

MARATHON®



SPECIFICATIONS

Front Terminal Batteries

From the World Leader in VRLA Battery Technology

Designed for durability in Telecommunications and Electric Utility applications, the GNB® Industrial Power **FRONT Terminal MARATHON®** series provides high performance and reliability in long duration discharge applications. The location of the terminals on the front (vs. the top) of the battery greatly facilitates the installation and maintenance of the product when placed in a cabinet enclosure or on a standard relay rack tray. The **MARATHON®** Front Terminal battery series highlights another example of GNB's extensive experience and worldwide leadership in VRLA technology.

"Designed-in" Quality Manufacturing

Quality manufacturing processes for the **MARATHON®** series batteries incorporate the industry's most advanced technologies including: an automated helium leak detection system, a computer controlled "fill by weight" acid filler, and a temperature controlled water bath formation process. Each and every unit is capacity tested.

High Performance MARATHON® Series Features

- Flame-retardant reinforced container and cover compliant with UL94 V-0.
- Integrated flash arrester ultrasonically welded into cover.
- Patented "Diamond Side-Wall" design to maintain structural integrity in higher operating temperatures.
- Heat sealed case-to-cover bond to ensure a leak proof seal.
- High-Compression Absorbent Glass Mat (AGM) technology for greater than 99% recombination efficiency.
- High tin, calcium, silver, lead positive plate design for maximum service float life; 10 year design life @ 25°C (77°F).
- Front Accessible Copper Alloy Terminals & "Easy On/Easy Off" Post Protector.
- Reliable one-way, self-resealing safety vents.
- Integrated Carry Handles.
- Multicell design for faster installation and reduced maintenance.

Applications

MARATHON® series batteries incorporate GNB's advanced VRLA technology designed for long life and high performance in:

