

Narada HELiON™ FEN series 48V LFP (Li-Ion) battery system are designed to IP65 requirements and ideally suited for OSP, Telecom, 5G, CATV, Rail and any outdoor application.

FEN series offer long cycle life, small size, reduced weight, and simplified installation for mounting to pole or enclosure. Batteries can be paralleled up to 200Ah.

LFP chemistry makes it one of the safest technologies, suitable for high and low temperature operation and capable of .5C and higher discharge rates.

HELiON
LI-ION ENERGY



Technical Features:

- Simple installation and load/charge system integration (Pos/Neg termination)
- Advanced intelligent lithium battery management technology
- Energy transfer patented technology provides high cell utilization efficiency for prolong system operational life.
- Configuration flexibility, support parallel connection expansion up to 4 modules
- Integrated heating for cold temperature operation

BMS - Alarming

- System monitoring of voltage, current, temperature of cells and module. Built in protection against, over-current on discharge and recharge, over-temperature, low temperature, low and high voltage, and short circuit.
- BMS maintenance and service communication via RS485

Compliance

UL1642, UL2054, UL1973

EN 61000-6-1:2007, EN 61000-6-3:2007+A1:2011

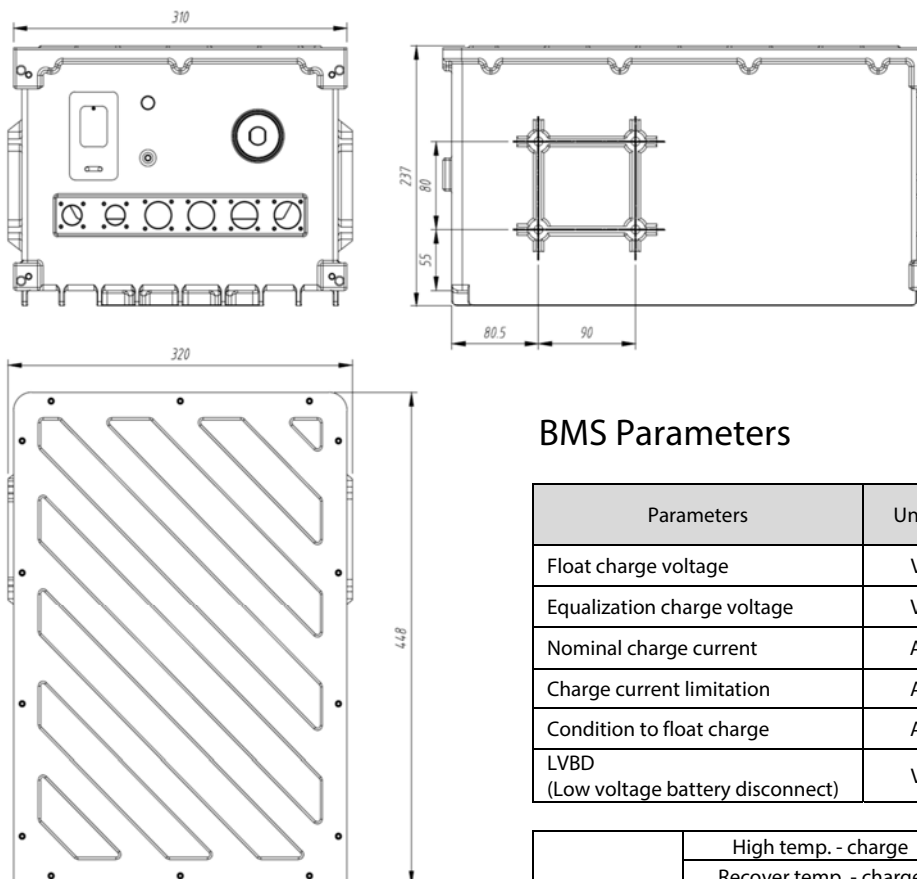
IEC 62133:2012

UN3800

IP65



Dimensions – Outline Drawing



BMS Parameters

Parameters	Units	Value
Float charge voltage	V	54 ±0.5
Equalization charge voltage	V	NA
Nominal charge current	A	0.2C
Charge current limitation	A	0.5C ~ 1.0C
Condition to float charge	A	0.05C
LVBD (Low voltage battery disconnect)	V	> 40.5

Over Temperature Protection	High temp. - charge	70±3°C
	Recover temp. - charge	60±3°C
	High temp. - discharge	70±3°C
	Recover temp. - discharge	60±3°C
	Low temp. - charge	0±3°C
	Recover temp. - charge	5±3°C
	Low temp. - discharge	-10±3°C
Recover temp. - discharge	0±3°C	

Discharge Rates

Constant Current

Discharge Rates @25C in Hours - Amps

End	10	8	5	4	3.5	2.5	2	1.5	1	0.5
46.5V	4.8	6	9.5	11.1	11.9	17.8	21.0	27.7	34.4	65.4
45.0V	4.9	6.1	9.7	11.3	12.1	19.1	23.5	33.7	43.9	83.4
44.1V	4.9	6.1	9.8	11.5	12.3	19.4	23.9	34.6	45.2	85.9
43.5V	5	6.2	9.9	11.6	12.4	19.6	24.3	35.4	46.4	88.2
42.0V	5	6.2	9.9	11.6	12.4	19.8	24.6	36.1	47.5	90.3
40.5V	5	6.3	10	11.7	12.5	20	24.9	36.6	48.2	91.6

Constant Power

Discharge Rates @25C in Hours - Watts

End	10	8	5	4	3.5	2.5	2	1.5	1	0.5
46.5V	245	300	480	610	675	655	1100	1414	1934	3674
45.0V	250	307	491	625	692	682	1167	1534	2227	4231
44.1V	251	309	494	629	696	686	1181	1549	2264	4301
43.5V	252	311	497	633	700	690	1192	1561	2294	4358
42.0V	254	313	500	637	706	697	1200	1587	2334	4434
40.5V	255	314	503	640	709	701	1209	1601	2348	4461