BATTERY CHARGER [140W]

VBC1205, VBC1210
VBC2405, VBC3002

Digital Mehrandish

FEATURES

VBC 140W series battery chargers are designed to charge lead-acid engine starter and AGM batteries with voltage of 12V, 24V or 30V. The device is equipied with protection features to save the device and to extend the battery life.

- VBC series is suitable for 12/24/30V storage battery with drawn current of 2A/5A/10A.
- Switch mode power supply technology is used with wide range of input voltage.
- High efficiency
- Compact mechanical design with light weight
- Alarm for input fail and blown fuse
- Reverse polartity protection
- Noise input filter
- Fail/Work OK led indicator

INPUT

PARAMETER	VBC1205	VBC1210	VBC2405	VBC3002
AC Input Voltage	220Vac ± %20	220Vac ± %20	220Vac ± %20	220Vac ± %20
DC Input Voltage	200-400Vdc	200-400Vdc	200-400Vdc	200-400Vdc
AC Input Frequency	50 - 400Hz	50 - 400Hz	50 - 400Hz	50 - 400Hz
Efficiency	>%85	>%82	>%85	>%85

OUTPUT

PARAMETER	VBC1205	VBC1210	VBC2405	VBC3002
DC Output Voltage	13.80V	13.80V	27.60V	34.5V
DC Output Charge Current	5A	10A	5A	2.2A
Output Power	70W	140W	140W	70W
Output Voltage Ripple	±%1	±%1	±%1	±%1
Voltage Regulation	±%1	±%1	±%1	±%1
Load Regulation	±%1	±%1	±%1	±%1
Start-up Time		100ms	100ms	100ms

OPERATION CONDITIONS

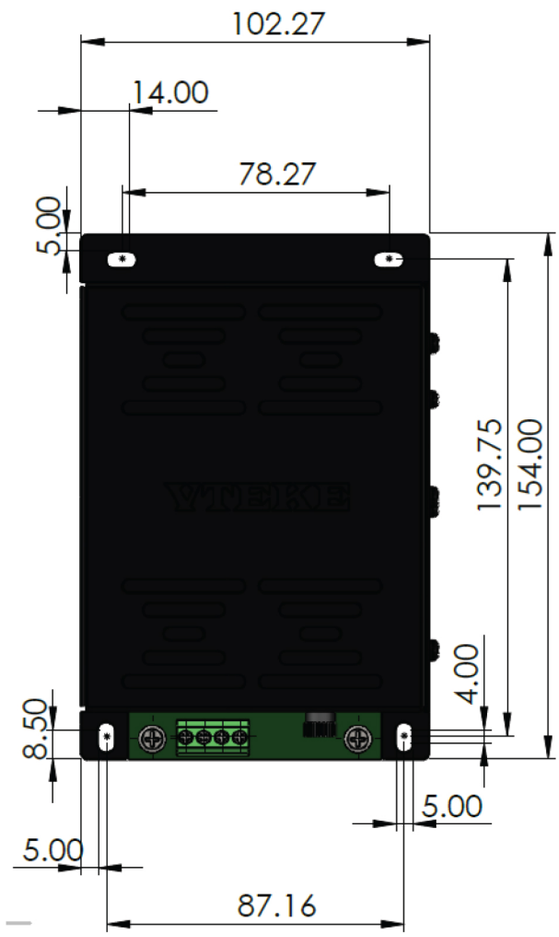
PARAMETER	VALUE
Working Temperature	-20C / +50C
Working Humidity	20-70%
Stock Temperature	-20C / +70C

MECHANICAL SPECIFICATIONS

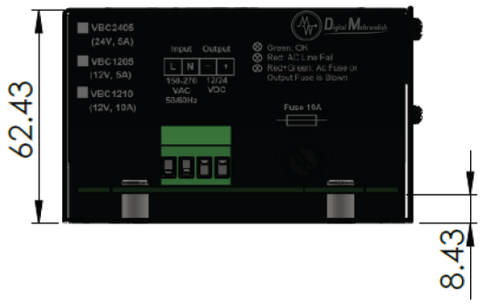
PARAMETER	VALUE				
Weight	700gr				
Diemensions (L x W x H)	153 X 98 X 62				
Mounting	Screw Type Plate Mount	VBC1205	VBC1210	VBC2405	VBC3002
	DIN RAIL	VBC1205D	VBC1210D	VBC2405D	VBC3002D

