

SATIC POWERPERFECT™ ES230UK

SINGLE-PHASE 230-V ELECTRICITY CONDITIONER

SATIC PowerPerfect™ ES230UK {ES1PN} description / code

Made in Montana • Made in USA • UL - E337361 - Open Energy Management Equipment 3ZJ9

FCC - Approved (UL Tested for Compliance) • RoHS – lead-free

CE - Low Voltage Directive 2006/95/EC • CE - Electromagnetic Compatibility (EMC) 2004/108/EC

SATIC PowerPerfect™ ES230UK {ES1PN} highlights

- 230-volt single-phase electricity conditioner
- general enclosure: indoor
- electrical harmonics elimination (THD reduction)
- dual mode electrical protection
- self-healing metalized harmonic rectifiers
- robust Integrated surge protection
- EMI/RFI noise reduction 0-50 dB
- low power losses, < 0.5 watts per 1000 VAR
- box size 127 mm × 116 mm × 86 mm
- EMF/EMR reduction
- voltage stabilisation
- power factor correction

SATIC PowerPerfect™ ES230UK {ES1PN} characteristics

max AC voltage (charge potential)	300 volts
input power frequency	50 Hz
wire rating	BS1363/A
plugs into 13-A branch circuit outlet	L-N
operating temperature	-55 °C to +90 °C
operating humidity	5% to 95%, non-condensing
operating altitude	up to 5000 m
seismic capability (meets or exceeds specifications)	IBC 2021 & UBC Zone 4

SATIC PowerPerfect™ ES230UK harmonic rectifier circuit qualities

total unit reactive capacitance @ 300 V (L-N)	60 µF
reactive bank composition	18 power-factor correction modules
reactive power	0.997 kVAR @230V _{RMS} , 50 Hz

SATIC PowerPerfect™ ES230UK 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	up to 50 dB from 10 kHz to 100 MHz
cut-in current	10 mA

SATIC PowerPerfect™ ES230UK surge suppression

continuous AC RMS voltage	250 volts _{RMS}
continuous AC voltage amplitude	429 volts
max clamping RMS voltage	650 volts _{RMS}
surge energy protection	3,900 joules × 1,000 µs



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E337361

