

GAZ®

*lomain*TM
NEXT GENERATION
OF BATTERIES

Extreme low maintenance Ni-Cd batteries
Batteries Ni-Cd à très faible entretien

Made in Germany



EnerSys[®]

Power/Full Solutions

Extreme low maintenance Ni-Cd batteries Batteries Ni-Cd à très faible entretien

... stands for less water
... signifie peu d'eau

Less is more!

LESS water consumption

> **LONGER** topping up interval

LESS maintenance costs

> **MORE** costs savings

LESS performance loss at high temperatures and during aging

> **MORE** durability

LESS recharge time

> **MORE** safety

LESS life cycle costs

> **MORE** cost effectiveness

Moins égal plus!

Moins de consommation d'eau

> Intervalles de remplissage **Plus longs**

Moins d'entretien

> **Plus** d'économie

Moins de perte de performance pour les applications à température élevée et au cours du vieillissement

> **Plus** de résistance

Moins de temps de recharge

> **Plus** de sécurité

Moins de coûts d'exploitation

> **Plus** d'efficacité

GAZ[®]

lomain[™]
NEXT GENERATION
OF BATTERIES

LESS WATER

Less is more –
more advantages

SINGLE CELL CONSTRUCTION

Construction des différentes cellules

Low pressure flame arresting vent

Soupe basse pression retardatrice de flamme

GAZ[®] safety terminal

Redundant leak protection minimizes carbonate formation.

Borne sécurisée GAZ[®]

La double protection contre les fuites minimise la formation de carbonate.

Electrode edge

Connected to terminal by screwing or welding providing high mechanical stability.

Queue de plaque

Vissée ou soudée à la borne. Garantit une grande rigidité.

Electrode frame

Consisting of electrode edge and side bars. Seals the plates and acts as a current collector.

Cadre des plaques

Constitué de la queue de plaque et des barres latérales, il « ferme » la plaque et joue le rôle de collecteur de courant.

Horizontal pockets

Formed by perforated steel strips containing the active material.

Pochettes horizontales

Formées par des bandes d'acier perforées contenant la matière active.

Fleece separator

Special fleece separator insulates the plates and improves the internal recombination.

Séparateur

Séparateur spécial en fibre de verre qui isole les plaques et favorise la recombinaison interne.



GAZ® Ni-Cd battery range lomain™

Extreme low maintenance

Based on more than 100 years of experience in design and manufacturing, lomain™ combines the well-proven GAZ® Ni-Cd pocket plate construction with the new GAZ® lomain™ battery concept. lomain™ batteries provide an exceptionally long lifetime and reduce maintenance requirements to a minimum. It is the ideal solution for applications requiring absolute reliability with the minimum of routine maintenance.

GAZ® lomain™ battery concept

lomain™ batteries provide a 20 year service lifetime. The special single cell design and the valve regulated venting system eliminate the need for topping-up during a normal service life. lomain™ cells are equipped with a low pressure flame arresting vent, permitting the topping-up of water if required. With a recombination rate of up to 90 %, depending on the float voltage and ambient conditions, lomain™ batteries lead the market in low maintenance standards.

GAZ® lomain™ improved chargeability at high temperatures

By a further developed technology lomain™ next generation of batteries has been significantly improved. lomain™ next generation of batteries is perfectly suited for high temperature applications with minimized maintenance requirements. It shows an excellent chargeability at elevated temperatures at a single step voltage charge. The range of batteries KGM ... P can be recharged to over 90 % of their nominal capacity within only 15 hours with a constant voltage charge of 1.43 V/cell and a current limitation of 0.1 I_tA.

Temperature performance

The continuous operational temperature of lomain™ batteries ranges from 0 °C to + 40 °C. Short term temperature fluctuations from - 50 °C to + 70 °C can be tolerated.

Quality Management System

The quality management system of our company has been certified since 1993. Strict quality controls, the use of high quality materials, the steady development of production processes and ultimately an uncompromising level of service to our customers exemplify the company history and philosophy. All major International standards are met, including IEC 62259, ISO 9001 and ISO 14001.



Batteries Ni-Cd lomain™ GAZ® à très faible entretien

lomain™ allie l'expérience de plus de 100 ans dans la construction et la fabrication de plaques pochettes au nouveau concept de batterie lomain™ GAZ®. Cela conduit à des batteries Ni-Cd GAZ® à la durée de vie extrêmement longue et aux coûts d'entretien minimums. Les batteries de cette gamme conviennent parfaitement aux applications où une totale fiabilité est requise avec un minimum de maintenance.

Concept des batteries lomain™ GAZ®

Grâce à leur design spécial et au système de ventilation régulée par soupape, les batteries lomain™ offrent une durée de vie de 20 ans avec un minimum de remplissage d'eau. Les batteries lomain™ sont pourvues d'une soupape basse pression retardatrice de flamme qui permet de remplir d'eau si nécessaire. Avec un taux de recombinaison pouvant être de 90 %, selon la tension de charge et la température ambiante, les batteries lomain™ réduisent considérablement les coûts d'entretien.

Les batteries lomain™ chargeabilité améliorée à des températures élevées

Grâce à la technologie éprouvée lomain™, une nouvelle génération de batteries aux capacités améliorées a été développée. La nouvelle génération de batteries lomain™ est parfaitement adaptée à des applications à température élevée avec un minimum d'exigences d'entretien. Elle démontre une excellente chargeabilité à des températures élevées, même en cas de charge mono-palier. Les batteries de la gamme KGM ... P peuvent être rechargées à plus de 90 % de leur capacité nominale en seulement 15 heures avec une charge à tension constante de 1,43 V/élément et un courant limité à 0,1 I_tA.

Plage de températures

Les batteries de cette gamme sont généralement utilisées pour des températures d'exploitation situées entre 0 °C et 40 °C. Des fluctuations de température temporaires de - 50 °C à + 70 °C sont néanmoins tolérées.

Système de gestion de la qualité

Le système d'assurance qualité de notre société est certifié depuis 1993. De stricts contrôles de qualité, l'utilisation de matériaux de haute qualité, un perfectionnement continu des processus de production et d'exploitation et enfin l'excellent service fournit à nos clients résument l'histoire de notre société et sa philosophie. Toutes les normes internationales majeures, y compris IEC 62259, ISO 9001 et ISO 14001, sont ainsi remplies.



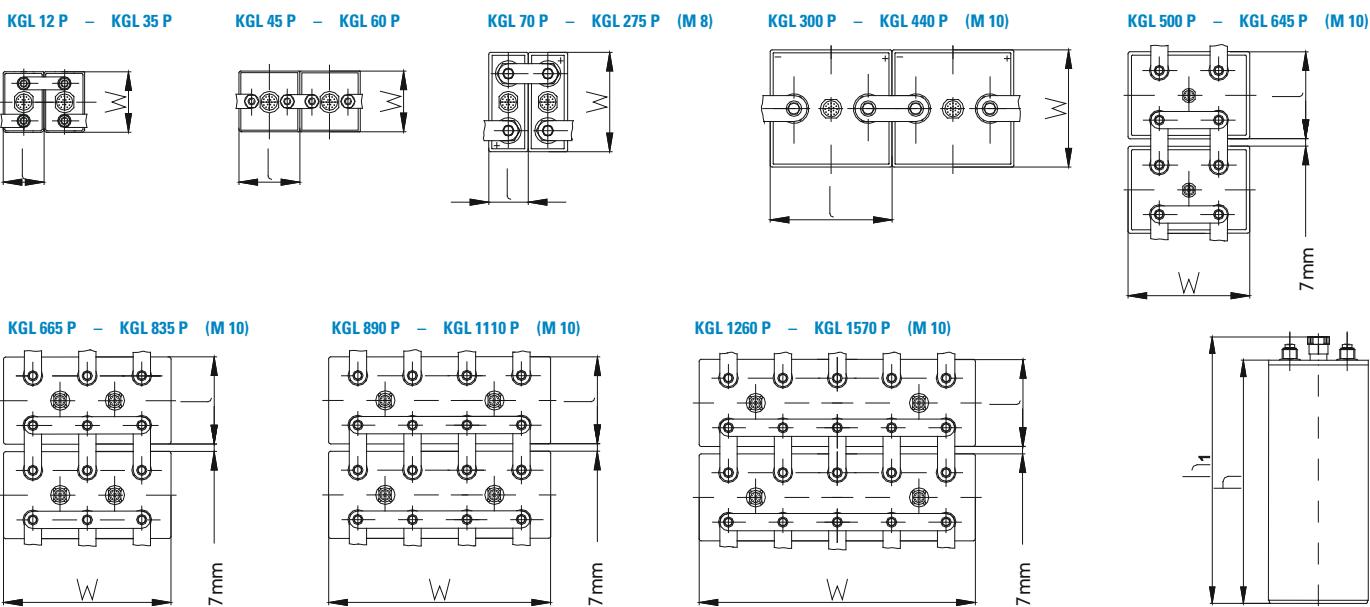
GAZ® lomain™ battery range KGL ... P

This GAZ® lomain™ cell type combines the well-proven Ni-Cd pocket plate design and the features of the GAZ® lomain™ battery concept. It is used for low rates of discharge over long periods (e. g. the current is relatively low in comparison to the total stored energy). The discharges can generally be infrequent and the recommended discharge time for the range of batteries KGL ... P is 1 hour to 100 hours.

