



# Industrial Power Supplies



## About Delta

Delta, founded in 1971, is a global leader in switching power supplies and thermal management products with a thriving portfolio of smart energy-saving systems and solutions in the fields of industrial automation, building automation, telecom power, data center infrastructure, EV charging, renewable energy, energy storage and display, to nurture the development of smart manufacturing and sustainable cities. As a world-class corporate citizen guided by its mission statement, "To provide innovative, clean and energy-efficient solutions for a better tomorrow," Delta leverages its core competence in high-efficiency power electronics and its ESG-embedded business model to address key environmental issues, such as climate change. Delta serves customers through its sales offices, R&D centers and manufacturing facilities spread over close to 200 locations across 5 continents.

Throughout its history, Delta has received various global awards and recognition for its business achievements, innovative technologies and dedication to ESG. Since 2011, Delta has been listed on the DJSI World Index of Dow Jones Sustainability™ Indices for 11 consecutive years. In 2021, Delta was also recognized by CDP with leadership level ratings for its substantial contribution to climate change and water security issues and named Supplier Engagement Leader for its continuous development of a sustainable value chain.

For detailed information about Delta, please visit: [www.deltaww.com](http://www.deltaww.com)

## Business Categories

### Power Electronics

- Components
- Power and System
- Fan & Thermal Management
- Automotive Electronics

Innertek

### Automation

- Industrial Automation
- Building Automation

### Infrastructure

- ICT Infrastructure
- Energy Infrastructure & Industrial Solutions

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World Connect. VIVID Life.

## About Power and System Business Group (PSBG)

- World's leading provider of power products and solutions
- First power product launched in 1983



Power Conversion



Smart Drive & Control



Battery Charger



Green Energy

## Power to a Smart Future with High Energy Efficiency

PSBG offers cutting-edge power products and system to innovate cloud computing, network connectivity, client devices, industrial and medical industry, lighting, and appliances and e-mobility with global customers.





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# Delta Industrial Power Supplies

Delta standard industrial power supplies comprise of DIN rail, panel mount and open frame types. With over 40 years of experience in power technologies, Delta delivers an extensive range of industrial power supplies that meet IEC 60950-1, IEC 62368-1, IEC 61347-2-13, UL 8750, IEC 60335-1, IEC 61558-1, IEC 61558-2-16 and many other more standards.



## DIN Rail

A wide range of DIN rail power supplies offering start-up at -40°C, Advanced Power Boost (CliQ M & CliQ VA), smart monitoring function (CliQ VA), ultra slim design (Force-GT and LYTE II) for demanding applications.



## Panel Mount

The latest PMT2 series low profile design at competitive prices for general industrial applications. MEB series offer a wide range of high power models with industrial and medical certifications.



## Open Frame

PJ series open frame power supplies offer wide range of output voltages with versatile configuration options. The latest PJL series comes with lighting approvals such as UL 8750 and IEC 61347-2-13.



## Modules

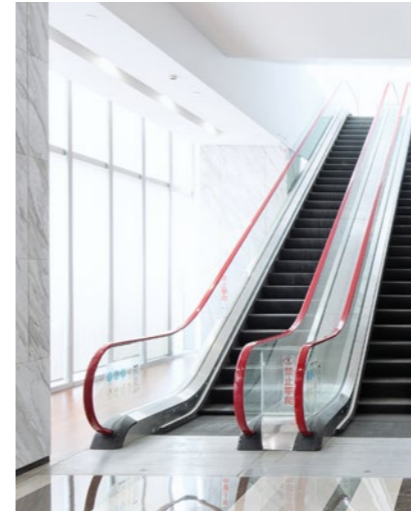
The DIN rail modules are useful accessories as part of the complete power management solution. They include DC-UPS, buffer and redundancy modules which are designed to work seamlessly with Delta DIN rail power supplies.



## Adapter

The ADT adapter series offers efficiency up to 89% with extreme low no-load consumption below 0.15W. These adapters are also meet DoE Level VI and CoC Tier 2 efficiency standards.

# Applications



 Building Automation



 Machine Automation



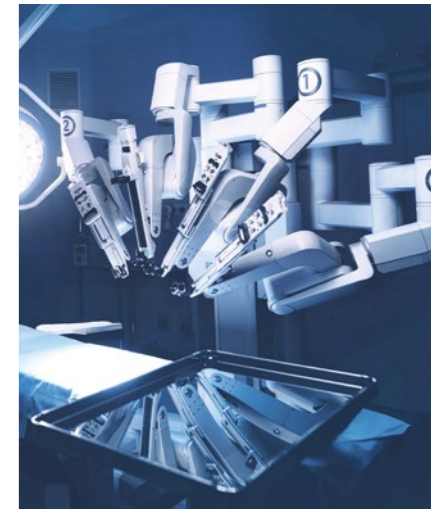
 Renewable Energy



 Process Automation



 Test & Measurement



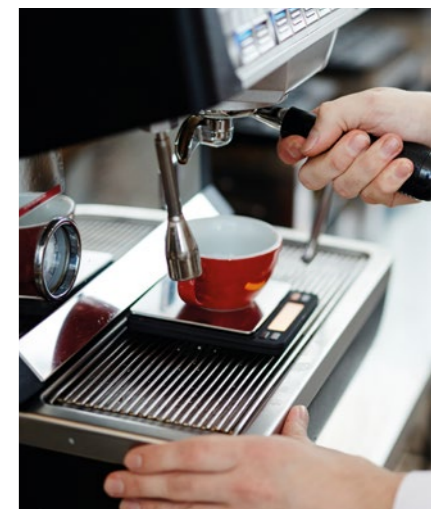
 Medical Equipment



 Factory Automation



 LED Signage



 Household Appliance

# Product Selection Guide

New products are frequently introduced. Please visit [www.DeltaPSU.com](http://www.DeltaPSU.com) for latest product updates.

Product Type	Series	Model Name	Phase			PFC	Output Voltage	Output Current	Output Power	Input Voltage Range*	Page	
			1	2	3							
DIN Rail Power Supplies	CliQ II	DRP024V060W1B□	●				24 V	2.5 A	60 W	85-264 V <sub>AC</sub> (DC input range 120-375 V <sub>DC</sub> )	15	
		DRP024V120W1B□	●				5.0 A	120 W				
		DRP024V240W1B□	●			●	10.0 A	240 W				
		DRP024V480W1B□	●			●	20.0 A	480 W				
		DRP024V060W1N□	●				2.5 A	60 W	85-264 V <sub>AC</sub> (DC input range 120-375 V <sub>DC</sub> )			
		DRP-24V100W1NN	●			●	3.8 A	91.2 W				
		DRP-24V120W2BN	●	●			5.0 A	120 W		2 × 180-550 V <sub>AC</sub> or 180-305 V <sub>AC</sub> (Single Phase) (DC input range 254-780 V <sub>DC</sub> )		
		DRP-24V240W2BN	●	●		●	10.0 A	240 W				
		DRP024V060W3B□		●	●		2.5 A	60 W	3 × 320-600 V <sub>AC</sub> or 2 × 360-600 V <sub>AC</sub> (DC input range 450-800 V <sub>DC</sub> )	18		
		DRP024V120W3B□		●	●		5.0 A	120 W				
		DRP024V240W3B□		●	●		10.0 A	240 W	For 960W: 3 × 320-600 V <sub>AC</sub> or 2 × 380-600 V <sub>AC</sub> (DC input range 450-800 V <sub>DC</sub> )			
		DRP024V480W3B□		●	●	●	20.0 A	480 W				
		DRP024V960W3BN		●	●	●	40.0 A	960 W				
		DRP048V060W1B□		●			48 V	1.25 A	60 W	85-264 V <sub>AC</sub> (DC input range 120-375 V <sub>DC</sub> )	19	
		DRP048V120W1B□		●			2.5 A	120 W				
	DRP048V240W1B□		●		●	5.0 A	240 W					
	DRP048V480W1B□		●		●	10.0 A	480 W					
	CliQ III	Slim design with high power density Power Boost up to 5 s	DRP-24V120W1CAN	●			●	24 V	5.0 A	120 W	88-264 V <sub>AC</sub>	20
			DRP-24V120W1CBN	●			●	5.0 A	120 W			
			DRP-24V240W1CAN	●			●	10.0 A	240 W			
			DRP-24V240W1CBN	●			●	10.0 A	240 W			
			DRP-24V480W1CAN	●			●	20.0 A	480 W			
			DRP-24V480W1CBN	●			●	20.0 A	480 W			
CliQ M	Slim design with high power density Advanced Power Boost Maritime approvals	DRM-24V80W1PN	●			●	24 V	3.4 A	81.6 W	85-276 V <sub>AC</sub> (DC input range 88-375 V <sub>DC</sub> )	21	
		DRM-24V120W1PN	●			●	5.0 A	120 W				
		DRM-24V240W1PN	●			●	10.0 A	240 W				
		DRM-24V480W1PN	●			●	20.0 A	480 W	85-264 V <sub>AC</sub>			
		DRM-24V960W1PN	●			●	40.0 A	960 W				
		DRM-24V480W3PN		●	●	●	20.0 A	480 W		3 × 320-600 V <sub>AC</sub> or 2 × 380-600 V <sub>AC</sub>		
		DRM-24V960W3PN		●	●	●	40.0 A	960 W				
		DRM-24V480W1SN	●			●	20.0 A	480 W				

\* DC input is certified for selected models

## Model Numbering

DR	P	XXV	XXXW	□	□	□
DIN Rail	Product Type P - Power Supply	Output Voltage	Output Power	Phase Input 1 - Single Phase 2 - Two Phase 3 - Three Phase	B - CliQ II Series N - NEC Class 2	A - Metal case, with Class I, Div 2 and ATEX approvals N - Metal case, without Class I, Div 2 and ATEX approvals Y - Plastic case, with Class I, Div 2 and ATEX approvals Z - Plastic case, without Class I, Div 2 and ATEX approvals
DR	P -	XXV	XXXW	1	C	□
DIN Rail	Product Type P - Power Supply	Output Voltage	Output Power	Phase Input 1 - Single Phase	C - CliQ III Series	Input Voltage A - AC Input B - AC & DC Input
DR	M -	XXV	XXXW	□	□	N
DIN Rail	Product Series M - CliQ M Series	Output Voltage	Output Power	Phase Input 1 - Single Phase 3 - Three Phase	P - Advanced Power Boost (APB) S - Advanced Power Boost (APB) with SIL3 approval	N - Metal case, without Class I, Div 2 and ATEX approvals

New products are frequently introduced. Please visit [www.DeltaPSU.com](http://www.DeltaPSU.com) for latest product updates.

Product Type	Series	Model Name	Phase			PFC	Output Voltage	Output Current	Output Power	Input Voltage Range*	Page	
			1	2	3							
DIN Rail Power Supplies	CliQ VA	DRV-24V120W1PN	●			●	24 V	5.0 A	120 W	85-264 V <sub>AC</sub> (DC input range 88-375 V <sub>DC</sub> )	24	
		DRV-24V240W1PN	●			●	10.0 A	240 W				
		DRV-24V480W1PN	●			●	20.0 A	480 W				
	Force-GT	Built-in constant current circuit for charging applications Ultra slim design	DRF-12V120W1GBA	●			●	12 V	10.0 A	120 W	90-264 V <sub>AC</sub>	25
			DRF-12V240W1GBA	●			●	20.0 A	240 W			
			DRF-24V120W1GBA	●			●	24 V	5.0 A	120 W	90-264 V <sub>AC</sub>	26
			DRF-24V240W1GBA	●			●	10.0 A	240 W			
			DRF-24V480W1GBA	●			●	20.0 A	480 W			
			DRF-48V120W1GBA	●			●	48 V	2.5 A	120 W		
			DRF-48V240W1GBA	●			●	5.0 A	240 W	3 × 320-575 V <sub>AC</sub> (3-Phase) or 2 × 340-575 V <sub>AC</sub> (2-Phase) (DC input range 450-800 V <sub>DC</sub> )	27	
			DRF-48V480W1GBA	●			●	10.0 A	480 W			
			DRF-24V120W3GBA		●	●		24 V	5.0 A	120 W	10.0 A	240 W
			DRF-24V240W3GBA		●	●		10.0 A	240 W			
	DRF-24V480W3GBA		●	●	●	20.0 A	480 W	40.0 A	960 W			
	DRF-24V960W3GBA		●	●	●	40.0 A	960 W					
	LYTE	Competitively priced Built-in constant current circuit	DRL-12V75W1AZ□	●				12 V	6.25 A	75 W	85-264 V <sub>AC</sub>	28
			DRL-24V75W1AZ□	●				24 V	3.125 A	75 W		
			DRL-48V75W1AZ□	●				48 V	1.57 A	75.36 W		
	LYTE II	Extreme slim width Reduced no-load power consumption Wide operating temperature	DRL-12V120W1EN□	●				12 V	10.0 A	120 W	90-264 V <sub>AC</sub>	29
			DRL-12V240W1EN□	●			●	20.0 A	240 W			
			DRL-24V120W1EN□	●				24 V	5.0 A	120 W	90-264 V <sub>AC</sub>	30
			DRL-24V240W1EN□	●			●	10.0 A	240 W			
			DRL-24V480W1EN□	●			●	20.0 A	480 W			
DRL-48V120W1EN□			●				48 V	2.5 A	120 W			
DRL-48V240W1EN□	●			●	5.0 A	240 W	10.0 A	480 W				
DRL-48V480W1EN□	●			●	10.0 A	480 W						

\* DC input is certified for selected models

## Model Numbering

DR	V -	XXV	XXXW	1	P	N
DIN Rail	Product Series V - CliQ VA Series	Output Voltage	Output Power	Phase Input 1 - Single Phase	P - Advanced Power Boost (APB)	N - Metal case, without Class I, Div 2 and ATEX approvals
DR	F -	XXV	XXXW	□	G	B
DIN Rail	Product Series F - Force Series	Output Voltage	Output Power	Phase Input 1 - Single Phase 3 - Three Phase	G - General Type	B - Screw Terminal
DR	L -	XXV	XXXW	1	A	Z
DIN Rail	Product Type L - LYTE Family	Output Voltage	Output Power	Phase Input 1 - Single Phase	A - LYTE Series with Standard Bracket	Z - Plastic case without DC OK Relay Contact
DR	L -	XXV	XXXW	1	E	N
DIN Rail	Product Type L - LYTE Family	Output Voltage	Output Power	Phase Input 1 - Single Phase	E - LYTE II Series with Slim Design	N - No DC OK Relay Contact

# Product Selection Guide

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Product Type	Series	Model Name	Phase		Output Voltage	Output Current	Output Power	Input Voltage Range*	Page	
			1	PFC						
DIN Rail Power Supplies	CHROME <ul style="list-style-type: none"> <li>Compact</li> <li>Class II double isolation</li> <li>NEC Class 2</li> </ul>	DRC-5V10W1A□	●		5V	1.5A	7.5W	90-264 V <sub>AC</sub>	31	
		DRC-12V10W1A□	●		12V	0.83A	10W			
		DRC-12V30W1A□	●			2.1A	25.2W			
		DRC-12V60W1A□	●			4.5A	54W			
		DRC-12V60W1CZ	●			4.5A	54W	90-264 V <sub>AC</sub> (DC input range 125-375 V <sub>DC</sub> )		
		DRC-12V100W1AZ	●			6.0A	72W	90-264 V <sub>AC</sub>		
		DRC-24V10W1A□	●		24V	0.42A	10W	90-264 V <sub>AC</sub>		32
		DRC-24V10W1HZ	●			0.42A	10W			
		DRC-24V30W1A□	●			1.25A	30W			
		DRC-24V60W1A□	●			2.5A	60W			
		DRC-24V100W1A□	●			3.8A	91.2W	90-264 V <sub>AC</sub> (DC input range 125-375 V <sub>DC</sub> )		
		DRC-24V100W1CZ	●			3.8A	91.2W	90-264 V <sub>AC</sub> (DC input range 125-375 V <sub>DC</sub> )		
	SYNC <ul style="list-style-type: none"> <li>Compact</li> <li>NEC Class 2</li> <li>Competitively priced</li> </ul>	DRS-5V30W1NZ	●		5V	3.0A	15W	85-264 V <sub>AC</sub> (DC input range 120-375 V <sub>DC</sub> )	33	
		DRS-5V50W1A□	●			6.0A	30W			
		DRS-5V50W1N□	●			5.0A	25W			
		DRS-12V50W1N□	●		12V	4.0A	48W	85-264 V <sub>AC</sub>	34	
		DRS-24V30W1AZ	●		24V	1.25A	30W	85-264 V <sub>AC</sub> (DC input range 120-375 V <sub>DC</sub> )		
		DRS-24V30W1NZ	●			1.25A	30W			
DRS-24V50W1N□	●			2.1A	50W					
DRS-24V100W1A□	●	●		4.0A	96W					
DRS-24V100W1N□	●	●		3.8A	91.2W					

\* DC input is certified for selected models

## Model Numbering

DR	C -	XXV	XXXW	1	□	□
DIN Rail	Product Type C - Isolation Class II Power Supply	Output Voltage	Output Power	Phase Input 1 - Single Phase	A - No PFC C - AC & DC Input, no PFC H - Household approval	Z - Black plastic case G - Grey plastic case C - Black plastic case, with conformal coating <sup>1)</sup>

1) Options for DRC-12V60W1A□, DRC-24V60W1A□ and DRC-24V100W1A□ only

DR	S -	XXV	XXXW	1	□	□
DIN Rail	Product Series S - SYNC Series	Output Voltage	Output Power	Phase Input 1 - Single Phase	A - Non NEC Class 2 N - NEC Class 2	Z - Without DC OK Relay Contact R - With DC OK Relay Contact

Product Type	Series	Model Name	Phase		Output Voltage	Output Current	Output Power	Input Voltage Range	Page	
			1	PFC						
Panel Mount Power Supplies	PMT2 <ul style="list-style-type: none"> <li>IEC 60335, IEC 61558 approvals</li> <li>Low profile 30mm height</li> </ul>	PMT-12V35W2BA□	●		12V	3.0A	36W	90-264 V <sub>AC</sub>	37	
		PMT-12V50W2BA□	●			4.2A	50.4W			
		PMT-12V75W2BA□	●			6.0A	72W			
		PMT-12V100W2BA□	●			8.5A	102W			
		PMT-12V150W2BA□	●			12.5A	150W	90-132 V <sub>AC</sub> , 180-264 V <sub>AC</sub> (Selectable by Switch)		
		PMT-12V150W2CA□	●			12.5A	150W	90-264 V <sub>AC</sub>		
		PMT-12V200W2BM□	●			17.0A	204W	90-132 V <sub>AC</sub> , 180-264 V <sub>AC</sub> (Selectable by Switch)		
		PMT-12V200W2BR□	●			17.0A	204W			
		PMT-12V350W2BM□	●			29.0A	348W			
		PMT-12V350W2BR□	●			29.0A	348W			
		PMT-15V35W2BA	●		15V	2.4A	36W	90-264 V <sub>AC</sub>		39
		PMT-15V50W2BA	●			3.4A	51W			
	PMT-15V75W2BA	●			5.0A	75W				
	PMT-15V100W2BA	●			7.0A	105W	90-264 V <sub>AC</sub>	40		
	PMT-15V150W2BA	●			10.0A	150W	90-132 V <sub>AC</sub> , 180-264 V <sub>AC</sub> (Selectable by Switch)			
	PMT-15V150W2CA	●			10.0A	150W	90-264 V <sub>AC</sub>			

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Product Type	Series	Model Name	Phase		Output Voltage	Output Current	Output Power	Input Voltage Range	Page	
			1	PFC						
Panel Mount Power Supplies	PMT2 <ul style="list-style-type: none"> <li>IEC 60335, IEC 61558 approvals</li> <li>Low profile 30mm height</li> </ul>	PMT-24V35W2BA□	●		24V	1.5A	36W	90-264 V <sub>AC</sub>	41	
		PMT-24V50W2BA□	●			2.2A	52.8W			
		PMT-24V75W2BA□	●			3.2A	76.8W			
		PMT-24V100W2BA□	●			4.5A	108W			
		PMT-24V150W2BA□	●			6.25A	150W	90-132 V <sub>AC</sub> , 180-264 V <sub>AC</sub> (Selectable by Switch)		
		PMT-24V150W2CA□	●			6.25A	150W	90-264 V <sub>AC</sub>		
		PMT-24V200W2BM□	●			8.8A	211.2W	90-132 V <sub>AC</sub> , 180-264 V <sub>AC</sub> (Selectable by Switch)		
		PMT-24V200W2BR□	●			8.8A	211.2W			
		PMT-24V350W2BM□	●			14.6A	350.4W			
		PMT-24V350W2BR□	●			14.6A	350.4W			
		PMT-30V35W2BA	●		30V	1.2A	36W	90-264 V <sub>AC</sub>		43
		PMT-30V50W2BA	●			1.7A	51W			
		PMT-30V75W2BA	●			2.5A	75W			
		PMT-30V100W2BA	●			3.6A	108W	90-264 V <sub>AC</sub>		44
		PMT-30V150W2BA	●			5.0A	150W	90-132 V <sub>AC</sub> , 180-264 V <sub>AC</sub> (Selectable by Switch)		
		PMT-30V150W2CA	●			5.0A	150W	90-264 V <sub>AC</sub>		
		PMT-36V35W2BA	●		36V	1.0A	36W	90-264 V <sub>AC</sub>		45
		PMT-36V50W2BA	●			1.45A	52.2W			
		PMT-36V75W2BA	●			2.1A	75.6W			
		PMT-36V100W2BA	●			3.0A	108W			46
		PMT-36V150W2BA	●			4.3A	154.8W	90-132 V <sub>AC</sub> , 180-264 V <sub>AC</sub> (Selectable by Switch)		
		PMT-36V150W2CA	●			4.3A	154.8W	90-264 V <sub>AC</sub>		
		PMT-36V200W2BM	●			5.9A	212.4W	90-132 V <sub>AC</sub> , 180-264 V <sub>AC</sub> (Selectable by Switch)		47
		PMT-36V200W2BR	●			5.9A	212.4W			
		PMT-36V350W2BM	●			9.7A	349.2W			
		PMT-36V350W2BR	●			9.7A	349.2W			48
		PMT-48V35W2BA	●		48V	0.8A	38.4W	90-264 V <sub>AC</sub>		
		PMT-48V50W2BA	●			1.1A	52.8W			
		PMT-48V75W2BA	●			1.6A	76.8A			49
		PMT-48V100W2BA	●			2.3A	110.4W			
		PMT-48V150W2BA	●			3.3A	158.4W	90-132 V <sub>AC</sub> , 180-264 V <sub>AC</sub> (Selectable by Switch)		
		PMT-48V150W2CA	●			3.3A	158.4W	90-264 V <sub>AC</sub>		48
		PMT-48V200W2BM	●			4.4A	211.2W	90-132 V <sub>AC</sub> , 180-264 V <sub>AC</sub> (Selectable by Switch)		
		PMT-48V200W2BR	●			4.4A	211.2W			
		PMT-48V350W2BM	●			7.3A	350.4W			49
		PMT-48V350W2BR	●			7.3A	350.4W			
PMT-D1V75W2□A	●		5V/12V	5.0A/4.0A	73W	90-264 V <sub>AC</sub>				
PMT-D2V75W2□A	●		5V/24V	5.0A/2.1A	75.4W					

## Model Numbering

PM	T -	XXV	XXXW	2	□	□	CC Code
Panel Mount	Product Type T - Enclosed	Output Voltage	Output Power	Single Phase with Low Profile	Family Code For 35-100W B - No PFC, universal input voltage range For 150-350W B - No PFC, input voltage selectable by switch C - No PFC, universal input voltage range	Connector Type Terminal Block A - With TUV, UL, CE, CCC, KC, EAC M - With UL, EAC R - With TUV, UL, CE, EAC	Blank - Without connector cover B - With conformal coating <sup>1)</sup>
Panel Mount	Product Type T - Enclosed	Dual Output D1 - 5V / 12V D2 - 5V / 24V	Output Power	Single Phase with Low Profile	Family Code B - No PFC, Non-Isolated C - No PFC, Isolated	Connector Type A - Terminal Block	

1) Options for 12V and 24V models only

# Product Selection Guide

New products are frequently introduced. Please visit [www.DeltaPSU.com](http://www.DeltaPSU.com) for latest product updates.