Telecommunications

- Distributed Power
- PCS
- Cellular
- Broadband

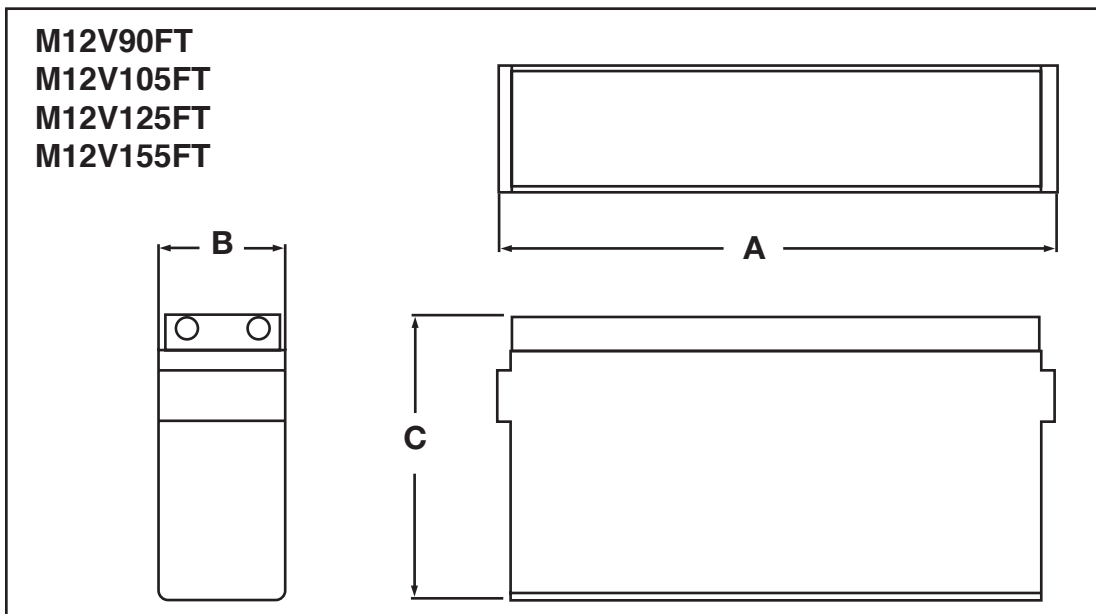
Electric Utility

- Switchgear Control Power
- Communications



MARATHON® Front Terminal Specifications

Model Number	Voltage	Capacity (AH)		Nominal Dimensions						Nominal Weight	
		8hr To 1.75 VPC @ 25°C	10hr To 1.80 VPC @ 20°C	Inches			Millimeters			lbs.	Kg
				A	B	C	A	B	C		
M12V90FT	12	86	86	15.55	4.13	10.63	395	105	270	70	31.5
M12V105FT	12	104	100	20.12	4.33	9.38	511	110	238	79	35.8
M12V125FT	12	125	121	22.00	4.90	11.15	559	124	283	105	47.6
M12V155FT	12	155	150	22.00	4.90	11.15	559	124	283	119	53.8



Float Voltage & Charging

Constant Voltage charging is recommended

Recommended float voltage: 2.27 VPC @ 25°C (77°F)

Float Voltage Range: 2.25 to 2.30 VPC @ 25°C (77°F)

Equalize voltage: 2.35 VPC for 24 Hours or
2.40 VPC for 12 Hours

MARATHON® Front Terminal Electrical Data

Model Number	Short Circuit Current Amps	Internal Resistance (mOhms)
M12V90FT	2358	4.5
M12V105FT	3125	4.0
M12V125FT	3814	3.2
M12V155FT	3883	3.0

NOTE: Design and/or specifications subject to change without notice. If questions arise, contact your local GNB sales representative for clarification

MARATHON® Performance Specifications Amperes @ 25°C (77°F)

1.75 Final VPC	Model Number	Time														
		24 hr	12 hr	10 hr	9 hr	8 hr	7 hr	6 hr	5 hr	4 hr	3 hr	2.5 hr	2 hr	1.5 hr	1 hr	0.5 hr
	M12V90FT	4.1	7.6	8.9	9.7	10.8	12.1	13.9	16.2	19.8	25.4	29.8	36.2	46.3	65.3	110.2
	M12V105FT	4.7	8.9	10.6	11.7	13.0	14.5	16.5	19.2	23.1	29.2	33.9	40.8	51.6	71.8	118.4
	M12V125FT	5.7	10.8	12.7	14.0	15.6	17.6	20.3	24.0	29.4	38.1	43.7	51.8	65.3	90.4	145.3
	M12V155FT	7.0	13.3	15.7	17.4	19.4	21.7	24.7	28.8	34.8	44.4	51.7	62.4	77.7	105.8	179.4

1.78 Final VPC	Model Number	Time														
		24 hr	12 hr	10 hr	9 hr	8 hr	7 hr	6 hr	5 hr	4 hr	3 hr	2.5 hr	2 hr	1.5 hr	1 hr	0.5 hr
	M12V90FT	4.1	7.5	8.8	9.6	10.7	12.0	13.7	16.1	19.6	25.2	29.6	35.9	45.9	64.9	108.9
	M12V105FT	4.6	8.8	10.4	11.5	12.8	14.4	16.4	19.0	22.8	28.9	33.6	40.3	51.0	71.1	115.1
	M12V125FT	5.7	10.7	12.6	13.9	15.4	17.4	20.1	23.7	29.0	37.7	43.3	51.2	64.4	88.9	139.8
	M12V155FT	6.9	13.1	15.5	17.1	19.1	21.5	24.4	28.5	34.4	43.9	51.2	61.9	76.9	104.4	176.4

1.80 Final VPC	Model Number	Time														
		24 hr	12 hr	10 hr	9 hr	8 hr	7 hr	6 hr	5 hr	4 hr	3 hr	2.5 hr	2 hr	1.5 hr	1 hr	0.5 hr
	M12V90FT	4.1	7.5	8.8	9.6	10.6	12.0	13.7	16.0	19.5	25.1	29.4	35.7	45.6	64.3	107.3
	M12V105FT	4.6	8.7	10.3	11.4	12.7	14.3	16.2	18.9	22.7	28.7	33.3	40.0	50.6	70.5	112.9
	M12V125FT	5.6	10.6	12.5	13.8	15.3	17.3	19.9	23.5	28.8	37.4	42.9	50.8	63.7	87.8	136.3
	M12V155FT	6.9	13.0	15.4	17.0	19.0	21.3	24.2	28.3	34.2	43.6	50.9	61.5	76.1	102.9	172.4

