

Deka® unigy II



Superior quality VRLA
battery technology
for critical railway
power systems.

The logo features the word "Deka" in a bold, italicized black font with a registered trademark symbol. To its left is a stylized green and white circular icon. Below "Deka" is the word "unigy" in a bold, lowercase, yellow font with a black outline and a registered trademark symbol. To the right of "unigy" are two vertical yellow bars with black outlines, followed by another registered trademark symbol.

Deka® **unigy® II**

This lead battery technology offers a fully sustainable and recyclable solution with distinct technological advantages. Deka® Unigy® II batteries feature a one-way pressure relief valve and a Microcat® catalyst provide the engineering advancements needed to deliver long life in harsh environments.

Quality Assurance

Be Confident the Power is Backed by the Expertise

- **Microcat® Catalyst** – Lowers float current, mitigates thermal buildup and cell dryout
- **Container and Cover** – Impact-resistant polypropylene 28% L.O.I.
- **Plates formed with IPF™ technology** – Assures consistent cell to cell performance
- **Shipped at 100% Capacity**

When Meeting and Exceeding Standards is Important

Unigy II batteries are UL 1973 Certification for Energy Storage applications



Your Advantage when Unigy II is Your Battery

2-Volt features and your benefits.

Plates Formed Using Exclusive IPF® Technology	Optimizes power capacity, cell consistency, and long-term reliability
Valve-Regulated	Eliminates periodic watering, corrosive acid fumes, and spills
MICROCAT® Catalyst	Lowers float current, decreases internal temps and the risk of dryout
Positive Plate	Pure lead, tin alloy
Post Seal	Epoxy sealed to prevent leaks and corrosion damage
Case and Cover	Molded high impact flame retardant polypropylene, UL 94 V-0, 28% L.O.I.
Safety Valve and Flame Arrestor	100% tested valve, high positive pressure, self sealing
Rated Non-Spillable by ICAO, IMDG, IATA, and DOT	Transports easily and safely by air, no special containers needed

Additional Unigy II Information

Learn more about East Penn's battery selection for rail signal applications

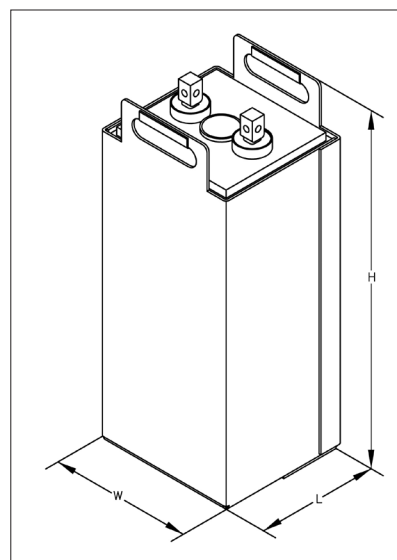
<https://www.eastpennmanufacturing.com/applications/rail-signal>



AVR45 Cell Information

Deka Fahrenheit® AVR45

Cell Type	HT45 Single Cell Can Dimensions							
	Length		Width		Height		Weight	
	in.	mm.	in.	mm.	in.	mm.	lbs.	kg.
AVR45-5	2.25	58.2	6.70	170	16.11	409	26	12
AVR45-7	3.00	76.1	6.70	170	16.11	409	34	15
AVR45-9	3.75	95.1	6.70	170	16.11	409	42	19
AVR45-11	4.50	114	6.70	170	16.11	409	50	23
AVR45-13	5.25	133	6.70	170	16.11	409	58	26
AVR45-15	6.00	152	6.70	170	16.11	409	66	30
AVR45-17	6.75	171	6.70	170	16.11	409	74	34
AVR45-19	7.50	190	6.70	170	16.11	409	82	37
AVR45-21	8.25	209	6.70	170	16.11	409	90	41
AVR45-23	9.00	229	6.70	170	16.11	409	98	44
AVR45-25	9.75	248	6.70	170	16.11	409	106	48
AVR45-27	10.50	267	6.70	170	16.11	409	114	52
AVR45-29	11.25	286	6.70	170	16.11	409	122	56
AVR45-31	12.00	305	6.70	170	16.11	409	130	59
AVR45-33	12.75	324	6.70	170	16.11	409	138	63



RATINGS IN AMPERES AT 77°F (25°C)

