

**MORE POWER - LESS SPACE™**

**Deka®**

**unigy®**

**HIGH-RATE-SERIES**



**Absorbed valve-regulated, lead-acid battery technology designed for UPS standby power systems**

- Exclusive IPF® Technology optimizes power capacity, cell consistency, and long-term reliability.
- 10 year design life.
- Special epoxy post seal design eliminates leaks.
- Advanced AGM technology for superior high-rate, short-term power.
- Made in U.S.A...Your assurance of quality.



QUALITY SYSTEM  
CERTIFIED  
**ISO 9001**  
**ISO/TS 16949**  
ENVIRONMENTAL  
SYSTEM CERTIFIED  
**ISO 14001**



# EXCLUSIVE FEATURES OF THE HIGH RATE SERIES BATTERIES

## INDIVIDUAL LOW PRESSURE SELF-SEALING VALVES

are 100% factory tested to prevent premature dry-out for dependable battery service. Flame arrestors are installed on all flame-retardant batteries for added safety.

## ADVANCED ABSORBED GLASS MAT (AGM) TECHNOLOGY

utilizes special micro-porous separators to absorb all the electrolyte lowering internal resistance, increasing power, maximizing space utilization and eliminating leaks for safe installation and storage.

## PUNCTURE RESISTANT GLASS MAT SEPARATORS

lowers internal resistance for superior high-rate power while protecting against failures and shorts for maximum life.

## HEAVIER, THICKER PLATES

are pasted from both sides for added durability and a ten-year design life.

## SPECIAL POSITIVE GRID ALLOY

with pure lead, low calcium and high tin delivers quick high-rate power.

## IPF® TECHNOLOGY

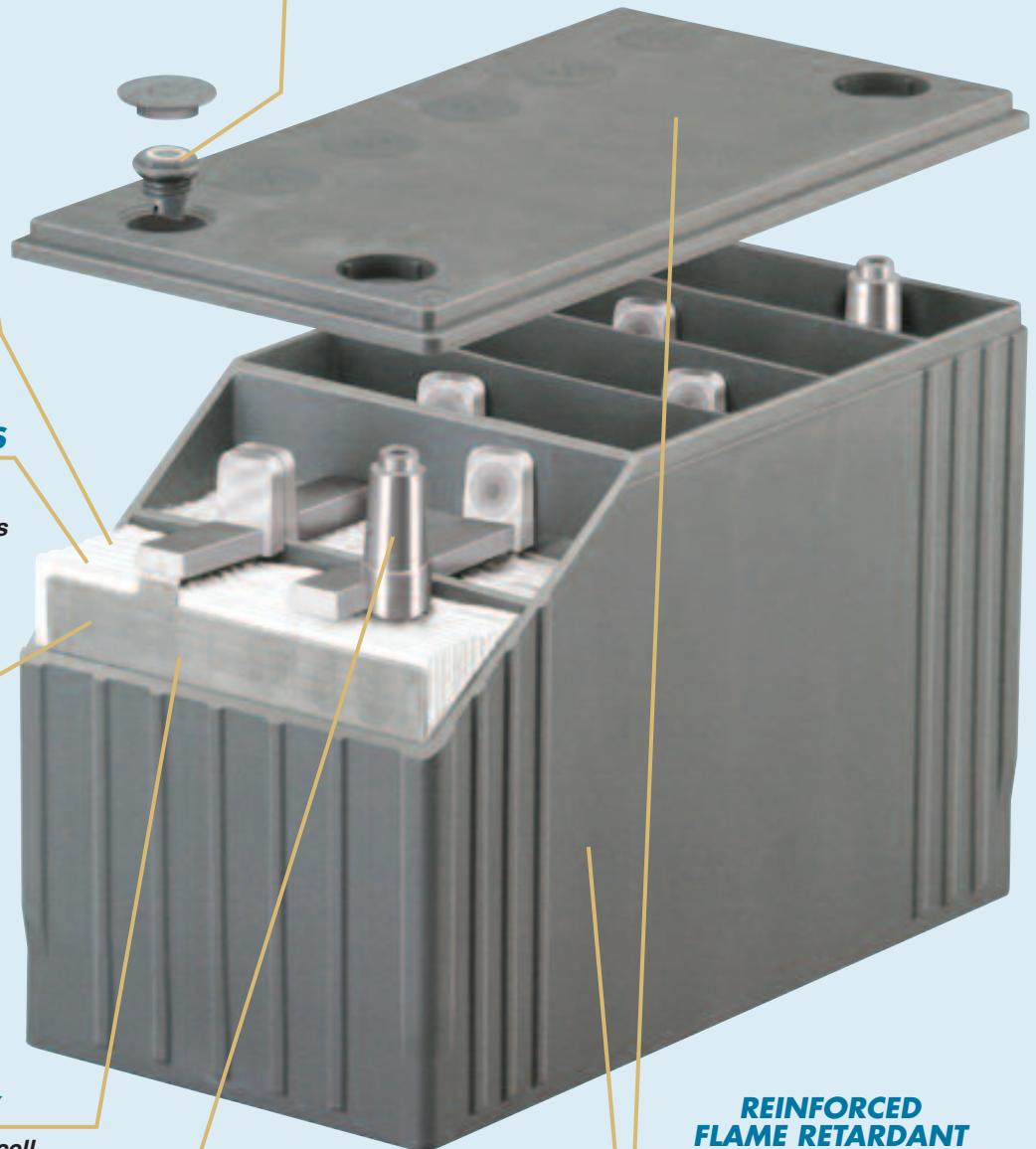
optimizes power capacity, cell consistency, and long-term reliability.

