



APPLICATIONS

- UNINTERRUPTIBLE POWER SUPPLY (UPS) SYSTEMS
- COMMUNICATIONS
- DATA CENTERS
- ALTERNATIVE ENERGY



The **MHR** Modular High Rate Valve Regulated Lead Acid batteries feature the latest advancement in plate and battery technology offering exceptional service life, low self discharge, high cycling capabilities and low float charge current characteristics.

MHR VRLA batteries with optimized recombination technology and superior performance are highly suitable for a variety of stationary and standby power applications.

MHR VRLA batteries are manufactured in compliance with TL, NEBS, GR, SR, IEC, BS, UL, ISO, OSHAS and CE quality and performance standards.

UMHRS4-Systems Exceed 1997 UBC Zone 4 seismic requirements for at or below grade installations exceed 2000/2003/2007 IBC requirements for 125% g level.

FEATURES

- 20-Year Design Life
- Initial capacity at 100%
- 3 month of storage at 77°F (25°C) capacity > 94%
- Low pressure one-way flame arresting valve(s) UL924
- Absorbent Glass Mat (AGM) technology
- Recombination efficiency of 99.9%
- Flame Retardant ABS Cover and Container, UL94 V-0, LOI>28%
- High reliability case to cover seal
- Copper alloy insert terminals for ease of installation and maximum current carrying capabilities
- Copper intercell connectors specifically sized for High Rate discharges
- UL Recognized Component
- 6-Year full warranty
- Single-Cell construction



Recycling Services

INDUSTRY COMPLIANCE

- NEBS Version 4, Level 3, EUROBAT Guide, BS6290 Part 4, IEC 60896-21/-22
- Telcordia GR-1089-CORE Issue 4, GR-63-CORE Issue 4, SR-4228, GR-1200-CORE Issue 1
- UL Recognized Component 924 & UL Certified Vertical Flame Test Rating 94V-0
- ISO9001:2000 ISO14001

SEISMIC

- Exceeds 1997 UBC Zone 4 seismic requirements for at or below grade installations
- Exceeds 2007 IBC requirements for 125% g level

TRANSPORTATION

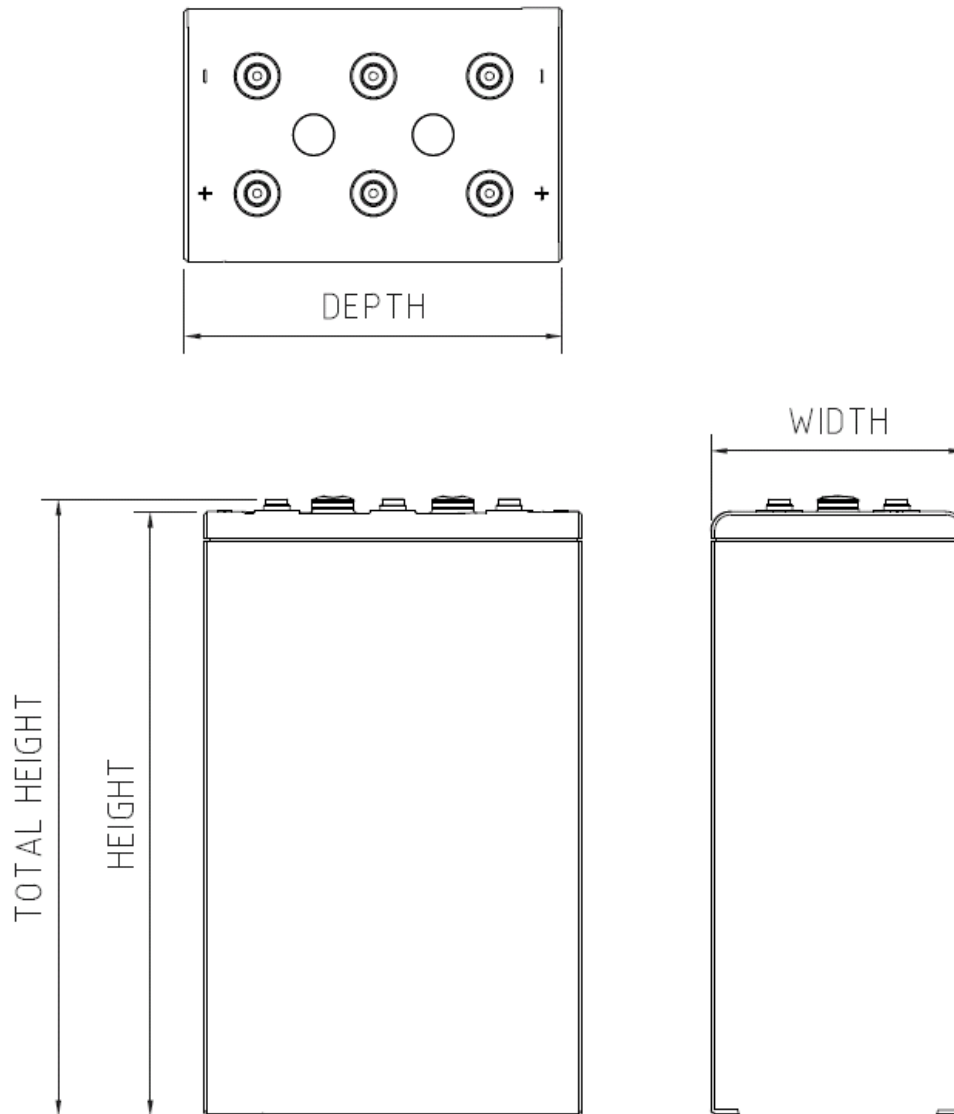
- Classified as Nonspillable UN 2800 and meet the Nonspillable criteria listed in DOT-CFR Title 49, 171-189 (d) (3) (i) and (ii) and exempt from CFR 49, Subchapter C requirements

