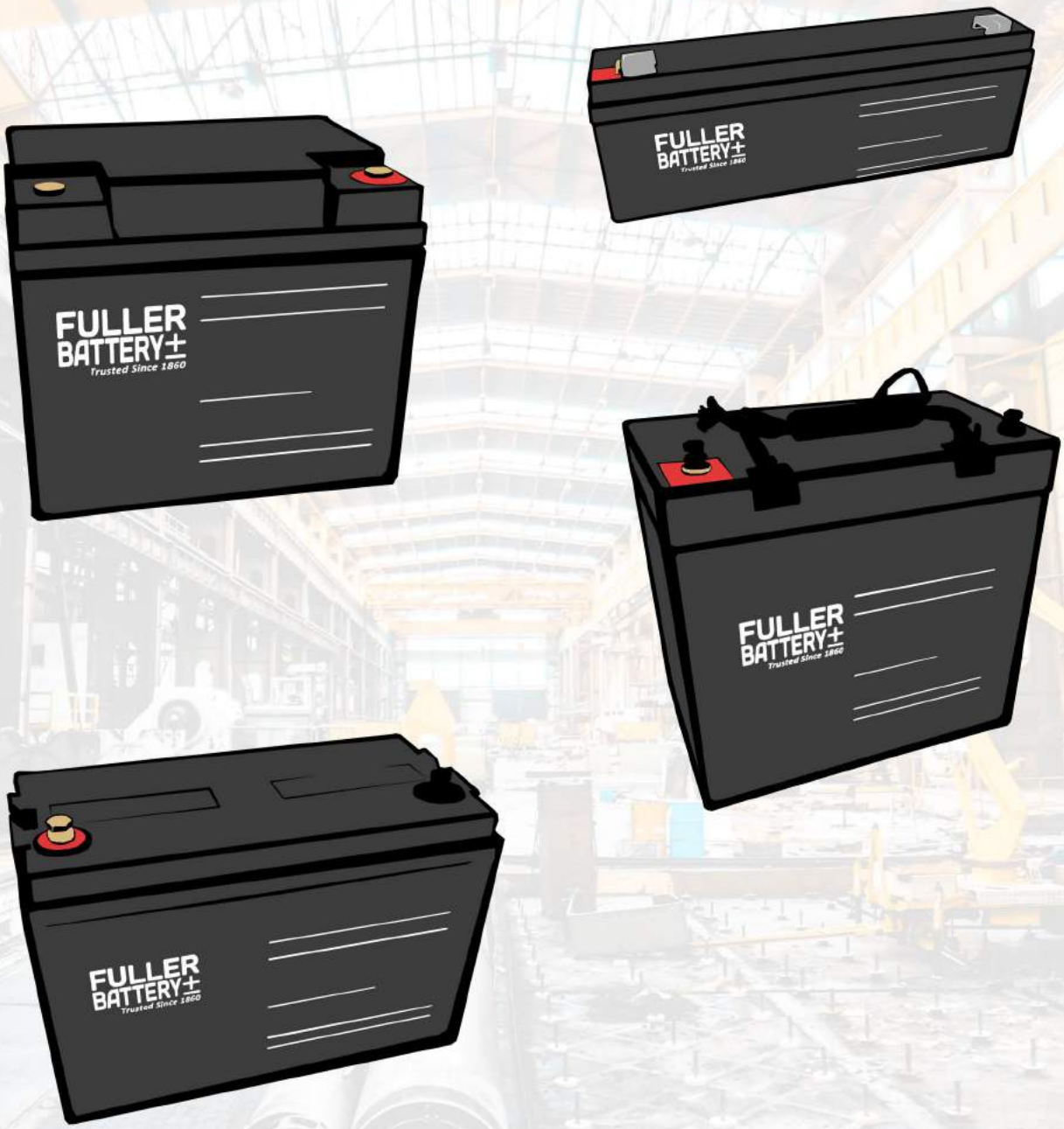
FULLER BATTERY±
Trusted Since 1860

Range Summary



FULLER BATTERY

THE EXPERT SOLUTION FOR ALL INDUSTRIAL APPLICATIONS

