Application Guide

Switch Mode Power Supply

Passive Solutions Changing Voltages to Power Products

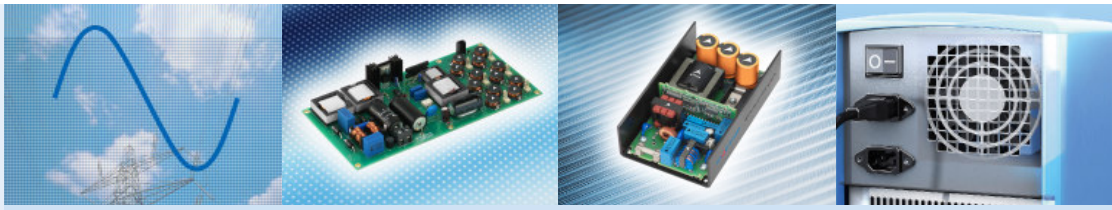
Input
- EMI Capacitors
- Common Mode Chokes
- Varistors (MOV)
- Inrush Current Limiter

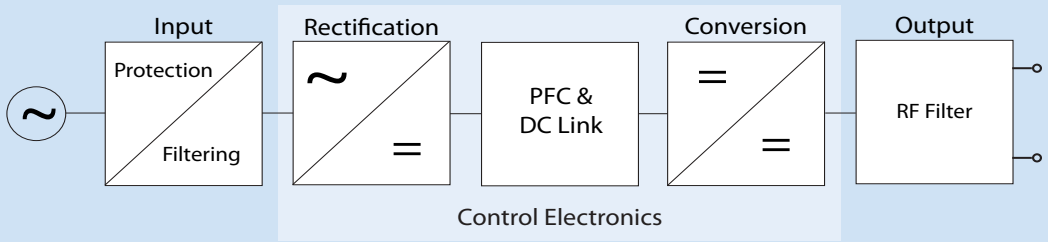
Control Electronics
- Broad Product Offerings

PFC & DC Link
- Aluminum Electrolytic
- Box Film Capacitors
- Ceramic MLCC
- PFC Inductors

Conversion
- Ceramic MLCC
- Power Inductors
- Transformers
- Thermistors

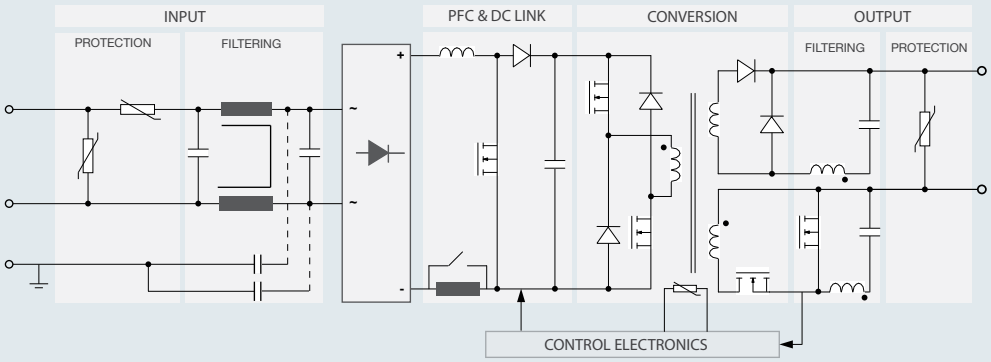
Output
- Aluminum Electrolytic
- Ceramic MLCC
- Varistors (MOV / MLV)
- Power Inductors
- Thermistors



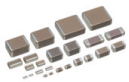


TDK's passive products for power conversion in switch mode power supplies.

Schematic Circuit



Product Guide

Series		Technical Data	Features	Type	Input	PFC & DC Link	Conversion	Output
Aluminum Electrolytic Capacitors								
Radial		C_R: 47...2200µF, V_R: 10...450VDC	85°C ... 150°C, ≤100V	B41xxx				•
			85°C ... 125°C, ≥160V	B43xxx		•		
Snap-in		C_R: 47...12,000µF, V_R: 10...500VDC	85°C ... 105°C, ≤100V	B41xxx		•		
			85°C ... 105°C, ≥160V	B43xxx		•		
Ceramic Capacitors								
General, High Cap, Mid Voltage		C_R: up to 100µF, V_R: 4...630V	0201 to 2220	C				
			AEC-Q200, Performance	CG		•	•	•
			Crack Mitigation	CKG				
Dipped, Radial Leaded		C_R: up to 100µF, V_R: 6.3...630V	Acoustic Noise Countermeasure	FK		•	•	•
Safety Standard Approved		C_R: 0.0001...0.01µF	X1, Y1, Y2 250VAC	CD, CS	•			
Film Capacitors								
EMI Capacitors		C_R: 0.010...45µF	X1: 330VAC, X2: 305VAC	B3291x, B3292x	•			
		C_R: 0.001...1µF	Y1: 250VAC, Y2: 300VAC	B81123, B3202x	•			
General Film		C_R: 0.001...220µF, V_R: 50...630V	Boxed, LS: 5...37.5mm	B325xx				•
MKP DC Link		C_R: 0.01µF...110µF V_R: 450VDC...1300VDC	Boxed, High Power, Compact	B3267x		•		
			Boxed, High Density	B3277x		•		
Magnetics								
Common Mode Chokes		I_R: 0.4...2.6A, L_R: 0.33...5mH	U Core	B82730U, LH, UF	•			
		I_R: 0.7...2.3A, L_R: 10...100mH	Frame Core	B8273xF	•			
		I_R: 0.3...4.6A, L_R: 3.3...100mH	D/E Core	B8273x	•			
		I_R: 0.3...16A, L_R: 0.2...100mH	Toroidal	B8272x	•			
		I_R: 1...10A, IZI: 90...1000Ω	SMD: 0805...1812	ACM	•			
SMT Power Inductors		I_R: 0.13...10.6A, L_R: 1...1500µH	Wound, Shielded	CFL, LTF, SLF, VLF, VLP			•	•
		I_R: 0.11...11 A, L_R: 0.33...1000µH	Wound, Unshielded, Shielded	B824xx			•	•
				B8255x, VLM			•	•
Single Ended Inductors		I_R: 0.12...7.7A, L_R: 1...15,000µH	Drum, Unshielded	SL, TSL	•			•
Inductors		I_R: 2.8...11.1A, L_R: 150...600µH	Choke Coil	PFC		•		
Power Transformers		V_{in}: 80V...265VDC	Flyback Transformer	B82802, ECO, SRW, SRX			•	
Current Sensing Transformer		Isense: 7, 20, 40A	SMD: E4.2, E5, E12.6, EP5	B82801		•	•	
Gate Drive Transformers		E*dt: 22...41 V*µs, V_{test}: 500V AC	SMD: EP5	B82804			•	
Protection Devices								
Varistors		I_{pk}: 100...20,000A	Disc MOV, 5 ... 25mm	B72xxx	•			•
		I_{pk}: up to...400A	SMD MLV 0201...1812	B72xxx				•
		I_{pk}: 400...2,500A	CU3225, CU4032, CU4648	B726xx	•			•
Thermistors		R_{25}: 5,10,30KΩ	NTC, Chassis Mount	B57703			•	
		C_{th}: 2.3J/K, V_R: up to 800V	PTC, Housed Plastic Case	B5910x		•		
Inrush Current Limiter		I_R: up to 30A, R_{25}: 1...80Ω	Disc NTC: 8...30mm	B57...	•			