Delta Standard Power Supplies Overview

November 2016

FOR DISTRIBUTORS

Contents

DELTA STANDARD POWER SUPPLIES OVERVIEW

Contents

Product Overview

Panel Mount

- Cost effective
- Versatile installation by screws

DIN Rail

- Feature rich
- For mounting on DIN rail

Medical

- For medical applications
- Internal and external

- For most applications
- For mounting within tight space

Open Frame

LED Drivers

- For LED lighting
- VR and dimming options

About Delta Power Supplies

World's No. 1 Power Supply Company

Number-One Power Supply Companies in their respective Products/Markets and Geographic Regions
2015 Sales: US Dollars in Millions

PS Companies	HQ Location	Products	Region	Sales
Delta Electronics	Taiwan	OEM+TEL+UPS+INV+OPS	WW	~$4854
Delta Electronics	Taiwan	OEM+TELECOM	WW	~$4304
Delta Electronics	Taiwan	OEM	WW	~$3478
Delta Electronics	Taiwan	OEM: AC-DC	WW	~$3318
Murata	Japan	OEM: DC-DC	WW	~$230-250
Emerson Network Power	USA	TELECOM	WW	~$850-950
Schneider Electric	France	UPS	WW	~$3000-$3500
SMA Solar Technology *	Germany	RE: INVERTERS (INV)	WW	~$1100
Delta Electronics	Taiwan	OEM+TELECOM	AMER	~$1172
Delta Electronics	Taiwan	OEM+TELECOM	EMEA	~$760
Delta Electronics	Taiwan	OEM+TELECOM	AP	~$2253
Delta Electronics	Taiwan	OEM	AMER	~$1047
Delta Electronics	Taiwan	OEM	EMEA	~$472
Delta Electronics	Taiwan	OEM	AP	~$1914
Emerson Network Power	USA	TELECOM	AMER	~$410-450
Delta Electronics	Taiwan	TELECOM	EMEA	~$288
Delta Electronics	Taiwan	TELECOM	AP	~$339

Top-15 Merchant PS Manufacturers
2015 Worldwide Sales
All types Power Supplies:
OEM/Embedded (O) + Telecom (T) + UPS (U) + RE Inverters (I) + Other

No	PS Manufacturers O+T+U+I+OTHER PS	WW Sales
1	Delta Electronics, Inc.	~$4854
2	Schneider Electric	~$3000-$3500
3	Emerson Network Power	~$2300-$2600
4	Eaton Corp. Plc	~$2000-$2100
5	Lite-On Technology Corp.	~$1620
6	Artesyn Embedded Technologies	~$1100+
7	SMA Solar Technology AG *	~$1100
8	Chicony Power Technology Co.	~$875
9	Flextronics International Ltd.	~$850-900
10	GE Critical Power	~$850-900
11	Mean Well	~$703
12	Salcomp	~$638
13	Acbel Polytech Inc.	~$625
14	ABB Group	~$600-625
15	TDK Corp.	~$540

Source: Micro-tech Consultant, March 2016

World's No. 1 Power Supply Company

has acquired IMSresearch

6.1 The Total Merchant Power Supply Market
2014 & 2015 - $M Revenues

Ranking	Company Name	2014	2015	Change
1	Delta Electronics	18.5%	17.5%	-1.0%
2	Artesyn	8.5%	9.5%	1.0%
3	Lite-On Technology	7.5%	8.0%	0.5%
4	Mean Well	3.0%	3.5%	0.5%
5	Salcomp	3.5%	3.0%	-0.5%
=5	TDK Lambda	3.0%	3.0%	0.0%
==5	Acbel Polytech	3.0%	3.0%	0.0%
===5	Chicony Power	2.5%	3.0%	0.5%
====5	GE Energy	2.5%	3.0%	0.5%
10	Murata	2.5%	2.5%	0.0%
=10	Flextronics	2.0%	2.5%	0.5%
12	FSP Group	2.5%	2.0%	-0.5%
13	Phihong	2.0%	2.0%	0.0%
	Others	39.0%	37.5%	-1.5%

The market in 2014 was estimated to be: $18,983.2 revenues
The market in 2015 was estimated to be: $19,731.7 revenues

Source: IHS 2016

Our Homepage

Useful information on our homepage

www.DeltaPSU.com

- **PSU** = “**P**ower **S**upply **U**nit”
- Detailed technical data sheet
- Safety certificates
- Keyword Search
- Feedback form
- PDF Catalog
- Updates
- FAQ
- and more…

Delta Power Supplies

The Standard Power Supplies


CliQ


CliQ II


CliQ M


Lyte


Chrome


Sync

DIN Rail

Vout: 5V, 12V, 24V, 48V **Power:** 10W-960W


PMC/PMT


PMF


PMU (A)


PMH


PMR

Panel Mount

Vout: 4.2V, 5V, 12V, 137V, 15V, 24V, 27V 36V, 48V, Dual **Power:** 15W – 600W


PJ, PJB


PJT

Open Frame

Vout: 5V, 12V, 15V, 18V, 24V, 27V, 48V **Power:** 15W – 240W


LNE (B) / LNV (A)

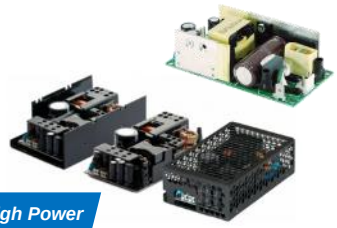
LED Drivers

Vout: 12V, 24V, 36V, 48V, 54V **Power:** 100W – 320W

(A) Available by Q4'16
(B) For LNE-320W available by Q1'17

Delta Power Supplies

The Standard Power Supplies



High Power Density

Open Frame/Enclosed

U Channel

Medical (Internal)

Vout: 12V, 15V, 18V, 19V, 24V, Quad

Power: 40W – 400W

Wall Mount Adapters
Desktop Type Adapters

Medical (External)

Vout: 5V, 6V, 12V, 15V, 19V, 24V

Power: 5W – 150W

ATX Power Supply

Medical ATX Power Supply

Vout: Multiple output (12V, 12V, 5V, 3.3V, 5V, -5V, -12V)

Power: 350W

DIN Rail Power Supplies
&
Modules

DIN Rail Power Supplies

DIN Rail PSU Series Comparison

Product Type	Series	
 CliQ	**CliQ**	• Terminal block • Power Boost up to 3s
 CliQ II	**CliQ II**	• IP20 connector • Power Boost up to 5s
 CliQ M	**CliQ M**	• High power density design • Advanced Power Boost
 Lyte	**Lyte**	• Competitive price • Built-in DC OK Relay contact (For selected models)
 Chrome	**Chrome**	• Flat design • Class II double isolation • NEC Class 2
 Sync	**Sync**	• Slim design • Competitively priced • NEC Class 2
 Redundancy Modules  DC-UPS Module  Buffer Modules	**Modules**	• IP20 Certified • Class I, Div 2 Certified (Except Buffer Modules)

DIN Rail Power Supplies

Critical Spec Summary

Spec	CliQ	CliQ II	CliQ M	Chrome	Sync	Lyte
Power range	15W-480W,1 Phase	60W-960W, 1/2/3 Phase	80W-960W, 1/3Phase	10W-100W, 1 Phase, Class II	30W-100W, 1 Phase	120W-480W, 1 Phase
AC Vin	- Universal - Power will not de-rate for the entire input voltage range	- Universal - Power will not de-rate for the entire input voltage range	- Universal - Power will not de-rate for the entire input voltage range	- Universal - Power will not de-rate for the entire input voltage range	- Universal - Power will not de-rate for the entire input voltage range	- Universal - < 100Vac de-rate power by 1%/Vac
DC Vin	- DC input range is listed in safety file.	- DC input range is not listed in safety file (single phase I/P). However, it has confirmed product functional performance. - 2phase and 3phase (480W/960W) input is listed in	- DC input range is listed in safety file.	- DC input range is not listed in safety file. However, it has confirmed product functional performance.	- DC input range is not listed in safety file. However, it has confirmed product functional performance.	- DC input range is not listed in safety file. However, it has confirmed product functional performance.
Inrush current	50-150A @ 230Vac	35-80A @ 230Vac	10-15A @ 230Vac	30-60A @ 230Vac	60A @ 230Vac	40-80A @ 230Vac
Power Boost	150% for 3 seconds	150% for 5 seconds	150% for 5 seconds	NA	NA	NA
APB	NA	NA	Yes	NA	NA	NA
DC OK relay contact	NA	Yes (2 phase I/P only)	Yes	NA	Yes	Yes
Casing	Plastic, Al	Plastic, Al	Al	Plastic	Plastic	SGCC + Al
Operating temp	-20C to 80C > 50C de-rate power	-25C to 80C (cold start -40C) > 50C de-rate power	-25C to 70C (clod start -40C) > 60C de-rate power	-25C to 71C > 55C de-rate power	-20C to 70C > 55C de-rate power < -10°C de-rate power	-20C to 70C > 50C de-rate power (230Vac) > 40C de-rate power (115Vac) < -10C de-rate power
Operating altitude	2000m (ITE)	2,500m (ITE)	5,000m (ITE)	2,000m (ITE)	2,000 (ITE)	5,000 (ITE)
Degree of protection	IPX0	IP20	IP20	IP20	IP20	IP20
Safety approval	IEC/EN/UL 60950-1 UL 508 CE CSA ATEX/C1D2	IEC/EN/UL 60950-1 UL 508 CE CSA ATEX/C1D2 (NEC Class 2)	IEC/EN/UL 60950-1 UL 508 CE CSA DNV GL ABS IEC/EN 61558 IEC/EN 61010	IEC/EN/UL 60950-1 UL 508 CE NEC Class 2	IEC/EN/UL 60950-1 UL 508 CE NEC Class 2	IEC/EN/UL 60950-1 UL 508 CE CCC

DIN Rail Power Supplies

CliQ & CliQ II (1 & 2 Phase) DIN RAIL POWER SUPPLIES >50 models

Series	Phase			PFC	O/P Voltage	O/P Current	Output Power (as of Nov 2016)								
	1	2	3				15W	30W	48W	60W	100W	120W	240W	480W	960W
CliQ • 1 Phase 	•				12V	1.25A	•								
	•					2.50A		•							
	•					5.00A				•					
	•					8.33A					•				
	•				24V	2.00A			•						
	•					2.50A(A)				•					
	•			•		5.00A						•			
	•			•		10.0A							•		
	•			•		20.0A								•	
CliQ II • 1 Phase 	•				24V	2.50A				•					
	•					2.50A(B)				•					
	•					5.00A						•			
	•			•		10.0A							•		
	•			•		20.0A								•	
	•			•	48V	1.25A				•					
	•			•		2.50A						•			
	•			•		5.00A							•		
	•			•		10.0A								•	
• 2 Phase	•	•			24V	5.00A						•			
	•	•		•		10.00A							•		

(A) *Available in Plastic and Aluminum casing;*
(B) *Available in plastic case with UL1310 NEC Class 2 approval (Model: DRP024V060W1NZ)*

DIN Rail Power Supplies

CliQ II 3 Phase & CliQ M DIN RAIL POWER SUPPLIES >20 models

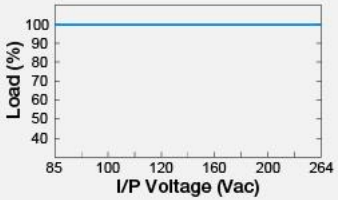
Series	Phase			PFC	O/P Voltage	O/P Current	Output Power (as of Nov 2016)						
	1	2	3				60W	80W	100W	120W	240W	480W	960W
CliQ II • 3 Phase 		•	•		24V	2.50A	•						
		•	•			5.00A				•			
		•	•			10.0A					•		
		•	•	•		20.0A						•	
		•	•	•		40.0A							•
CliQ M • NEW: 1 Phase 	•			•	24V	3.40A		•					
	•			•		5.00A				•			
	•			•		10.0A					•		
	•			•		20.0A						•	
	•			•		40.0A(A)							•

(A) Available by Q1'17

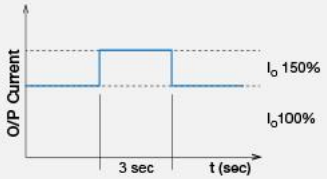
DIN Rail Power Supplies

IT | Industry | Renewable Energy | Oil & Gas | Semi-conductor | General

CliQ: Key Features



Full Power
across the entire
I/P Voltage Range



Power Boost
150% Load

SEMI F47 @ 200Vac
Voltage Sag Immunity

- **Aluminum casing:** Corrosion resistant
- **OLP, OVP, OTP,SCP**
- **Multiple wire connections allowed**

No power de-rating:
- Across the entire input voltage range
- Available both mounting orientations

Power Boost:
150% for 3 seconds
200% for 2 seconds*

**Available for 24V/480W*

- **SEMI F47**
- **Harmonic Current:** Conform to IEC/EN 61000-3-2

- **Hazardous Locations approval:** Certified for:
  - ATEX
  - Class I Div 2, T4
- **Altitude:** 2000m

Remarks:
1. Power will not de-rate for entire I/P 85-264Vac: For recommended orientations.
2. SEMI F47 approval for voltage sag immunity for semiconductor processing equipment : Certify for 24V output and comply for 12V output.
3. Hazardous location approval: Except for DRP-24V48W1AZ and DRP024V060W1AZ.

