



**RANGE SUMMARY**

# Introduction to . . . The VARTA RN Range



VARTA® pocket plate NiCd cells are suitable for industrial applications requiring proven reliability and the highest safety integrity. The RN range is optimised for applications covering discharges of 10 minutes to 60 minutes or more.

Typical RN battery applications include rail, marine and especially UPS, for which RN cells are specially optimised.

With over 100 years of experience in the design and manufacture of NiCd batteries, supported by an ethos of continuous improvement and technical development, EnerSys™ offers a world-leading range of solutions to suit varying applications.

Cost effectiveness, safety and durability make the VARTA RN range NiCd battery one of the most reliable and powerful systems on the market.

## Features & Benefits

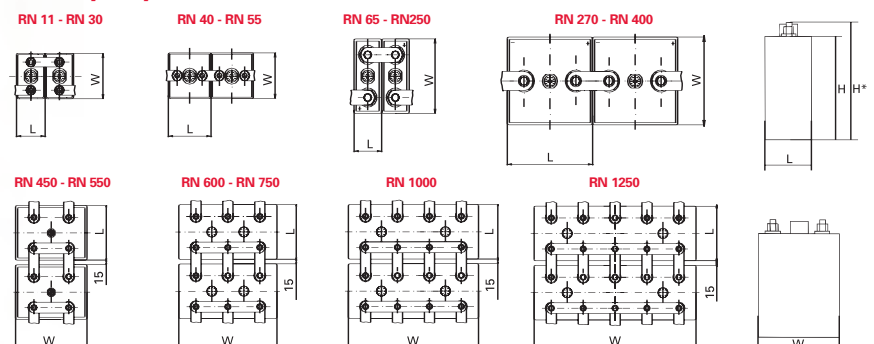
- Capacity Range: 11Ah - 1250Ah
- Recommended discharge time: 10 min to 60 min
- Ni-Cd cells of the NON-STOP range have especially been developed for UPS applications
- Excellent resistance against electrical and mechanical stress
- No risks of terminal decomposition or sudden death due to the plate construction
- Operational temperature: - 40°C to + 50°C
- Proven long service life: 20 years in stationary cycling operations
- Long storage life
- Robust construction - hard-wearing and insensitive to faults in maintenance
- Generous electrolyte reserve - long maintenance interval
- Translucent plastic cases for visible electrolyte level
- Conforms to IEC60623/KM...P