Field of application

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

Battery Layout



Gamme de batteries GAZ® lomain™ KGL ... P

Ce type de batterie GAZ® lomain™ allie la construction éprouvée de plaques à pochettes à tous les avantages du nouveau concept de batterie GAZ® lomain™. Les batteries de cette gamme ont été spécialement développées pour les faibles courants de décharge durant un temps de décharge relativement long. Le temps de décharge recommandé pour la gamme KGL ... P est d'1 à 100 heures.

Champs d'application

Systèmes UPS, éclairage de secours, contrôle de processus, télécommunication, centrales électriques et postes de couplage, raffineries de pétrole et de gaz, signalisation ferroviaire.

Technical Specifications / Caractéristiques techniques

Cell type Type	Nominal Capacity C_s [Ah] at 1.00 V Capacité nominale C_s [Ah] à 1,00 V	Dimensions / Dimensions [mm]				Terminals / Bornes		Total Weight / Poids total [kg]
		I	w	h	h ₁	Type / Art M = Nut / écrou S = Screw / vis	Size / Taille	
KGL 12 P	12	46	85	167	193	M	2 x M 10	1.0
KGL 20 P	20	46	85	237	263	M	2 x M 10	1.4
KGL 25 P	25	46	85	237	263	M	2 x M 10	1.5
KGL 35 P	35	46	85	237	263	M	2 x M 10	1.6
KGL 45 P	45	85	85	237	263	M	2 x M 10	2.7
KGL 50 P	50	85	85	237	263	M	2 x M 10	2.8
KGL 60 P	60	85	85	237	263	M	2 x M 10	2.9
KGL 70 P	70	53	134	364	394	S	2 x M 8	4.9
KGL 80 P	80	53	134	364	394	S	2 x M 8	5.0
KGL 100 P	100	69	134	364	394	S	2 x M 8	6.0
KGL 120 P	120	69	134	364	394	S	2 x M 8	6.3
KGL 135 P	135	70	164	364	394	S	2 x M 8	7.7
KGL 155 P	155	70	164	364	394	S	2 x M 8	7.8
KGL 175 P	175	108	164	364	394	S	2 x M 8	10.4
KGL 205 P	205	108	164	364	394	S	2 x M 8	10.8
KGL 225 P	225	108	164	364	394	S	2 x M 8	11.1
KGL 245 P	245	108	164	364	394	S	2 x M 8	11.6
KGL 275 P	275	108	164	364	394	S	2 x M 8	12.2
KGL 300 P	300	164	158	364	394	S	2 x M 10	16.2
KGL 330 P	330	164	158	364	394	S	2 x M 10	16.5
KGL 350 P	350	164	158	364	394	S	2 x M 10	17.0
KGL 375 P	375	164	158	364	394	S	2 x M 10	17.5
KGL 390 P	390	164	158	364	394	S	2 x M 10	18.0
KGL 420 P	420	164	158	364	394	S	2 x M 10	18.5
KGL 440 P	440	164	158	364	394	S	2 x M 10	18.9
KGL 500 P	500	176	246	382	410	S	4 x M 10	27.3
KGL 555 P	555	176	246	382	410	S	4 x M 10	28.3
KGL 585 P	585	176	246	382	410	S	4 x M 10	28.7
KGL 610 P	610	176	246	382	410	S	4 x M 10	29.3
KGL 645 P	645	176	246	382	410	S	4 x M 10	29.8
KGL 665 P	665	176	368	382	420	S	6 x M 10	40.7
KGL 705 P	705	176	368	382	420	S	6 x M 10	41.4
KGL 750 P	750	176	368	382	420	S	6 x M 10	41.9
KGL 795 P	795	176	368	382	420	S	6 x M 10	42.6
KGL 835 P	835	176	368	382	420	S	6 x M 10	43.1
KGL 890 P	890	176	448	382	420	S	8 x M 10	49.2
KGL 990 P	990	176	448	382	420	S	8 x M 10	53.7
KGL 1110 P	1110	176	448	382	420	S	8 x M 10	56.0
KGL 1260 P	1260	176	558	382	420	S	10 x M 10	63.8
KGL 1320 P	1320	176	558	382	420	S	10 x M 10	65.8
KGL 1390 P	1390	176	558	382	420	S	10 x M 10	67.8
KGL 1460 P	1460	176	558	382	420	S	10 x M 10	69.4
KGL 1570 P	1570	176	558	382	420	S	10 x M 10	70.6

* rated capacity acc. to IEC 62259, point 3.3 / Capacité nominale conformément à la IEC 62259, section 3.3

