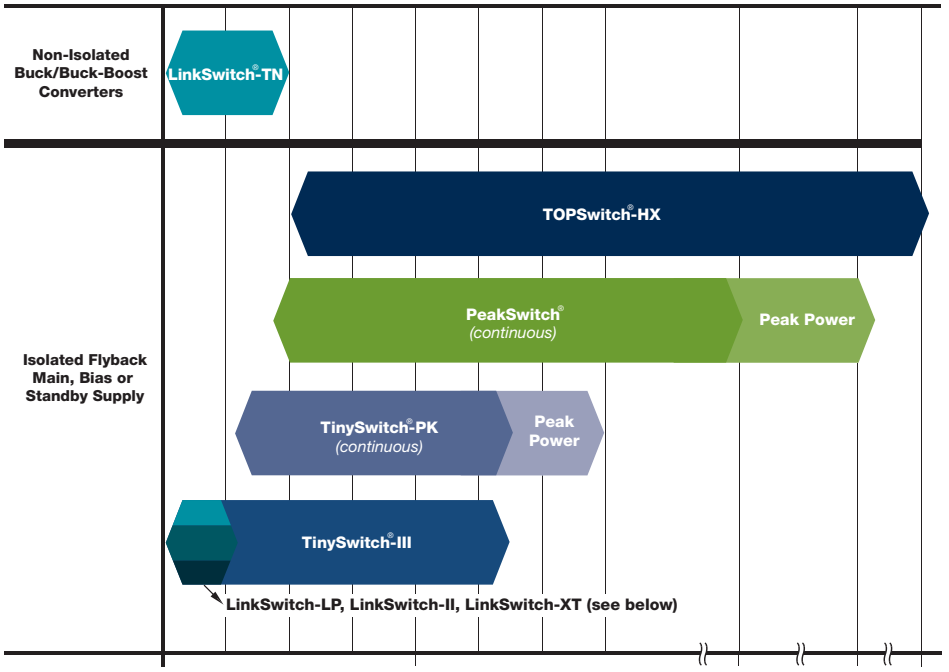
POWER INTEGRATIONS®

Innovation in power conversion

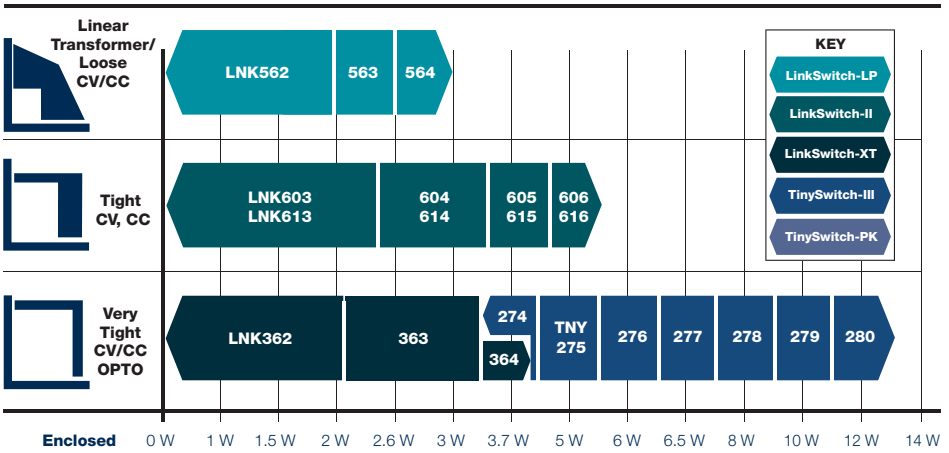
Product Selector Guide
Metering Products

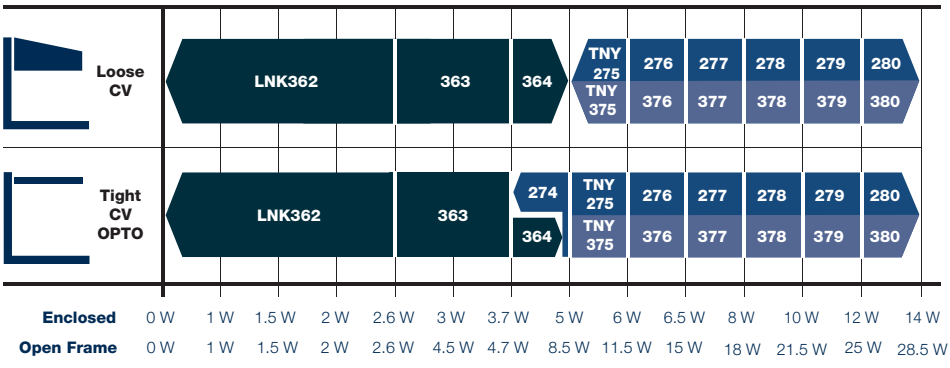
May 2008

Product Selector Guide



Output Characteristic Requirements (Wide Input 85 – 265 VAC)