## TIN PLATED, COPPER THREADED INSERTED POSTS

for easy installation and maintenance ensuring the highest current-carrying capacities.

## EPOXY POST SEAL DESIGN

eliminates post leaks extending battery life and protecting sophisticated electronic equipment. A proven technology that is 100% factory tested to ensure long life and performance.



## EXCLUSIVE THRU-PARTITION WELD SEALS

ensure superior weld quality maximizing current transfer between cells.

## REINFORCED FLAME RETARDANT (RATED UL94, V0 28% LOI) POLYPROPYLENE OR STANDARD POLYPROPYLENE CASE AND COVER

resists bulging and meets safety requirements. Special reinforced design protects battery while providing added heat dissipation capabilities.

Uninterruptible power supplies (UPS) need instantaneous power in order to protect vital information or sustain critical emergency systems. The **DEKA UNIGY HIGH RATE SERIES** uses the latest AGM (Absorbed Glass Mat) technology to lower internal resistance for superior high-rate, short-term discharges delivering critical power when needed. With a 10-year design life it continues to deliver reliable standby power when conventional standby batteries might already have failed.

To help further ensure long-term performance, the **DEKA UNIGY HIGH RATE SERIES** features inserted posts with epoxy post seals that are 100% factory leak tested. The epoxy post seal acts as a secure barrier to keep in acid and critical pressure extending life and protecting sophisticated electronic equipment. For added strength and durability, these batteries are housed in reinforced flame-retardant (rated UL94, V0 28% LOI) polypropylene or standard polypropylene case and cover for long life performance.

It is also essential that backup batteries meet capacity ratings in order to satisfy the specific demands of backup systems. **DEKA UNIGY HIGH RATE BATTERIES** go through a series of over 250 stringent quality control checks and extensive testing to ensure the industry's most accurate and dependable ratings. In addition, all **DEKA UNIGY HIGH RATE** production facilities are certified to meet globally recognized ISO 9001 and TS16949 quality standards. All batteries shipped meet or exceed IEEE-485 capacity requirements.

- **Epoxy-sealed posts eliminate leaks**
- **Pure lead, low calcium, high tin positive grids deliver quick high-rate power**
- **Puncture resistant micro-porous glass mat separators extend life**
- **Exclusive IPF® Technology optimizes power capacity, cell consistency, and long-term reliability**
- **Reinforced flame retardant (rated UL 94 V-0 28% LOI) polypropylene or standard polypropylene case and cover resists bulging and meets safety requirements**
- **Flame arresting, low pressure, self-sealing valve on flame-retardant or low-pressure, self-sealing valve on standard maximizes gas recombination efficiency and minimizes gassing**
- **Computer-aided design and manufacturing ensure quality products through control of process and standards**
- **Case and cover heat sealed and 100% tested to prevent leaks**
- **Float Voltage: 2.25 volts per cell ± .01 VPC @ 77°F (25°C)**
- **Design life 10 years @ 77°F/25°C (full float)**
- **All batteries meet or exceed IEEE-485 capacity requirements at shipment**

