6 hr	8 hr	10 hr	20 hr
1.85V	23.5	18.0	14.6	12.2	8.9	6.3	4.9	2.7	1.9	1.6	1.3	1.1	0.9	0.7	0.4
1.80V	25.9	19.9	16.0	13.4	9.6	6.8	5.3	2.9	2.1	1.7	1.4	1.2	1.0	0.8	0.4
1.75V	30.8	22.5	18.1	14.5	10.2	7.1	5.5	3.1	2.2	1.7	1.4	1.2	1.0	0.8	0.4
1.70V	32.6	23.4	18.8	14.9	10.5	7.3	5.7	3.1	2.2	1.8	1.5	1.3	1.0	0.8	0.4
1.67V	35.0	24.5	19.5	15.4	10.9	7.6	5.9	3.2	2.3	1.8	1.5	1.3	1.0	0.8	0.4
1.60V	36.7	25.4	20.0	15.8	11.1	7.8	6.0	3.3	2.3	1.8	1.5	1.3	1.0	0.8	0.4
Constant Power Discharge (Watts/Cell) at 25° C															
Final Voltage	5 min	10 min	15 min	20 min	30 min	45 min	1 hr	2 hr	3 hr	4 hr	5 hr	6 hr	8 hr	10 hr	20 hr
1.85V	44.4	34.4	28.1	23.9	17.5	12.4	9.7	5.5	3.9	3.1	2.6	2.3	1.8	1.5	0.8
1.80V	48.3	37.7	30.6	26.0	18.7	13.4	10.5	5.8	4.2	3.4	2.8	2.5	2.0	1.6	0.9
1.75V	56.6	42.0	34.4	27.8	19.9	14.0	11.0	6.1	4.4	3.5	2.9	2.5	2.0	1.7	0.9
1.70V	59.0	43.2	35.2	28.3	20.3	14.3	11.3	6.2	4.5	3.5	3.0	2.5	2.0	1.7	0.9
1.67V	62.2	44.4	36.0	28.9	20.8	14.8	11.6	6.4	4.5	3.6	3.0	2.6	2.0	1.7	0.9
1.60V	63.8	45.3	36.2	29.3	21.0	14.9	11.7	6.4	4.6	3.6	3.0	2.6	2.0	1.7	0.9

**PHR-1290**

Constant Current Discharge (Amperes) at 77° F (25° C)															
Final Voltage	5 min	10 min	15 min	20 min	30 min	45 min	1 hr	2 hr	3 hr	4 hr	5 hr	6 hr	8 hr	10 hr	20 hr
1.85V	55.4	41.2	35.2	29.8	21.8	15.7	12.3	6.9	5.0	4.0	3.4	2.9	2.3	1.9	1.0
1.80V	63.4	46.7	39.0	32.7	23.6	16.8	13.1	7.3	5.3	4.2	3.5	3.1	2.4	2.0	1.1
1.75V	71.7	51.2	42.5	34.8	24.9	17.6	13.7	7.6	5.5	4.4	3.6	3.1	2.4	2.0	1.1
1.70V	79.4	56.2	45.7	36.9	26.1	18.3	14.1	7.8	5.6	4.4	3.7	3.2	2.5	2.0	1.1
1.67V	86.5	60.5	48.9	38.5	26.8	18.7	14.5	7.9	5.7	4.5	3.7	3.2	2.5	2.1	1.1
1.60V	93.4	63.1	50.2	39.2	27.2	18.9	14.6	8.0	5.8	4.6	3.8	3.2	2.5	2.1	1.1
Constant Power Discharge (Watts/Cell) at 25° C															
Final Voltage	5 min	10 min	15 min	20 min	30 min	45 min	1 hr	2 hr	3 hr	4 hr	5 hr	6 hr	8 hr	10 hr	20 hr
1.85V	103.8	78.4	67.9	58.1	42.9	31.1	24.6	13.9	10.1	8.1	6.9	5.9	4.7	3.9	2.1
1.80V	117.4	87.9	74.6	63.2	46.1	33.2	26.1	14.6	10.7	8.5	7.2	6.2	4.9	4.1	2.2
1.75V	130.7	95.1	80.3	66.5	48.3	34.6	27.1	15.1	10.9	8.8	7.3	6.3	5.0	4.1	2.2
1.70V	142.2	102.8	85.2	69.8	50.3	35.7	27.9	15.5	11.2	8.9	7.4	6.4	5.0	4.2	2.2
1.67V	151.7	108.9	90.0	71.9	51.3	36.2	28.3	15.7	11.4	9.0	7.5	6.5	5.1	4.2	2.3
1.60V	160.8	111.8	90.9	72.3	51.4	36.2	28.4	15.7	11.4	9.1	7.6	6.5	5.1	4.2	2.3