IC Product Tables and Design Examples

Very Low Power AC-DC, Non-Isolated Linear/Passive Supply Replacement (≤360 mA)

Product[4]	Output Current[1]		Output Current[1]	
	MDCM[2]	CCM[3]	MDCM[2]	CCM[3]
LinkSwitch-TN	230 VAC ± 15%		85-265 VAC	
LNK302 PN/GN/DN	63 mA	80 mA	63 mA	80 mA
LNK304 PN/GN/DN	120 mA	170 mA	120 mA	170 mA
LNK305 PN/GN/DN	175 mA	280 mA	175 mA	280 mA
LNK306 PN/GN/DN	225 mA	360 mA	225 mA	360 mA

Additional Features:

- 700 V Internal MOSFET Rating
- Self-Powered
- ON/OFF Control
- Hysteretic Thermal Shutdown
- Power Limiting
- Frequency Jitter Reduces EMI
- EcoSmart® Low Standby/No-load Power Consumption

Notes:

1. *Typical output current in a non-isolated buck converter. Output power capability depends on respective output voltage. See Key Applications Considerations section for complete description of assumptions, including fully discontinuous conduction mode (DCM) operation.*
2. *Mostly discontinuous conduction mode.*
3. *Continuous conduction mode.*
4. *Packages: PN: DIP-8B, GN: SMD-8B, DN: SO-8C.*

Very Low Power AC-DC Power Conversion (Up to 9 W)

Product[3,4]	Continuous Output Power		Continuous Output Power	
	Adapter[1]	Open Frame[2]	Adapter[1]	Open Frame[2]
LinkSwitch-II	230 VAC ± 15%		85-265 VAC	
LNK603/613 PG/DG	2.5 W	3.3 W	2.5 W	3.3 W
LNK604/614 PG/DG	3.5 W	4.1 W	3.5 W	4.1 W
LNK605/615 PG/DG	4.5 W	5.1 W	4.5 W	5.1 W
LNK606/616 PG/GG	5.5 W	6.1 W	5.5 W	6.1 W
LinkSwitch-LP	230 VAC ± 15%		85-265 VAC	
LNK562 PN/GN/DN	1.9 W	1.9 W	1.9 W	1.9 W
LNK563 PN/GN/DN	2.5 W	2.5 W	2.5 W	2.5 W
LNK564 PN/GN/DN	3 W	3 W	3 W	3 W
LinkSwitch-XT	230 VAC ± 15%		85-265 VAC	
LNK362 PN/GN/DN	2.8 W	2.8 W	2.6 W	2.6 W
LNK363 PN/GN/DN	5 W	7.5 W	3.7 W	4.7 W
LNK364 PN/GN/DN	5.5 W	9 W	4 W	6 W

Additional Features:

- 700 V Internal MOSFET Rating
- Self-Powered
- ON/OFF Control
- Hysteretic Overtemperature Protection
- Power Limiting
- Frequency Jitter Reduces EMI
- EcoSmart® Low Standby/No-load Power Consumption

Notes:

1. *Minimum continuous power in a typical non-ventilated enclosed adapter measured at 50 °C ambient.*
2. *Minimum practical continuous power in an open frame design with adequate heat sinking, measured at 50 °C ambient.*
3. *Packages: PN: DIP-8B, GN: SMD-8B, DN: SO-8C. Please see Part Ordering Information.*
4. *Packages: PG: DIP-8C, GG: SMD-8C, DG: SO-8C.*

Low Power AC-DC Power Conversion (Up to 36.5 W)

Product[3]	Continuous Output Power		Continuous Output Power	
	Adapter[1]	Open Frame[2]	Adapter[1]	Open Frame[2]
TinySwitch-III	230 VAC ± 15%		85-265 VAC	
TNY274 PN/GN	6 W	11 W	5 W	8.5 W
TNY275 PN/GN	8.5 W	15 W	6 W	11.5 W
TNY276 PN/GN	10 W	19 W	7 W	15 W
TNY277 PN/GN	13 W	23.5 W	8 W	18 W
TNY278 PN/GN	16 W	28 W	10 W	21.5 W
TNY279 PN/GN	18 W	32 W	12 W	25 W
TNY280 PN/GN	20 W	36.5 W	14 W	28.5 W

