Hybrid Power

Powerstart 300

- Innovative in energy storage & Power Electronics
- Custom-made solutions
- Complete solution: storage & Power Electronics
- Design and system integration

Features

- Cold temperature performance
- High efficiency: improves starting performance
- Low internal resistance, high peak current
- Long life cycle
- Integrated DC/DC converter
- Integrated Trickle converter
- Integrated individual cell balancing
- Compact, rugged, fully enclosed and IP65 design
- Extension battery life, downsizing main battery
- Built in overvoltage switch
- Approved for heavy-duty shock and vibration norms

Applications

Diesel engine cranking & board net stabilization for

- (Cold Climate) transport
- Automotive
- Marine
- Industrial
- Railway

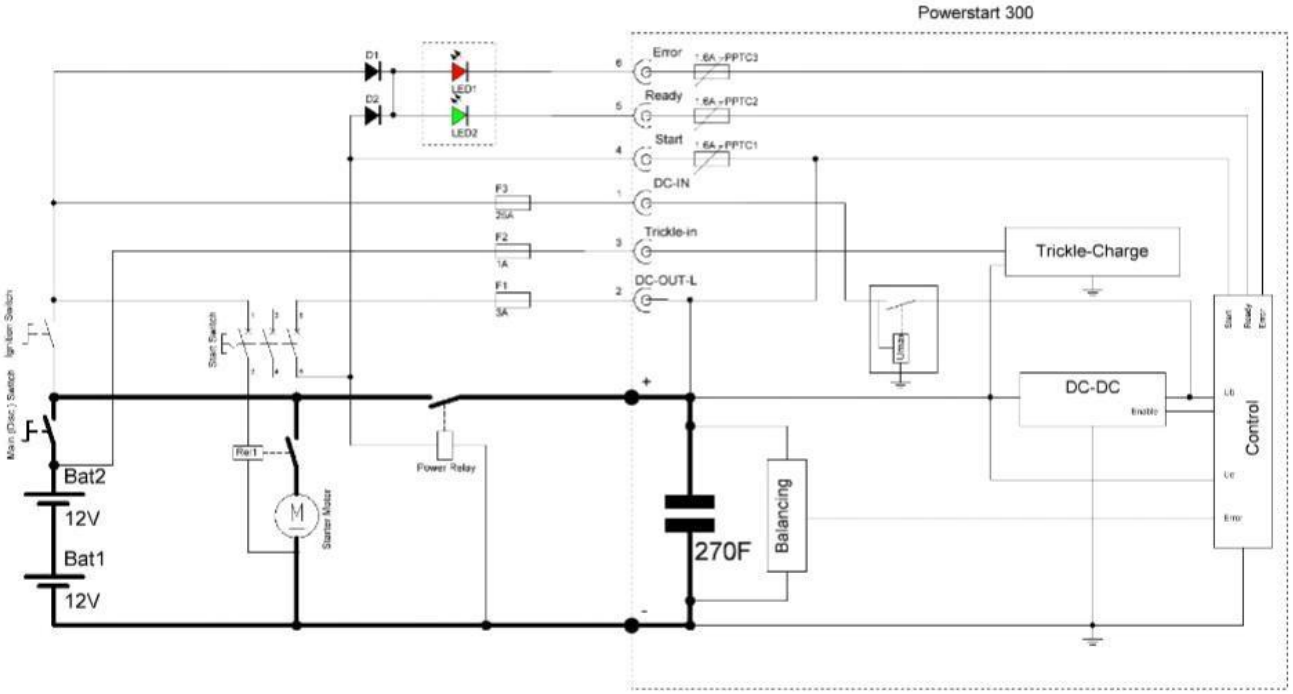
Mechanical Data

Length x Width x Height
459 x 259 x 182 mm
11 kg

aephybridpower.com
sales@aephybridpower.com
+31 (0)78 692 2100

Hybrid Power

Overview



This block diagram is showing a typical (parallel) configuration. Configuration may vary per application. A dedicated start configuration is also possible.