**PHR-12100**

Constant Current Discharge (Amperes) at 77° F (25° C)															
Final Voltage	5 min	10 min	15 min	20 min	30 min	45 min	1 hr	2 hr	3 hr	4 hr	5 hr	6 hr	8 hr	10 hr	20 hr
1.85V	62.5	47.7	39.0	33.0	25.7	19.5	15.8	9.4	6.9	5.4	4.5	3.9	3.1	2.5	1.3
1.80V	71.2	52.8	42.2	34.9	27.2	20.6	16.8	9.9	7.1	5.6	4.7	4.0	3.2	2.6	1.4
1.75V	81.1	56.4	44.8	37.3	28.3	21.3	17.3	10.2	7.3	5.7	4.8	4.1	3.2	2.7	1.4
1.70V	89.1	60.3	46.8	38.6	29.2	21.9	17.7	10.4	7.5	5.9	4.9	4.2	3.3	2.7	1.4
1.67V	94.8	63.0	48.9	40.1	30.1	22.5	18.2	10.6	7.6	6.0	5.0	4.3	3.3	2.8	1.4
1.60V	98.5	65.1	50.5	41.5	31.1	23.0	18.6	10.8	7.8	6.1	5.1	4.4	3.4	2.8	1.5
Constant Power Discharge (Watts/Cell) at 25° C															
Final Voltage	5 min	10 min	15 min	20 min	30 min	45 min	1 hr	2 hr	3 hr	4 hr	5 hr	6 hr	8 hr	10 hr	20 hr
1.85V	121.5	93.3	76.8	65.3	51.0	38.9	31.7	18.9	13.9	11.0	9.2	7.9	6.3	5.2	2.7
1.80V	137.1	102.2	82.2	68.4	53.6	40.8	33.4	19.8	14.3	11.3	9.5	8.1	6.4	5.3	2.8
1.75V	154.5	108.1	86.6	72.3	55.3	41.7	34.1	20.2	14.6	11.5	9.6	8.2	6.5	5.4	2.8
1.70V	167.8	114.3	89.2	74.2	56.6	42.6	34.8	20.5	14.8	11.7	9.7	8.4	6.6	5.5	2.9
1.67V	177.1	118.7	92.8	76.3	57.9	43.4	35.5	20.8	15.0	11.8	9.9	8.5	6.7	5.5	2.9
1.60V	181.9	121.3	94.8	78.2	59.3	44.0	35.9	21.0	15.2	12.0	10.0	8.6	6.8	5.6	2.9

**PHR-12150**

Constant Current Discharge (Amperes) at 77° F (25° C)															
Final Voltage	5 min	10 min	15 min	20 min	30 min	45 min	1 hr	2 hr	3 hr	4 hr	5 hr	6 hr	8 hr	10 hr	20 hr
1.85V	102.3	73.7	59.1	49.4	37.9	28.3	22.6	12.7	9.0	7.1	5.9	5.0	3.9	3.3	1.7
1.80V	118.2	82.7	65.2	53.7	40.7	29.9	23.8	13.2	9.3	7.3	6.0	5.2	4.0	3.4	1.8
1.75V	132.8	89.9	70.3	57.2	42.7	31.2	24.7	13.5	9.5	7.5	6.2	5.3	4.1	3.4	1.8
1.70V	144.0	96.6	74.9	60.5	44.6	32.3	25.5	13.9	9.7	7.6	6.3	5.4	4.2	3.5	1.8
1.67V	156.0	103.3	79.1	63.6	46.4	33.3	26.2	14.2	10.0	7.8	6.4	5.5	4.3	3.5	1.9
1.60V	166.8	109.2	82.7	66.6	48.4	34.4	26.8	14.6	10.2	8.0	6.6	5.6	4.4	3.6	1.9
Constant Power Discharge (Watts/Cell) at 25° C															
Final Voltage	5 min	10 min	15 min	20 min	30 min	45 min	1 hr	2 hr	3 hr	4 hr	5 hr	6 hr	8 hr	10 hr	20 hr
1.85V	199.0	144.2	116.2	97.6	75.4	56.4	45.2	25.6	18.3	14.3	11.9	10.2	8.1	6.7	3.6
1.80V	227.6	160.2	127.1	105.1	80.1	59.3	47.4	26.3	18.7	14.7	12.2	10.4	8.2	6.9	3.6
1.75V	253.0	172.4	135.7	111.1	83.4	61.2	48.9	26.9	19.0	14.9	12.4	10.6	8.3	6.9	3.7
1.70V	271.2	183.3	142.9	116.2	86.3	62.9	49.9	27.4	19.3	15.1	12.5	10.8	8.5	7.0	3.7
1.67V	291.5	194.5	150.0	121.4	89.3	64.5	51.2	28.0	19.7	15.4	12.7	10.9	8.6	7.1	3.8
1.60V	308.1	203.4	155.2	125.9	92.2	65.9	51.7	28.3	20.0	15.7	13.0	11.1	8.7	7.2	3.8

