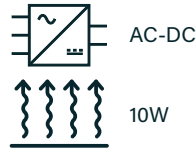
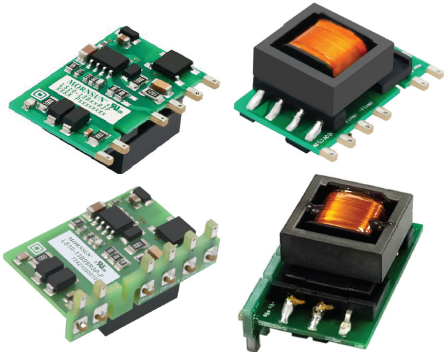


LS10-13BxxR3P SERIES



DIMENSIONS:



STANDARD VERSION:
1.135 x 0.677 x 0.553" (28.84 x 17.20 x 14.05mm)
F VERSION:
1.220 x 0.787 x 0.581" (31.0 x 20.0 x 14.75mm)



85-305VAC

-40°C to 85°C
OPERATION

NO-LOAD 0.1W

Part numbers

LS10	-13B	12	R3P	-F
Series	Input voltage	Output voltage	Version	Orientation
	85-305VAC	03 = 3.3VDC 05 = 5VDC 09 = 9VDC 12 = 12VDC 15 = 15VDC 24 = 24VDC		Blank = vertical -F= horizontal

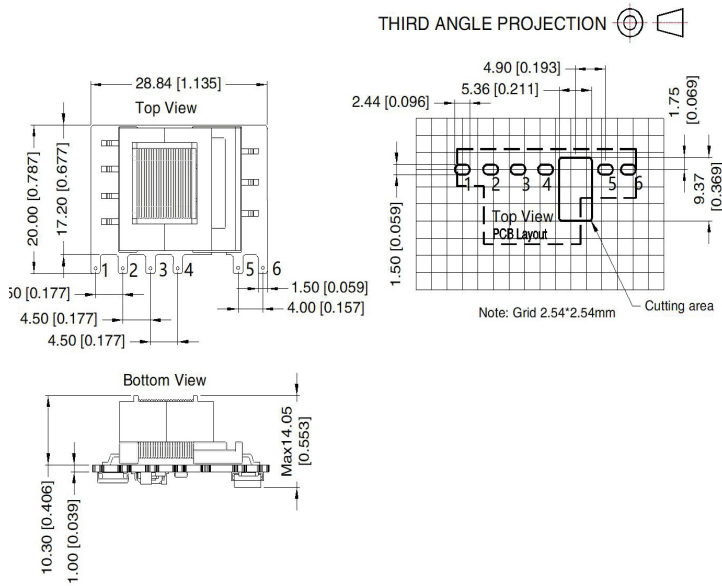
Key specifications

Input range	Safety certification	Efficiency	Environmental performance
85-305VAC	UL/IEC/EN 62368-1 Designed to meet EN 60335-1	70-84%	Operational: -40 to 85°C