SPECIFICATIONS

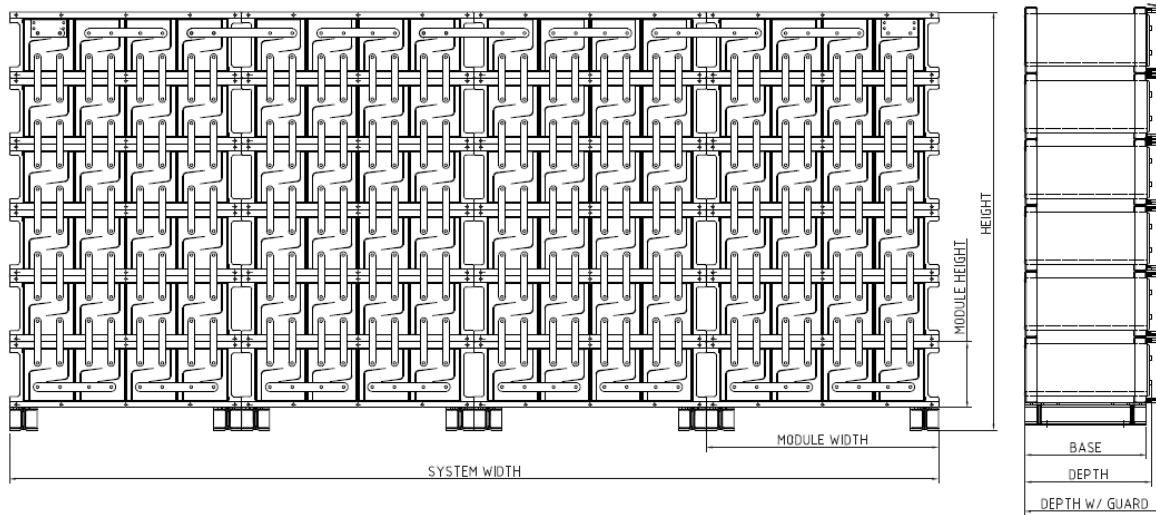
Float Charging Voltage	Equalize /Cycle or Freshening at Installation Charging Voltage
2.25Vpc to 2.27Vpc @ 77°F (25°C)	2.35Vpc to 2.40Vpc @ 77°F (25°C)
See Operations and Maintenance Manual for specific guidelines and recharge times	
Charging Temperature Compensation	-2 mV/cell/°F > 77°F (-3.6 mV/cell /°C > 25°C)
	+2 mV/cell/°F < 77°F (+3.6 mV/cell/°C < 25°C)
Maximum AC Ripple (Charger)	Maximum Charge Current
0.5% RMS, 1.5% peak-to-peak for float charge voltage for best results	C ₅ Rate Amps (5 hour rate @ 1.75vpc)
Electrolyte	Self Discharge Rate
Absorbed 1.300 s.g. H ₂ SO ₄	<2% per month at 77°F (25°C)
Relief Valve	Self Resealing; Operates at 2 to 3 psi and is complete with integral flame arrestor
Terminal Type	Torque / Retorque
M8-F (Female)	110 in-lbs (12.5 Nm) / 90 in-lbs (10 Nm)
Operating Temperature Range	
Nominal	Discharge
+74°F (24°C) to 80°F (27°C)	-40°F (-40°C) to +140°F (60°C)
Charge	Storage Temperature Range
-20°F (-28°C) to +122°F (50°C)	-4°F (-20°C) to +104°F (40°C)

