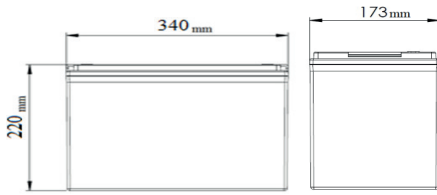


NPE12100FR

Yellow Line 12V 100Ah

Drawings



Physical Characteristics	SI Units	US Units
Length	340 mm	13.4 inc
Width	173 mm	6.8 inc
Height	220 mm	8.7 inc
Weight	35.5 kg	78 lbs

Electrical Specifications

Nominal Voltage	12V
Number Of Cells	6
Rated Capacity	100 Ah (10 h rate to 1.80 Vpc at 25 °C)
Internal Resistance	5 mΩ (IEC 60 896 - 21/22)
Short Circuit Current	2 550 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	6 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	381	278	208	127	83	71.2	39.1	28.2	22.1	18.4	15.8	12	10.3
1.65	151	267	206	125	82	69.7	38.7	27.9	21.9	18.2	15.6	11.98	10.25
1.7	326	251	202	119	80	69.1	38.4	27.7	21.8	18.1	15.5	11.97	10.2
1.75	307	237	191	118	80	68.9	37.9	27.4	21.5	18	15.4	11.84	10.1
1.8	284	220	175	114	78	65.6	37.3	27.3	21.3	17.8	15.3	11.83	10
1.85	251	201	157	108	73	62.9	35.5	24.7	20.2	17.1	14.9	11.52	9.75

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	672	502	386	239	160	138.2	76.1	55.1	43.4	36.2	31.1	23.75	19.86
1.65	626	489	383	236	158	135.3	75.5	54.7	43.2	36	31	23.75	19.86
1.7	588	464	376	226	155	134.3	75.1	54.5	43	35.8	30.8	23.75	19.86
1.75	561	441	359	224	154	134.1	74.4	54.1	42.6	35.6	30.6	23.56	19.66
1.8	525	410	331	219	152	128.1	73.4	53.9	42.2	35.4	30.4	23.56	19.47
1.85	468	377	300	208	142	123	69.9	48.9	40.1	34.1	29.6	22.97	18.88

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	4037	3017	2320	1439	959	830.7	457.5	331.1	260.9	217.6	187.2	142.74	119.34
1.65	3763	2937	2301	1420	951	813.2	454	328.8	259.7	216.5	186	142.74	119.34
1.7	3532	2789	2257	1360	930	807.3	451.6	327.6	258.6	215.3	184.9	142.74	119.34
1.75	3371	2648	2158	1347	925	806.1	446.9	325.3	256.2	214.1	183.7	141.57	118.17
1.8	3153	2463	1990	1317	915	769.9	441.1	324.1	253.9	212.9	182.5	141.57	117
1.85	2811	2266	1803	1250	855	739.4	420	293.7	241	204.8	177.8	138.06	113.49

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 - 0.25C10A 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