Competitor Spec Comparison

No	Item	DRP024V120W1AA	Brand M
Input Section	Max. Input Current	1.40A @ 115Vac, 0.80A @ 230Vac	2.6A @115Vac, 1.6A @230Vac
	Efficiency (%)	> 86% @ 115Vac, > 87% @ 230Vac	84% typ
	Inrush Current Max.(Cold Start)	80A @ 115Vac, No Damage @ 230Vac	20A @ 115Vac, 40A @ 230Vac
	Leakage current	< 1mA @ 240Vac	<3.5mA@240Vac
Output Section	Output Voltage	24V	24V
	Line Regulation	< 0.5% typ (@ 85-264Vac input, 100% input)	+/-0.5%
	Ripple & Noise (max)	240mVpp @ 25°C	80mVpp
	Overload Protection	> 150% of rated load current, Hicc-up Mode, Non-Latching (Auto-Recovery)	105-150% rated output power
	Rise Time	< 100ms @ nominal input	70ms@115Vac&230Vac at full load
	Holdup Time	> 35ms @ 115Vac, > 70ms @ 230Vac	32ms@115Vac, 36ms@230Vac at full load
Mechanical	Dimensions (LxWxH)	121x50x118.7 mm	125.2x65.5x100 mm
	Vibration	IEC60068-2-6, 10Hz to 150Hz @ 50m/S² (5G peak); 90 min per axis for all X, Y, Z direction	IEC60068-2-6, 10-500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes
	Humidity operation	< 95% RH Non-condensing	20-90% RH Non-condensing
Regulatory Compliance	Safety	SIQ to EN60950-1 cULus to UL 508 cRUus to UL 60950 CB scheme to IEC60950-1 CE (EMC, Low Voltage directive and RoHS) cCSAus to CSA C22.2 No. 60950-1 and 107.1-01 CSA C22.2 No. 213-M1987 (Class I, Div 2) ATEX to EN60079-0, EN60079-15	UL508, UL60950-1, TUV EN60950-1

**Benchmarking with specific brands will be provided upon request*

Better or same Worst

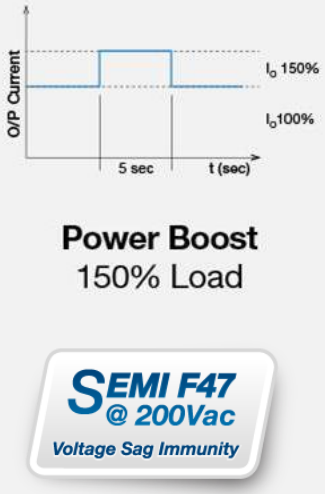
DIN Rail Power Supplies

IT | Industry | Household | Renewable Energy | Oil & Gas | General

CliQ II: Key Features

- **Aluminum casing:** Corrosion resistant
- **OLP, OVP, OTP**
- **IP20 Certified**

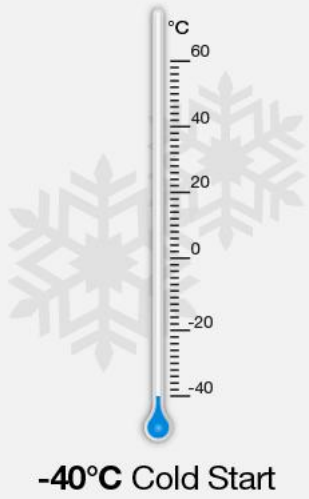
- **High Efficiency > 90%**
- **No power de-rating:**
  - Across the entire input voltage range
  - Available both mounting orientations



- **Power Boost:** 150% for 5 seconds 200% for 2 seconds*

**Available for 24V/480W*

- **SEMI F47:** comply



- **Extreme low temp:** -40˚C cold start
- **Harmonic Current:** Conform to IEC/EN 61000-3-2

- **Hazardous Locations approval:** Certificate to
  - ATEX
  - Class I Div 2, T4
- **Altitude:** 2500m

Remarks:

1. Power will not de-rate for entire I/P 85-264Vac: For recommended orientations.
2. High efficiency: Available to all model of CliQ II series - single phase input.
3. Extreme low temp: Except for 60W /100W NEC Class 2, Buffer module and DC-UPS module.
4. Hazardous location approval: Except for 960W 3-Phase input, Buffer module 40A and DC-UPS module.

Competitor Spec Comparison

No	Item	DRP024V120W1B□	Brand M
Input Section	Max. Input Current	2.20A @ 115Vac, 1.20A @ 230Vac	1.4A typ@115Vac, 0.7A typ@230Vac
	Efficiency (%)	> 89% @ 115Vac, > 90% @ 230Vac	91% typ
	Inrush Current Max.(Cold Start)	35A @ 115Vac & 230Vac	35A typ@115Vac, 70A typ@230Vac
	Leakage current	< 1mA @ 240Vac	< 1mA @ 240Vac
Output Section	Output Voltage	24V	24V
	Line Regulation	< 0.5% typ (@ 85-264Vac input, 100% input)	+/-1%
	Ripple & Noise (max)	150mVpp @ 25°C	100mVpp max
	Overload Protection	> 150% of rated load current, Hicc-up Mode, Non-Latching (Auto-Recovery)	110-150% rated output power for more than 3 seconds and then shut down o/p voltage
	Rise Time	< 100ms @ nominal input	60ms@115Vac&230Vac
	Holdup Time	> 20ms @ 115Vac, > 115ms @ 230Vac	20ms@115Vac&230Vac
Mechanical	Dimensions (LxWxH)	121x50x123.1 mm	125.2x40x113.5 mm
	Vibration	IEC60068-2-6, 10Hz to 500Hz @ 30m/S² (3G peak); 60 min per axis for all X, Y, Z direction	IEC60068-2-6; 10-500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes
	Humidity operation	< 95% RH Non-condensing	20-95% RH Non-condensing
Regulatory Compliance	Safety	SIQ to EN60950-1 cULus to UL 508 cRUus to UL 60950 CB scheme to IEC60950-1 CE (EMC, Low Voltage directive and RoHS) CSA to CSA C22.2 No. 107.1-01 CSA C22.2 No. 213-M1987 (Class I, Div 2) ATEX to EN60079-0, EN60079-15 CCC to GB4943.1	UL508, TUV EN60950-1

**Benchmarking with specific brands will be provided upon request*

Better or same Worst

DIN Rail Power Supplies

IT | Industry | Marine | Household | Renewable Energy | Oil & Gas | Semi-conductor | General

CliQ M: Key Features

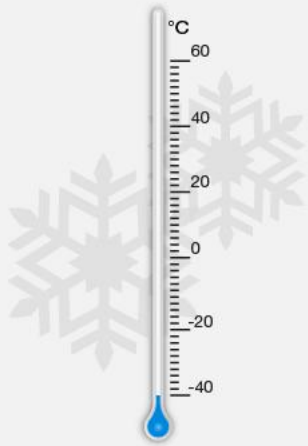
- **Aluminum casing:** Corrosion resistant
- **OLP, OVP, OTP**
- **IP20 Certified**

- **High Efficiency > 90%**
- **No power de-rating:**
  - Across the entire input voltage range
  - Available both mounting orientations

APB
Advanced Power Boost

POWER BOOST

Advanced Power Boost (APB)



-40°C Cold Start

- **Extreme low temp:** -40˚C cold start
- **Harmonic Current:** Conform to IEC/EN 61000-3-2

DC OK Relay Contact

SEMI F47 @ 200Vac
Voltage Sag Immunity

- **Built-in DC OK Contact**
- **SEMI F47:** comply

Remark:

1. No power de-rating: For recommended orientations.
2. High efficiency: Available to all model of CliQ M series – single phase input.

Competitor Spec Comparison

No	Item	DRM-24V120W1PN	Brand P
Input Section	Max. Input Current	1.31A typ@100Vac, 1.09A typ@120Vac, 0.60A typ@230Vac	1.34A typ@100Vac, 1.1A typ@120Vac, 0.62A typ@230Vac
	Efficiency (%)	91.09% min@100Vac, 91.77% min@120Vac 92.80% min@230Vac	90.5% typ@100Vac, 91.6% typ@120Vac, 92.7% typ@230Vac
	Inrush Current Max.(Cold Start)	5.2A typ@100Vac, 5.5A typ@120Vac, 10.1A typ@230Vac	8A typ@100Vac, 9A typ@120Vac, 11A typ@230Vac
	Leakage current	<0.18mA@110Vac(TN-,TT-mains) <0.46mA@110Vac(IT-mains) <0.22mA@132Vac(TN-,TT-mains) <0.54mA@132Vac(IT-mains) <0.45mA@264Vac(TN-,TT-mains) <1.08mA@264Vac(IT-mains)	<0.14mA@110Vac(TN-,TT-mains) <0.33mA@110Vac(IT-mains) <0.22mA@132Vac(TN-,TT-mains) <0.49mA@132Vac(IT-mains) <0.40mA@264Vac(TN-,TT-mains) <0.88mA@264Vac(IT-mains)
Output Section	Output Voltage	24V	24V
	Line Regulation	20mV (@ 85-264Vac input, 100% load)	20mV
	Ripple & Noise (max)	50mVpp	N/A
	Overload Protection	> 150% of rated load current, Constant current, Hiccup Mode (Auto-Recovery)	N/A
	Rise Time	18ms@100Vac,120Vac,230Vac (0mF) 50ms@100Vac,120Vac,230Vac (5mF)	18ms@100Vac,120Vac,230Vac (0mF) 38ms@100Vac,120Vac,230Vac (5mF)
	Holdup Time	34ms min@100Vac&120Vac, 65ms min@230Vac	34ms typ@100Vac&120Vac, 65ms typ@230Vac
Mechanical	Dimensions (LxWxH)	124x40x117 mm	124x40x117 mm
	Vibration	10Hz to 500Hz @ 30m/S² (3G peak); 60 min per axis for all X, Y, Z direction	2-17.8Hz: ±1.6mm; 17.8-500Hz: 2G 2 hours / axis
	Humidity operation	5-95% RH	5-95% RH
Regulatory Compliance	Safety	SIQ to EN 60950-1, EN 61558-1, EN 61558-2-16, EN 61010-1, EN 61010-2-201 UL/cUL recognized to UL 60950-1 and CSA C22.2 No. 60950-1 (File No. E191395) CB scheme to IEC 60950-1, IEC 61558-1, IEC 61558-2-16, IEC 61010-1, IEC 61010-2-201 UL/cUL listed to UL 508 and CSA C22.2 No. 107.1- 01 (File No. E315355), CSA to CSA C22.2 No. 107.1-01 (File No. 181564) GL (Germanischer Lloyd) classified ABS (American Bureau for Shipping) PDA	IEC60950-1, UL508, UL60950-1, ANSI/ISA 12.12.01-2007, EN60079-15 (ATEX), SEMI F47, GOST P

**Benchmarking with specific brands will be provided upon request*

Better or same Worst

DIN Rail Power Supplies

LYTE DIN RAIL POWER SUPPLIES

8 models

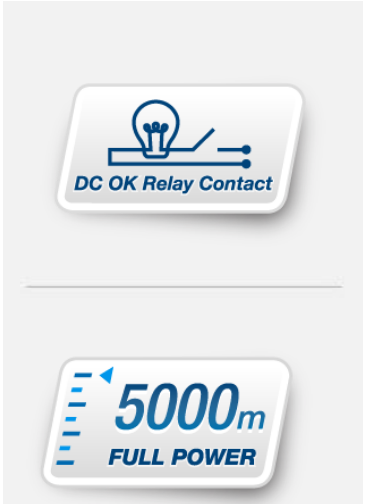
Series	Phase			PFC	O/P Voltage	O/P Current	Output Power (as of Nov 2016)		
	1	2	3				120W	240W	480W
LYTE • **NEW:** 1 Phase 	•				24V	5.00A	•		
	•			•		10.00A		•	
	•			•		20.00A			•
	•				48V	2.50A	•		

DIN Rail Power Supplies

LYTE: Key Features

IT | Industry | Renewable Energy | General

- **Competitive price**
- **General industrial application**
- **Panel and DIN rail mounting options**



- **Built-in DC OK Contact** (For selected model)
- **5000 meters or 16400 feet altitude**

ESD feature
(Air Discharge: 15kV,
Contact Discharge: 8kV

- **SEMI F47**
- **Harmonic Current:** Conform to IEC/EN 61000-3-2

Conformal coating on PCBA : Protect against chemical and common dust pollutants

DIN Rail Power Supplies

Competitor Spec Comparison

No	Item	DRL-24V120W1AA	Brand M
Input Section	Max. Input Current	2.20A @ 115Vac, 1.20A @ 230Vac	2.25A @ 115Vac, 1.3A @ 230Vac
	Efficiency (%)	85% typ. @ 115Vac, 88% typ. @ 230Vac	88% typ
	Inrush Current Max.(Cold Start)	20A typ. @ 115Vac, 40A typ. @ 230Vac	20A @ 115Vac, 35A @ 230Vac
	Leakage current	< 0.25mA @ 264Vac	<1mA @ 240Vac
Output Section	Output Voltage	24V	24V
	Line Regulation	< 0.5%	+/-0.5%
	Ripple & Noise (max)	120mVpp@ ≥ -10°C to +70°C 240mVpp @ ≤ -10°C to -20°C	120mVp-p
	Overload Protection	105-150% of rated load current, Continuous current	105-130% rated output power Constant current limiting, recovers automatically after fault condition is removed
	Rise Time	30ms typ. @ nominal input (100% load)	60ms @ 115Vac & 230Vac
	Holdup Time	20ms typ. @ 115Vac (100% load) 90ms typ. @ 230Vac (100% load)	10ms @ 115Vac, 16ms @ 230Vac
Mechanical	Dimensions (LxWxH)	123.6x40x117.6 mm	125.2x40x113.5 mm
	Vibration	10Hz to 500Hz @ 19.6m/s² (2G peak); displacement of 0.35mm; 10 min per cycle, 60 min for X direction	10 - 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes
	Humidity operation	5-95% RH Non-condensing	0-95% RH non-condensing
Regulatory Compliance	Safety	CE (EMC Directive 2004/108/EC and Low Voltage Directive 2006/95/EC) UL/cUL recognized to UL 60950-1 and CSA C22.2 No. 60950-1 UL/cUL listed to UL 508 and CSA C22.2 No. 107.1-01 CB scheme to IEC 60950-1 TUV Bauart to EN 60950-1	UL508, TUV EN60950-1

**Benchmarking with specific brands will be provided upon request*

Better or same Worst

DIN Rail Power Supplies

CHROME DIN RAIL POWER SUPPLIES — 9 models

CHROME

- 1 Phase

Series	Phase	O/P Voltage	O/P Current	Output Power (as of Nov 2016)					
	1			10W	30W	50W	60W	80W	100W
	•	5V	1.50A(A)	7.5W					
	•	12V	0.83A(A)	•					
	•		2.10A(A)		25.2W				
	•		4.50A(A)				54W		
	•		6.00A(B)						72W
	•	24V	0.42A(A)	•					
	•		1.25A(A)		•				
	•		2.50A(A)				•		
	•		3.80A(A)						91.2W

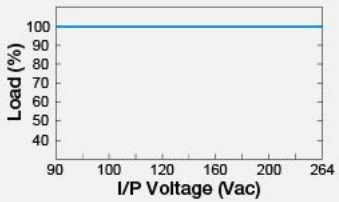
(A) With NEC Class 2 approval
(B) Available by Q4'16

DIN Rail Power Supplies

CHROME: Key Features

IT | Industry | Household | LED Signage | General

- **For use in compact Cabinets**
- **Dimensions (LxWxD)** 91x89.9x55.6mm



Full Power
across the entire
I/P Voltage Range

No power de-rating: Across the entire input voltage range

NEC CLASS 2

LPS
Limited Power Source

- **NEC Class 2**
- **Limited Power Source (LPS)**

Class II
Double Isolation

Class II Double Isolation: No earth connection is required

HARMONIC CURRENT

Harmonic Current: Conform to IEC/EN 61000-3-2

Remarks:

1. Power will not de-rate for entire I/P 90-264Vac: For recommended orientations.
2. NEC Class 2 approval according to UL/cUL recognized to UL 60950-1 and CSA C22.2 No. 60950-1.
3. LPS approval according to IEC/EN 60950-1
4. NEC Class 2 and LPS is not available for DRC-12V100W1AZ.