**PHR-12200**

Constant Current Discharge (Amperes) at 77° F (25° C)															
Final Voltage	5 min	10 min	15 min	20 min	30 min	45 min	1 hr	2 hr	3 hr	4 hr	5 hr	6 hr	8 hr	10 hr	20 hr
1.85V	111.4	77.6	64.0	55.6	44.6	34.2	28.0	17.1	13.0	10.7	9.1	7.9	6.3	5.2	2.9
1.80V	137.0	92.6	74.2	62.8	49.4	37.4	30.2	18.2	13.7	11.3	9.5	8.2	6.5	5.4	2.9
1.75V	162.2	104.8	81.8	68.4	52.6	39.6	31.8	19.0	14.2	11.6	9.7	8.4	6.7	5.5	2.9
1.70V	184.0	115.6	88.6	73.4	55.4	41.2	33.0	19.7	14.7	11.9	10.0	8.6	6.8	5.6	3.0
1.67V	202.0	124.2	93.8	77.0	57.6	42.8	34.4	20.4	15.0	12.2	10.2	8.8	6.9	5.7	3.0
1.60V	212.0	129.4	97.6	79.6	59.2	43.8	35.2	21.0	15.4	12.5	10.4	9.0	7.0	5.8	3.0
Constant Power Discharge (Watts/Cell) at 25° C															
Final Voltage	5 min	10 min	15 min	20 min	30 min	45 min	1 hr	2 hr	3 hr	4 hr	5 hr	6 hr	8 hr	10 hr	20 hr
1.85V	262.3	196.5	166.3	143.9	110.9	81.1	65.0	38.5	27.7	21.9	18.3	15.8	12.6	10.5	5.5
1.80V	308.7	221.1	186.4	157.0	118.1	85.3	68.0	39.9	28.6	22.5	18.8	16.2	12.9	10.8	5.7
1.75V	353.2	242.4	199.6	166.5	122.7	88.3	70.0	41.0	29.2	22.9	19.0	16.4	13.1	10.9	5.8
1.70V	378.4	261.2	211.5	175.2	127.6	90.6	71.8	41.4	29.7	23.3	19.3	16.7	13.3	11.0	5.8
1.67V	406.6	274.0	225.1	183.2	131.4	93.3	73.7	42.3	30.0	23.6	19.6	16.9	13.4	11.2	5.9
1.60V	432.7	289.8	232.3	189.0	134.8	95.6	75.2	42.7	30.4	24.0	20.0	17.2	13.6	11.3	6.0

