

# Parallel Phase Balancer (PPB)

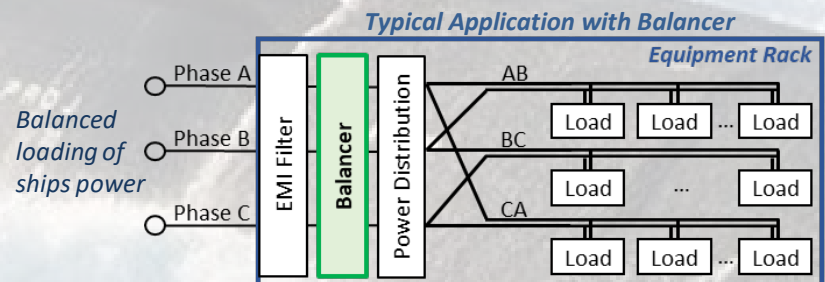
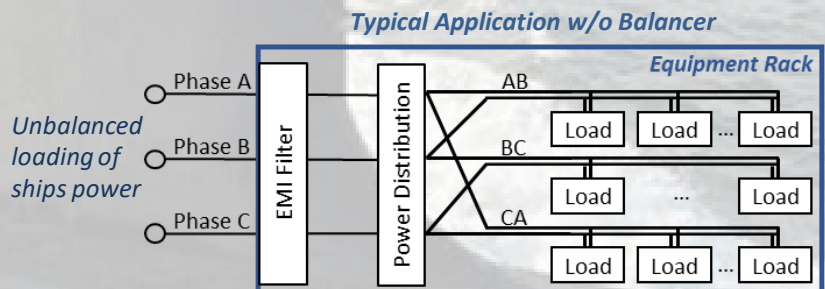
## Solution for 3 phase power distribution problems caused by unbalanced loads

### Purpose and Use:

- Typically used in applications that power multiple single phase loads from 3 phase delta power
- Automatically and dynamically compensates for unbalanced power draw by the loads
- Keeps loading on the 3 Phase Line balanced within 3% per MIL-STD-1399
- Ideal for use in Surface/Subsurface Navy applications and other “off grid” 3 phase power systems
- Optional capability to also Bridge 70 msec power line transients per MIL-STD-1399

### Features:

- Designed for optimum Size, Weight, Power, and Cost - SWAPC
- Power efficiency is extremely high - 98% Balancer, 95% with Bridge option
  - High efficiency yields little/no impact to system cooling, minimizes stress on upstream power distribution system
  - Highly fault tolerant – includes a “hard wired, straight thru” current path which will continue to deliver power to the loads even if the Balancer’s active electronics should fail
- Compact and light weight
  - 8 kW Balancer: 1U x 20”, 20 lbs., power dissipation < 160 watts
  - 4 kW Balancer w/Bridge Option: 1.5U x 20”, 30 lbs., power dissipation < 200 watts
- Standard packages are 19” rack mount with blind mate rear connectors for ease of maintenance
- Options for tailored packaging – ex. combining with other power system items in the same package
- Built in fault detection and fail safe functions with front panel indicators
- Proven switching power supply technology provides high reliability
- Scalable to 40+ kW power capacity
- Option for “smart” monitoring functions over Ethernet
- 3 Phase AC In – 3 Phase AC Out architecture provides simple, straightforward integration with existing designs
  - Simply insert the Balancer in series with the power line
  - No impact to design of other power distribution modules



For more information go to:  
[www.pda-engineering.com](http://www.pda-engineering.com)  
 or call us at 952-895-5153