



12CP80/19

Compact-Power Rackline™



Technical specifications

Type

12CP80/19

Part number

66319080


Electrical Data

Nominal voltage	12 V	
Number of cells	6	
Rated capacity C ₁₀ to 1.80 Vpc at 20 °C	80 Ah	
Rated capacity C ₈ to 1.75 Vpc at 25 °C	80 Ah	
Current/Power for 0.5 h back-up time 1.65 Vpc 20 °C	98.8 A	1086 W
Current/Power for 1.0 h back-up time 1.67 Vpc 20 °C	57.0 A	636 W
Current/Power for 2.0 h back-up time 1.80 Vpc 20 °C	31.1 A	355.8 W
Current/Power for 4.0 h back-up time 1.80 Vpc 20 °C	17.4 A	202.2 W
Current/Power for 8.0 h back-up time 1.80 Vpc 20 °C	9.7 A	112.2 W
Current/Power for 10.0 h back-up time 1.80 Vpc 20 °C	8.0 A	91.8 W
Current/Power for 20.0 h back-up time 1.80 Vpc 20 °C	4.4 A	48 W
Conversion to capacity at 25 °C (77 °F)	20 °C Ah x 1,03 (t > 1 h)	
Internal resistance (± 10%) to IEC/EN 60896-21	5.3 mΩ	
Short circuit current (± 10%) to IEC/EN 60896-21	2.3 kA	
Self discharge at 20 °C to IEC/EN 60896-21	max. 3%/month	
Heat loss during float service at 20 °C	≈ 0.48 W	

Mechanical Data

Weight ready for use	34.5 kg	
Height of monobloc	265 mm	
Height over gas collection system GCS™	274 mm	
Height over terminal connector	300 mm	
Width	105 mm	
Depth	392 mm	
Number of terminals	1⊕ / 1⊖	
Dimension of connector screw hole	pol: M6 term. conn.: M6 & M8/M10	
Suggested/maximum cable cross-section	50 mm ² /70 mm ² *)	
Connection torque	8 Nm	
Terminal insulation class according to IEC/EN 60529	IP20	
Diameter of diagnostic hole for voltage probe	5 mm Ø	
Connector (copper, tin-coated) rigid and insulated	40 mm ²	
Complete connector and terminal connection accessoires	available (as 48 V/60 V-Set)	

Environmental Data

Shelves, cabinets and racks	available upon request
Installation	vertically/horizontally
Distance for cooling and ventilation (preset with the rigid connectors)	9 mm
Flame retardancy rating case/cover according to Underwriters Laboratories (UL) USA	ABS-PC – UL 94 V-0 with LOI > 32%, halogen-free
Flame barriers at vents	installed
Gas collection system GCS™ UL V-0 quality	available upon request
UL file number 	MH 26065
Service life expected at 20 °C	15 years

*) for UPS duties the connecting cables must be dimensioned specially

Operating specifications

Figure 1



Figure 2

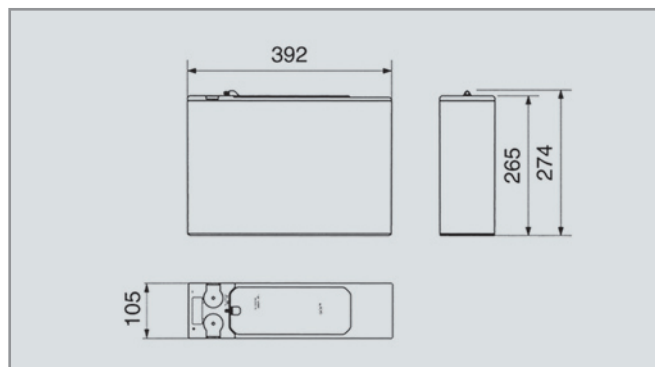
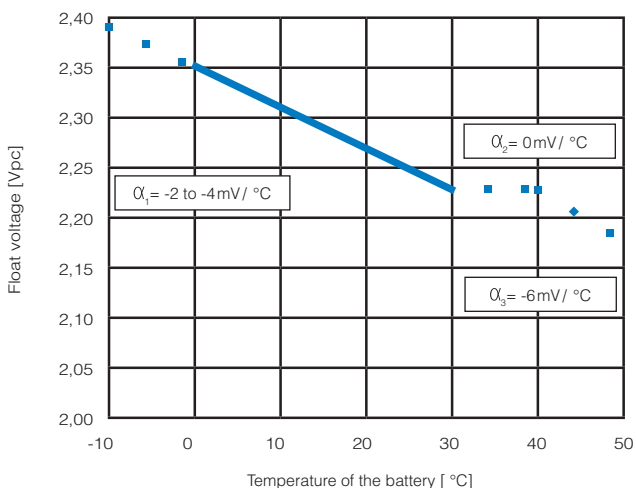


Figure 3



Temperature in °C	Temperature in °F	Percent of the rated capacity
40	104	104.8
35	95	104.2
30	86	103.6
25	77	103.0
20	68	100.0
15	59	97.0
10	50	94.0
5	41	90.0
0	32	84.7
-5	23	77.7
-10	14	69.4
-15	5	60.0
-20	-4	49.6
-25	-13	38.4
-30	-22	25.6
-35	-31	14.1
-40	-40	2.1

Battery installation and operation

Float voltage setting according to DIN 41773

Float voltage with daily discharge cycles

CC-CV charge current according to DIN 41773

Float voltage compensation in function of temperature

Boost charge

Stand-by mode with constant voltage float operation according to EN 50272-2:2001

2.25 Vpc at 20 to 25 °C (68 to 77 °F)

2.29 Vpc - 2.30 Vpc (no correction factor needed)

unlimited, otherwise $3 \cdot I_{10}$ max. if $T > 25$ °C

-2 to -4 mV/°C or with profile as displayed figure 3

Not needed, if desirable then 2.35 Vpc and I_{10} max. for 24 h max. at $t < 30$ °C

Air exchange

As a VRLA battery according to EN 50272-2:2001

$$Q = 0.05 \cdot N_{\text{cells}} \cdot I_{\text{gas}} \cdot C_{\text{Ah } C_{10}} \cdot 10^{-3} \text{ [m}^3\text{/h]}$$

$$I_{\text{gas}} = 1 \text{ (at 2.25 Vpc)} \quad I_{\text{gas}} = 8 \text{ (at 2.40 Vpc)}$$

$$\text{e.g. } 48 \text{ V: } 0.096 \text{ m}^3\text{/h} = 3.40 \text{ cu.ft/h (at 2.25 Vpc)}$$

Preferred operating temperature range

Between 15 °C (68 °F) and 25 °C (77 °F)

Maximum long term operating temperature

+40 °C (104 °F) with ventilation assured (reduced service life)

Maximum short term operating temperature (for hours)

+50 °C (122 °F) with ventilation assured (reduced service life)

Minimum fully charged operating temperature

-40 °C (-40 °F)