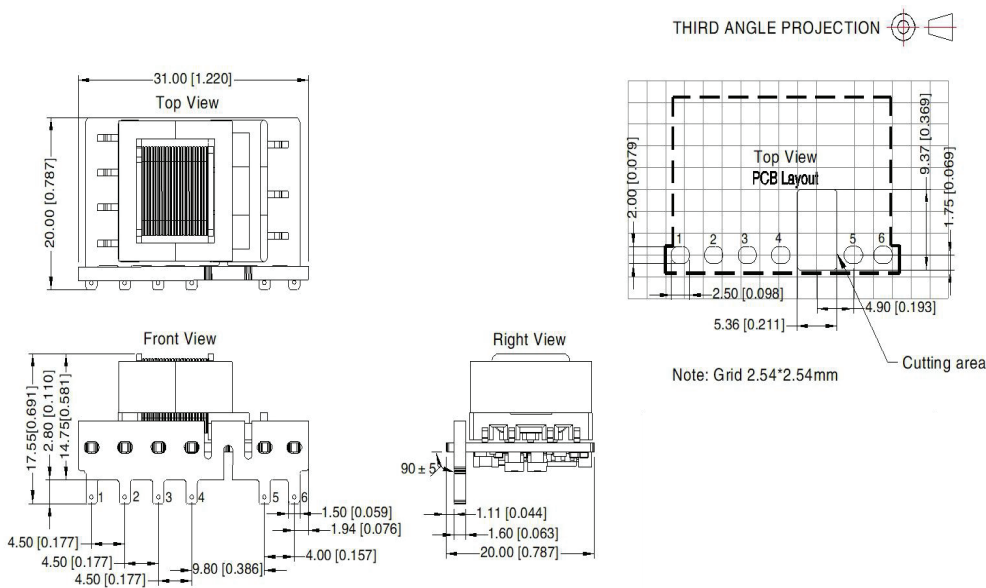
LS10-13BxxR3P SERIES

Mechanical

LS10-13BxxR3P



LS10-13BxxR3P-F



Pin	Function
1	AC Line
2	AC Neutral
3	+V Cap
4	-V Cap
5	-V Out
6	+V Out

Notes

1. All dimensions shown in mm [Inch]
2. General tolerances ± 1.00 [± 0.039]
2. Pin tolerances ± 0.10 [± 0.004]

Weight

Standard	F version
8.2g	9.0g

LS10-13BxxR3P SERIES

Models & Ratings

Model Number (1)	Output voltage (2)	Output power	Output current	Efficiency	Max Capacitive Load
LS10-13B03R3P	3.3V	6.6W	2000mA	70%	1500uF
LS10-13B05R3P	5V	10W	2000mA	77%	1500uF
LS10-13B09R3P	9V	10W	1100mA	80%	1000uF
LS10-13B12R3P	12V	10W	830mA	83%	680uF
LS10-13B15R3P	15V	10W	670mA	83%	470uF
LS10-13B24R3P	24V	10W	420mA	84%	330uF

1. Add suffix "-F" for horizontal package (vs. standard vertical mounting)
 2. Voltage after adding external recommended circuit

3. If used in application where vibration is present secure with RTV
 4. Unless stated, figures are at 25°C <75RH at nom 230VAC input and full nom load.

Input

Parameter	Min	Typical	Max	Unit	Notes/Conditions
Input voltage	85		305	VAC	90-430VDC also accepted. See page 5 for derating curve
Input frequency	47		63	Hz	
Input current (rms)	0.15		0.30	A	0.15A at 230VAC 0.30 at 115VAC
Inrush current	15		30	A	30A at 230VAC 15A at 115VAC

Output

Parameter	Min	Typical	Max	Unit	Notes/Conditions
Output voltage	3.3		24	VDC	See Models & Ratings table
Set point accuracy		±2.5	±5	%	Between 10% and 100% load
Line regulation		±0.75	±1.5	%	At full load
Load regulation		±1.5	±3	%	From 10% and 100% load
Ripple & noise		80	150	mV	All models measured with 0.1uF ceramic and 47uF low ESR electrolytic capacitor. 20 MHz bandwidth.
Minimum load	10			%	
Standby power		0.10	0.15	W	230 VAC

LS10-13BxxR3P SERIES

Protections

Parameter	Min	Typical	Max	Unit	Notes/Conditions
Overload	110			%	Trip and restart. Automatic recovery
Short circuit					Trip and restart. Automatic recovery

Safety

Parameter	Notes/Conditions
Safety standards	IEC/UL62368-1 designed to meet EN/IEC60335-1 EN/IEC61558-1
Isolation: Input to output	5000 VDC, 3600 VAC 1min, leakage current <5mA