Product Type	Series	Model Name	Phase		Output Voltage	Output Current	Output Power	Input Voltage Range*	Page	
			1	PFC						
Panel Mount Power Supplies	PMC • Universal AC input voltage	PMC-05V015W1AA	●		5V	3.0A	15W	85-264V <sub>AC</sub> (DC input range 125-375V <sub>DC</sub> )	50	
		PMC-12V150W1B□	●	●	12V	12.5A	150W	85-264V <sub>AC</sub> (DC input range 125-375V <sub>DC</sub> )	51	
		PMC-12V600W1BA	●	●		50.0A	600W	85-264V <sub>AC</sub> (DC input range 120-370V <sub>DC</sub> )		
		PMC-24V150W1B□	●	●	24V	6.25A	150W	85-264V <sub>AC</sub> (DC input range 125-375V <sub>DC</sub> )		
		PMC-24V300W1BA	●	●		V1: 12.5A V2 <sub>SB</sub> : 0.5A	300W			
		PMC-24V600W1BA	●	●		25.0A	600W	85-264V <sub>AC</sub> (DC input range 120-370V <sub>DC</sub> )	52	
		PMC-24V600W1RW	●	●		25.0A	600W	85-264V <sub>AC</sub>		
		PMC-48V150W1BA	●	●		48V	3.125A	150W	85-264V <sub>AC</sub> (DC input range 125-375V <sub>DC</sub> )	52
		PMC-48V600W1BA	●	●			12.5A	600W	85-264V <sub>AC</sub> (DC input range 120-370V <sub>DC</sub> )	
		PMC-DSPV100W1A	●			24V/5V	2.7A/7.0A	100W	85-264V <sub>AC</sub> (DC input range 125-375V <sub>DC</sub> )	
	PMR • Thickness < 1U • Built-in PFC	NEW	PMR-4V320WC□A	●	●	4.2V	60.0A	252W	88-264V <sub>AC</sub>	53
			PMR-4V320WDAA□	●	●		60.0A	252W		
			PMR-4V320WDGA	●	●		60.0A	252W		
			PMR-4V320WDBA	●	●		60.0A	252W		
			PMR-4V320WDCA	●	●		60.0A	252W		
		NEW	PMR-5V320WC□A	●	●	5V	60.0A	300W	88-264V <sub>AC</sub>	54
			PMR-5V320WDAA	●	●		60.0A	300W		
			PMR-5V320WDGA	●	●		60.0A	300W		
			PMR-5V320WDBA	●	●		60.0A	300W		
			PMR-5V320WDCA	●	●		60.0A	300W		
PMR-12V320W1AT	●	●	12V	26.7A	320.4W	90-264V <sub>AC</sub>	55			
PMR-24V320W1AT	●	●	24V	13.4A	321.6W		56			
PMR-36V320W1AT	●	●	36V	8.9A	320.4W	90-264V <sub>AC</sub>				
PMR-48V320W1AT	●	●	48V	6.7A	321.6W					

\* DC input is certified for selected models

## Model Numbering

PM	C -	XXV	XXXW	1	□	□
Panel Mount	Product Type C - Enclosed	Output Voltage	Output Power	Phase Input 1 - Single Phase, Wide Range Input Voltage	A - No PFC B - With PFC R - With PFC, Remote ON/OFF, Remote Sense	Connector Type A - Terminal Block <sup>1)</sup> J - IP20 Connector <sup>2)</sup> L - Front Face <sup>2)</sup> W - Front Face with conformal coating
Panel Mount	Product Type C - Enclosed	Dual Output	Output Voltage S - 24V P - 5V	Output Power 100W	Phase Input 1 - Single Phase	A - Delta Standard

1) For PMC-05V015W1AA and PMC-□V600W1BA, the connector type is a Front Face connector.  
For PMC-24V300W1BA, the connector type is an IP20 connector.

2) Options

PM	R -	XXV	XXXW	□	□	A
Panel Mount	Product Series R - Standard Rack Type Series (1U)	Output Voltage	Output Power	Package Type C - Enclosed with Fan D - Enclosed without Fan	Connector Type A - Terminal Block B - Terminal Block (Parallel Operation) <sup>1)</sup> G - Front Face <sup>2)</sup> C - Front Face (Parallel Operation) <sup>1)</sup>	Variable A - With conformal coating

1) Options for Enclosed without Fan (PMR-□V320WDBA and PMR-□V320WDCA)

2) Options

PM	R -	XXV	XXXW	1	A	T
Panel Mount	Product Series R - Standard Rack Type Series (1U)	Output Voltage	Output Power	Phase Input 1 - Single Phase	Family Code A - Family A	Connector Type T - Terminal Block

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Product Type	Series	Model Name	Phase		Output Voltage	Output Current	Output Power	Input Voltage Range	Page	
			1	PFC						
Panel Mount Power Supplies	PMF • Remote ON/OFF • Built-in PFC	PMF-4V320WC□□	●	●	4.2V	55.0A	231W	88-264V <sub>AC</sub>	57	
		PMF-5V320WC□□	●	●	5V	55.0A	275W			
		PMF-24V240WC□□	●	●	24V	10.0A	240W			
		PMF-24V320WC□□	●	●		13.3A	320W			
	PMU • Power supply with integrated DC-UPS	PMU-13V155W□BA	●	●	13.8V	V1: 9.5A B+: 1.5A	151W	90-132V <sub>AC</sub> , 180-264V <sub>AC</sub> (Selectable by Switch)	58	
		PMU-13V155W□CA	●	●			151W			
		PMU-27V155W□BA	●	●	27.6V	Enclosed V1: 4.0A, B+: 1.5A L Frame V1: 4.3A, B+: 1.2A	151W			
		PMU-27V155W□CA	●	●			151W			
	MEB • Intelligent Fan Speed Control	NEW	MEB-750A12B AAA	●	●	12V	58.4A	750W	85-264V <sub>AC</sub>	59
			MEB-750A12T AAA	●	●		58.4A	750W		
		NEW	MEB-500A24F AA	●	●	24V	21.0A	500W	90-264V <sub>AC</sub>	60
			MEB-750A24B AAA	●	●		31.25A	750W	85-264V <sub>AC</sub>	
		NEW	MEB-750A24T AAA	●	●		31.25A	750W	85-264V <sub>AC</sub>	60
			MEB-750A48B AAA	●	●	48V	15.63A	750W		
		NEW	MEB-750A48T AAA	●	●		15.63A	750W	85-264V <sub>AC</sub>	60
			MEB-1K2A24T ABA	●	●	24V	50.0A	1,200W		
		NEW	MEB-1K2A42T ABA	●	●	42V	28.5A	1,200W	85-264V <sub>AC</sub>	60
			MEB-1K2A48T ABA	●	●	48V	25.0A	1,200W		

## Model Numbering

PM	F -	XXV	XXXW	C	□	□
Panel Mount	Product Series F - PFC Series	Output Voltage	Output Power	Package Type C - Enclosed	Connector Type G - Front Face A - Terminal Block <sup>1)</sup>	Variable B - No Remote ON/OFF R - With Remote ON/OFF <sup>1)</sup>

1) Options

PM	U -	XXV	XXXW	□	□	A
Panel Mount	Product Series U - With DC-UPS Function	Output Voltage	Output Power	Package Type C - Enclosed L - L Frame <sup>1)</sup>	Signal B - Without Signal C - With Signal	Connector Type A - Terminal Block

1) Options

ME	B -	XXX	A	□	□	□□□
Delta Medical Power Supply	B - Enclosed	Max power wattage in the product series. May be lower at some conditions.	Family Code	Output Voltage	Input Connector Type	CC Code
		500 - 500W	A - Family A	24 - 24V	F - Front Face	AA - With Remote ON/OFF, with conformal coating
		750 - 750W		12 - 12V 24 - 24V 48 - 48V	B - C14 T - US Terminal	AAA - With Remote ON/OFF, with conformal coating
		1K2 - 1,200W		24 - 24V 42 - 42V 48 - 48V	T - US Terminal	ABA - With Remote ON/OFF, with conformal coating

# Product Selection Guide

New products are frequently introduced. Please visit [www.DeltaPSU.com](http://www.DeltaPSU.com) for latest product updates.

Product Type	Series	Model Name	Phase		Output Voltage	Convection		Forced Air		Input Voltage Range	Page		
			1	PFC		Output Current	Output Power	Output Current	Output Power				
Open Frame Power Supplies	PJT	PJT-12V40WBAA	•		12 V	3.33 A	40 W			90-264 V <sub>AC</sub>	63		
		PJT-12V65WBAA	•			5.0 A	60 W						
		PJT-12V100WBAA	•	•		8.33 A	100 W						
		PJT-12V100WBBB	•			6.67 A	80 W	8.33 A	100 W				
		PJT-15V40WBAA	•		15 V	2.67 A	40 W			90-264 V <sub>AC</sub>	64		
		PJT-15V65WBAA	•			4.2 A	63 W						
		PJT-15V100WBAA	•	•		6.67 A	100 W						
		PJT-15V100WBBB	•			5.33 A	80 W	6.67 A	100 W				
		PJT-18V40WBAA	•		18 V	2.22 A	40 W			90-264 V <sub>AC</sub>	65		
		PJT-18V65WBAA	•			3.61 A	65 W						
		PJT-18V100WBAA	•	•		5.55 A	100 W						
		PJT-18V100WBBB	•			4.44 A	80 W	5.55 A	100 W				
		PJT-24V40WBAA	•		24 V	1.66 A	40 W			90-264 V <sub>AC</sub>	66		
		PJT-24V65WBAA	•			2.71 A	65 W						
	PJT-24V100WBAA	•	•	4.17 A		100 W							
	PJT-24V100WBBB	•		3.33 A		80 W	4.17 A	100 W					
			PJT-27V150WBNA	•	•	V1: 27 V V <sub>SB</sub> : 12 V	V1: 5.55 A V <sub>SB</sub> : 0.5 A	150 W		85-264 V <sub>AC</sub>			
	PJ	• Built-in PFC • Versatile configurations • Conformal coating	PJ-5V15W□NA	•		5 V	3.0 A	15 W			85-264 V <sub>AC</sub>	67	
			PJ-12V15W□NA	•			12 V	1.3 A	15.6 W				
			PJ-12V30W□NA	•				2.5 A	30 W				
PJ-12V50W□NA			•	•	4.3 A			51.6 W					
PJ-12V100W□□A			•	•	8.5 A	102 W							
PJ-12V150W□□A			•	•	24 V	12.5 A	150 W			85-264 V <sub>AC</sub>	68		
PJ-24V30W□NA			•			1.25 A	31.2 W						
PJ-24V50W□NA			•	•		2.1 A	50.4 W						
PJ-24V100W□□A			•	•		4.3 A	103.2 W						
PJ-24V150W□□A			•	•	48 V	6.3 A	150 W			85-264 V <sub>AC</sub>	70		
PJ-48V50W□NA	•	•	1.1 A	52.8 W									
PJB-24V100W□□A	•	•	24 V	4.3 A		103.2 W			85-264 V <sub>AC</sub>			71	
PJB-24V150W□□A	•	•		6.3 A		151.2 W							
PJB-24V240W□□□	•	•		10.0 A	240 W								
PJB-24V300W□□□	•	•		12.5 A	300 W								

## Model Numbering

PJ	T –	XXV	XXXW	B	□	□
Open Frame	Product Series T - ITE Application Series	Output Voltage	Output Power	Package Type B - Open Frame	A - Family Code B - Family Code N - No Remote ON/OFF	Connector Type A - JST connector B - Molex connector <sup>1)</sup> C - JWT connector <sup>1)</sup>

1) Options

PJ –	XXV	XXXW	□	□	A
Open Frame	Output Voltage	Output Power	Package Type B - Open Frame L - L Frame C - Enclosed	Remote ON/OFF Function N - No Remote ON/OFF R - With Remote ON/OFF <sup>1)</sup>	A - Delta Standard

1) Options for 100W and above

PJ	B –	XXV	XXXW	□	□	□
Open Frame	Product Series B - Power Boost Series	Output Voltage	Output Power	Package Type B - Open Frame L - L Frame C - Enclosed  Green Mode <sup>1)</sup> J - Open Frame H - L Frame G - Enclosed	Remote ON/OFF Function N - No Remote ON/OFF R - With Remote ON/OFF	Connector Type A - Harness J - IP20 <sup>2)</sup>

1) Green Mode is available for 150W only

2) For 240W and 300W only

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Product Type	Series	Model Name	Phase		Output Voltage	Output Current	Convection	Forced Air	Input Voltage Range	Page				
			1	PFC			Output Power	Output Power						
Open Frame Power Supplies	PJH	PJH-24V300WBBA	•	•	V1: 24 V V <sub>SB</sub> : 5 V	V1: 12.5 A V <sub>SB</sub> : 1.2 A	240 W	300 W	90-264 V <sub>AC</sub>	72				
			•	•			V1: 24 V V <sub>SB</sub> : 12 V	V1: 12.5 A V <sub>SB</sub> : 0.5 A			240 W	300 W		
		PJH-36V300WBBA	•	•	V1: 36 V V <sub>SB</sub> : 5 V	V1: 8.3 A V <sub>SB</sub> : 1.2 A	240 W	300 W						
			•	•			V1: 36 V V <sub>SB</sub> : 12 V	V1: 8.3 A V <sub>SB</sub> : 0.5 A			240 W	300 W		
		PJU	• Power supply with integrated DC-UPS • Compact size	PJU-13V60W□A□	•	•	V1: 13.8 V B+: 13.6 V	V1: 3.9 A B+: 0.4 A			60 W		90-264 V <sub>AC</sub>	73
					•	•					V1: 3.9 A B+: 0.4 A	60 W		
	PJU-27V60W□A□			•	•	V1: 27.6 V B+: 12.4 V	V1: 1.75 A B+: 0.4 A	60 W						
				•	•			V1: 1.75 A B+: 0.4 A	60 W					
	PJL	• UL 8750, IEC/UL 60950-1, IEC/UL 62368-1 approvals • Low inrush current • LED lighting power solution	PJL-48V200WBAA	•	•	48 V	4.17 A	150 W	200 W	85-305 V <sub>AC</sub>	74			
				•	•			8.33 A	200 W			400 W		
PJL-48V400WBAA			•	•	12.5 A			300 W	600 W					
			•	•										

## Model Numbering

PJ	H –	XXV	XXXW	B	□	A
Open Frame	Product Series H - Household Series	Output Voltage	Output Power	Package Type B - Open Frame	Voltage Standby B - 5 V <sup>1)</sup> C - 12 V	Connector Type A - JST connector

1) Options

PJ	U –	XXV	XXXW	□	□	□
Open Frame	Product Series U - With DC-UPS Function	Output Voltage	Output Power	Package Type C - Enclosed L - L Frame <sup>1)</sup> B - Open Frame <sup>1)</sup>	Signal A - Without Signal <sup>1)</sup> B - With Signal	Connector Type A - Terminal Block B - JST connector <sup>1)</sup> C - Molex connector <sup>1)</sup>

1) Options

PJ	L –	XXV	XXXW	□	A	A
Open Frame	Product Series L - Lighting Application Series	Output Voltage	Output Power	Package Type B - Open Frame L - L Frame	A - Active PFC	A - TE connector



# Product Selection Guide

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Product Type	Series	Model Name	Output Voltage	Output Current	Input Current	Input Voltage Range	Page
Redundancy Module	CliQ II	DRR-20A	22-60 V	20.0A	(1+1 Redundancy) = Nominal 2 × 12.5A (N+1 Redundancy) = Nominal 2 × 10A	22-60 V <sub>DC</sub>	77
		DRR-20N		20.0A			
		DRR-40A		40.0A	(1+1 Redundancy) = Nominal 2 × 25A (N+1 Redundancy) = Nominal 2 × 20A		
		DRR-40N		40.0A			
Buffer Module	CliQ II	DRB-24V020AB□	24 V	20.0A	Charging Mode: < 0.6A	22.8-28.8 V <sub>DC</sub>	78
		DRB-24V040ABN		40.0A	Charging Mode: < 0.6A		
DC-UPS Module	CliQ II	DRU-24V40ABN	24 V	40.0A	Charging Mode: 2.0A ± 1.0A	24-28 V <sub>DC</sub>	79
	CHROME	DRU-24V10ACZ		10.0A	Charging Mode: 0.5A ± 0.1A	24-28 V <sub>DC</sub>	80
	CliQ M	DRU-24V10AMN		10.0A	0.5A, 1A, 1.5A, 2A (typ.) (constant current)	18-30 V <sub>DC</sub>	81
		DRU-24V20AMN		20.0A	0.75A, 1.5A, 2.25A, 3A (typ.) (constant current)	18-30 V <sub>DC</sub>	
		DRU-24V40AMN		40.0A	1A, 2A, 3A, 4A (typ.) (constant current)	18-30 V <sub>DC</sub>	

Product Type	Series	Model Name	Nominal Voltage	Charging Current	Discharging Current	Page
Battery Module	CliQ M	DRN-24V7AAEN	24 V	2.1A Max	40.0 A Max	82

## Model Numbering

DR	R -	XX	□
DIN Rail	Product Type R - Redundancy Module	Output Current 20 - 20 A 40 - 40 A	A - Metal Case, with Class I, Div 2 N - Metal Case, without Class I, Div 2

DR	□ -	24V	XXXXA	□	□
DIN Rail	Product Type B - Buffer Module U - DC-UPS Module	Output Voltage	Output Current	B - CliQ II Series C - CHROME Series M - CliQ M Series	A - Metal Case, with Class I, Div 2 N - Metal Case, without Class I, Div 2 Z - Plastic Case, without Class I, Div 2

DR	N -	24V	XA	A	E	N
DIN Rail	Product Type N - Battery Module (without Battery)	Input / Output Voltage	Capacity 7A - 7.2AH	A - Metal Frame	E - Lead Acid Battery	N - Without Class I, Div 2

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Product Type	Series	Model Name	CC Code	Output Voltage	Output Current	Output Power	Page
Adapter	ADT	ADT-060A12AA	B-A	12 V	5.0A	60 W	84
		ADT-060A12AB	B-A		5.0A	60 W	
		ADT-150B12AA	J-A		12.5A	150 W	
		ADT-060A15AA	B-A	15 V	4.0A	60 W	85
		ADT-060A15AB	B-A		4.0A	60 W	
		ADT-060A19AA	B-A		19 V	3.2A	
		ADT-060A19AB	B-A	3.2A		60.8W	
		ADT-120A19AA	M-A	6.15A		120 W	
		ADT-150A19AA	G-A	24 V	7.7A	150 W	86
		ADT-060A24AA	B-A		2.5A	60 W	
		ADT-060A24AB	B-A		2.5A	60 W	
		ADT-090A24AA	F-A		3.75A	90 W	
		ADT-120A24AA	F-A		5.0A	120 W	
		ADT-150A24AA	H-A		6.25A	150 W	
		ADT-150C24AC	K-A		6.25A	150 W	

## Model Numbering

ADT -	XXX	□	□	A	□	□ -	CC Code	A
Delta AC-DC Adapter	Output Power 060 - 60 W 090 - 90 W 120 - 120 W 150 - 150 W	Family Code A B C	Output Voltage (Single Output) 12 - 12 V 15 - 15 V 19 - 19 V 24 - 24 V	Package Type A - Desktop Adapter	Input Connector Type A - C6 B - C8 C - C14	Output Connector B - Tuning fork, 5.5 × 2.1 × 10 mm, 180° F - Tuning fork, 5.5 × 2.5 × 11 mm, 90° G - Barrel, 6 × 3.5 × 11.5 mm, 90° H - Tuning fork, 5.5 × 2.5 × 11 mm, 90° J - Barrel, 7.4 × 5.1 × 11 mm, 90° K - 4 pin DIN, 180° Lockable M - Tuning fork, 5.5 × 1.7 × 11 mm, 90°		A - Delta Standard

# DIN Rail Power Supplies



## CliQ II / CliQ III

CliQ II: Approvals for hazardous locations  
CliQ III: Built-in constant current circuit for charging applications

Power Range: 60-960 W



## CliQ M / CliQ VA

CliQ M: Approvals for maritime applications  
CliQ VA: Integrated LCD display for outputs monitoring

Power Range: 80-960 W



## Force-GT

Full load operating temperature up to 60°C

Power Range: 120-960 W



## LYTE / LYTE II

Ultra slim form factor

Power Range: 75-480 W



## CHROME / SYNC

CHROME: Class II Double Isolation  
SYNC: Compact size

Power Range: 7.5-91.2 W

## Applications



Building  
Automation



Process  
Automation



Factory  
Automation



Machine  
Automation



Renewable  
Energy



Test &  
Measurement

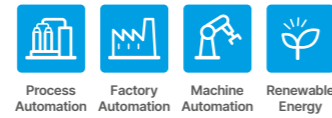


# CLiQ" (24 V)



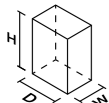
- Power will not de-rate for the entire input voltage range
- High Efficiency > 90.0% @ 230 V<sub>AC</sub>
- Power Boost of 150% up to 5s (480W: 200% for 2s)
- Full corrosion resistant aluminium casing
- Extreme low temperature cold start at -40°C
- Conformal coating on PCBAs to protect against common dust and pollutants
- Hazardous Locations approval to ATEX and Class I, Div 2

## Applications



Output	DRP024V060W1B□	DRP024V120W1B□	DRP024V240W1B□	DRP024V480W1B□
Output Voltage	24V	24V	24V	24V
Output Voltage Range	24-28V	24-28V	24-28V	24-28V
Output Current	0-2.5A	0-5.0A	0-10.0A	0-20.0A
Output Power	60W	120W	240W	480W
PARD (20MHz)	< 150mVpp			
Hold-up Time	115V <sub>AC</sub>	> 20ms		> 20ms
	230V <sub>AC</sub>	> 125ms	> 115ms	
<b>Input</b>				
Phase Input	Single Phase			
Input Voltage Range	85-264V <sub>AC</sub> (DC input range 120-375V <sub>DC</sub> ) <sup>1)</sup>			
Input Frequency	47-63Hz			
Input Current	115V <sub>AC</sub>	< 1.4A	< 2.2A	< 5.0A
	230V <sub>AC</sub>	< 0.8A	< 1.1A	< 3.0A
Efficiency <sup>2)</sup> at 100% Load	115V <sub>AC</sub>	> 90.0%	> 89.0%	> 91.0%
	230V <sub>AC</sub>	> 90.0%		> 92.0%
Max Inrush Current (Cold Start)	115V <sub>AC</sub>	< 20A	< 35A	
	230V <sub>AC</sub>	< 35A		
Power Factor	115V <sub>AC</sub>	Conform to EN 61000-3-2		> 0.96
	230V <sub>AC</sub>			> 0.90
Leakage Current	240V <sub>AC</sub>	< 1mA		< 3mA
<b>Mechanical</b>				
Case Cover / Chassis	Aluminium			
Dimensions (H × W × D)	mm	121 × 32 × 125	121 × 50 × 123.1	121 × 85 × 124.1
	inch	4.76 × 1.26 × 4.92	4.76 × 1.97 × 4.85	4.76 × 3.35 × 4.89
Unit Weight	kg	0.37	0.72	1.10
	lb	0.82	1.59	2.43
Cooling System	Convection			
MTBF <sup>3)</sup>	> 800,000 hrs		> 500,000 hrs	
<b>Environment</b>				
Operating Temperature <sup>4)</sup>	-25°C to +80°C			-25°C to +75°C
Storage Temperature	-40°C to +85°C			
Operating Humidity	5 to 95% RH (Non-Condensing)			
Operating Altitude	0 to 2,500m (0 to 8,200ft)			

### Dimensions Reference



#### Notes

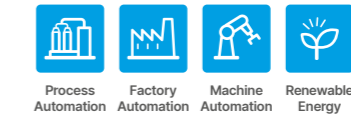
- 1) All models fulfill the test conditions for this range. DC input safety approval can be obtained upon request. While DRP024V060W1B□ is also certified for DC input.
- 2) At 25°C ambient temperature by vertical mounting orientation.
- 3) MTBF as per Telcordia SR-332 (Confidence level: 90%, I/P: 115V<sub>AC</sub>, O/P: 100% load) for vertical mounting orientation.
- 4) Refer power de-rating in the product datasheet.
- 5) All parameters are specified at 25°C ambient temperature unless otherwise indicated.