## General Specifications

Type*	Capacity (Ah)		Nominal Dimensions						Weight			Terminal			
	as per IEC60623 cl. 1.3.3.		Length mm	Length in	Width mm	Width in	Height mm	Height in	Height* mm	Height* in	Without electrolyte kg		Total weight kg	Terminal	
RN 11	11		46	1.8	85	3.3	167	6.6	187	7.4	0.71	1.6	1.03	2.2	M10 M
RN 18	18		46	1.8	85	3.3	237	9.3	257	10.1	1.04	2.3	1.48	3.2	M10 M
RN 24	24		46	1.8	85	3.3	237	9.3	257	10.1	1.12	2.5	1.51	3.3	M10 M
RN 30	30		46	1.8	85	3.3	237	9.3	257	10.1	1.27	2.8	1.64	3.6	M10 M
RN 40	40		85	3.3	85	3.3	237	9.3	257	10.1	1.80	4.0	2.68	5.9	M10 M
RN 48	48		85	3.3	85	3.3	237	9.3	257	10.1	2.05	4.5	2.82	6.2	M10 M
RN 55	55		85	3.3	85	3.3	237	9.3	257	10.1	2.30	5.1	2.97	6.5	M10 M
RN 65	65		53	2.1	134	5.4	364	14.3	392	15.4	3.56	7.8	4.85	10.6	M8 F
RN 75	75		53	2.1	134	5.4	364	14.3	392	15.4	3.78	8.3	5.00	11.0	M8 F
RN 90	90		69	2.7	134	5.4	364	14.3	392	15.4	4.36	9.6	6.18	13.6	M8 F
RN 110	110		69	2.7	134	5.4	364	14.3	392	15.4	4.94	10.9	6.51	14.3	M8 F
RN 125	125		70	2.8	164	6.6	364	14.3	392	15.4	5.61	12.3	7.67	16.9	M8 F
RN 140	140		70	2.8	164	6.6	364	14.3	392	15.4	6.04	13.3	7.84	17.2	M8 F
RN 160	160		108	4.3	164	6.6	364	14.3	392	15.4	6.92	15.2	10.61	23.3	M8 F
RN 185	185		108	4.3	164	6.6	364	14.3	392	15.4	7.50	16.5	10.91	24.0	M8 F
RN 205	205		108	4.3	164	6.6	364	14.3	392	15.4	8.27	18.2	11.17	24.6	M8 F
RN 225	225		108	4.3	164	6.6	364	14.3	392	15.4	8.82	19.4	11.62	25.6	M8 F
RN 250	250		108	4.3	164	6.6	364	14.3	392	15.4	9.62	21.2	12.22	26.9	M8 F
RN 270	270		164	6.6	158	6.2	364	14.3	392	15.4	11.20	24.7	16.30	35.3	M10 F
RN 300	300		164	6.6	158	6.2	364	14.3	392	15.4	11.50	25.3	16.50	36.3	M10 F
RN 320	320		164	6.6	158	6.2	364	14.3	392	15.4	12.20	26.9	17.00	37.4	M10 F
RN 340	340		164	6.6	158	6.2	364	14.3	392	15.4	13.00	28.6	17.50	38.5	M10 F
RN 355	355		164	6.6	158	6.2	364	14.3	392	15.4	13.70	30.2	18.00	39.6	M10 F
RN 380	380		164	6.6	158	6.2	364	14.3	392	15.4	14.30	31.5	18.50	40.7	M10 F
RN 400	400		164	6.6	158	6.2	364	14.3	392	15.4	15.10	33.2	18.90	41.6	M10 F
RN 450	450		176	6.9	246	9.7	382	15.0	408	16.1	20.00	44.1	27.30	60.1	M10 F
RN 500	500		176	6.9	246	9.7	382	15.0	408	16.1	21.20	46.7	28.30	62.3	M10 F
RN 550	550		176	6.9	246	9.7	382	15.0	408	16.1	22.40	49.3	29.30	64.5	M10 F
RN 600	600		176	6.9	368	14.5	382	15.0	408	16.1	27.00	59.5	40.70	89.7	M10 F
RN 675	675		176	6.9	368	14.5	382	15.0	408	16.1	29.50	65.0	41.90	92.3	M10 F
RN 750	750		176	6.9	368	14.5	382	15.0	408	16.1	32.00	70.5	43.10	95.0	M10 F
RN1000	1000		176	6.9	448	17.6	382	15.0	408	16.1	42.80	94.3	56.00	123.4	M10 F
RN 1250	1250		176	6.9	558	22.0	382	15.0	408	16.1	52.40	115.5	68.90	151.8	M10 F