1.81 Final VPC	Model Number	Time														
		24 hr	12 hr	10 hr	9 hr	8 hr	7 hr	6 hr	5 hr	4 hr	3 hr	2.5 hr	2 hr	1.5 hr	1 hr	0.5 hr
	M12V90FT	4.0	7.4	8.7	9.5	10.6	11.9	13.6	15.9	19.3	24.9	29.2	35.4	45.1	63.5	105.9
	M12V105FT	4.6	8.7	10.2	11.3	12.6	14.2	16.1	18.7	22.5	28.5	33.0	39.6	50.1	69.8	111.2
	M12V125FT	5.6	10.5	12.4	13.6	15.2	17.2	19.7	23.3	28.5	37.1	42.5	50.2	63.0	86.6	133.6
	M12V155FT	6.8	12.9	15.3	16.9	18.9	21.1	24.0	28.0	33.9	43.2	50.5	61.0	75.4	101.5	169.0

1.83 Final VPC	Model Number	Time														
		24 hr	12 hr	10 hr	9 hr	8 hr	7 hr	6 hr	5 hr	4 hr	3 hr	2.5 hr	2 hr	1.5 hr	1 hr	0.5 hr
	M12V90FT	4.0	7.4	8.6	9.4	10.5	11.8	13.4	15.7	19.1	24.6	28.7	34.9	44.4	62.5	103.3
	M12V105FT	4.5	8.5	10.1	11.1	12.4	14.0	15.9	18.5	22.2	28.0	32.5	38.9	49.2	68.4	107.9
	M12V125FT	5.5	10.3	12.2	13.4	14.9	16.8	19.4	22.8	28.0	36.3	41.6	49.2	61.5	84.3	128.4
	M12V155FT	6.7	12.7	15.0	16.6	18.6	20.7	23.7	27.6	33.3	42.5	49.6	59.9	73.7	98.8	162.3

MARATHON® Performance Specifications Amperes @ 25°C (77°F)

1.85 Final VPC	Model Number	Time														
		24 hr	12 hr	10 hr	9 hr	8 hr	7 hr	6 hr	5 hr	4 hr	3 hr	2.5 hr	2 hr	1.5 hr	1 hr	0.5 hr
	M12V90FT	4.0	7.3	8.5	9.3	10.3	11.6	13.2	15.5	18.8	24.2	28.2	34.0	43.4	61.0	100.3
	M12V105FT	4.5	8.4	9.9	10.9	12.2	13.8	15.7	18.2	21.8	27.5	31.9	38.2	48.3	67.1	105.7
	M12V125FT	5.4	10.2	12.0	13.2	14.7	16.5	19.0	22.4	27.4	35.6	40.8	48.1	60.1	82.1	123.5
	M12V155FT	6.6	12.5	14.9	16.4	18.3	20.4	23.3	27.1	32.8	41.8	48.8	58.9	72.2	96.2	155.9

1.87 Final VPC	Model Number	Time														
		24 hr	12 hr	10 hr	9 hr	8 hr	7 hr	6 hr	5 hr	4 hr	3 hr	2.5 hr	2 hr	1.5 hr	1 hr	0.5 hr
	M12V90FT	3.8	7.0	8.2	9.0	10.0	11.3	12.9	15.2	18.5	23.8	27.5	32.9	41.8	58.9	95.6
	M12V105FT	4.3	8.2	9.7	10.7	11.9	13.4	15.3	17.7	21.2	26.7	31.0	37.1	46.8	64.9	101.5
	M12V125FT	5.3	9.8	11.6	12.7	14.2	16.0	18.3	21.6	26.4	34.2	39.3	46.6	58.6	80.8	119.3
	M12V155FT	6.4	12.2	14.4	15.9	17.7	19.8	22.6	26.3	31.7	40.4	47.1	56.9	69.7	92.8	141.6

