Technical Datasheet

MARATHON Classic EPzS

Cell Model

June 2022

Celltyp:	**5EPzS300**
Article no:	**05EPZS0300SC**

Nominal data according to IEC 60 254-1

Nominal voltage	2 V
Nominal capacity C_N	300 Ah @ 30°C & U_e =1,7 V/C*
Nominal discharge current I_N	60 A
Nominal discharge time t_N	5h
Max. permissible depth of discharge	80% CN
Nominal temperature T_N	30°C
Electrolyte	Diluted sulfuric acid
Rated electrolyte density	1.29 kg/l ± 0,01 kg/l @ 30°C *

***** *achieved after the first 10 cycles*

Cell design

Positive electrode	Tubular Plate Type PzS
Negative electrode	Grid Plate
Separator:	Polyethylene / PVC
Housing material:	Polypropylene
Cell dimensions (L X W X H1/H2	101 mm x 198 mm x 333 / 363 mm *
Cell weight	19,0 kg ± 5%
Acid filling	3,4 L
Pole design	EXIDE FLEX-Sliding pole with insulated pole screw (M10) tightening torque 23 Nm +/- 1 Nm

** H1 = Height above cell cover / H2 = Height above pole (incl. Connector and pole screw)*

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Electrical data

Discharge time	10h	**5h**	3h	2h	1h	0,5h
Capacity C_{nh}	336,0 Ah	**300,0 Ah**	266,4 Ah	240,0 Ah	198,0 Ah	159,0Ah
Discharge current I_{nh}	33,6 A	**60,0 A**	88,8 A	120,0 A	198,0 A	318,0 A
Discharge cut-off voltage	1,73 VPC	**1,70 VPC**	1,68 VPC	1,66 VPC	1,60 VPC	1,50 VPC
Cut-off Voltage at 80% DOD	1,93 VPC	**1,86 VPC**	1,79 VPC	1,66 VPC	1,60 VPC	1,50 VPC

Operating power (80% C_N x U_M)	0,47 kWh / cell
Internal resistance R_I @ 30°C *	0,513 mΩ / cell ± 5%
Short circuit current I_K @ 30°C *	3902 A ± 5%
Durability in cycles:	1500 according to IEC 60 254-1

* @100% SOC & 30°C

Specific electrical data according to IEC 60 254-1

Energy density GED C5	30,8 Wh/kg
Energy density GED C1	18,8 Wh/kg
Energy density VED C5	80,5 Wh/L
Energy density VED C1	49,2 Wh/L

Standart accessories

Connector cross section ≤ 190 mm	25 mm^2
Connector cross section > 190 mm	35 mm^2
Plug lengthGNB-Aquaplug	50,5 mm
Plug length BFS III-Aquaplug	51 mm

Application data (recommended values)

Temperature range	-20°C - +55°C
Max.continuous discharge current @ U_{min} = 1,6 V/Z *	198 A
Max. Peak discharge current @ U_{min} = 1,5V/Z, 3min*	318 A
Max. Current recuperation @ U_{max} = 2,4 V/Z*	150 A

** The specified values apply to the cell; at very high currents the connector might be be a limiting factor.*

Charging data (recommended values)

GNB Charging characteristics	S / R / G / (Z)
Charging characteristics according to DIN	Wa / W0Wa / IUIa
Max Charging current.*	75,00 A
Max. Intermediate charge per Hour.*	71 Ah

** depending on charging profile*

Application Engineering / GNB Industrial

Subject to changes!

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