\* Includes height over terminals

## Battery Layout



### Current (Amps) to 1.15V @ 20°C (68°F)

Type	Minutes					Hours					
	5	10	15	20	30	1	1.5	2	3	4	5
RN 11	10.70	9.60	8.90	8.40	7.70	6.30	5.30	4.60	3.30	2.71	2.20
RN 18	17.50	15.80	14.60	13.80	12.60	10.30	8.70	7.50	5.40	4.44	3.60
RN 24	23.40	21.00	19.50	18.40	16.80	13.70	11.60	10.00	7.20	5.90	4.80
RN 30	29.20	26.30	24.40	23.00	21.00	17.10	14.50	12.50	9.00	7.40	6.00
RN 40	39.30	34.90	31.30	29.80	27.60	22.00	18.90	16.70	12.40	9.80	8.00
RN 48	47.10	41.90	37.50	35.80	33.20	26.40	22.70	20.10	14.80	11.80	9.60
RN 55	54.00	48.00	43.00	41.00	38.00	30.20	26.00	23.00	17.00	13.50	11.00
RN 65	57.30	53.20	50.20	47.30	43.70	34.90	29.50	26.00	18.90	15.70	13.00
RN 75	66.10	61.40	58.00	54.50	50.50	40.20	34.10	30.00	21.80	18.10	15.00
RN 90	79.40	73.60	69.50	65.50	60.50	48.30	40.90	36.00	26.20	21.70	18.00
RN 110	97.00	90.00	85.00	80.00	74.00	59.00	50.00	44.00	32.00	26.50	22.00
RN 125	106.70	96.30	90.90	86.00	82.00	64.00	54.90	48.20	37.20	29.90	25.00
RN 140	119.50	107.90	101.80	96.30	86.70	71.70	61.50	54.00	41.70	33.50	28.00
RN 160	136.60	123.30	116.30	110.00	99.10	82.00	70.20	61.70	47.60	38.20	32.00
RN 185	157.90	142.60	134.50	127.20	114.60	94.80	81.20	71.30	55.00	44.20	37.00
RN 205	175.00	158.00	149.00	141.00	127.00	105.00	90.00	79.00	61.00	49.00	41.00
RN 225	183.30	166.70	156.70	150.00	136.70	111.70	97.50	85.80	65.00	52.50	45.00
RN 250	203.70	185.20	174.10	166.70	151.90	124.10	108.30	95.40	72.20	58.30	50.00
RN 270	220.00	200.00	188.00	180.00	164.00	134.00	117.00	103.00	78.00	63.00	54.00
RN 300	255.00	238.50	222.80	214.50	198.80	163.50	142.50	120.00	91.50	75.50	60.00
RN 320	272.00	254.40	237.60	228.80	212.00	174.40	152.00	128.00	97.60	79.20	64.00
RN 340	289.00	270.30	252.50	243.10	225.30	185.30	161.50	136.00	103.70	79.90	68.00
RN 355	301.80	282.20	263.60	253.80	235.20	193.50	168.60	142.00	108.30	83.40	71.00
RN 380	323.00	302.10	282.20	271.70	251.80	207.10	180.50	152.00	115.90	89.30	76.00
RN 400	340.00	318.00	297.00	286.00	265.00	218.00	190.00	160.00	122.00	94.00	80.00
RN 450	366.70	333.40	313.40	300.10	273.40	223.40	194.90	171.70	130.00	104.90	90.00
RN 500	407.40	370.40	348.20	333.40	303.80	248.20	216.60	190.80	144.40	116.60	100.00
RN 550	448.10	407.40	383.00	366.70	334.20	273.00	238.30	209.90	158.80	128.30	110.00
RN 600	488.90	444.50	417.80	400.10	364.60	297.80	259.90	229.00	173.30	139.90	120.00
RN 675	550.00	500.00	470.10	450.10	410.10	335.10	292.40	257.60	194.90	157.40	135.00
RN 750	611.10	555.60	522.30	500.10	455.70	372.30	324.90	286.20	216.60	174.90	150.00
RN 1000	814.80	740.80	696.40	666.80	607.60	496.40	433.20	381.60	288.80	233.20	200.00
RN 1250	1018.50	926.00	870.50	833.50	759.50	620.50	541.50	477.00	361.00	291.50	250.00

