



# Product Overview



## AC-DC Chassis mount – Single output

	LS	GUS <i>NEW</i>	CUS-M <i>NEW MODELS</i>	CUS-LD	GWS	SWS-L	HWS-A/HD/P/ME/G <i>NEW MODELS</i>	RWS-B/ME	GXE600	RFE	TPS	CPFE/FI	EVS	ZPSA	ZWS/B BAF/P/C
<b>Cooling</b>	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
<b>Output power</b>	25 – 200W	350 – 1000W	30 – 1500W	200, 250W	250, 500W	600, 1000W	15 – 3000W	50 – 1500W	600W	1000, 1600, 2500W	3000, 4000W	1000W	300, 600W	20 – 60W	10 – 300W
<b>Main features</b>	Cost optimized	up to 95% efficiency 1U high compact OVCIII	up to 95% efficiency low profile low leakage current many case-styles	up to 94% efficiency low profile	ErP compliant Class C Harmonics (IEC 61000-3-2) > 25% Load	Low profile -40°C start up -20°C to 74°C operating	HD: Harsh environment, P: Peak power for 5sec ME: Medical very high reliability	Compact size 10-year +e-cap lifetime	Digital (RS-485) and analogue programming CV, CC mode up to 95% efficiency	1U · current share optional: PM Bus, internal Oring diodes	400/480 VAC 3phase voltage and current programming	Fanless diode ORing – share option I2C interface	Constant current source	2x3.5" (20W) 2x4" (40/60W) very low height profile	Long e-cap lifetime
<b>Warranty</b>	5 years	3 years	3, 5, 7 years	3 years	5 years	3 years	<b>Leading warranty *</b>	7 years	7 years	2 or 3 years	3 years	2 years	5 years	2 years	5 years

## AC-DC Chassis mount – Multiple output

	ZWQ	CUT
<b>Cooling</b>	↓	↓
<b>Output power</b>	80 – 170W	35, 75W
<b>Main features</b>	1U height versions 4 outputs	3 outputs 2x4" and 3x5" footprint individual output regulation low profile (1.06")
<b>Warranty</b>	1 years	3 years

## AC-DC Configurable

	MU <i>NEW MODELS</i>	NV/M	EFE/M	XMS500A	QM	QS	VEGA
<b>Cooling</b>	↓	↓	↓	↓	↓	↓	↓
<b>Output power</b>	600 – 1500W	175 – 960W	300, 400W	500W	550 – 2000W	600 – 1200W	450 – 900W
<b>Main features</b>	1 – 13 outputs 3.3 – 105.6Vdc Low audible noise Suitable for 1U <b>PMBus</b>	1 – 8 outputs configurable	Full digital control high power density	Single output suitable for 1U low airflow requirement	1 – 18 outputs Very low audible noise	Single output low audible noise dual or single fusing	1 – 11 outputs configurable
<b>Warranty</b>	7 years	3 years	5 years	5 years	7 years	7 years	3 years

## AC-DC Rack mount

	FPS	HFE <i>NEW MODELS</i>	TPF45000-385
<b>Cooling</b>	↓	↓	↓
<b>Output power</b>	1000W	1600 – 3500W	45000W
<b>Main features</b>	Single output · up to 3000W 3 units in 19" Rack · hot swap optional: I2C bus	up to 13.3kW in 1U hot swap PMBus™, LAN options	PFC-Frontend, 385Vdc, 3-phase input 400 – 480Vac, PMBus™, USB
<b>Warranty</b>	2 years	3 years	3 years

## AC-DC DIN Rail

	DRL	DRB	D1SE <i>NEW</i>	DRB 3 Phase	DRF	DRM	DBM
<b>Cooling</b>	↓	↓	↓	↓	↓	↓	↓
<b>Output power</b>	10 – 100W	15 – 480W	120 – 480W	120, 240, 480, 960W	120, 240, 480, 960W	2x20A / 1x40A	20A
<b>Main features</b>	Designed for building automation systems with Class II rein- forced insulation.	Compact power supplies for efficient plant control systems.	Essential power supplies without comp- romises on performance and quality	Efficient design for conventional mechanical and plant engineering.	Well equipped and designed for harsh environments.	Buffer and redundancy modules further increase plant up-time.	
<b>Warranty</b>	3 years	3 years	3 years	3 years	5 years	5 years	5 years

## DC-UPS

	DUSH <i>NEW</i>
<b>Cooling</b>	↓
<b>Output power</b>	20A
<b>Main features</b>	First class reliability for mission-critical applications
<b>Warranty</b>	3 years