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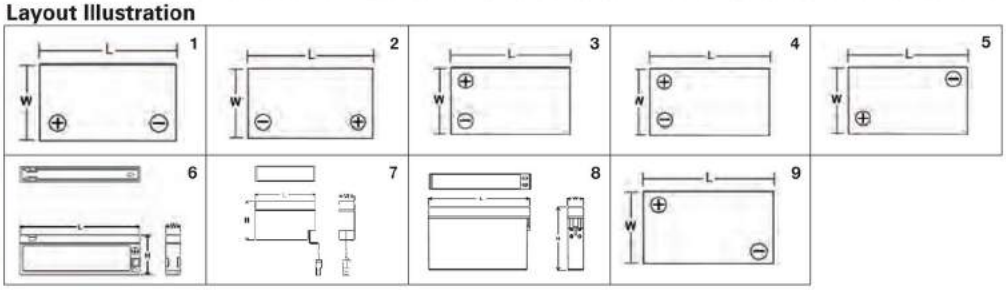
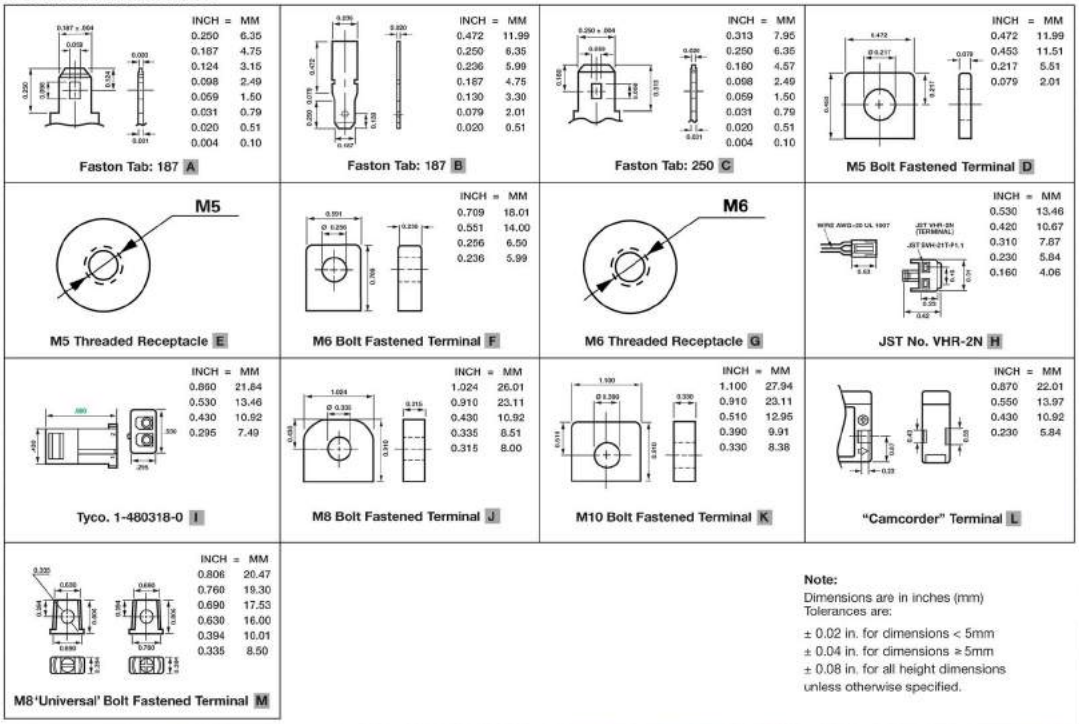
Layout Illustration