CELL SPECIFICATIONS - DIMENSIONS

Model	kWB 15 min @ 1.67vpc	Ah @ 20hr rate to 1.75	Width		Depth		Height		Total Height		Weight		Terminal	
			in	mm	in	mm	in	mm	in	mm	kg	lbs.	Term.	Posts
MHR1100	1.98	1130	9.1	229	7.4	186	21.9	555	22.3	566	62	137	M8-F	4
MHR1350	2.37	1356	9.1	229	9.5	241	21.9	555	22.3	566	75	165	M8-F	4
MHR1680	2.97	1694	9.1	229	10.5	266	21.9	555	22.3	566	94	207	M8-F	6
MHR1800	3.17	1807	9.1	229	11.5	291	23.7	600	24.1	612	110	242	M8-F	6
MHR2200	3.96	2258	9.1	233	13.8	349	21.9	555	22.3	566	125	275	M8-F	8



SYSTEM CONFIGURATIONS – DIMENSIONS



120V	kWB @ 15 min to 1.67	Width		Height		Depth		Depth w/ Guard		Weight	
		in	mm	in	mm	in	mm	in	mm	kg	lbs.
UMHRS-1100-60-56-2	67	84.3	2,140	67.2	1,705	21.5	544	24.6	624	4,595	10,109
UMHRS-1100-60-45-3	67	103.5	2,628	56.7	1,439	21.5	544	24.6	624	4,636	10,199
UMHRS-1350-60-26-5	80	117.9	2,993	67.2	1,705	21.5	544	24.6	624	5,725	12,595
UMHRS-1680-60-26-5	100	127.4	3,235	67.2	1,705	21.5	544	24.6	624	6,963	15,319
UMHRS-1800-60-26-5	107	137.5	3,490	67.2	1,705	23.3	590	26.4	670	8,150	17,929
UMHRS-2200-60-26-5	133	160.3	4,070	68.1	1,729	21.5	544	24.6	624	9,192	20,223

240V	kWB @ 15 min to 1.67	Width		Height		Depth		Depth w/ Guard		Weight	
		in	mm	in	mm	in	mm	in	mm	kg	lbs.
UMHRS-1100-120-46-5	133	172.5	4,380	66.4	1,685	21.5	544	24.6	624	9,231	20,308
UMHRS-1100-120-35-8	133	214.9	5,456	55.9	1,419	21.5	544	24.6	624	9,342	20,552
UMHRS-1350-120-46-5	160	216.0	5,486	66.4	1,685	21.5	544	24.6	624	11,244	24,736
UMHRS-1350-120-35-8	160	267.1	6,784	55.9	1,419	21.5	544	24.6	624	11,363	25,000
UMHRS-1680-120-46-5	200	235.1	5,970	66.4	1,685	21.5	544	24.6	624	13,720	30,184
UMHRS-1680-120-35-8	200	290.0	7,364	55.9	1,419	21.5	544	24.6	624	13,846	30,461
UMHRS-1680-120-26-10	200	254.8	6,470	66.4	1,685	21.5	544	24.6	624	13,926	30,638
UMHRS-1800-120-35-8	213	314.1	7,976	55.9	1,419	23.3	590	26.4	670	16,214	35,670
UMHRS-2200-120-35-8	267	368.9	9,368	56.7	1,439	21.5	544	24.6	624	16,522	36,350
UMHRS-2200-120-26-10	267	320.5	8,140	67.3	1,709	21.5	544	24.6	624	18,384	40,445

360V	kWB @ 15 min to 1.67	Width		Height		Depth		Depth w/ Guard		Weight	
		in	mm	in	mm	in	mm	in	mm	kg	lbs.
UMHRS-1100-180-36-10	200	268.6	6,820	66.4	1,685	21.5	544	24.6	624	13,949	30,688
UMHRS-1100-180-45-9	200	310.4	7,884	55.9	1,419	21.5	544	24.6	624	13,907	30,595
UMHRS-1350-180-36-10	240	333.9	8,479	66.4	1,685	21.5	544	24.6	624	16,966	37,326
UMHRS-1680-180-36-10	300	362.5	9,205	66.4	1,685	21.5	544	24.6	624	20,683	45,503
UMHRS-1800-180-36-10	320	392.6	9,970	66.4	1,685	23.3	590	26.4	670	24,220	53,284
UMHRS-2000-180-36-10	400	392.6	9,970	66.4	1,685	23.3	590	26.4	670	24,220	53,284
UMHRS-2200-180-36-10	400	461.1	11,710	67.3	1,709	21.5	544	24.6	624	25,884	56,945