Additional Features:

- 700 V Internal MOSFET Rating
- Self-Powered
- ON/OFF Control
- Hysteretic Overtemperature Protection
- Frequency Jitter Reduces EMI
- EcoSmart® Low Standby/No-load Power Consumption
- On-Time Extension
- Latching Output Overvoltage Protection
- Line Undervoltage (UV) Lockout
- Selectable Current Limit

Notes:

1. *Minimum continuous power in a typical non-ventilated encased adapter with minimal heat sinking, measured at a device ambient of 50 °C.*
2. *Minimum continuous power in an open frame with adequate heat sinking. TinySwitch-III operates without bias winding.*
3. *Packages: PN: DIP-8C, GN: SMD-8C. Lead-free package options are available for P and G packages.*

TinySwitch-PK (Up to 36.5 W Continuous, 45 W Peak)

Product[3]	Continuous Output Power			Continuous Output Power		
	Adapter[1]	Open Frame[2]	Peak	Adapter[1]	Open Frame[2]	Peak
TinySwitch-PK	230 VAC ± 15%			85-265 VAC		
TNY375 PN/GN	8.5 W	15 W	16.5 W	6 W	11.5 W	12.5 W
TNY376 PN/GN	10 W	19 W	22 W	7 W	15 W	17 W
TNY377 PN/GN	13 W	23.5 W	28 W	8 W	18 W	23 W
TNY378 PN/GN	16 W	28 W	34 W	10 W	21.5 W	27 W
TNY379 PN/GN	18 W	32 W	39 W	12 W	25 W	31 W
TNY380 PN/GN	20 W	36.5 W	45 W	14 W	28.5 W	35 W

Additional Features:

- 700 V Internal MOSFET Rating
- ON/OFF Control
- Hysteretic Overtemperature Protection
- Frequency Jitter Reduces EMI
- EcoSmart® Low Standby/No-load Power Consumption
- On-Time Extension
- Latching Shutdown
- Latching Output Overvoltage Protection
- Selectable Current Limit

Notes:

1. *Minimum continuous power in a typical non-ventilated enclosed adapter measured at 50 °C. Use of an external heat sink will increase power capability.*
2. *Minimum continuous power in an open frame design (see Key Applications Considerations in datasheet).*
3. *Package: PN: DIP-8C, GN: SMD-8C.*

Super Peak AC-DC Power Conversion (Up to 75 W Continuous, 126 W Peak)

Product[3]	Continuous Output Power		Continuous Output Power	
	Adapter[1]	Adapter Peak[2]	Adapter[1]	Adapter Peak[2]
PeakSwitch	230 VAC ± 15%		85-265 VAC	
PKS603 PN	13 W	32 W	9 W	25 W
PKS604 PN	23 W	56 W	16 W	44 W
PKS604 YN/FN	35 W	56 W	23 W	44 W
PKS605 PN	31 W	60 W	21 W	44 W
PKS605 YN/FN	46 W	79 W	30 W	58 W
PKS606 PN	35 W	66 W	25 W	46 W
PKS606 YN/FN	68 W	117 W	45 W	86 W
PKS607 YN/FN	75 W	126W	50 W	93 W

Additional Features:

- 700 V Internal MOSFET Rating
- ON/OFF Control
- Hysteretic Thermal Shutdown
- Frequency Jitter Reduces EMI
- EcoSmart® Low Standby/No-load Power Consumption
- Adaptive On Time Extension
- Adaptive Current Limit
- Fast AC Reset
- Smart AC Sense With Latching OVP Shutdown

Notes:

1. *Typical continuous power in a non-ventilated enclosed adapter measured at +50 °C ambient.*
2. *Typical peak power for a period of 100 ms and a duty cycle of 10% in a non-ventilated enclosed adapter measured at +50 °C (see Key Applications section in datasheet for details).*
3. *Packages: PN: DIP-8C, YN: TO-220-7C, FN: TO-262-7C.*

High Power AC-DC Power Conversion (Up to 333 W)

