

RANGE SUMMARY AVANTGARDE NI-CD BATTERIES KGL...P / LONG LIFE – ZERO MAINTENANCE

PIBAS® KGL...P Range – Zero Maintenance

Based on the more than 130 years of experience PIBAS® KGL...P ranges are built on the well proven pocket plate design combined with the break-through PIBAS® AFM-Technology (absorbed fibre mat) ensuring the highest possible recombination efficiency. PIBAS® KGL...P is leading the battery world in terms of high performance, longest proven service life, widest operational temperature range and lowest maintenance requirements. The plate technology and electrolyte choice tolerates temperature fluctuations from -50°C to $+70^{\circ}\text{C}$ with no effect on plate structure. The high temperature characteristics offer the unchallenged, longest lifetime of any battery in this hostile environment. The PIBAS® KGL...P design offers a 20 years+ service life, while it remains maintenance free throughout its life by reaching a 95% gas recombination rate – being equipped with the break-through PIBAS® AFM-Technology. All this makes PIBAS® KGL...P the perfect product when the total cost of ownership (TOC) and an optimized OPEX is considered.

PIBAS® AFM-Technology

PIBAS® AFM-Technology makes the battery virtually maintenance free by combining certain key features. PIBAS® has combined special new materials and proven plate design to deliver the most reliable battery available to today's engineers. By using a special fibre mat separator together with a low pressure flame arresting vent, enhance of negative plate capacity and special active materials no topping up is required through the life of the battery. All this makes the product unique in the today's market.

PIBAS® Modular Single Cell Concept

All PIBAS® KGL...P single cell cases are made by robust polypropylene container material moulded out of one piece to ensures 100% leak free operation, maximum stability to withstand internal recombination pressure, easy and fast installation and economical replacement/reduced OPEX throughout the lifetime.

Advantages of PIBAS® Avantgarde KGL...P Batteries

- Excellent resistance against electrical and mechanical stress
- No risk of terminal decompose or sudden death due to plate construction
- Extremely long lifetime - 20 years+ service life in stationary standby operation
- Advanced plate design leads to outstanding performance and smaller batteries
- Excellent chargeability – narrow voltage windows can be used
- Gas recombination rate – far beyond the IEC62259 requirements
- Zero maintenance* but without the risk of boiling out
- Robust construction - hard-wearing and insensitive to faults in maintenance
- PIBAS® single cell concept for economical replacement and highest safety
- 44 capacity steps (12 Ah - 1680 Ah) ensuring a close economic fit to any load
- Optimized for long discharge periods with a relatively low current

Field of application

PIBAS® KGL...P is perfectly suited for all stationary standby energy storage applications and leading the market in Oil & Gas, Utility and Power Plants, demanding UPS and Telecom applications.

* Zero maintenance means no topping up with water is necessary during the lifetime if PIBAS' s operating conditions are observed.

Important

The rated capacity C_5 is not the basis for the performance of the batteries. It is to take into account that the performance depends on the battery construction, i.e. on the different battery ranges. Therefore, our discharge tables should be used to find out the appropriated cell type for a specific application in comparison to prices, dimensions ...

The rated capacity C_5 of PIBAS® KGL...P 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 technical specification table per cell at $20^{\circ}\text{C} \pm 5^{\circ}\text{C}$. Nominal voltage per cell is 1.2 V.

PIBAS® Ni-Cd battery cells KGL...P fulfil all requirements according to IEC 62259.