**PHR-12300**

Constant Current Discharge (Amperes) at 77° F (25° C)															
Final Voltage	5 min	10 min	15 min	20 min	30 min	45 min	1 hr	2 hr	3 hr	4 hr	5 hr	6 hr	8 hr	10 hr	20 hr
1.85V	187.0	144.2	126.0	110.2	85.0	63.6	51.2	29.1	20.7	16.2	13.5	11.6	9.2	7.7	4.0
1.80V	214.5	158.9	138.1	118.8	89.5	65.9	52.9	30.0	21.4	16.7	13.9	12.0	9.5	7.9	4.1
1.75V	244.0	178.4	150.2	126.0	93.3	68.0	54.3	30.9	21.9	17.1	14.2	12.3	9.7	8.0	4.2
1.70V	268.6	193.4	160.1	134.1	98.1	70.9	55.9	31.4	22.4	17.6	14.6	12.5	9.8	8.1	4.2
1.67V	297.2	210.6	171.2	140.2	102.3	73.0	57.5	32.0	22.8	17.8	14.8	12.6	10.0	8.3	4.3
1.60V	326.7	227.3	180.7	147.6	106.3	75.7	58.8	32.6	23.1	18.2	15.1	12.9	10.2	8.4	4.4
Constant Power Discharge (Watts/Cell) at 25° C															
Final Voltage	5 min	10 min	15 min	20 min	30 min	45 min	1 hr	2 hr	3 hr	4 hr	5 hr	6 hr	8 hr	10 hr	20 hr
1.85V	363.7	282.0	247.8	217.9	168.9	127.0	102.5	58.4	41.9	32.9	27.4	23.7	18.8	15.8	8.3
1.80V	413.0	307.7	269.0	232.7	176.4	130.6	105.2	59.9	42.9	33.7	28.1	24.3	19.3	16.1	8.4
1.75V	465.0	342.2	290.0	244.5	182.2	133.6	107.2	61.3	43.7	34.3	28.6	24.7	19.6	16.3	8.5
1.70V	506.0	366.8	305.4	257.5	189.6	137.9	109.5	61.9	44.4	34.9	29.1	25.0	19.8	16.5	8.6
1.67V	555.3	396.5	324.6	267.6	196.7	141.4	112.0	62.7	44.9	35.3	29.4	25.2	20.0	16.7	8.7
1.60V	603.6	423.4	339.1	279.0	202.3	145.1	113.5	63.3	45.1	35.7	29.7	25.5	20.2	16.8	8.7

**PHR-12350**

Constant Current Discharge (Amperes) at 77° F (25° C)															
Final Voltage	5 min	10 min	15 min	20 min	30 min	45 min	1 hr	2 hr	3 hr	4 hr	5 hr	6 hr	8 hr	10 hr	20 hr
1.85V	209.8	171.1	145.5	123.1	95.0	69.9	56.5	33.7	24.4	19.1	15.8	13.6	10.7	8.8	4.6
1.80V	234.8	190.7	158.5	133.1	100.7	73.4	59.2	65.0	25.1	19.8	16.3	14.0	10.9	9.1	4.8
1.75V	262.2	209.2	171.4	142.2	105.8	76.7	61.6	35.8	25.7	20.1	16.7	14.3	11.2	9.3	4.9
1.70V	290.7	226.9	182.4	151.3	111.2	80.1	63.5	36.6	26.2	20.6	17.1	14.6	11.4	9.4	4.9
1.67V	321.5	242.8	195.3	159.6	116.5	82.8	65.3	37.3	26.7	21.0	17.3	14.9	11.6	9.6	5.0
1.60V	348.8	258.8	205.6	166.7	120.4	85.8	67.5	38.3	27.2	21.4	17.7	15.2	11.9	9.8	5.2
Constant Power Discharge (Watts/Cell) at 25° C															
Final Voltage	5 min	10 min	15 min	20 min	30 min	45 min	1 hr	2 hr	3 hr	4 hr	5 hr	6 hr	8 hr	10 hr	20 hr
1.85V	408.1	334.7	286.3	243.4	188.8	139.6	113.2	67.8	49.2	38.8	32.2	27.7	21.8	18.2	9.6
1.80V	452.1	369.2	308.6	260.6	198.3	145.4	117.7	69.9	50.4	39.8	33.1	28.3	22.3	18.6	9.8
1.75V	499.6	401.3	330.8	276.0	206.7	150.7	121.6	71.1	51.3	40.3	33.5	28.9	22.7	18.8	9.9
1.70V	547.6	430.4	348.0	290.7	214.9	155.8	124.3	72.1	52.0	41.1	34.1	29.2	23.0	19.1	10.0
1.67V	600.7	457.2	370.3	304.6	223.9	160.4	127.2	73.1	52.7	41.6	34.4	29.6	23.3	19.3	10.2
1.60V	644.5	482.0	385.7	315.2	229.1	164.4	130.2	74.5	53.2	42.0	34.9	29.9	23.6	19.4	10.3

