



12V

152Ah

SLA

AGM

## 12TP160FT-FR

Rechargeable AGM Sealed Lead Acid Battery

### SPECIFICATIONS

<b>Nominal Voltage</b>	12V	
<b>Nominal Capacity</b>		
20 hour rate (7.6A to 10.5V)	152Ah	
10 hour rate (15A to 10.8V)	150Ah	
5 hour rate (25.5A to 10.2V)	127.5Ah	
1 hour rate (90A to 9.6V)	90Ah	
1C (150A to 9.6V)	75Ah	
<b>Weight</b>	Approx. 45kg	
<b>Internal Resistance (at 1KHz)</b>	Approx. 4.5mΩ	
<b>Maximum Discharge Current (5 secs)</b>	1500A	
<b>Charge Methods at 25°C</b>		
<b>Cycle Use</b>		
Charging Voltage	14.4V to 15.0V	
Coefficient -5.0mV/°C/Cell		
Maximum Charging Current	45.6A	
<b>Standby Use</b>		
Float Charging Voltage	13.5V to 13.8V	
Coefficient -3.0mV/°C/Cell		
<b>Operating Temperature Range</b>		
<b>Charge</b>	-15°C to 40°C	
<b>Discharge</b>	-15°C to 50°C	
<b>Storage</b>	-15°C to 40°C	
<b>Charge Retention (Shelf Life) at 20°C</b>		
1 month	98%	
3 months	94%	
6 months	85%	

<b>Case Material</b>	UL94 V-0 Flame Retardant
<b>Termination</b>	F18 (M8 Bolt)

#### Description of Torque Value of Hardware for the Terminals

Recommended Torque Value	M8: 12 N-m (122kgf-cm)
Max. Allowable Torque Value	M8: 15 N-m (153kgf-cm)

<b>Design Life</b>	12 Years
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#### Classified as a non-spillable battery.

#### Approved for transportation by:

- Air (IATA/ICAO provision A67)
- Road
- Sea (per IMDG Special Provision 238)



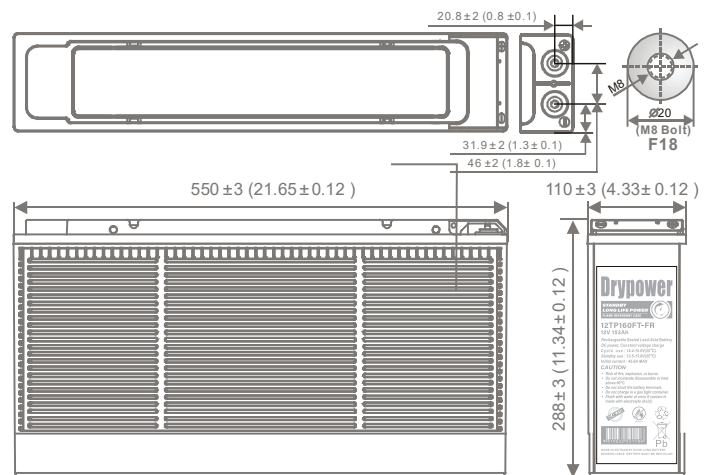
Barcode



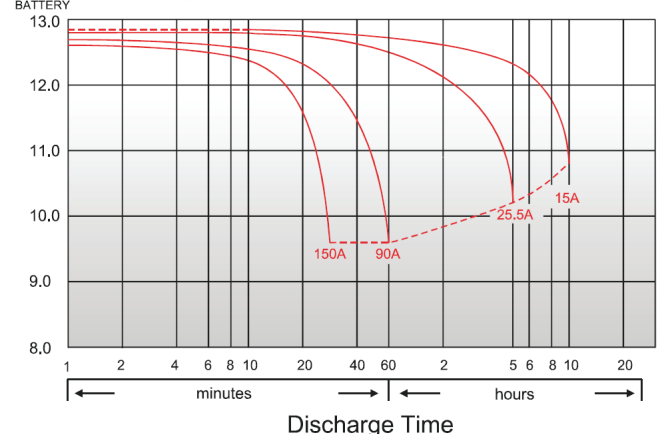
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### DIMENSIONS mm (inch)