DIN Rail Power Supplies

Competitor Spec Comparison

No	Item	DRC-24V30W1AZ	Brand M
Input Section	Max. Input Current	0.80A @ 115Vac, 0.60A @ 230Vac	0.88A typ@115Vac, 0.48A typ@230Vac
	Efficiency (%)	> 87.0% @ 115Vac & 230Vac	83% typ
	Inrush Current Max.(Cold Start)	25A @ 115Vac, 50A @ 230Vac	15A typ @ 115Vac, 30A typ @ 230Vac
	Leakage current	< 0.25mA @ 240Vac	N/A
Output Section	Output Voltage	24V	24V
	Line Regulation	< 1% typ. (@ 90-264Vac, 100% load)	+/-1%
	Ripple & Noise (max)	150mVpp	120mVpp
	Overload Protection	> 130% of rated load current, Hiccup Mode, Non-Latching (Auto-Recovery when the fault is removed)	105-160% rated output power Constant current limiting, recovers automatically after fault condition is removed
	Rise Time	< 100ms @ nominal input (100% load)	30ms@115Vac&230Vac at full load
	Holdup Time	> 25ms @ 115Vac, > 30ms @ 230Vac (100% load)	21ms typ@115Vac, 100ms@230Vac at full load
Mechanical	Dimensions (LxWxH)	91x53x55.6 mm	93x78x56 mm
	Vibration	10Hz to 500Hz @ 20m/S² (2G peak); 10 min per cycle, 60 min for all X, Y, Z axis	10-500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes
	Humidity operation	< 95% RH Non-condensing	20-90% RH non-condensin
Regulatory Compliance	Safety	TUV to EN60950-1 cULus to UL 508 cRUus to UL 60950 CB scheme to IEC60950-1, LPS CE (EMC, Low Voltage directive and RoHS)	UL60950-1, TUV EN60950-1, Design refer to EN50178

**Benchmarking with specific brands will be provided upon request*

Better or same Worst

DIN Rail Power Supplies

SYNC DIN RAIL POWER SUPPLIES — 15 models

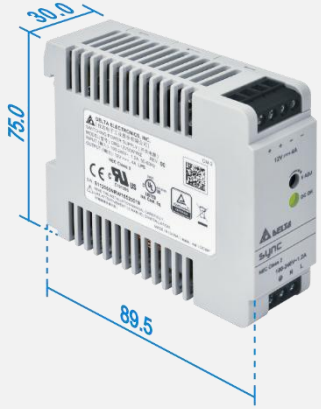
- **NEW:** 1 Phase

Series	Phase	PFC	O/P Voltage	O/P Current	Output Power (as of Nov 2016)							
	1				15W	25W	30W	50W	100W	120W	240W	480W
	•		5V	3.00A(A)	•							
	•			5.00A(A)		•						
	•			6.00A(B)			•					
	•		12V	4.00A(A)				48W		•		
	•		24V	1.25A(A)			•					
	•			2.10A(A)				•		•		
	•	•		3.80A(A)					91.2W		•	
	•	•		4.00A(B)					96W			•

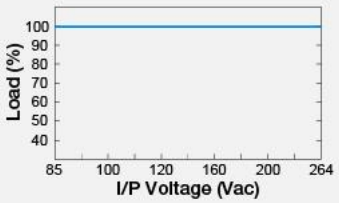
(A) With NEC Class 2 approval
(B) NO NEC Class 2 approval

SYNC: Key Features

IT | Industry | Household | LED Signage | General



- **Ultra compact size**



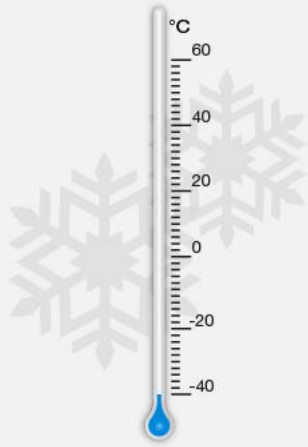
Full Power
across the entire
I/P Voltage Range

No power de-rating:
- Across the entire input voltage range
- Available both mounting orientations

NEC CLASS 2

LPS
Limited Power Source

- **NEC Class 2**
- **Limited Power Source** (LPS)



-40°C Cold Start

- **Extreme low temp:** -40˚C cold start
- **Harmonic Current:** Conform to IEC/EN 61000-3-2

DC OK Relay Contact

Built-in DC OK Contact
(For selected model)

Remarks:
1. NEC Class 2 and LPS is available for selected models only.

Competitor Spec Comparison

No	Item	DRS-24V30W1AZ	Brand T
Input Section	Max. Input Current	0.80A @ 115Vac, 0.40A @ 230Vac	0.55A@110Vac, 0.33A@230Vac
	Efficiency (%)	88.0% typ @ 230Vac	88%@110VAc, 90%@230Vac
	Inrush Current Max.(Cold Start)	60A @ 230Vac	40A typ
	Leakage current	< 0.5mA @ 240Vac	N/A
Output Section	Output Voltage	24V	24V
	Line Regulation	< 1% typ. (@ 85-264Vac, 100% load)	240mV
	Ripple & Noise (max)	150mVpp	30mV
	Overload Protection	110% - 150% of rated load current, Hicc-up Mode, Non-Latching (Auto-Recovery when the fault is removed)	Hiccup with auto recovery
	Rise Time	<50ms @ nominal input (100% load)	N/A
	Holdup Time	> 20ms @ 230Vac (100% load)	20ms@100Vac
Mechanical	Dimensions (LxWxH)	75x21x89.5 mm	75x21x90mm
	Vibration	5Hz to 500Hz(2.09Grms); 20min per axis for all X,Y,Z direction	10-55Hz(sweep for 1 min.):19.6 m/s2 (2G) Constant, X,Y,Z each 1hr
	Humidity operation	<95%RH Non-condensing	5-95% RH (non condensing)
Regulatory Compliance	Safety	TUV Bauart to EN 60950-1 UL/cUL recognized to UL60950-1 and CSA C22.2 No. 60950-1 CB scheme to IEC60950-1 UL/cUL listed to UL 508 and CSA C22.2 No. 107.1-01 CE (EMC Directive 2004/108/EC and Low Voltage Directive 2006/95/EC) CCC to GB4943	UL60950-1, CSA22.2 No.60950-1 (2nd edition), EN60950-1, UL508

**Benchmarking with specific brands will be provided upon request*

Better or same Worst

DIN Rail Modules

IT | Industry | Household | Renewable Energy | LED Signage | Oil & Gas | Semi-conductor | General

Redundancy

Buffer Modules

CliQ II REDUNDANCY & BUFFER MODULES — 2 models each

REDUNDANCY	20A	40A
Output Current	Normal mode = 0-20Amps; Short circuit or Overload = 25Amps max.	Normal mode = 0-40Amps; Short circuit or Overload = 50Amps max.
Input Voltage Range	22-60Vdc	
Input Current	1+1 Redundancy) = Nom. 2 x 12.5Amps (N+1 Redundancy) = Nom. 2 x 10Amps (Single use) = Nom. 20Amps	1+1 Redundancy) = Nom 2 x 25Amps (N+1 Redundancy) = Nom. 2 x 20Amps (Single use) = Nom. 40Amps

BUFFER	20A	40A
Output Voltage	24Vdc typ. (Depends on Vin)	
Output Voltage Range	22-28V (Switch = “Fix 22V” buffering starts if terminal voltage falls below 22V) (Switch = “Vin - 1V” buffering starts if terminal voltage is decreased by more than 1V)	
Output Current	20A	40A
Input Voltage Range	22.8-28.8Vdc	
Input Current	Charging Mode: < 0.6A @ 25˚C	

DIN Rail Modules

IT | Industry | Household | Renewable Energy | LED Signage | Oil & Gas | Semi-conductor | General

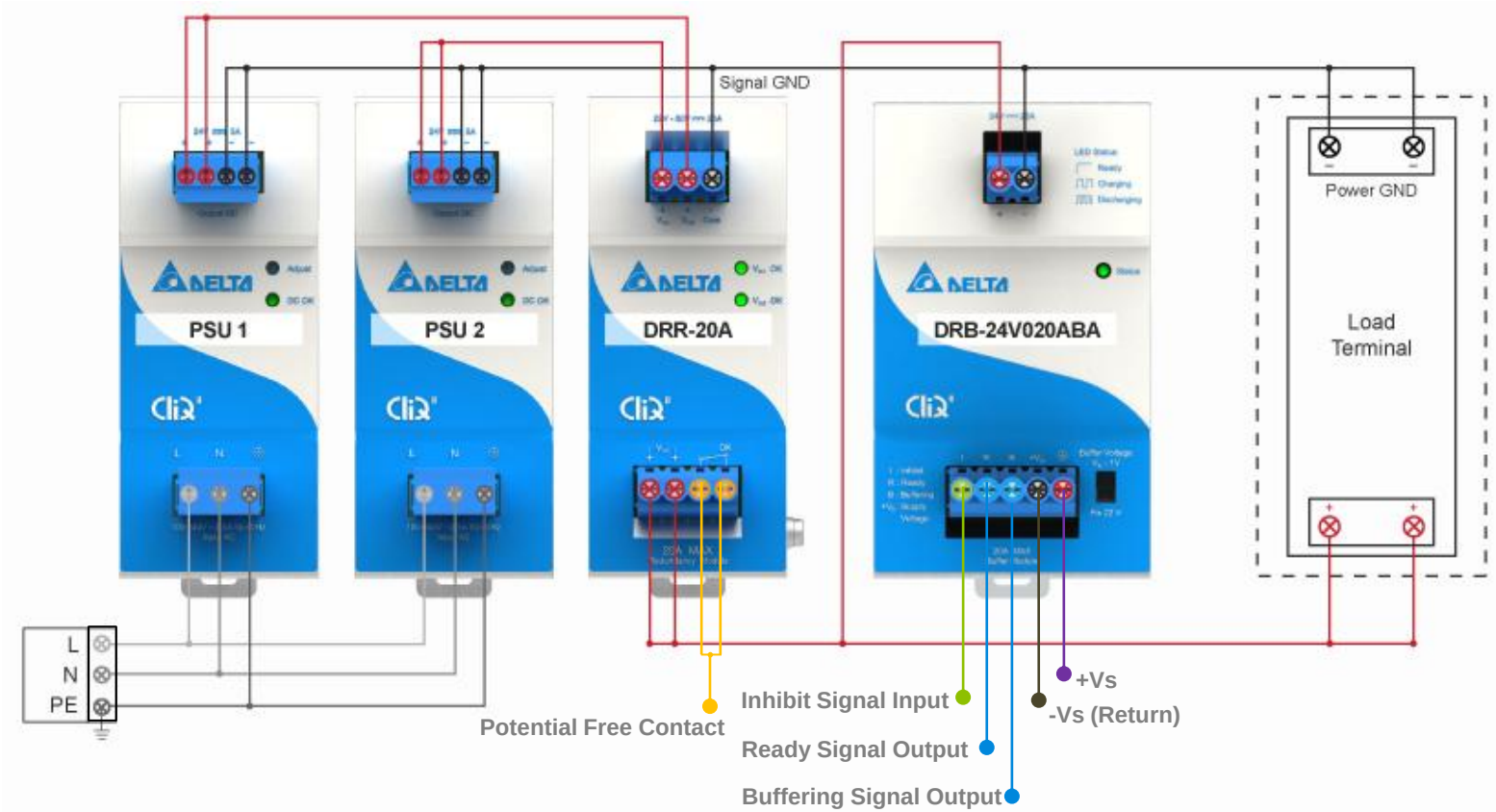
DC UPS Module

CliQ II DC UPS MODULE

DC UPS	40A
Input Voltage Range	24-28Vdc
Input Current	Charging Mode: 2.0A ± 1.0A
Nominal Battery Voltage	24Vdc, SLA Sealed lead acid battery 2 x 12Vdc, SLA Sealed lead acid battery
Battery Voltage Range	23-28Vdc (continuously operating) 30Vdc Max (the maximum voltage that will not cause damage to the unit) 14Vdc Min (the voltage level of battery to enable "BAT Fail" function)
Battery Capacity	7.5AH/ 12AH/ 15AH
Charging Time*	< 3hr ± 1hr for battery 24V/15AH

*Charging time depends on the last state of discharge w.r.t. buffering time and load current.

