



POWERFlex 350

Automatic Battery Charger

DS-380/3

POWERFlex 350 Battery chargers and power supply units provide a flexible and cost effective solution to most industrial battery charging and DC power requirements. Utilising the latest switch-mode technology the POWERFlex 350 is available in either single or fully isolated dual output types with DC output voltages in the range of 11-15V or 21.5-30V. The constant current limit characteristic ensures correct battery charging and load supply without the risk of lockout.

POWERFlex 350 is available in desktop or surface mounting forms with optional drip canopy. Epoxy powder coated mild steel or stainless steel versions are also available.

POWERFlex 350 is designed for permanent connection to the batteries maintaining them in a fully charged condition without overcharging.



Input Specification

Voltage Range, V_{IN}	85 - 264V AC / 120 - 370V DC
Frequency	47 - 63Hz
Input Current	175W Types 2.2A@115V 1.1A@230V 350W Types 4.4A@115V 2.2A@230V
Inrush Current (Cold Start)	175W Types 40A / 230V 350W Types 80A / 230V
Power Factor	≥ 0.96 at 230V I/P ≥ 0.98 at 115V I/P
Leakage Current	$< 3.5\text{mA}$ / 240V AC

Output Specification

Watts (Peak DC)	175W / 350W Single or 175W+175W Dual
Ripple & Noise	100mV (150mV Outputs 24V and above)
Line Regulation	$\pm 0.5\%$
Load Regulation	$\pm 0.5\%$ ($\pm 1\%$ Outputs 15V and below)
Efficiency	79% - 83%
Overload Protection	105 - 150% Constant Current Limit (Auto Recovery)
Over Voltage Protection	110% - 135% Shutdown To Reset: Power Off / Power On
Reversed Battery	Internal diode. An external high speed semiconductor protection fuse must be fitted.
Temperature Coefficient	$\pm 0.05\%$ / °C (0 - 50°C)
Setup, Rise, Hold Up	600ms, 30ms, 20ms

Isolation

Withstand Voltage	Input – Output 1.5kV AC Input – Earth 1.5kV AC Output – Earth 500V DC
Isolation Resistance	500V DC / 100M Ohms (Output-Earth)

FEATURES

- LOW COST
- HIGH RELIABILITY
- HIGH FLEXIBILITY
- COMPACT SIZE & LIGHT WEIGHT
- SOFT-START CIRCUIT, LIMITING AC SURGE CURRENT
- SHORT CIRCUIT PROTECTED
- OVERLOAD PROTECTED
- OVER VOLTAGE PROTECTED
- REVERSE BATTERY PROTECTED (With external fuse)
- WORLDWIDE AC INPUT RANGE
- LOW RIPPLE OUTPUT
- HIGH EFFICIENCY
- POWER FACTOR CORRECTED TO EN61000-3-2
- STAINLESS STEEL OR EPOXY POWDER COATED CASE
- AVAILABLE IN DESKTOP OR SURFACE MOUNT FORMS
- OPTIONAL DRIP CANOPY
- SINGLE OR FULLY ISOLATED DUAL OUTPUTS AVAILABLE

APPLICATIONS

- STANDBY GENERATORS
- MARINE
- AUTOMATION SYSTEMS
- INDUSTRIAL CONTROL SYSTEMS
- ELECTRIC VEHICLES

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INDUSTRIAL POWER SOLUTIONS

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Environmental Specification

Working Temperature	-10°C to +60°C
Working Humidity	20% - 90% RH
Storage Temperature	-20°C - +85°C
Storage Humidity	10% - 95% RH
Noise Level	34 dB(A)
Unpacked Weight	1.6-2.8 Kgs. Depending on model

Finish

Mild steel case types finished dark cobalt blue full gloss to RAL5013.

Stainless steel case types - Self Colour.

Termination

Rising clamp screw terminals for all AC input & DC output power connections. Terminals will accept a maximum 4.0mm² stranded cable. An optional terminal cover is available if required. For other terminal configurations, please contact us.

Boost

A boost switch can be included for cell equalization as an optional extra.