### Current (Amps) to 1.10V @ 20°C (68°F)

Type	Minutes					Hours					
	5	10	15	20	30	1	1.5	2	3	4	5
RN 11	15.40	13.20	11.90	11.00	9.90	7.90	6.40	5.20	3.60	2.90	2.33
RN 18	25.20	21.60	19.40	18.00	16.20	13.00	10.40	8.50	5.80	4.74	3.82
RN 24	33.60	28.80	25.90	24.00	21.60	17.30	13.90	11.40	7.80	6.30	5.09
RN 30	42.00	36.00	32.40	30.00	27.00	21.60	17.40	14.20	9.70	7.90	6.36
RN 40	50.90	44.40	40.70	37.80	34.30	26.90	22.50	18.50	13.20	10.50	8.36
RN 48	61.10	53.20	48.90	45.40	41.20	32.30	27.10	22.30	15.90	12.70	10.04
RN 55	70.00	61.00	56.00	52.00	47.20	37.00	31.00	25.50	18.20	14.50	11.50
RN 65	76.80	70.90	65.00	60.90	55.50	43.70	35.50	30.10	21.30	16.80	13.80
RN 75	88.60	81.80	75.00	70.20	64.10	50.50	40.90	34.80	24.50	19.40	15.90
RN 90	106.40	98.20	90.00	84.30	76.90	60.50	49.10	41.70	29.50	23.30	19.10
RN 110	130.00	120.00	110.00	103.00	94.00	74.00	60.00	51.00	36.00	28.50	23.30
RN 125	142.10	129.90	118.90	112.80	103.70	82.30	67.10	56.10	40.20	31.70	26.30
RN 140	159.10	145.50	133.20	126.30	116.10	92.20	75.10	62.80	45.10	35.50	29.40
RN 160	181.90	166.20	152.20	144.40	132.70	105.40	85.90	71.80	51.50	40.60	32.00
RN 185	210.30	192.20	176.00	167.00	153.40	121.80	99.30	83.00	59.60	46.90	38.90
RN 205	233.00	213.00	195.00	185.00	170.00	135.00	110.00	92.00	66.00	52.00	43.10
RN 225	248.30	225.80	207.50	195.00	181.70	146.70	121.70	101.70	71.70	56.70	47.30
RN 250	275.90	250.90	230.60	216.70	201.90	163.00	135.20	113.00	79.60	63.00	52.60
RN 270	298.00	271.00	249.00	234.00	218.00	176.00	146.00	122.00	86.00	68.00	56.80
RN 300	352.50	318.80	304.50	296.30	263.30	210.00	174.00	138.00	98.30	76.50	63.00
RN 320	376.00	340.00	324.80	316.00	280.80	224.00	185.60	147.20	104.80	81.60	67.20
RN 340	399.50	361.30	345.10	335.80	298.40	238.00	197.20	156.40	111.40	86.70	71.40
RN 355	417.10	377.20	360.30	350.60	311.50	248.50	205.90	163.30	116.30	90.50	74.60
RN 380	446.50	403.80	385.70	375.30	333.50	266.00	220.40	174.80	124.50	96.90	79.80
RN 400	470.00	425.00	406.00	395.00	351.00	280.00	232.00	184.00	131.00	102.00	84.00
RN 450	496.60	451.60	415.10	390.10	363.40	293.40	243.40	203.40	143.30	113.40	94.70
RN 500	551.80	501.80	461.20	433.40	403.80	326.00	270.40	226.00	159.20	126.00	105.20
RN 550	607.00	552.00	507.30	476.70	444.20	358.60	297.40	248.60	175.10	138.60	115.70
RN 600	662.20	602.20	553.40	520.10	484.60	391.20	324.50	271.20	191.00	151.20	126.20
RN 675	744.90	677.40	622.60	585.10	545.10	440.10	365.00	305.10	214.90	170.10	142.00
RN 750	827.70	752.70	691.80	650.10	605.70	489.00	405.60	339.00	238.80	189.00	157.80
RN 1000	1103.60	1003.60	922.40	866.80	807.60	652.00	540.80	452.00	318.40	252.00	210.40
RN 1250	1379.50	1254.50	1153.00	1083.50	1009.50	815.00	676.00	565.00	398.00	315.00	263.00

Current (Amps) to 1.05V @ 20°C (68°F)

