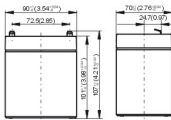


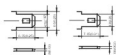
Performance Specification for battery type FG 20451

Nominal Voltage	12 Volts
Nominal Capacity	
at 20 hour rate	4.5 Ah
at 10 hour rate (0.41 A)	4.05 Ah
at 5 hour rate (0.72 A)	3.6 Ah
at 1 hour rate (2.7 A)	2.7 Ah
Dimension (mm)	Length=90, Width=70, Height=107
Approximate weight	1.73 kg
Energy Density	84.87 Wh/l
Specific Energy	31.21 Wh/kg
Internal Resistance (Fully charged battery)	34 mΩ
Maximum discharge current in 1 minute discharge	27A
Maximum discharge current in 5 seconds discharge	45A
Recommended charging tension (temperature=20°C)	
floating use: 13,5-13,8 V	cyclic use: 14,4-15,0 V
Thermal compensation factor	
floating use: -19,8mV/°C	cyclic use: -30mV/°C
Maximum charging current	1.35 A
Terminals	FO-02/03
Vibration Test (2000 cycles/minute, 2.55 mm excursion, 2 hours)	No loss in capacity or performance
Shelf life - % of nominal capacity at 20°C	
1 month	97%
3 months	91%
6 months	83%
Storage temperature	-20°C to 40°C
Operative temperature Range	
Charge	0°C to 40°C
Discharge	-20°C to 50°C
Case material	Acrylonitrile-Butadiene-Styrene
	Standard Version: According to UL-94 HB
	Also available: According to UL-94 V0
Life expectancy (Stand-by)	3 to 5 years according Eurobat standards

Battery dimensions (mm)



Terminal type



Type: FO-02

Type: FO-08

Constant Power Discharge Table (Watt)

Time	5m	10m	15m	20m	30m	45m	60m	90m	2h	3h	4h	5h	6h	8h	10h	12h	20h
1.60V	28.1	20.6	15.8	13.0	9.86	6.97	5.64	4.00	3.24	2.36	1.83	1.57	1.30	1.01	0.83	0.72	0.46
1.67v	26.4	20.6	15.5	12.8	9.59	6.85	5.59	4.00	3.19	2.32	1.80	1.54	1.28	0.99	0.83	0.71	0.45
1.70v	25.2	20.6	15.2	12.7	9.49	6.80	5.55	3.98	3.15	2.30	1.78	1.51	1.26	0.99	0.82	0.70	0.45
1.75v	23.8	20.6	14.6	12.1	9.15	6.72	5.47	3.83	3.07	2.23	1.73	1.47	1.24	0.97	0.81	0.70	0.45
1.80v	21.5	18.6	13.8	12.0	9.07	6.63	5.39	3.68	2.96	2.15	1.70	1.41	1.22	0.96	0.80	0.69	0.44

Constant Current Discharge Table (Ampere)

	5m	10m	15m	20m	30m	45m	60m	90m	2h	3h	4h	5h	6h	8h	10h	12h	20h
1.60V	17.1	11.3	8.64	6.80	5.18	3.77	3.02	2.12	1.69	1.21	0.95	0.80	0.69	0.53	0.45	0.38	0.24
1.67v	16.6	11.0	8.51	6.66	4.95	3.71	2.97	2.08	1.67	1.17	0.92	0.78	0.68	0.52	0.44	0.37	0.23
1.70v	16.0	10.8	8.28	6.48	4.91	3.65	2.88	2.04	1.62	1.16	0.91	0.77	0.68	0.51	0.43	0.37	0.23
1.75v	14.8	10.2	7.34	6.26	4.73	3.62	2.79	1.98	1.60	1.14	0.89	0.75	0.67	0.51	0.42	0.36	0.23
1.80v	13.9	9.68	6.93	5.99	4.50	3.51	2.75	1.95	1.56	1.10	0.84	0.71	0.61	0.50	0.42	0.35	0.22

Discharge Characteristics @25 °C (77 °F)

