PowerSafe® V Front Terminal

Telecommunications

Battery Performance Specifications

NOW UPGRADED TO TPPL TECHNOLOGY
(Thin Plate Pure Lead)

Visit us at ***www.enersys.com***

EnerSys® Power/Full Solutions

RESERVE POWER

Preliminary Version US-VFT-PS-AA September 2015

PowerSafe® V Front Terminal

Features and Benefits

- Reliable Thin Plate Pure Lead (TPPL) technology for superior energy density and long life
- Capacity range 100 - 190Ah
- Front terminal connections for fast and easy installation and maintenance
- Suitable for 19" and 23" racking
- UL94 V-0 flame retardant case and lid
- High reliability
- One year shelf life

Construction

- Positive plates designed to prolong service life and enhance corrosion resistance
- Separators in low resistance microporous glass fiber. The electrolyte is absorbed within this material, preventing acid spills in case of accidental damage
- Container and cover in flame retardant (ABS) UL94 V-0 material, highly resistant to shock and vibration
- Terminal with brass insert for maximum conductivity and with high compression grommet for long life
- Self-regulating one way pressure relief valves prevent ingress of atmospheric oxygen
- Flame arrestors built into each bloc for increased operational safety

Installation and Operation

- Designed for safer installation and easy maintenance in cabinets or on stands, close to the point of use. A separate battery room is not necessary
- It is recommended that PowerSafe® V Front Terminal batteries are installed on their base
- Recommended float charge voltage:
  2.280Vpc at 68°F (20°C)
  2.265Vpc at 77°F (25°C)
- Reduced maintenance: no water addition required

Standards

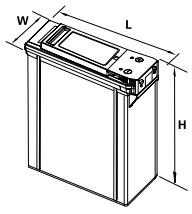
- Designed to meet Telcordia® SR-4228 requirements
- UL recognized component
- UL File Numbers MH15470 and MH18697
- Approved as non-hazardous cargo for ground, sea and air transportation in accordance with US DOT Regulation 49 CFR and ICAO and IATA Packing Instruction 806.
  Please see our SDS for complete details at www.enersys.com
- The management system governing the manufacture of this product is ISO 9001-2008 certified

General Specifications

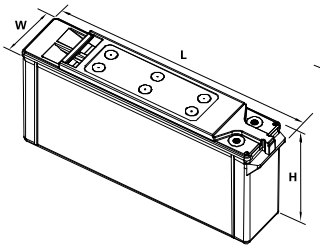
			Nominal Capacity (Ah)		Nominal Dimensions											Electrolyte (1.300 S.G.)				Pure Acid (H_2SO_4) Acid				Lead Weight	
PowerSafe® VFT Battery	Number of Cells	Nominal Voltage (V)	8hr. Rate 1.75Vpc @ 77 °F/25 °C	10hr. Rate 1.80Vpc @ 68 °F/20 °C	Length		Width		Height		Typical Weight		Short Circuit Current (Amps)	Internal Resistance Milli-Ohms**	Terminals	Volume (per bloc)		Weight (per bloc)		Volume (per bloc)		Weight (per bloc)		Weight (per bloc)	
					in	mm	in	mm	in	mm	lbs	kg				gal	L	lbs	kg	gal	L	lbs	kg	lbs	kg
12V100FC	6	12	100	100	15.6	395	4.25	108	11.3	287	68.3	31.0	1930	6.46	M8 F	8.02	30.4	85.7	38.9	3.41	12.9	36.4	16.5	280	127
12V101F†	6	12	101	100	20.1	510	4.33	110	9.25	235	73.9	33.5	2108	5.92	M8 F	7.17	27.1	76.6	34.7	2.80	10.6	29.9	13.6	300	136
12V125F*	6	12	126	125	22.1	561	4.13	105	12.4	316	98.1	44.5	2355	5.30	M6 M	11.9	44.9	127	57.4	5.33	20.2	57.0	25.8	376	171
12V155FS*	6	12	155	150	22.1	561	4.92	125	11.1	283	106.9	48.5	3325	3.80	M6 M	12.9	49.0	138	62.7	5.50	20.8	58.7	26.6	422	192
12V170FS*	6	12	170	170	22.1	561	4.92	125	11.1	283	112.0	50.8	3360	3.75	M6 M	12.7	48.1	136	61.5	5.40	20.4	57.6	26.1	464	210
12V190F*	6	12	190	190	22.1	561	4.92	125	12.4	316	126.3	57.3	3625	3.50	M6 M	14.5	55.0	155	70.5	6.18	23.4	66.0	29.9	536	243

