



Hybrid Power

Worldwide
power and
energy solutions

Crank your diesel engines with our Powerstarts

PS400 paralleled with PS100. Up to 3 Powerstarts



1 Introduction

For some applications with huge diesel engines and/or installed in a very cold climate, one Powerstart is just not enough. Therefore AEP has made the possibility to connect up to 3 Powerstart modules in parallel to increase to power and capacity. Only one full equipped Powerstart 400 is needed, the other(s) are a Powerstart 100. This Powerstart 100 has no internal main- and trickle charge. The chargers inside the Powerstart 400 will take care of the charging and control of these other module(s). The Powerstart 400 can be seen as the master in this master-slave configuration.

In this way AEP achieved a price reduction for applications which need more than one module.

2 Global Specifications

Below table shows the specifications of 2 and 3 modules connected in parallel.

Parameter		PS400	2 PS	3PS	Units	Comment
Peak Power	P	50	100	150	kW	
Max. Cold Crank Amp.	CCA	2000	4000	6000	A _{rms}	Power+ t < 1
Rated voltage	U _{nom}	27.5	27.5	27.5	V _{DC}	Power+ / DC-OUT-L
Transient peak voltage	U _{TR}	150	150	150	V _{DC}	Exponentially decreasing to 28 V within 4 s
Capacity	C	270	540	810	F	(=100kJ @ 27.5 VDC)
Energy	E	100	200	300	kJ	
Leakage current	I _L	5.5	11	16.5	mA	
Cycle life		1.000.000	1.000.000	1.000.000	Cycles	
Lifetime		10+	10+	10+	Years	
Time delay for external relay	t	-	15	-	s	Power+ / DC-OUT-L/ Start
Charge current	I _{CAP}	0.15	20	25	A _{RMS}	DC-IN
Trickle charge current	I _{tr}	1	-	50	mA	Trickle-IN
¹ Up to 50°C three recharges 18 V to 27 V possible. If T ≥ 60°C charge locked. A temperature over 65°C is critical!						