Cell Type	C8 Ah to 1.75 V.P.C.	1.75 V.P.C.				1.78 V.P.C.				1.81 V.P.C.			
		8HR	10HR	24HR	100HR	8HR	10HR	24HR	100HR	8HR	10HR	24HR	100HR
AVR45-5	91.4	11.4	9.6	4.6	1.2	11.3	9.5	4.5	1.2	11.2	9.3	4.5	1.2
AVR45-7	137	17.1	14.4	6.9	1.8	17.0	14.2	6.8	1.8	16.8	14.0	6.7	1.8
AVR45-9	183	22.9	19.2	9.2	2.4	22.6	19.0	9.0	2.4	22.4	18.7	9.0	2.4
AVR45-11	229	28.6	24.0	11.5	3.0	28.3	23.7	11.3	3.0	27.9	23.4	11.2	3.0
AVR45-13	274	34.3	28.8	13.8	3.6	34.0	28.5	13.6	3.6	33.5	28.0	13.5	3.6
AVR45-15	320	40.0	33.6	16.0	4.2	39.6	33.2	15.8	4.2	39.1	32.7	15.7	4.2
AVR45-17	366	45.7	38.4	18.3	4.8	45.3	37.9	18.1	4.8	44.7	37.4	18.0	4.8
AVR45-19	411	51.4	43.2	20.6	5.4	50.9	42.7	20.4	5.4	50.3	42.0	20.2	5.4
AVR45-21	457	57.1	48.0	22.9	6.0	56.6	47.4	22.6	6.0	55.9	46.7	22.4	6.0
AVR45-23	503	62.9	52.8	25.2	6.7	62.3	52.2	24.9	6.6	61.5	51.4	24.7	6.6
AVR45-25	549	68.6	57.6	27.5	7.3	67.9	56.9	27.1	7.2	67.1	56.1	26.9	7.2
AVR45-27	594	74.3	62.4	29.8	7.9	73.6	61.7	29.4	7.8	72.7	60.7	29.2	7.8
AVR45-29	640	80.0	67.2	32.1	8.5	79.2	66.4	31.7	8.4	78.2	65.4	31.4	8.4
AVR45-31	686	85.7	72.0	34.4	9.1	84.9	71.1	33.9	9.0	83.8	70.1	33.7	9.0
AVR45-33	731	91.4	76.8	36.7	9.7	90.6	75.9	36.2	9.6	89.4	74.7	35.9	9.6

Component Ordering

Unigy II, AVR45 Series Single Cell
Railway Single Cell Assembly

Plate Size	System Part #**
5	JSCU4505-1LCARR
7	JSCU4507-1LCARR
9	JSCU4509-1LCARR
11	JSCU4511-1LCARR
13	JSCU4513-1LCARR
15	JSCU4515-1LCARR
17	JSCU4517-1LCARR
19	JSCU4519-1LCARR
21	JSCU4521-1LCARR
23	JSCU4523-1LCARR
25	JSCU4525-1LCARR
27	JSCU4527-1LCARR
29	JSCU4529-1LCARR
31	JSCU4531-1LCARR
33	JSCU4533-1LCARR

** = Each system part # consists of:
Quantity of 1 cell
Connection Kit of cables & hardware

Unigy II, AVR45 Series Single Cell
Railway 6-Cell Assembly

Plate Size	System Part #**
5	JSCU4505-6LCARR
7	JSCU4507-6LCARR
9	JSCU4509-6LCARR
11	JSCU4511-6LCARR
13	JSCU4513-6LCARR
15	JSCU4515-6LCARR
17	JSCU4517-6LCARR
19	JSCU4519-6LCARR
21	JSCU4521-6LCARR
23	JSCU4523-6LCARR
25	JSCU4525-6LCARR
27	JSCU4527-6LCARR
29	JSCU4529-6LCARR
31	JSCU4531-6LCARR
33	JSCU4533-6LCARR