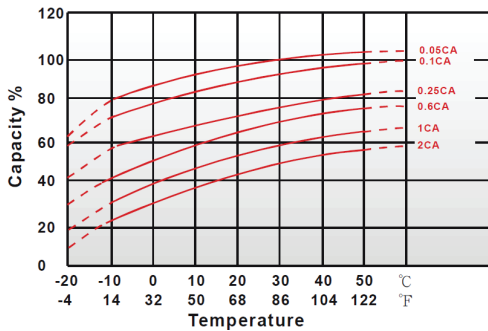


### Discharge Time VS. Discharge Current (25°C)

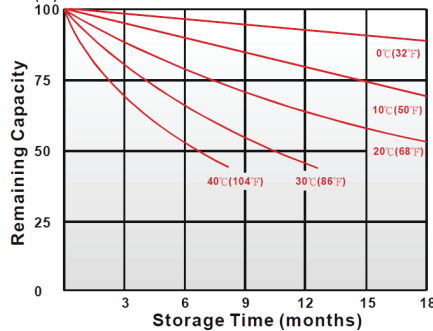


### CHARACTERISTICS CHARTS

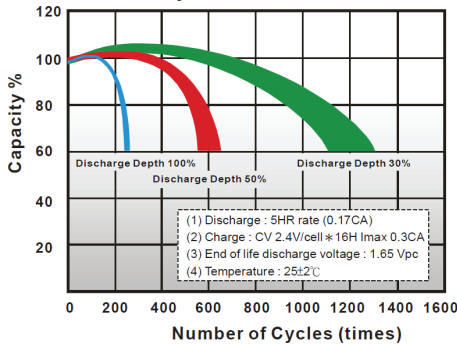
Effect of Temperature on Capacity 25°C (77°F)



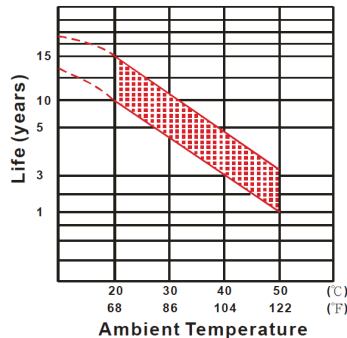
Capacity Retention Characteristic



Cycle Service Life



Trickle (or float) Service Life



### FEATURES & BENEFITS

- ◆ Industry leading 99.99% pure lead content for superior service life and dependable performance.
- ◆ Long service life to reduce maintenance and logistical costs across telecom, utilities and off-grid applications.
- ◆ Minimises sulphation with a thicker plate design and higher percentage of tin content to maximise battery standby life.
- ◆ High rate discharge capable to ensure reliable performance.
- ◆ Maintenance free technology and non-spillable design.
- ◆ Manufactured by Kung Long Battery (KLB) at facilities in Taiwan and Vietnam. KLB is a leading manufacturer and complies with relevant international quality standards including ISO9001, CE ETL9000, UL1989, OHSAS18001 and ISO17025. KLB supports Green Sustainable supply chain practices.



### PERFORMANCE DATA

Discharge Rates in Watts to Various End Voltages at 25°C (77°F)

End Voltage		1.85V	1.80V	1.75V	1.70V	1.67V	1.65V	1.60V
Time								
15	min	330	405	456	489	499	509	520
30	min	197	241	272	291	297	303	310
60	min	164	175	182	186	187	188	189
120	min	88.3	93.2	95.8	98	98.8	99.7	101
180	min	70.2	73.8	76.5	78.5	79.2	80	80.8
240	min	57.5	60.3	62.2	63.7	64.2	64.8	65.5
300	min	48.8	51.2	52.6	53.2	53.4	53.6	53.8
480	min	32.4	33.3	34.6	35.5	35.8	36.1	36.4
600	min	29.3	30.2	30.8	31.1	31.3	31.5	31.7
1200	min	15	15.5	15.8	16	16.2	16.3	16.4

Discharge Rates in Amperes to Various End Voltages at 25°C (77°F)

End Voltage		1.85V	1.80V	1.75V	1.70V	1.67V	1.65V	1.60V
Time								
15	min	187	217	241	261	275	288	298
30	min	107	132	148	159	162	165	169
60	min	82.7	89.9	92.7	94.8	95.6	96.4	97.5
120	min	43.7	49.6	52.1	53.9	54.6	55.4	56.4
180	min	33.4	37.2	39.1	40.5	41	41.6	42.3
240	min	27.4	30.1	31.4	32.4	32.7	33.1	33.5
300	min	22.7	24.3	25.5	25.9	26.2	26.4	26.6
480	min	15.90	17.3	17.5	17.7	17.9	18.1	18.3
600	min	14.4	15	15.1	15.2	15.3	15.4	15.5
1200	min	7.23	7.5	7.57	7.63	7.68	7.74	7.8

All data on the spec. sheet is an average value:

The tolerance range : X < 6min (+15%~-15%), 6min ≤ X < 10min (+12%~-12%), 10min ≤ X < 60min (+8%~-8%), X ≥ 60min (+5%~-5%)