Notes:
* *With built-in or rope handles*
** *Resistance values are for reference only and not intended to represent an Ohmic Value or Baseline measurement*
† *12V101F is pure lead (not TPPL)*

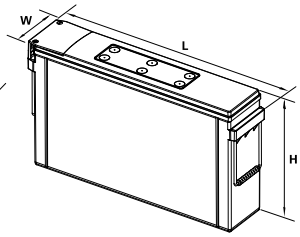
Outline Drawings



12V100FC



12V101F



12V125F, 12V155FS, 12V170FS and 12V190F

Constant Current Discharge Performance Data

Discharge Currents (Amperes) to 1.75Vpc at 77°F (25°C)

PowerSafe® VFT Battery	Standby Time (Minutes)			Standby Time (Hours)										
	15	30	45	1	2	3	4	5	6	7	8	10	12	24
12V100FC	175.8	118.1	90.1	73.5	43.2	31.0	24.2	19.9	16.8	14.6	12.9	10.6	9.0	4.8
12V101F	160.1	107.8	83.1	67.7	39.7	28.6	22.6	18.8	16.1	14.2	12.7	10.5	8.8	4.4
12V125F	189.1	137.3	105.0	85.1	50.0	35.8	28.3	23.5	20.1	17.6	15.6	12.9	10.7	5.5
12V155FS	254.6	174.1	133.5	108.8	62.9	45.0	35.3	29.2	25.0	21.9	19.5	16.0	13.6	7.2
12V170FS	287.5	203.9	153.8	124.1	71.8	51.1	39.9	32.8	27.9	24.3	21.6	17.7	15.0	8.1
12V190F	317.9	225.3	170.2	137.5	80.0	57.2	44.7	36.8	31.3	27.2	24.2	19.8	16.9	9.1

Discharge Currents (Amperes) to 1.80Vpc at 77°F (25°C)

PowerSafe® VFT Battery	Standby Time (Minutes)			Standby Time (Hours)										
	15	30	45	1	2	3	4	5	6	7	8	10	12	24
12V100FC	160.8	110.3	85.2	70.0	41.8	30.2	23.6	19.5	16.6	14.4	12.7	10.4	8.9	4.7
12V101F	150.0	103.2	79.9	65.2	38.5	27.8	22.0	18.3	15.8	13.9	12.4	10.3	8.6	4.4
12V125F	171.4	127.7	98.5	79.5	47.9	34.5	27.4	22.9	19.7	17.2	15.4	12.8	10.7	5.5
12V155FS	237.4	165.9	127.9	104.9	60.7	43.5	34.2	28.3	24.2	21.2	18.9	15.5	13.1	7.0
12V170FS	267.5	194.2	148.1	120.1	70.1	50.1	39.2	32.2	27.4	23.9	21.2	17.4	14.8	8.0
12V190F	296.1	215.1	163.9	133.1	78.1	56.1	43.9	36.1	30.7	26.8	23.8	19.5	16.6	8.9

Discharge Currents (Amperes) to 1.85Vpc at 77°F (25°C)

PowerSafe® VFT Battery	Standby Time (Minutes)			Standby Time (Hours)										
	15	30	45	1	2	3	4	5	6	7	8	10	12	24
12V100FC	145.2	101.5	79.0	65.2	39.6	28.9	22.7	18.7	16.0	13.9	12.3	10.2	8.7	4.7
12V101F	136.0	95.4	74.5	60.9	36.1	26.1	20.7	17.3	14.9	13.1	11.7	9.8	8.1	4.3
12V125F	151.3	112.5	86.9	70.5	43.2	31.2	25.1	21.0	18.1	15.9	14.2	11.9	9.9	5.5
12V155FS	215.3	153.5	119.0	98.3	57.2	40.9	32.1	26.6	22.7	19.9	17.7	14.6	12.3	6.6
12V170FS	243.1	179.7	138.9	113.4	67.0	48.0	37.7	31.0	26.3	22.9	20.4	16.7	14.2	7.7
12V190F	275.9	202.4	154.7	125.9	74.6	53.8	42.2	34.8	29.6	25.7	22.9	18.8	16.0	8.7

Discharge Currents (Amperes) to 1.90Vpc at 77°F (25°C)