# CLiQ" (24 V)



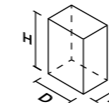
- Power will not de-rate for the entire input voltage range
- UL 1310 safety approval
- NEC Class 2 and Limited Power Source (LPS) approvals
- Conformal coating on PCBAs to protect against common dust and chemical pollutants
- Hazardous Locations approval to ATEX and Class I, Div 2 (DRP024V060W1NY)

## Applications



Output	DRP024V060W1N□	DRP-24V100W1NN
Output Voltage	24V	24V
Output Voltage Range	22-28V	22-24V
Output Current	0-2.5A	0-3.8A
Output Power	60W	91.2W
PARD (20MHz)	< 240mVpp	
Hold-up Time	115V <sub>AC</sub>	> 20ms
	230V <sub>AC</sub>	> 125ms
<b>Input</b>		
Phase Input	Single Phase	
Input Voltage Range	85-264V <sub>AC</sub> (DC input range 120-375V <sub>DC</sub> ) <sup>1)</sup>	
Input Frequency	47-63Hz	
Input Current	115V <sub>AC</sub>	< 1.50A
	230V <sub>AC</sub>	< 0.80A
Efficiency <sup>2)</sup> at 100% Load	115V <sub>AC</sub>	> 88.0%
	230V <sub>AC</sub>	> 89.0%
Max Inrush Current (Cold Start)	115V <sub>AC</sub>	< 40A
	230V <sub>AC</sub>	< 80A
Power Factor	115V <sub>AC</sub>	> 0.99
	230V <sub>AC</sub>	> 0.94
Leakage Current	240V <sub>AC</sub>	< 0.5mA
<b>Mechanical</b>		
Case Cover / Chassis	Plastic	Aluminium
Dimensions (H × W × D)	mm	120.6 × 32 × 119.3
	inch	4.75 × 1.26 × 4.70
Unit Weight	kg	0.33
	lb	0.73
Cooling System	Convection	
MTBF <sup>3)</sup>	> 800,000 hrs	
<b>Environment</b>		
Operating Temperature <sup>4)</sup>	-25°C to +80°C	
Storage Temperature	-40°C to +85°C	
Operating Humidity	5 to 95% RH (Non-Condensing)	
Operating Altitude	0 to 2,500m (0 to 8,200ft)	

### Dimensions Reference



#### Notes

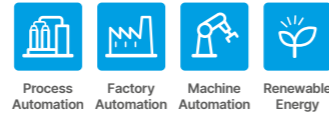
- 1) All models fulfill the test conditions for this range. DC input safety approval can be obtained upon request.
- 2) At 25°C ambient temperature by vertical mounting orientation.
- 3) MTBF as per Telcordia SR-332 (Confidence level: 90%, I/P: 115V<sub>AC</sub>, O/P: 100% load) for vertical mounting orientation.
- 4) Refer power de-rating in the product datasheet.
- 5) All parameters are specified at 25°C ambient temperature unless otherwise indicated.

# CLiQ" (24 V)



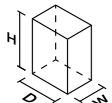
- Designed for single phase input 180-305 V<sub>AC</sub> (L-N) or 2 of 3-Phase system 2 x 180-550 V<sub>AC</sub> (L-L) or 254-780 V<sub>DC</sub>
- Compact and corrosion resistant aluminium casing
- High Efficiency > 90.0%
- Wide operating temperature range from -30°C to +70°C
- Built-in DC OK contact
- Conformal coating on PCBAs to protect against common dust and pollutants

## Applications



Output	DRP-24V120W2BN	DRP-24V240W2BN
Output Voltage	24V	24V
Output Voltage Range	24-28V	24-28V
Output Current	0-5.0A	0-10.0A
Output Power	120W	240W
PARD (20 MHz)	< 150mVpp	< 150mVpp @ -10°C and above < 200mVpp @ below -10°C
Hold-up Time	2 x 230V <sub>AC</sub>	> 10ms
	2 x 400V <sub>AC</sub>	> 50ms
<b>Input</b>		
Phase Input	Single Phase or Two Phase	
Input Voltage Range	2 x 180-550 V <sub>AC</sub> or 180-305 V <sub>AC</sub> (Single Phase) (DC input range 254-780 V <sub>DC</sub> ) <sup>1)</sup>	
Input Frequency	47-63Hz	
Input Current	2 x 230V <sub>AC</sub>	< 1.20 A
	2 x 400V <sub>AC</sub>	< 0.80 A
Efficiency <sup>2)</sup> at 100% Load	2 x 400V <sub>AC</sub>	> 90.0%
Max Inrush Current (Cold Start)	2 x 200V <sub>AC</sub>	< 50 A
	2 x 500V <sub>AC</sub>	
Power Factor	2 x 230V <sub>AC</sub> 2 x 400V <sub>AC</sub>	Conform to EN 61000-3-2
Leakage Current	500V <sub>AC</sub>	< 1mA
<b>Mechanical</b>		
Case Cover / Chassis	Aluminium	
Dimensions (H x W x D)	mm	124 x 40 x 117
	inch	4.88 x 1.57 x 4.61
Unit Weight	kg	0.62
	lb	1.37
Cooling System	Convection	
MTBF <sup>3)</sup>	> 800,000 hrs	> 500,000 hrs
<b>Environment</b>		
Operating Temperature <sup>4)</sup>	-30°C to +70°C	
Storage Temperature	-40°C to +85°C	
Operating Humidity	5 to 95% RH (Non-Condensing)	
Operating Altitude	Industrial Application: 0 to 2,000m (0 to 6,560ft); ITE Application: 0 to 2,500m (0 to 8,200ft)	

### Dimensions Reference



#### Notes

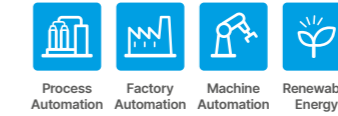
- 1) All models are certified for DC input.
- 2) At 25°C ambient temperature by vertical mounting orientation.
- 3) MTBF as per Telcordia SR-332 (Confidence level: 90%, I/P: 2 x 200V<sub>AC</sub>, O/P: 100% load) for vertical mounting orientation.
- 4) Refer power de-rating in the product datasheet.
- 5) All parameters are specified at 25°C ambient temperature unless otherwise indicated.

# CLiQ" (24 V)



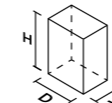
- Power will not de-rate for the entire input voltage range
- Power Boost of 150% up to 5 s (480W: 200% for 2 s)
- Full corrosion resistant aluminium casing
- Extreme low temperature cold start at -40°C
- Conformal coating on PCBAs to protect against common dust and pollutants
- Hazardous Locations approval to ATEX and Class I, Div 2 (except DRP024V960W3BN)

## Applications



Output	DRP024V060W3B□	DRP024V120W3B□	DRP024V240W3B□	DRP024V480W3B□	DRP024V960W3BN
Output Voltage	24V	24V	24V	24V	24V
Output Voltage Range	24-28V	24-28V	24-28V	24-28V	24-28V
Output Current	0-2.5A	0-5.0A	0-10.0A	0-20.0A	0-40.0A
Output Power	60W	120W	240W	480W	960W
PARD (20 MHz)	< 150mVpp				
Hold-up Time	3 x 400V <sub>AC</sub>	> 20ms			> 20ms
	3 x 500V <sub>AC</sub>	> 40ms			> 20ms
<b>Input</b>					
Phase Input	Two Phase or Three Phase				
Input Voltage Range (Does not exceed 600 V <sub>AC</sub> )	3 x 320-600V <sub>AC</sub> or 2 x 360-600V <sub>AC</sub> (DC input range 450-800 V <sub>DC</sub> ) <sup>1)</sup>				3 x 320-600 V <sub>AC</sub> or 2 x 380-600 V <sub>AC</sub> (DC input range 450-800 V <sub>DC</sub> ) <sup>1)</sup>
Input Frequency	47-63Hz				
Input Current	3 x 400V <sub>AC</sub>	< 0.30 A	< 0.50 A	< 0.75 A	< 1.00 A
	3 x 500V <sub>AC</sub>	< 0.25 A	< 0.40 A	< 0.65 A	< 0.75 A
Efficiency <sup>2)</sup> at 100% Load	3 x 400V <sub>AC</sub> 3 x 500V <sub>AC</sub>	> 86.0%	> 88.0%	> 91.0%	
Max Inrush Current (Cold Start) <sup>3)</sup>	3 x 400V <sub>AC</sub>	< 30 A	< 40 A	< 50 A	< 60 A
	3 x 500V <sub>AC</sub>				
Power Factor	3 x 400V <sub>AC</sub> 3 x 500V <sub>AC</sub>	Conform to EN 61000-3-2			> 0.95 > 0.94
Leakage Current	3 x 500V <sub>AC</sub>	< 3.5mA			
<b>Mechanical</b>					
Case Cover / Chassis	Aluminium				
Dimensions (H x W x D)	mm	121 x 50 x 117.3	121 x 50 x 117.3	121 x 70 x 117.3	121 x 140 x 117.3
	inch	4.76 x 1.97 x 4.62	4.76 x 1.97 x 4.62	4.76 x 2.76 x 4.62	4.76 x 5.51 x 4.62
Unit Weight	kg	0.66	0.66	0.89	1.35
	lb	1.46	1.46	1.96	2.98
Cooling System	Convection				
MTBF <sup>4)</sup>	> 800,000 hrs			> 500,000 hrs	> 300,000 hrs
<b>Environment</b>					
Operating Temperature <sup>5)</sup>	-25°C to +80°C				-25°C to +65°C
Storage Temperature	-40°C to +85°C				
Operating Humidity	5 to 95% RH (Non-Condensing)				
Operating Altitude	Industrial Application: 0 to 2,000m (0 to 6,560ft); ITE Application: 0 to 2,500m (0 to 8,200ft)				

### Dimensions Reference



#### Notes

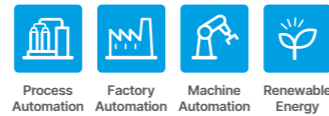
- 1) All models fulfill the test conditions for this range. DC input safety approval can be obtained upon request. While DRP024V480W3B□ and DRP024V960W3B□ are also certified for DC input.
- 2) At 25°C ambient temperature by vertical mounting orientation.
- 3) AC Source capability up to 3kVA.
- 4) MTBF as per Telcordia SR-332 (Confidence level: 90%, I/P: 3 x 400V<sub>AC</sub>, O/P: 100% load) for vertical mounting orientation.
- 5) Refer power de-rating in the product datasheet.
- 6) All parameters are specified at 25°C ambient temperature unless otherwise indicated.

# CLiQ<sup>II</sup> (48 V)



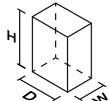
- Power will not de-rate for the entire input voltage range
- High Efficiency > 91.0% @ 230V<sub>AC</sub>
- Power Boost of 150% up to 5s
- Full corrosion resistant aluminium casing
- Extreme low temperature cold start at -40°C
- Conformal coating on PCBAs to protect against common dust and pollutants
- Hazardous Locations approval to ATEX and Class I, Div 2

## Applications



Output	DRP048V060W1B□	DRP048V120W1B□	DRP048V240W1B□	DRP048V480W1B□
Output Voltage	48V	48V	48V	48V
Output Voltage Range	48-56V	48-56V	48-56V	48-56V
Output Current	0-1.25A	0-2.5A	0-5.0A	0-10.0A
Output Power	60W	120W	240W	480W
PARD (20 MHz)	< 200 mVpp			
Hold-up Time	115V <sub>AC</sub>	> 20ms		> 20ms
	230V <sub>AC</sub>	> 125ms	> 50ms	
<b>Input</b>				
Phase Input	Single Phase			
Input Voltage Range	85-264V <sub>AC</sub> (DC input range 120-375V <sub>DC</sub> ) <sup>1)</sup>			
Input Frequency	47-63Hz			
Input Current	115V <sub>AC</sub>	< 1.4A	< 2.2A	< 2.5A
	230V <sub>AC</sub>	< 0.8A	< 1.1A	< 1.3A
Efficiency <sup>2)</sup> at 100% Load	115V <sub>AC</sub>	> 91.0%	> 91.0%	> 91.0%
	230V <sub>AC</sub>	> 92.0%	> 91.0%	> 92.0%
Max Inrush Current (Cold Start)	115V <sub>AC</sub>	< 20A	< 35A	
	230V <sub>AC</sub>	< 35A		
Power Factor	115V <sub>AC</sub>	Conform to EN 61000-3-2		> 0.96
	230V <sub>AC</sub>			> 0.90
Leakage Current	240V <sub>AC</sub>	< 1mA		< 3mA
<b>Mechanical</b>				
Case Cover / Chassis	Aluminium			
Dimensions (H × W × D)	mm	121 × 32 × 125	121 × 50 × 123.1	121 × 85 × 124.1
	inch	4.76 × 1.26 × 4.92	4.76 × 1.97 × 4.85	4.76 × 3.35 × 4.86
Unit Weight	kg	0.38	0.72	1.37
	lb	0.84	1.59	2.12
Cooling System	Convection			
MTBF <sup>3)</sup>	> 800,000 hrs		> 500,000 hrs	
<b>Environment</b>				
Operating Temperature <sup>4)</sup>	-25°C to +80°C			-25°C to +75°C
Storage Temperature	-40°C to +85°C			
Operating Humidity	5 to 95% RH (Non-Condensing)			
Operating Altitude	0 to 2,500m (0 to 8,200ft)			

### Dimensions Reference



#### Notes

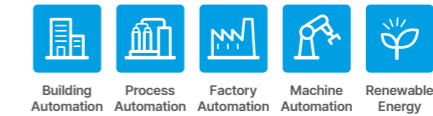
- 1) All models fulfill the test conditions for DC input. DC input safety approval can be obtained upon request.
- 2) At 25°C ambient temperature by vertical mounting orientation.
- 3) MTBF as per Telcordia SR-332 (Confidence level: 90%, I/P: 115V<sub>AC</sub>, O/P: 100% load) for vertical mounting orientation.
- 4) Refer power de-rating in the product datasheet.
- 5) All parameters are specified at 25°C ambient temperature unless otherwise indicated.

# CLiQ<sup>III</sup> (24 V)



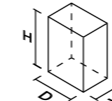
- Built-in constant current circuit for charging applications
- High efficiency of up to 94% at 230V<sub>AC</sub>
- Power Boost of 150% up to 5s
- SEMI F47 compliance at 120V<sub>AC</sub>
- Extreme low temperature cold start at -40°C
- Built-in DC OK Contact and LED indicator for DC OK
- Conformal coating on PCBA to protect against common dust and pollutants

## Applications



Output	DRP-24V120W1C□N	DRP-24V240W1C□N	DRP-24V480W1C□N
Output Voltage	24V	24V	24V
Output Voltage Range	24-28V	24-28V	24-28V
Output Current	0-5.0A	0-10.0A	0-20.0A
Output Power	120W	240W	480W
PARD (20 MHz)	< 100 mVpp		
Hold-up Time	115V <sub>AC</sub>	> 20ms	
	230V <sub>AC</sub>	> 15ms	
<b>Input</b>			
Phase Input	Single Phase		
Input Voltage Range	DRP-24V□W1C□N: 88-264V <sub>AC</sub> DRP-24V□W1C□N: 88-264V <sub>AC</sub> (DC input range 88-375V <sub>DC</sub> ) <sup>1)</sup>		
Input Frequency	47-63Hz		
Input Current	115V <sub>AC</sub>	< 1.4A	< 2.6A
	230V <sub>AC</sub>	< 0.7A	< 1.3A
Efficiency <sup>2)</sup> at 100% Load	115V <sub>AC</sub>	> 89.5%	> 91.0%
	230V <sub>AC</sub>	> 91.0%	> 93.0%
Max Inrush Current (Cold Start)	115V <sub>AC</sub>	< 35A	< 40A
	230V <sub>AC</sub>	< 70A	< 80A
Power Factor	115V <sub>AC</sub>	> 0.96	> 0.99
	230V <sub>AC</sub>	> 0.93	> 0.93
Leakage Current (264V <sub>AC</sub> , 50Hz)	TT/TN	< 0.47mA	< 0.74mA
	IT	< 1.20mA	< 2.00mA
<b>Mechanical</b>			
Case Cover / Chassis	Aluminium		
Dimensions (H × W × D)	mm	124 × 40 × 117	124 × 60 × 117
	inch	4.88 × 1.57 × 4.61	4.88 × 2.36 × 4.61
Unit Weight	kg	0.58	0.84
	lb	1.28	1.85
Cooling System	Convection		
MTBF <sup>3)</sup>	> 1,411,300 hrs	> 1,366,200 hrs	> 1,041,600 hrs
<b>Environment</b>			
Operating Temperature <sup>4)</sup>	-25°C to +70°C		
Storage Temperature	-40°C to +85°C		
Operating Humidity	5 to 95% RH (Non-Condensing)		
Operating Altitude	0 to 5,000m (0 to 16,400ft)		

### Dimensions Reference



#### Notes

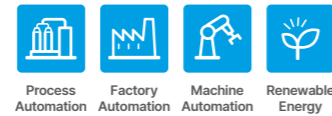
- 1) All models are certified for DC input.
- 2) At 25°C ambient temperature by vertical mounting orientation.
- 3) MTBF as per Telcordia SR-332 (Confidence level: 90%, I/P: 115V<sub>AC</sub>, O/P: 100% load) for vertical mounting orientation.
- 4) Refer power de-rating in the product datasheet.
- 5) All parameters are specified at 25°C ambient temperature unless otherwise indicated.