Terminal Illustration



Faston Tab: 187 A

INCH	MM
0.250	6.35
0.187	4.75
0.124	3.15
0.098	2.49
0.059	1.50
0.031	0.79
0.020	0.51
0.004	0.10

Faston Tab: 187 B

INCH	MM
0.472	11.99
0.250	6.35
0.236	5.99
0.187	4.75
0.130	3.30
0.079	2.01
0.020	0.51

Faston Tab: 250 C

INCH	MM
0.313	7.95
0.250	6.35
0.180	4.57
0.098	2.49
0.059	1.50
0.031	0.79
0.020	0.51
0.004	0.10

M5 Bolt Fastened Terminal D

INCH	MM
0.472	11.99
0.453	11.51
0.217	5.51
0.079	2.01

M5 Threaded Receptacle E

M6 Bolt Fastened Terminal F

INCH	MM
0.709	18.01
0.551	14.00
0.256	6.50
0.236	5.99

M6 Threaded Receptacle G

JST No. VHR-2N H

INCH	MM
0.530	13.46
0.420	10.67
0.310	7.87
0.230	5.84
0.160	4.06

Tyco. 1-480318-0 I

INCH	MM
0.860	21.84
0.530	13.46
0.430	10.92
0.295	7.49

M8 Bolt Fastened Terminal J

INCH	MM
1.024	26.01
0.910	23.11
0.430	10.92
0.335	8.51
0.315	8.00

M10 Bolt Fastened Terminal K

INCH	MM
1.100	27.94
0.910	23.11
0.510	12.95
0.390	9.91
0.330	8.38

"Camcorder" Terminal L

INCH	MM
0.870	22.01
0.550	13.97
0.430	10.92
0.230	5.84

M8 'Universal' Bolt Fastened Terminal M

INCH	MM
0.806	20.47
0.760	19.30
0.690	17.53
0.630	16.00
0.394	10.01
0.335	8.50

Note:
Dimensions are in inches (mm)
Tolerances are:
± 0.02 in. for dimensions < 5mm
± 0.04 in. for dimensions ≥ 5mm
± 0.08 in. for all height dimensions
unless otherwise specified.

Charging

- Standby use: Apply constant voltage charging at 2.275 volts per cell (or 2.25–2.30VPC).
- Cyclic use: Apply constant voltage charging at 2.40-2.50 VPC.Initial charging current should be set at less than 0.25CA.
- Top charge: Product in storage (ambient temperature 25°C/77°F) requires a top charge every six months. Apply constant voltage at 2.40 volts per cell, initial charging current should be set at less than 0.1CA for 15 to 20 hours.

Discharge

- Stop operation when voltage has reached the minimum permissible voltage (1.6Vpc). Recharge immediately.
- Do not operate at 3CA or more current continuously.

Storage

- Always store battery in a fully charged condition.
- If battery is to be stored for a long period, apply a recovery top-charge every 6 months.
- Store batteries in a dry and cool location.

Temperature

- Keep within ambient temperatures of -15°C to +50°C for both charging and discharging.

Incorporating battery into equipment

- Encase battery in a well ventilated compartment.
- Avoid installing battery near heated units such as a transformer.
- House the battery in the lowest section of the equipment enclosure or rack to prevent unnecessary battery temperature rise.
- It is not recommended to install/operate the battery in the inverted position.

Others

- Avoid terminal short circuit.
- DO NOT expose to open flame.
- WARNING - Avoid exposure of the battery to any type of oil, solvent, detergent, petroleum-based solvent or ammonia solution. These materials could potentially cause permanent damage to the battery jar and cover and will void the warranty.

FULLER BATTERY
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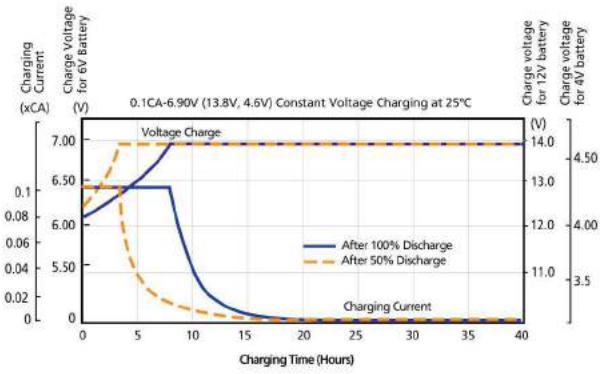
GENERAL SPECIFICATIONS