Product[3]	Continuous Output Power		Continuous Output Power	
	Adapter[1]	Open Frame[2]	Adapter[1]	Open Frame[2]
TOPSwitch-HX	230 VAC ± 15%[4]		85-265 VAC	
TOP252 PN/GN TOP252 MN	9 W	15 W	6 W	10 W
TOP252 EN	10 W	21 W	6 W	13 W
TOP253 PN/GN TOP253 MN	15 W	25 W	9 W	15 W
TOP253 EN	21 W	43 W	13 W	29 W
TOP254 PN/GN TOP254 MN	16 W	28 W	11 W	20 W
TOP254 EN/YN	30 W	62 W	20 W	43 W
TOP255 PN/GN TOP255 MN	19 W	30 W	13 W	22 W
TOP255 EN/YN	40 W	81 W	26 W	57 W
TOP256 PN/GN TOP256 MN	21 W	34 W	15 W	26 W
TOP256 EN/YN	60 W	119 W	40 W	86 W
TOP257 PN/GN TOP257 MN	25 W	41 W	19 W	30 W
TOP257 EN/YN	85 W	157 W	55 W	119 W
TOP258 PN/GN TOP258 MN	29 W	48 W	22 W	35 W
TOP258 EN/YN	105 W	195 W	70 W	148 W
TOP259 EN/YN	128 W	238 W	80 W	171 W
TOP260 EN/YN	147 W	275 W	93 W	200 W
TOP261 EN/YN	177 W	333 W	118 W	254 W

Additional Features:

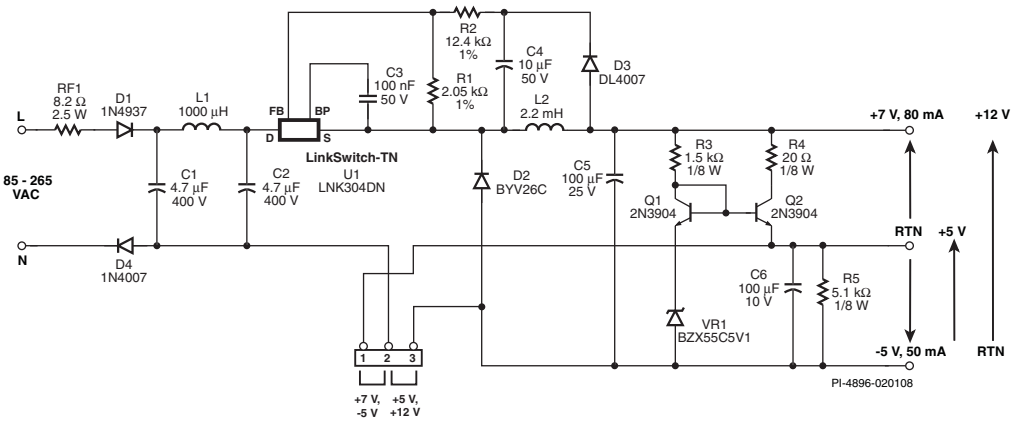
- 700 V Internal MOSFET Rating
- Accurate Programmable Current Limit
- Hysteretic Overtemperature Protection
- Power Limiting
- Multi-mode Operation for Maximum Efficiency Under All Load Conditions
- Frequency Jitter Reduces EMI
- Line Undervoltage Detection
- Line Overvoltage Detection
- EcoSmart® Low Standby/No-load Power Consumption
- Output Overvoltage Protection (OVP)
- Optimized Line Feed-forward for Line Ripple Rejection
- Fully Integrated Soft-start for Minimum Start-up Stress
- Tight I^2f Parameter Tolerances (Reduces System Cost & Overload Power)
- Half-frequency Option for Y Package
- Auto Restart
  - Limits Power to <3% of Maximum Power During Short-circuit/ Open-loop Fault

Notes:

1. *Minimum continuous power in a typical non-ventilated enclosed adapter measured at 50 °C ambient. Use of an external heat sink will increase power capability.*
2. *Minimum continuous power in an open frame design at +50 °C ambient.*
3. *Peak power capability in any design at +50 °C ambient.*
4. *230 VAC or 110/115 VAC with doubler.*
5. *Packages - PN: DIP-8C, GN: SMD-8C, MN: SDIP-10C, YN: TO-220-7C, EN: eSIP-7C.*