384V	kWB @ 15 min to 1.67	Width		Height		Depth		Depth w/ Guard		Weight	
		in	mm	in	mm	in	mm	in	mm	kg	lbs.
UMHRS-1100-192-46-8	213	276.0	7,008	66.4	1,685	21.5	544	24.6	624	14,769	32,492
UMHRS-1100-192-38-8	213	214.9	5,456	87.4	2,218	21.5	544	24.6	624	14,794	32,548
UMHRS-1350-192-46-8	256	345.6	8,778	66.4	1,685	21.5	544	24.6	624	17,990	39,578
UMHRS-1350-192-38-8	256	267.1	6,784	87.4	2,218	21.5	544	24.6	624	17,992	39,583
UMHRS-1680-192-46-8	320	376.1	9,552	66.4	1,685	21.5	544	24.6	624	21,952	48,295
UMHRS-1680-192-38-8	320	290.0	7,364	87.4	2,218	21.5	544	24.6	624	21,948	48,286
UMHRS-1600-192-38-8	341	314.1	7,976	87.4	2,218	23.3	590	26.4	670	25,701	56,542
UMHRS-1800-192-26-16	341	439.7	11,168	66.4	1,685	23.3	590	26.4	670	26,078	57,373
UMHRS-2200-192-26-16	427	512.8	13,024	67.3	1,709	21.5	544	24.6	624	29,414	64,712

392V	kWB @ 15 min to 1.67	Width		Height		Depth		Depth w/ Guard		Weight	
		in	mm	in	mm	in	mm	in	mm	kg	lbs.
UMHRS-1100-196-47-7	218	241.5	6,132	76.9	1,952	21.5	544	24.6	624	15,029	33,064
UMHRS-1350-196-47-7	261	302.5	7,681	76.9	1,952	21.5	544	24.6	624	18,305	40,271
UMHRS-1680-196-47-7	327	329.1	8,358	76.9	1,952	21.5	544	24.6	624	22,345	49,159
UMHRS-1800-196-27-14	349	384.8	9,772	76.9	1,952	23.3	590	26.4	670	26,540	58,388
UMHRS-2200-196-27-14	436	448.7	11,396	78	1,980	21.5	544	24.6	624	29,938	65,863

432V	kWB @ 15 min to 1.67	Width		Height		Depth		Depth w/ Guard		Weight	
		in	mm	in	mm	in	mm	in	mm	kg	lbs.
UMHRS-1100-216-48-6.75	240	232.8	5,913	87.4	2,218	21.5	544	24.6	624	16,523	36,352
UMHRS-1100-216-36-12	240	322.3	8,184	66.4	1,685	21.5	544	24.6	624	16,739	36,826
UMHRS-1100-216-38-9	240	241.7	6,138	87.4	2,218	21.5	544	24.6	624	16,644	36,617
UMHRS-1350-216-46-9	288	388.8	9,875	66.4	1,685	21.5	544	24.6	624	20,238	44,525
UMHRS-1350-216-38-9	288	300.5	7,632	87.4	2,218	21.5	544	24.6	624	20,241	44,531
UMHRS-1350-216-26-18	288	424.3	10,775	66.4	1,685	21.5	544	24.6	624	20,610	45,342
UMHRS-1680-216-48-6.75	360	317.4	8,060	87.4	2,218	21.5	544	24.6	624	24,571	54,058
UMHRS-1680-216-36-12	360	434.9	11,046	66.4	1,685	21.5	544	24.6	624	24,820	54,604
UMHRS-1600-216-38-9	384	353.3	8,973	87.4	2,218	23.3	590	26.4	670	28,913	63,610
UMHRS-1800-216-26-18	384	494.7	12,564	66.4	1,685	23.3	590	26.4	670	29,338	64,545
UMHRS-1800-216-28-13.5	384	371.0	9,423	87.4	2,218	23.3	590	26.4	670	29,180	64,197
UMHRS-2000-216-36-12	480	553.3	14,052	67.3	1,709	21.5	544	24.6	624	31,061	68,334
UMHRS-2200-216-28-13.5	480	432.7	10,989	88.6	2,250	21.5	544	24.6	624	32,918	72,421