Battery range KGL ... P
Gamme de batteries KGL ... P

Electrical Specifications
Spécifications électriques

Final discharge voltage per cell / Tension finale / élément

1.15 V

Cell type / Type	Discharge current / Courant de décharge [A]														
	5 min	10 min	20 min	30 min	1 h	1.5 h	2 h	3 h	4 h	5 h	6 h	7 h	8 h	9 h	10 h
KGL 12 P	6.00	5.70	5.30	5.10	4.30	3.71	3.26	2.62	2.33	2.20	1.85	1.60	1.42	1.27	1.16
KGL 20 P	9.80	9.30	8.60	8.30	7.10	6.10	5.40	4.28	3.80	3.60	3.03	2.62	2.32	2.08	1.89
KGL 25 P	13.10	12.40	11.50	11.10	9.40	8.10	7.10	5.71	4.78	4.52	3.80	3.29	2.91	2.61	2.37
KGL 35 P	16.40	15.50	14.40	13.90	11.70	10.10	8.90	7.10	6.40	6.00	5.05	4.37	3.86	3.47	3.15
KGL 45 P	23.10	20.70	19.20	18.50	15.60	13.50	11.80	9.50	8.50	8.00	6.73	5.83	5.15	4.62	4.20
KGL 50 P	30.30	27.20	25.20	24.30	20.00	17.70	15.60	12.40	9.80	9.10	7.66	6.63	5.86	5.26	4.78
KGL 60 P	38.00	34.00	31.00	30.00	24.30	21.90	19.40	15.10	12.10	10.80	9.09	7.87	6.95	6.24	5.67
KGL 70 P	38.00	37.00	35.00	34.00	27.00	23.40	21.00	16.30	13.80	12.80	10.80	9.30	8.20	7.40	6.70
KGL 80 P	44.00	43.00	40.00	39.00	31.00	27.10	24.20	18.80	15.60	14.50	12.20	10.60	9.30	8.40	7.60
KGL 100 P	53.00	51.00	49.00	46.00	37.00	32.50	29.10	22.50	19.20	17.70	14.90	12.90	11.40	10.20	9.30
KGL 120 P	65.00	63.00	59.00	57.00	46.00	39.70	35.60	27.50	23.50	21.80	18.30	15.90	14.00	12.60	11.40
KGL 135 P	74.00	67.00	65.00	64.00	50.00	44.00	39.20	32.40	26.70	24.50	20.60	17.90	15.80	14.20	12.90
KGL 155 P	82.00	76.00	71.00	66.00	56.00	49.00	43.90	36.20	30.70	28.20	23.70	20.50	18.20	16.30	14.80
KGL 175 P	94.00	86.00	81.00	75.00	65.00	56.00	50.00	41.40	34.60	31.80	26.80	23.20	20.50	18.40	16.70
KGL 205 P	108.00	100.00	94.00	87.00	75.00	65.00	58.00	47.90	40.60	37.30	31.40	27.20	24.00	21.60	19.60
KGL 225 P	120.00	111.00	104.00	97.00	82.00	72.00	64.00	53.00	44.50	40.90	34.40	29.80	26.30	23.60	21.50
KGL 245 P	127.00	117.00	110.00	102.00	87.00	79.00	70.00	55.00	48.50	44.50	37.50	32.40	28.60	25.70	23.40
KGL 275 P	140.00	130.00	122.00	113.00	97.00	87.00	78.00	61.00	54.40	50.00	42.10	36.40	32.20	28.90	26.30
KGL 300 P	152.00	140.00	131.00	122.00	105.00	94.00	84.00	66.00	59.50	54.60	46.00	39.80	35.10	31.50	28.70
KGL 330 P	174.00	164.00	153.00	145.00	124.00	114.00	99.00	77.00	65.60	60.00	50.50	43.70	38.60	34.70	31.50
KGL 350 P	186.00	175.00	162.00	155.00	133.00	122.00	106.00	82.00	69.50	63.60	53.50	46.30	40.90	36.70	33.40
KGL 375 P	197.00	186.00	173.00	165.00	141.00	130.00	112.00	87.00	74.50	68.20	57.40	49.70	43.90	39.40	35.80
KGL 390 P	206.00	194.00	181.00	171.00	147.00	136.00	117.00	91.00	77.50	70.90	59.70	51.70	45.60	41.00	37.20
KGL 420 P	221.00	208.00	194.00	184.00	157.00	145.00	125.00	97.00	83.50	76.40	64.30	55.70	49.20	44.10	40.10
KGL 440 P	227.00	213.00	198.00	189.00	162.00	149.00	128.00	102.00	87.40	80.00	67.30	58.30	51.50	46.20	42.00
KGL 500 P	337.00	306.00	277.00	248.00	205.00	192.00	180.00	135.00	107.00	90.00	76.00	66.00	58.00	52.00	47.00
KGL 555 P	374.00	340.00	308.00	276.00	228.00	213.00	200.00	150.00	119.00	100.00	84.00	73.00	64.00	58.00	52.00
KGL 585 P	394.00	358.00	324.00	290.00	239.00	224.00	210.00	158.00	125.00	105.00	88.00	77.00	68.00	61.00	55.00
KGL 610 P	412.00	374.00	339.00	303.00	251.00	235.00	220.00	165.00	131.00	110.00	93.00	81.00	71.00	64.00	57.00
KGL 645 P	434.00	394.00	357.00	320.00	264.00	247.00	232.00	174.00	138.00	116.00	97.00	84.00	75.00	67.00	61.00
KGL 665 P	449.00	408.00	369.00	331.00	273.00	256.00	240.00	180.00	143.00	120.00	101.00	87.00	77.00	69.00	63.00
KGL 705 P	475.00	431.00	390.00	349.00	289.00	270.00	254.00	190.00	151.00	127.00	107.00	92.00	82.00	73.00	66.00
KGL 750 P	506.00	459.00	416.00	372.00	308.00	288.00	270.00	203.00	161.00	135.00	114.00	98.00	87.00	78.00	71.00
KGL 795 P	535.00	486.00	440.00	394.00	325.00	305.00	286.00	214.00	170.00	143.00	120.00	104.00	92.00	82.00	75.00
KGL 835 P	562.00	510.00	462.00	413.00	342.00	320.00	300.00	225.00	178.00	150.00	126.00	109.00	97.00	87.00	79.00
KGL 890 P	599.00	544.00	492.00	441.00	364.00	341.00	320.00	240.00	190.00	160.00	134.00	117.00	103.00	92.00	84.00
KGL 990 P	667.00	605.00	548.00	491.00	405.00	380.00	356.00	267.00	212.00	178.00	150.00	130.00	115.00	103.00	93.00
KGL 1110 P	749.00	680.00	616.00	551.00	456.00	427.00	400.00	300.00	238.00	200.00	168.00	146.00	129.00	116.00	105.00
KGL 1260 P	848.00	771.00	697.00	625.00	516.00	483.00	453.00	340.00	269.00	227.00	190.00	165.00	146.00	131.00	119.00
KGL 1320 P	889.00	807.00	730.00	654.00	540.00	506.00	475.00	356.00	282.00	237.00	199.00	173.00	153.00	137.00	124.00
KGL 1390 P	936.00	850.00	769.00	689.00	569.00	533.00	500.00	375.00	297.00	250.00	210.00	182.00	161.00	144.00	131.00
KGL 1460 P	983.00	893.00	808.00	724.00	598.00	560.00	525.00	394.00	312.00	263.00	221.00	191.00	169.00	151.00	138.00
KGL 1570 P	1057.00	960.00	869.00	778.00	643.00	602.00	565.00	424.00	335.00	282.00	237.00	206.00	182.00	163.00	148.00

Final discharge voltage per cell / Tension finale / élément

1.10 V

Cell type / Type	Discharge current / Courant de décharge [A]														
	5 min	10 min	20 min	30 min	1 h	1.5 h	2 h	3 h	4 h	5 h	6 h	7 h	8 h	9 h	10 h
KGL 12 P	8.80	7.80	6.90	6.60	5.50	4.53	3.93	3.02	2.56	2.33	1.95	1.68	1.47	1.32	1.19
KGL 20 P	14.30	12.70	11.30	10.70	9.00	7.40	6.40	4.90	4.19	3.82	3.20	2.75	2.42	2.16	1.95
KGL 25 P	19.10	17.00	15.00	14.30	12.00	9.90	8.60	6.60	5.28	4.81	4.02	3.46	3.04	2.71	2.45
KGL 35 P	23.90	21.20	18.80	17.90	15.00	12.40	10.70	8.20	6.98	6.36	5.32	4.58	4.02	3.59	3.24
KGL 45 P	29.10	26.40	24.60	23.20	19.90	16.40	14.40	11.00	9.30	8.48	7.09	6.11	5.36	4.79	4.32
KGL 50 P	38.20	34.70	32.30	30.50	24.50	20.90	18.10	13.80	10.90	9.50	7.95	6.84	6.01	5.36	4.85
KGL 60 P	47.00	43.00	40.00	38.00	29.00	25.40	21.80	16.60	13.10	11.30	9.45	8.14	7.15	6.38	5.76
KGL 70 P	53.00	50.00	47.00	44.00	34.90	28.90	25.30	18.70	15.30	13.60	11.38	9.79	8.60	7.68	6.94
KGL 80 P	62.00	58.00	54.00	51.00	41.00	33.40	29.20	21.50	17.30	15.40	12.88	11.09	9.74	8.69	7.85
KGL 100 P	74.00	70.00	66.00	61.00	48.00	40.00	35.00	25.80	21.00	18.80	15.73	13.54	11.89	10.61	9.59
KGL 120 P	90.00	86.00	80.00	75.00	60.00	49.00	42.90	31.60	25.90	23.10	19.33	16.63	14.61	13.04	11.78
KGL 135 P	96.00	89.00	86.00	80.00	64.00	55.00	47.80	36.20	29.20	25.80	21.60	18.60	16.30	14.60	13.20
KGL 155 P	107.00	99.00	96.00	89.00	75.00	62.00	53.50	40.60	33.50	29.60	24.80	21.30	18.70	16.70	15.10
KGL 175 P	123.00	113.00	110.00	103.00	86.00	71.00	61.20	46.40	37.80	33.40	27.90	24.00	21.10	18.90	17.00
KGL 205 P	143.00	131.00</													