# cliQ<sup>M</sup> (24 V)



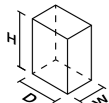
- High power density in corrosion resistant aluminium casing
- Power Boost of 150% up to 7 s
- Advanced Power Boost (APB)
- DNV GL and ABS approvals for maritime applications
- Extreme low temperature cold start at -40°C
- Built-in DC OK contact and LED indicator for DC OK/ Overload
- Conformal coating on PCBAs to protect against common dust and chemical pollutants

## Applications



Output	DRM-24V80W1PN	DRM-24V120W1PN	DRM-24V240W1PN	DRM-24V480W1PN	DRM-24V960W1PN	
Output Voltage	24 V	24 V	24 V	24 V	24 V	
Output Voltage Range	24-28 V	24-28 V	24-28 V	24-28 V	24-28 V	
Output Current	3.4-3.0 A	5.0-4.5 A	10.0-9.0 A	20.0-17.0 A	40.0-34.3 A	
Output Power	81.6 W	120 W	240 W	480 W	960 W	
PARD (20 MHz)	< 50 mVpp					
Hold-up Time	120 V <sub>AC</sub>	> 35 ms	> 34 ms	> 28 ms	> 23 ms	
	230 V <sub>AC</sub>	> 70 ms	> 65 ms	> 30 ms	> 23 ms	
<b>Input</b>						
Phase Input	Single Phase					
Input Voltage Range	85-276 V <sub>AC</sub> (DC input range 88-375 V <sub>DC</sub> ) <sup>1)</sup>	85-264 V <sub>AC</sub> (DC input range 88-375 V <sub>DC</sub> ) <sup>1)</sup>	85-276 V <sub>AC</sub> (DC input range 88-375 V <sub>DC</sub> ) <sup>1)</sup>	85-264 V <sub>AC</sub>	85-264 V <sub>AC</sub>	
Input Frequency	47-63 Hz					
Input Current	120 V <sub>AC</sub>	< 0.90 A	< 1.12 A	< 2.26 A	< 4.60 A	
	230 V <sub>AC</sub>	< 0.60 A	< 0.62 A	< 1.25 A	< 2.50 A	
Efficiency <sup>2)</sup> at 100% Load	120 V <sub>AC</sub>	> 90.1%	> 91.6%	> 92.6%	> 92.2%	
	230 V <sub>AC</sub>	> 90.0%	> 92.7%	> 93.5%	> 93.4%	
Max Inrush Current (Cold Start)	120 V <sub>AC</sub>	< 7 A	< 15 A	< 10 A	< 13 A	
	230 V <sub>AC</sub>	< 13 A	< 15 A	< 10 A	< 20 A	
Power Factor	120 V <sub>AC</sub>	> 0.95	> 0.99	> 0.98	> 0.92	
	230 V <sub>AC</sub>	> 0.80	> 0.91	> 0.92	> 0.87	
Leakage Current (264 V <sub>AC</sub> , 50 Hz)	TT/TN	< 0.36 mA	< 0.45 mA	< 0.74 mA	< 0.80 mA	
	IT	< 0.95 mA	< 1.08 mA	< 1.29 mA	< 2.00 mA	
<b>Mechanical</b>						
Case Cover / Chassis	Aluminium					
Dimensions (H x W x D)	mm	124 x 32 x 102	124 x 40 x 117	124 x 60 x 117	124 x 82 x 127	124 x 125 x 133.6
	inch	4.88 x 1.26 x 4.02	4.88 x 1.57 x 4.61	4.88 x 2.36 x 4.61	4.88 x 3.23 x 5.00	4.88 x 4.92 x 5.26
Unit Weight	kg	0.50	0.63	0.94	1.40	2.87
	lb	1.10	1.39	2.07	3.09	6.33
Cooling System	Convection					
MTBF <sup>3)</sup>	> 2,000,000 hrs	> 1,800,000 hrs	> 1,400,000 hrs	> 778,800 hrs	> 513,800 hrs	
<b>Environment</b>						
Operating Temperature <sup>4)</sup>	-25°C to +70°C					
Storage Temperature	-40°C to +85°C					
Operating Humidity	5 to 95% RH (Non-Condensing)					
Operating Altitude	0 to 5,000 m (0 to 16,400 ft); IEC/EN 61558: 0 to 2,500 m (0 to 8,200 ft)					

### Dimensions Reference



#### Notes

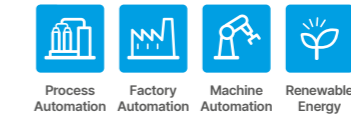
- 1) All models are certified for DC input. DC input is not applicable for DRM-24V960W1PN.
- 2) At 25°C ambient temperature by vertical mounting orientation.
- 3) MTBF as per Telcordia SR-332 (Confidence level: 90%, I/P: 100 V<sub>AC</sub>, O/P: 100% load) for vertical mounting orientation.
- 4) Refer power de-rating in the product datasheet.
- 5) All parameters are specified at 25°C ambient temperature unless otherwise indicated.

# cliQ<sup>M</sup> (24 V)



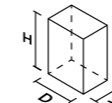
- Built-in constant current circuit for charging applications
- Full power from -25°C to +60°C @ 5,000 m (16,400 ft)
- Power Boost of 150% up to 7 s
- Advanced Power Boost (APB)
- DNV GL and ABS approvals for maritime applications
- Built-in DC OK Contact and LED indicator for DC OK/ Overload
- Conformal coating on PCBAs to protect against common dust and chemical pollutants

## Applications



Output	DRM-24V480W3PN	DRM-24V960W3PN
Output Voltage	24 V	24 V
Output Voltage Range	24-28 V	24-28 V
Output Current	20.0-17.1 A	40.0-34.3 A
Output Power	480 W	960 W
PARD (20 MHz)	< 100 mVpp	
Hold-up Time	3 x 400 V <sub>AC</sub>	> 18 ms
	3 x 500 V <sub>AC</sub>	> 20 ms
<b>Input</b>		
Phase Input	Two or Three Phase	
Input Voltage Range	3 x 320-575 V <sub>AC</sub> or 2 x 380-575 V <sub>AC</sub> (DC input range 450-800 V <sub>DC</sub> ) <sup>1)</sup>	
Input Frequency	47-63 Hz	
Input Current	3 x 400 V <sub>AC</sub>	< 0.79 A
	3 x 500 V <sub>AC</sub>	< 0.68 A
Efficiency <sup>2)</sup> at 100% Load	3 x 400 V <sub>AC</sub>	> 95.0%
	3 x 500 V <sub>AC</sub>	> 94.8%
Max Inrush Current (Cold Start)	3 x 400 V <sub>AC</sub>	< 10 A
	3 x 500 V <sub>AC</sub>	< 17.7 A
Power Factor	3 x 400 V <sub>AC</sub>	> 0.93
	3 x 500 V <sub>AC</sub>	> 0.88
Leakage Current (3 x 528 V <sub>AC</sub> , 60 Hz)	TT/TN	< 0.95 mA
	IT	< 1.30 mA
<b>Mechanical</b>		
Case Cover / Chassis	Aluminium	
Dimensions (H x W x D)	mm	124 x 65 x 127.1
	inch	4.88 x 2.56 x 5.00
Unit Weight	kg	1.18
	lb	2.60
Cooling System	Convection	
MTBF <sup>3)</sup>	> 750,000 hrs	
<b>Environment</b>		
Operating Temperature <sup>4)</sup>	-25°C to +70°C	
Storage Temperature	-40°C to +85°C	
Operating Humidity	5 to 95% RH (Non-Condensing)	
Operating Altitude <sup>5)</sup>	0 to 5,000 m (0 to 16,400 ft)	

### Dimensions Reference



#### Notes

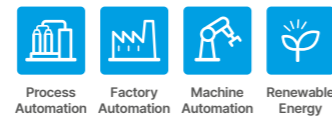
- 1) All models fulfill the test conditions for this range. DC input safety approval can be obtained upon request.
- 2) At 25°C ambient temperature by vertical mounting orientation.
- 3) MTBF as per Telcordia SR-332 (Confidence level: 90%, I/P: 3 x 400 V<sub>AC</sub>, O/P: 100% load) for vertical mounting orientation.
- 4) Refer power de-rating in the product datasheet.
- 5) According to IEC/EN 62368-1, IEC/EN 61010.
- 6) All parameters are specified at 25°C ambient temperature unless otherwise indicated.

# cliQ<sup>M</sup> (24 V)



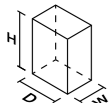
- SIL3 approval for SIS Functional Safety
- Droop method current sharing
- Active Redundant circuit O-Ring MOSFET
- Power Boost of 150% up to 5s
- Advanced Power Boost (APB)
- Built-in DC OK contact and LED indicator for DC OK/ Overload
- Conformal coating on PCBAs to protect against common dust and chemical pollutants

## Applications



COMING SOON	
<b>Output</b>	<b>DRM-24V480W1SN</b>
Output Voltage	24 V
Output Voltage Range	24-28 V
Output Current	20.0-17.0 A
Output Power	480 W
PARD (20 MHz)	< 120 mVpp
Hold-up Time	120 V <sub>AC</sub>
	230 V <sub>AC</sub>
Input	
Phase Input	Single Phase
Input Voltage Range	85-276 V <sub>AC</sub> (DC input range 88-375 V <sub>DC</sub> ) <sup>1)</sup>
Input Frequency	47-63 Hz
Input Current	120 V <sub>AC</sub>
	230 V <sub>AC</sub>
Efficiency <sup>2)</sup> at 100% Load	120 V <sub>AC</sub>
	230 V <sub>AC</sub>
Max Inrush Current (Cold Start)	120 V <sub>AC</sub>
	230 V <sub>AC</sub>
Power Factor	120 V <sub>AC</sub>
	230 V <sub>AC</sub>
Leakage Current (264 V <sub>AC</sub> , 50 Hz)	TT/TN
	IT
Mechanical	
Case Cover / Chassis	Aluminium
Dimensions (H × W × D)	mm
	inch
Unit Weight	kg
	lb
Cooling System	Convection
MTBF <sup>3)</sup>	> 864,600 hrs
Environment	
Operating Temperature <sup>4)</sup>	-25°C to +70°C
Storage Temperature	-40°C to +85°C
Operating Humidity	5 to 95% RH (Non-Condensing)
Operating Altitude <sup>5)</sup>	0 to 5,000 m (0 to 16,400 ft)

### Dimensions Reference



#### Notes

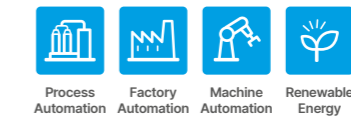
- 1) All models are certified for DC input.
- 2) At 25°C ambient temperature by vertical mounting orientation.
- 3) MTBF as per Telcordia SR-332 (Confidence level: 90%, I/P: 100 V<sub>AC</sub>, O/P: 100% load) for vertical mounting orientation.
- 4) Refer power de-rating in the product datasheet.
- 5) According to IEC/EN 62368-1, IEC/EN 61010.
- 6) All parameters are specified at 25°C ambient temperature unless otherwise indicated.

# cliQ<sup>VA</sup> (24 V)



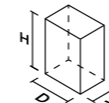
- LCD display monitoring the output current / voltage / peak current and temperature
- Life time expectancy alarm signal and monitoring
- Built-in active PFC with up to 94% efficiency
- Power Boost of 150% up to 7s
- Advanced Power Boost (APB)
- DC OK Contact and LED indicator for DC OK/ Overload
- Conformal coating on PCBAs to protect against common dust and chemical pollutants

## Applications



Output	DRV-24V120W1PN	DRV-24V240W1PN	DRV-24V480W1PN
Output Voltage	24 V	24 V	24 V
Output Voltage Range	24-28 V	24-28 V	24-28 V
Output Current	5.0-4.28 A	10.0-8.57 A	20.0-17.0 A
Output Power	120 W	240 W	480 W
PARD (20 MHz)	< 50 mVpp	< 50 mVpp	< 100 mVpp
Hold-up Time	120 V <sub>AC</sub>	> 28 ms	> 30 ms
	230 V <sub>AC</sub>	> 65 ms	> 30 ms
Input			
Phase Input	Single Phase		
Input Voltage Range	85-264 V <sub>AC</sub> (DC input range 88-375 V <sub>DC</sub> ) <sup>1)</sup>	85-276 V <sub>AC</sub> (DC input range 88-375 V <sub>DC</sub> ) <sup>1)</sup>	
Input Frequency	47-63 Hz		
Input Current	120 V <sub>AC</sub>	< 1.13 A	< 2.22 A
	230 V <sub>AC</sub>	< 0.63 A	< 1.21 A
Efficiency <sup>2)</sup> at 100% Load	120 V <sub>AC</sub>	> 90.3%	> 92.6%
	230 V <sub>AC</sub>	> 91.2%	> 93.5%
Max Inrush Current (Cold Start)	120 V <sub>AC</sub>	< 15 A	< 10 A
	230 V <sub>AC</sub>	< 15 A	< 10 A
Power Factor	120 V <sub>AC</sub>	> 0.99	> 0.98
	230 V <sub>AC</sub>	> 0.91	> 0.92
Leakage Current (264 V <sub>AC</sub> , 50 Hz)	TT/TN	< 0.45 mA	< 0.74 mA
	IT	< 1.08 mA	< 2.10 mA
Mechanical			
Case Cover / Chassis	Aluminium & Plastic / Aluminium		
Dimensions (H × W × D)	mm	124 × 60 × 139	124 × 60 × 139
	inch	4.88 × 2.36 × 5.47	4.88 × 2.36 × 5.47
Unit Weight	kg	0.75	1.02
	lb	1.65	2.25
Cooling System	Convection		
MTBF <sup>3)</sup>	> 1,444,000 hrs	> 1,268,000 hrs	> 751,100 hrs
Environment			
Operating Temperature <sup>4)</sup>	-25°C to +70°C		
Storage Temperature	-40°C to +85°C		
Operating Humidity	5 to 95% RH (Non-Condensing)		
Operating Altitude	0 to 5,000 m (0 to 16,400 ft)		

### Dimensions Reference



#### Notes

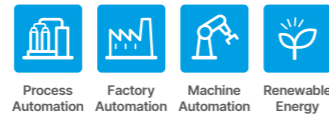
- 1) All models are certified for DC input.
- 2) At 25°C ambient temperature by vertical mounting orientation.
- 3) MTBF as per Telcordia SR-332 (Confidence level: 90%, I/P: 100 V<sub>AC</sub>, O/P: 100% load) for vertical mounting orientation.
- 4) Refer power de-rating in the product datasheet.
- 5) All parameters are specified at 25°C ambient temperature unless otherwise indicated.

# FORCE-GT (12V, 24V, 48V)



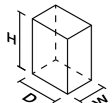
- Built-in constant current circuit for charging applications
- Full load operating temperature up to 60°C
- Cold start at -40°C
- Ultra-Slim design
- Long life electrolytic capacitor
- Built-in DC OK relay and LED indicator
- Conformal coating on PCBAs to protect against common dust and pollutants

## Applications



	NEW	NEW	NEW	NEW	NEW	NEW	NEW	NEW
<b>Output</b>	<b>DRF-12V120W1GBA</b>	<b>DRF-12V240W1GBA</b>	<b>DRF-24V120W1GBA</b>	<b>DRF-24V240W1GBA</b>	<b>DRF-24V480W1GBA</b>	<b>DRF-48V120W1GBA</b>	<b>DRF-48V240W1GBA</b>	<b>DRF-48V480W1GBA</b>
Output Voltage	12 V	12 V	24 V	24 V	24 V	48 V	48 V	48 V
Output Voltage Range	12-14 V	12-14 V	24-28 V	24-28 V	24-28 V	48-55 V	48-55 V	48-55 V
Output Current	0-10.0 A	0-20.0 A	0-5.0 A	0-10.0 A	0-20.0 A	0-2.5 A	0-5.0 A	0-10.0 A
Output Power	120 W	240 W	120 W	240 W	480 W	120 W	240 W	480 W
PARD (20 MHz)	< 100 mVpp @ 0°C~70°C < 300 mVpp @ -30°C~0°C		< 100 mVpp @ 0°C~70°C < 300 mVpp @ -30°C~0°C		< 120 mVpp @ 0°C~70°C < 360 mVpp @ -30°C~0°C		< 150 mVpp @ 0°C~70°C < 450 mVpp typ. @ -30°C~0°C	
Hold-up Time	115 V <sub>AC</sub> 230 V <sub>AC</sub>	35 ms typ.	30 ms typ.	35 ms typ.	30 ms typ.	25 ms typ.	35 ms typ.	30 ms typ.
<b>Input</b>								
Phase Input	Single Phase				Single Phase			
Input Voltage Range	90-264 V <sub>AC</sub>				90-264 V <sub>AC</sub>			
Input Frequency	47-63 Hz				47-63 Hz			
Input Current	115 V <sub>AC</sub> 230 V <sub>AC</sub>	1.2 A typ. 0.6 A typ.	2.5 A typ. 1.3 A typ.	1.2 A typ. 0.6 A typ.	2.5 A typ. 1.3 A typ.	4.7 A typ. 2.4 A typ.	1.2 A typ. 0.6 A typ.	2.5 A typ. 1.3 A typ.
Efficiency <sup>2)</sup> at 100% Load	230 V <sub>AC</sub>	93.0% typ.	93.5% typ.	94.5% typ.	95.0% typ.	93.0% typ.	94.0% typ.	95.0% typ.
Max Inrush Current (Cold Start)	230 V <sub>AC</sub>	40 A typ.				40 A typ.		
Power Factor	115 V <sub>AC</sub> 230 V <sub>AC</sub>	> 0.95 > 0.92	> 0.96 > 0.93	> 0.95 > 0.92	> 0.96 > 0.93	> 0.95 > 0.92	> 0.96 > 0.93	> 0.95 > 0.92
Leakage Current	240 V <sub>AC</sub>	< 0.5 mA			< 0.5 mA	< 1.5 mA	< 0.5 mA	
<b>Mechanical</b>								
Case Cover / Chassis	Metal							
Dimensions (H × W × D)	mm	123.6 × 30 × 116.8	123.6 × 40 × 116.8	123.6 × 30 × 116.8	123.6 × 40 × 116.8	123.6 × 56 × 116.8	123.6 × 30 × 116.8	123.6 × 40 × 116.8
	inch	4.87 × 1.18 × 4.60	4.87 × 1.57 × 4.60	4.87 × 1.18 × 4.60	4.87 × 1.57 × 4.60	4.87 × 2.20 × 4.60	4.87 × 1.18 × 4.60	4.87 × 1.57 × 4.60
Unit Weight	kg	0.50	0.64	0.50	0.64	0.88	0.50	0.64
	lb	1.10	1.41	1.10	1.41	1.94	1.10	1.41
Cooling System	Convection				Convection			
MTBF <sup>3)</sup>	> 700,000 hrs				> 700,000 hrs			
<b>Environment</b>								
Operating Temperature <sup>4)</sup>	-30°C to +70°C				-30°C to +70°C			
Storage Temperature	-40°C to +85°C				-40°C to +85°C			
Operating Humidity	5 to 90% RH (Non-Condensing)				5 to 90% RH (Non-Condensing)			
Operating Altitude	0 to 5,000 m (0 to 16,400 ft)				0 to 5,000 m (0 to 16,400 ft)			

### Dimensions Reference



#### Notes

- 1) At 25°C ambient temperature by vertical mounting orientation.
- 2) MTBF as per Telcordia SR-332 (Confidence level: 90%, I/P: 115 V<sub>AC</sub> & 230 V<sub>AC</sub>, O/P: 100% load) for vertical mounting orientation.
- 3) Refer power de-rating in the product datasheet.
- 4) All parameters are specified at 25°C ambient temperature unless otherwise indicated.

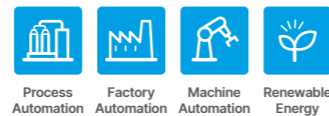


# FORCE-GT (24V)



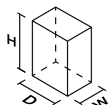
- Built-in constant current circuit for charging applications
- Full load operating temperature up to 55°C
- Cold start at -40°C
- Ultra-Slim design
- Reduced no-load power consumption
- Built-in DC OK relay and LED indicator
- Conformal coating on PCBAs to protect against common dust and pollutants

## Applications



	NEW	NEW	NEW	NEW
Output	DRF-24V120W3GBA	DRF-24V240W3GBA	DRF-24V480W3GBA	DRF-24V960W3GBA
Output Voltage	24V	24V	24V	24V
Output Voltage Range	24-28V	24-28V	24-28V	24-28V
Output Current	0-5.0A	0-10.0A	0-20.0A	0-40.0A
Output Power	120W	240W	480W	960W
PARD (20 MHz)	< 100mVpp		< 150mVpp	< 200mVpp
Hold-up Time	3 × 400V <sub>AC</sub>	20 ms typ.	20 ms typ.	
	3 × 500V <sub>AC</sub>	40 ms typ.		
<b>Input</b>				
Phase Input	Two or Three Phase			
Input Voltage Range	3 × 320-575 V <sub>AC</sub> (3-Phase) or 2 × 340-575 V <sub>AC</sub> (2-Phase) <sup>1)</sup>			
Input Frequency	47-63Hz			
Input Current	3 × 400V <sub>AC</sub>	< 0.50 A	< 0.75 A	< 0.85 A
	3 × 500V <sub>AC</sub>	< 0.40 A	< 0.65 A	< 0.73 A
Efficiency <sup>2)</sup> at 100% Load	3 × 400V <sub>AC</sub>	87.5% typ.	89.5% typ.	94.0% typ.
	3 × 500V <sub>AC</sub>			94.5% typ.
Max Inrush Current (Cold Start)	3 × 400V <sub>AC</sub>	20 A typ.		35 A typ.
	3 × 500V <sub>AC</sub>	25 A typ.		
Power Factor	3 × 400V <sub>AC</sub>	> 0.45	> 0.50	> 0.90
	3 × 500V <sub>AC</sub>	> 0.40		> 0.88
Leakage Current	3 × 500V <sub>AC</sub>	< 3.5 mA		
<b>Mechanical</b>				
Case Cover / Chassis	Aluminium			
Dimensions (H × W × D)	mm	124 × 38 × 125.3	124 × 50 × 125.3	124 × 65 × 127.3
	inch	4.88 × 1.50 × 4.93	4.88 × 1.97 × 4.93	4.88 × 2.56 × 5.01
Unit Weight	kg	0.54	0.84	1.20
	lb	1.19	1.85	2.65
Cooling System	Convection			
MTBF <sup>3)</sup>	> 700,000 hrs		> 600,000 hrs	> 500,000 hrs
<b>Environment</b>				
Operating Temperature <sup>4)</sup>	3-Phase: -25°C to +70°C / 2-Phase: -25°C to +60°C			
Storage Temperature	-40°C to +85°C			
Operating Humidity	5 to 95% RH (Non-Condensing)			
Operating Altitude <sup>5)</sup>	0 to 5,000 m (0 to 16,400 ft)			

### Dimensions Reference



#### Notes

- 1) Power supply can operate at DC input.
- 2) At 25°C ambient temperature by vertical mounting orientation.
- 3) MTBF as per Telcordia SR-332 (Confidence level: 90%, I/P: 3 × 400V<sub>AC</sub> & 3 × 500V<sub>AC</sub>, O/P: 100% load) for vertical mounting orientation.
- 4) Refer power de-rating in the product datasheet.
- 5) According to IEC/EN 62368-1, IEC/EN 61010.
- 6) All parameters are specified at 25°C ambient temperature unless otherwise indicated.

# LYTE (12V, 24V, 48V)



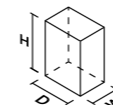
- Built-in constant current circuit for reactive loads
- Full power from -10°C to +50°C @ 230V<sub>AC</sub> with -30°C cold start
- Compliance to SEMI F47 @ 200V<sub>AC</sub>
- NEC Class 2 / Limited Power Source (LPS) certified (DRL-24V75W1AZ□ & DRL-48V75W1AZ□)

## Applications



Output	DRL-12V75W1AZ□	DRL-24V75W1AZ□	DRL-48V75W1AZ□
Output Voltage	12V	24V	48V
Output Voltage Range	10.8-13.2V	21.6-26V	43.2-52.8V
Output Current	6.25A	3.125A	1.57A
Output Power	75W	75W	75.36W
PARD (20 MHz)	< 120 mVpp @ > -10°C to +70°C < 360 mVpp @ ≤ -10°C to -30°C		< 240 mVpp @ > -10°C to +70°C < 480 mVpp @ ≤ -10°C to -30°C
Hold-up Time	115 V <sub>AC</sub>	16 ms typ.	
	230 V <sub>AC</sub>	60 ms typ.	
<b>Input</b>			
Phase Input	Single Phase		
Input Voltage Range	85-264 V <sub>AC</sub> (DC input range 120-375 V <sub>DC</sub> ) <sup>1)</sup>		
Input Frequency	47-63Hz		
Input Current	115 V <sub>AC</sub>	1.4 A typ.	1.4 A typ.
	230 V <sub>AC</sub>	0.9 A typ.	0.9 A typ.
Efficiency <sup>2)</sup> at 100% Load	230 V <sub>AC</sub>	87.5% typ.	89.0% typ.
			90.0% typ.
Max Inrush Current (Cold Start)	230 V <sub>AC</sub>	50 A typ.	
Power Factor	115 V <sub>AC</sub>	NA	
	230 V <sub>AC</sub>		
Leakage Current	240 V <sub>AC</sub>	< 1 mA	
<b>Mechanical</b>			
Case Cover / Chassis	Plastic		
Dimensions (H × W × D)	mm	123.6 × 27 × 102	123.6 × 27 × 102
	inch	4.87 × 1.06 × 4.02	4.87 × 1.06 × 4.02
Unit Weight	kg	0.22	0.22
	lb	0.49	0.49
Cooling System	Convection		
MTBF <sup>3)</sup>	> 700,000 hrs		
<b>Environment</b>			
Operating Temperature <sup>4)</sup>	-20°C to +70°C		
Storage Temperature	-40°C to +85°C		
Operating Humidity	5 to 95% RH (Non-Condensing)		
Operating Altitude	0 to 5,000 m (0 to 16,400 ft)		

### Dimensions Reference



#### Notes

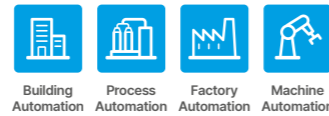
- 1) All models fulfill the test conditions for this range. DC input safety approval can be obtained upon request.
- 2) At 25°C ambient temperature by vertical mounting orientation.
- 3) MTBF as per Telcordia SR-332 (Confidence level: 90%, I/P: 100V<sub>AC</sub>, O/P: 100% load) for vertical mounting orientation.
- 4) Refer power de-rating in the product datasheet.
- 5) All parameters are specified at 25°C ambient temperature unless otherwise indicated.