## Buffer module

	ZBM20
<b>Cooling</b>	↓
<b>Output power</b>	20A
<b>Main features</b>	12, 15, 24V nom. 380msec. Holdup
<b>Warranty</b>	5 years

## AC-DC PCB mount – Single / multiple output

	PFE	PFH500	PF-B	KPSA/KPSB	KAS/KMS-A/KMD/KMT	KWS-A
<b>Cooling</b>	↓	↓	↓	↓	↓	↓
<b>Output power</b>	300 – 1000W	500W	1500W	5 – 25W	4 – 60W	5, 10, 15, 25W
<b>Main features</b>	Operating up to 100°C baseplate · PFC high efficiency	101.6 x 61.0mm size PMBus™ communication (read-write) · High effi- ciency up to 92% <b>PMBus</b>	Low profile PFC front end 360Vdc output	Single output · no external components needed · open frame	90 - 305Vac protection class II 2x MOPP isolation	Single · dual output protection class II efficiency values up to 88%
<b>Warranty</b>	2 or 5 years	3 years	5 years	2 or 3 years	2 or 3 years	3 years

## AC-DC Desktop

	DT/DTM	WMM30
<b>Cooling</b>	↓	↓
<b>Output power</b>	25 – 300W	30W
<b>Main features</b>	Single output ErP compliant	Single output ErP compliant Class II wide range AC input
<b>Warranty</b>	2 or 3 years	3 years

## DC Programmable

	Genesys+™ Genesys™	Z+
<b>Cooling</b>	↓	↓
<b>Output power</b>	750 – 90.000W	200, 400, 600, 800W
<b>Main features</b>	750W in 1U half with up to 90kW in 20U cabinet 0 – 1500V, 0 – 4500A CV, CC, CP-operation mode, arbitrary waveform, multiple interfaces, blank panel, fast speed	2U · 0 – 650V · bench, 2U rack mounted (6 units) · built in USB, RS232/485, analogue · integrated arbitrary function · options: LAN, IEEE, isolated analogue, front panel output sockets
<b>Warranty</b>	5 years	5 years

## AC Power Sources

	Genesys™ AC
<b>Cooling</b>	↓
<b>Output power</b>	2000 – 9000kVA
<b>Main features</b>	Single-Phase or 3-Phase · 0 – 350Vac, ±500Vdc Output frequency: DC, 16Hz to 5kHz Multiple interfaces, integrated immunity testing
<b>Warranty</b>	5 years

### Isolated DC-DC Converters

	CC-E	CCG	PX	PX-M	PY	CN-A/CN-B <b>NEW</b>	PAH	PAF
<b>Package</b>	Designed for compact size	Designed for compact size	1x1", 1.25x0.8", 2x1", 2x1.6", 2x2"	1.25x0.8", 1.6x1", 2x1"	2x1", 1/4 Brick, 1/2 Brick	1/4 Brick, 1/2 Brick	1/2 Brick	Full Brick
<b>Cooling</b>	↓	↓	↓	↓	↓, 3	↓, 3	3	3
<b>Output</b>	1.5, 3, 6, 10, 15, 30W	1.5, 3, 6, 10, 15, 30W	5, 10, 15, 20, 30, 40, 60W	3, 6, 10, 15, 20, 30W	20, 50, 75, 200W	30, 50, 100, 150, 200, 300W	300, 350, 450W	504, 600, 700W
<b>Features</b>	Input: DC 5, 12, 24, 48V (2:1) Output: 3.3 – 15Vdc, Single, dual outputs	Input: DC 5, 12, 24, 48V (4:1) Output: 3.3 – 15Vdc Single, dual outputs	Input: DC 12V, 24V, 48V Output: 3.3 – 48Vdc Single, dual, tripple outputs	Input: DC 12, 24, 48V (4:1) Output: 3.3 – 48Vdc	Input: DC 24, 36, 48, 72, 96, 110V Output: 3.3 – 15Vdc Single, dual outputs	for railway Input: 24, 110Vdc Output: 5 – 48Vdc	Input: DC 24, 48V Output: 12 – 48Vdc	Input: DC 24, 48V Output: 12 – 28Vdc
<b>Warranty</b>	5 years	5 years	2 years	5 years	3 years	5 years	2 years	2 years