1.90 Final VPC	Model Number	Time														
		24 hr	12 hr	10 hr	9 hr	8 hr	7 hr	6 hr	5 hr	4 hr	3 hr	2.5 hr	2 hr	1.5 hr	1 hr	0.5 hr
	M12V90FT	3.6	6.7	7.9	8.7	9.6	10.8	12.4	14.6	17.8	22.3	26.0	31.3	39.7	55.6	89.3
	M12V105FT	4.1	7.8	9.2	10.2	11.3	12.8	14.7	17.0	20.3	25.6	29.6	35.4	44.6	61.6	95.0
	M12V125FT	5.0	9.3	11.0	12.1	13.4	15.1	17.3	20.4	24.9	32.2	37.0	43.9	54.9	75.2	109.1
	M12V155FT	6.1	11.7	13.8	15.2	17.0	18.9	21.5	25.0	30.2	38.4	44.7	53.9	65.7	87.0	126.4

1.92 Final VPC	Model Number	Time														
		24 hr	12 hr	10 hr	9 hr	8 hr	7 hr	6 hr	5 hr	4 hr	3 hr	2.5 hr	2 hr	1.5 hr	1 hr	0.5 hr
	M12V90FT	3.4	6.4	7.5	8.2	9.1	10.3	11.8	13.9	16.6	21.1	24.5	29.4	37.3	52.0	83.6
	M12V105FT	3.9	7.4	8.7	9.6	10.7	12.1	13.9	16.4	19.5	24.4	28.2	33.6	42.1	57.9	89.1
	M12V125FT	4.7	8.8	10.5	11.5	12.6	14.2	16.4	19.3	23.6	30.3	34.8	41.2	51.2	69.8	95.1
	M12V155FT	5.8	11.0	13.0	14.3	15.9	18.0	20.5	23.9	28.7	36.4	42.3	50.8	61.9	81.7	112.6

1.94 Final VPC	Model Number	Time														
		24 hr	12 hr	10 hr	9 hr	8 hr	7 hr	6 hr	5 hr	4 hr	3 hr	2.5 hr	2 hr	1.5 hr	1 hr	0.5 hr
	M12V90FT	3.3	6.0	7.1	7.8	8.6	9.7	11.1	13.1	15.9	20.1	23.2	27.6	34.9	48.5	78.3
	M12V105FT	3.7	7.0	8.3	9.1	10.1	11.4	13.1	15.5	18.6	23.2	26.7	31.8	39.7	54.3	82.8
	M12V125FT	4.4	8.3	9.8	10.8	11.9	13.3	15.3	18.0	22.0	28.0	32.1	38.0	47.3	64.4	80.7
	M12V155FT	5.5	10.3	12.2	13.4	14.9	16.9	19.4	22.7	27.3	34.7	40.2	48.0	58.3	76.7	98.6

MARATHON® Performance Specifications
Watts per Cell @ 25°C (77°F)

1.75 Final VPC	Model Number	Time														
		24 hr	12 hr	10 hr	9 hr	8 hr	7 hr	6 hr	5 hr	4 hr	3 hr	2.5 hr	2 hr	1.5 hr	1 hr	0.5 hr
	M12V90FT	8.0	15.1	17.9	19.7	22.0	24.9	27.9	32.4	39.1	49.4	57.3	68.9	87.8	123.9	204.0
	M12V105FT	8.9	16.9	20.0	22.0	24.6	27.8	31.2	36.2	43.5	55.2	64.1	77.0	97.6	136.2	221.0
	M12V125FT	11.3	22.2	26.6	28.5	31.3	34.8	39.4	45.6	54.6	68.3	79.1	94.6	119.2	165.3	267.2
	M12V155FT	13.7	26.1	30.9	34.0	38.0	42.3	47.8	55.2	66.1	82.9	96.1	115.2	144.9	200.3	326.6