# LYTE II (12V, 24V, 48V)



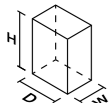
- Slim type design
- Built-in constant current circuit for reactive loads
- Operating from -30°C to +70°C with -40°C cold start
- Compliance with DOE VI energy standard (except 480W)
- Reduced no-load power consumption
- Compliance to SEMI F47 @ 200 V<sub>AC</sub>

## Applications



Output	DRL-12V120W1EN□	DRL-12V240W1EN□	DRL-24V120W1EN□	DRL-24V240W1EN□	NEW DRL-24V480W1EN□	DRL-48V120W1EN□	DRL-48V240W1EN□	NEW DRL-48V480W1EN□	
Output Voltage	12V	12V	24V	24V	24V	48V	48V	48V	
Output Voltage Range	10.8-13.2V	10.8-13.2V	21.6-26.4V	21.6-26.4V	24-28V	43.2-52.8V	43.2-52.8V	48-55V	
Output Current	10.0A	20.0A	5.0A	10.0A	0-20.0A	2.5A	5.0A	0-10.0A	
Output Power	120W	240W	120W	240W	480W	120W	240W	480W	
PARD (20MHz)	< 120mVpp @ 0°C to +70°C < 360mVpp @ -30°C to 0°C		< 150mVpp @ 0°C to +70°C < 450mVpp @ -30°C to 0°C		< 150mVpp @ 0°C to +70°C < 450mVpp @ -30°C to 0°C	< 200mVpp @ 0°C to +70°C < 600mVpp @ -30°C to 0°C			
Hold-up Time	115V <sub>AC</sub>	10ms typ.	20ms typ.	10ms typ.	20ms typ.	25ms typ.	10ms typ.	20ms typ.	25ms typ.
	230V <sub>AC</sub>	16ms typ.		16ms typ.			16ms typ.		
<b>Input</b>									
Phase Input	Single Phase				Single Phase				
Input Voltage Range	90-264V <sub>AC</sub>				90-264V <sub>AC</sub>				
Input Frequency	47-63Hz				47-63Hz				
Input Current	115V <sub>AC</sub>	2.1A typ.	2.5A typ.	2.1A typ.	2.5A typ.	4.7A typ.	2.1A typ.	2.5A typ.	4.7A typ.
	230V <sub>AC</sub>	1.3A typ.	1.3A typ.	1.3A typ.	1.3A typ.	2.4A typ.	1.3A typ.	1.3A typ.	2.4A typ.
Efficiency <sup>1)</sup> at 100% Load	230V <sub>AC</sub>	86.0% typ.	86.5% typ.	88.5% typ.	86.5% typ.	93.0% typ.	89.5% typ.	90.5% typ.	93.5% typ.
Max Inrush Current (Cold Start)	230V <sub>AC</sub>	35A typ.	40A typ.	35A typ.	40A typ.	40A typ.	35A typ.	40A typ.	40A typ.
Power Factor	115V <sub>AC</sub>	NA	> 0.95	NA	> 0.95	> 0.96	NA	> 0.95	> 0.96
	230V <sub>AC</sub>					> 0.93			> 0.93
Leakage Current	240V <sub>AC</sub>	< 0.5mA	< 0.75mA	< 0.5mA	< 0.75mA	< 1.5mA	< 0.5mA	< 0.75mA	< 1.5mA
<b>Mechanical</b>									
Case Cover / Chassis	SGCC / Aluminium				SGCC / Aluminium				
Dimensions (H × W × D)	mm	123.6 × 30 × 116.8	123.6 × 40 × 116.8	123.6 × 30 × 116.8	123.6 × 40 × 116.8	123.6 × 56 × 116.8	123.6 × 30 × 116.8	123.6 × 40 × 116.8	123.6 × 56 × 116.8
	inch	4.87 × 1.18 × 4.60	4.87 × 1.57 × 4.60	4.87 × 1.18 × 4.60	4.87 × 1.57 × 4.60	4.87 × 2.20 × 4.60	4.87 × 1.18 × 4.60	4.87 × 1.57 × 4.60	4.87 × 2.20 × 4.60
Unit Weight	kg	0.45	0.62	0.45	0.62	0.87	0.45	0.62	0.87
	lb	0.99	1.37	0.99	1.37	1.91	0.99	1.37	1.91
Cooling System	Convection				Convection				
MTBF <sup>2)</sup>	> 700,000hrs				> 700,000hrs				
<b>Environment</b>									
Operating Temperature <sup>3)</sup>	-30°C to +70°C				-30°C to +70°C				
Storage Temperature	-40°C to +85°C				-40°C to +85°C				
Operating Humidity	20 to 90% RH (Non-Condensing)				20 to 90% RH (Non-Condensing)				
Operating Altitude	0 to 5,000m (0 to 16,400ft)				0 to 5,000m (0 to 16,400ft)				

### Dimensions Reference



#### Notes

- 1) At 25°C ambient temperature by vertical mounting orientation.
- 2) MTBF as per Telcordia SR-332 (I/P: 115V<sub>AC</sub> & 230V<sub>AC</sub>, O/P: 100% load) for vertical mounting orientation.
- 3) Refer power de-rating in the product datasheet.
- 4) All parameters are specified at 25°C ambient temperature unless otherwise indicated.

# CHROME (5V, 12V, 24V)



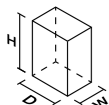
- Class II, Double Isolation (No earth connection is required)
- Full power up to 55°C
- Power will not de-rate for the entire input voltage range
- Can be installed in compact cabinets
- NEC Class 2 and Limited Power Source (LPS) approvals (except DRC-12V100W1AZ)
- Household appliance approvals IEC/EN 60335-1 (DRC-24V10W1HZ)

## Applications



Output	DRC-5V10W1A□	DRC-12V10W1A□	DRC-12V30W1A□	DRC-12V60W1□□	DRC-12V100W1AZ	DRC-24V10W1A□	DRC-24V10W1HZ	DRC-24V30W1A□	DRC-24V60W1A□	DRC-24V100W1A□	
Output Voltage	5V	12V	12V	12V	12V	24V	24V	24V	24V	24V	
Output Voltage Range	5V (No potentiometer)	12V (No potentiometer)	11.5-14.5V	11.5-14.0V	12-14V	24V (No potentiometer)	24V (No potentiometer)	23.52-24.48V	24-28V	22-24V	
Output Current	0-1.5A	0-0.83A	0-2.1A	0-4.5A	0-6.0A	0-0.42A	0-0.42A	0-1.25A	0-2.5A	0-3.8A	
Output Power	7.5W	9.96W	25W	54W	72W	10W	10W	30W	60W	91.2W	
PARD (20MHz)	< 100mVpp					< 100mVpp					
Hold-up Time	115V <sub>AC</sub>	> 10ms	> 25ms	> 16ms	> 20ms	> 10ms	> 25ms	> 16ms	> 10ms	> 10ms	
	230V <sub>AC</sub>		> 60ms		> 100ms		> 60ms				
<b>Input</b>											
Phase Input	Single Phase					Single Phase					
Input Voltage Range	90-264V <sub>AC</sub>				90-264V <sub>AC</sub> (DC input range 125-375V <sub>DC</sub> ) <sup>1)</sup>	90-264V <sub>AC</sub>	90-264V <sub>AC</sub>			90-264V <sub>AC</sub> (DC input range 125-375V <sub>DC</sub> ) <sup>1)</sup>	
Input Frequency	47-63Hz					47-63Hz					
Input Current	115V <sub>AC</sub>	< 0.3A	< 0.3A	< 0.8A	< 1.5A	< 1.5A	< 0.3A	< 0.8A	< 1.5A	< 2.2A	
	230V <sub>AC</sub>	< 0.2A	< 0.2A	< 0.6A	< 1.0A	< 0.9A	< 0.2A	< 0.6A		< 1.0A	
Efficiency <sup>2)</sup> at 100% Load	115V <sub>AC</sub>	> 77.0%	> 82.0%	> 85.0%	> 86.0%	> 80.0%	> 80.0%	> 87.0%	> 88.0%	> 87.0%	
	230V <sub>AC</sub>	> 76.0%	> 80.5%							> 89.0%	
Max Inrush Current (Cold Start)	115V <sub>AC</sub>	< 15A	< 25A	< 30A	< 30A	< 15A	< 25A	< 30A	< 30A	< 30A	
	230V <sub>AC</sub>	< 30A	< 50A	< 60A	< 65A	< 30A	< 50A	< 60A	< 60A	< 60A	
Power Factor	Conform to EN 61000-3-2					Conform to EN 61000-3-2					
Leakage Current	240V <sub>AC</sub>	< 0.25mA			-	< 0.25mA				-	
	264V <sub>AC</sub>	-			< 0.25mA	-				-	
<b>Mechanical</b>											
Case Cover / Chassis	Plastic					Plastic					
Dimensions (H × W × D)	mm	91 × 18 × 55.6	91 × 18 × 55.6	91 × 53 × 55.6	91 × 71 × 55.6	91 × 89.9 × 55.6	91 × 18 × 55.6	91 × 18 × 55.6	91 × 53 × 55.6	91 × 71 × 55.6	91 × 89.9 × 55.6
	inch	3.58 × 0.71 × 2.19	3.58 × 0.71 × 2.19	3.58 × 2.09 × 2.19	3.58 × 2.80 × 2.19	3.58 × 3.54 × 2.19	3.58 × 0.71 × 2.19	3.58 × 0.71 × 2.19	3.58 × 2.09 × 2.19	3.58 × 2.80 × 2.19	3.58 × 3.54 × 2.19
Unit Weight	kg	0.06	0.06	0.14	0.22	0.36	0.065	0.065	0.14	0.22	0.35
	lb	0.13	0.13	0.31	0.49	0.79	0.14	0.14	0.31	0.49	0.77
Cooling System	Convection					Convection					
MTBF <sup>3)</sup>	> 500,000 hrs					> 500,000 hrs					
<b>Environment</b>											
Operating Temperature <sup>4)</sup>	-25°C to +71°C					-25°C to +71°C					
Storage Temperature	-25°C to +85°C				-40°C to +85°C		-25°C to +85°C				
Operating Humidity	5 to 95% RH (Non-Condensing)					5 to 95% RH (Non-Condensing)					
Operating Altitude	0 to 2,000m (0 to 6,560ft)					0 to 2,000m (0 to 6,560ft)					

### Dimensions Reference



#### Notes

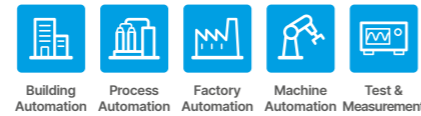
- 1) DRC-12V60W1CZ and DRC-24V100W1A□ are certified for DC input.
- 2) At 25°C ambient temperature by vertical mounting orientation.
- 3) MTBF as per Telcordia SR-332 (Confidence level: 90%, I/P: 100V<sub>AC</sub>, O/P: 100% load, Ta: 35°C) for vertical mounting orientation.
- 4) Refer power de-rating in the product datasheet.
- 5) All parameters are specified at 25°C ambient temperature unless otherwise indicated.

# sync (5V, 12V, 24V)



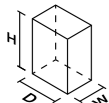
- Ultra-compact size and galvanic isolation up to 3.0kV<sub>AC</sub> between input to output and input to ground
- Full power from -10°C to +55°C operation
- Up to 90.0% efficiency
- Low earth leakage current < 0.5 mA @ 264 V<sub>AC</sub>
- Built-in DC OK relay contact option available
- Extreme low temperature cold start at -40°C
- NEC Class 2 / Limited Power Source (LPS) certified

## Applications



Output	DRS-5V30W1NZ	DRS-5V50W1□	DRS-5V50W1N□	DRS-12V50W1N□	DRS-24V30W1AZ	DRS-24V30W1NZ	DRS-24V50W1N□	DRS-24V100W1□	DRS-24V100W1N□	
Output Voltage	5V	5V	5V	12V	24V	24V	24V	24V	24V	
Output Voltage Range	5-5.5V	5-5.5V	5-5.5V	12-15V	21.6-26.4V	24-28V	24-28V	24-28V	22-24V	
Output Current	0-3.0A	0-6.0A	0-5.0A	0-4.0A	0-1.25A	0-1.25A	0-2.1A	0-4.0A	0-3.8A	
Output Power	15W	30W	25W	48W	30W	30W	50W	96W	91.2W	
PARD (20 MHz)	< 75 mVpp @ > 0°C to 70°C < 150 mVpp @ 0°C to -20°C		< 50 mVpp @ > 0°C to 70°C < 100 mVpp @ 0°C to -20°C		< 150 mVpp @ > 0°C to 70°C < 500 mVpp @ 0°C to -20°C	< 75 mVpp @ > 0°C to 70°C < 150 mVpp @ 0°C to -20°C	< 70 mVpp @ > 0°C to 70°C < 100 mVpp @ 0°C to -20°C		< 50 mVpp @ > 0°C to 70°C, < 100 mVpp @ 0°C to -20°C	
Hold-up Time	115 V <sub>AC</sub>		> 20 ms		-		> 20 ms		> 50 ms	
	230 V <sub>AC</sub>		> 100 ms		> 20 ms		> 100 ms			
<b>Input</b>										
Phase Input	Single Phase				Single Phase					
Input Voltage Range	85-264 V <sub>AC</sub> (DC input range 120-375 V <sub>DC</sub> ) <sup>1)</sup>				85-264 V <sub>AC</sub>		85-264 V <sub>AC</sub> (DC input range 120-375 V <sub>DC</sub> ) <sup>1)</sup>			
Input Frequency	47-63 Hz				47-63 Hz					
Input Current	115 V <sub>AC</sub>	< 0.40 A	< 0.60 A	< 0.60 A	< 0.90 A	< 0.80 A	< 0.55 A	< 0.95 A	< 1.20 A	< 1.20 A
	230 V <sub>AC</sub>	< 0.20 A	< 0.40 A	< 0.40 A	< 0.55 A	< 0.40 A	< 0.35 A	< 0.55 A	< 0.60 A	< 0.60 A
Efficiency <sup>2)</sup> at 100% Load	115 V <sub>AC</sub>	> 79.0%		> 82.0%	> 88.0%	-	> 87.5%	> 89.0%		> 89.0%
Max Inrush Current (Cold Start)	115 V <sub>AC</sub>	< 20 A	< 30 A	< 25 A	< 30 A	< 20 A	< 20 A	< 30 A		< 25 A
	230 V <sub>AC</sub>	< 40 A	< 60 A	< 50 A	< 60 A	< 40 A	< 40 A	< 50 A		< 40 A
Power Factor	115 V <sub>AC</sub>	Conform to EN 61000-3-2				Conform to EN 61000-3-2				
	230 V <sub>AC</sub>									> 0.97
Leakage Current	240 V <sub>AC</sub>				< 0.5 mA					
	264 V <sub>AC</sub>	< 0.5 mA	< 0.75 mA	< 0.5 mA	-			< 0.5 mA		
<b>Mechanical</b>										
Case Cover / Chassis	Plastic				Plastic					
Dimensions (H × W × D)	mm	75 × 21 × 89.5	75 × 30 × 89.5	75 × 30 × 89.5	75 × 30 × 89.5	75 × 21 × 89.5	75 × 21 × 89.5	75 × 30 × 89.5	75 × 45 × 100	75 × 45 × 100
	inch	2.95 × 0.83 × 3.52	2.95 × 1.18 × 3.52	2.95 × 1.18 × 3.52	2.95 × 1.18 × 3.52	2.95 × 0.83 × 3.52	2.95 × 0.83 × 3.52	2.95 × 1.18 × 3.52	2.95 × 1.77 × 3.94	2.95 × 1.77 × 3.94
Unit Weight	kg	0.11	0.16	0.16	0.18	0.10	0.11	0.18	0.325	0.325
	lb	0.24	0.35	0.35	0.40	0.22	0.24	0.40	0.72	0.72
Cooling System	Convection				Convection					
MTBF <sup>3)</sup>	> 700,000 hrs				> 700,000 hrs					
<b>Environment</b>										
Operating Temperature <sup>4)</sup>	-20°C to +70°C				-20°C to +70°C					
Storage Temperature	-40°C to +85°C				-40°C to +85°C					
Operating Humidity	5 to 95% RH (Non-Condensing)				5 to 95% RH (Non-Condensing)					
Operating Altitude	0 to 2,000m (0 to 6,560ft)				0 to 2,000m (0 to 6,560ft)					

### Dimensions Reference



#### Notes

- 1) All models fulfill the test conditions for DC input. DC input safety approval can be obtained upon request.
- 2) At 25°C ambient temperature by vertical mounting orientation.
- 3) DRS-24V30W1AZ, MTBF as per Telcordia SR-332 (Confidence level: 90%, I/P: 100 V<sub>AC</sub>, O/P: 100% load) for vertical mounting orientation. Other models, MTBF as per Telcordia SR-332 (Confidence level: 90%, I/P: 115 V<sub>AC</sub> & 230 V<sub>AC</sub>, O/P: 100% load) for vertical mounting orientation.
- 4) Refer power de-rating in the product datasheet.
- 5) All parameters are specified at 25°C ambient temperature unless otherwise indicated.

# Panel Mount Power Supplies



## PMT2

Low profile design with 30 mm height  
Power Range: 36-350 W



## PMC

Full corrosion resistant aluminium casing  
Power Range: 15-600 W



## PMR

Built-in active PFC with 1U low profile  
Power Range: 252-321.6 W



## PMF

Built-in active PFC  
Power Range: 231-320 W



## PMU

Power supply with DC-UPS function  
Power Range: 151 W



## MEB

High power output with built-in fan cooling  
Power Range: 500-1,200 W

## Applications



Building Automation



Process Automation



Factory Automation



Machine Automation



Test & Measurement



LED Lighting



Renewable Energy



Medical Equipment



Household Appliance

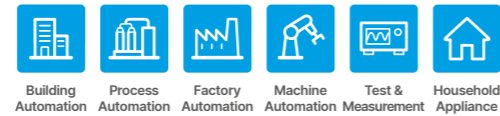


# PMT2 (12 V)

- Household appliance approvals to IEC/EN 60335-1, IEC/EN 61558-1 and IEC/EN 61558-2-16 (except 350 W)
- No load power consumption
- Low profile design: 30 mm height
- Over Voltage Category III, Pollution Degree 3 (except 350 W)
- Cold start at -40°C

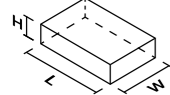


## Applications



Output	PMT-12V35W2BA□	PMT-12V50W2BA□	PMT-12V75W2BA□	PMT-12V100W2BA□	PMT-12V150W2BA□	PMT-12V150W2CA□	PMT-12V200W2B□□	PMT-12V350W2B□□	
Output Voltage	12 V	12 V	12 V	12 V	12 V	12 V	12 V	12 V	
Output Voltage Range	10.8-13.2 V	10.8-13.2 V	10.8-13.2 V	10.8-13.2 V	10.8-13.2 V	10.8-13.2 V	10.8-13.2 V	10.8-13.2 V	
Output Current	3.0 A	4.2 A	6.0 A	8.5 A	12.5 A	12.5 A	17.0 A	29.0 A (43.5 A for 1s) <sup>2)</sup>	
Output Power	36 W	50.4 W	72 W	102 W	150 W	150 W	204 W	348 W (522 W for 1s) <sup>2)</sup>	
PARD (20 MHz)	< 120 mVpp @ 0°C to 70°C, 360 mVpp typ. @ -30°C to 0°C				< 150 mVpp @ 0°C to 70°C, 450 mVpp typ. @ -30°C to 0°C				
Hold-up Time	115 V <sub>AC</sub>	16 ms typ.	12 ms typ.	11 ms typ.	30 ms typ.	12 ms typ.	30 ms typ.	20 ms typ.	
	230 V <sub>AC</sub>	70 ms typ.	60 ms typ.	52 ms typ.		42 ms typ.			55 ms typ.
<b>Input</b>									
Phase Input	Single Phase				Single Phase				
Input Voltage Range	90-264 V <sub>AC</sub>				90-132 V <sub>AC</sub> , 180-264 V <sub>AC</sub> (Selectable by Switch)	90-264 V <sub>AC</sub>	90-132 V <sub>AC</sub> , 180-264 V <sub>AC</sub> (Selectable by Switch)		
Input Frequency	47-63 Hz				47-63 Hz				
Input Current	115 V <sub>AC</sub>	0.7 A typ.	0.95 A typ.	1.4 A typ.	1.9 A typ.	3.0 A typ.	3.0 A typ.	4.0 A typ.	
	230 V <sub>AC</sub>	0.42 A typ.	0.6 A typ.	0.85 A typ.	1.2 A typ.	1.7 A typ.	1.7 A typ.	2.2 A typ.	
Efficiency <sup>1)</sup> at 100% Load	230 V <sub>AC</sub>	86.0% typ.	85.0% typ.	87.0% typ.	87.5% typ.	87.5% typ.	88.0% typ.	88.5% typ.	
Max Inrush Current (Cold Start)	230 V <sub>AC</sub>	45 A typ.		55 A typ.		60 A typ.			
Power Factor	NA				NA				
Leakage Current (50 Hz)	240 V <sub>AC</sub>	< 0.5 mA				< 0.5 mA		< 0.75 mA	
<b>Mechanical</b>									
Case Cover / Chassis	SGCC / Aluminium				SGCC / Aluminium				SGCC / SGCC
Dimensions (L × W × H)	mm	99 × 82 × 29	99 × 82 × 29	99 × 97 × 30	129 × 97 × 30	159 × 97 × 30	159 × 97 × 30	159 × 97 × 30	215 × 115 × 30
	inch	3.90 × 3.23 × 1.14	3.90 × 3.23 × 1.14	3.90 × 3.82 × 1.18	5.08 × 3.82 × 1.18	6.26 × 3.82 × 1.18	6.26 × 3.82 × 1.18	6.26 × 3.82 × 1.18	8.46 × 4.53 × 1.18
Unit Weight	kg	0.17	0.18	0.22	0.29	0.35	0.39	0.42	0.83
	lb	0.36	0.39	0.48	0.63	0.78	0.86	0.93	1.84
Cooling System	Convection				Convection				Forced Air (Built-in Fan)
MTBF <sup>3)</sup>	> 700,000 hrs				> 700,000 hrs				
<b>Environment</b>									
Operating Temperature <sup>4)</sup>	-30°C to +70°C				-30°C to +70°C				
Storage Temperature	-40°C to +85°C				-40°C to +85°C				
Operating Humidity	20 to 90% RH (Non-Condensing)				20 to 90% RH (Non-Condensing)				
Operating Altitude	0 to 5,000 m (0 to 16,400 ft)				0 to 5,000 m (0 to 16,400 ft)				

### Dimensions Reference



#### Notes

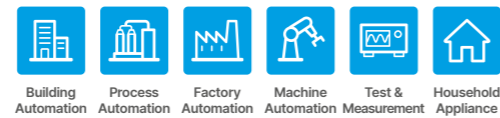
- 1) At 25°C ambient temperature by horizontal mounting orientation.
- 2) PMT-12V350W2BR□ models only.
- 3) MTBF as per Telcordia SR-332 (Confidence level: 90%, I/P: 230 V<sub>AC</sub>, O/P: 100% load).
- 4) Refer power de-rating in the product datasheet.
- 5) All parameters are specified at 25°C ambient temperature unless otherwise indicated.