** = Each system part # consists of:
Quantity of 6 cell
Connection Kit of cables & hardware

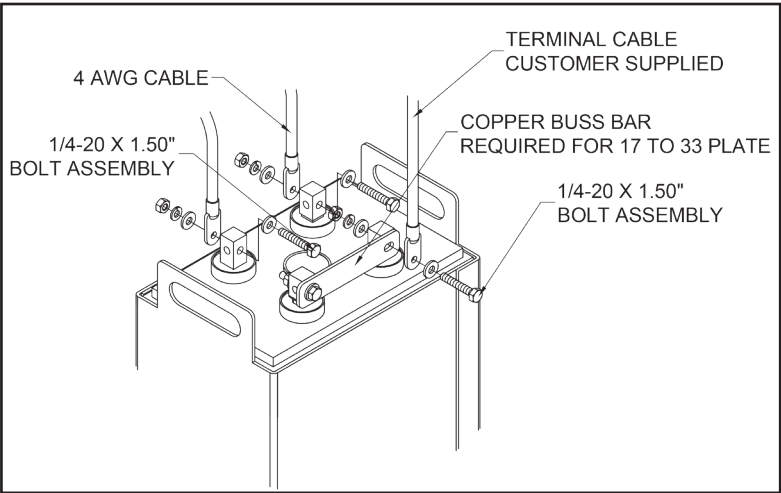
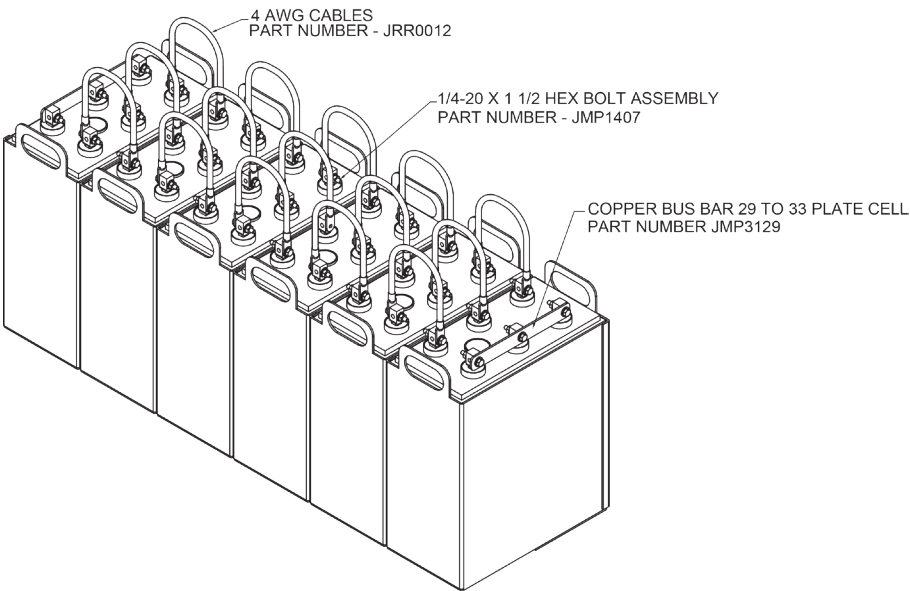
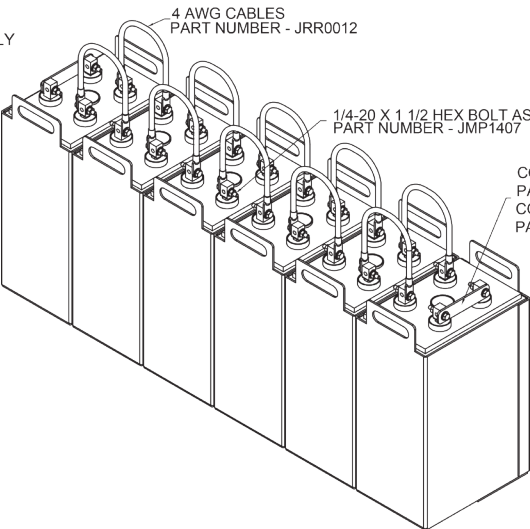
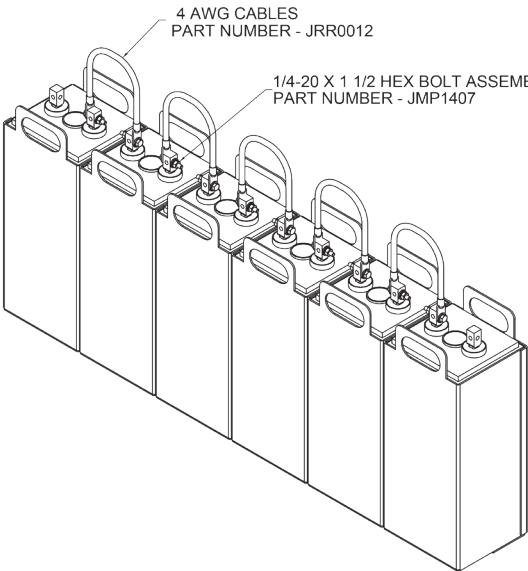
Unigy II, AVR45 Series Single Cell
Railway Single Cell Connection Kit

