Powertronix SYSTEMS

PRIDE just be a part of it

Float & Boost Charger

FLOAT & BOOST CHARGER PTX FCBC SERIES
TECHNICAL SPECIFICATION

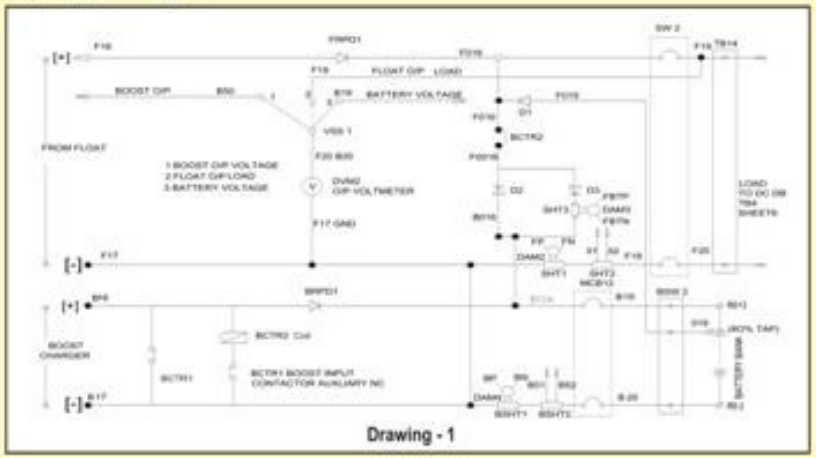
Voltage Output	V=24/48/110/220VDC	Construction	Folded construction with 2mm CRCA sheet
Current Output	I=5/10/15/20/25A	Finish	Powder coated
Input	Isolation Transformer Single phase 230V +/-10%	Soft Start for Mains	Soft start (To limit inrush current)
Input Voltage	Three phase 415V +/- 10%	Protections	Input under voltage Input over voltage Input over current Output over current Output over voltage Over temp trip (optional) Input phase failure / Sequence reversal Battery Temp compensation (optional)
Efficiency @ 100% load	>85%		
Control Technology	High frequency PWM switching		
Frequency (Hz)	50Hz +/- 3%		
Output float voltage	2.3V per cell (14V per bat)	Indication	Mains on Charger on Over load Input u/v o/v DC o/v DC u/v
Output Boost voltage	2.83v per cell (17v per bat)		
Output voltage Regulation	+/-2%		
Ripple	< 5%		
Ambient temperature (Deg. C)	(0 to 40)	Cooling	Forced air cooling
		Degree of Protection	IP - 42

SYSTEM DESCRIPTION
FLOAT AND BOOST CHARGER

With reference to Drawing - 1

1. Normally float rectifier feeds load directly and trickle charges the battery through BCTR2 contactor, Since this BCTR2 contactor is energized from DC battery bank (Boost input BCTR1 remains OFF).
2. During power failure battery feeds load through the same path (BCTR2 ON).
3. Normally boost rectifier remains OFF. If Battery is deep discharged contactor BCTR1 (Boost input contactor will turn ON) turns ON & contactor BCTR2 will be OFF (Because coil is interlocked with boost input BCTR1 contactor NC).Thus avoid high DC voltage appearing to sensitive load.
4. Now float rectifier feeds load & Boost rectifier charges the battery.
5. If Power fails, battery feeds the load through D1 till BCTR2 gets ON but totally no break supply is maintained at the load through tap diode D1 connected at 80% cell of the battery bank.
6. If battery voltage increases with DC overvoltage, Preset level boost charger input contactor BCTR1 turns OFF (through overvoltage relay activates) the system goes back to normal mode of operation i.e. float rectifier feeds the load & trickle charges the battery while boost remains OFF.
7. In the event of failure of float rectifier, boost rectifier can be converted as spare float rectifier.

NOTE: Boost charger input contactor BCTR1 will switch ON only when Battery is deep discharged & switches OFF when Battery is fully charged(overcharge).



Drawing - 1

CLT No. : FCBC001