

**HARMON PART NUMBERING**

HPN	TYPE	NOM. AH CAPACITY	NUMBER OF CELLS	SPECIFIC GRAVITY	DIMENSIONS			WEIGHT		FIGURE (SINGLE CELL SHOWN)
					LENGTH	WIDTH	HEIGHT	UNPACKED	DOMESTIC PACKED	
-000	EMP-9	160	1	1.215	5.16"	10.1"	17.9"	66 LBS.	70 LBS.	SEE FIGURE 1
-001	EMP-7	120	1	1.215	4.34"	10.1"	17.9"	52 LBS.	56 LBS.	SEE FIGURE 1
-002	3EMP-5	80	3	1.215	10.25"	10.1"	17.9"	105 LBS.	114 LBS.	SEE FIGURE 1
-003	EMP-11	200	1	1.215	6.88"	10.1"	17.9"	83 LBS.	94 LBS.	SEE FIGURE 1
-004	EMP-13	240	1	1.215	6.88"	10.1"	17.9"	92 LBS.	98 LBS.	SEE FIGURE 1
-200	EJ-17	750	1	1.215	8.1"	11.0"	18.7"	147 LBS.	156 LBS.	SEE FIGURE 2
-201	ELM-160	160	1	1.210 -1.220	6.63"	5.42"	18.85"	29 LBS.	--	SEE FIGURE 3
-202	ELM-200	200	1	1.210 -1.220	6.63"	5.42"	18.85"	34 LBS.	--	SEE FIGURE 3
-203	ELM-240	240	1	1.210 -1.220	6.63"	5.42"	18.85"	40 LBS.	--	SEE FIGURE 3
-204	ELM-340	340	1	1.210 -1.220	6.69"	8.42"	18.85"	64 LBS.	--	SEE FIGURE 3
-205	ELM-425	425	1	1.210 -1.220	6.69"	8.42"	18.85"	75 LBS.	--	SEE FIGURE 3
-206	ELM-120	120	1	1.210 -1.220	6.63"	5.42"	13.56"	25 LBS.	--	SEE FIGURE 3
-207	ELM-710	710	1	1.210 -1.220	7.00"	12.50"	19.16"	118 LBS.	--	SEE FIGURE 3

HPN	TYPE	NOM. AH CAPACITY	NUMBER OF CELLS	VOLTAGE	SPECIFIC GRAVITY	DIMENSIONS OF BATTERY			FIGURE	NOTES
						LENGTH	WIDTH	HEIGHT		
-100	EI-7	288	6	12 V	1.170 TROPICAL	42.1"	11.0"	18.7"	SEE FIGURE 2 (ONLY ONE CELL SHOWN)	BATTERIES HAVE SPECIFIC GRAVITY FOR TROPICAL LOCATIONS, INTERCELL CONNECTORS, HYDROMETER, BOLT PACKAGES, GREASE, AND FLAME ARRESTOR.

**DESCRIPTION:** BATTERY, LEAD ACID

**MARKING:** MANUFACTURER, MANUFACTURER'S MODEL NUMBER

**MATERIAL SPECIFICATION:**

**SEDIMENT SPACE:**

HPN -00X: 3.0"  
HPN -1XX AND -200: 0.75"

**ELECTROLYTE OVER PLATES:**

HPN -00X: 2.3"  
HPN -1XX AND -200: 2.1"

**CONTAINER:**

HPN -00X: POLYSTYRENE  
HPN -1XX AND -200: STYRENE ACRYLONITRILE COPOLYMER

**COVER:**

HPN -00X: STYRENE BUTADIENE  
HPN -1XX AND -200: FLAME RETARDANT PVC  
HPN -201 THROUGH -207: HI-IMPACT POLYPROPYLENE

**SEPARATORS:**

HPN -00X, -1XX, AND -200: MICROPOROUS RUBBER  
HPN -201 THROUGH -207: HIGH POROSITY MICROPOROUS POLYETHYLENE SLEEVE.

