

# LLC integrated resonant transformers sizes table

Max Continuous Power	Layout	Dimensions (mm)								Dielectric Strength
		A max	B max	H max	H1 max	X typ	Y typ	L min	D typ	
110W	Dwg. 24A	26,4	28,9	16,1	--	5,0	22,5	2,5	∅ 0,6	4.0KV
185W	Dwg. 26B	26,3	28,9	20,7	--	5,0	22,5	2,5	∅ 0,7	4.0KV
230W	Dwg. 31A	47,3	56,9	10,6	13,6	6,0	69,6	2,5	∅ 0,8	4.0KV
240W	Dwg. 34A	36,1	36,6	25,6	--	5,5	28,0	3,0	∅ 0,8	4.0KV
300W	Dwg. 37A	43,2	44,5	31,5	--	5,8	36,0	3,0	∅ 0,8	4.0KV
320W	Dwg. 40A	33,6	32,8	33,4	--	5,0	25,0	2,5	∅ 0,8	4.0KV
350W	Dwg. 50A	53,0	62,3	26,3	--	5,0	52,0	3,5	∅ 1,0	4.0KV
700W	Dwg. 52A	53,6	56,7	38,3	--	5,5	44,8	3,5	∅ 1,0	4.0KV

Drawing 24A (Pin layout bottom view)	Drawing 26B (pin layout bottom view)	Drawing 31A (pin layout bottom view)	Drawing 34A (pin layout bottom view)
<p>pin 10 missing for reference center-tap: pins 7 - 8</p>	<p>center-tap: pins 7 - 8</p>	<p>center-tap: pins 9 - 10</p>	<p>pin 1 missing for reference center-tap: pins 9 - 10</p>
Drawing 37A (pin layout bottom view)	Drawing 40A (Pin layout bottom view)	Drawing 50A (Pin layout bottom view)	Drawing 52A (Pin layout bottom view)
<p>pin 1 missing for reference center-tap: pins 10 - 11</p>	<p>center-tap: pins 9 - 10</p>	<p>pin 1 missing for reference center-tap: pins 14 - 15 - 16 - 17</p>	<p>pin 1 missing for reference center-tap: pins 12 - 13</p>

## RESONANT CUSTOMIZATION

In case no resonant tank matches your design requirements, we propose three options:

- Tank customization:** Using a standard transformer, when possible, we can design the tank, adapting it to the Customer's working conditions. At the end of the design we provide an exhaustive report with the theoretical functional data of the tank.
- Full resonant customization:** If tank customization is not possible or if best performances are a must, the resonant transformer is designed from scratch taking into consideration the Customer requirements and design targets. The size of the transformer selected will be one in the above Sizes Table. The design and the samples will be performed in few working days.
- SMPS design consultancy:** In addition to the design of all magnetic components, we can provide our Customers a specific consultancy on the LLC resonant SMPS design.

## COMPARATIVE TEST REPORTS

These comparative tests are examples of how it's possible to increase the efficiency thanks to our optimised integrated transformer.



Fairchild FEB212-003  
based on FSFR2100



NXP® UM10450  
based on TEA1713



ST Microelectronics  
EVL130W-SL-EU  
based on L6599AT



Power Integrations RDR-239  
based on LCS702HG

# Standard series

## Tank table for SMPS with PFC

Converter Ratings						Tank Reference
Output Voltage	Cont. Power	Max Power	Rated Input Voltage Range	Min Input Voltage	Nominal Input Voltage	
18Vdc	125W	990W	370..425Vdc	360Vdc	395Vdc	026.018.990.01
18Vdc	175W	950W	370..410Vdc	340Vdc	395Vdc	034.018.950.01
24Vdc	50W	330W	370..450Vdc	340Vdc	395Vdc	024.024.330.01
24Vdc	100W	200W	370..450Vdc	340Vdc	395Vdc	024.024.200.01
24Vdc	125W	500W	370..440Vdc	360Vdc	395Vdc	026.024.500.01
24Vdc	150W	730W	370..450Vdc	340Vdc	395Vdc	034.024.730.01
24Vdc	165W	290W	370..425Vdc	360Vdc	395Vdc	026.024.290.01
24Vdc	220W	420W	370..450Vdc	340Vdc	395Vdc	034.024.420.01
28,5Vdc	100W	135W	370..450Vdc	340Vdc	395Vdc	024.028.135.02
28,5Vdc	100W	180W	370..450Vdc	340Vdc	395Vdc	024.028.180.01
29Vdc	120W	520W	370..425Vdc	360Vdc	395Vdc	026.029.520.01
29Vdc	130W	280W	370..450Vdc	360Vdc	395Vdc	026.029.280.01
29Vdc	220W	460W	370..450Vdc	340Vdc	395Vdc	034.029.460.01
30Vdc	90W	120W	370..450Vdc	340Vdc	395Vdc	024.030.120.01
30Vdc	100W	145W	415..450Vdc	380Vdc	440Vdc	024.030.145.01
36Vdc	190W	990W	370..450Vdc	340Vdc	395Vdc	034.036.990.01
36Vdc	210W	270W	370..450Vdc	340Vdc	395Vdc	034.036.270.01
42Vdc	165W	420W	370..425Vdc	360Vdc	395Vdc	026.042.420.01
48Vdc	80W	350W	370..450Vdc	340Vdc	395Vdc	024.048.350.01
48Vdc	110W	200W	370..450Vdc	340Vdc	395Vdc	024.048.200.01
48Vdc	130W	820W	370..450Vdc	340Vdc	395Vdc	034.048.820.01
48Vdc	145W	500W	370..440Vdc	360Vdc	395Vdc	026.048.500.01
48Vdc	185W	290W	370..425Vdc	360Vdc	395Vdc	026.048.290.02
48Vdc	190W	240W	370..425Vdc	360Vdc	395Vdc	026.048.240.01
48Vdc	240W	430W	370..450Vdc	340Vdc	395Vdc	034.048.430.01
48Vdc	400W	461W	370..420Vdc	360Vdc	395Vdc	040.048.460.01
56Vdc	115W	185W	370..450Vdc	340Vdc	395Vdc	024.056.185.01
56Vdc	180W	250W	370..450Vdc	360Vdc	395Vdc	026.056.250.01
56Vdc	240W	480W	370..450Vdc	340Vdc	395Vdc	034.056.480.01
58Vdc	100W	140W	370..450Vdc	340Vdc	395Vdc	024.058.140.01
60Vdc	90W	125W	370..450Vdc	340Vdc	395Vdc	024.060.125.01
60Vdc	100W	150W	400..450Vdc	380Vdc	425Vdc	024.060.150.01
60Vdc	220W	470W	370..450Vdc	340Vdc	395Vdc	034.060.470.01
96Vdc	120W	240W	370..420Vdc	340Vdc	395Vdc	024.096.240.01
96Vdc	270W	500W	370..450Vdc	340Vdc	395Vdc	034.096.500.01
110Vdc	240W	330W	370..450Vdc	340Vdc	395Vdc	034.110.330.01
118Vdc	265W	360W	370..450Vdc	340Vdc	395Vdc	034.118.360.01
120Vdc	130W	190W	370..420Vdc	340Vdc	395Vdc	024.120.190.01