**PHR-12400**

Constant Current Discharge (Amperes) at 77° F (25° C)															
Final Voltage	5 min	10 min	15 min	20 min	30 min	45 min	1 hr	2 hr	3 hr	4 hr	5 hr	6 hr	8 hr	10 hr	20 hr
1.85V	216.5	183.3	159.3	136.4	104.9	76.9	61.6	35.8	26.4	21.2	17.8	15.4	12.3	10.3	5.4
1.80V	264.0	210.3	176.9	149.5	112.4	82.9	65.6	37.7	27.6	22.0	18.5	15.9	12.6	10.5	5.5
1.75V	297.0	230.3	193.6	161.7	119.7	86.8	68.9	39.5	28.7	22.6	18.8	16.3	12.9	10.7	5.6
1.70V	335.3	254.1	209.9	173.9	128.0	91.8	72.5	41.1	29.6	23.2	19.3	16.6	13.2	10.9	5.7
1.67V	363.0	275.2	227.0	186.8	135.3	96.5	75.9	42.4	30.4	23.8	19.8	17.0	13.5	11.1	5.8
1.60V	390.7	298.7	243.3	198.3	142.6	100.3	78.4	43.8	31.2	24.6	20.3	17.5	13.8	11.3	6.0
Constant Power Discharge (Watts/Cell) at 25° C															
Final Voltage	5 min	10 min	15 min	20 min	30 min	45 min	1 hr	2 hr	3 hr	4 hr	5 hr	6 hr	8 hr	10 hr	20 hr
1.85V	421.2	358.6	313.4	269.7	208.5	153.4	123.4	71.9	53.3	42.9	36.1	31.4	25.2	21.2	11.1
1.80V	508.2	407.2	344.5	292.7	221.4	164.2	130.4	75.5	55.4	44.4	37.4	32.3	25.8	21.5	11.3
1.75V	565.9	441.9	373.7	313.9	233.7	170.6	136.0	78.5	57.2	45.3	37.8	32.8	26.2	21.8	11.5
1.70V	631.6	482.1	400.4	334.0	247.6	178.7	142.0	81.1	58.7	46.2	38.4	33.3	26.6	22.1	11.6
1.67V	678.3	518.2	430.4	356.5	260.1	186.8	148.0	83.2	60.0	47.2	39.2	33.8	26.9	22.3	11.8
1.60V	721.9	556.4	456.5	374.9	271.3	192.4	151.4	85.1	61.1	48.2	40.0	34.5	27.3	22.5	12.0

**PHR-12500**

Constant Current Discharge (Amperes) at 77° F (25° C)															
Final Voltage	5 min	10 min	15 min	20 min	30 min	45 min	1 hr	2 hr	3 hr	4 hr	5 hr	6 hr	8 hr	10 hr	20 hr
1.85V	286.0	219.0	182.0	157.0	121.0	89.5	75.4	44.6	34.9	28.4	23.1	20.1	16.2	13.5	7.4
1.80V	383.0	280.0	220.0	186.0	143.0	104.0	84.5	48.7	37.6	30.3	24.8	21.5	17.2	14.0	7.5
1.75V	432.0	308.0	240.0	200.0	149.0	108.0	88.4	50.5	38.3	31.0	25.5	22.1	17.5	14.3	7.6
1.70V	476.0	336.0	256.0	210.0	155.0	112.0	91.2	51.8	39.3	31.8	26.1	22.6	17.7	14.6	7.7
1.67V	525.0	362.0	272.0	223.0	163.0	115.0	93.3	52.5	41.0	32.9	26.9	23.1	18.0	14.9	7.8
1.60V	579.0	393.0	291.0	238.0	173.0	120.0	94.2	54.8	42.2	33.9	27.8	23.6	18.2	15.1	7.9
Constant Power Discharge (Watts/Cell) at 25° C															
Final Voltage	5 min	10 min	15 min	20 min	30 min	45 min	1 hr	2 hr	3 hr	4 hr	5 hr	6 hr	8 hr	10 hr	20 hr
1.85V	497.8	416.3	366.4	329.0	261.1	199.4	162.9	96.6	70.3	56.2	47.3	41.1	32.7	27.3	14.3
1.80V	583.6	464.8	403.5	355.1	278.1	210.8	171.7	100.2	72.9	57.7	48.3	41.8	33.3	27.7	14.6
1.75V	661.2	521.8	438.3	377.7	290.8	219.8	179.2	103.3	75.0	59.3	49.5	42.9	33.9	28.0	14.8
1.70V	722.4	555.3	462.8	397.6	303.2	228.4	185.4	106.7	76.5	60.3	50.4	43.4	34.3	28.3	15.0
1.67V	777.5	591.1	492.0	416.4	317.3	237.7	191.8	109.9	78.2	61.7	51.1	44.1	34.6	28.6	15.2
1.60V	829.6	628.8	511.8	429.8	325.9	242.2	195.1	110.8	78.8	61.9	51.5	44.3	34.6	28.6	15.2