### Isolated DC-DC Converters

	PH-A280	HQA	GQA	iEA, iEH	iQE, iQG, iQL	DPX	Bi-directional DC-DC
<b>Package</b>	1/4 Brick, 1/2 Brick, Full Brick	1/4 Brick	1/4 Brick	1/8 Brick	1/4 Brick	DIN-Rail	EZA 19-inch Rack 1U
<b>Cooling</b>	3	3	3	↓, 3	3, 3	↓	3
<b>Output</b>	50, 75, 100, 150, 300, 600, 1200W	85W, 120W	120W	48 – 78, 300W	72 – 504W	15, 20, 30, 40, 60W	2500, 11.000W
<b>Features</b>	Input: DC 280V Output: 3.3 – 48Vdc	Input: DC 12, 24V Output: 5 – 48Vdc	Input: DC 12, 24V Output: 5 – 48Vdc	Input: DC 48V Output: 5 – 28Vdc	Input: DC 48V Output: 1.2 – 28Vdc	Input: DC 12, 24, 48V Output: 3.3 – 15Vdc Single, dual, tripple outputs	Bi-directional DC 320V <-> 48V (2.5kW) DC 320V <-> 240V (11kW)
<b>Warranty</b>	5 years	3 years	3 years	3 years	3 years	3 years	5 years

### Non-isolated DC-DC Converters

	iAH/iBH/iCH	i1C <b>NEW</b>	i3A/i6A	i7A	i7C	RGA, RGB <b>NEW</b>	RGC <b>NEW</b>	DDA
<b>Package</b>	0.48x0.48", 0.8x0.45", 1.3x0.53"	1x1"	1/16, 1/32 Brick	1/16 Brick pin-out	1/16 Brick pin-out	1.4x1.4" Die cast	1.4x1.4" Die cast	DIN-Rail
<b>Topology</b>	Buck	Buck-boost	Buck, inverter	Buck	Buck-boost	Buck	Buck-boost	Buck, inverter
<b>Output</b>	3, 5, 6, 12, 20, 40A	10A	4.5, 8, 10, 14, 20A	33, 45, 60A	8, 12.5, 20A	10, 14, 20, 33, 45, 60A	8, 12.5A	250, 325, 500W
<b>Features</b>	Input: DC 5, 12V Output: 0.6 – 8.5Vdc	Input: DC 24, 48V (4:1) Output: 9.6 – 28Vdc	Input: DC 12, 24, 48V Output: 3.3 – 40Vdc	Input: DC 24, 48V Output: 0.8 – 24Vdc	Input: DC 12, 24, 48V Output: 3.3 – 24Vdc	Input: DC 12, 24, 48V Output: 0.8 – 40Vdc	Input: DC 12, 24, 48V Output: 3.3 – 48Vdc	Input: DC 12, 24, 48V Output: 3.3 – 24Vdc Single, dual outputs
<b>Warranty</b>	3 years	3 years	3 years	3 years	3 years	3 years	3 years	3 years

### High Voltage POL DC-DC

	CHVM
<b>Package</b>	Various sizes (SIL)
<b>Topology</b>	Capacitive converter
<b>Output</b>	1.4 – 3W
<b>Features</b>	Input 12VDC Output 180 – 2000VDC
<b>Warranty</b>	1 years

### EMC-Line Filters

	RS/RT	SIFI	IEC
<b>Current</b>	0.5 – 1000A	3 – 36A	1 – 20A
<b>Voltage</b>	250, 500V	250V	250V
<b>Features</b>	1-phase, 3-phase conform to ENEC, UL, CSA, RoHS low leakage	1-phase conform to UL, CSA, ENEC compact size	1-phase conform to UL, CSA, ENEC
<b>Warranty</b>	5 years	1 years	1 years

### DC-DC EMC-Filter

	FQA/FQB	iDQ	RDEN
<b>Current</b>	20A	10A	50A
<b>Voltage</b>	+/-40V	up to 75V	48V
<b>Features</b>	Harsh Environment	Exceptional differential mode performance	Metal case stud terminals
<b>Warranty</b>	3 years	3 years	1 years

## Power+ Solutions

TDK-Lambda custom power solutions include full bespoke designs, modified standards and 'brick on board' products. Our expertise is vast, covering 0.6V to 50kV, 1W to 90kW AC-DC and DC-DC.

#### Modified standard

- A slight modification (electrical and physical) to a standard TDK-Lambda product
- Customized mechanical housing (chassis)
- Filter solutions for input and output
- Additional function and communication/signals
- Non standard voltages
- Cable looms and connectors
- Ruggedisation for shock, vibration, high g and outdoor environments
- Brick on board
- Custom designs utilising our broad range of AC-DC and DC-DC power modules. Benefits include low NRE and fast time to market.

#### Full custom design to customer specification

A power supply designed to meet the customer's unique set of requirements.