Battery range KGL ... P

Gamme de batteries KGL ... P

Electrical Specifications

Spécifications électriques

Final discharge voltage per cell / Tension finale / élément

1.05 V

Cell type / Type	Discharge current / Courant de décharge [A]														
	5 min	10 min	20 min	30 min	1 h	1.5 h	2 h	3 h	4 h	5 h	6 h	7 h	8 h	9 h	10 h
KGL 12 P	11.00	10.30	9.00	8.10	6.40	5.33	4.42	3.22	2.67	2.38	1.99	1.71	1.50	1.33	1.20
KGL 20 P	18.10	16.80	14.60	13.20	10.50	8.70	7.20	5.27	4.33	3.89	3.25	2.79	2.45	2.18	1.96
KGL 25 P	24.20	22.30	19.50	17.60	13.90	11.60	9.70	7.03	5.50	4.90	4.09	3.51	3.08	2.74	2.47
KGL 35 P	30.20	27.90	24.40	22.10	17.40	14.50	12.10	8.80	7.27	6.48	5.41	4.65	4.07	3.63	3.27
KGL 45 P	36.90	33.00	29.50	27.70	23.30	19.50	16.00	11.70	9.70	8.64	7.21	6.20	5.43	4.84	4.36
KGL 50 P	48.50	43.30	38.80	36.40	28.20	23.50	19.70	14.50	11.20	9.90	8.27	7.10	6.22	5.54	5.00
KGL 60 P	60.00	54.00	48.00	45.00	33.00	28.40	23.40	17.40	13.70	11.90	9.94	8.53	7.48	6.66	6.01
KGL 70 P	64.00	60.00	56.00	52.00	40.00	33.20	26.90	19.40	15.70	13.90	11.61	9.97	8.74	7.78	7.02
KGL 80 P	74.00	69.00	64.00	61.00	47.00	38.30	31.10	22.40	17.80	15.70	13.11	11.26	9.87	8.79	7.93
KGL 100 P	89.00	83.00	78.00	72.00	55.00	46.00	37.30	26.90	21.70	19.20	16.03	13.77	12.07	10.75	9.70
KGL 120 P	108.00	101.00	94.00	89.00	68.00	56.00	45.60	32.80	26.70	23.60	19.71	16.92	14.84	13.22	11.92
KGL 135 P	116.00	106.00	102.00	95.00	76.00	64.00	52.00	37.70	30.10	26.40	22.04	18.93	16.60	14.78	13.33
KGL 155 P	136.00	125.00	120.00	112.00	89.00	72.00	58.30	42.30	34.50	30.30	25.30	21.73	19.05	16.97	15.30
KGL 175 P	155.00	143.00	138.00	128.00	102.00	82.00	66.60	48.30	39.00	34.20	28.56	24.53	21.50	19.15	17.27
KGL 205 P	179.00	166.00	159.00	148.00	118.00	95.00	77.00	55.80	45.80	40.10	33.50	28.80	25.20	22.50	20.30
KGL 225 P	199.00	184.00	176.00	164.00	131.00	106.00	85.00	61.90	50.10	44.00	36.70	31.60	27.70	24.60	22.20
KGL 245 P	209.00	194.00	186.00	173.00	138.00	116.00	93.00	67.90	54.60	47.90	40.00	34.40	30.10	26.80	24.20
KGL 275 P	233.00	215.00	206.00	192.00	153.00	129.00	104.00	75.40	61.20	53.80	44.90	38.60	33.80	30.10	27.20
KGL 300 P	251.00	232.00	222.00	207.00	166.00	139.00	113.00	81.00	66.90	58.70	49.00	42.10	36.90	32.90	29.60
KGL 330 P	283.00	265.00	252.00	233.00	190.00	160.00	124.00	88.00	72.00	64.50	53.90	46.30	40.60	36.10	32.60
KGL 350 P	302.00	282.00	269.00	248.00	202.00	170.00	132.00	93.00	76.80	68.40	57.10	49.10	43.00	38.30	34.50
KGL 375 P	320.00	300.00	286.00	264.00	215.00	181.00	141.00	100.00	81.80	73.30	61.20	52.60	46.10	41.00	37.00
KGL 390 P	335.00	314.00	298.00	276.00	224.00	189.00	147.00	104.00	85.00	76.20	63.60	54.60	47.90	42.70	38.50
KGL 420 P	358.00	335.00	319.00	295.00	241.00	202.00	157.00	112.00	91.60	82.10	68.60	58.90	51.60	46.00	41.50
KGL 440 P	368.00	344.00	328.00	303.00	247.00	208.00	161.00	117.00	96.90	86.00	71.80	61.70	54.10	48.20	43.40
KGL 500 P	558.00	506.00	464.00	421.00	320.00	269.00	218.00	156.00	120.00	99.00	82.70	71.00	62.20	55.40	50.00
KGL 555 P	620.00	562.00	516.00	468.00	356.00	299.00	242.00	173.00	133.00	110.00	91.90	78.90	69.10	61.60	55.60
KGL 585 P	652.00	592.00	542.00	492.00	374.00	314.00	255.00	182.00	141.00	116.00	96.60	83.00	72.80	64.80	58.50
KGL 610 P	682.00	618.00	567.00	515.00	391.00	329.00	266.00	191.00	146.00	121.00	101.10	86.80	76.00	67.70	61.10
KGL 645 P	719.00	652.00	598.00	542.00	413.00	347.00	281.00	201.00	155.00	128.00	106.50	91.50	80.20	71.50	64.50
KGL 665 P	744.00	675.00	619.00	561.00	427.00	359.00	291.00	208.00	161.00	132.00	110.20	94.70	83.00	73.90	66.70
KGL 705 P	786.00	713.00	654.00	593.00	451.00	379.00	307.00	220.00	170.00	139.00	116.50	100.00	87.70	78.10	70.40
KGL 750 P	837.00	759.00	696.00	632.00	480.00	404.00	327.00	234.00	181.00	149.00	124.40	106.90	93.70	83.40	75.20
KGL 795 P	887.00	804.00	737.00	669.00	508.00	427.00	347.00	248.00	192.00	157.00	131.30	112.80	98.90	88.10	79.40
KGL 835 P	930.00	843.00	773.00	702.00	533.00	448.00	363.00	260.00	201.00	165.00	137.80	118.30	103.70	92.40	83.30
KGL 890 P	992.00	900.00	825.00	748.00	569.00	478.00	388.00	277.00	214.00	176.00	147.00	126.30	110.70	98.60	88.90
KGL 990 P	1104.00	1001.00	918.00	833.00	633.00	532.00	432.00	308.00	239.00	196.00	163.50	140.50	123.10	109.70	98.90
KGL 1110 P	1240.00	1124.00	1031.00	936.00	711.00	598.00	484.00	347.00	268.00	220.00	183.70	157.80	138.30	123.20	111.10
KGL 1260 P	1405.00	1275.00	1168.00	1060.00	806.00	677.00	549.00	393.00	304.00	249.00	208.10	178.80	156.70	139.60	125.90
KGL 1320 P	1472.00	1335.00	1224.00	1110.00	844.00	709.00	575.00	411.00	318.00	261.00	218.00	187.30	164.20	146.20	131.90
KGL 1390 P	1550.00	1406.00	1289.00	1169.00	889.00	747.00	606.00	433.00	335.00	275.00	229.60	197.20	172.90	154.00	138.90
KGL 1460 P	1628.00	1477.00	1354.00	1228.00	934.00	785.00	637.00	455.00	352.00	289.00	241.20	207.10	181.60	161.80	145.90
KGL 1570 P	1751.00	1588.00	1456.00	1320.00	1004.00	844.00	684.00	489.00	378.00	311.00	259.30	222.70	195.30	173.90	156.90