Global Specifications

Symbol	Parameter	Min.	Typ.	Max.	Units	Comment
T_A	Ambient air temperature	-40	-	+60[1]	°C	-
P	Peak power	-	-	50	kW	-
CCA	Max. cold crank amp.	-	-	2000	A_{rms}	Power+ t < 1
U_{nom}	Rated voltage	-	27.5	-	V DC	Power+ / DC-OUT-L
U_{TR}	Transient peak voltage	-	-	150	V DC	Exponentially decreasing to 28V within 4 s
C	Capacity	-	270	-	F	(=100kJ @ 27.5V DC)
I_L	Leakage current	-	5.5	-	mA	-
	Cycle life	1.000.000	-	-	Cycles	-
	Lifetime	-	10	15	Years	-
I_{CAP}	Charge current	0.15	20[2]	25	A_{rms}	DC-IN
I_{tr}	Trickle charge current	1	-	50	mA	Trickle-IN

[1] up to 50°C three recharges 18V to 27V possible. If T ≥ 60°C charge locked. A temperature over 65°C is critical!

[2] Reducing by temperature over 45°C permitted. Short transients t < 2 s are allowed.

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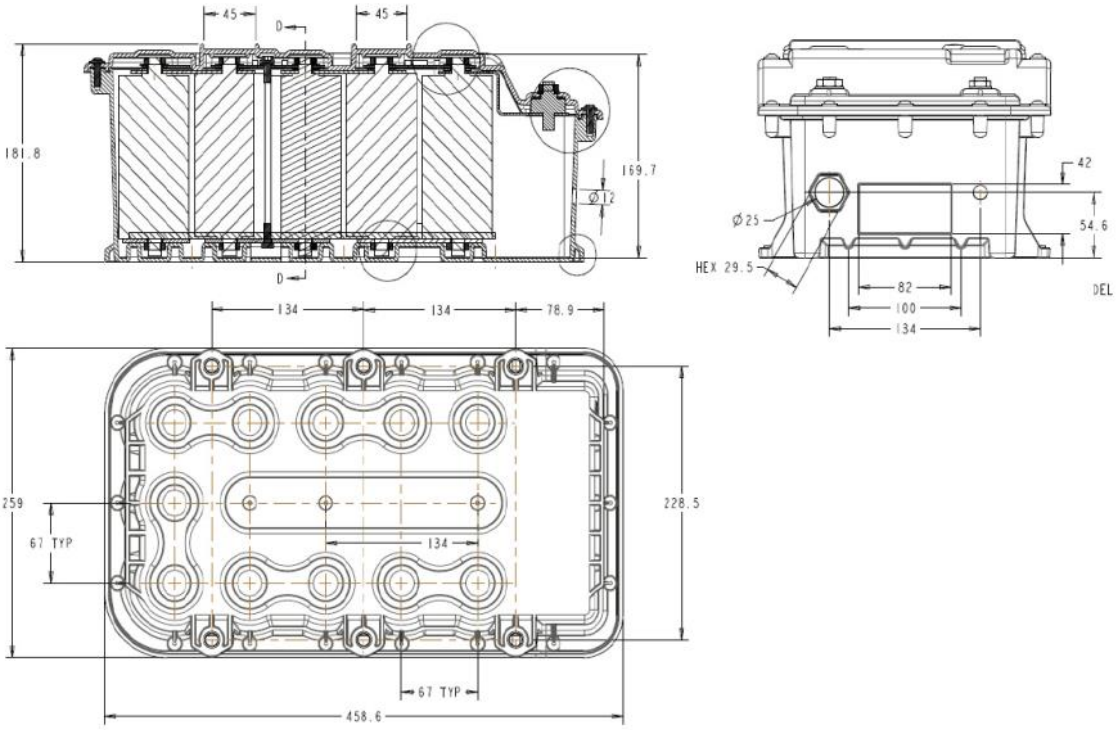
Mechanical Data

Length x Width x Height:	459 x 259 x 182 mm or 18 x 10 x 7 inch
Weight:	Approx. 11 kg or 24 lbs
Enclosure:	IP65



Certifying Tests

Description / Conditions	
J1455 AUG2012	Shock and Vibration according to recommended environmental practices for Electronic Equipment Design in Heavy-Duty Vehicle Applications
72/245/EEC	Radio interference (electromagnetic compatibility) of vehicles