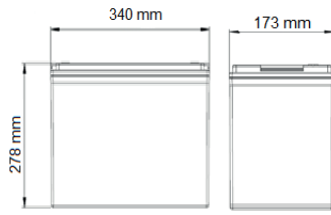


# NPE12140FR

Yellow Line 12V 140Ah

## Drawings



Physical Characteristics	SI Units	US Units
Length	340 mm	13.4 inc
Width	173 mm	6.8 inc
Height	278 mm	10.9 inc
Weight	45.5 kg	100 lbs

## Electrical Specifications

Nominal Voltage	12V
Number Of Cells	6
Rated Capacity	140 Ah (10 h rate to 1.80 Vpc at 25 °C)
Internal Resistance	5 mΩ (IEC 60 896 - 21/22)
Short Circuit Current	3500 A (IEC 60 896 - 21/22)
Float Charge Voltage	2.27 V Per Cell (Vpc) at 25 °C)

## Design Features

Design Life at 20 °C	Long Life 10-12 Years
Plates	Tick Flat Pasted
Active Material	Very High Purity Virgin Lead
Grid Alloy	Lead - Calcium - Tin Alloy
Electrolyte	Sulphuric Acid, Analytical Grade
Separator	Absorbing Glass Mat (AGM)
Operating Temperature	-10 °C to +50 °C +15 °C to +25 °C (recommended)
Venting Valve	Rubber, One Way, Self Resealing (Opening Pressure: 1.7 PSI) (Resealing Pressure: 1.5 PSI)
Internal Gas Recombination Efficiency	More Than 99%
Flame Arrestor	Available
Storage Temperatures	-10 °C to +40 °C
Self Discharge	Less Than 2.0% Per Month at 20 °C
Storability Without Recharging	Up to 6 Months at 20 °C
Shelf Life	Up to 1 Year
Container / Lif Material	Shock Resistant ABS FR; Flammability Class UL94 V0
Terminal Position	Top
Terminal Sealing	Mechanical + Epoxy Double Sealing
Terminal Type	Brass; Female; M6 Thread
Terminal Torque	7 Nm
Transport Terminal Cover	Available
Carrying Handles	Available
Connectors and Bolts	Supplied as Standard
Applicable Standards and Rec.	IEC 60896-21/22; En 50272-2; IEC 61427-1/2; IEC 61056-1; BS 6290-4; IEEE 1184; IEEE 1187; IEEE 1188
Manufacture Standards	ISO 9001; ISO 14001; OHSAS 18001; AQAP 2110

### Discharge Performance at Constant Current Discharge (A) For Battery at 25°C°

Uf, Vpc	5min	10min	15min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h
1.6	533.0	389.0	291.0	178.0	117.0	99.7	57.2	39.4	30.9	25.7	22.1	16.80	14.42
1.65	491.0	374.0	289.0	175.0	115.0	97.6	57.0	39.0	30.7	25.5	21.9	16.77	14.35
1.7	456.0	352.0	283.0	167.0	112.0	96.8	56.7	38.8	30.5	25.4	21.7	16.75	14.28
1.75	430.0	332.0	267.0	165.0	111.0	96.5	56.2	38.4	30.1	25.1	21.5	16.58	14.14
1.8	398.0	307.0	245.0	160.0	110.0	91.9	55.5	38.3	29.8	24.9	21.4	16.56	14.00
1.85	351.0	281.0	219.0	151.0	102.0	88.0	53.6	34.6	28.3	24.0	20.8	16.12	13.65

### Discharge Performance at Constant Power Discharge W (Per Cell) For Battery at 25°C°

Uf, Vpc	5min	10min	15min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h
1.6	931.0	703.0	535.0	339.0	223.0	193.5	113.5	77.1	60.8	50.7	43.6	33.25	27.80
1.65	868.0	684.0	531.0	334.0	222.0	189.4	113.1	76.6	60.5	50.4	43.3	33.25	27.80
1.7	815.0	650.0	521.0	320.0	217.0	188.1	112.5	76.3	60.2	50.1	43.1	33.25	27.80
1.75	778.0	617.0	498.0	317.0	216.0	187.8	111.7	75.8	59.7	49.9	42.8	32.98	27.53
1.8	727.0	574.0	459.0	310.0	213.0	179.3	110.1	75.5	59.1	49.6	42.5	32.98	27.25
1.85	648.0	528.0	416.0	294.0	199.0	172.2	106.4	68.4	56.1	47.7	41.4	32.16	26.44

### Discharge Performance at Constant Power Discharge W (Per Block) For Battery at 25 C°

Uf, Vpc	5min	10min	15min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h
1.6	5586.0	4218.0	3210.0	2034.0	1338.0	1161.0	681.0	462.4	364.8	304.2	261.6	199.50	86.74
1.65	5208.0	4104.0	3186.0	2004.0	1332.0	1136.0	678.6	459.6	363.0	302.4	259.8	199.50	86.74
1.7	4890.0	3900.0	3126.0	1920.0	1302.0	1129.0	675.2	457.8	361.2	300.6	258.6	199.50	86.74
1.75	4668.0	3702.0	2988.0	1902.0	1296.0	1127.0	670.4	454.8	358.2	299.4	256.8	197.88	85.89
1.8	4362.0	3444.0	2754.0	1860.0	1278.0	1076.0	660.5	453.0	354.6	297.6	255.0	197.88	85.02
1.85	3888.0	3168.0	2496.0	1764.0	1194.0	1033.0	638.2	410.4	336.4	286.2	248.4	192.96	82.49

### Temperature Correction Factor of Capacity at Constant Current Discharge

Discharge Time	-10 C°	0 C°	10 C°	15 C°	20 C°	25 C°	30 C°	35 C°	40 C°	50 C°
From 5 to 59 Minutes	0.7	0.8	0.9	0.95	0.97	1	1.05	1.1	1.13	1.15
From 1 to 20 Hours	0.82	0.88	0.94	0.97	0.98	1	1.03	1.05	1.07	1.08

### Battery Charge Conditions at 25 C° Constant Voltage and Limited Current (IU)

Charge Current Limit	Float Charge Voltage	Equalization Charge Voltage	Boost Charge Voltage
0.1 - 0.25C10 A Recommended: 0.2C10A	2.27V Per Cell at 25 °C; Temperature Correction: -3 mV / Cell /oC	2.32V Per Cell 25 °C Recommended: Every 3 Months For 24h During Long Time Float Operation	2.40V Per Cell at 25 °C; Temperature Correction: -4 mV / Cell /oC

Float Application: 0.20C10A / 2.27V Per Cell at 25 °C

Cycling Applications: 0.20C10A / 2.40V Per Cell at 25 °C;  
Recharge Ah Input at Least 105% From Previous Discharge Ah