1.78 Final VPC	Model Number	Time														
		24 hr	12 hr	10 hr	9 hr	8 hr	7 hr	6 hr	5 hr	4 hr	3 hr	2.5 hr	2 hr	1.5 hr	1 hr	0.5 hr
	M12V90FT	7.9	15.0	17.7	19.5	21.8	24.6	27.7	32.3	38.8	49.3	57.2	68.7	87.4	122.7	201.2
	M12V105FT	8.8	16.8	19.8	21.8	24.3	27.5	30.9	35.9	43.1	54.7	63.5	76.3	96.7	135.0	217.6
	M12V125FT	11.2	22.0	26.3	28.3	31.1	34.6	39.1	45.3	54.1	68.2	78.9	94.3	118.7	164.3	265.3
	M12V155FT	13.6	25.9	30.6	33.8	37.7	41.8	47.3	54.7	65.5	82.5	95.5	114.2	143.9	199.3	323.6

1.80 Final VPC	Model Number	Time														
		24 hr	12 hr	10 hr	9 hr	8 hr	7 hr	6 hr	5 hr	4 hr	3 hr	2.5 hr	2 hr	1.5 hr	1 hr	0.5 hr
	M12V90FT	7.8	14.8	17.6	19.4	21.6	24.4	27.6	32.1	38.6	49.0	57.0	68.6	87.1	122.0	198.5
	M12V105FT	8.8	16.7	19.7	21.7	24.2	27.4	30.7	35.7	42.9	54.3	63.1	75.8	96.0	134.0	214.6
	M12V125FT	11.1	21.9	26.1	28.2	30.9	34.4	38.9	45.0	53.8	67.8	78.4	93.7	118.0	163.2	263.3
	M12V155FT	13.5	25.7	30.5	33.6	37.5	41.5	46.9	54.3	64.9	81.8	94.7	113.2	142.6	197.3	318.5

1.81 Final VPC	Model Number	Time														
		24 hr	12 hr	10 hr	9 hr	8 hr	7 hr	6 hr	5 hr	4 hr	3 hr	2.5 hr	2 hr	1.5 hr	1 hr	0.5 hr
	M12V90FT	7.8	14.8	17.5	19.3	21.5	24.3	27.4	31.9	38.4	48.7	56.6	68.1	86.5	121.0	196.1
	M12V105FT	8.8	16.5	19.6	21.6	24.0	27.2	30.5	35.5	42.6	53.9	62.6	75.2	95.2	132.9	211.9
	M12V125FT	11.1	21.7	25.9	28.1	30.7	34.2	38.6	44.7	53.4	67.2	77.8	93.0	116.8	161.2	260.0
	M12V155FT	13.5	25.6	30.3	33.4	37.2	41.2	46.6	53.9	64.5	81.1	93.8	112.2	141.2	195.2	314.0

1.83 Final VPC	Model Number	Time														
		24 hr	12 hr	10 hr	9 hr	8 hr	7 hr	6 hr	5 hr	4 hr	3 hr	2.5 hr	2 hr	1.5 hr	1 hr	0.5 hr
	M12V90FT	7.7	14.7	17.4	19.1	21.3	24.1	27.2	31.7	38.1	48.3	56.2	67.5	85.6	119.7	192.2
	M12V105FT	8.6	16.3	19.3	21.3	23.7	26.8	30.3	35.0	42.0	53.2	61.7	74.1	93.8	130.7	209.1
	M12V125FT	10.9	21.4	25.5	27.7	30.4	33.8	38.2	44.1	52.7	66.3	76.6	91.5	115.0	158.8	255.9
	M12V155FT	13.3	25.2	29.8	32.9	36.7	40.7	46.0	53.2	63.5	79.8	92.3	110.2	138.5	191.1	305.2

MARATHON® Performance Specifications Watts per Cell @ 25°C (77°F)

