

POWER PERFECT BOX – SUPER DUTY

SINGLE-PHASE 230-V ELECTRICITY CONDITIONER



2x ES1PP Series Accreditations



Description /Code

Made in Montana • Made in USA • UL - E337361 - Open Energy Management Equipment 3ZJ9 • FCC - Approved (UL Tested for Compliance) • CE - Low Voltage Directive 2006/95/EC • CE - Electromagnetic Compatibility (EMC) 2004/108/EC • RoHS - Lead Free - Restriction of Hazardous Substances

Power Perfect Box {ES1PP + ES1PP} Highlights

- 230-volt single-phase electricity conditioner
- low power losses, < 0.5 watts per 1000 VAR
- general enclosure: NEMA 4x indoor/outdoor
- electrical harmonics elimination (THD reduction)
- three-way electrical protection
- self-healing metalized harmonic rectifiers
- robust tri-circuit Integrated surge protection
- EMI/RFI noise reduction 0-50 dB
- wire rating: 600 volts, THHN/ MTW/ THWN-2
- box size 360 mm x 180 mm x 100 mm
- EMF/EMR Reduction
- voltage moderation
- power factor compensation
- surge suppression

Power Perfect Box {ES1PP + ES1PP} Characteristics

max AC voltage (Charge Potential)	300 volts
Single-phase voltages available	240 volts (300-volt L1 to L2 max)
input power frequency	50/60 Hz
wire rating	600 volts, MTW/ THHN/ THWN-2
current requirements @ 230 volts (Terminated to a single-pole 15-A breaker)	15 amps L-N
operating temperature	-55°C to +90°C
operating humidity	5% to 95%, non-condensing
operating altitude	up to 5000 m
seismic withstand capability (meets or exceeds specifications)	IBC 2021 & UBC Zone 4

Harmonic Rectifier {ES1PP + ES1PP} Circuit Qualities

total unit reactive capacitance @ 300 V (L-N)	120 μF
per-circuit reactive capacitance @ 300 V	20 μF
reactive bank composition	36 power-factor correction modules

Harmonic Dissipations - PFC Module Specifications

tangent of loss angle: C > 1 μF at 1 kHz	≤ 30 × 10 ⁻⁴
rated voltage pulse slope (dV/dt)	150 V/ μs
RC between leads	> 5000 s
withstanding (DC) voltage	1850 V
EMI/RMI filtering attenuation (cut-off current 10 mA)	up to 50 dB from 10 kHz to 100 MHz

Surge Suppression

voltage	(continuous AC)	250 volts _{RMS}
	(continuous AC)	424 volts _{DC}
current	(max clamping)	650 volts _{RMS}
	(peak surge)	6.5 kamps
	(surge energy)	1300 joules/μs
protection modes		

POWERED BY SATIC TECHNOLOGY