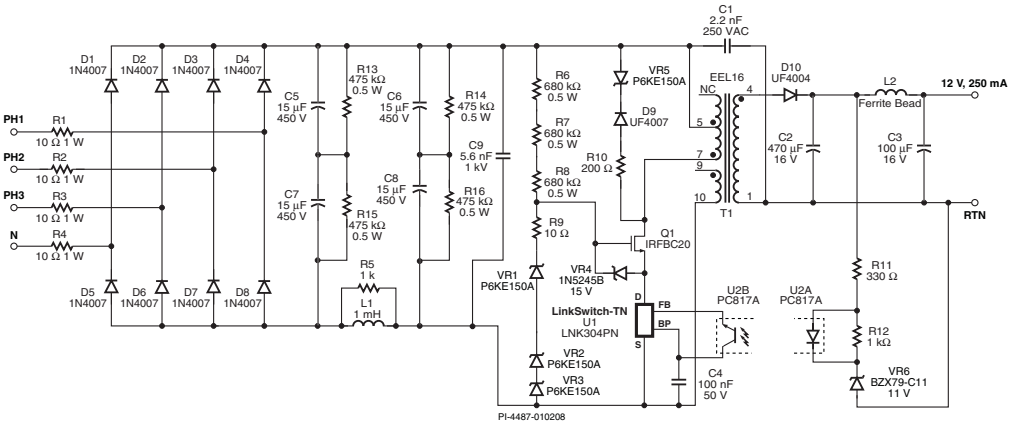
LinkSwitch-TN – Non-Isolated Dual Output Buck (RDK-138)

1.2 W, DUAL OUTPUT, NON-ISOLATED, 85 – 265 VAC INPUT BUCK CONVERTER



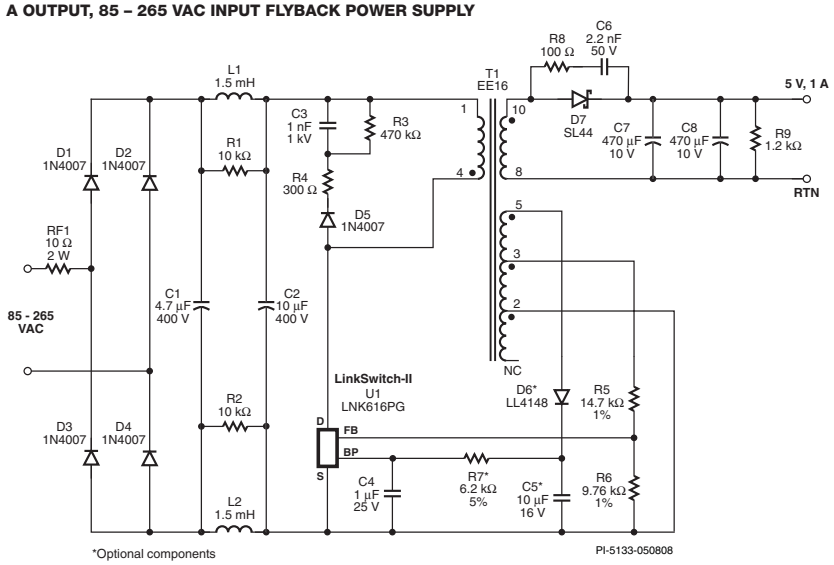
LinkSwitch-TN – Ultra Wide Input Range Power Supply (DI-124)

3 W, 12 V, 250 mA OUTPUT, 57 – 580 VAC INPUT FLYBACK CONVERTER



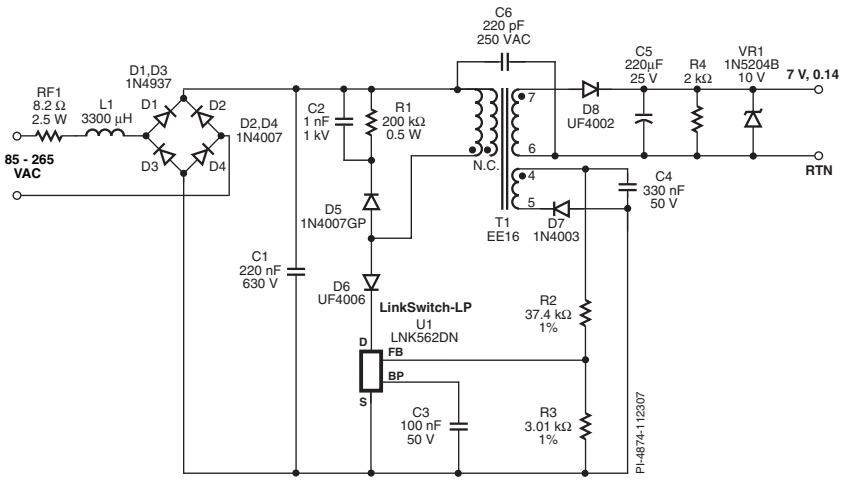
LinkSwitch-II – Low Power CV/CC Charger/Adapter (RDR-158)