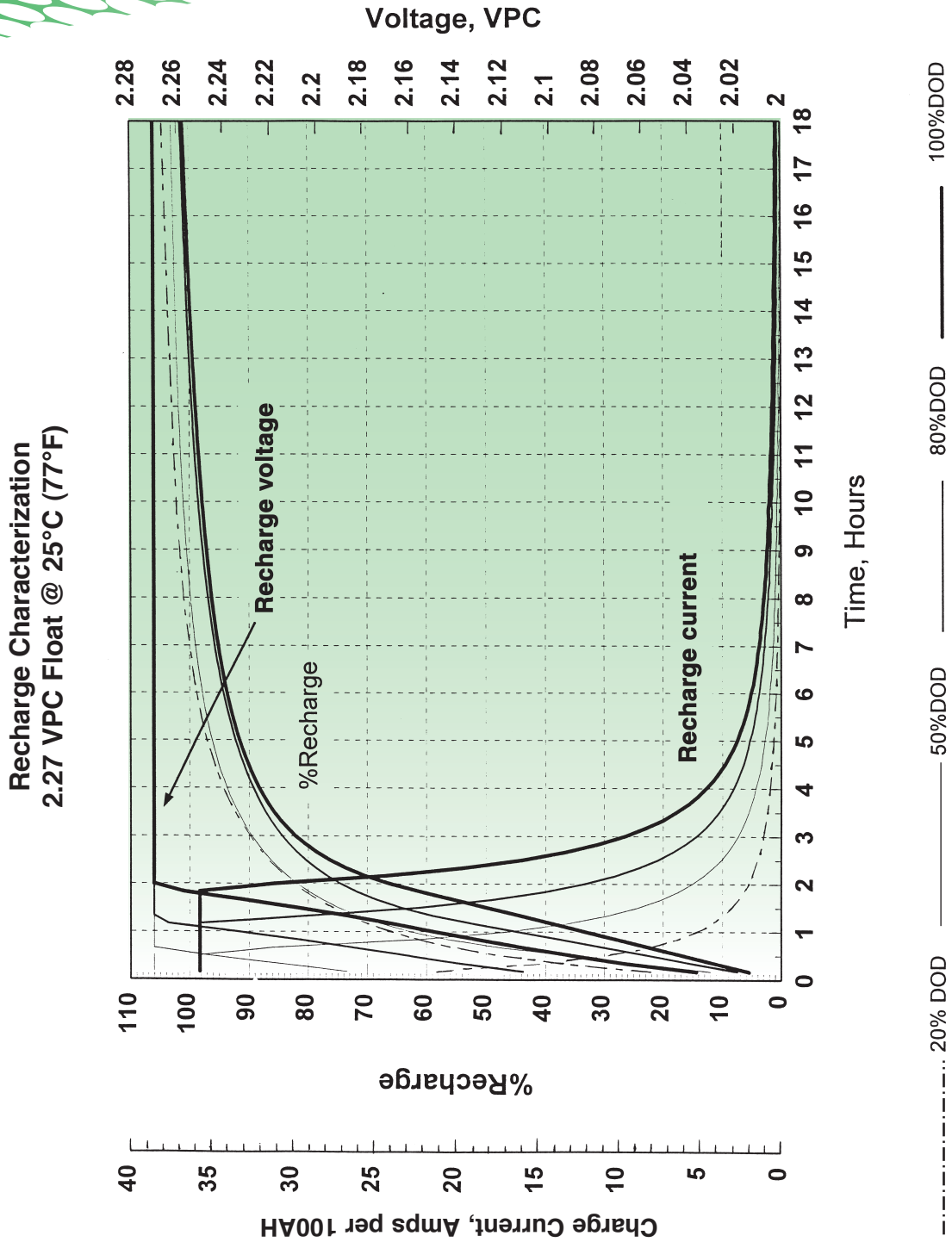
1.85 Final VPC	Model Number	Time														
		24 hr	12 hr	10 hr	9 hr	8 hr	7 hr	6 hr	5 hr	4 hr	3 hr	2.5 hr	2 hr	1.5 hr	1 hr	0.5 hr
	M12V90FT	7.6	14.5	17.2	18.9	21.1	23.9	27.0	31.3	37.6	47.7	55.5	66.6	84.4	117.8	187.6
	M12V105FT	8.6	16.1	19.0	20.9	23.2	26.2	30.0	34.5	41.4	52.4	60.8	72.9	92.2	128.4	204.8
	M12V125FT	10.8	20.9	24.9	27.5	29.9	33.2	37.6	43.4	51.9	65.2	75.4	90.0	113.2	156.3	251.2
	M12V155FT	13.1	24.9	29.4	32.4	36.2	40.2	45.4	52.5	62.6	78.6	90.7	108.2	135.8	187.1	296.7