# PMT2 (15 V)

- Household appliance approvals to IEC/EN 60335-1, IEC/EN 61558-1 and IEC/EN 61558-2-16
- No load power consumption
- Low profile design: 30 mm height
- Over Voltage Category III, Pollution Degree 3
- Cold start at -40°C

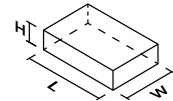


## Applications



Output	PMT-15V35W2BA	PMT-15V50W2BA	PMT-15V75W2BA	PMT-15V100W2BA	PMT-15V150W2BA	PMT-15V150W2CA
Output Voltage	15 V	15 V	15 V	15 V	15 V	15 V
Output Voltage Range	13.5-16.5 V	13.5-16.5 V	13.5-16.5 V	13.5-16.5 V	13.5-16.5 V	13.5-16.5 V
Output Current	2.4 A	3.4 A	5.0 A	7.0 A	10.0 A	10.0 A
Output Power	36 W	51 W	75 W	105 W	150 W	150 W
PAR (20 MHz)	< 120 mVpp @ 0°C to 70°C, 360 mVpp typ. @ -30°C to 0°C			< 120 mVpp @ 0°C to 70°C, 360 mVpp typ. @ -30°C to 0°C		< 150 mVpp @ 0°C to 70°C, 450 mVpp typ. @ -30°C to 0°C
Hold-up Time	115 V <sub>AC</sub>	16 ms typ.	12 ms typ.	11 ms typ.	30 ms typ.	12 ms typ.
	230 V <sub>AC</sub>	70 ms typ.	60 ms typ.	52 ms typ.		
<b>Input</b>						
Phase Input	Single Phase			Single Phase		
Input Voltage Range	90-264 V <sub>AC</sub>			90-264 V <sub>AC</sub>	90-132 V <sub>AC</sub> , 180-264 V <sub>AC</sub> (Selectable by Switch)	90-264 V <sub>AC</sub>
Input Frequency	47-63 Hz			47-63 Hz		
Input Current	115 V <sub>AC</sub>	0.7 A typ.	0.95 A typ.	1.4 A typ.	1.9 A typ.	3.0 A typ.
	230 V <sub>AC</sub>	0.42 A typ.	0.6 A typ.	0.85 A typ.	1.2 A typ.	1.7 A typ.
Efficiency <sup>1)</sup> at 100% Load	230 V <sub>AC</sub>	87.0% typ.		88.0% typ.		88.0% typ.
Max Inrush Current (Cold Start)	230 V <sub>AC</sub>	45 A typ.		55 A typ.		60 A typ.
Power Factor	NA			NA		
Leakage Current (50 Hz)	240 V <sub>AC</sub>	< 0.5 mA			< 0.5 mA	
<b>Mechanical</b>						
Case Cover / Chassis	SGCC / Aluminium			SGCC / Aluminium		
Dimensions (L × W × H)	mm	99 × 82 × 29	99 × 82 × 29	99 × 97 × 30	129 × 97 × 30	159 × 97 × 30
	inch	3.90 × 3.23 × 1.14	3.90 × 3.23 × 1.14	3.90 × 3.82 × 1.18	5.08 × 3.82 × 1.18	6.26 × 3.82 × 1.18
Unit Weight	kg	0.17	0.18	0.22	0.29	0.39
	lb	0.36	0.39	0.48	0.63	0.86
Cooling System	Convection			Convection		
MTBF <sup>2)</sup>	> 700,000 hrs			> 700,000 hrs		
<b>Environment</b>						
Operating Temperature <sup>3)</sup>	-30°C to +70°C			-30°C to +70°C		
Storage Temperature	-40°C to +85°C			-40°C to +85°C		
Operating Humidity	20 to 90% RH (Non-Condensing)			20 to 90% RH (Non-Condensing)		
Operating Altitude	0 to 5,000 m (0 to 16,400 ft)			0 to 5,000 m (0 to 16,400 ft)		

### Dimensions Reference



#### Notes

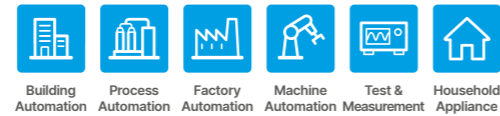
- 1) At 25°C ambient temperature by horizontal mounting orientation.
- 2) MTBF as per Telcordia SR-332 (Confidence level: 90%, I/P: 230 V<sub>AC</sub>, O/P: 100% load).
- 3) Refer power de-rating in the product datasheet.
- 4) All parameters are specified at 25°C ambient temperature unless otherwise indicated.

# PMT2 (24 V)

- Household appliance approvals to IEC/EN 60335-1, IEC/EN 61558-1 and IEC/EN 61558-2-16 (except 350 W)
- No load power consumption
- Low profile design: 30 mm height
- Over Voltage Category III, Pollution Degree 3 (except 350 W)
- Cold start at -40°C

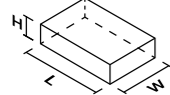


## Applications



Output	PMT-24V35W2BA	PMT-24V50W2BA	PMT-24V75W2BA□	PMT-24V100W2BA□	PMT-24V150W2BA□	PMT-24V150W2CA□	PMT-24V200W2B□□	PMT-24V350W2B□□	
Output Voltage	24 V	24 V	24 V	24 V	24 V	24 V	24 V	24 V	
Output Voltage Range	21.6-26.4 V	21.6-26.4 V	21.6-26.4 V	21.6-26.4 V	21.6-26.4 V	21.6-26.4 V	21.6-26.4 V	21.6-26.4 V	
Output Current	1.5 A	2.2 A	3.2 A	4.5 A	6.25 A	6.5 A	8.8 A	14.6 A (21.9 A for 1s) <sup>2)</sup>	
Output Power	36 W	52.8 W	76.8 W	108 W	150 W	156 W	211.2 W	350.4 W (525.6 W for 1s) <sup>2)</sup>	
PARD (20 MHz)	< 150 mVpp @ 0°C to 70°C, 450 mVpp typ. @ -30°C to 0°C				< 200 mVpp @ 0°C to 70°C, 600 mVpp typ. @ -30°C to 0°C		< 150 mVpp @ 0°C to 70°C, 450 mVpp typ. @ -30°C to 0°C		< 200 mVpp @ 0°C to 70°C, 600 mVpp typ. @ -30°C to 0°C
Hold-up Time	115 V <sub>AC</sub>	16 ms typ.	12 ms typ.	11 ms typ.	9 ms typ.	30 ms typ.	12 ms typ.	30 ms typ.	20 ms typ.
	230 V <sub>AC</sub>	70 ms typ.	60 ms typ.	52 ms typ.	42 ms typ.		55 ms typ.		
<b>Input</b>									
Phase Input	Single Phase					Single Phase			
Input Voltage Range	90-264 V <sub>AC</sub>					90-132 V <sub>AC</sub> , 180-264 V <sub>AC</sub> (Selectable by Switch)	90-264 V <sub>AC</sub>	90-132 V <sub>AC</sub> , 180-264 V <sub>AC</sub> (Selectable by Switch)	
Input Frequency	47-63 Hz					47-63 Hz			
Input Current	115 V <sub>AC</sub>	0.7 A typ.	0.95 A typ.	1.4 A typ.	1.9 A typ.	3.0 A typ.	3.0 A typ.	4.0 A typ.	6.0 A typ.
	230 V <sub>AC</sub>	0.42 A typ.	0.6 A typ.	0.85 A typ.	1.2 A typ.	1.7 A typ.	1.7 A typ.	2.2 A typ.	3.4 A typ.
Efficiency <sup>1)</sup> at 100% Load	230 V <sub>AC</sub>	88.5% typ.	88.0% typ.	89.5% typ.	90.0% typ.	89.0% typ.	90% typ.		87.0% typ.
Max Inrush Current (Cold Start)	230 V <sub>AC</sub>	45 A typ.			55 A typ.		60 A typ.		
Power Factor	NA					NA			
Leakage Current (50 Hz)	240 V <sub>AC</sub>	< 0.5 mA					< 0.5 mA		< 0.75 mA
<b>Mechanical</b>									
Case Cover / Chassis	SGCC / Aluminium					SGCC / Aluminium			SGCC / SGCC
Dimensions (L × W × H)	mm	99 × 82 × 29	99 × 82 × 29	99 × 97 × 30	129 × 97 × 30	159 × 97 × 30	159 × 97 × 30	159 × 97 × 30	215 × 115 × 30
	inch	3.90 × 3.23 × 1.14	3.90 × 3.23 × 1.14	3.90 × 3.82 × 1.18	5.08 × 3.82 × 1.18	6.26 × 3.82 × 1.18	6.26 × 3.82 × 1.18	6.26 × 3.82 × 1.18	8.46 × 4.53 × 1.18
Unit Weight	kg	0.17	0.18	0.22	0.29	0.35	0.39	0.42	0.83
	lb	0.36	0.39	0.48	0.63	0.78	0.86	0.93	1.84
Cooling System	Convection					Convection			Forced Air (Built-in Fan)
MTBF <sup>3)</sup>	> 700,000 hrs					> 700,000 hrs			
<b>Environment</b>									
Operating Temperature <sup>4)</sup>	-30°C to +70°C					-30°C to +70°C			
Storage Temperature	-40°C to +85°C					-40°C to +85°C			
Operating Humidity	20 to 90% RH (Non-Condensing)					20 to 90% RH (Non-Condensing)			
Operating Altitude	0 to 5,000 m (0 to 16,400 ft)					0 to 5,000 m (0 to 16,400 ft)			

### Dimensions Reference



#### Notes

- 1) At 25°C ambient temperature by horizontal mounting orientation.
- 2) PMT-24V350W2BR□ models only.
- 3) MTBF as per Telcordia SR-332 (Confidence level: 90%, I/P: 230 V<sub>AC</sub>, O/P: 100% load).
- 4) Refer power de-rating in the product datasheet.
- 5) All parameters are specified at 25°C ambient temperature unless otherwise indicated.

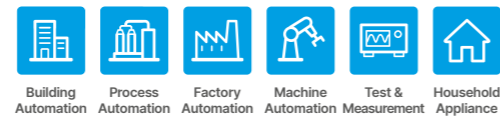


# PMT2 (30V)

- Household appliance approvals to IEC/EN 60335-1, IEC/EN 61558-1 and IEC/EN 61558-2-16
- No load power consumption
- Low profile design: 30 mm height
- Over Voltage Category III, Pollution Degree 3
- Cold start at -40°C

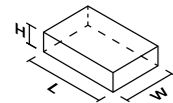


## Applications



Output	PMT-30V35W2BA	PMT-30V50W2BA	PMT-30V75W2BA	PMT-30V100W2BA	PMT-30V150W2BA	PMT-30V150W2CA
Output Voltage	30V	30V	30V	30V	30V	30V
Output Voltage Range	27-33V	27-33V	27-33V	27-33V	27-33V	27.0-33.0V
Output Current	1.2A	1.7A	2.5A	3.6A	5.0A	5.0A
Output Power	36W	51W	75W	108W	150W	150W
PARD (20MHz)	< 150mVpp @ 0°C to 70°C, 450mVpp typ. @ -30°C to 0°C			< 150mVpp @ 0°C to 70°C, 450mVpp typ. @ -30°C to 0°C		< 200mVpp @ 0°C to 70°C, 600mVpp typ. @ -30°C to 0°C
Hold-up Time	115V <sub>AC</sub>	16 ms typ.	12 ms typ.	11 ms typ.	9 ms typ.	30 ms typ.
	230V <sub>AC</sub>	70 ms typ.	60 ms typ.	52 ms typ.	42 ms typ.	12 ms typ. 55 ms typ.
<b>Input</b>						
Phase Input	Single Phase			Single Phase		
Input Voltage Range	90-264V <sub>AC</sub>			90-264V <sub>AC</sub>	90-132V <sub>AC</sub> , 180-264V <sub>AC</sub> (Selectable by Switch)	
Input Frequency	47-63Hz			47-63Hz		
Input Current	115V <sub>AC</sub>	0.70A typ.	0.95A typ.	1.4A typ.	1.9A typ.	3.0A typ.
	230V <sub>AC</sub>	0.42A typ.	0.60A typ.	0.85A typ.	1.2A typ.	1.7A typ.
Efficiency <sup>1)</sup> at 100% Load	230V <sub>AC</sub>	87.5% typ.	88.0% typ.	89.5% typ.	90.0% typ.	89.0% typ.
Max Inrush Current (Cold Start)	230V <sub>AC</sub>	45A typ.		55A typ.	55A typ.	
Power Factor	NA			NA		
Leakage Current (50Hz)	240V <sub>AC</sub>	< 0.5mA			< 0.5mA	
<b>Mechanical</b>						
Case Cover / Chassis	SGCC / Aluminium			SGCC / Aluminium		
Dimensions (L × W × H)	mm	99 × 82 × 29	99 × 82 × 29	99 × 97 × 30	129 × 97 × 30	159 × 97 × 30
	inch	3.90 × 3.23 × 1.14		3.90 × 3.82 × 1.18	5.08 × 3.82 × 1.18	6.26 × 3.82 × 1.18
Unit Weight	kg	0.17	0.18	0.22	0.29	0.35
	lb	0.36	0.39	0.48	0.63	0.78
Cooling System	Convection			Convection		
MTBF <sup>2)</sup>	> 700,000hrs			> 700,000hrs		
<b>Environment</b>						
Operating Temperature <sup>3)</sup>	-30°C to +70°C			-30°C to +70°C		
Storage Temperature	-40°C to +85°C			-40°C to +85°C		
Operating Humidity	20 to 90% RH (Non-Condensing)			20 to 90% RH (Non-Condensing)		
Operating Altitude	0 to 5,000m (0 to 16,400ft)			0 to 5,000m (0 to 16,400ft)		

### Dimensions Reference



#### Notes

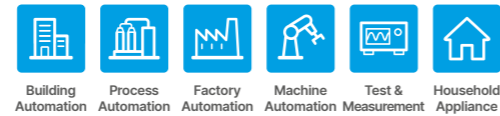
- 1) At 25°C ambient temperature by horizontal mounting orientation.
- 2) MTBF as per Telcordia SR-332 (Confidence level: 90%, I/P: 230V<sub>AC</sub>, O/P: 100% load).
- 3) Refer power de-rating in the product datasheet.
- 4) All parameters are specified at 25°C ambient temperature unless otherwise indicated.

# PMT2 (36V)

- Household appliance approvals to IEC/EN 60335-1, IEC/EN 61558-1 and IEC/EN 61558-2-16 (except 350W)
- No load power consumption
- Low profile design: 30 mm height
- Over Voltage Category III, Pollution Degree 3 (except 350W)
- Cold start at -40°C

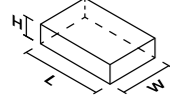


## Applications



Output	PMT-36V35W2BA	PMT-36V50W2BA	PMT-36V75W2BA	PMT-36V100W2BA	PMT-36V150W2BA	PMT-36V150W2CA	PMT-36V200W2B□	PMT-36V350W2B□	
Output Voltage	36V	36V	36V	36V	36V	36V	36V	36V	
Output Voltage Range	32.4-39.6V	32.4-39.6V	32.4-39.6V	32.4-39.6V	32.4-39.6V	32.4-39.6V	32.4-39.6V	32.4-39.6V	
Output Current	1A	1.45A	2.1A	3A	4.3A	4.3A	5.9A	9.7A (14.55A for 1s) <sup>2)</sup>	
Output Power	36W	52.2W	75.6W	108W	154.8W	154.8W	212.4W	349.2W (523.8W for 1s) <sup>2)</sup>	
PARD (20MHz)	< 200mVpp @ 0°C to 70°C, 600mVpp typ. @ -30°C to 0°C				< 200mVpp @ 0°C to 70°C, 600mVpp typ. @ -30°C to 0°C				
Hold-up Time	115V <sub>AC</sub>	16ms typ.	12ms typ.	11ms typ.	9ms typ.	30ms typ.	12ms typ.	30ms typ.	
	230V <sub>AC</sub>	70ms typ.	60ms typ.	52ms typ.			42ms typ.		55ms typ.
<b>Input</b>									
Phase Input	Single Phase				Single Phase				
Input Voltage Range	90-264V <sub>AC</sub>				90-132V <sub>AC</sub> , 180-264V <sub>AC</sub> (Selectable by Switch)		90-264V <sub>AC</sub>		90-132V <sub>AC</sub> , 180-264V <sub>AC</sub> (Selectable by Switch)
Input Frequency	47-63Hz				47-63Hz				
Input Current	115V <sub>AC</sub>	0.7A typ.	0.95A typ.	1.4A typ.	1.9A typ.	3.0A typ.	3.0A typ.	4.0A typ.	
	230V <sub>AC</sub>	0.42A typ.	0.6A typ.	0.85A typ.	1.2A typ.	1.7A typ.	1.7A typ.	2.2A typ.	
Efficiency <sup>1)</sup> at 100% Load	230V <sub>AC</sub>	89.0% typ.		90.5% typ.	91.0% typ.	89.5% typ.		90% typ.	
Max Inrush Current (Cold Start)	230V <sub>AC</sub>	45A typ.		55A typ.			60A typ.		
Power Factor	NA				NA				
Leakage Current (50 Hz)	240V <sub>AC</sub>	< 0.5mA				< 0.5mA		< 0.75mA	
<b>Mechanical</b>									
Case Cover / Chassis	SGCC / Aluminium				SGCC / Aluminium				SGCC / SGCC
Dimensions (L × W × H)	mm	99 × 82 × 29	99 × 82 × 29	99 × 97 × 30	129 × 97 × 30	159 × 97 × 30	159 × 97 × 30	159 × 97 × 30	215 × 115 × 30
	inch	3.90 × 3.23 × 1.14	3.90 × 3.23 × 1.14	3.90 × 3.82 × 1.18	5.08 × 3.82 × 1.18	6.26 × 3.82 × 1.18	6.26 × 3.82 × 1.18	6.26 × 3.82 × 1.18	8.46 × 4.53 × 1.18
Unit Weight	kg	0.17	0.18	0.22	0.29	0.35	0.39	0.42	0.83
	lb	0.36	0.39	0.48	0.63	0.78	0.86	0.93	1.84
Cooling System	Convection				Convection				Forced Air (Built-in Fan)
MTBF <sup>3)</sup>	> 700,000hrs				> 700,000hrs				
<b>Environment</b>									
Operating Temperature <sup>4)</sup>	-30°C to +70°C				-30°C to +70°C				
Storage Temperature	-40°C to +85°C				-40°C to +85°C				
Operating Humidity	20 to 90% RH (Non-Condensing)				20 to 90% RH (Non-Condensing)				
Operating Altitude	0 to 5,000m (0 to 16,400ft)				0 to 5,000m (0 to 16,400ft)				

### Dimensions Reference



#### Notes

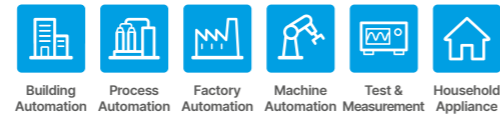
- 1) At 25°C ambient temperature by horizontal mounting orientation.
- 2) PMT-36V350W2BR model only.
- 3) MTBF as per Telcordia SR-332 (Confidence level: 90%, I/P: 230V<sub>AC</sub>, O/P: 100% load).
- 4) Refer power de-rating in the product datasheet.
- 5) All parameters are specified at 25°C ambient temperature unless otherwise indicated.