480V	kWB @ 15 min to 1.67	Width		Height		Depth		Depth w/ Guard		Weight	
		in	mm	in	mm	in	mm	in	mm	kg	lbs.
UMHRS-1100-240-56-8	267	337.1	8,560	66.4	1,685	21.5	544	24.6	624	18,378	40,433
UMHRS-1100-240-48-7.5	267	258.7	6,570	87.4	2,218	21.5	544	24.6	624	18,359	40,391
UMHRS-1350-240-46-10	320	432.0	10,972	66.4	1,685	21.5	544	24.6	624	22,487	49,472
UMHRS-1350-240-38-10	320	333.9	8,479	87.4	2,218	21.5	544	24.6	624	22,490	49,478
UMHRS-1680-240-46-10	400	470.1	11,940	66.4	1,685	21.5	544	24.6	624	27,440	60,368
UMHRS-1680-240-38-10	400	362.5	9,205	87.4	2,218	21.5	544	24.6	624	27,435	60,357
UMHRS-1800-240-38-10	427	392.6	9,970	87.4	2,218	23.3	590	26.4	670	32,126	70,678
UMHRS-2200-240-26-20	534	641.0	16,280	67.3	1,709	21.5	544	24.6	624	36,768	80,890

DISCHARGE PERFORMANCE (1.67)

120V	kWB @ 77F (25C) to 1.67 vpc									
	1min	5min	10min	15min	20min	25min	30min	45min	1h	1.5h
UMHRS-1100-60-56-2	151.3	139.9	128.3	118.7	110.9	101.7	97.1	79.6	70.9	54.2
UMHRS-1100-60-45-3	151.3	139.9	128.3	118.7	110.9	101.7	97.1	79.6	70.9	54.2
UMHRS-1350-60-26-5	181.6	167.9	154.0	142.4	133.1	122.1	116.5	95.5	85.1	65.0
UMHRS-1680-60-26-5	227.0	209.8	192.4	178.1	166.3	152.6	145.7	119.4	106.4	81.2
UMHRS-1800-60-26-5	242.1	223.8	205.3	189.9	177.4	162.8	155.4	127.4	113.4	86.6
UMHRS-2200-60-26-5	302.6	279.8	256.6	237.4	221.8	203.4	194.2	159.2	141.8	108.3

240V	kWB @ 77F (25C) to 1.67 vpc									
	1min	5min	10min	15min	20min	25min	30min	45min	1h	1.5h
UMHRS-1100-120-46-5	302.6	279.8	256.6	237.4	221.8	203.4	194.2	159.2	141.8	108.3
UMHRS-1100-120-35-8	302.6	279.8	256.6	237.4	221.8	203.4	194.2	159.2	141.8	108.3
UMHRS-1350-120-46-5	363.1	335.7	307.9	284.9	266.1	244.1	233.1	191.1	170.2	130.0
UMHRS-1350-120-35-8	363.1	335.7	307.9	284.9	266.1	244.1	233.1	191.1	170.2	130.0
UMHRS-1680-120-46-5	453.9	419.7	384.9	356.1	332.6	305.2	291.4	238.8	212.7	162.5
UMHRS-1680-120-35-8	453.9	419.7	384.9	356.1	332.6	305.2	291.4	238.8	212.7	162.5
UMHRS-1680-120-26-10	453.9	419.7	384.9	356.1	332.6	305.2	291.4	238.8	212.7	162.5
UMHRS-1800-120-35-8	484.2	447.6	410.6	379.9	354.8	325.5	310.8	254.7	226.9	173.3
UMHRS-2200-120-35-8	605.2	559.6	513.2	474.8	443.5	406.9	388.5	318.4	283.6	216.6
UMHRS-2200-120-26-10	605.2	559.6	513.2	474.8	443.5	406.9	388.5	318.4	283.6	216.6

360V	kWB @ 77F (25C) to 1.67 vpc									
	1min	5min	10min	15min	20min	25min	30min	45min	1h	1.5h
UMHRS-1100-180-36-10	453.9	419.7	384.9	356.1	332.6	305.2	291.4	238.8	212.7	162.5
UMHRS-1100-180-45-9	453.9	419.7	384.9	356.1	332.6	305.2	291.4	238.8	212.7	162.5
UMHRS-1350-180-36-10	544.7	503.6	461.9	427.3	399.2	366.2	349.6	286.6	255.2	194.9
UMHRS-1680-180-36-10	680.9	629.5	577.3	534.2	499.0	457.8	437.0	358.2	319.1	243.7
UMHRS-1800-180-36-10	726.3	671.5	615.8	569.8	532.2	488.3	466.2	382.1	340.3	259.9
UMHRS-2000-180-36-10	907.8	839.3	769.8	712.2	665.3	610.3	582.7	477.6	425.4	324.9
UMHRS-2200-180-36-10	907.8	839.3	769.8	712.2	665.3	610.3	582.7	477.6	425.4	324.9