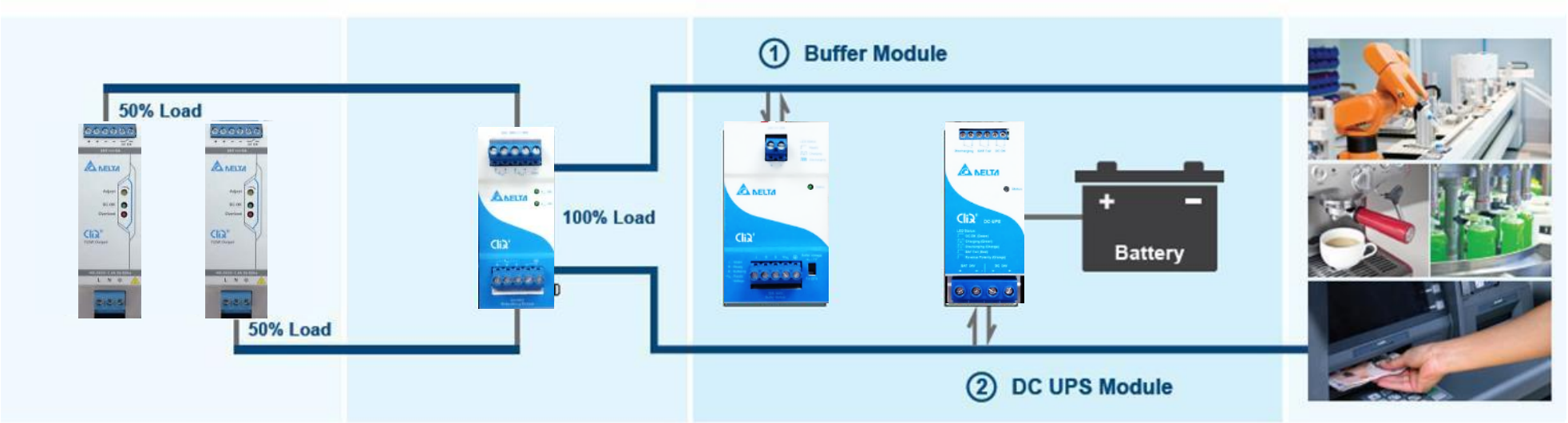
CliQ DIN Rail Power Management



Delta Electronics' CliQ DIN Rail power management products include power supply units, redundancy modules and Buffer modules. The solution ensures no power supply down time for the customer when at least two power supplies are properly connected with a Redundancy and Buffer modules. For more information , please visit www.DeltaPSU.com

DIN Rail Power Supplies & Modules

CliQ DIN Rail Power Management



Delta Standard Power Supplies

Redundancy Module N+1 can be Added to protect against system shutdown

① Buffer Module allows a system to continue running even during sudden power sources disruption lasting from milliseconds to seconds.

② DC UPS (Uninterruptible Power Supply) Module allows a system to continue running even during sudden power sources disruption lasting from minutes to hours.

Delta Electronics' CliQ DIN Rail power management products include power supply units, redundancy modules, Buffer modules and DC-UPS modules. For more information , please visit www.DeltaPSU.com

Panel Mount Power Supplies

Panel Mount Power Supplies

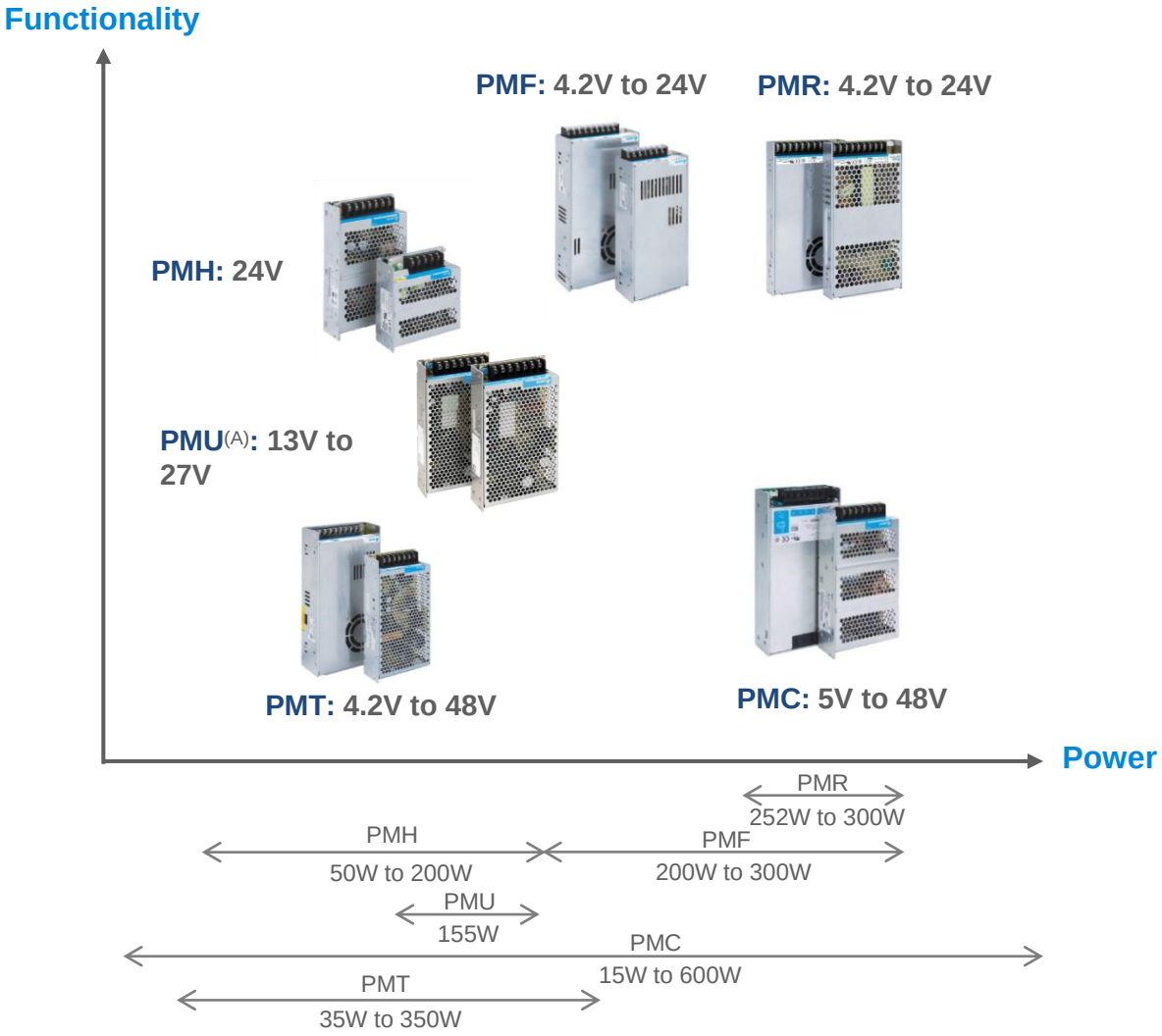
Panel Mount PSU Series Comparison

Product Type	Series	
 PMC/PMT	**PMC**	• Aluminium casing • Universal AC input voltage
 PMH	**PMT**	• UL approval • Basic specs • High MTBF
 PMU(A)	**PMH**	• Household and ITE safety approvals
 PMF	**PMU**(A)	• Power supply with integrated DC-UPS
 PMR	**PMF**	• Remote ON/OFF • Built-in PFC
	PMR	• Thickness < 1U • Built-in PFC

(A) Available by Q1'17

Panel Mount Power Supplies

Product Series Positioning (All Series)



(A) *Available by Q1'17*

Panel Mount Power Supplies

Critical Spec Summary

Spec	PMC	PMT	PMU (A)	PMH	PMF	PMR
Power range	15W-600W	35W-350W	155W	50W-200W	200W-320W	252W-300W
AC Vin	- Universal - Power will not de-rate for the entire input voltage range (except 600W)	- AC input voltage by selectable switch (35W, 50W universal) - Power will need to de-rate	- AC input voltage by selectable switch - Power will need to de-rate at low input voltage	- Universal - Power will not de-rate for the entire input voltage range	- Universal - Power will need to de-rate at low input voltage	- Universal - Power will need to de-rate at low input voltage
DC Vin	- DC input range is listed in safety file for selected models.	- Not support DC input.	- 254-375Vdc (selected input switch at 230Vac)	- DC input range is listed in safety file for selected models.	- Not support DC input.	- Not support DC input.
Inrush current	40-120A @ 230Vac	45-60A @ 230Vac	< 50A @ 230Vac	60-12A @ 230Vac	40-60A @ 230Vac	40A @ 230Vac
Active PFC	Yes, selected models	No	No	Yes, selected models	Yes	Yes
Current sharing and DC OK relay	No	No	Yes	No	No	Yes, selected model
Remote ON/OFF	No	No	No	No	Yes, selected model	No
Casing	Al	Al + SGCC	Al + SGCC	Al	Al	Al
Operating temp	-10C to 70C > 50C de-rate power	-10C to 70C > 50C de-rate power	-20C to 70C > 50°C de-rate power < 0°C de-rate power	-30C to 70C > 50C de-rate power < -20°C de-rate power	-10C to 70°C (Cold start -20C) > 50C de-rate power	Fanless: -20C to 70C (Cold start -40C) > 40C de-rate power Built-in fan: -10C to 70C (Cold start -30C) > 50C de-rate power
Operating altitude	3000m to 5000m (ITE)	5,000m (ITE)	5,000m (ITE)	5,000m (ITE)	5,000m (ITE)	5,000 (ITE)
Degree of protection	IP20 for selected model	-	-	IP20 for selected model	-	-
Safety approval	IEC/EN/UL 60950-1 CE TUV or SIQ or Nemko CCC EAC	IEC/EN/UL 60950-1 CE TUV CCC EAC	IEC/EN/UL 60950-1 CE SIQ CCC	IEC/EN/UL 60950-1 IEC/EN 60335-1 IEC/EN 61558-1, -2-16 CE SIQ EAC	IEC/EN/UL 60950-1 CE TUV CCC EAC	IEC/EN/UL 60950-1 CE TUV CCC

(A) *Available by Q1'17*

Panel Mount Power Supplies

PMC PANEL MOUNT POWER SUPPLIES

>40 models

PMC

- 1 Phase

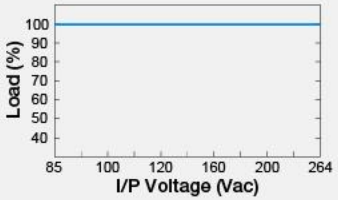
Series	Phase	PFC	O/P Voltage	O/P Current	Output Power (as of Nov 2016)								
	1				15W	35W	50W	60W	75W	100W	150W	300W	600W
PMC	•		5V	3.00A	•								
	•			7.00A		•							
	•			10.00A			•						
	•		12V	3.00A		•							
	•			4.17A			•						
	•			5.00A(A)				•					
	•			8.33A						•			
		•		12.50A							•		
	•		24V	1.46A		•							
	•			2.10A			•						
	•			3.12A					•				
	•			4.17A						•			
	•			6.25A							•		
	•	•		6.25A							•		
	•	•		12.50A								•	
	•	•		25.00A									•
	•	•	48V	3.125A							•		
	•		24V/5V	4.00A/7.00A						•			

(A) *NEC Class 2 approval*

Panel Mount Power Supplies

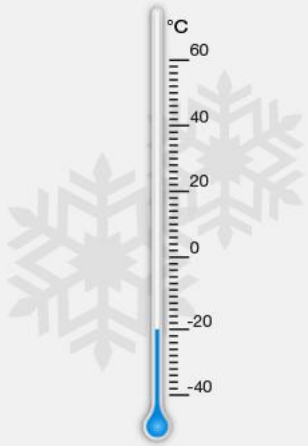
PMC: Key Features

IT | Industry | Household | LED Signage | General



Full Power
across the entire
I/P Voltage Range

Mean Time Between Failure



-20°C Cold Start

- **Aluminium casing:** Corrosion resistant
- **OLP, OVP, OTP**

No power de-rating:
Across the entire input voltage range

High MTBF:
MTBF > 700,000 hrs.
as per Telcordia SR-332

High Efficiency

Low temp:
-20˚C cold start
for selected model

Remarks:

1. Power will not de-rate for entire I/P 85-264Vac: For recommended orientations.
2. High efficiency and Cold start: For selected models.
3. Conformal coating can be added upon customer request.