Fuller NP Battery Series

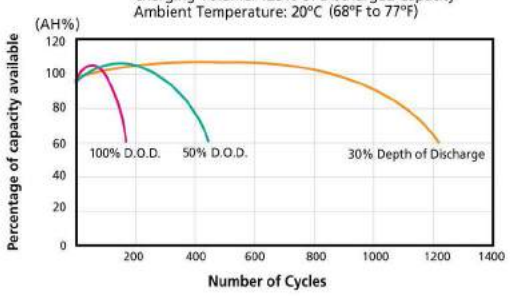
Battery Types	FR Type*	Volts	Nominal Capacity (20hr rate-Ah)	Length		Width		Overall Height (inc. terminals)		Weight		Layout incuding terminals)	Terminal Illus. (US Region) (US region)	Terminal Illus. (EMEA & Asia Region)
				mm	(in.)	mm	(in.)	mm	(in.)	kgs.	(lbs)			
NP1-6	NP1-6FR	6	1.0	51	2.01	42	1.65	57	2.24	0.28	0.61	5	A	-
NP1.2-6	NP1.2-6FR	6	1.2	97	3.82	25	0.98	56	2.20	0.30	0.67	1	A	A
NP2.8-6	NP2.8-6FR	6	2.8	67	2.64	33	1.30	105	4.13	0.59	1.30	5	A/C	A
NP3-6	NP3-6FR	6	3.0	134	5.28	33	1.30	67	2.64	0.69	1.53	1	A	A
NP3.2-6	NP3.2-6FR	6	3.2	66	2.60	33	1.30	104	4.09	0.59	1.30	5	A	-
NP3.8-6	NP3.8-6FR	6	3.8	66	2.60	33	1.30	125	4.92	0.75	1.65	1	A	-
NP4-6	NP4-6FR	6	4.0	70	2.76	47	1.85	105	4.15	0.80	1.76	5	A/C	A
NP4.5-6	NP4.5-6FR	6	4.5	70	2.76	47	1.85	105	4.15	0.86	1.90	5	A/C	-
NP5-6	NP5-6FR	6	5.0	70	2.76	47	1.85	105	4.15	0.95	2.10	5	A/C	-
NP7-6	NP7-6FR	6	7.0	151	5.95	33	1.30	100	3.94	1.28	2.83	1	A/C	A
NP8.5-6	NP8.5-6FR	6	8.5	98	3.86	56	2.20	118	4.65	1.60	3.53	9	A/C	-
NP10-6	NP10-6FR	6	10.0	151	5.95	50	1.97	101	3.98	1.99	4.38	1	A/C	A
NP12-6	NP12-6FR	6	12.0	151	5.95	50	1.97	101	3.98	2.03	4.48	1	A/C	C
NP0.8-12	NP0.8-12FR	12	0.8	96	3.78	25	0.98	61	2.42	0.37	0.82	7	H/I	H/I
NP1.2-12	NP1.2-12FR	12	1.2	97	3.82	48	1.89	56	2.20	0.57	1.25	3	A	A
NP2-12	NP2-12FR	12	2.0	150	5.91	20	0.79	89	3.50	0.70	1.54	8	B	B
NP2-12-C	NP2-12CFR	12	2.0	182	7.17	24	0.93	61	2.40	0.73	1.61	6	L	L
NP2.3-12	NP2.3-12FR	12	2.3	178	7.01	35	1.38	67	2.64	0.98	2.15	1	A	A
NP2.6-12	NP2.6-12FR	12	2.6	134	5.28	67	2.64	66	2.60	1.36	3.00	3	A	-
NP2.9-12	NP2.9-12FR	12	2.9	79	3.11	56	2.20	105	4.13	1.24	2.73	1	A/C	A
NP3-12	NP3-12FR	12	3.0	132	5.20	33	1.30	105	4.13	1.18	2.60	1	A/C	-
NP3.4-12	NP3.4-12FR	12	3.4	134	5.28	67	2.64	67	2.64	1.39	3.06	3	A/C	A
NP4-12	NP4-12FR	12	4.0	90	3.54	70	2.76	107	4.21	1.70	3.74	1	A/C	-
NP4.5-12	NP4.5-12FR	12	4.5	90	3.54	70	2.76	107	4.21	1.76	3.88	1	A/C	-
NP5-12	NP5-12FR	12	5.0	90	3.54	70	2.76	107	4.21	1.81	4.00	1	A/C	A/C
NP7-12	NP7-12FR	12	7.0	151	5.95	65	2.56	100	3.94	2.59	5.72	4	A/C	A/C
NP9-12	NP9-12FR	12	9.0	151	5.94	65	2.56	102	4.02	2.72	6.00	4	C/D	C
NP10-12	NP10-12FR	12	9.5	151	5.94	65	2.56	118	4.65	3.27	7.22	4	-	C
NP12-12	NP12-12FR	12	12.0	151	5.95	98	3.86	100	3.94	4.06	8.95	4	C	C
NP18-12	NP18-12FR	12	17.2	181	7.13	76	3.00	167	6.57	6.17	13.60	2	D/E	E/G
NP24-12	NP24-12FR	12	24.0	166	6.54	175	6.89	125	4.92	9.07	20.00	2	C/D/E	E/G
NP33-12	NP33-12FR	12	33.0	197	7.76	131	5.16	158+	6.22+	11.79	26.00	1	E/F	E/G
NP35-12	NP35-12FR	12	35.0	198	7.80	132	5.20	170	6.69	12.61	27.80	1	F	-
NP38-12	NP38-12FR	12	38.0	197	7.76	165	6.50	172	6.77	14.59	32.16	2	F/G	G
NP55-12	NP55-12FR	12	55.0	229	9.02	138	5.43	207+	8.15+	18.01	39.70	1	M/E	G
NP65-12	NP65-12FR	12	65.0	350	13.78	166	6.54	174	6.85	23.63	52.10	2	F/G	G
NP70- 12	NP70-12FR	12	70.0	260	10.23	168	6.61	212	8.34	23.50	51.80	1	M/G	G
NP75-12	NP75-12FR	12	75.0	259	10.20	169	6.65	208+	8.19+	26.50	58.42	1	M/G	G
NP90-12	NP90-12FR	12	90.0	304	11.97	168	6.61	229	9.02	31.18	68.74	1	M/G	G
NP100-12	NP100-12FR	12	100.0	329	12.95	174	6.85	214+	8.43+	32.50	71.65	1	J/G	G
NP120-12	NP120-12FR	12	120.0	407	16.02	173	6.81	235	9.25	38.41	84.68	1	J/G	G
NP150-12	NP150-12FR	12	150.0	483	19.02	170	6.69	241	9.49	44.50	98.11	1	J/G	G12
NP200-12	NP200-12FR		200.0	522	20.55	240	9.45	218+	8.58+	64.50	142.20	3	K/G	G
NP40- 12	NP40- 12FR	12	40.0	197	7.75	165	6.49	170	6.69	12.50	27.50	2	F/G	G
NP50- 12	NP50- 12FR	12	50.0	228	8.97	137	5.39	210	8.26	16.20	35.71	1	M/E	G