**POST TYPE:**

HPN -00X, -1XX: SINGLE POST  
HPN -200 THROUGH -203 AND -206: DOUBLE POSTS  
HPN -204, -205 AND -207: FOUR POSTS

**POST SEAL TYPE:**

HPN -00X: BURNED RING  
HPN -1XX AND -200: SLIDE-LOCK SEAL

**PLATE SUSPENSION TYPE:**

POSITIVE: HPN -00X: LEDGE HUNG  
HPN -1XX AND -200: BRIDGE HUNG  
NEGATIVE: HPN -00X: LEDGE HUNG  
HPN -1XX AND -200: BOTTOM SUPPORTED

**PLATES (HPN -201 THROUGH -207)**

POSITIVE: SQUARE TUBULAR, W/LOW ANTIMONY ALLOY SPINES  
NEGATIVE: FLAT PLATE, PASTED, W/ CALCIUM ALLOY GRID

**VENT TYPE:** FLAME ARRESTOR, FUSED ALUMINA

**BOLT CONNECTORS:**

HPN -00X, -1XX, AND -200: STAINLESS STEEL, STANDARD ENGLISH MEASURE, HEX-HEAD

**INTERCELL CONNECTORS:** LEAD-PLATED COPPER

**ELECTRICAL SPECIFICATION:**

**FLOAT VOLTAGE:**

ACCEPTABLE RANGE: 2.15 - 2.22 VPC  
RECOMMENDED: 2.20 VPC

**MAXIMUM PHYSICAL DIMENSION:**

**PLATE DIMENSIONS:**

POSITIVE:  
HPN -00X: .44" THICK  
HPN -1XX AND -200: 10.9"H X 9.2"W X .35"T  
NEGATIVE:  
HPN -00X: .18" THICK  
HPN -1XX AND -200: 11.4"H X 9.4"W X .24"T

**NOTE:**

FOR HPNS -201 THROUGH -207, USE TEMPERATURE-COMPENSATED CHARGING.

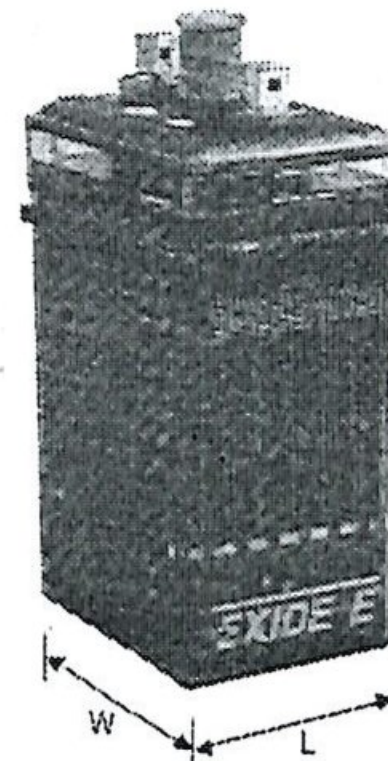


FIGURE 1: HPN -00X (SINGLE CELL SHOWN)



FIGURE 2: HPN -1XX AND -200 (SINGLE CELL SHOWN)

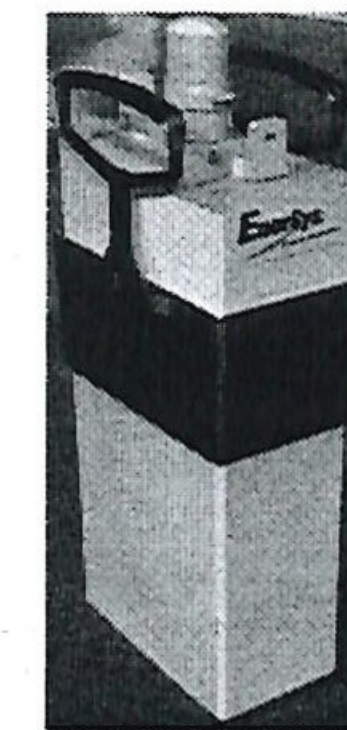



FIGURE 3: HPN -201 THRU -207

REVISION CONTROL				
REV	ECRN	DATE	BY	APPRV
CA0	90014658	2/4/98	ADH	ADH
CB0	90037354	2/02	ADH	ADH
ENGINEERING				
Approved A. HOWERY			Date 2/4/98	
Engineer A. HOWERY				
Drawn By B. KAISER			Date 6/4/99	
		Harmon Industries		
		Grain Valley, MO		
Title BATT LEAD ACID				
Drawing No. 017123-XXX			Sheet 1 of 1	