Panel Mount Power Supplies

Competitor Spec Comparison

No	Item	PMC-24V150W1B□	Brand M
Input Section	Max. Input Current	1.7A @ 115Vac, 1.0A @ 230vac	2.5A@115Vac,1.2A@230Vac
	Efficiency (%)	>88% @ 115Vac, >89 @ 230Vac	83%
	Inrush Current Max.(Cold Start)	60A @ 115Vac, 120A @ 230vac	40A@230Vac
	Leakage current	< 1mA @ 240Vac	<2mA @ 240Vac
Output Section	Output Voltage	24V	24V
	Line Regulation	< 0.5% typ.	0.50%
	Ripple & Noise (max)	100mVp-p	150mVp-p
	Overload Protection	>120% of rated load current, Hicc-up Mode, Non-Latching (Auto-Recovery)	105-150% rated o/p power, Constant current limiting, recovers automatically after fault condition is removed
	Rise Time	<30ms@100% load	30ms @ full load
	Holdup Time	>30ms @ 115 Vac & 230 Vac	20ms @ full load
Mechanical	Dimensions (LxWxH)	178x97x38 mm	199x99x50 mm
	Vibration	10-150Hz @ 50m/s2 (5G peak); 20 min per axis for all X, Y, Z direction	10-500Hz, 2G 10min/1cycle, 60min. Each along x,y,z axes
	Humidity operation	5-95% RH (Non-Condensing)	10-95%RH
Regulatory Compliance	Safety	UR/cUR recognize to UL60950-1 and CSA C22.2 No. 60950-1 CB test certificate and report to IEC60950-1, BAUART via TUV or SIQ, CE (EMC and Low Voltage directive) CCC	UL60950-1,TUV EN60950-1
Other	Connector type option	Front Face connector	

**Benchmarking with specific brands will be provided upon request*

Panel Mount Power Supplies

PMT PANEL MOUNT POWER SUPPLIES >70 models

PMT

- 1 Phase

Series	Phase	PFC	O/P Voltage	O/P Current	Output Power (as of Nov 2016)						
	1				35W	50W	100W	150W	200W	300W	350W
	•		4.2V	60.00A							252W
	•		5V	7.00A	•						
	•			10.00A		•					
	•			60.00A						•	
	•		12V	2.92A	•						
	•			4.20A		•					
	•			8.50A			•				
				12.50A				•			
	•		15V	3.40A		•					
	•		24V	1.46A	•						
	•			2.09A		•					
	•			4.50A			•				
	•			6.50A				•			
	•			8.80A					•		
	•			14.60A							•
	•		36V	9.70A							349.2W
	•		48V	3.30A				•			
	•			7.30A							•
	•		12V / 5V	7.00A/3.00A			•				
	•		24V / 5V	3.50A/3.00A			•				

Panel Mount Power Supplies

IT | Industry | LED Signage | General

PMT: Key Features

AC input voltage selectable by switch: Universal AC input voltage for selected models only

OLP, OVP, OTP,SCP

High MTBF: MTBF > 700,000 hrs. as per Telcordia SR-332

Versatile connector options: Terminal Block, Front Face, Harness connectors

Value for money: High reliability at low price

Remarks:

1. Conformal coating can be added upon customer request.

Panel Mount Power Supplies

Competitor Spec Comparison

No	Item	PMT-24V50W1A□	Brand M
Input Section	Max. Input Current	1.10A @ 115Vac, 0.65A @ 230Vac	1.1A@115VAC, 0.65A @ 230VAC
	Efficiency (%)	> 86.0% @ 115Vac & 230Vac	86%
	Inrush Current Max.(Cold Start)	30A @ 115Vac, 60A @ 230Vac	Cold Start 45A
	Leakage current	< 1mA @ 240Vac	< 2mA@240Vac
Output Section	Output Voltage	24V	24V
	Line Regulation	< 0.5% typ (@ 85-264Vac input, 100% input)	+/-0.5%
	Ripple & Noise (max)	100mVpp @ 25°C	200mVp-p
	Overload Protection	> 120% of rated load current, Hicc-up Mode, Non-Latching (Auto-Recovery)	110-150% rated output power, Hiccup mode, recovers automatically after fault condition is
	Rise Time	< 30ms @ nominal input	30ms@115Vac&230Vac at full load
	Holdup Time	> 16.7ms @ 115Vac	10ms @ 115Vac, 50ms @ 230Vac at full load
Mechanical	Dimensions (LxWxH)	98x97x38 mm	129x98x38 mm
	Vibration	IEC60068-2-6, 10Hz to 55Hz @ 50m/S² (5G peak); 90 min per axis for all X, Y, Z direction	10-500Hz,2G 10 min/1cycle,period for 60min.each along x,y,z axes
	Humidity operation	< 95% RH non-condensing	20-90% RH non-condensing
Regulatory Compliance	Safety	CCC, TUV Bauart to EN60950-1, UL/cUL recognized to UL60950-1, CSA C22.2 No. 60950-1, CB scheme to IEC60950-1	UL60950-1, CB (IEC60950-1) Approved
Other	Connector type option	Front Face connector Harness connector	N/A
	Package option	L Frame Open frame	N/A

**Benchmarking with specific brands will be provided upon request*

Better or same Worst

Panel Mount Power Supplies

PMF PANEL MOUNT POWER SUPPLIES

20 models

Series	Phase	PFC	O/P Voltage	O/P Current	Output Power (as of Nov 2016)		
	1				200W	240W	320W
PMF • 1 Phase 	•	•	4.2V	55.0A			231W
	•	•	5V	55.0A			275W
	•	•	24V	8.40A	•		
	•	•		10.0A		•	
	•	•		13.3A			•

Panel Mount Power Supplies

PMF: Key Features

IT | Industry | LED Signage | General

- OLP, OVP, OTP,SCP
- Universal AC input voltage

Built-in Remote ON/OFF and automatic fan speed control

Built-in Active PFC

High Efficiency

Harmonic Current: Conform to IEC/EN 61000-3-2, Class A and Class D

Remarks:

1. Conformal coating can be added upon customer request.

Panel Mount Power Supplies

Competitor Spec Comparison

No	Item	PMF-24V320WCGB	Brand M
Input Section	Max. Input Current	5A @ 115Vac, 2.5A @230 Vac	5A@115Vac,2.5A@230Vac
	Efficiency (%)	87% typ @230Vac	87%
	Inrush Current Max.(Cold Start)	20A @115Vac, 40A @230Vac	20A@115Vac,40A@230Vac
	Leakage current	<1mA @ 240Vac	<1mA@240Vac
Output Section	Output Voltage	24V	24V
	Line Regulation	+/- 0.2% typ. (@ 115Vac & 230Vac)	+/-0.2%
	Ripple & Noise (max)	150mVpp@ 25°C 300mVpp @ -10°C	150mVp-p
	Overload Protection	105-150%, Hiccup Mode, Non-Latching (Auto-Recovery)	105-135% rated output power, Hiccup mode, recovers automatically after fault condition is removed
	Rise Time	50ms typ. @ 115Vac & 230Vac (100% load)	50ms@115Vac&230Vac at full load
	Holdup Time	20ms typ. @ 115Vac & 230Vac	16ms@115Vac&230Vac at full load
Mechanical	Dimensions (LxWxH)	215x115x50 mm	215x115x50 mm
	Vibration	5-500Hz (2.09Grms); 20 min per axis for all X, Y, Z direction	10-500Hz, 2G 10min/1cycle, 60min. Each along X,Y,Z axes
	Humidity operation	5-95%RH Non condensing	20-90%RH
Regulatory Compliance	Safety	UL60950-1 TUV EN60950-1 CCC GB4943	UL60950-1,TUV EN60950-1
Other	Connector type option	Terminal Block	

**Benchmarking with specific brands will be provided upon request*

Better or same Worst

Panel Mount Power Supplies

PMH PANEL MOUNT POWER SUPPLIES

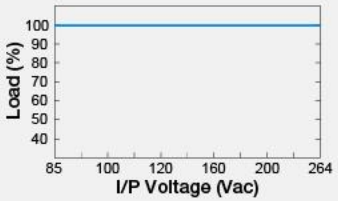
>30 models

Series	Phase	PFC	O/P Voltage	O/P Current	Output Power (as of Nov 2016)			
	1				50W	100W	150W	200W
PMH • 1 Phase 	•		24V	2.10A	•			
	•			4.16A		•		
	•	•		6.25A			•	
	•	•		8.33A				•

Panel Mount Power Supplies

PMH: Key Features

IT Industry Household General



Full Power
across the entire
I/P Voltage Range

Mean Time Between Failure

Aluminum casing: Corrosion resistant	**No power de-rating:** Across the entire input voltage range	**High MTBF:** MTBF > 700,000 hrs. as per Telcordia SR-332	**Versatile connector options:** Terminal Block, IP20, Front Face, Harness connectors	**Additional safety approvals:** EN 60335-1 (Household) and EN 61558-1 (Transformers for SMPS)

Remarks:

1. Power will not de-rate for entire I/P 85-264Vac: For recommended orientations.

Panel Mount Power Supplies

Competitor Spec Comparison

No	Item	PMH-24V50WCAA	Brand M
Input Section	Max. Input Current	1.1A @ 115Vac, 0.7A @ 230Vac	0.95A@115Vac, 0.56A@230Vac
	Efficiency (%)	> 89.0% @ 115Vac, > 91.0% @ 230Vac	89%
	Inrush Current Max.(Cold Start)	30A @ 115Vac, 60A @ 230Vac	60A typ@230Vac
	Leakage current	< 0.9mA @ 264Vac	<0.75mA@240Vac
Output Section	Output Voltage	24V	24V
	Line Regulation	< 0.5% (@ 85-264Vac input, 100% load)	+/-0.5%
	Ripple & Noise (max)	100mVpp @ -20°C to 70°C 150mVpp @ -30°C t0 -20°C	200mVpp
	Overload Protection	> 120% of rated load current, Hiccup Mode, Non-Latching (Auto recovery)	110-140% rated o/p power, Hiccup mode, recovers automatically after fault condition is removed
	Rise Time	< 35ms @ nominal input (100% load)	30ms@115Vac&230Vac
	Holdup Time	> 45ms @ 115Vac & 230Vac (100% load)	12ms@115Vac, 16ms@230Vac
Mechanical	Dimensions (LxWxH)	97x178x38 mm	97x159x30 mm
	Vibration	10-150Hz @ 50m/S² (5G peak); 20 min per axis for all X, Y, Z direction	10-500Hz, 5G 10min./1cycle, 60min. each along X, Y, Z axes
	Humidity operation	5-95% RH non-condensing	20-90% RH non-condensing
Regulatory Compliance	Safety	EN 60950-1, EN 60335-1, EN 61558-1, EN 61558-2-16 UL 60950-1 and CSA C22.2 No. 60950-1 (File No. E191395) IEC 60950-1, IEC 60335-1, IEC 61558-1, IEC 61558-2-16	UL60950-1, TUV EN60950-1, EN60335-1, EN61558-1/-2-16, CCC GB4943
Other	Connector type option	IP20 Connector Front Facc Connector Harness Connector	

**Benchmarking with specific brands will be provided upon request*

Better or same Worst

Panel Mount Power Supplies

PMR PANEL MOUNT POWER SUPPLIES >10 models

Series	Phase	PFC	O/P Voltage	O/P Current	Output Power (as of Nov 2016)
	1				
PMR • 1 Phase 	•	•	4.2V	60.00A (A)	252W
	•	•	5V	60.00A (A)	300W

(A) Parallel Operation is option for Enclosed without Fan

Panel Mount Power Supplies

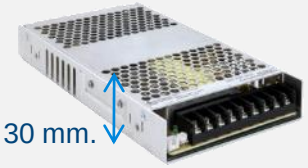
PMR: Key Features

IT | Industry | LED Signage | General

Full Corrosion resistant aluminum chassis

Built-in parallel feature and DC OK relay contact are available as an options

Built-in Active PFC and conforms to IEC/EN 61000-3-2, Class A and Class D



Low profile with 30 mm. thickness.*

Conformal Coating on PCBA

Conformal coating on PCBAs is available as an option

Remarks:

1. Parallel connection and DC OK relay contact: For selected models.
2. Conformal coating can be added upon customer request.
3. *Low profile design for 1U installation.

Panel Mount Power Supplies

Competitor Spec Comparison

No	Item	PMR-5V320WCAA	Brand M
Input Section	Max. Input Current	4.50A @ 115Vac, 2.50A @ 230Vac	5A@115 Vac & 2.5A@230 Vac
	Efficiency (%)	81.0% typ. @ 115Vac, 84.0% typ. @ 230Vac	85%
	Inrush Current Max.(Cold Start)	20A @ 115Vac, 40A @ 230Vac	20A@115 Vac , 40A@230 Vac
	Leakage current	< 0.5mA @ 240Vac	<1mA@240 Vac
Output Section	Output Voltage	5V	5V
	Line Regulation	+/-0.5% typ	+/-2%
	Ripple & Noise (max)	150mVpp@ 25°C 300mVpp @ -10°C	150m Vpp
	Overload Protection	105-150%, Hiccup Mode, Non-Latching (Auto-Recovery)	105-135% rated output power; Hiccup mo, recovers automatucally after fault condition is removed
	Rise Time	50ms typ. @ 115Vac & 230Vac	50ms@230 Vac,50ms@115 Vac at full load
	Holdup Time	8ms typ. @ 115Vac & 230Vac	8ms at full load, 115 Vac & 230Vac
Mechanical	Dimensions (LxWxH)	215x115x30 mm	215x115x30 mm
	Vibration	5-500Hz (2.09Grms); 20 min per axis for all X, Y, Z direction	10-500 Hz,2G 10 min./1 cycle, 60min each along X,Y,Z axes
	Humidity operation	5-95%RH Non condensing	20-90% RH non-condensing
Regulatory Compliance	Safety	TUV Bauart to EN 60950-1, UL/cUL recognized to UL 60950-1 and CSA C22.2 No. 60950-1, CB scheme to IEC 60950-1, CCC to GB 4943	UL60950-1,TUV EN60950-1 approved
Other	Connector type option	Front Face connector	

**Benchmarking with specific brands will be provided upon request*

Better or same Worst

New Panel Mount Power Supplies

PMU

PMU- 155W

HIGHLIGHTS & FEATURES

- AC input voltage selectable by switch
- LED indicator for DC OK (green) and Battery reverse (red)
- Zero switch over time between mains to battery (no relay used)
- Conforms to harmonic current IEC/EN 61000-3-2, Class A
- High MTBF > 700,000 hrs. per Telcordia SR-332
- Monitoring signal for AC OK, DC OK and Battery Low as options
- Overvoltage / Overcurrent / Over Temperature / Short Circuit Protections

IT Industry General

Vout	13V, 27V
Power	155W

Panel Mount Power Supplies

PMU PANEL MOUNT POWER SUPPLIES

8 models

Series	Phase	PFC	O/P Voltage	O/P Current	Output Power (as of Nov 2016)
	1				
PMU • 1 Phase 	•		13.8V	V1: 9.50A B+: 1.50A (Enclosed & L Frame)	151W
	•		27.6V	V1: 4.00A B+: 1.50A (Enclosed) B+: 1.20A (L Frame)	151W