Discharging conditions

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

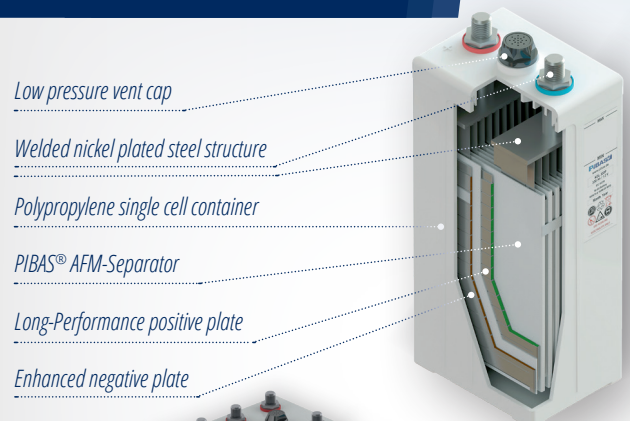
Charging conditions

1. Two level charge: Floating: 1.40V/cell - 1.42 V/cell
Boost charge: 1.45 V/cell
Current limitation: 0.1 It A

2. Single level charge: Standard charge: 1.42 V/cell

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

PIBAS® Avantgarde Single Cell Concept



PIBAS® Avantgarde
Modular High Capacity
Single Cell

PIBAS® AVANTGARDE KGL...P RANGE CELL DIMENSIONAL DETAILS / LONG LIFE - ZERO MAINTENANCE / NI-CD SINGLE CELL

TYPE	NOMINAL CAPACITY		DIMENSIONS [mm]				TERMINALS	WEIGHT
			l	w	h	h1		
	5 hr rate [Ah]						Size	
KGL	12	P	46	85	167	193	2 x M10	1,03
KGL	20	P	59	113	213	235	2 x M10	1,48
KGL	25	P	59	113	213	235	2 x M10	1,51
KGL	35	P	59	113	213	235	2 x M10	1,64
KGL	45	P	59	113	213	235	2 x M10	2,68
KGL	50	P	59	113	213	235	2 x M10	2,82
KGL	60	P	59	113	213	235	2 x M10	2,97
KGL	70	P	60	127	253	275	2 x M14	4,85
KGL	80	P	74	136	339	357	2 x M10	5,00
KGL	100	P	74	136	339	357	2 x M10	6,18
KGL	120	P	74	136	339	357	2 x M10	6,51
KGL	135	P	112	134	291	327	2 x M16	7,67
KGL	155	P	112	134	291	327	2 x M16	7,84
KGL	175	P	118	167	327	362	4 x M20	10,61
KGL	205	P	118	167	327	362	4 x M20	10,91
KGL	225	P	118	167	327	362	4 x M20	11,17
KGL	245	P	118	167	327	362	4 x M20	11,62
KGL	275	P	129	167	364	400	2 x M20	12,22
KGL	300	P	129	167	364	400	2 x M20	16,30
KGL	330	P	129	167	364	400	2 x M20	16,50
KGL	350	P	129	167	364	400	2 x M20	17,00
KGL	375	P	171	174	337	372	4 x M20	17,50
KGL	390	P	171	174	337	372	4 x M20	18,00
KGL	420	P	171	174	337	372	4 x M20	18,50
KGL	440	P	171	174	337	372	4 x M20	18,90
KGL	500	P	155	169	491	527	4 x M16	22,30
KGL	555	P	155	169	491	527	4 x M16	24,00
KGL	585	P	155	169	491	527	4 x M16	24,80
KGL	610	P	155	169	491	527	4 x M16	25,70
KGL	645	P	195	268	376	405	6 x M20	29,10
KGL	665	P	195	268	376	405	6 x M20	31,80
KGL	705	P	195	268	376	405	6 x M20	32,30
KGL	750	P	195	268	376	405	6 x M20	32,70
KGL	795	P	195	268	376	405	6 x M20	34,90
KGL	835	P	195	268	376	405	6 x M20	36,40
KGL	890	P	195	351	376	405	8 x M20	36,40
KGL	990	P	195	351	376	405	8 x M20	52,50
KGL	1110	P	195	351	376	405	8 x M20	55,60
KGL	1260	P	195	437	376	405	10 x M20	54,20
KGL	1320	P	195	437	376	405	10 x M20	55,70
KGL	1390	P	195	437	376	405	10 x M20	57,50
KGL	1460	P	195	472	376	405	10 x M20	59,90
KGL	1570	P	195	472	376	405	10 x M20	65,10
KGL	1680	P	195	522	376	405	12 x M20	68,00

All dimensions and weights are subject to manufacturing tolerances. Issue January 2020