# PMT2 (48V)

- Household appliance approvals to IEC/EN 60335-1, IEC/EN 61558-1 and IEC/EN 61558-2-16 (except 350W)
- No load power consumption
- Low profile design: 30mm height
- Over Voltage Category III, Pollution Degree 3 (except 350W)
- Cold start at -40°C

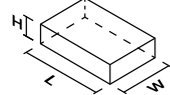


## Applications



Output	PMT-48V35W2BA	PMT-48V50W2BA	PMT-48V75W2BA	PMT-48V100W2BA	PMT-48V150W2BA	PMT-48V150W2CA	PMT-48V200W2B□	PMT-48V350W2B□	
Output Voltage	48V	48V	48V	48V	48V	48V	48V	48V	
Output Voltage Range	43.2-52.8V	43.2-52.8V	43.2-52.8V	43.2-52.8V	43.2-52.8V	43.2-52.8V	43.2-52.8V	43.2-52.8V	
Output Current	0.8A	1.1A	1.6A	2.3A	3.3A	3.3A	4.4A	7.3A (10.95A for 1s) <sup>2)</sup>	
Output Power	38.4W	52.8W	76.8W	110.4W	158.4W	158.4W	211.2W	350.4W (525.6W for 1s) <sup>2)</sup>	
PARD (20MHz)	< 200mVpp @ 0°C to 70°C, 600mVpp typ. @ -30°C to 0°C				< 200mVpp @ 0°C to 70°C, 600mVpp typ. @ -30°C to 0°C				
Hold-up Time	115V <sub>AC</sub>	16ms typ.	12ms typ.	11ms typ.	30ms typ.	12ms typ.	30ms typ.	20ms typ.	
	230V <sub>AC</sub>	70ms typ.	60ms typ.	52ms typ.		42ms typ.			55ms typ.
<b>Input</b>									
Phase Input	Single Phase				Single Phase				
Input Voltage Range	90-264V <sub>AC</sub>				90-132V <sub>AC</sub> , 180-264V <sub>AC</sub> (Selectable by Switch)	90-264V <sub>AC</sub>	90-132V <sub>AC</sub> , 180-264V <sub>AC</sub> (Selectable by Switch)		
Input Frequency	47-63Hz				47-63Hz				
Input Current	115V <sub>AC</sub>	0.7A typ.	0.95A typ.	1.4A typ.	1.9A typ.	3.0A typ.	3.0A typ.	4.0A typ.	
	230V <sub>AC</sub>	0.42A typ.	0.6A typ.	0.85A typ.	1.2A typ.	1.7A typ.	1.7A typ.	2.2A typ.	
Efficiency <sup>1)</sup> at 100% Load	230V <sub>AC</sub>	89.5% typ.	88.5% typ.	90.0% typ.	91.5% typ.	91.0% typ.		88.0% typ.	
Max Inrush Current (Cold Start)	230V <sub>AC</sub>	45A typ.		55A typ.		60A typ.			
Power Factor	NA				NA				
Leakage Current (50 Hz)	240V <sub>AC</sub>	< 0.5mA				< 0.5mA		< 0.75mA	
<b>Mechanical</b>									
Case Cover / Chassis	SGCC / Aluminium				SGCC / Aluminium				SGCC / SGCC
Dimensions (L × W × H)	mm	99 × 82 × 29	99 × 82 × 29	99 × 97 × 30	129 × 97 × 30	159 × 97 × 30	159 × 97 × 30	159 × 97 × 30	215 × 115 × 30
	inch	3.90 × 3.23 × 1.14	3.90 × 3.23 × 1.14	3.90 × 3.82 × 1.18	5.08 × 3.82 × 1.18	6.26 × 3.82 × 1.18	6.26 × 3.82 × 1.18	6.26 × 3.82 × 1.18	8.46 × 4.53 × 1.18
Unit Weight	kg	0.17	0.18	0.22	0.29	0.35	0.39	0.42	0.83
	lb	0.36	0.39	0.48	0.63	0.78	0.86	0.93	1.84
Cooling System	Convection				Convection				Forced Air (Built-in Fan)
MTBF <sup>3)</sup>	> 700,000hrs				> 700,000hrs				
<b>Environment</b>									
Operating Temperature <sup>4)</sup>	-30°C to +70°C				-30°C to +70°C				
Storage Temperature	-40°C to +85°C				-40°C to +85°C				
Operating Humidity	20 to 90% RH (Non-Condensing)				20 to 90% RH (Non-Condensing)				
Operating Altitude	0 to 5,000m (0 to 16,400ft)				0 to 5,000m (0 to 16,400ft)				

### Dimensions Reference



### Notes

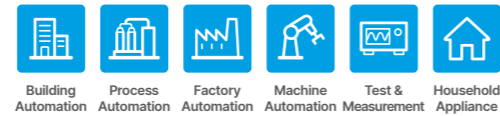
- 1) At 25°C ambient temperature by horizontal mounting orientation.
- 2) PMT-48V350W2BR model only.
- 3) MTBF as per Telcordia SR-332 (Confidence level: 90%, I/P: 230V<sub>AC</sub>, O/P: 100% load).
- 4) Refer power de-rating in the product datasheet.
- 5) All parameters are specified at 25°C ambient temperature unless otherwise indicated.

# PMT2 (Dual)

- Isolated & non-isolated Output & Ground for CH1 & CH2
- Household appliance approvals to IEC/EN 60335-1, IEC/EN 61558-1 and IEC/EN 61558-2-16
- No load power consumption
- Low profile design: 30 mm height
- Over Voltage Category III, Pollution Degree 3
- Cold start at -40°C

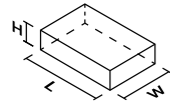


## Applications



Output	PMT-D1V75W2□A	PMT-D2V75W2□A
Output Voltage	V1: 5V, V2: 12V	V1: 5V, V2: 24V
Output Voltage Range	V1: Fixed, V2: 10.8-13.2V	V1: Fixed, V2: 21.6-26.4V
Output Current	V1: 0-5.0A, V2: 0.3-4.0A	V1: 0-5.0A, V2: 0.2-2.1A
Output Power	73W	75.4W
PARD (20MHz)	V1: < 100mVpp, V2: < 120mVpp @ 0°C to 70°C V1: 300mVpp, V2: 360mVpp typ. @ -30°C to 0°C	V1: < 100mVpp, V2: < 150mVpp @ 0°C to 70°C V1: 300mVpp, V2: 450mVpp typ @ -30°C to 0°C
Hold-up Time	115V <sub>AC</sub>	10ms typ.
	230V <sub>AC</sub>	50ms typ.
<b>Input</b>		
Phase Input	Single Phase	
Input Voltage Range	90-264V <sub>AC</sub>	
Input Frequency	47-63Hz	
Input Current	115V <sub>AC</sub>	1.4A typ.
	230V <sub>AC</sub>	0.85A typ.
Efficiency <sup>1)</sup> at 100% Load	230V <sub>AC</sub>	83.0% typ.
Max Inrush Current (Cold Start)	230V <sub>AC</sub>	55A typ.
Power Factor	NA	
Leakage Current (50Hz)	240V <sub>AC</sub>	< 0.5mA
<b>Mechanical</b>		
Case Cover / Chassis	SGCC / Aluminium	
Dimensions (L × W × H)	mm	129 × 97 × 30
	inch	5.08 × 3.82 × 1.18
Unit Weight	kg	0.28
	lb	0.61
Cooling System	Convection	
MTBF <sup>2)</sup>	> 700,000hrs	
<b>Environment</b>		
Operating Temperature <sup>3)</sup>	-30°C to +70°C	
Storage Temperature	-40°C to +85°C	
Operating Humidity	20 to 90% RH (Non-Condensing)	
Operating Altitude	0 to 5,000m (0 to 16,400ft)	

### Dimensions Reference



#### Notes

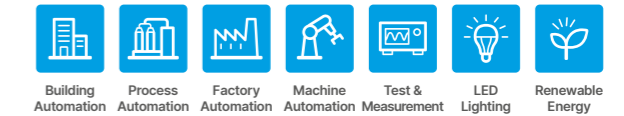
- 1) At 25°C ambient temperature by horizontal mounting orientation.
- 2) MTBF as per Telcordia SR-332 (Confidence level: 90%, I/P: 230V<sub>AC</sub>, O/P: 100% load).
- 3) Refer power de-rating in the product datasheet.
- 4) All parameters are specified at 25°C ambient temperature unless otherwise indicated.

# PMC (5V, 12V)

- Power will not de-rate for the entire input voltage range (except 600W)
- Full corrosion resistant aluminium casing (PMC-12V150W1B□)
- High MTBF > 700,000 hrs per Telcordia SR-332
- Overvoltage / Overcurrent / Over Temperature / Short Circuit Protections

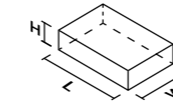


## Applications



Output	PMC-05V015W1AA	PMC-12V150W1B□	PMC-12V600W1BA
Output Voltage	5V	12V	12V
Output Voltage Range	4.75-5.50V	11-14V	10.8-13.2V
Output Current	0-3.0A	0-12.5A	0-50A
Output Power	15W	150W	600W
PARD (20MHz)	< 70mVpp	< 100mVpp	< 240mVpp
Hold-up Time	115V <sub>AC</sub>	> 15ms	> 30ms
	230V <sub>AC</sub>	> 80ms	> 20ms
<b>Input</b>			
Phase Input	Single Phase		
Input Voltage Range	85-264V <sub>AC</sub> (DC input range 125-375V <sub>DC</sub> ) <sup>1)</sup>		85-264V <sub>AC</sub> (DC input range 120-375V <sub>DC</sub> ) <sup>1)</sup>
Input Frequency	47-63Hz		
Input Current	115V <sub>AC</sub>	< 0.40A	< 1.70A
	230V <sub>AC</sub>	< 0.22A	< 1.00A
Efficiency <sup>2)</sup> at 100% Load	115V <sub>AC</sub>	> 80.0%	> 87.0%
	230V <sub>AC</sub>	> 80.0%	> 88.0%
Max Inrush Current (Cold Start)	115V <sub>AC</sub>	< 30A	< 60A
	230V <sub>AC</sub>	< 65A	< 120A
Power Factor	115V <sub>AC</sub>	Conform to EN 61000-3-2	> 0.99
	230V <sub>AC</sub>		> 0.90
Leakage Current	240V <sub>AC</sub>	< 1mA	-
	264V <sub>AC</sub>	-	< 1.5mA
<b>Mechanical</b>			
Case Cover / Chassis	SECC Steel	Aluminium	SECC Steel
Dimensions (L × W × H)	mm	77 × 51 × 28	178 × 97 × 38
	inch	3.03 × 2.01 × 1.10	7.01 × 3.82 × 1.50
Unit Weight	kg	0.16	0.54
	lb	0.35	1.19
Cooling System	Convection		Forced Air (Built-in Fan)
MTBF <sup>3)</sup>	> 700,000hrs		
<b>Environment</b>			
Operating Temperature <sup>4)</sup>	-10°C to +70°C		-20°C to +70°C
Storage Temperature	-25°C to +85°C		-40°C to +75°C
Operating Humidity	5 to 95% RH (Non-Condensing)		
Operating Altitude	0 to 3,000m (0 to 9,840ft)		

### Dimensions Reference



#### Notes

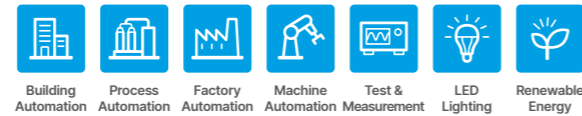
- 1) All models fulfill the test conditions for this range. DC input safety approval can be obtained upon request.
- 2) At 25°C ambient temperature by vertical mounting orientation.
- 3) MTBF as per Telcordia SR-332 (Confidence level: 90%, I/P: 115V<sub>AC</sub>, O/P: 100% load) for vertical mounting orientation. For PMC-12V600W1BA, MTBF calculations do not include fan life time.
- 4) Refer power de-rating in the product datasheet.
- 5) All parameters are specified at 25°C ambient temperature unless otherwise indicated.

# PMC (24 V, 48 V)



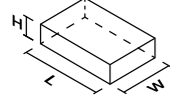
- Power will not de-rate for the entire input voltage range (except 600W)
- Full corrosion resistant aluminium casing (except 600W)
- Active PFC with high PF value (except dual output)
- Built-in fan speed control and fan lock protection (only 600W)
- High MTBF > 700,000 hrs per Telcordia SR-332 (except PMC-24V600W1BA)
- Overvoltage / Overcurrent / Over Temperature / Short Circuit Protections

## Applications



Output	PMC-24V150W1B□	PMC-24V300W1BA	PMC-24V600W1BA	PMC-24V600W1RW	PMC-48V150W1BA	PMC-48V600W1BA	PMC-DSPV100W1A
Output Voltage	24 V	V1: 24 V, V2 SB: 12 V	24 V	24 V	48 V	48 V	V1: 24 V, V2: 5 V
Output Voltage Range	22-28 V	V1: 22-28 V	21.6-26.4 V	21.6-27.6 V	44-53 V	43.2-52.8 V	V1: 22.8-26.4 V
Output Current	0-6.25 A	V1: 12.5 A (0-12.5 A) V2 SB: 0.5 A (0-0.5 A)	0-25.0 A (50.0 A for 5 s)	25.0 A	0-3.125 A	0-12.5 A	V1: 2.7 A (0.3-4.0 A) V2: 7.0 A (0.8-7.0 A)
Output Power	150 W	300 W	600 W (1,200 W for 5 s)	600 W	150 W	600 W	100 W
PARD (20 MHz)	< 100 mVpp	V1: < 100 mVpp V2: < 200 mVpp	< 180 mVpp @ 0°C to 50°C, < 240 mVpp @ -20°C to 0°C	< 150 mVpp @ 0°C to 70°C, 180 mVpp typ. @ -20°C to 0°C	< 200 mVpp	< 300 mVpp	V1: < 200 mVpp, V2: < 80 mVpp
Hold-up Time	115 V <sub>AC</sub> 230 V <sub>AC</sub>	> 30 ms	> 15 ms @ nominal input, 100% load	> 20 ms	20 ms typ.	> 30 ms	> 15 ms > 80 ms
<b>Input</b>							
Phase Input	Single Phase				Single Phase		
Input Voltage Range	85-264 V <sub>AC</sub> (DC input range 125-375 V <sub>DC</sub> ) <sup>1)</sup>		85-264 V <sub>AC</sub> (DC input range 120-370 V <sub>DC</sub> ) <sup>1)</sup>	85-264 V <sub>AC</sub>	85-264 V <sub>AC</sub> (DC input range 125-375 V <sub>DC</sub> ) <sup>1)</sup>	85-264 V <sub>AC</sub> (DC input range 120-370 V <sub>DC</sub> ) <sup>1)</sup>	85-264 V <sub>AC</sub> (DC input range 125-375 V <sub>DC</sub> ) <sup>1)</sup>
Input Frequency	47-63 Hz				47-63 Hz		
Input Current	115 V <sub>AC</sub> 230 V <sub>AC</sub>	< 1.7 A < 4.0 A	< 6.5 A < 3.2 A	6 A typ. 3 A typ.	< 1.7 A < 1.0 A	< 6.5 A < 3.2 A	< 2.0 A < 1.1 A
Efficiency <sup>2)</sup> at 100% Load	115 V <sub>AC</sub> 230 V <sub>AC</sub>	> 89.0% > 91.0%	> 86.0% > 88.0%	> 86.0% > 89.0%	> 89.0% > 91.0%	> 87.0% > 90.0%	> 84.0% > 86.0%
Max Inrush Current (Cold Start)	115 V <sub>AC</sub> 230 V <sub>AC</sub>	< 60 A < 120 A	< 35 A < 70 A	< 20 A 40 A typ.	< 20 A < 40 A	< 20 A < 40 A	< 50 A < 100 A
Power Factor	115 V <sub>AC</sub> 230 V <sub>AC</sub>	> 0.99 > 0.90	> 0.99 > 0.97	> 0.99 0.99 typ. 0.97 typ.	> 0.99 > 0.92	> 0.98 > 0.96	Conform to EN 61000-3-2
Leakage Current	240 V <sub>AC</sub> 264 V <sub>AC</sub>	< 1 mA	< 1.5 mA	< 0.75 mA	< 1.5 mA	- TT/TN: < 3 mA, IT: < 4 mA	< 1 mA -
<b>Mechanical</b>							
Case Cover / Chassis	Aluminium		SECC Steel	SGCC	Aluminium	SECC Steel	Aluminium
Dimensions (L × W × H)	mm inch	178 × 97 × 38 7.01 × 3.82 × 1.50	199 × 105 × 41 7.83 × 4.13 × 1.61	215 × 120 × 61 8.46 × 4.72 × 2.40	190 × 120 × 61 7.48 × 4.72 × 2.40	178 × 97 × 38 7.01 × 3.82 × 1.50	215 × 120 × 61 8.46 × 4.72 × 2.40
Unit Weight	kg lb	0.54 1.19	0.82 1.81	1.60 3.53	1.40 3.10	0.53 1.17	1.54 3.40
Cooling System	Convection		Forced Air (Built-in Fan)		Convection	Forced Air (Built-in Fan)	
MTBF <sup>3)</sup>	> 700,000 hrs		> 300,000 hrs	> 700,000 hrs	> 700,000 hrs		
<b>Environment</b>							
Operating Temperature <sup>4)</sup>	-10°C to +70°C		-20°C to +70°C		-10°C to +70°C	-20°C to +70°C	-10°C to +70°C
Storage Temperature	-25°C to +85°C		-20°C to +75°C	-30°C to +75°C	-25°C to +85°C	-40°C to +85°C	-25°C to +85°C
Operating Humidity	5 to 95% RH (Non-Condensing)			20 to 95% RH (Non-Condensing)	5 to 95% RH (Non-Condensing)		
Operating Altitude	0 to 5,000 m (0 to 16,400 ft)		0 to 3,000 m (0 to 9,840 ft)		0 to 5,000 m (0 to 16,400 ft)		0 to 3,000 m (0 to 9,840 ft)

### Dimensions Reference



### Notes

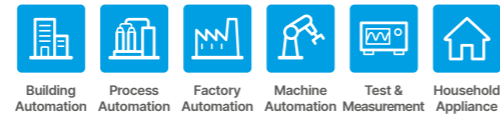
- 1) All models fulfill the test conditions for this range. DC input safety approval can be obtained upon request.
- 2) At 25°C ambient temperature by vertical mounting orientation.
- 3) MTBF as per Telcordia SR-332 (Confidence level: 90%, I/P: 115 V<sub>AC</sub>, O/P: 100% load) for vertical mounting orientation. For PMC-24V300W1BA, PMC-24V600W1BA and PMC-48V600W1BA, MTBF calculations do not include fan life time.
- 4) Refer power de-rating in the product datasheet.
- 5) All parameters are specified at 25°C ambient temperature unless otherwise indicated.

# PMR (4.2V, 5V)



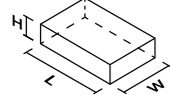
- Full corrosion resistant aluminium casing
- Built-in active PFC and conforms to harmonic current IEC/EN 61000-3-2, Class A and Class D
- Low profile design for 1U installation
- Built-in DC OK relay contact and redundancy operation (PMR-□V320WDBA and PMR-□V320WDCA)

## Applications



Output	PMR-4V320WC□A	PMR-4V320WDAA	PMR-4V320WDGA	PMR-4V320WDBA	PMR-4V320WDCA	PMR-5V320WC□A	PMR-5V320WDAA	PMR-5V320WDGA	PMR-5V320WDBA	PMR-5V320WDCA	
Output Voltage	4.2V	4.2V	4.2V	4.2V	4.2V	5V	5V	5V	5V	5V	
Output Voltage Range	3.78-4.62V	3.78-4.62V	3.78-4.62V	3.99-4.51V (No potentiometer)	3.99-4.51V (No potentiometer)	4.50-5.50V	4.50-5.50V	4.50-5.50V	4.75-5.25V (No potentiometer)	4.75-5.25V (No potentiometer)	
Output Current	60.0A	60.0A	60.0A	60.0A	60.0A	60.0A	60.0A	60.0A	60.0A	60.0A	
Output Power	252W	252W	252W	252W	252W	300W	300W	300W	300W	300W	
PARD (20MHz)	< 150mVpp					< 150mVpp					
Hold-up Time	115V <sub>AC</sub>	8ms typ.					8ms typ.				
	230V <sub>AC</sub>										
<b>Input</b>											
Phase Input	Single Phase					Single Phase					
Input Voltage Range	88-264V <sub>AC</sub>					88-264V <sub>AC</sub>					
Input Frequency	47-63Hz					47-63Hz					
Input Current	115V <sub>AC</sub>	3.0A typ.	4.5A typ.	4.5A typ.	4.5A typ.	4.5A typ.	5.0A typ.	5.0A typ.	5.0A typ.	5.0A typ.	
	230V <sub>AC</sub>	1.5A typ.	2.5A typ.	2.5A typ.	2.5A typ.	2.5A typ.	2.5A typ.	2.5A typ.	2.5A typ.	2.5A typ.	
Efficiency <sup>1)</sup> at 100% Load	115V <sub>AC</sub>	80.5% typ.	84.5% typ.	84.0% typ.	84.0% typ.	81.0% typ.	86.0% typ.	85.0% typ.	85.0% typ.	85.0% typ.	
	230V <sub>AC</sub>	83.5% typ.	86.5% typ.	86.0% typ.	86.0% typ.	84.0% typ.	88.0% typ.	87.0% typ.	87.0% typ.	87.0% typ.	
Max Inrush Current (Cold Start)	115V <sub>AC</sub>	20A typ.					20A typ.				
	230V <sub>AC</sub>	40A typ.					40A typ.				
Power Factor	115V <sub>AC</sub>	0.98 typ.					0.98 typ.				
	230V <sub>AC</sub>	0.95 typ.					0.95 typ.				
Leakage Current	240V <sub>AC</sub>	< 0.5mA	< 1mA			< 0.5mA	< 1mA				
<b>Mechanical</b>											
Case Cover / Chassis	Aluminium					Aluminium					
Dimensions (L × W × H)	mm	215 × 115 × 30	215 × 115 × 30	215 × 115 × 30	215 × 115 × 30	215 × 115 × 30	215 × 115 × 30	215 × 115 × 30	215 × 115 × 30	215 × 115 × 30	
	inch	8.46 × 4.53 × 1.18	8.46 × 4.53 × 1.18	8.46 × 4.53 × 1.18	8.46 × 4.53 × 1.18	8.46 × 4.53 × 1.18	8.46 × 4.53 × 1.18	8.46 × 4.53 × 1.18	8.46 × 4.53 × 1.18	8.46 × 4.53 × 1.18	
Unit Weight	kg	0.76	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	
	lb	1.68	1.90	1.90	1.90	1.90	1.90	1.90	1.90	1.90	
Cooling System	Forced Air (Built-in Fan)	Convection				Forced Air (Built-in Fan)	Convection				
MTBF <sup>2)</sup>	> 700,000 hrs					> 700,000 hrs					
<b>Environment</b>											
Operating Temperature <sup>3)</sup>	-10°C to +70°C	-20°C to +70°C				-10°C to +70°C	-20°C to +70°C				
Storage Temperature	-40°C to +85°C					-40°C to +85°C					
Operating Humidity	5 to 95% RH (Non-Condensing)					5 to 95% RH (Non-Condensing)					
Operating Altitude	0 to 5,000m (0 to 16,400ft)					0 to 5,000m (0 to 16,400ft)					

### Dimensions Reference



#### Notes

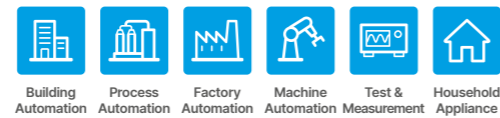
- 1) At 25°C ambient temperature by vertical mounting orientation.
- 2) MTBF as per Telcordia SR-332 (Confidence level: 90%, I/P: 100V<sub>AC</sub>, O/P: 100% load, Ta: 35°C). For PMR-4V320WC□A and PMR-5V320WC□A, MTBF calculation does not include fan life time.
- 3) Refer power de-rating in the product datasheet.
- 4) All parameters are specified at 25°C ambient temperature unless otherwise indicated.