New Panel Mount Power Supplies

Competitor Spec Comparison

No	Item	PMU-27V155WCBx		Brand M	
		CH1	CH2	CH1	CH2
Input Section	Max. Input Current	3A typ @115Vac, 2A typ @230Vac		2.5A typ @ 115Vac, 1.5A typ @ 230Vac	
	Efficiency (%)	88% Typ @115Vac		84% typ @ 230Vac	
	Inrush Current Max.(Cold Start)	50A at cold start		23A typ @ 115Vac, 45A typ @ 230Vac	
	Leakage current	< 1mA @ 240Vac		< 1mA @ 240Vac	
Output Section	Output Voltage	27.6V	27.1V	27.6V	27.1V
	Output Voltage Adjustment range	24-28V	-	24-29V	-
	Nominal Output Current	4A	1.5A	5A	0.5A
	Rated Output Current	0-5.5A	0-1.5A	0-5.5A	0-0.5A
	Line Regulation	+/-0.5%		+/-0.5%	
	Ripple & Noise (max)	< 150mVp-p @ 115V & 230Vac		< 150mVp-p @ 230Vac	
	Overload Protection	CH1: 105 ~ 150% CH2: 1.5A ~ 2.1A rated output power Protection type : AC Charging Mode : Constant current limiting, recovers automatically after fault condition is removed UPS Mode : Protected by internal fuse		CH1: 105 ~ 135% CH2: 0.51 ~ 0.9A rated output power Protection type : AC Charging Mode : Constant current limiting, recovers automatically after fault condition is removed UPS Mode : Protected by internal fuse	
	Rise Time	20ms @ 115Vac & 230ac at full load		90ms @ 115Vac & 230ac at full load	
	Holdup Time	15mS @ 115Vac & 230ac		20ms typ @ 115Vac, 24ms typ @ 230Vac at full load	
Mechanical	Dimensions (LxWxH)	178 x 97 x 38 mm		199 x 110 x 50 mm	
	Vibration	10-150Hz @ 50m/S² (5G peak); displacement of 0.35mm; 20 min per axis for all X, Y, Z direction		10-500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes	
	Humidity operation	5-95% RH non-condensing		20-90% RH non-condensing	
Regulatory Compliance	Safety	TUV Bauart to EN 60950-1, UL/cUL recognized to UL 60950-1 and CSA C22.2 No. 60950-1, CB scheme to IEC 60950-1, CCC to GB4943		TUV EN60950-1 , UL 60950-1, IEC 60950-1	
Other	Connector type option	IP20 Connector Front Face Connector Harness Connector			

**Benchmarking with specific brands will be provided upon request*

Open Frame Power Supplies

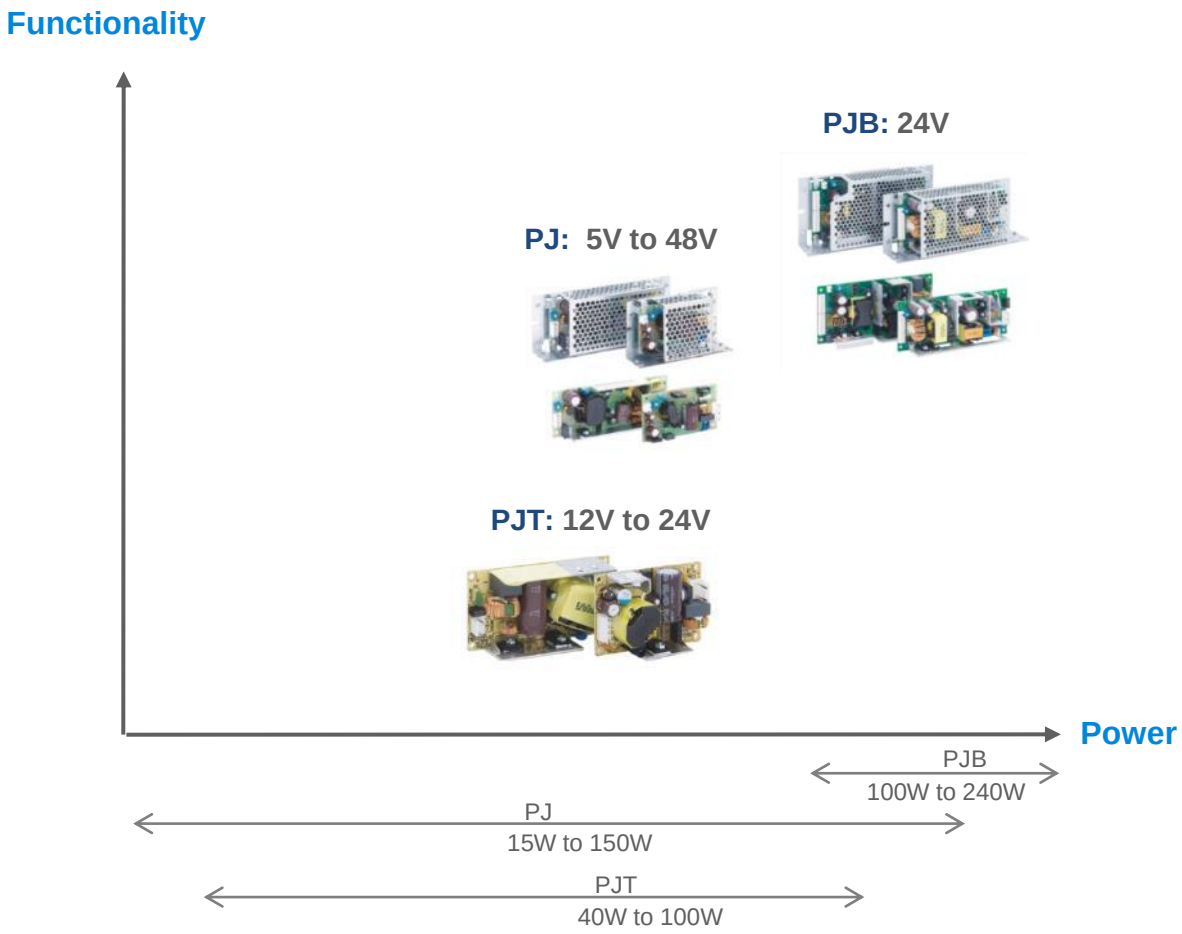
Open Frame Power Supplies

Open Frame PSU Series Comparison

Product Type	Series	
 PJ/PJB  PJT	**PJ**	• Built-in PFC • Versatile configurations • Conformal coating
	PJB	• Built-in PFC / Power Boost • Conformal coating
	PJT	• Built-in PFC • Small footprint

Open Frame Power Supplies

Product Series Positioning (All Series)



Open Frame Power Supplies

Critical Spec Summary

Spec	PJ	PJB	PJT
Power range	15W-150W	100W-240W	40W-100W
AC Vin	- Universal - Power will need to de-rate at < 90Vac	- Universal - Power will need to de-rate at < 90Vac	- Universal - Power will not de-rate for the entire input voltage range
DC Vin	- Not support DC input.	- Not support DC input.	- Not support DC input.
Inrush current	30A @ 200Vac	30A @ 200Vac	60A @ 230Vac
Active PFC	Yes, 50W and above	Yes	Yes, selected models
Power Boost	No	200% for 10 seconds	No
Remote ON/OFF	Yes, 100W and above	Yes	No
Casing	SGCC (option)	SGCC (option)	No
Operating temp	-10C to 70C > 50C de-rate power	-10C to 70C > 50C de-rate power	-10C to 70C > 50C de-rate power
Operating altitude	5,000m (ITE)	5,000m (ITE)	5,000m (ITE)
Safety approval	IEC/EN/UL 60950-1 CE TUV CCC (selected models) EAC (selected models)	IEC/EN/UL 60950-1 CE TUV	IEC/EN/UL 60950-1 CE TUV

Open Frame Power Supplies

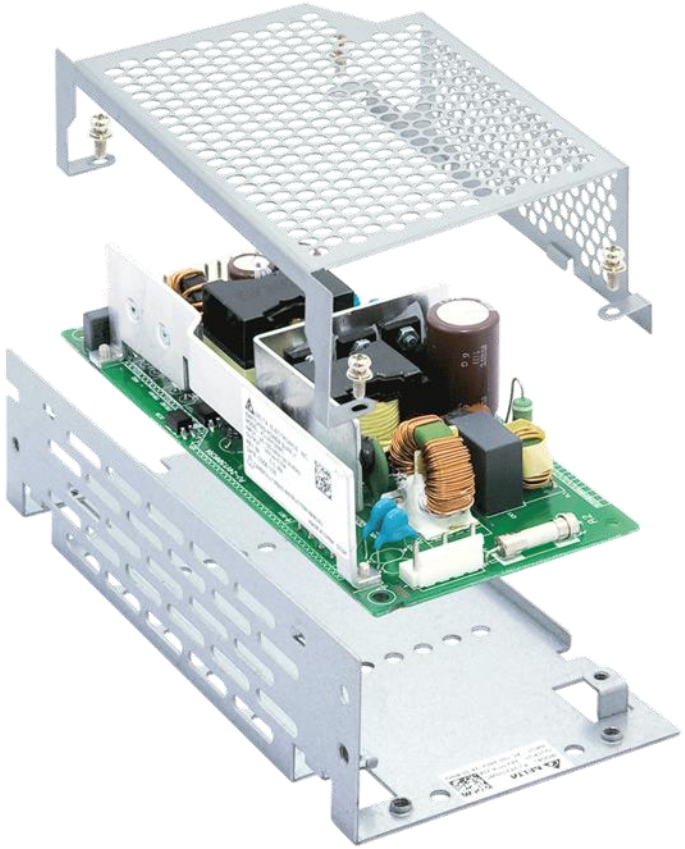
PJ OPEN FRAME POWER SUPPLIES

> 40 models

Series	Phase	PFC	O/P Voltage	O/P Current	Output Power (as of Nov 2016)					
	1				15W	30W	50W	100W	150W	240W
PJ  Open Frame (Standard type)	•		5V	3.00A	•					
	•		12V	1.30A	•					
	•			2.50A		•				
	•	•		4.30A			•			
	•	•		8.50A				•		
	•	•		12.50A					•	
 Enclosed & L Frame (Cover & Chassis Type)	•		24V	1.25A		•				
	•	•		2.10A			•			
	•	•		4.30A				•		
	•	•		6.30A					•	
	•	•	48V	1.10A			•			

Open Frame Power Supplies

PJ



- Enclosed
- Open Frame
- L Frame

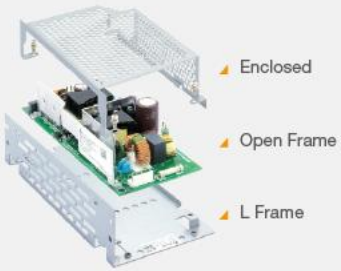
Highlights & Features

- Universal AC input voltage
- High PF > 0.97
- Low inrush current/ low leakage current
- Conforms to harmonic current IEC/EN 61000-3-2, Class A
- Conformal coating on PCBA to protect against chemical and dust pollutants
- Versatile configuration options:
  - Open frame
  - L frame
  - Enclosed
- Remote on/off options for selected models
- Long life capacitors

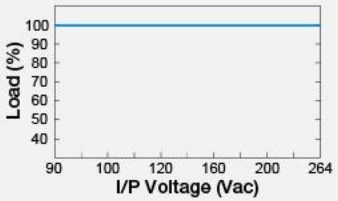
Open Frame Power Supplies

PJ: Key Features

IT | Industry | LED Signage | General



- **Versatile configuration options:** Enclosed, Open Frame, L Frame
- **Long life capacitors**



Full Power across the entire I/P Voltage Range

- **Universal AC input voltage range**
- **High PF > 0.97**

REMOTE ON/OFF

Remote ON/OFF option for selected models

Conformal Coating on PCBA

Conformal coating on PCBA : Protect against chemical and common dust pollutants

HARMONIC CURRENT

Harmonic Current: Conform to IEC/EN 61000-3-2, Class A and Class D

Remarks:

1. Power will not de-rate for entire I/P 90-264Vac: For recommended orientations.
2. High PF: For selected models.
3. Harmonic current: For 50W and above.

Open Frame Power Supplies

Competitor Spec Comparison

No	Item	PJ-24V50WBNA	Brand C
Input Section	Max. Input Current	0.65A @ 100Vac, 0.35A @ 200Vac	0.67A @ 100Vac, 0.36A @ 200Vac
	Efficiency (%)	84.5% @ 100Vac, 87% @ 200Vac	81.5% @ 100Vac, 83% @ 200Vac
	Inrush Current Max.(Cold Start)	15A @ 100Vac, 30A @ 200Vac	15A @ 100Vac, 30A @ 200Vac
	Leakage current	0.1mA @ 100Vac, 0.2mA @ 230Vac	0.4mA @ 100Vac, 0.75mA @ 240Vac
Output Section	Output Voltage	24V	24V
	Line Regulation	96mV	96mV
	Ripple & Noise (max)	150mVpp @ 0°C to 50°C 180mVpp @ -10°C t0 0°C	< 150mVpp @ 0°C to 50°C < 180mVpp @ -10°C t0 0°C
	Overload Protection	＞ 105% (Hiccup Auto-Recovery)	＞ 105%
	Rise Time	N/A	N/A
	Holdup Time	20ms @ 100Vac	20ms @ 100Vac
Mechanical	Dimensions (LxWxH)	50x132x26 mm	50x132x26.5 mm
	Vibration	10-55 Hz, 19.6 m/s² (2G), 3 minutes period 60 minutes each along X, Y and Z axis	10 - 55Hz, 19.6m/s2 (2G), 3minutes period, 60minutes each along X, Y and Z axis
	Humidity operation	20 to 90%RH	20 to 90%RH
Regulatory Compliance	Safety	TUV Bauart to EN60950-1, UL/cUL recognized to UL60950-1 and CSA C22.2 No. 60950-1, CB scheme to IEC60950-1, CE	UL60950-1, C-UL (CSA60950-1), EN60950-1, EN50178 Complies with DEN-AN

**Benchmarking with specific brands will be provided upon request*

Better or same Worst

Open Frame Power Supplies

PJB OPEN FRAME POWER SUPPLIES

> 15 models

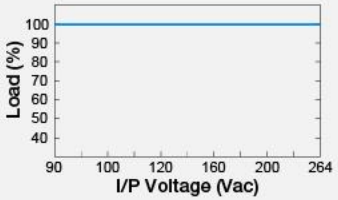
Series	Phase	PFC	O/P Voltage	O/P Current	Output Power (as of Nov 2016)		
	1				100W	150W	240W
PJB 	•	•	24V	4.30A	•		
	•	•		6.30A		•	
	•	•		10.00A			•

