

Model No.	DX1215	DX1230	DDX1230	DX1224 - 20
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Electrical

Input nominal voltage (VDC)	12		
Alternator input voltage range (smart type) (VDC)	12-16		
Alternator input voltage range (conventional type)	13.2-16VDC		
Automatic activation - D+	yes		
MPPT	N / A	yes	N / A
PV input voltage range	N / A	12-25VDC	N / A
Output nominal voltage (VDC)	12		24
Charge current	15A	30A	20A
Efficiency	max 97%		
Temperature compensation	yes		
Voltage compensation	yes		
Charge algorithm	TBB premium II multi stage		
Protection	Battery charger over temperature / Battery over temperature / Over load / Short circuit		
Operation temperature	-20°C ~ +60°C		

Enclosure

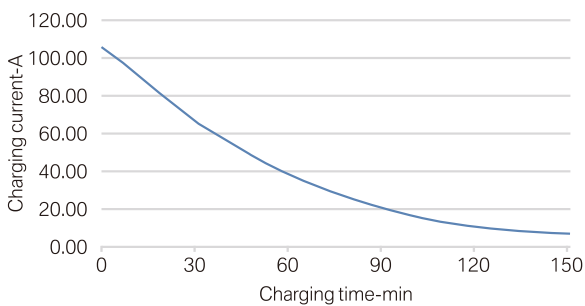
Material	aluminum with anodized, flame proof plastic
Battery connection	M8
Protection category	IP65
Weight	0.8kgs
Dimension	186.3 x 102.3 x 60mm

Standard

Safety	EN60335 - 1, EN60335 - 2 - 29
Emission	EN55014 - 1, EN55014 - 2, EN61000 - 3 - 2, EN61000 - 3 - 3

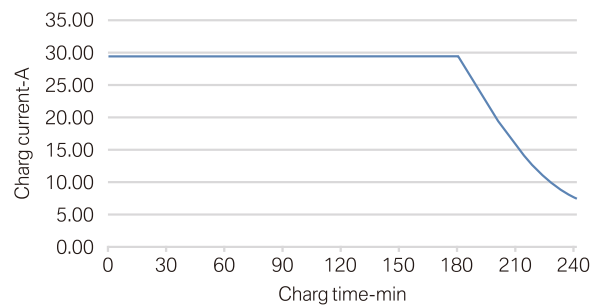
Charging test using VCR / VSR

- With alternator output voltage at 13.8V
- Battery voltage 10.8V
- Ambient temperature 22.0°C



Charging test using NEMO

- With alternator output voltage at 13.8V
- Battery voltage 10.8V
- Ambient temperature 22.0°C



60% more energy being charged