With over 100 years of experience in design and manufacturing, EnerSys® PowerSafe® NiCd combines the well proven pocket plate construction **VGM** batterv with the concept. PowerSafe VGM batteries provide an exceptionally long lifetime and are the ideal solution for applications requiring absolute reliability with the minimum of routine maintenance.

PowerSafe VGM batteries provide a service lifetime of 20 years. The special single cell design and the valve regulated venting system eliminate the need to add water during a normal service life. With a recombination rate of up to 90%, depending on the float voltage and ambient conditions, PowerSafe VGM batteries lead the market in low maintenance standards.

The PowerSafe VGM battery provides all the advantages of the pocket plate design. It has been especially designed for "mixed loads" that include a mixture of high and low rates of discharge. It is used for frequent and infrequent discharges with a recommended discharge time of 30 min to 120 min.



BATTERY RANGE SUMMARY

Features & Benefits

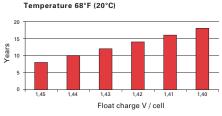
- Capacity range: 11Ah 1250Ah
- Recommended discharge time:
 30 min to 120 min
- No need to add water during the lifetime, but possible if required
- Translucent plastic cases for visible electrolyte level
- Conforms to IEC 62259

Advantages of PowerSafe® VGM Batteries

- Excellent resistance against electrical and mechanical load
- No risk of terminal decomposition or catastrophic failure due to plate construction
- Proven long service life;
 20 years in stationary cycling operations
- Robust construction; tolerant of minimal maintenance

Temperature Performance

- The VGM battery's continuous operational temperature is 32°F (0°C) to 104°F (40°C)
- Short term temperature fluctuations from -58°F (-50°C) to 158°F (70°C) can be tolerated



Effect of charging voltage on water consumption. Time in years to reach the warning electrolyte level "MIN".

Field of Application

UPS systems, emergency lighting, process control, telecommunication, power and substations, oil and gas refineries and railroad signaling







Construction

- 1 Low pressure flame arresting
- 2 PowerSafe® battery safety terminal

Redundant leak protection minimizes carbonate formation

3 Electrode edge

Connected to terminal by screwing or welding providing high mechanical stability

4 Electrode frame

Consisting of electrode edge and side bars, seals the plates and works as a current 5 Horizontal pockets

Formed by perforated steel strips containing the active material

6 Felt separator

Special felt separator insulates the plates and improves the internal recombination



General Specifications

PowerSafe® Battery Type	Rated Capacity C5Ah	Nominal Dimensions										Ter	minals
		Len mm	gth in	Wi mm	dth in	Hei mm	ght in	Height* mm in		Total Weight kg lbs		Type M - Male F - Female	Size
VGM 11	11	46	1.8	85	3.3	167	6.6	187	7.4	1.03	2.3	M	2 x M 10
VGM 18	18	46	1.8	85	3.3	237	9.3	257	10.1	1.48	3.3	M	2 x M 10
VGM 24	24	46	1.8	85	3.3	237	9.3	257	10.1	1.59	3.5	M	2 x M 10
VGM 30	30	46	1.8	85	3.3	237	9.3	257	10.1	1.72	3.8	M	2 x M 10
VGM 40	40	85	3.3	85	3.3	237	9.3	257	10.1	2.76	6.1	M	2 x M 10
VGM 48	48	85	3.3	85	3.3	237	9.3	257	10.1	2.82	6.2	M	2 x M 10
VGM 55	55	85	3.3	85	3.3	237	9.3	257	10.1	2.97	6.5	M	2 x M 10
VGM 65	65	53	2.1	134	5.3	364	14.3	392	15.4	4.85	10.7	F	2 x M 8
VGM 75	75	53	2.1	134	5.3	364	14.3	392	15.4	5.00	11.0	F	2 x M 8
VGM 90	90	69	2.7	134	5.3	364	14.3	392	15.4	6.18	13.6	F	2 x M 8
VGM 110	110	69	2.7	134	5.3	364	14.3	392	15.4	6.51	14.4	F	2 x M 8
VGM 125	125	70	2.8	164	6.5	364	14.3	392	15.4	7.67	16.9	F	2 x M 8
VGM 140	140	70	2.8	164	6.5	364	14.3	392	15.4	7.84	17.3	F	2 x M 8
VGM 160	160	108	4.3	164	6.5	364	14.3	392	15.4	10.61	23.4	F	2 x M 8
VGM 185	185	108	4.3	164	6.5	364	14.3	392	15.4	10.91	24.1	F	2 x M 8
VGM 205	205	108	4.3	164	6.5	364	14.3	392	15.4	11.17	24.6	F	2 x M 8
VGM 225	225	108	4.3	164	6.5	364	14.3	392	15.4	11.62	25.6	F	2 x M 8
VGM 250	250	108	4.3	164	6.5	364	14.3	392	15.4	12.22	26.9	F	2 x M 8
VGM 270	270	164	6.5	158	6.2	364	14.3	392	15.4	16.30	35.9	F	2 x M 10
VGM 300	300	164	6.5	158	6.2	364	14.3	392	15.4	16.50	36.4	F	2 x M 10
VGM 320	320	164	6.5	158	6.2	364	14.3	392	15.4	17.00	37.5	F	2 x M 10
VGM 340	340	164	6.5	158	6.2	364	14.3	392	15.4	17.50	38.6	F	2 x M 10
VGM 355	355	164	6.5	158	6.2	364	14.3	392	15.4	18.00	39.7	F	2 x M 10
VGM 380	380	164	6.5	158	6.2	364	14.3	392	15.4	18.50	40.8	F	2 x M 10
VGM 400	400	164	6.5	158	6.2	364	14.3	392	15.4	18.90	41.7	F	2 x M 10
VGM 450	450	176	6.9	246	9.7	382	15.0	408	16.1	27.30	60.2	F	4 x M 10
VGM 500	500	176	6.9	246	9.7	382	15.0	408	16.1	28.30	62.4	F	4 x M 10
VGM 550	550	176	6.9	246	9.7	382	15.0	408	16.1	29.30	64.6	F	4 x M 10
VGM 600	600	176	6.9	368	14.5	382	15.0	408	16.1	40.70	89.7	F	6 x M 10
VGM 675	675	176	6.9	368	14.5	382	15.0	408	16.1	41.90	92.4	F	6 x M 10
VGM 750	750	176	6.9	368	14.5	382	15.0	408	16.1	43.10	95.0	F	6 x M 10
VGM 1000	1000	176	6.9	448	17.6	382	15.0	408	16.1	56.00	123.5	F	8 x M 10
VGM 1250	1250	176	6.9	558	22.0	382	15.0	408	16.1	68.90	151.9	F	10 x M 10

^{*} Includes height over terminals

Battery Layout

VGM 11 - VGM 30

VGM 40 - VGM 55













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