Open Frame Power Supplies

PJB: Key Features

IT Industry General

- **Low Inrush Current / Low Leakage Current**
- **Power Boost of 200% for 10 seconds**



Full Power
across the entire
I/P Voltage Range

- **Universal AC input voltage range**
- **High PF > 0.97**

REMOTE ON/OFF

Remote ON/OFF option for selected models

Conformal Coating
on PCBA

Conformal coating on PCBA : Protect against chemical and common dust pollutants

HARMONIC CURRENT

Harmonic Current: Conform to IEC/EN 61000-3-2, Class D

Remarks:

1. Power will not de-rate for entire I/P 90-264Vac: For recommended orientations.

Open Frame Power Supplies

Competitor Spec Comparison

No	Item	PJB-24V240WCNA	Brand C
Input Section	Max. Input Current	2.8A @ 100Vac, 1.5A @ 200Vac	3.3A @ 100Vac, 1.7A @ 200Vac
	Efficiency (%)	91% @ 100Vac, 92.5% @ 200Vac	83% @ 100Vac, 86% @ 200Vac
	Inrush Current Max.(Cold Start)	15A @ 100Vac, 30A @ 200Vac	15A @ 100Vac, 30A @ 200Vac
	Leakage current	0.2mA @ 100Vac, 0.4mA @ 230Vac	0.75mA @ 100Vac, 0.75mA @ 240Vac
Output Section	Output Voltage	24V	24V
	Line Regulation	<150mV	<76mV
	Ripple & Noise (max)	150mVpp @ 0°C to 50°C 180mVpp @ -10°C t0 0°C	< 150mVpp @ 0°C to 50°C < 180mVpp @ -10°C t0 0°C
	Overload Protection	> 205% (Hiccup Auto-Recovery)	> 101% (Auto-Recovery)
	Holdup Time	20ms @ 100Vac	20ms @ 100Vac
	Dimensions (LxWxH)	212x98x59 mm	222x95x45 mm
Mechanical	Vibration	10 - 55Hz, 19.6m/s2 (2G), 10 min per cycle, 60 min per axis for all X,Y,Z direction	10 - 55Hz, 19.6m/s2 (2G), 3minutes period, 60 min each along X, Y and Z
	Humidity operation	5 to 95%RH	20 to 90%RH
	Safety	TUV Bauart to EN60950-1, UL/cUL recognized to UL60950-1 and CSA C22.2 No. 60950-1, PSE, CB scheme to IEC60950-1, CE	UL60950-1, C-UL (CSA60950-1), EN60950-1, EN50178 Complies with DEN-AN and IEC60950-1 (At only AC input)
Other	Package option	L Frame Enclosed	

**Benchmarking with specific brands will be provided upon request*

Better or same Worst

Open Frame Power Supplies

PJT OPEN FRAME POWER SUPPLIES

>45 models

Series	Phase	PFC	O/P Voltage	O/P Current	Output Power (as of Nov 2016)			
	1				40W	65W	100W	150W
PJT 	•		12V	3.33A	•			
	•			5.00A		60W		
	•	•		8.33A (A)			•	
	•			8.33A (B)			•	
	•		15V	2.67A	•			
	•			4.20A		•		
	•	•		6.67A (A)			•	
	•			6.67A (B)			•	
	•		18V	2.22A	•			
	•			3.61A		•		
	•	•		5.55A (A)			•	
	•			5.55A (B)			•	
	•		24V	1.66A	•			
	•			2.71A		•		
	•	•		4.17A (A)			•	
	•			4.17A (B)			•	
	•		27V	V1: 5.55A (C) V_{SB}: 0.5A				•

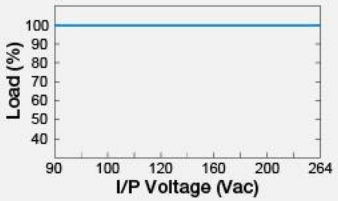
(A) Foot print : 2"x4"
(B) Foot print : 3"x5"
(C) Available by Q1' 17

Open Frame Power Supplies

PJT: Key Features

IT Industry Household General

Small standard footprint



Full Power
across the entire
I/P Voltage Range

Universal AC input voltage range

OLP, OVP, OTP,SCP

MTBF
> 700,000 hours
Mean Time Between Failure

High MTBF:
MTBF > 700,000 hrs.
as per Telcordia SR-332

HARMONIC CURRENT

Harmonic Current:
Conform to
IEC/EN 61000-3-2,
Class A and Class D

Remarks:
1. Power will not de-rate for entire I/P 90-264Vac: For recommended orientations.
2. Harmonic current: For PJT-100WBAA.

Open Frame Power Supplies

Competitor Spec Comparison

No	Item	PJT-15V65WBAA	Brand M
Input Section	Max. Input Current	1.5A @ 115Vac	1.8A typ@115Vac, 1A typ@230Vac
	Efficiency (%)	87% typ@115Vac, 88.5%@230Vac	87% typ
	Inrush Current Max.(Cold Start)	30A typ. @115Vac, 60A typ. @ 230Vac	60A typ@230Vac
	Leakage current	0.1mA@240Vac	<2mA@240Vac
Output Section	Output Voltage	15V	15V
	Line Regulation	+/-0.5%	+/-0.5%
	Ripple & Noise (max)	150mV	120mVpp
	Overload Protection	> 125% of rated load current, Hiccup Mode, Non-Latching (Auto-Recovery)	115-160% rated output power Hiccup mode, recovers automatically after fault condition is removed
	Rise Time	N/A	N/A
	Holdup Time	16ms typ@115Vac, 80ms typ@230Vac	12ms typ@115Vac, 50ms typ@230Vac
Mechanical	Dimensions (LxWxH)	101.6x50.8x30 mm	101.6x50.8x29 mm
	Vibration	10-150Hz @ 25m/S² (2.5G); 10 min per cycle, 90 min per axis for all X, Y, Z direction	10-500Hz, 2G 10min/1cycle, period for 60min. Each along X,Y,Z axes
	Humidity operation	10-95% RH (Non-Condensing)	20-90% RH (Non-Condensing)
Regulatory Compliance	Safety	TUV Bauart to EN 60950-1, UL/cUL recognized to UL 60950-1 and CSA C22.2 No. 60950-1, CB scheme to IEC 60950-1	UL60950-1, TUV EN60950-1

**Benchmarking with specific brands will be provided upon request*

Better or same Worst

Safety and Environmental Standards

Safety Standards

#Safety Marks	CE	CB Scheme to IEC 60950-1	CB Scheme to IEC 60335-1	CB Scheme to IEC 615581,	CB Scheme to IEC 61347-	SIQ or TUV or NEMKO to	UL 60950-1	EN 60335-1	SIQ to EN 615581,	UL 508	UL 1310	UL 8750	NEC Class 2	CSA C22 No.107.1-01	DNV GL (Maritime)	ABS	ATEX EN 60079-15	CSA X22.2 No.213 and	EAC (Eurasian Customs	CCC (China)	PSE (Japan)	ENEC (Europe)	KC (Korea)	RoHS Directive
CliQ	•	•				•	•			•				•			•	•	•	•				•
CliQ II	•	•				•	•			•	•		•	•			•	•	•	•				•
CliQ M	•	•		•		•	•		•	•				•	•	•			•					•
Lyte	•	•				•	•			•									•	•				•
Chrome	•	•				•	•			•			•						•					•
Sync	•	•				•	•			•			•						•	•				•
DIN Rail Modules	•	•				•	•			•				•			•	•	•					•
PMC	•	•				•	•						•						•	•				•
PMH	•	•	•	•		•	•	•											•					•
PMU	•	•				•	•													•				•
PMF	•	•				•	•												•	•				•
PMR	•	•				•	•												•	•				•
PMT	•	•				•	•												•	•				•

• Selected Models

Also see catalog for most updated safety marks

Safety Standards

#Safety Marks	CE	CB Scheme to IEC 60950-1	CB Scheme to IEC 60335-1	CB Scheme to IEC 615581,	CB Scheme to IEC 61347-	SIQ or TUV or NEMKO to	UL 60950-1	EN 60335-1	SIQ to EN 615581,	UL 508	UL 1310	UL 8750	NEC Class 2	CSA C22 No.107.1-01	DNV GL (Maritime)	ABS	ATEX EN 60079-15	CSA X22.2 No.213 and	EAC (Eurasian Customs	CCC (China)	PSE (Japan)	ENEC (Europe)	KC (Korea)	RoHS Directive
PJ	•	•				•	•												•					•
PJB	•	•				•	•																	•
PJT	•	•				•	•												•					•
LNE	•				•							•									•	•	•	•
LNV												•												

• Selected Models # Also see catalog for most updated safety marks

Environmental

RoHS Compliant	
Lead	< 0.1%
Mercury (Hg)	< 0.1%
Cadmium (Cd)	< 0.01%
Hexavalent Chromium (Cr6+)	< 0.1%
Polybrominated Biphenyls (Pbb)	< 0.1%
Polybrominated Diphenylether (Pbde)	< 0.1%

TOXIC MATERIALS RESTRICTION

The European directive 2011/65/EU limits the maximum impurity level of homogeneous materials such as lead, mercury, cadmium, chrome, polybrominated flame retardants PBB and PBDE for the use in electrical and electronic equipment. RoHS is the abbreviation for “Restriction of the use of certain hazardous substances in electrical and electronic equipment”. **Delta Standard Power Supply products conform to this standard.**

Marketing and Support

Standard Order Number Format

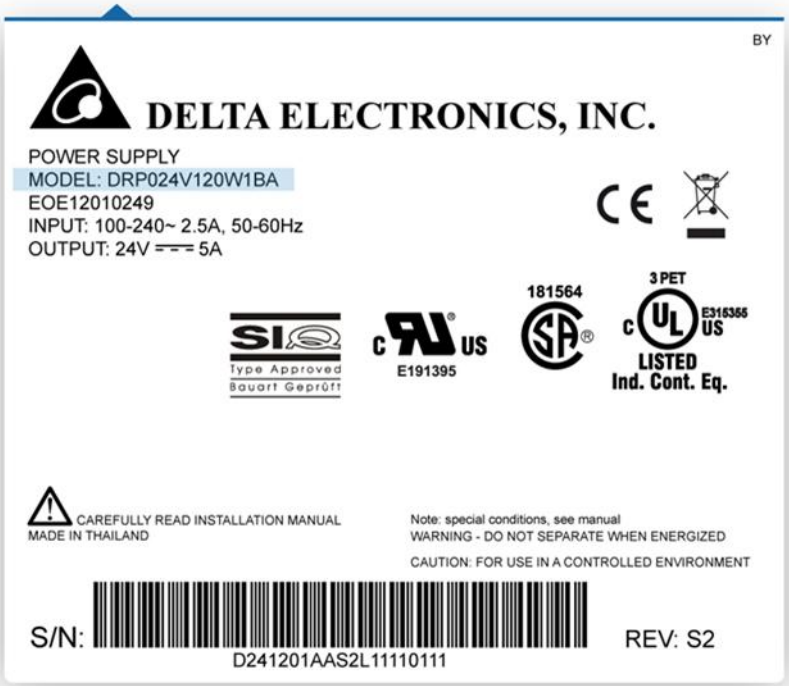
DR □ XXXV YYYW P SS

DR P 024V 120W 1 BA

DR	- DIN Rail
□	- Product Type
XX or XXX	- Output Voltage
YYY	- Output Power
P	- Phase Input
SS	- Variation (Design, Customer, Material)

DR	- DIN Rail
P	- CliQ and CliQ II
C-	- Chrome (Isolation Class II)
B-	- Buffer Module
024V	- Output Voltage
120W	- Output Power
1	- Phase Input
BA	- Variation (Design, Customer, Material)

FOR EXAMPLE:



Standard Order Number Format

PM □ - XXV YYYW P SS

PMC - 05V 050W 1 AA

PM	- Panel Mount
□	- Product Type
X or XX	- Output Voltage
YY or YYY	- Output Power
P	- Phase Input
SS	- Variation (Design, Customer, Material)

PM	- Panel Mount
C-	- PMC (Enclosed)
T-	- PMT (Enclosed)
L-	- PMT (L Frame)
B-	- PMT (Open Frame)
05V	- Output Voltage
050W	- Output Power
1	- Phase Input
AA	- Variation (Design, Customer, Material)

FOR EXAMPLE:

Standard Order Number Format

PJ - XXV YYYW □ N A

PJ - 24V 150W B N A

PJ	- Open Frame
XX	- Output Voltage
YY or YYY	- Output Power
□	- Product Type
N	- Remote ON/OFF Function
A	- Delta Standard

PJ	- Open Frame
24V	- Output Voltage
150W	- Output Power
C-	- Enclosed
L-	- L Frame
B-	- Open Frame
N	- No Remote ON/OFF
A	- Delta Standard

FOR EXAMPLE:

Standard Order Number Format

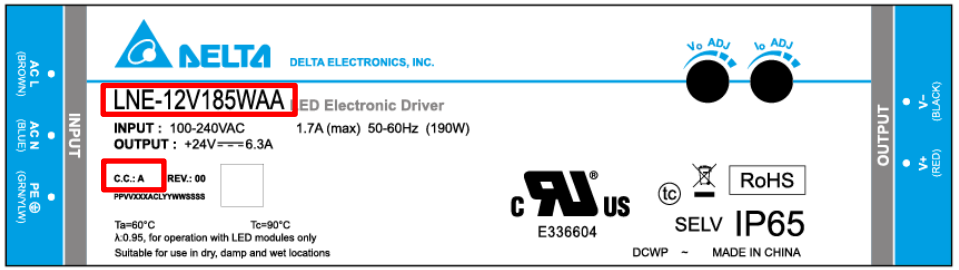
LN□ - XXV YYYW □ □ A

LNE - 12V 185W A A A

LN	- LED Driver
□	- Product series
X or XX	- Output Voltage
YY or YYY	- Output Power
□	- Package Type
□	- Safety certified
A	- Delta Standard