384V	kWB @ 77F (25C) to 1.67 vpc									
	1min	5min	10min	15min	20min	25min	30min	45min	1h	1.5h
UMHRS-1100-192-46-8	484.2	447.6	410.6	379.9	354.8	325.5	310.8	254.7	226.9	173.3
UMHRS-1100-192-38-8	484.2	447.6	410.6	379.9	354.8	325.5	310.8	254.7	226.9	173.3
UMHRS-1350-192-46-8	581.0	537.2	492.7	455.8	425.8	390.6	372.9	305.7	272.3	207.9
UMHRS-1350-192-38-8	581.0	537.2	492.7	455.8	425.8	390.6	372.9	305.7	272.3	207.9
UMHRS-1680-192-46-8	726.3	671.5	615.8	569.8	532.2	488.3	466.2	382.1	340.3	259.9
UMHRS-1680-192-38-8	726.3	671.5	615.8	569.8	532.2	488.3	466.2	382.1	340.3	259.9
UMHRS-1800-192-26-16	774.7	716.2	656.9	607.8	567.7	520.8	497.3	407.6	363.0	277.2
UMHRS-2200-192-38-8	968.4	895.3	821.1	759.7	709.6	651.0	621.6	509.5	453.8	346.6
UMHRS-2200-192-26-16	968.4	895.3	821.1	759.7	709.6	651.0	621.6	509.5	453.8	346.6

392V	kWB @ 77F (25C) to 1.67 vpc									
	1min	5min	10min	15min	20min	25min	30min	45min	1h	1.5h
UMHRS-1100-196-47-7	494.3	457.0	419.1	387.8	362.2	332.3	317.3	260.1	231.6	176.9
UMHRS-1350-196-47-7	593.1	548.4	502.9	465.3	434.6	398.8	380.7	312.1	277.9	212.3
UMHRS-1680-196-47-7	741.4	685.5	628.7	581.6	543.3	498.5	475.9	390.1	347.4	265.3
UMHRS-1800-196-27-14	790.8	731.2	670.6	620.4	579.5	531.7	507.6	416.1	370.6	283.0
UMHRS-2200-196-27-14	988.5	913.9	838.2	775.5	724.4	664.6	634.5	520.1	463.2	353.8

432V	kWB @ 77F (25C) to 1.67 vpc									
	1min	5min	10min	15min	20min	25min	30min	45min	1h	1.5h
UMHRS-1100-216-48-6.75	544.7	503.6	461.9	427.3	399.2	366.2	349.6	286.6	255.2	194.9
UMHRS-1100-216-36-12	544.7	503.6	461.9	427.3	399.2	366.2	349.6	286.6	255.2	194.9
UMHRS-1100-216-38-9	544.7	503.6	461.9	427.3	399.2	366.2	349.6	286.6	255.2	194.9
UMHRS-1350-216-46-9	653.6	604.3	554.2	512.8	479.0	439.5	419.6	343.9	306.3	233.9
UMHRS-1350-216-38-9	653.6	604.3	554.2	512.8	479.0	439.5	419.6	343.9	306.3	233.9
UMHRS-1350-216-26-18	653.6	604.3	554.2	512.8	479.0	439.5	419.6	343.9	306.3	233.9
UMHRS-1680-216-48-6.75	817.1	755.4	692.8	641.0	598.8	549.3	524.5	429.9	382.9	292.4
UMHRS-1680-216-36-12	817.1	755.4	692.8	641.0	598.8	549.3	524.5	429.9	382.9	292.4
UMHRS-1800-216-26-18	871.5	805.8	739.0	683.7	638.7	585.9	559.4	458.5	408.4	311.9
UMHRS-1800-216-28-13.5	871.5	805.8	739.0	683.7	638.7	585.9	559.4	458.5	408.4	311.9
UMHRS-2200-216-36-12	1089.4	1007.2	923.7	854.7	798.3	732.4	699.3	573.2	510.5	389.9
UMHRS-2200-216-28-13.5	1089.4	1007.2	923.7	854.7	798.3	732.4	699.3	573.2	510.5	389.9

480V	kWB @ 77F (25C) to 1.67 vpc									
	1min	5min	10min	15min	20min	25min	30min	45min	1h	1.5h
UMHRS-1100-240-56-8	605.2	559.6	513.2	474.8	443.5	406.9	388.5	318.4	283.6	216.6
UMHRS-1100-240-48-7.5	605.2	559.6	513.2	474.8	443.5	406.9	388.5	318.4	283.6	216.6
UMHRS-1350-240-46-10	726.3	671.5	615.8	569.8	532.2	488.3	466.2	382.1	340.3	259.9
UMHRS-1350-240-38-10	726.3	671.5	615.8	569.8	532.2	488.3	466.2	382.1	340.3	259.9
UMHRS-1680-240-46-10	907.8	839.3	769.8	712.2	665.3	610.3	582.7	477.6	425.4	324.9
UMHRS-1680-240-38-10	907.8	839.3	769.8	712.2	665.3	610.3	582.7	477.6	425.4	324.9
UMHRS-1800-240-38-10	968.4	895.3	821.1	759.7	709.6	651.0	621.6	509.5	453.8	346.6
UMHRS-2200-240-26-20	1210.5	1119.1	1026.4	949.6	887.0	813.8	777.0	636.9	567.2	433.2