Plate Size	Assembly Part #
5 to 15	JPk0005
	Contains:
	1 - JRR0012 (Cable)
	1 - JMH2727 (Manual)
17 to 19	JPk0006
	Contains:
	2 - JRR0012 (Cable)
	1 - JMH2727 (Manual)
21 to 27	JPk0007
	Contains:
	2 - JRR0012 (Cable)
	1 - JMH2727 (Manual)
29 to 33	JPk0008
	Contains:
	3 - JRR0012 (Cable)
	1 - JMH2727 (Manual)

Unigy II, AVR45 Series Single Cell
Railway Single 6-Cell Connection Kit

Plate Size	Assembly Part #
5 to 15	JPk0001
	Contains:
	5 - JRR0012 (Cable)
	1 - JMH2727 (Manual)
17 to 19	JPk0002
	Contains:
	10 - JRR0012 (Cable)
	2 - JMP2117 (Connector)
21 to 27	JPk0003
	Contains:
	10 - JRR0012 (Cable)
	2 - JMP2121 (Connector)
29 to 33	JPk0004
	Contains:
	15 - JRR0012 (Cable)
	2 - JMP3129 (Connector)
	1 - JMH2727 (Manual)

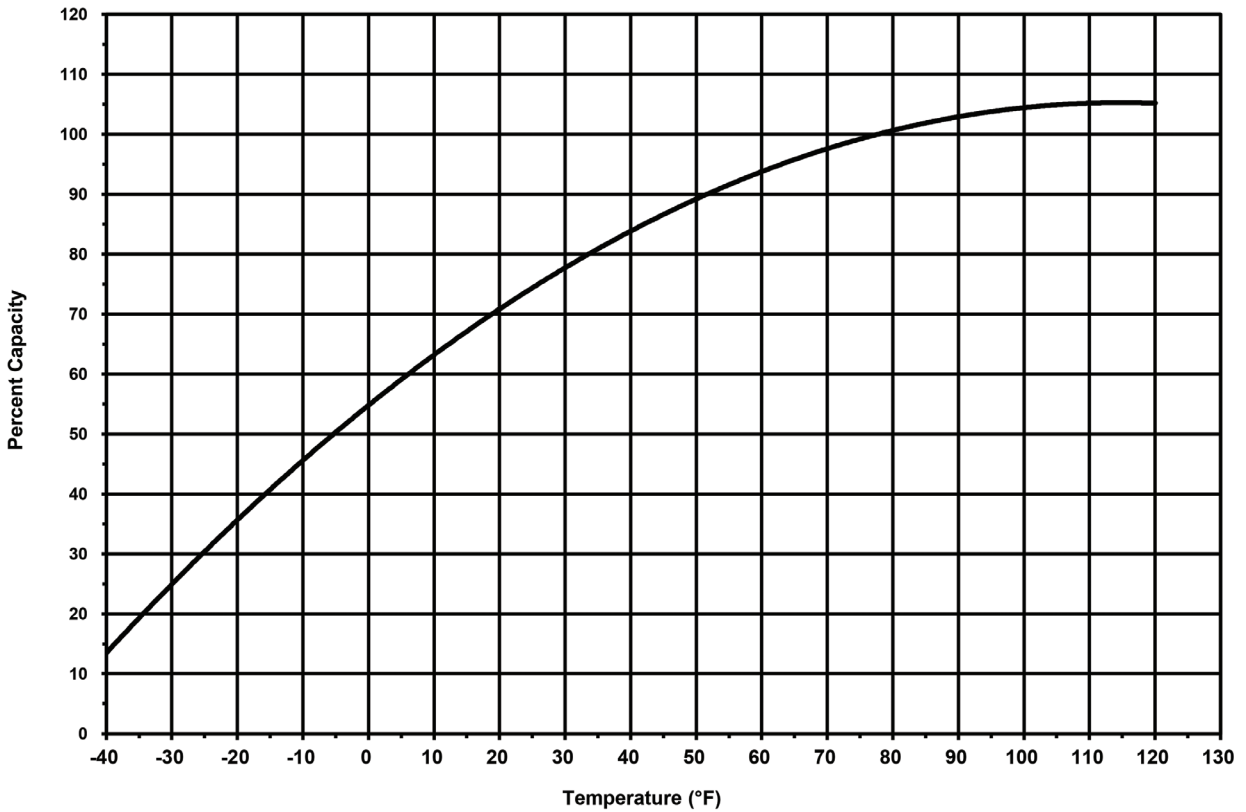
Component Assembly



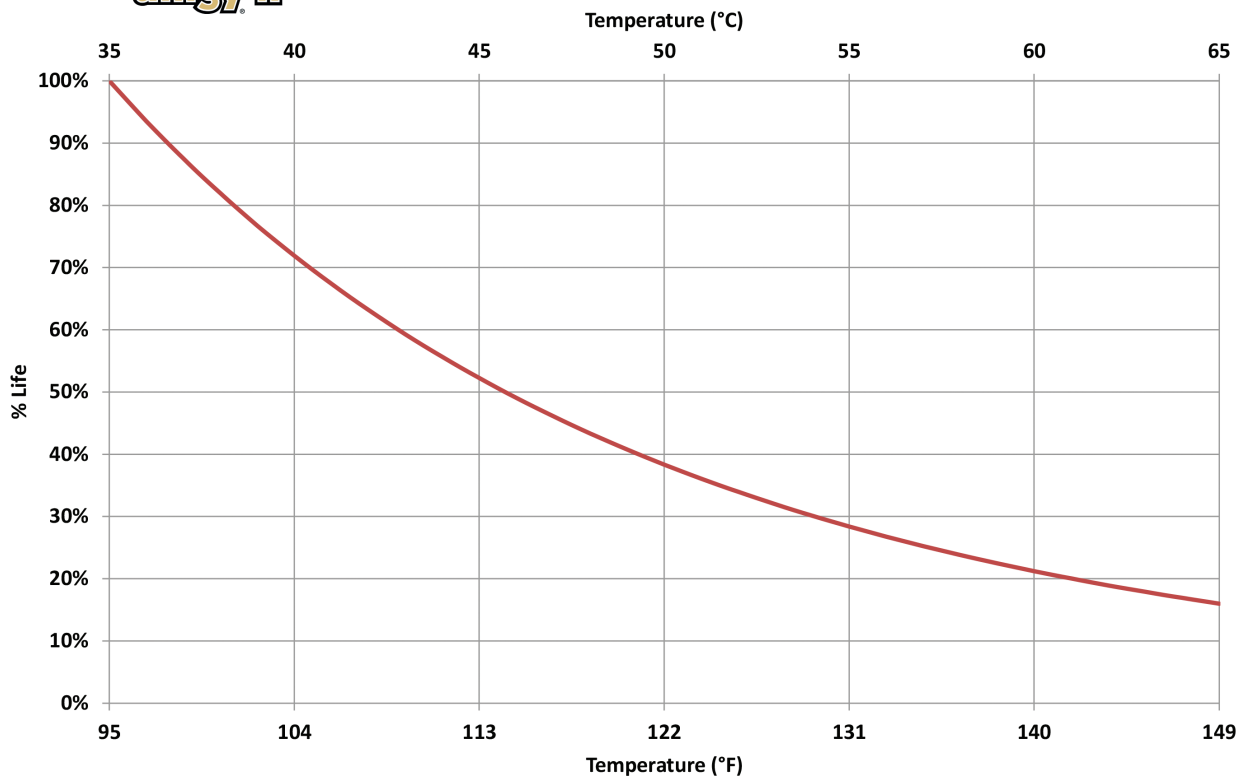
Temperature



Deka Unigy II - Temperature Effects on Capacity
(Discharges 1 Hr to 100 Hr)



Temperature vs. Life





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QUALITY SYSTEM
CERTIFIED
ISO 9001
IATF 16949
ENVIRONMENTAL
SYSTEM CERTIFIED
ISO 14001



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