5 W, 5 V, 1 A OUTPUT, 85 – 265 VAC INPUT FLYBACK POWER SUPPLY



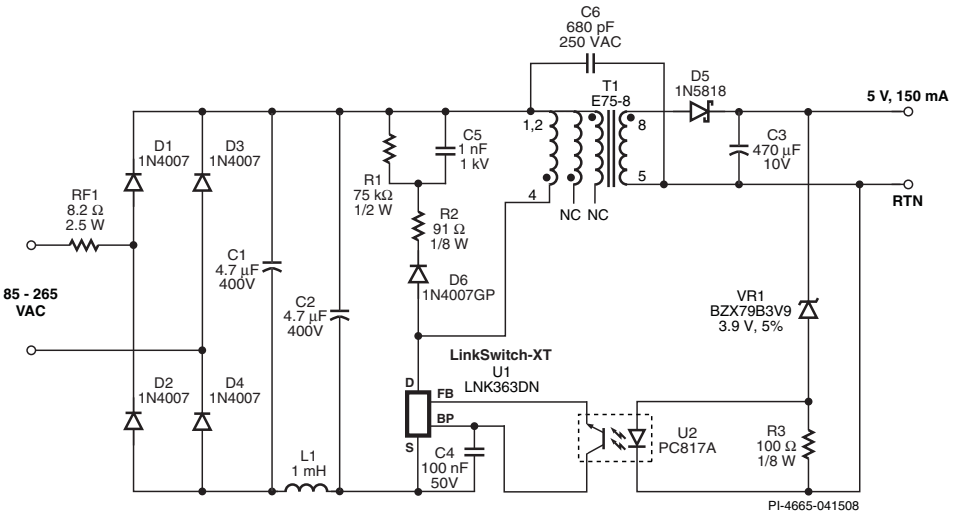
LinkSwitch-LP – Low Cost Linear Replacement (DI-164)

1 W, 7 V, 14 A OUTPUT, 85 – 265 VAC INPUT FLYBACK CONVERTER WITHOUT ELECTROLYTIC INPUT CAPACITOR



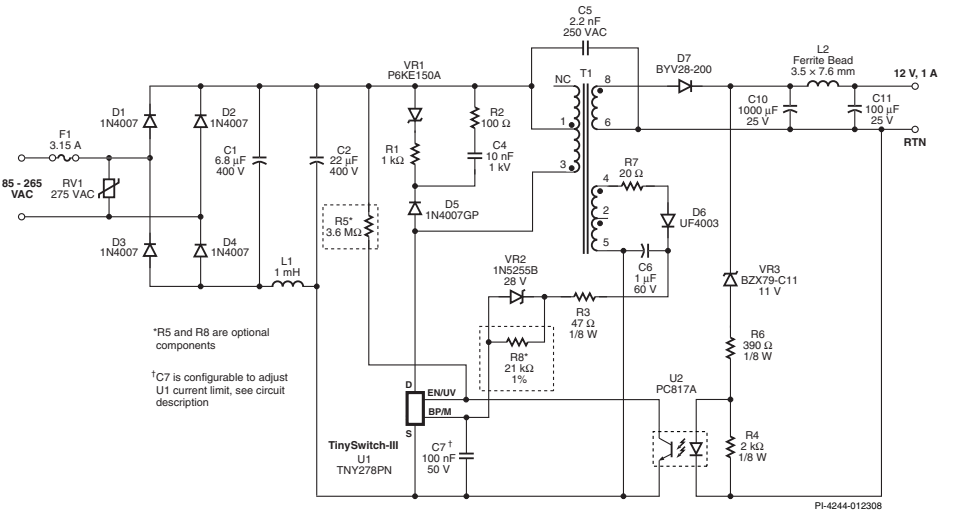
LinkSwitch-XT – Tamper Proof Energy Meter Power Supply (DER-141)

0.75 W, 5 V, 150 mA OUTPUT, 85 – 265 VAC INPUT FLYBACK CONVERTER



TinySwitch-III – Universal Input Adapter (RDK-91)

12 W, 12 V, 1 A OUTPUT, 85 – 265 VAC INPUT FLYBACK CONVERTER



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