## Tank table for SMPS without PFC

Converter Ratings						Tank Reference
Output Voltage	Cont. Power	Max Power	Main AC Voltage Range		Input DC Voltage Range	
			Open Jumper	Closed Jumper		
18Vdc	80W	200W	195-265Vac	97-132Vac	260..373Vdc	024.018.200.01
18Vdc	135W	170W	195-265Vac	97-132Vac	260..373Vdc	026.018.170.01
18Vdc	175W	300W	195-265Vac	97-132Vac	225..373Vdc	034.018.300.01
24Vdc	60W	270W	195-265Vac	97-132Vac	260..373Vdc	024.024.270.01
24Vdc	75W	220W	195-265Vac	97-132Vac	260..373Vdc	024.024.220.01
24Vdc	100W	150W	195-265Vac	97-132Vac	260..373Vdc	024.024.150.02
24Vdc	110W	450W	195-265Vac	97-132Vac	230..373Vdc	034.024.450.01
24Vdc	150W	230W	195-265Vac	97-132Vac	260..373Vdc	026.024.230.01
24Vdc	210W	320W	195-265Vac	97-132Vac	240..373Vdc	034.024.320.01
28,5Vdc	90W	110W	195-265Vac	97-132Vac	260..373Vdc	024.028.110.01
29Vdc	145W	160W	195-265Vac	97-132Vac	260..373Vdc	026.029.160.01
29Vdc	190W	280W	195-265Vac	97-132Vac	250..373Vdc	034.029.280.01
36Vdc	95W	220W	195-265Vac	97-132Vac	260..373Vdc	024.036.220.01
36Vdc	200W	370W	195-265Vac	97-132Vac	225..373Vdc	034.036.370.01
42Vdc	165W	185W	195-265Vac	97-132Vac	260..373Vdc	026.042.185.01
48Vdc	70W	280W	195-265Vac	97-132Vac	260..373Vdc	024.048.280.01
48Vdc	90W	230W	195-265Vac	97-132Vac	260..373Vdc	024.048.230.01
48Vdc	110W	155W	195-265Vac	97-132Vac	260..373Vdc	024.048.155.01
48Vdc	140W	560W	195-265Vac	97-132Vac	245..373Vdc	034.048.560.01
48Vdc	175W	230W	195-265Vac	97-132Vac	260..373Vdc	026.048.230.01
48Vdc	230W	360W	195-265Vac	97-132Vac	245..373Vdc	034.048.360.01
56Vdc	90W	130W	195-306Vac	97-153Vac	260..430Vdc	024.056.130.01
56Vdc	155W	165W	195-265Vac	97-132Vac	260..373Vdc	026.056.160.01
56Vdc	210W	310W	195-265Vac	97-132Vac	240..373Vdc	034.056.310.01
75Vdc	220W	400W	195-265Vac	97-132Vac	235..373Vdc	034.075.400.01
96Vdc	230W	360W	195-265Vac	97-132Vac	230..373Vdc	034.096.360.01
110Vdc	190W	270W	195-265Vac	97-132Vac	235..373Vdc	034.110.270.01

- Transformers designed for best performances on high efficiency LLC series resonant power supply with PFC pre-regulator stage
- Integrated resonant inductor and extremely compact size
- Power supply efficiency up to 96% with simplest hardware solutions, without synchronous rectification
- High creepage/clearance/DTI for reinforced insulation to meet EN61558, EN60950, etc.
- For detailed technical informations please request latest catalogue
- RoHS compliant
- On stock

The data referred to the tanks starting with 040 are preliminary and subject to change; please contact our technical department for more information.