PowerSafe® VFT Battery	Standby Time (Minutes)			Standby Time (Hours)										
	15	30	45	1	2	3	4	5	6	7	8	10	12	24
12V100FC	129.6	89.9	70.0	57.9	35.1	25.4	20.0	16.4	14.0	12.1	10.8	9.0	7.7	4.1
12V101F	115.5	80.1	61.2	49.6	29.1	21.1	16.7	14.0	12.0	10.7	9.5	7.6	6.5	3.6
12V125F	130.9	93.0	70.1	58.5	34.8	25.7	20.4	17.1	14.7	13.1	11.7	9.4	7.9	4.6
12V155FS	194.0	136.7	105.9	85.6	49.4	35.3	27.7	23.0	19.6	17.2	15.3	12.5	10.6	5.8
12V170FS	209.6	148.2	112.8	91.7	53.6	38.1	29.7	24.4	20.7	18.0	16.0	13.2	11.3	6.3
12V190F	249.4	174.5	132.2	107.7	63.3	45.4	35.4	29.1	24.7	21.5	19.2	15.8	13.5	7.5

Note:
Values include intercell voltage drops. All data subject to change without notice.

Constant Power Discharge Performance Data

Discharge Currents (Watts per Cell) to 1.75Vpc at 77°F (25°C)

PowerSafe® VFT Battery	Standby Time (Minutes)			Standby Time (Hours)										
	15	30	45	1	2	3	4	5	6	7	8	10	12	24
12V100FC	320	221	170	140	84	61	48	39	33	29	26	21	18	9.5
12V101F	291	200	155	127	75	55	43	36	31	27	24	20	17	8.7
12V125F	340	250	197	160	95	68	54	45	39	34	30	25	21	11
12V155FS	464	325	254	207	122	88	69	57	49	43	38	31	27	14
12V170FS	516	376	289	234	137	98	77	63	54	47	42	34	29	16
12V190F	568	421	322	262	154	111	87	72	61	53	47	39	33	18

Discharge Currents (Watts per Cell) to 1.80Vpc at 77°F (25°C)

PowerSafe® VFT Battery	Standby Time (Minutes)			Standby Time (Hours)										
	15	30	45	1	2	3	4	5	6	7	8	10	12	24
12V100FC	299	209	163	135	82	59	47	39	33	29	25	21	18	9.5
12V101F	278	193	151	124	74	53	42	35	30	27	24	20	17	8.6
12V125F	314	237	185	151	91	66	53	44	38	33	30	25	21	11
12V155FS	441	314	246	202	119	85	67	56	48	42	37	31	26	14
12V170FS	490	363	280	228	134	96	75	62	53	46	41	34	29	15
12V190F	542	407	313	256	151	109	86	71	60	52	47	38	33	18

Discharge Currents (Watts per Cell) to 1.85Vpc at 77°F (25°C)

PowerSafe® VFT Battery	Standby Time (Minutes)			Standby Time (Hours)										
	15	30	45	1	2	3	4	5	6	7	8	10	12	24
12V100FC	276	196	153	127	78	57	45	37	32	28	25	20	17	9.4
12V101F	257	181	142	117	70	50	40	34	29	25	23	19	16	8.5
12V125F	283	214	167	135	83	60	49	41	35	31	28	23	19	11
12V155FS	408	296	232	192	113	81	63	53	45	39	35	29	25	13
12V170FS	454	341	266	218	129	93	73	60	51	45	40	32	28	15
12V190F	517	388	299	245	146	106	83	69	58	51	45	37	32	17

Discharge Currents (Watts per Cell) to 1.90Vpc at 77°F (25°C)

PowerSafe® VFT Battery	Standby Time (Minutes)			Standby Time (Hours)										
	15	30	45	1	2	3	4	5	6	7	8	10	12	24
12V100FC	251	177	138	115	70	51	40	33	28	25	22	18	15	8.3
12V101F	223	156	120	97	57	41	33	27	24	21	19	15	13	7.1
12V125F	251	180	136	114	68	50	40	34	29	26	23	19	16	9.0
12V155FS	377	269	209	170	99	71	56	46	39	35	31	25	21	12
12V170FS	402	287	220	179	105	75	58	48	41	35	32	26	22	12
12V190F	481	342	260	213	126	90	71	58	49	43	38	32	27	15

Note:
Values include intercell voltage drops. All data subject to change without notice.

EnerSys® Power/Full Solutions

www.enersys.com

EnerSys World Headquarters 2366 Bernville Road, Reading, PA 19605, USA Tel: +1-610-208-1991 / +1-800-538-3627
EnerSys EMEA EH Europe GmbH, Löwenstrasse 32, 8001 Zurich, Switzerland Tel: +41 44 215 7410
EnerSys Asia 152 Beach Road, Gateway East Building #11-03, Singapore 189721 Tel: +65 6508 1780

Preliminary Version US-VFT-PS-AA September 2015