Final discharge voltage per cell / Tension finale / élément

1.00 V

Cell type / Type	Discharge current / Courant de décharge [A]														
	5 min	10 min	20 min	30 min	1 h	1.5 h	2 h	3 h	4 h	5 h	6 h	7 h	8 h	9 h	10 h
KGL 12 P	12.70	12.20	10.80	9.70	7.30	5.80	4.68	3.39	2.73	2.40	2.00	1.72	1.51	1.34	1.21
KGL 20 P	20.80	19.90	17.70	16.20	12.30	9.50	7.70	5.54	4.56	4.00	3.34	2.87	2.52	2.24	2.02
KGL 25 P	27.80	26.50	23.60	21.60	16.50	12.60	10.20	7.39	5.69	5.00	4.18	3.59	3.14	2.80	2.53
KGL 35 P	34.70	33.20	29.50	27.10	20.70	15.80	12.80	9.24	7.97	7.00	5.85	5.02	4.40	3.92	3.54
KGL 45 P	41.60	38.60	34.00	32.90	27.50	21.10	17.10	12.32	10.25	9.00	7.52	6.45	5.66	5.04	4.55
KGL 50 P	54.50	50.70	43.80	40.90	32.10	26.20	20.90	14.90	11.50	10.00	8.35	7.17	6.29	5.60	5.05
KGL 60 P	68.00	63.00	54.00	49.60	37.80	31.30	24.60	17.60	13.80	12.00	10.02	8.61	7.55	6.72	6.06
KGL 70 P	74.00	70.00	64.00	61.00	46.00	35.20	28.20	20.00	16.00	14.00	11.69	10.04	8.80	7.84	7.07
KGL 80 P	85.00	80.00	74.00	70.00	53.00	40.60	32.50	23.10	18.20	16.00	13.36	11.47	10.06	8.96	8.08
KGL 100 P	101.00	96.00	89.00	84.00	63.00	48.70	39.00	27.70	22.70	20.00	16.70	14.34	12.58	11.20	10.10
KGL 120 P	124.00	118.00	109.00	103.00	77.00	59.50	47.60	33.90	27.30	24.00	20.04	17.21	15.09	13.44	12.12
KGL 135 P	137.00	129.00	121.00	114.00	86.00	68.00	53.70	38.50	30.80	27.00	22.55	19.36	16.98	15.12	13.64
KGL 155 P	161.00	151.00	142.00	134.00	102.00	77.00	60.10	43.10	35.30	31.00	25.89	22.23	19.49	17.36	15.66
KGL 175 P	185.00	173.00	162.00	153.00	116.00	87.00	69.00	49.30	39.90	35.00	29.2				



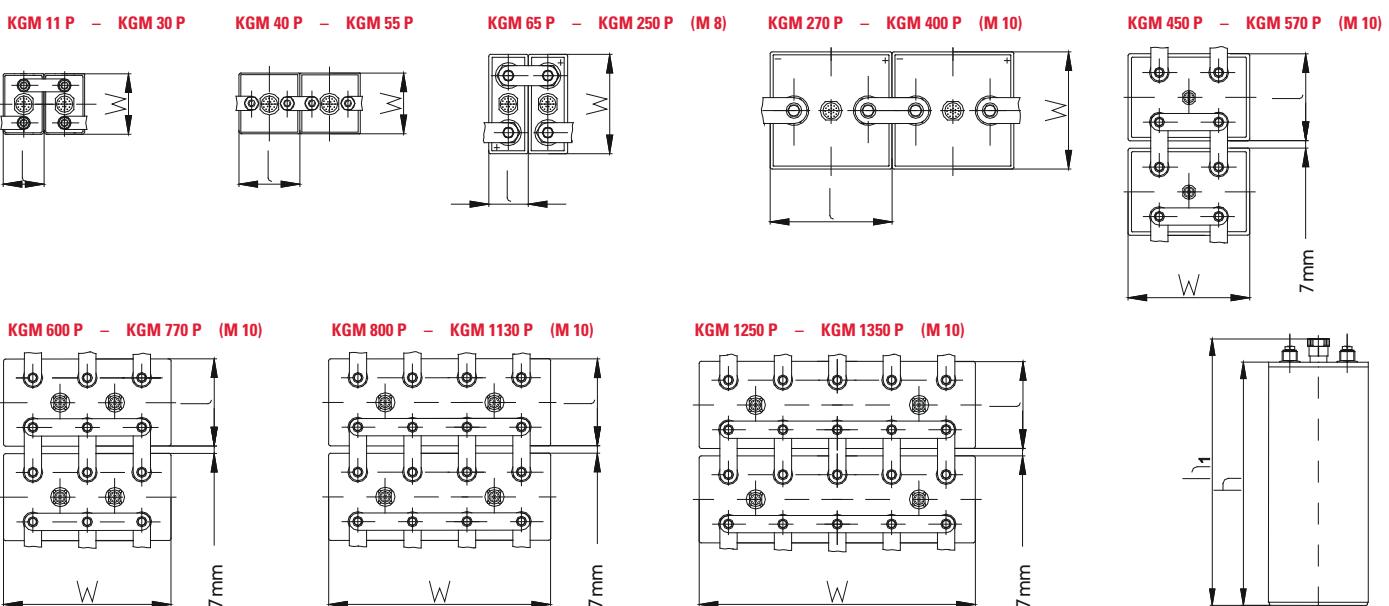
GAZ® lomain™ battery range KGM ... P

The GAZ® KGM ... P type of battery provides all the advantages of the Ni-Cd pocket plate design and adds the features of the GAZ® lomain™ battery concept. 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 and the recommended discharge time is 30 min to 120 min.

Field of application

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

Battery Layout



GAZ® Gamme de batteries lomain™ KGM ... P

Ce type de batterie Ni-Cd GAZ® allie la construction éprouvée des plaques à pochettes au nouveau concept de batterie GAZ® lomain™. Les batteries de cette gamme sont principalement utilisées pour les „charges mixtes“ avec des courants de décharge élevés et faibles. Le temps de décharge recommandé pour la gamme KGM ... P est de 30 à 120 minutes.

Champ d'application

Systèmes UPS, éclairage de secours, contrôle de processus, télécommunication, centrales électriques et postes de couplage, raffineries de pétrole et de gaz, signalisation ferroviaire.

Technical Specifications / Caractéristiques techniques

Cell type Type	Nominal Capacity C_s [Ah] at 1.00 V Capacité nominale C_s [Ah] à 1,00 V	Dimensions / Dimensions [mm]				Terminals / Bornes		Total Weight / Poids total [kg]
		I	w	h	h ₁	Type / Art M = Nut / écrou S = Screw / vis	Size / Taille	
KGM 11P	11	46	85	167	193	M	2 x M 10	1.0
KGM 18P	18	46	85	237	263	M	2 x M 10	1.5
KGM 24P	24	46	85	237	263	M	2 x M 10	1.6
KGM 30P	30	46	85	237	263	M	2 x M 10	1.7
KGM 40P	40	85	85	237	263	M	2 x M 10	2.7
KGM 48P	48	85	85	237	263	M	2 x M 10	2.8
KGM 55P	55	85	85	237	263	M	2 x M 10	2.9
KGM 65P	65	53	134	364	394	S	2 x M 8	4.9
KGM 75P	75	53	134	364	394	S	2 x M 8	5.0
KGM 90P	90	69	134	364	394	S	2 x M 8	6.0
KGM 110P	110	69	134	364	394	S	2 x M 8	6.3
KGM 125P	125	70	164	364	394	S	2 x M 8	7.7
KGM 140P	140	70	164	364	394	S	2 x M 8	7.8
KGM 160P	160	108	164	364	394	S	2 x M 8	10.4
KGM 185P	185	108	164	364	394	S	2 x M 8	10.8
KGM 205P	205	108	164	364	394	S	2 x M 8	11.1
KGM 225P	225	108	164	364	394	S	2 x M 8	11.6
KGM 250P	250	108	164	364	394	S	2 x M 8	12.2
KGM 270P	270	164	158	364	394	S	2 x M 10	15.8
KGM 300P	300	164	158	364	394	S	2 x M 10	16.5
KGM 320P	320	164	158	364	394	S	2 x M 10	17.0
KGM 340P	340	164	158	364	394	S	2 x M 10	17.5
KGM 355P	355	164	158	364	394	S	2 x M 10	18.0
KGM 380P	380	164	158	364	394	S	2 x M 10	18.5
KGM 400P	400	164	158	364	394	S	2 x M 10	18.9
KGM 450P	450	176	246	382	410	S	4 x M 10	27.3
KGM 470P	470	176	246	382	410	S	4 x M 10	27.8
KGM 500P	500	176	246	382	410	S	4 x M 10	28.3
KGM 520P	520	176	246	382	410	S	4 x M 10	28.9
KGM 550P	550	176	246	382	410	S	4 x M 10	29.3
KGM 570P	570	176	246	382	410	S	4 x M 10	29.7
KGM 600P	600	176	368	382	420	S	6 x M 10	40.7
KGM 630P	630	176	368	382	420	S	6 x M 10	41.2
KGM 675P	675	176	368	382	420	S	6 x M 10	41.9
KGM 690P	690	176	368	382	420	S	6 x M 10	42.3
KGM 750P	750	176	368	382	420	S	6 x M 10	43.1
KGM 770P	770	176	368	382	420	S	6 x M 10	43.8
KGM 800P	800	176	448	382	420	S	8 x M 10	49.1
KGM 850P	850	176	448	382	420	S	8 x M 10	51.4
KGM 950P	950	176	448	382	420	S	8 x M 10	53.7
KGM 1000P	1000	176	448	382	420	S	8 x M 10	57.6
KGM 1030P	1030	176	448	382	420	S	8 x M 10	58.9
KGM 1130P	1130	176	448	382	420	S	8 x M 10	61.9
KGM 1250P	1250	176	558	382	420	S	10 x M 10	68.9
KGM 1350P	1350	176	558	382	420	S	10 x M 10	70.1