1.87 Final VPC	Model Number	Time														
		24 hr	12 hr	10 hr	9 hr	8 hr	7 hr	6 hr	5 hr	4 hr	3 hr	2.5 hr	2 hr	1.5 hr	1 hr	0.5 hr
	M12V90FT	7.4	14.1	16.7	18.4	20.5	23.2	26.3	30.5	36.6	46.3	53.7	64.5	81.6	113.7	181.4
	M12V105FT	8.4	15.6	18.4	20.3	22.6	25.5	29.3	33.7	40.4	51.0	59.2	71.0	89.7	124.7	197.6
	M12V125FT	10.5	20.3	24.1	26.7	29.1	32.3	36.5	42.2	50.4	63.2	73.1	87.2	109.5	150.9	241.8
	M12V155FT	12.8	24.2	28.6	31.5	35.1	39.2	44.2	51.0	60.8	76.1	87.8	104.6	131.0	180.0	282.3

1.90 Final VPC	Model Number	Time														
		24 hr	12 hr	10 hr	9 hr	8 hr	7 hr	6 hr	5 hr	4 hr	3 hr	2.5 hr	2 hr	1.5 hr	1 hr	0.5 hr
	M12V90FT	7.2	13.6	16.0	17.7	19.7	22.3	25.4	29.4	35.2	44.5	51.5	61.8	78.0	108.2	172.1
	M12V105FT	8.0	15.0	17.7	19.4	21.6	24.4	28.0	32.3	38.7	48.9	56.7	68.0	85.8	119.2	187.4
	M12V125FT	10.0	19.3	23.0	25.4	28.4	31.1	34.9	40.3	48.0	60.2	69.5	82.9	103.9	143.0	228.2
	M12V155FT	12.3	23.2	27.5	30.3	33.7	37.6	42.3	48.8	58.0	72.4	83.7	100.0	124.2	168.5	262.1

1.92 Final VPC	Model Number	Time														
		24 hr	12 hr	10 hr	9 hr	8 hr	7 hr	6 hr	5 hr	4 hr	3 hr	2.5 hr	2 hr	1.5 hr	1 hr	0.5 hr
	M12V90FT	6.8	12.9	15.3	16.8	18.7	21.2	24.4	28.2	33.7	42.4	49.1	58.7	74.0	102.3	162.2
	M12V105FT	7.6	14.2	16.8	18.4	20.5	23.1	26.5	31.2	36.9	46.5	53.8	64.4	81.2	112.5	177.1
	M12V125FT	9.5	18.3	21.7	24.0	26.9	29.7	33.3	38.4	45.6	57.1	65.8	78.4	98.0	134.5	213.7
	M12V155FT	11.7	22.1	26.1	28.7	31.9	35.7	40.4	46.6	55.6	69.8	80.6	96.1	118.2	158.3	243.1

1.94 Final VPC	Model Number	Time														
		24 hr	12 hr	10 hr	9 hr	8 hr	7 hr	6 hr	5 hr	4 hr	3 hr	2.5 hr	2 hr	1.5 hr	1 hr	0.5 hr
	M12V90FT	6.5	12.3	14.5	16.0	17.8	20.1	23.1	26.9	32.1	40.4	46.7	55.7	69.9	96.5	152.7
	M12V105FT	7.2	13.5	15.9	17.4	19.4	21.8	25.1	29.5	35.1	44.1	51.0	60.9	76.6	105.8	167.2
	M12V125FT	8.9	17.2	20.5	22.6	25.3	28.7	31.7	36.4	43.3	54.0	62.2	73.8	92.2	126.0	200.3
	M12V155FT	11.2	20.9	24.7	27.1	30.2	34.1	38.5	44.5	53.0	66.5	76.8	91.6	112.1	149.0	226.2



GNB Industrial Power
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www.exide.com

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