Ordering Information

The POWERFlex 350 is available as a single output 175 or 350 watt unit or dual output 175+175W unit. Dual output models have totally isolated independent outputs. All units are pre-configured at the factory and are supplied with the output voltage(s) set to the customers specific requirement. The part numbering system follows:

JE/PX O/P 1 - O/P 2 - O/P W - MOUNT - FAN - CASE - TROPICALISED - BOOST

DC O/P Voltage No.1
3 Digit Number
i.e. 272 = 27.2V

DC O/P Watts
'175' or '350'

Fan Type
'AO' = Always On
'TC' = Temp. Controlled

'T' = Conformal Coated
Circuit Boards
Leave Blank If Not Required

DC O/P Voltage No.2
3 Digit Number
i.e. 136 = 13.6V

Only Used When 2 Outputs Required.

Mounting Type
'DT' = Desktop
'SF' = Surface
'SD' = Surface+Drip Canopy

Case Material
'E' = Epoxy Powder
Coated Mild Steel
'S' = Stainless Steel

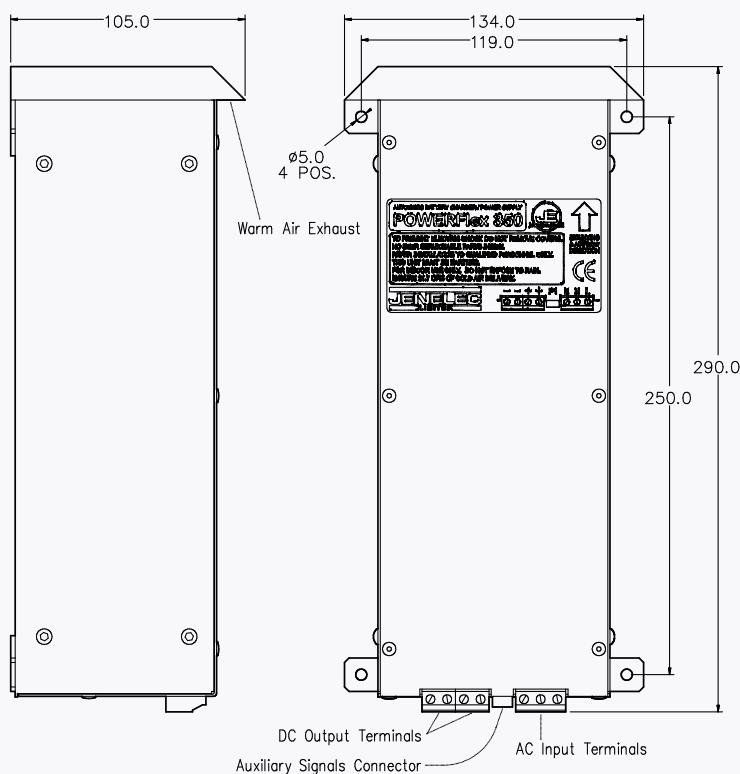
Boost Voltage(s)
3 Digit Number(s)
i.e. 290 = 29.0V
Leave Blank if Not Required

Note: Standard output voltages are 13.3-15.0 or 26.5-29.0 volts. For other output voltages and customised products please contact us.

Example: A dual output unit with 27.2 and 13.6V outputs in surface mounting form with drip canopy, temperature controlled fan, epoxy powder coated mild steel case and conformal coated circuit boards would have the following part number:
JE/PX272-136-350-SD-TC-E-T.

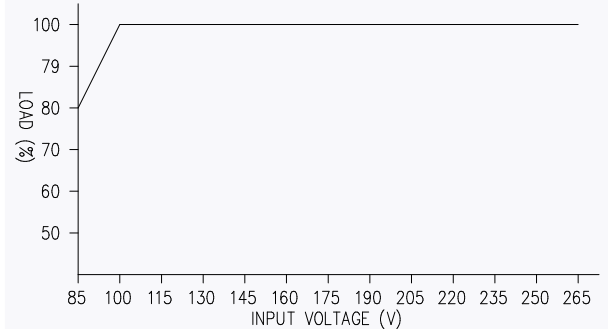
Typical General Arrangement

Surface Mounting + Drip Canopy Type Shown



Derating Graphs

OUTPUT DERATING Vs INPUT VOLTAGE



OUTPUT DERATING Vs AMBIENT TEMP.