* rated capacity acc. to IEC 62259, point 3.3 / Capacité nominale conformément à la IEC 62259, section 3.3

Battery range KGL ... P

Gamme de batteries KGL ... P

Electrical Specifications

Spécifications électriques

Final discharge voltage per cell / Tension finale / élément

1.15 V

Cell type / Type	Discharge current / Courant de décharge [A]													
	5 min	10 min	20 min	30 min	1 h	1.5 h	2 h	3 h	5 h	6 h	7 h	8 h	9 h	10 h
KGM 11P	7.70	7.10	6.40	6.00	4.90	4.17	3.61	2.80	2.20	1.85	1.60	1.42	1.27	1.16
KGM 18P	12.60	11.70	10.40	9.80	8.10	6.80	5.95	4.59	3.60	3.03	2.62	2.32	2.08	1.89
KGM 24P	16.80	15.60	13.90	13.10	10.70	9.14	7.90	6.12	4.80	4.04	3.50	3.09	2.77	2.52
KGM 30P	21.00	19.50	17.40	16.40	13.40	11.40	9.80	7.60	6.00	5.05	4.37	3.86	3.47	3.15
KGM 40P	29.60	26.10	23.20	21.80	17.80	15.20	13.10	10.20	8.00	6.73	5.83	5.15	4.62	4.20
KGM 48P	38.80	34.20	30.40	28.70	22.80	19.90	17.30	13.20	9.60	8.08	6.99	6.18	5.55	5.04
KGM 55P	48.00	42.30	37.60	35.40	27.70	24.60	21.50	16.20	11.00	9.26	8.01	7.08	6.36	5.78
KGM 65P	49.00	46.20	42.50	39.70	31.00	26.30	23.30	17.40	13.00	10.90	9.50	8.40	7.50	6.80
KGM 75P	56.60	53.90	48.30	45.50	35.90	30.40	26.80	20.10	15.00	12.60	10.90	9.70	8.70	7.90
KGM 90P	68.20	64.50	58.90	54.20	42.70	36.50	32.30	24.10	18.00	15.20	13.10	11.60	10.40	9.50
KGM 110P	83.50	78.90	71.40	66.80	52.40	44.60	39.40	29.50	22.00	18.50	16.00	14.20	12.70	11.60
KGM 125P	94.10	84.70	78.20	75.50	57.20	49.60	43.40	34.70	25.00	21.00	18.20	16.10	14.40	13.10
KGM 140P	104.60	95.20	88.90	78.40	64.00	55.40	48.70	38.80	28.00	23.60	20.40	18.00	16.20	14.70
KGM 160P	120.00	108.70	97.50	89.10	73.70	63.20	55.60	44.40	32.00	26.90	23.30	20.60	18.50	16.80
KGM 185P	138.20	126.00	112.90	102.60	85.40	72.90	64.40	51.30	37.00	31.10	27.00	23.80	21.40	19.40
KGM 205P	153.60	139.50	125.50	114.20	94.10	80.70	71.20	56.80	41.00	34.50	29.90	26.40	23.70	21.50
KGM 225P	162.20	147.20	132.20	120.00	98.90	88.50	78.00	58.80	45.00	37.90	32.80	29.00	26.00	23.60
KGM 250P	179.50	163.50	146.70	133.60	110.60	98.20	86.80	65.40	50.00	42.10	36.40	32.20	28.90	26.30
KGM 270P	193.90	176.00	158.30	144.20	119.30	105.90	93.60	70.60	54.00	45.50	39.30	34.80	31.20	28.40
KGM 300P	222.70	206.80	184.30	171.30	141.60	128.30	109.20	82.30	60.00	50.50	43.70	38.60	34.70	31.50
KGM 320P	238.10	220.30	195.90	183.00	151.30	137.10	117.00	87.80	64.00	53.90	46.60	41.20	37.00	33.60
KGM 340P	252.50	233.80	208.40	194.60	161.00	145.80	123.80	93.30	68.00	57.20	49.50	43.80	39.30	35.70
KGM 355P	264.00	244.30	218.10	202.30	167.80	152.60	129.70	97.00	71.00	59.80	51.70	45.70	41.00	37.30
KGM 380P	282.20	261.70	233.50	216.80	179.50	163.30	138.50	103.90	76.00	64.00	55.40	48.90	43.90	39.90
KGM 400P	289.90	268.40	239.30	222.60	184.30	167.20	142.40	109.80	80.00	67.30	58.30	51.50	46.20	42.00
KGM 450P	324.00	294.00	267.00	240.00	199.00	187.00	176.00	132.00	90.00	76.00	66.00	58.00	52.00	47.00
KGM 470P	338.00	308.00	279.00	251.00	208.00	195.00	183.00	138.00	94.00	79.00	68.00	61.00	54.00	49.00
KGM 500P	359.00	327.00	297.00	267.00	221.00	207.00	195.00	147.00	100.00	84.00	73.00	64.00	58.00	52.00
KGM 520P	374.00	340.00	309.00	277.00	230.00	215.00	203.00	153.00	104.00	87.00	76.00	67.00	60.00	54.00
KGM 550P	396.00	360.00	327.00	293.00	243.00	228.00	215.00	162.00	110.00	93.00	81.00	71.00	64.00	57.00
KGM 570P	410.00	373.00	338.00	304.00	252.00	236.00	223.00	168.00	114.00	96.00	83.00	73.00	66.00	60.00
KGM 600P	431.00	392.00	356.00	320.00	265.00	249.00	234.00	176.00	120.00	101.00	87.00	77.00	69.00	63.00
KGM 630P	453.00	412.00	374.00	336.00	278.00	261.00	246.00	185.00	126.00	106.00	92.00	81.00	73.00	66.00
KGM 675P	486.00	442.00	401.00	360.00	299.00	280.00	263.00	199.00	135.00	114.00	98.00	87.00	78.00	71.00
KGM 690P	496.00	452.00	410.00	368.00	305.00	286.00	269.00	203.00	138.00	116.00	100.00	89.00	79.00	72.00
KGM 750P	540.00	491.00	446.00	400.00	332.00	311.00	293.00	221.00	150.00	126.00	109.00	97.00	87.00	79.00
KGM 770P	554.00	504.00	457.00	411.00	340.00	319.00	301.00	227.00	154.00	129.00	112.00	99.00	89.00	81.00
KGM 800P	575.00	524.00	475.00	427.00	353.00	332.00	312.00	236.00	160.00	134.00	116.00	103.00	92.00	84.00
KGM 850P	611.00	556.00	505.00	454.00	375.00	352.00	332.00	250.00	170.00	143.00	124.00	109.00	98.00	89.00
KGM 950P	683.00	622.00	564.00	507.00	420.00	394.00	371.00	280.00	190.00	160.00	138.00	122.00	109.00	100.00
KGM 1000P	719.00	654.00	594.00	533.00	442.00	415.00	390.00	294.00	200.00	168.00	146.00	129.00	116.00	105.00
KGM 1030P	741.00	674.00	611.00	550.00	455.00	427.00	402.00	303.00	206.00	173.00	150.00	133.00	119.00	108.00
KGM 1130P	813.00	739.00	671.00	603.00	499.00	468.00	441.00	333.00	226.00	190.00	165.00	146.00	130.00	118.00
KGM 1250P	899.00	818.00	742.00	667.00	552.00	518.00	488.00	368.00	250.00	210.00	182.00	161.00	144.00	131.00
KGM 1350P	971.00	883.00	801.00	720.00	596.00	559.00	527.00	397.00	270.00	227.00	197.00	174.00	156.00	141.00