EMC: Immunity

	Standard	Test level	Criteria	Notes/Conditions
ESD	EN61000-4-2	3	B	±6kV contact
Radiated	EN61000-4-3	3	A	10V/m 80MHz-2.7GHz sine wave 80% AM 1kHz
EFT	EN61000-4-4	3	B	±4kV ⁽¹⁾
Surges	EN61000-4-5	Installation class 3	B	±2kV ⁽¹⁾
Conducted	EN61000-4-6	3	A	10Vrms
Voltage dips & interruptions	EN61000-4-11		B	

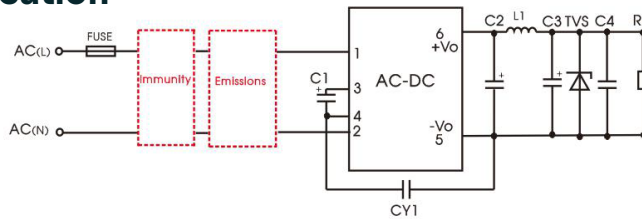
EMC: Emissions

	Standard	Test level	Criteria	Notes/Conditions
Conducted	EN55032	B		NOTE ⁽¹⁾
Radiated	EN55032	B		NOTE ⁽¹⁾

(1) Additional components required depending on application. Please contact your account manager or sales@fiduspower.com

LS10-13BxxR3P SERIES

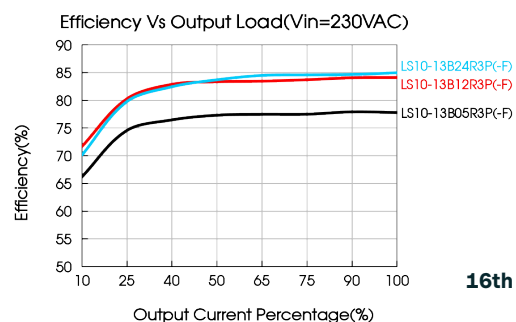
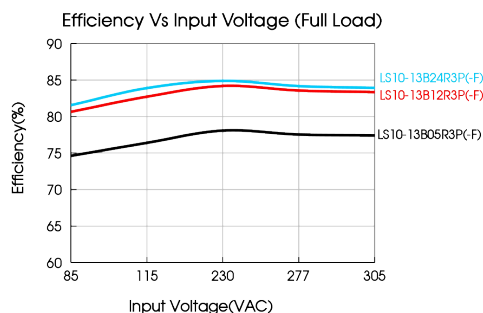
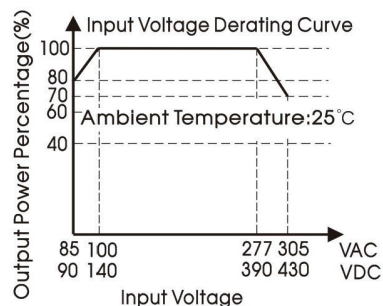
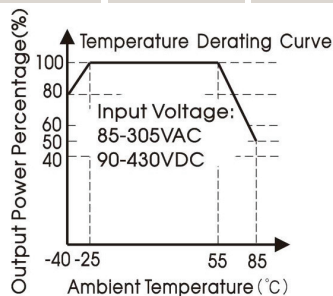
Typical application



Part no	C1	C2	L1	C3	C4	CY1	TVS (optional)
LS10-13B03R3P	22uF/450V	1500uF/6.3V (solid state capacitor)	2.2uH/15mΩ 6.5A	330uF/25V	0.1uF/50V	1nF/400VAC	SMBJ7.0A
LS10-13B05R3P		820uF/16V (solid state capacitor)					
LS10-13B09R3P		470uF/16V (solid state capacitor)		220uF/35V			SMBJ20A
LS10-13B12R3P							
LS10-13B15R3P							
LS10-13B24R3P							

Environmental

Parameter	Min	Typical	Max	Unit	Notes/Conditions
Operating temperature	-40		85	°C	See derating curve
Storage temperature	-40		105	°C	
Cooling					Free air
Temperature coefficient		0.2		%/°C	
Storage Humidity			95	% RH	Non condensing
MTBF	1000			kHrs	As per MIL-HDBK-217F@25°C



16th October 2023