DISCHARGE PERFORMANCE (1.75)

120V	kWB @ 77F (25C) to 1.75 vpc									
	1min	5min	10min	15min	20min	25min	30min	45min	1h	1.5h
UMHRS-1100-60-56-2	143.0	132.2	122.0	112.1	103.8	95.2	89.8	73.6	65.8	50.1
UMHRS-1100-60-45-3	143.0	132.2	122.0	112.1	103.8	95.2	89.8	73.6	65.8	50.1
UMHRS-1350-60-26-5	171.6	158.6	146.4	134.6	124.6	114.3	107.7	88.3	79.0	60.2
UMHRS-1680-60-26-5	214.5	198.3	183.0	168.2	155.7	142.8	134.7	110.4	98.7	75.2
UMHRS-1800-60-26-5	228.8	211.5	195.2	179.4	166.1	152.4	143.6	117.7	105.3	80.2
UMHRS-2200-60-26-5	286.0	264.3	244.0	224.3	207.6	190.5	179.5	147.2	131.6	100.3

240V	kWB @ 77F (25C) to 1.75 vpc									
	1min	5min	10min	15min	20min	25min	30min	45min	1h	1.5h
UMHRS-1100-120-46-5	286.0	264.3	244.0	224.3	207.6	190.5	179.5	147.2	131.6	100.3
UMHRS-1100-120-35-8	286.0	264.3	244.0	224.3	207.6	190.5	179.5	147.2	131.6	100.3
UMHRS-1350-120-46-5	343.2	317.2	292.8	269.2	249.1	228.6	215.4	176.6	158.0	120.3
UMHRS-1350-120-35-8	343.2	317.2	292.8	269.2	249.1	228.6	215.4	176.6	158.0	120.3
UMHRS-1680-120-46-5	429.0	396.5	366.0	336.4	311.4	285.7	269.3	220.7	197.4	150.4
UMHRS-1680-120-35-8	429.0	396.5	366.0	336.4	311.4	285.7	269.3	220.7	197.4	150.4
UMHRS-1680-120-26-10	429.0	396.5	366.0	336.4	311.4	285.7	269.3	220.7	197.4	150.4
UMHRS-1800-120-35-8	457.6	422.9	390.4	358.9	332.2	304.7	287.3	235.5	210.6	160.4
UMHRS-2200-120-35-8	572.0	528.7	488.0	448.6	415.2	380.9	359.1	294.3	263.3	200.5
UMHRS-2200-120-26-10	572.0	528.7	488.0	448.6	415.2	380.9	359.1	294.3	263.3	200.5

360V	kWB @ 77F (25C) to 1.75 vpc									
	1min	5min	10min	15min	20min	25min	30min	45min	1h	1.5h
UMHRS-1100-180-36-10	429.0	396.5	366.0	336.4	311.4	285.7	269.3	220.7	197.4	150.4
UMHRS-1100-180-45-9	429.0	396.5	366.0	336.4	311.4	285.7	269.3	220.7	197.4	150.4
UMHRS-1350-180-36-10	514.8	475.8	439.2	403.7	373.7	342.8	323.2	264.9	236.9	180.5
UMHRS-1680-180-36-10	643.5	594.8	549.0	504.7	467.1	428.5	404.0	331.1	296.2	225.6
UMHRS-1800-180-36-10	686.4	634.4	585.6	538.3	498.2	457.1	430.9	353.2	315.9	240.6
UMHRS-2000-180-36-10	858.0	793.0	732.1	672.9	622.8	571.4	538.6	441.5	394.9	300.8
UMHRS-2200-180-36-10	858.0	793.0	732.1	672.9	622.8	571.4	538.6	441.5	394.9	300.8