DIMENSIONS

Top View



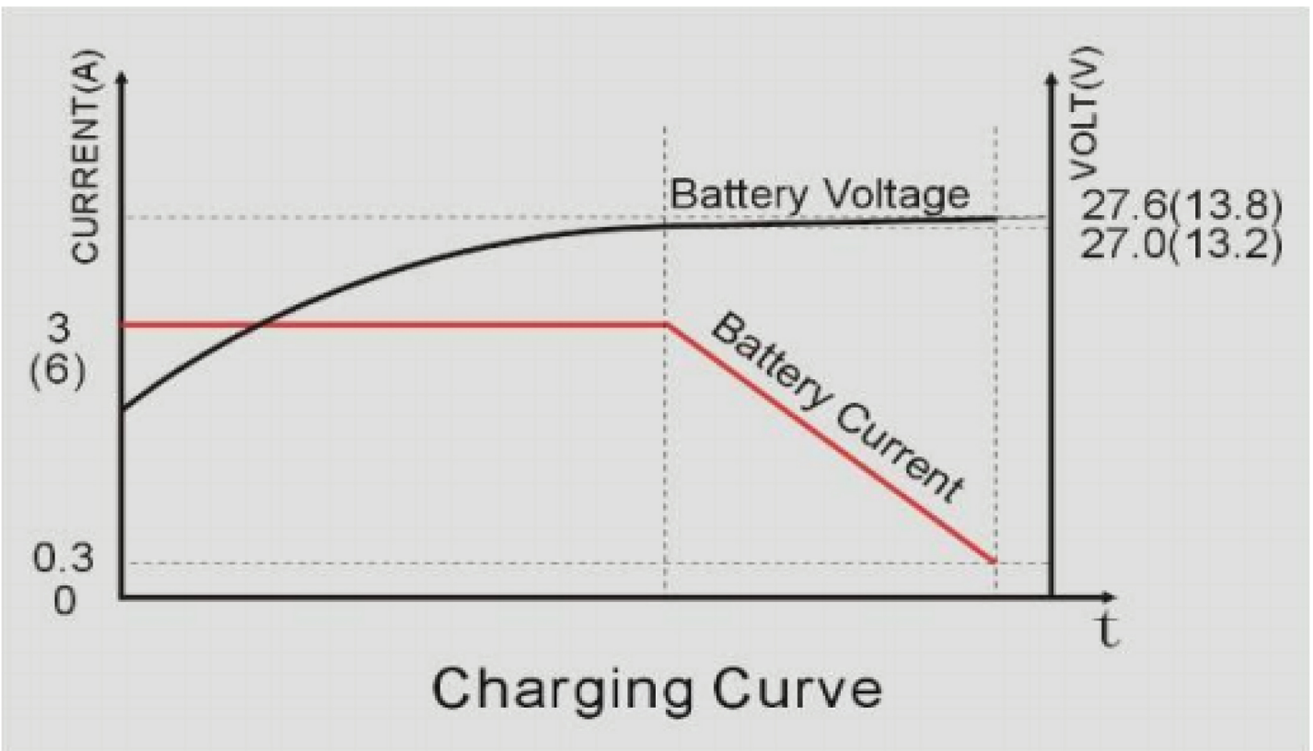
Front View



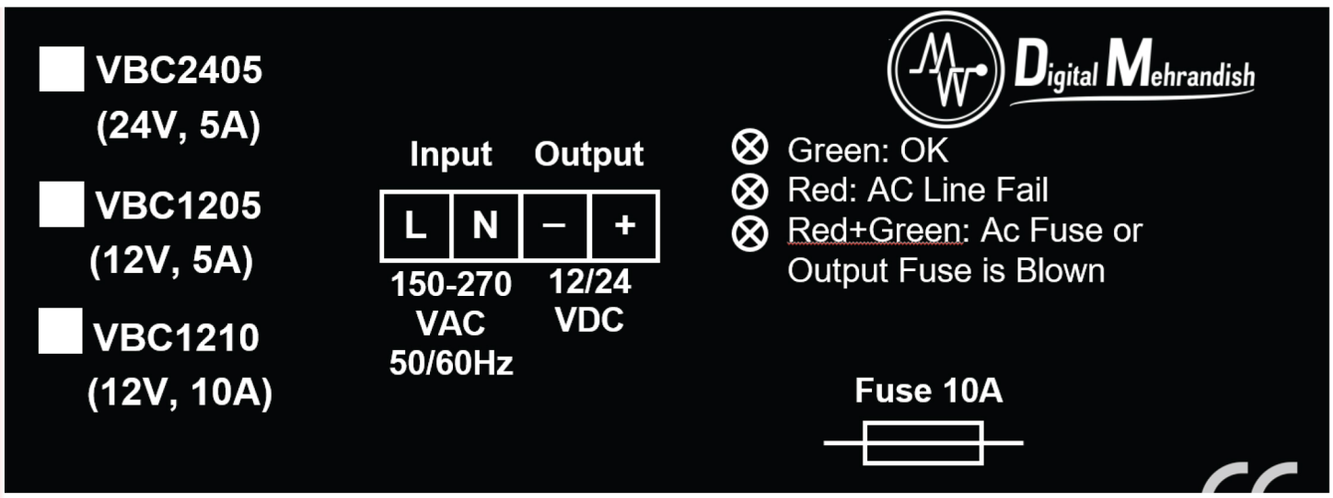
Side View

VBC is using 3-Stage charger method. In this method, battery is charged with current limit (2A, 5A or 10A), when battary current decreases, VBC output voltage becomes constant. At the end of the charge, VBC outputs gets stable with float charge voltage and ensures that batteries are always full.

- **Constant Current Mode:** Protect Battery Cells.
- **Constant Voltage Mode:** Reduce the Charging Current.
- **Float Charge Mode:** Compensation of Internal Self Discharge.



Charging Curve



OPERATION

1. Connect input terminals L & N to power source of 220VAC ±%20 or 200-400VDC, using 1mm2 wire.
2. Connect the output terminals «-» & «+» to battery terminals «-» & «+» relatively.
3. Power on the circuit, the green light should illuminate if it is charging without any fault.
4. Output fuse is rated at 10A. the fuse blows if wrong connection is made.
5. To change the fuse, press the pin inwards and turn it anticlockwise. When it doesn't turn any more, pull it out. After replacing the fuse, reverse the previous process.

OPERATION

PARAMETER	DESCRIPTION
Input Protection	With 3A Fuse
Output Short Circuit Protection	With Electronic Protection Can Work Continuously In Short Circuit Condition
Battery Reverse Connection Protection	Yes. Device Can Work Again By Changing the Output Fuse
Warning by LEDs	Yes. Green: Device Normally Running Red: Problem in Device Connections
AC/DC Conversation Method	SMPS. High Frequency Conversation
Working Frequency	67kHz