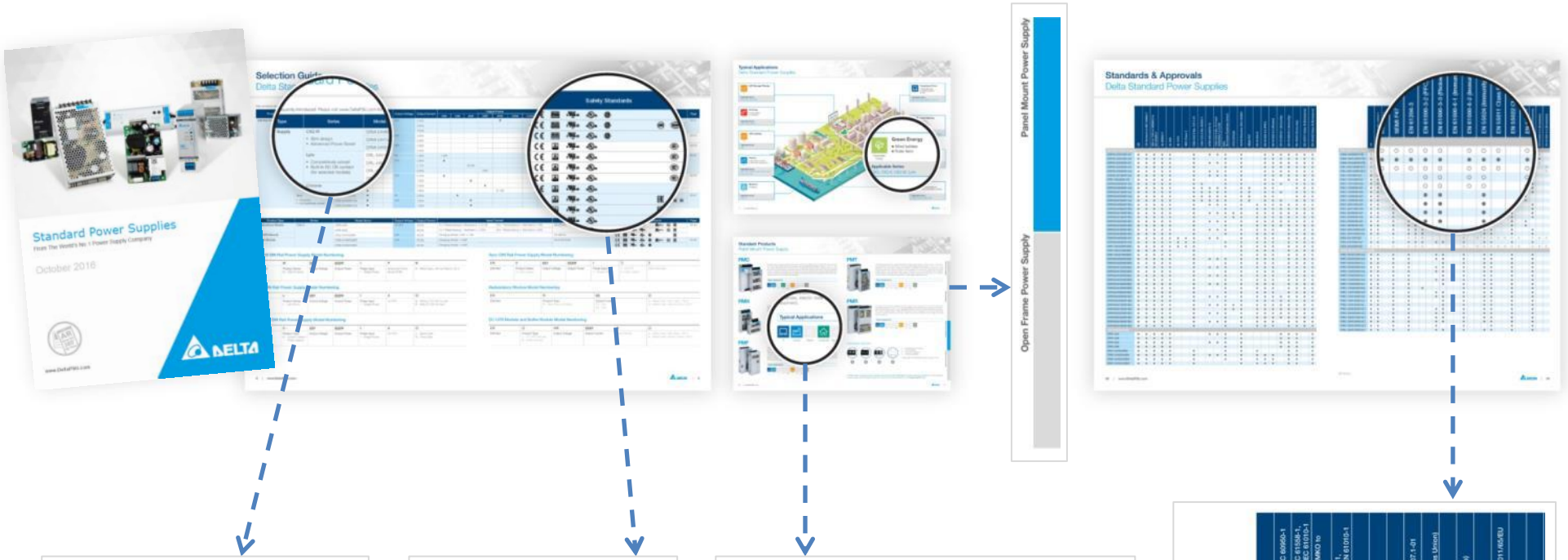
LN	- LED Driver
E	- High efficiency with PFC series
24V	- Output Voltage
150W	- Output Power
□	- Package Type
A-	- IP65 Rated with adjustable VR
D-	- IP67 Rated with Dimming, No adjustable VR
□	- Safety certified
A-	- UL certified
C-	- ENEC, CE, KC, PSE, CCC certified
A	- Delta Standard

FOR EXAMPLE:



Marketing and Support

User Friendly Catalog - With you in mind.



Product Type	Series	Model Name
DIN Rail Power Supply	CliQ M • Slim design • Advanced Power Boost	DRM-24V80W1PN
		DRM-24V120W1PN
		DRM-24V240W1PN
	Lyte • Competitively priced • Built-in DC OK contact (for selected models)	DRL-24V120W1AN
		DRL-24V120W1AR
		DRL-48V120W1AN
		DRL-48V120W1AR

Series' feature differentiation

Safety Standards	Page
CE, cULus, KC, EAC	30-31
CE, cULus, KC, EAC	
CE, cULus, KC, EAC	
CE, cULus, KC	32-33
CE, cULus, KC	34-35
CE, cULus, KC	

Safety Marks overview

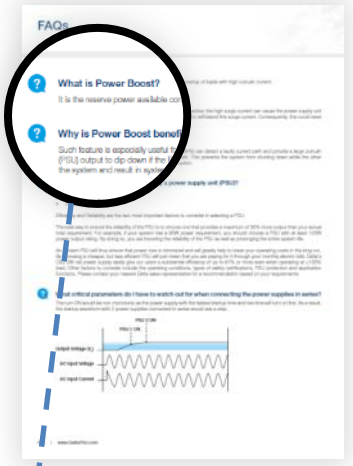
Application icons

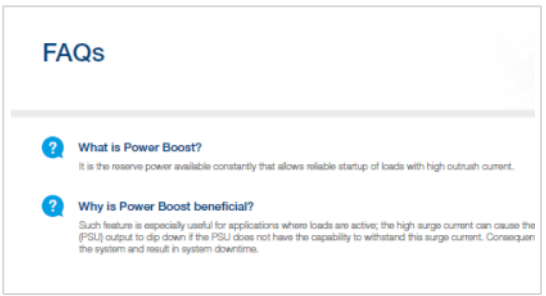
Safety Standards and Approvals Summary

User Friendly Catalog - With you in mind.

AR function for 3D view

Latest Products

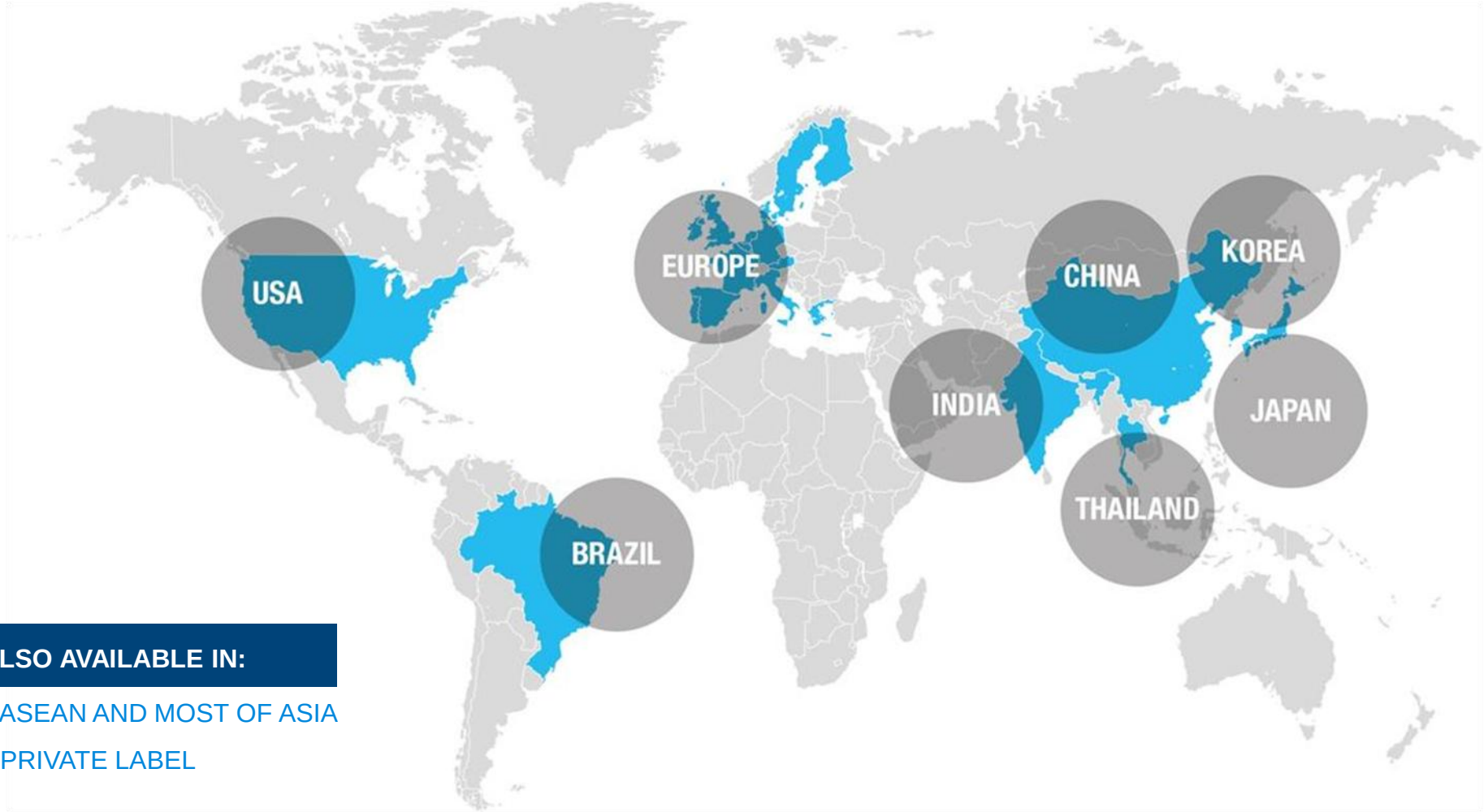




FAQs page

Marketing and Support

Global Distribution



ALSO AVAILABLE IN:

- ASEAN AND MOST OF ASIA
- PRIVATE LABEL

Marketing and Support

IMC

Website

Materials

MARKETING ACTIVITIES

- Brand communication
- Press Release
- Magazine
- E-News
- Seminar

- Data Download service
- Advance Search Engine
- New Product update
- EOL Notice
- Product Details
- Online catalog
- Banner Design for partners
- FAQs

- Catalog, Brochure & Leaflet
- Graphic Design service for partners
- Desktop name card holder
- Marketing graphic design
- Tradeshow accessories
- Product Benchmarking
- DeltaPSU Premiums
- Tradeshow backdrop
- Banner & poster
- Product Front Labels

Augmented Reality (AR) Catalog

4 easy steps to explore the products in 3D details

Download **DeltaPSU AR** app:

Download on the App Store

GET IT ON Google Play

1

Open the app and select the **"Scan AR"** menu.

2

Scan product image with the logo AR to view the 3D product simulation.

3

Users can zoom in/out or rotate the 3D image

4

Website and Social Media

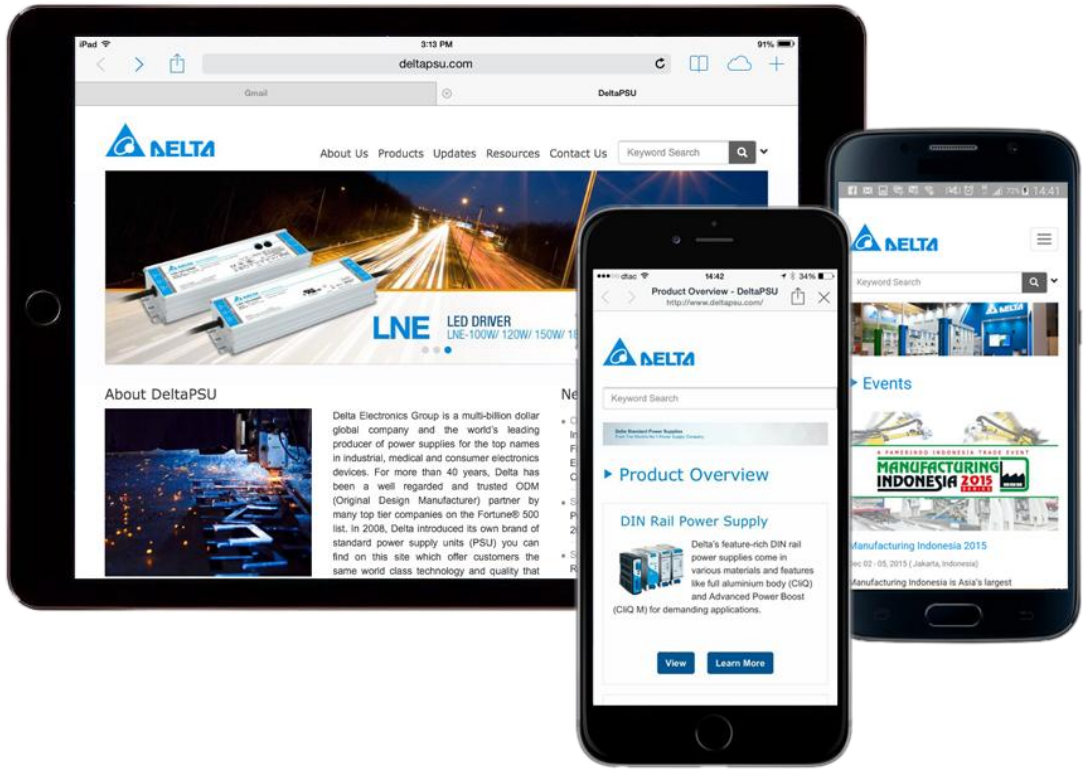
Our responsive homepage adapts to desktop PC and mobile devices effortlessly.
Simply visit www.DeltaPSU.com for all your product needs.

Facebook
www.facebook.com/DeltaPSU

SlideShare
www.slideshare.net/DeltaPSU

Twitter
www.twitter.com/DeltaPSU

LinkedIn
www.linkedin.com/company/deltapsu



Marketing and Support

MARKETING PUBLICATIONS	2 MONTHS BEFORE LAUNCH	1 MONTH BEFORE LAUNCH	PRODUCT LAUNCH
E-News			●
Preliminary Product Specs	●		
Product Benchmarking			●
Leaflet	**Q1 / Q3***		
Catalog	**Q1 / Q3***		
Datasheet		●	●

*New product models will be updated in new prints

Marketing and Support

Worldwide Exhibitions

Australia

Germany

Poland

Thailand

Serbia

Italy

USA

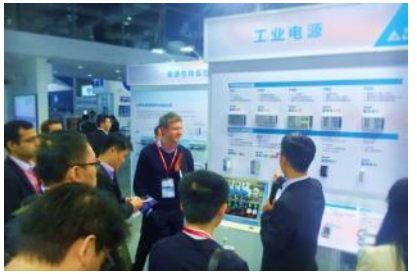
Europe

India

Korea

Japan

China



Thank you.

To learn more about DeltaPSU, please visit www.DeltaPSU.com.