Type	Minutes					Hours					
	5	10	15	20	30	1	1.5	2	3	4	5
RN 11	19.10	16.80	14.80	13.80	12.10	9.10	7.00	5.50	3.80	2.97	2.38
RN 18	31.20	27.50	24.20	22.50	19.80	14.80	11.40	8.90	6.20	4.86	3.89
RN 24	41.60	36.60	32.30	30.00	26.40	19.80	15.20	11.90	8.30	6.50	5.18
RN 30	52.00	45.80	40.40	37.50	33.00	24.70	19.00	14.90	10.40	8.10	6.48
RN 40	65.50	58.50	53.80	49.90	43.30	31.30	24.70	19.60	13.90	10.80	8.80
RN 48	78.50	70.30	64.60	59.90	51.90	37.50	29.70	23.60	16.70	12.90	10.56
RN 55	90.00	80.50	74.00	68.60	59.50	43.00	34.00	27.00	19.10	14.80	12.10
RN 65	100.50	89.80	82.70	76.80	68.00	50.80	39.60	31.30	21.90	17.10	14.10
RN 75	115.90	103.60	95.50	88.60	78.40	58.60	45.70	36.10	25.20	19.80	16.20
RN 90	139.10	124.40	114.50	106.40	94.10	70.40	54.80	43.40	30.30	23.70	19.50
RN 110	170.00	152.00	140.00	130.00	115.00	86.00	67.00	53.00	37.00	29.00	23.80
RN 125	176.80	161.60	150.60	141.50	129.90	98.80	75.60	59.80	41.50	32.90	26.90
RN 140	198.00	181.00	168.70	158.40	145.50	110.60	84.70	66.90	46.40	36.90	30.10
RN 160	226.30	206.80	192.80	181.10	166.20	126.40	96.80	76.50	53.10	42.10	34.40
RN 185	261.70	239.10	222.90	209.40	192.20	146.20	111.90	88.40	61.40	48.70	39.80
RN 205	290.00	265.00	247.00	232.00	213.00	162.00	124.00	98.00	68.00	54.00	44.10
RN 225	320.80	295.80	276.70	264.20	235.00	175.00	138.30	110.00	74.60	58.80	48.40
RN 250	356.50	328.70	307.40	293.50	261.10	194.40	153.70	122.20	82.90	65.40	53.80
RN 270	385.00	355.00	332.00	317.00	282.00	210.00	166.00	132.00	89.50	70.60	58.10
RN 300	438.80	401.30	388.50	367.50	330.00	257.30	190.50	147.00	102.00	78.00	64.50
RN 320	468.00	428.00	414.40	392.00	352.00	274.40	203.20	156.80	108.80	83.20	68.80
RN 340	497.30	454.80	440.30	416.50	374.00	291.60	215.90	166.60	115.60	88.40	73.10
RN 355	519.20	474.80	459.70	434.90	390.50	304.40	225.40	174.00	120.70	92.30	76.30
RN 380	555.80	508.30	492.10	465.50	418.00	325.90	241.30	186.20	129.20	98.80	81.70
RN 400	585.00	535.00	518.00	490.00	440.00	343.00	254.00	196.00	136.00	104.00	86.00
RN 450	641.70	591.70	553.30	528.30	470.00	349.90	276.70	220.00	149.20	117.70	96.80
RN 500	713.00	657.40	614.80	587.00	522.20	388.80	307.40	244.40	165.80	130.80	107.60
RN 550	784.30	723.10	676.30	645.70	574.40	427.70	338.10	268.80	182.40	143.90	118.40
RN 600	855.60	788.90	737.80	704.40	626.60	466.60	368.90	293.30	199.00	157.00	129.10
RN 675	962.60	887.50	830.00	792.50	705.00	524.90	415.00	329.90	223.80	176.60	145.30
RN 750	1069.50	986.10	922.20	880.50	783.30	583.20	461.10	366.60	248.70	196.20	161.40
RN 1000	1426.00	1314.80	1229.60	1174.00	1044.40	777.60	614.80	488.80	331.60	261.60	215.20
RN 1250	1782.50	1643.50	1537.00	1467.50	1305.50	972.00	768.50	611.00	414.50	327.00	269.00

Current (Amps) to 1.00V @ 20°C (68°F)