Battery Type*	Overall Dimensions							
	Length		Width		Height		Weight	
	Inches	mm	Inches	mm	Inches	mm	lbs.	kgs.
<b>U1HR1500†</b>	7.75	197	5.21	132	6.68	170	27	12
<b>45HR2000</b>	8.99	228	5.47	139	8.27	210	40	18
<b>24HR3000</b>	10.20	259	6.56	167	8.24	209	56	25
<b>27HR3500</b>	12.01	305	6.56	167	8.24	209	66	30
<b>31HR4000</b>	12.93	328	6.74	171	8.70	221	74	34
<b>31HR5000</b>	13.46	342	6.77	172	11.21	284	98	45

\* Part numbers for flame-retardant battery types: charcoal cover and case.  
 For standard battery type: Add "S" as suffix in part number, black cover and grey case.

† U1HR1500 design life 5 years @ 77°F/25°C (full float)

**Storage: Batteries have a low self-discharge rate and can be stored for up to six months at 77°F/25°C without applying a boost charge.**

## DISCHARGE RATINGS\* IN WATTS PER CELL [at 77°F (25°C)]

Battery Type	Volts Per Cell (V.P.C.)	1 Min.	5 Min.	10 Min.	15 Min.	20 Min.	30 Min.	40 Min.	50 Min.	60 Min.
U1HR1500	1.60	502	256	162	121	97.5	71.3	56.6	47.4	41.0
	1.67	445	247	159	119	96.5	70.2	56.1	47.0	40.6
	1.70	418	237	156	117	94.7	69.3	55.3	46.5	40.3
	1.75	377	223	149	113	92.2	68.0	54.4	45.8	39.9
	1.80	—	206	141	108	89.0	66.0	53.1	44.9	39.1
45HR2000	1.60	569	322	222	172	141	105	84.5	71.5	62.3
	1.67	526	308	216	168	138	104	83.6	70.7	61.6
	1.70	500	300	212	166	137	103	83.0	70.1	61.0
	1.75	472	286	205	161	134	101	81.7	69.0	60.2
	1.80	—	253	189	151	127	96.9	78.9	66.9	58.4
24HR3000	1.60	829	506	342	259	212	159	130	111	96.9
	1.67	747	478	331	253	208	157	129	110	96.1
	1.70	710	463	326	249	204	154	128	109	95.5
	1.75	637	430	309	240	199	152	125	107	94.0
	1.80	—	386	284	227	192	147	121	104	91.3
27HR3500	1.60	983	616	420	320	263	196	159	133	115
	1.67	871	580	408	314	258	193	156	131	114
	1.70	831	559	399	309	254	190	155	130	113
	1.75	729	514	376	294	246	187	152	128	111
	1.80	—	459	348	279	233	179	147	124	108
31HR4000	1.60	1256	760	508	384	314	233	186	155	134
	1.67	1096	713	496	377	309	230	184	154	132
	1.70	1006	686	488	374	307	228	183	153	132
	1.75	918	644	464	362	301	225	181	151	130
	1.80	—	585	432	342	283	214	174	147	128
31HR5000	1.60	1081	830	620	492	406	306	246	206	178
	1.67	983	760	588	475	397	301	244	204	177
	1.70	946	727	569	464	391	298	241	203	176
	1.75	836	633	531	440	375	290	236	199	173
	1.80	704	587	481	406	350	276	227	192	168

## DISCHARGE RATINGS\* IN AMPS [at 77°F (25°C)]

Battery Type	Volts Per Cell (V.P.C.)	1 Min.	5 Min.	10 Min.	15 Min.	30 Min.	60 Min.
U1HR1500	1.75	213	122	79.9	60.0	35.4	20.5
	1.80	—	111	74.9	56.8	34.2	20.0
45HR2000	1.75	267	157	110	85.4	52.4	31.0
	1.80	—	137	100	79.3	50.2	30.0
24HR3000	1.75	360	236	166	127	79.2	48.3
	1.80	—	209	151	119	76.1	46.8
27HR3500	1.75	412	282	202	156	97.4	57.3
	1.80	—	248	185	146	92.6	55.3
31HR4000	1.75	518	354	249	192	117	66.7
	1.80	—	316	229	180	111	65.5
31HR5000	1.75	474	369	291	238	153	89.5
	1.80	389	320	259	216	144	86.6

\* Note: Above ratings conform to IEEE-485 standards.

"POWERED FOR PERFORMANCE"®

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