384V	kWB @ 77F (25C) to 1.75 vpc									
	1min	5min	10min	15min	20min	25min	30min	45min	1h	1.5h
UMHRS-1100-192-46-8	457.6	422.9	390.4	358.9	332.2	304.7	287.3	235.5	210.6	160.4
UMHRS-1100-192-38-8	457.6	422.9	390.4	358.9	332.2	304.7	287.3	235.5	210.6	160.4
UMHRS-1350-192-46-8	549.1	507.5	468.5	430.6	398.6	365.7	344.7	282.5	252.7	192.5
UMHRS-1350-192-38-8	549.1	507.5	468.5	430.6	398.6	365.7	344.7	282.5	252.7	192.5
UMHRS-1680-192-46-8	686.4	634.4	585.6	538.3	498.2	457.1	430.9	353.2	315.9	240.6
UMHRS-1680-192-38-8	686.4	634.4	585.6	538.3	498.2	457.1	430.9	353.2	315.9	240.6
UMHRS-1800-192-26-16	732.2	676.7	624.7	574.2	531.5	487.6	459.6	376.7	337.0	256.7
UMHRS-2200-192-38-8	915.2	845.9	780.9	717.7	664.3	609.5	574.5	470.9	421.2	320.9
UMHRS-2200-192-26-16	915.2	845.9	780.9	717.7	664.3	609.5	574.5	470.9	421.2	320.9

392V	kWB @ 77F (25C) to 1.8 vpc									
	1min	5min	10min	15min	20min	25min	30min	45min	1h	1.5h
UMHRS-1100-196-47-7	467.1	431.7	398.6	366.3	339.1	311.1	293.2	240.4	215.0	163.8
UMHRS-1350-196-47-7	560.6	518.1	478.3	439.6	406.9	373.3	351.9	288.4	258.0	196.5
UMHRS-1680-196-47-7	700.7	647.6	597.8	549.5	508.6	466.6	439.9	360.5	322.5	245.7
UMHRS-1800-196-27-14	747.4	690.8	637.7	586.1	542.5	497.7	469.2	384.6	344.0	262.0
UMHRS-2200-196-27-14	934.3	863.5	797.1	732.7	678.2	622.2	586.5	480.7	430.0	327.5

432V	kWB @ 77F (25C) to 1.75 vpc									
	1min	5min	10min	15min	20min	25min	30min	45min	1h	1.5h
UMHRS-1100-216-48-6.75	514.8	475.8	439.2	403.7	373.7	342.8	323.2	264.9	236.9	180.5
UMHRS-1100-216-36-12	514.8	475.8	439.2	403.7	373.7	342.8	323.2	264.9	236.9	180.5
UMHRS-1100-216-38-9	514.8	475.8	439.2	403.7	373.7	342.8	323.2	264.9	236.9	180.5
UMHRS-1350-216-46-9	617.8	571.0	527.1	484.5	448.4	411.4	387.8	317.9	284.3	216.6
UMHRS-1350-216-38-9	617.8	571.0	527.1	484.5	448.4	411.4	387.8	317.9	284.3	216.6
UMHRS-1350-216-26-18	617.8	571.0	527.1	484.5	448.4	411.4	387.8	317.9	284.3	216.6
UMHRS-1680-216-48-6.75	772.2	713.7	658.9	605.6	560.5	514.2	484.7	397.3	355.4	270.7
UMHRS-1680-216-36-12	772.2	713.7	658.9	605.6	560.5	514.2	484.7	397.3	355.4	270.7
UMHRS-1800-216-26-18	823.7	761.3	702.8	646.0	597.9	548.5	517.1	423.8	379.1	288.8
UMHRS-1800-216-28-13.5	823.7	761.3	702.8	646.0	597.9	548.5	517.1	423.8	379.1	288.8
UMHRS-2200-216-36-12	1029.6	951.6	878.5	807.5	747.4	685.7	646.3	529.8	473.9	361.0
UMHRS-2200-216-28-13.5	1029.6	951.6	878.5	807.5	747.4	685.7	646.3	529.8	473.9	361.0

480V	kWB @ 77F (25C) to 1.75 vpc									
	1min	5min	10min	15min	20min	25min	30min	45min	1h	1.5h
UMHRS-1100-240-56-8	572.0	528.7	488.0	448.6	415.2	380.9	359.1	294.3	263.3	200.5
UMHRS-1100-240-48-7.5	572.0	528.7	488.0	448.6	415.2	380.9	359.1	294.3	263.3	200.5
UMHRS-1350-240-46-10	686.4	634.4	585.6	538.3	498.2	457.1	430.9	353.2	315.9	240.6
UMHRS-1350-240-38-10	686.4	634.4	585.6	538.3	498.2	457.1	430.9	353.2	315.9	240.6
UMHRS-1680-240-46-10	858.0	793.0	732.1	672.9	622.8	571.4	538.6	441.5	394.9	300.8
UMHRS-1680-240-38-10	858.0	793.0	732.1	672.9	622.8	571.4	538.6	441.5	394.9	300.8
UMHRS-1800-240-38-10	915.2	845.9	780.9	717.7	664.3	609.5	574.5	470.9	421.2	320.9
UMHRS-2200-240-26-20	1144.0	1057.3	976.1	897.2	830.4	761.8	718.1	588.6	526.5	401.1