Type	Minutes					Hours					
	5	10	15	20	30	1	1.5	2	3	4	5
RN 11	21.80	20.10	18.20	16.70	14.50	10.10	7.30	5.60	3.90	3.04	2.42
RN 18	35.70	32.90	29.80	27.30	23.80	16.60	11.90	9.20	6.40	4.98	3.96
RN 24	47.60	43.80	39.70	36.40	31.70	22.10	15.80	12.30	8.50	6.60	5.28
RN 30	59.50	54.80	49.60	45.50	39.60	27.60	19.80	15.40	10.60	8.30	6.60
RN 40	75.60	69.80	63.60	56.70	50.20	34.20	26.50	20.70	14.10	11.00	8.87
RN 48	90.80	83.80	76.40	68.10	60.20	41.00	31.80	24.80	16.90	13.20	10.65
RN 55	104.00	96.00	87.50	78.00	69.00	47.00	36.40	28.40	19.40	15.10	12.20
RN 65	112.30	103.40	96.90	91.60	82.70	56.70	42.80	33.10	22.80	17.40	14.30
RN 75	129.50	119.30	111.80	105.70	95.50	65.50	49.40	38.20	26.30	20.10	16.50
RN 90	155.50	143.20	134.20	126.80	114.50	78.50	59.30	45.80	31.50	24.10	19.80
RN 110	190.00	175.00	164.00	155.00	140.00	96.00	72.50	56.00	38.50	29.50	24.20
RN 125	210.40	192.10	182.30	173.20	155.50	111.00	80.50	61.60	42.70	33.50	27.50
RN 140	235.60	215.10	204.20	194.00	174.10	124.30	90.10	69.00	47.80	37.60	30.80
RN 160	269.30	245.90	233.40	221.70	199.00	142.00	103.00	78.80	54.60	42.90	35.20
RN 185	311.30	284.30	269.80	256.30	230.10	164.20	119.10	91.10	63.20	49.60	40.70
RN 205	345.00	315.00	299.00	284.00	255.00	182.00	132.00	101.00	70.00	55.00	45.10
RN 225	375.00	341.70	320.00	305.00	276.70	195.80	147.50	112.50	75.80	60.00	49.50
RN 250	416.70	379.60	355.60	338.90	307.40	217.60	163.90	125.00	84.30	66.70	55.00
RN 270	450.00	410.00	384.00	366.00	332.00	235.00	177.00	135.00	91.00	72.00	59.40
RN 300	532.50	483.80	457.50	428.30	382.50	281.30	201.00	152.30	103.50	79.50	66.00
RN 320	568.00	516.00	488.00	456.80	408.00	300.00	214.40	162.40	110.40	84.80	70.40
RN 340	603.50	548.30	518.50	485.40	433.50	318.80	227.80	172.60	117.30	90.10	74.80
RN 355	630.10	572.40	541.40	506.80	452.60	332.80	237.90	180.20	122.50	94.10	78.10
RN 380	674.50	612.80	579.50	542.50	484.50	356.30	254.60	192.90	131.10	100.70	83.60
RN 400	710.00	645.00	610.00	571.00	510.00	375.00	268.00	203.00	138.00	106.00	88.00
RN 450	750.10	683.30	640.10	610.00	553.30	391.70	295.00	225.00	151.70	120.10	99.00
RN 500	833.40	759.20	711.20	677.80	614.80	435.20	327.80	250.00	168.60	133.40	110.00
RN 550	916.70	835.10	782.30	745.60	676.30	478.70	360.60	275.00	185.50	146.70	121.00
RN 600	1000.10	911.00	853.40	813.40	737.80	522.20	393.40	300.00	202.30	160.10	132.00
RN 675	1125.10	1024.90	960.10	915.00	830.00	587.50	442.50	337.50	227.60	180.10	148.50
RN 750	1250.10	1138.80	1066.80	1016.70	922.20	652.80	491.70	375.00	252.90	200.10	165.00
RN 1000	1666.80	1518.40	1422.40	1355.60	1229.60	870.40	655.60	500.00	337.20	266.80	220.00
RN 1250	2083.50	1898.00	1778.00	1694.50	1537.00	1088.00	819.50	625.00	421.50	333.50	275.00



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