Final discharge voltage per cell / Tension finale / élément

1.10 V

Cell type / Type	Discharge current / Courant de décharge [A]													
	5 min	10 min	20 min	30 min	1 h	1.5 h	2 h	3 h	5 h	6 h	7 h	8 h	9 h	10 h
KGM 11P	11.20	9.80	8.30	7.70	6.30	5.09	4.36	3.23	2.33	1.95	1.68	1.47	1.32	1.19
KGM 18P	18.30	16.00	13.60	12.70	10.30	8.36	7.12	5.29	3.82	3.20	2.75	2.42	2.16	1.95
KGM 24P	24.40	21.40	18.10	16.80	13.70	11.08	9.56	7.06	5.09	4.26	3.66	3.22	2.87	2.60
KGM 30P	30.50	26.60	22.70	21.10	17.10	13.90	11.90	8.80	6.36	5.32	4.58	4.02	3.59	3.24
KGM 40P	37.20	33.20	29.70	27.40	22.70	18.50	16.00	11.80	8.48	7.09	6.11	5.36	4.79	4.32
KGM 48P	48.90	43.60	39.00	36.00	27.90	23.50	20.10	14.80	10.00	8.37	7.20	6.33	5.64	5.10
KGM 55P	60.50	53.90	48.30	44.50	33.10	28.60	24.20	17.70	11.50	9.62	8.28	7.27	6.49	5.87
KGM 65P	68.20	63.50	56.90	52.30	39.80	32.50	28.10	20.00	13.80	11.55	9.94	8.73	7.79	7.04
KGM 75P	78.70	73.10	65.60	60.00	46.60	37.50	32.40	23.00	15.90	13.30	11.45	10.06	8.97	8.11
KGM 90P	94.10	88.50	79.10	71.60	55.30	45.00	38.80	27.60	19.10	15.98	13.75	12.08	10.78	9.74
KGM 115P	115.20	107.70	96.50	88.10	67.90	55.00	47.50	33.80	23.30	19.49	16.78	14.74	13.15	11.88
KGM 125P	122.90	111.60	103.30	94.90	72.80	62.20	52.90	38.80	26.30	22.00	18.90	16.60	14.80	13.40
KGM 140P	137.30	125.10	115.80	105.50	85.40	70.00	59.30	43.50	29.40	24.60	21.20	18.60	16.60	15.00
KGM 160P	157.40	142.40	132.20	121.00	98.00	79.70	67.80	49.70	33.60	28.10	24.20	21.30	19.00	17.10
KGM 185P	182.40	164.50	152.50	139.40	112.50	92.30	78.00	57.50	38.90	32.50	28.00	24.60	22.00	19.80
KGM 205P	201.60	182.80	168.90	154.90	125.10	102.10	86.80	63.70	43.10	36.10	31.00	27.30	24.30	22.

Battery range KGL ... P

Gamme de batteries KGL ... P

Electrical Specifications

Spécifications électriques

Final discharge voltage per cell / Tension finale / élément

1.05 V

Cell type / Type	Discharge current / Courant de décharge [A]													
	5 min	10 min	20 min	30 min	1 h	1.5 h	2 h	3 h	5 h	6 h	7 h	8 h	9 h	10 h
KGM 11P	14.10	12.90	10.80	9.60	7.30	5.99	4.89	3.45	2.38	1.99	1.71	1.50	1.33	1.20
KGM 18P	23.10	21.10	17.70	15.60	11.90	9.82	8.00	5.64	3.89	3.25	2.79	2.45	2.18	1.96
KGM 24P	30.90	28.10	23.50	20.80	15.90	13.02	10.73	7.53	5.18	4.33	3.71	3.26	2.90	2.62
KGM 30P	38.60	35.10	29.40	26.00	19.90	16.30	13.40	9.40	6.48	5.41	4.65	4.07	3.63	3.27
KGM 40P	47.20	41.50	35.60	32.70	26.60	21.90	17.70	12.50	8.64	7.21	6.20	5.43	4.84	4.36
KGM 48P	62.00	54.40	46.80	43.00	32.20	26.40	21.80	15.60	10.40	8.68	7.46	6.54	5.82	5.25
KGM 55P	76.80	67.30	57.90	53.20	37.80	31.90	25.90	18.60	12.10	10.10	8.68	7.61	6.78	6.11
KGM 65P	81.60	75.00	67.60	62.00	45.60	37.30	29.80	20.80	14.10	11.77	10.11	8.87	7.90	7.12
KGM 75P	94.10	86.60	77.20	71.60	53.40	43.10	34.40	24.00	16.20	13.53	11.62	10.19	9.07	8.18
KGM 90P	113.30	103.90	93.60	85.20	63.10	51.70	41.30	28.80	19.50	16.28	13.98	12.26	10.92	9.85
KGM 110P	138.20	127.00	113.90	104.50	77.60	63.20	50.50	35.20	23.80	19.87	17.07	14.96	13.33	12.02
KGM 125P	147.80	133.70	122.60	112.30	86.30	71.90	57.60	40.40	26.90	22.46	19.29	16.91	15.06	13.58
KGM 140P	173.80	157.80	144.80	132.60	101.90	80.70	64.50	45.30	30.10	25.13	21.59	18.93	16.86	15.20
KGM 160P	198.70	179.90	166.00	151.00	116.40	92.30	73.80	51.70	34.40	28.72	24.67	21.63	19.26	17.37
KGM 185P	229.40	208.80	192.00	174.20	134.80	106.90	85.80	59.80	39.80	33.20	28.50	25.00	22.30	20.10
KGM 205P	254.40	230.90	212.30	193.60	149.40	118.60	94.60	66.20	44.10	36.80	31.60	27.70	24.70	22.30
KGM 225P	267.80	243.40	223.90	204.20	157.10	130.20	103.40	72.70	48.40	40.40	34.70	30.40	27.10	24.40
KGM 250P	297.60	270.30	249.00	226.50	174.60	144.80	115.10	80.80	53.80	44.90	38.60	33.80	30.10	27.20
KGM 270P	321.60	291.50	268.30	244.90	189.20	156.50	124.80	87.20	58.10	48.50	41.70	36.50	32.50	29.30
KGM 300P	361.90	332.90	304.00	274.90	216.30	179.80	137.50	94.10	64.50	53.90	46.30	40.60	36.10	32.60
KGM 320P	385.90	355.00	324.20	293.30	230.90	191.50	146.30	100.00	68.80	57.40	49.30	43.30	38.50	34.70
KGM 340P	409.90	377.10	344.50	311.70	245.40	203.10	156.00	106.80	73.10	61.00	52.40	46.00	40.90	36.90
KGM 355P	428.20	394.40	359.90	325.20	256.10	211.90	162.80	111.70	76.30	63.70	54.70	48.00	42.70	38.50
KGM 380P	457.90	421.40	385.00	348.50	274.50	227.40	173.60	119.60	81.70	68.20	58.60	51.40	45.80	41.30
KGM 400P	470.40	432.90	395.70	357.20	281.30	233.30	178.40	125.40	86.00	71.80	61.70	54.10	48.20	43.40
KGM 450P	536.00	487.00	448.00	408.00	310.00	261.00	213.00	153.00	99.00	82.70	71.00	62.20	55.40	50.00
KGM 470P	559.00	509.00	468.00	426.00	324.00	273.00	222.00	159.00	103.40	86.30	74.10	65.00	57.90	52.20
KGM 500P	595.00	541.00	498.00	453.00	345.00	291.00	236.00	170.00	110.00	91.90	78.90	69.10	61.60	55.60
KGM 520P	619.00	563.00	518.00	471.00	359.00	302.00	246.00	176.00	114.40	95.50	82.00	71.90	64.10	57.80
KGM 550P	655.00	595.00	547.00	499.00	379.00	320.00	259.00	187.00	121.00	101.10	86.80	76.00	67.70	61.10
KGM 570P	679.00	617.00	567.00	516.00	393.00	331.00	269.00	193.00	125.40	104.70	89.90	78.80	70.20	63.30
KGM 600P	714.00	649.00	597.00	543.00	414.00	349.00	284.00	204.00	132.00	110.20	94.70	83.00	73.90	66.70
KGM 630P	750.00	682.00	627.00	571.00	434.00	366.00	298.00	214.00	138.60	115.70	99.40	87.10	77.60	70.00
KGM 675P	804.00	730.00	672.00	612.00	466.00	393.00	319.00	229.00	149.00	124.40	106.90	93.70	83.40	75.20
KGM 690P	821.00	747.00	687.00	625.00	476.00	401.00	326.00	234.00	151.80	126.70	108.90	95.40	85.00	76.70
KGM 750P	893.00	811.00	746.00	680.00	517.00	435.00	354.00	255.00	165.00	137.80	118.30	103.70	92.40	83.30
KGM 770P	917.00	833.00	766.00	697.00	531.00	447.00	364.00	261.00	169.40	141.40	121.50	106.50	94.90	85.60
KGM 800P	952.00	866.00	796.00	724.00	552.00	465.00	378.00	271.00	176.00	146.90	126.20	110.70	98.60	88.90
KGM 850P	1012.00	920.00	846.00	770.00	586.00	494.00	402.00	288.00	187.00	156.10	134.10	117.60	104.70	94.50
KGM 950P	1131.00	1028.00	945.00	860.00	655.00	552.00	449.00	322.00	209.00	174.50	149.90	131.40	117.00	105.60
KGM 1000P	1190.00	1081.00	995.00	906.00	690.00	581.00	472.00	340.00	220.00	183.70	157.80	138.30	123.20	111.10
KGM 1030P	1226.00	1115.00	1025.00	933.00	710.00	598.00	487.00	349.00	226.60	189.20	162.50	142.50	126.90	114.50
KGM 1130P	1345.00	1223.00	1125.00	1023.00	779.00	656.00	534.00	383.00	248.60	207.60	178.30	156.30	139.20	125.60
KGM 1250P	1488.00	1353.00	1244.00	1132.00	862.00	726.00	591.00	424.00	275.00	229.60	197.20	172.90	154.00	138.90
KGM 1350P	1607.00	1461.00	1344.00	1223.00	931.00	784.00	638.00	458.00	297.00	248.00	213.00	186.70	166.30	150.00