Charging Characteristics



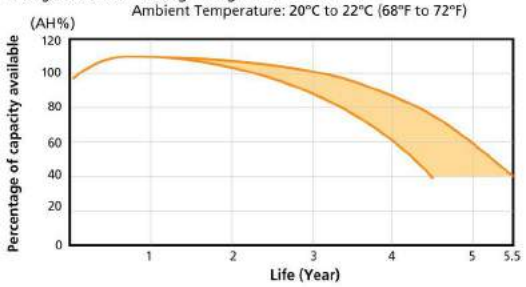
Cycle service life in relation to depth of discharge NP series

Testing conditions: Discharge Current: 0.17C Amp. (F.V. 1.7/Cell)
Charging Current: 0.09C Amp.
Charging Volume: 125% of Discharged Capacity
Ambient Temperature: 20°C (68°F to 77°F)

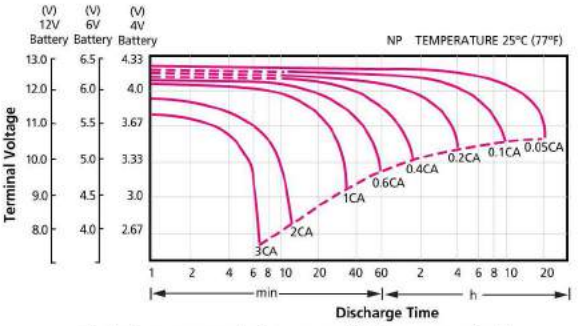


Float service life NP series

Testing conditions: Floating Voltage: 2.25 to 2.30V/Cell
Ambient Temperature: 20°C to 22°C (68°F to 72°F)

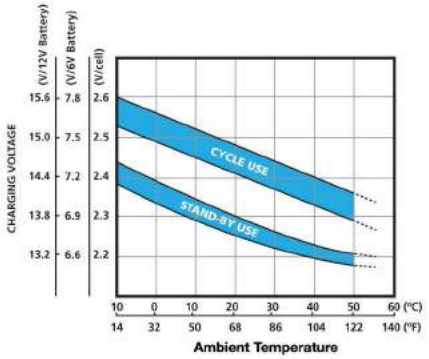


Discharge characteristics curves at 25°C (77°F) NP series



If discharge currents in excess of 3CA are required, consult the EnerSys Technical Department prior to use.

Relationship between charging voltage and temperature



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