Final discharge voltage per cell / Tension finale / élément

1.00 V

Cell type / Type	Discharge current / Courant de décharge [A]													
	5 min	10 min	20 min	30 min	1 h	1.5 h	2 h	3 h	5 h	6 h	7 h	8 h	9 h	10 h
KGM 11P	16.20	15.30	13.00	11.40	8.30	6.52	5.19	3.63	2.42	2.02	1.74	1.52	1.36	1.22
KGM 18P	26.60	25.00	21.30	19.20	14.10	10.69	8.48	5.94	3.96	3.31	2.84	2.49	2.22	2.00
KGM 24P	35.50	33.40	28.50	25.60	18.80	14.19	11.31	7.92	5.28	4.41	3.79	3.32	2.96	2.67
KGM 30P	44.40	41.80	35.60	31.90	23.60	17.80	14.10	9.90	6.60	5.51	4.73	4.15	3.70	3.33
KGM 40P	53.20	48.60	41.00	39.90	31.40	23.70	18.90	13.20	8.80	7.35	6.31	5.53	4.93	4.44
KGM 48P	69.80	63.80	52.90	50.60	36.70	29.50	23.10	16.00	10.50	8.77	7.53	6.60	5.88	5.30
KGM 55P	86.40	78.90	64.70	58.60	43.20	35.20	27.20	18.80	12.20	10.19	8.75	7.67	6.83	6.16
KGM 65P	94.10	87.50	77.20	71.60	52.40	39.60	31.20	21.50	14.30	11.94	10.26	8.99	8.01	7.22
KGM 75P	108.50	101.00	89.70	82.30	60.10	45.60	36.00	24.70	16.50	13.78	11.83	10.37	9.24	8.33
KGM 90P	129.60	121.20	107.10	98.70	71.80	54.70	43.20	29.70	19.80	16.53	14.20	12.45	11.09	10.00
KGM 110P	158.40	148.10	131.20	121.00	88.30	66.90	52.70	36.30	24.20	20.21	17.35	15.22	13.55	12.22
KGM 125P	174.70	161.60	145.70	134.60	98.00	76.80	59.50	41.30	27.50	22.96	19.72	17.29	15.40	13.89
KGM 140P	206.40	190.50	171.80	158.80	116.40	86.50	66.60	46.20	30.80	25.72	22.09	19.37	17.25	15.55
KGM 160P	236.20	217.40	195.90	181.00	132.90	98.20	76.10	52.80	35.20	29.39	25.24	22.13	19.71	17.78
KGM 185P	272.60	252.00	226.80	210.10	153.30	113.70	87.80	61.10	40.70	34.00	29.20	25.60	22.80	20.60
KGM 205P	302.40	279.00	250.90	232.30	169.80	126.								

Important Important

The rated capacity C_5 is not the basis for the performance of the batteries. Always take into account that the performance depends on the battery construction, respectively on the different battery ranges. The cell size for specific application should be calculated according to actual recommended practice IEEE 1115 for stationary applications.

The rated capacity C_5 of **lomain™** range batteries is based on the available ampere hours (Ah) at a discharge rate of 5 hours to the final discharge voltage which is stated in the technical specification table per cell at $20^\circ\text{C} \pm 5^\circ\text{C}$.

Nominal voltage per cell is 1.2 V.

Discharging conditions

The discharge performances as well as the rated capacities C_5 given in this brochure are only valid for fully charged cells in accordance with IEC 62259.

Charging conditions

1. Two step charge

Float: 1.40 – 1.42 V/cell
Boost charge: 1.45 – 1.46 V/cell
Current limitation: 0.1 I_t A

2. Single step charge

Standard charge: 1.42 – 1.44 V/cell
Current limitation: 0.1 I_t A

Note: A higher charging level is possible, but effects the recombination rate and causes higher water consumption.

All dimensions and weights stated are subject to usual manufacturing tolerances. Electrical values are approximate.

The right is reserved to make any alterations without prior notice.

Toutes les dimensions et tous les poids indiqués sont soumis aux tolérances de fabrication habituelles. Les valeurs électriques sont approximatives. Sous réserve de modification sans devoir de notification.



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La capacité nominale C_5 n'est pas une base pour le calcul de la performance des batteries. Celle-ci dépend de la construction de la batterie et des différentes gammes de batteries. Pour le dimensionnement de systèmes de batteries stationnaires, il convient d'appliquer la recommandation actuelle selon IEEE 1115.

La capacité assignée C_5 de la gamme de batteries **lomain™** se base sur les ampères-heures (Ah) disponibles à un taux de décharge de 5 heures pour les tensions finales par élément indiquées sous «Spécifications techniques» à $20^\circ\text{C} \pm 5^\circ\text{C}$.

La tension nominale d'un élément est d' 1,2 V.

Conditions de décharge

Les valeurs de décharge ainsi que les capacités nominales C_5 indiquées dans nos tableaux reposent sur des éléments chargées de manière conforme en accord avec IEC 62259.

Conditions de charge

1. Charge à deux paliers

Floating: 1,40 – 1,42 V/élément
Charge élevée: 1,45 – 1,46 V/élément
Limitation de courant: 0.1 I_t A

2. Charge mono-palier

Charge standard: 1,42 – 1,44 V/élément
Limitation de courant: 0,1 I_t A

Important: Une tension de charge plus élevée est possible, mais influence le taux de recombinaison et conduit à une consommation d'eau plus importante que celle indiquée.