# PMR (12 V, 24 V, 36 V, 48 V)



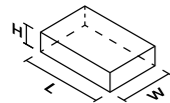
- Built-in active PFC circuit
- No load power consumption < 0.5W
- 30 mm height low profile design
- IEC/EN 60335-1, IEC/EN 61558-1, and IEC/EN 61558-2-16 household appliance standards
- Wide operating temperature -30°C ~70°C (-40°C cold start)

## Applications



	NEW		NEW		NEW		NEW		
	PMR-12V320W1AT		PMR-24V320W1AT		PMR-36V320W1AT		PMR-48V320W1AT		
Output	12 V		24 V		36 V		48 V		
Output Voltage Range	10.8-13.2 V		21.6-26.4 V		32.4-39.6 V		43.2-52.8 V		
Output Current	26.7 A		13.4 A		8.9 A		6.7 A		
Output Power	320.4 W		321.6 W		320.4 W		321.6 W		
PARD (20 MHz)			< 150 mVpp @ 0°C to 70°C 450 mVpp typ. @ -30°C to 0°C				< 200 mVpp @ 0°C to 70°C 600 mVpp typ. @ -30°C to 0°C		
Hold-up Time	115 V <sub>AC</sub>	16 ms typ.						16 ms typ.	
	230 V <sub>AC</sub>								
<b>Input</b>									
Phase Input	Single Phase						Single Phase		
Input Voltage Range	90-264 V <sub>AC</sub>						90-264 V <sub>AC</sub>		
Input Frequency	47-63 Hz						47-63 Hz		
Input Current	115 V <sub>AC</sub>	3.8 A typ.	3.8 A typ.		3.8 A typ.		3.8 A typ.		
	230 V <sub>AC</sub>	1.8 A typ.	1.8 A typ.		1.8 A typ.		1.8 A typ.		
Efficiency <sup>1)</sup> at 100% Load	230 V <sub>AC</sub>	90.5% typ.	91.0% typ.		91.5% typ.		92.0% typ.		
Max Inrush Current (Cold Start)	230 V <sub>AC</sub>	50 A typ.						50 A typ.	
Power Factor	115 V <sub>AC</sub>	> 0.96						> 0.96	
	230 V <sub>AC</sub>	> 0.93						> 0.93	
Leakage Current	240 V <sub>AC</sub>	< 0.75 mA						< 0.75 mA	
<b>Mechanical</b>									
Case Cover / Chassis	SGCC / Aluminium						SGCC / Aluminium		
Dimensions (L × W × H)	mm	215 × 115 × 30		215 × 115 × 30		215 × 115 × 30		215 × 115 × 30	
	inch	8.46 × 4.53 × 1.18		8.46 × 4.53 × 1.18		8.46 × 4.53 × 1.18		8.46 × 4.53 × 1.18	
Unit Weight	kg	0.64		0.64		0.64		0.64	
	lb	1.42		1.42		1.42		1.42	
Cooling System	Forced Air (Built-in Fan)						Forced Air (Built-in Fan)		
MTBF <sup>2)</sup>	> 700,000 hrs						> 700,000 hrs		
<b>Environment</b>									
Operating Temperature <sup>3)</sup>	-30°C to +70°C						-30°C to +70°C		
Storage Temperature	-40°C to +85°C						-40°C to +85°C		
Operating Humidity	20 to 90% (Non-Condensing)						20 to 90% (Non-Condensing)		
Operating Altitude	0 to 5,000 m (0 to 16,400 ft)						0 to 5,000 m (0 to 16,400 ft)		

### Dimensions Reference



#### Notes

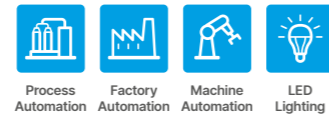
- 1) At 25°C ambient temperature by vertical mounting orientation.
- 2) MTBF as per Telcordia SR-332 (I/P: 230 V<sub>AC</sub>, O/P: 100% load, T<sub>a</sub>: 25°C). MTBF calculation does not include fan life time.
- 3) Refer power de-rating in the product datasheet.
- 4) All parameters are specified at 25°C ambient temperature unless otherwise indicated.

# PMF (4.2V, 5V, 24V)

- Built-in active PFC and automatic fan speed control
- Full corrosion resistant aluminium casing
- Remote ON/OFF is available as an option
- Overvoltage / Overcurrent / Over Temperature / Short Circuit Protections

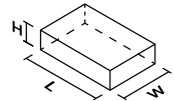


## Applications



Output	PMF-4V320WC□□	PMF-5V320WC□□	PMF-24V240WC□□	PMF-24V320WC□□
Output Voltage	4.2V	5V	24V	24V
Output Voltage Range	3.78-4.62V	4.50-5.50V	21.6-26.4V	21.6-26.4V
Output Current	55.0A	55.0A	10.0A	13.3A
Output Power	231W	275W	240W	320W
PARD (20MHz)	< 150mVpp			
Hold-up Time	115V <sub>AC</sub>	16ms typ.		20ms typ.
	230V <sub>AC</sub>			
<b>Input</b>				
Phase Input	Single Phase			
Input Voltage Range	85-264V <sub>AC</sub>			
Input Frequency	47-63Hz			
Input Current	115V <sub>AC</sub>	5.0A typ.	5.0A typ.	3.6A typ.
	230V <sub>AC</sub>	2.5A typ.	2.5A typ.	1.8A typ.
Efficiency <sup>1)</sup> at 100% Load	230V <sub>AC</sub>	76.5% typ.	78.5% typ.	87.0% typ.
Max Inrush Current (Cold Start)	115V <sub>AC</sub>	20A typ.	30A typ.	35A typ.
	230V <sub>AC</sub>	40A typ.	50A typ.	60A typ.
Power Factor	115V <sub>AC</sub>	0.97 typ.	0.98 typ.	0.99 typ.
	230V <sub>AC</sub>	0.94 typ.	0.95 typ.	0.95 typ.
Leakage Current	240V <sub>AC</sub>	< 1mA		< 1mA
<b>Mechanical</b>				
Case Cover / Chassis	Aluminium			
Dimensions (L × W × H)	mm	215 × 115 × 50	215 × 115 × 50	190 × 93 × 50
	inch	8.46 × 4.53 × 1.97	8.46 × 4.53 × 1.97	7.48 × 3.66 × 1.97
Unit Weight	kg	0.86	0.86	0.66
	lb	1.90	1.90	1.46
Cooling System	Forced Air (Built-in Fan)			
MTBF <sup>2)</sup>	> 700,000hrs			
<b>Environment</b>				
Operating Temperature <sup>3)</sup>	-10°C to +70°C			
Storage Temperature	-20°C to +85°C			
Operating Humidity	5 to 95% RH (Non-Condensing)			
Operating Altitude	0 to 5,000m (0 to 16,400ft)			

### Dimensions Reference



#### Notes

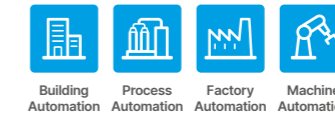
- 1) At 25°C ambient temperature by vertical mounting orientation.
- 2) MTBF as per Telcordia SR-332 (Confidence level: 90%, I/P: 100V<sub>AC</sub>, O/P: 100% load, Ta: 35°C). MTBF calculations do not include fan life time.
- 3) Refer power de-rating in the product datasheet.
- 4) All parameters are specified at 25°C ambient temperature unless otherwise indicated.

# PMU (13.8V, 27.6V)

- AC input voltage range selectable by switch
- LED indicators for DC OK (Green) and Battery Reverse Polarity Connection (Red)
- Zero switch over time from loss of AC to battery operation
- Monitoring signals for AC OK, DC OK and Battery Low indication
- Overvoltage / Overcurrent / Over Temperature / Short Circuit Protections

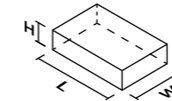


## Applications



Output	PMU-13V155W□BA	PMU-13V155W□CA	PMU-27V155W□BA	PMU-27V155W□CA
Output Voltage	V1: 13.8V, B+: 13.3V	V1: 13.8V, B+: 13.3V	V1: 27.6V, B+: 27.1V	V1: 27.6V, B+: 27.1V
Output Voltage Range	12-14V	12-14V	24-28V	24-28V
Output Current	V1: 9.5A (0-11.0A) B+: 1.5A (0.5-1.5A)	V1: 9.5A (0-11.0A) B+: 1.5A (0.5-1.5A)	PMU-27V155WCBA V1: 4.0A (0-5.5A) B+: 1.5A (0.5-1.5A)	PMU-27V155WCCA V1: 4.0A (0-5.5A) B+: 1.5A (0.5-1.5A)
			PMU-27V155WLBA V1: 4.3A (0-5.5A) B+: 1.2A (0.50-1.2A)	PMU-27V155WLCA V1: 4.3A (0-5.5A) B+: 1.2A (0.50-1.2A)
Output Power	151W	151W	151W	151W
PARD (20MHz)	< 150mVpp @ 0°C to -20°C, < 100mVpp @ > 0°C to 70°C			
Hold-up Time	20ms without Battery at B+			
<b>Input</b>				
Phase Input	Single Phase			
Input Voltage Range	90-132V <sub>AC</sub> , 180-264V <sub>AC</sub> (Selectable by Switch)			
Input Frequency	47-63Hz			
Input Current	115V <sub>AC</sub>	< 2.5A	< 2.5A	< 2.5A
	230V <sub>AC</sub>	< 1.5A	< 1.5A	< 1.5A
Efficiency <sup>1)</sup> at 100% Load	115V <sub>AC</sub>	> 85.0%		> 88.0%
	230V <sub>AC</sub>	> 86.0%		> 89.0%
Max Inrush Current (Cold Start)	115V <sub>AC</sub>	< 2.5A		
	230V <sub>AC</sub>	< 2.5A		
Power Factor	Conform to EN 61000-3-2			
Leakage Current	264V <sub>AC</sub>	< 0.5mA		
<b>Mechanical</b>				
Case Cover / Chassis	SGCC / Aluminium			
Dimensions (L × W × H)	mm	178 × 97 × 38	178 × 97 × 38	178 × 97 × 38
	inch	7.01 × 3.82 × 1.50	7.01 × 3.82 × 1.50	7.01 × 3.82 × 1.50
Unit Weight	kg	0.59	0.60	0.59
	lb	1.30	1.32	1.30
Cooling System	Convection			
MTBF <sup>2)</sup>	> 700,000hrs			
<b>Environment</b>				
Operating Temperature <sup>3)</sup>	-20°C to +70°C			
Storage Temperature	-40°C to +85°C			
Operating Humidity	5 to 95% RH (Non-Condensing)			
Operating Altitude	0 to 5,000m (0 to 16,400ft)			

### Dimensions Reference



#### Notes

- 1) At 25°C ambient temperature by vertical mounting orientation.
- 2) MTBF as per Telcordia SR-332 (Confidence level: 90%, I/P: 115V<sub>AC</sub>, O/P: 100% load) for vertical mounting orientation.
- 3) Refer power de-rating in the product datasheet.
- 4) All parameters are specified at 25°C ambient temperature unless otherwise indicated.



# MEB (12 V, 24 V, 48 V)



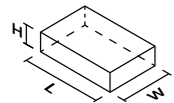
- High Power Density
- 2 × MOPP Isolation
- Safety Approvals to IEC 60601-1 Ed. 2 & 3.1
- Suitable for Type BF Medical Products
- Full Power up to 50°C Ambient
- Class B Conducted and Radiated EMI

## Applications



		NEW			
Output		MEB-750A12□ AAA	MEB-500A24F AA	MEB-750A24□ AAA	MEB-750A48□ AAA
Output Voltage		12 V	24 V	24 V	48 V
Output Current (Max)		58.4 A	21.0 A	31.25 A	15.63 A
Output Power		700 W	504 W	750 W	750 W
Load Regulation		< 2%	< 150mV	< 2%	
Ripple & Noise		1% pk-pk Vrated @ rated load	< 300mVpp @ 0°C to +50°C	1% pk-pk Vrated @ rated load	
<b>Input</b>					
Input Voltage Range		85-264 V <sub>AC</sub>	90-264 V <sub>AC</sub>	85-264 V <sub>AC</sub>	
Input Frequency		47-63 Hz			
Efficiency	230 V <sub>AC</sub> (50 Hz)	90.5% typ.	92.0% typ.	94.0% typ.	
	264 V <sub>AC</sub>	Input-PE: 0.3 mA typ. @ NC, 1 mA typ. @ SFC Output-PE: 0.1 mA typ. @ NC, 0.5 mA typ. @ SFC		Input-PE: < 0.1 mA @ NC, < 0.3 mA @ SFC Output-PE: < 0.1 mA @ NC, < 0.5 mA @ SFC	
Leakage Current <sup>1)</sup>	230 V <sub>AC</sub>	Input-PE: 0.3 mA typ. @ NC, 1 mA typ. @ SFC Output-PE: 0.1 mA typ. @ NC, 0.5 mA typ. @ SFC		Input-PE: 0.3 mA typ. @ NC, 1 mA typ. @ SFC Output-PE: 0.1 mA typ. @ NC, 0.5 mA typ. @ SFC	
	264 V <sub>AC</sub>	Input-PE: < 0.3 mA @ NC, < 1 mA @ SFC Output-PE: < 0.1 mA @ NC, < 0.5 mA @ SFC			
<b>Mechanical</b>					
Dimensions (L × W × H)	mm	177.8 × 101.6 × 40	165.3 × 85.2 × 41	177.8 × 101.6 × 40	177.8 × 101.6 × 40
	inch	7.00 × 4.00 × 1.57	6.50 × 3.35 × 1.61	7.00 × 4.00 × 1.57	7.00 × 4.00 × 1.57
Unit Weight	kg	1.10	0.66	1.10	1.10
	lb	2.43	1.46	2.43	2.43
MTBF <sup>2)</sup>		> 500,000 hrs	> 700,000 hrs	> 500,000 hrs	
EMC & Emissions		EN 55011, EN 55032, FCC Title 47: Class B	EN 55011 & Compliant with EN 55032, FCC Title 47: Class B	EN 55011, EN 55032, FCC Title 47: Class B	
<b>Environment</b>					
Operating Temperature <sup>3)</sup>		-20°C to +70°C			
Storage Temperature		-40°C to +85°C	-30°C to +80°C	-40°C to +85°C	
Operating Humidity		5 to 95% RH (Non-Condensing)	20 to 90% RH (Non-Condensing)	5 to 95% RH (Non-Condensing)	
Operating Altitude		0 to 5,000 m (0 to 16,400 ft)	IEC 60601-1: 0 to 3,000 m (0 to 9,840 ft) IEC 60950-1 & IEC 62368-1: 0 to 5,000 m (0 to 16,400 ft)	0 to 5,000 m (0 to 16,400 ft)	
<b>Medical Rating</b>					
Float Rating		BF			
MOPP		2 × MOPP			

### Dimensions Reference



#### Notes

- 1) NC: normal condition, SFC: single fault condition.
- 2) MEB-500A24F, MTBF as per Telcordia SR-332 (I/P: 115 V<sub>AC</sub>, O/P: 100% load, Ta: 25°C). MEB-750A12□, MEB-750A24□ and MEB-750A48□, MTBF as per Telcordia SR-332 (I/P: 115 V<sub>AC</sub>, O/P: 100% load, Ta: 35°C).
- 3) Refer power de-rating in the product datasheet.

# MEB (24 V, 42 V, 48 V)



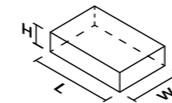
- Up to 1200W in 5" × 8.03" × 1.59" package
- Full power from 90 V<sub>AC</sub> to 264 V<sub>AC</sub>, up to 50°C ambient
- 2 × MOPP isolation, Suitable for type BF medical products
- Current sharing and 5V/2A standby output
- Class B Conducted and Radiated EMI
- PMBus Ver 1.3 supported
- Intelligent fan speed control

## Applications



Output		MEB-1K2A24T ABA	MEB-1K2A42T ABA	MEB-1K2A48T ABA
Output Voltage		24 V	42 V	48 V
Output Current (Max)		50.0 A	28.5 A	25.0 A
Output Power		1200 W	1200 W	1200 W
Load Regulation		2%		
Ripple & Noise		1% typ. pk-pk Vrated @ rated load		
<b>Input</b>				
Input Voltage Range		85-264 V <sub>AC</sub>		
Input Frequency		47-63 Hz		
Efficiency	115 V <sub>AC</sub> (60 Hz)	90.0% typ.	90.9% typ.	91.5% typ.
	230 V <sub>AC</sub> (50 Hz)	93.0% typ.	93.2% typ.	94.0% typ.
Leakage Current <sup>1)</sup>	264 V <sub>AC</sub>	Input-PE: < 0.3 mA @ NC, < 1 mA @ SFC Output-PE: < 0.1 mA @ NC, < 0.5 mA @ SFC		
		Input-PE: < 0.3 mA @ NC, < 1 mA @ SFC Output-PE: < 0.1 mA @ NC, < 0.5 mA @ SFC		
<b>Mechanical</b>				
Dimensions (L × W × H)	mm	204 × 127 × 40.5	204 × 127 × 40.5	204 × 127 × 40.5
	inch	8.03 × 5.0 × 1.59	8.03 × 5.0 × 1.59	8.03 × 5.0 × 1.59
Unit Weight	kg	1.50	1.50	1.50
	lb	3.30	3.30	3.30
MTBF <sup>2)</sup>		> 500,000 hrs		
EMC & Emissions		EN 55011/EN 55032, FCC Title 47: Class B		
<b>Environment</b>				
Operating Temperature <sup>3)</sup>		-20°C to +70°C		
Storage Temperature		-40°C to +85°C		
Operating Humidity		5 to 95% RH (Non-Condensing)		
Operating Altitude		0 to 5,000 m (0 to 16,400 ft)		
<b>Medical Rating</b>				
Float Rating		BF		
MOPP		2 × MOPP		

### Dimensions Reference



#### Notes

- 1) NC: normal condition, SFC: single fault condition.
- 2) MTBF as per Telcordia SR-332 (I/P: 115 V<sub>AC</sub>, O/P: 100% load, Ta: 35°C).
- 3) Refer power de-rating in the product datasheet.

# Open Frame Power Supplies



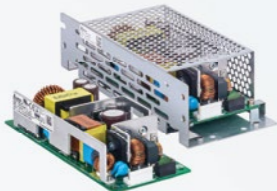
## PJT

Standard industrial footprint  
Power Range: 40-150 W



## PJ

Low inrush current / low leakage current  
Power Range: 15-150 W



## PJB

Power Boost of 200% for 10 seconds  
Power Range: 103.2-300 W



## PJH

Power supply with household approvals  
Power Range: 300 W



## PJU

Power supply with DC-UPS function  
Power Range: 60 W



## PJL

Power supply with lighting approvals  
Power Range: 200-600 W

## Applications



Building  
Automation



Factory  
Automation



Machine  
Automation



Test &  
Measurement



LED  
Lighting



Household  
Appliance

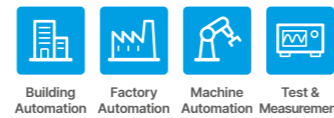


# PJT (12V, 15V)

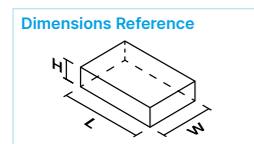
- Small standard footprint
- Low Leakage Current < 0.1mA
- High MTBF > 700,000 hrs as per Telcordia SR-332
- Overvoltage / Overcurrent / Over Temperature / Short Circuit Protections



## Applications



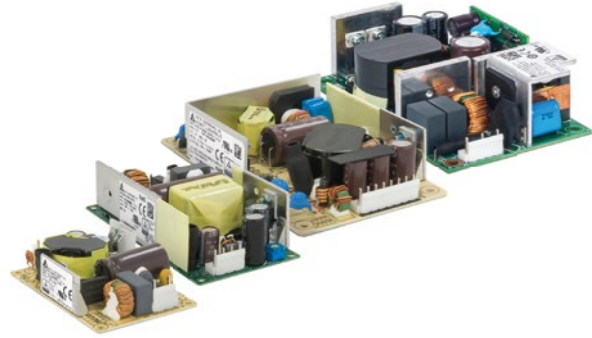
Output	PJT-12V40WBA□	PJT-12V65WBA□	PJT-12V100WBA□	PJT-12V100WBB□	PJT-15V40WBA□	PJT-15V65WBA□	PJT-15V100WBA□	PJT-15V100WBB□	
Output Voltage	12V	12V	12V	12V	15V	15V	15V	15V	
Output Current	3.33A	5.0A	8.33A	6.67A (Convection) 8.33A (Forced Air)	2.67A	4.2A	6.67A	5.33A (Convection) 6.67A (Forced Air)	
Output Power	40W	60W	100W	80W (Convection) 100W (Forced Air)	40W	63W	100W	80W (Convection) 100W (Forced Air)	
PAR (20MHz)	< 120mVpp				< 150mVpp				
Hold-up Time	115V <sub>AC</sub>	18ms typ.	16ms typ.	20ms typ.	10ms typ.	18ms typ.	16ms typ.	20ms typ.	
	230V <sub>AC</sub>	90ms typ.	80ms typ.			90ms typ.	80ms typ.	10ms typ.	
<b>Input</b>									
Phase Input	Single Phase				Single Phase				
Input Voltage Range	90-264V <sub>AC</sub>				90-264V <sub>AC</sub>				
Input Frequency	47-63Hz				47-63Hz				
Input Current	115V <sub>AC</sub>	0.85A typ.	1.50A typ.	1.50A typ.	2.50A typ.	0.85A typ.	1.50A typ.	1.50A typ.	
Efficiency <sup>1)</sup> at 100% Load	115V <sub>AC</sub>	85.0% typ.	86.0% typ.	86.5% typ.	86.0% typ.	86.0% typ.	87.0% typ.	87.5% typ.	
	230V <sub>AC</sub>	86.0% typ.	86.5% typ.		88.0% typ.	87.0% typ.	88.5% typ.	89.0% typ.	
Max Inrush Current (Cold Start)	115V <sub>AC</sub>	30A typ.				30A typ.			
	230V <sub>AC</sub>	60A typ.				60A typ.			
Power Factor	Conform to EN 61000-3-2				Conform to EN 61000-3-2				
Leakage Current	240V <sub>AC</sub>	< 0.1mA				< 0.1mA			
<b>Mechanical</b>									
Case Cover / Chassis	-				-				
Dimensions (L × W × H)	mm	76.2 × 50.8 × 22.9	101.6 × 50.8 × 30	127 × 76.2 × 31	101.6 × 50.8 × 31.8	76.2 × 50.8 × 22.9	101.6 × 50.8 × 30	127 × 76.2 × 31	101.6 × 50.8 × 31.8
	inch	3.00 × 2.00 × 0.90	4.00 × 2.00 × 1.18	5.00 × 3.00 × 1.22	4.00 × 2.00 × 1.25	3.00 × 2.00 × 0.90	4.00 × 2.00 × 1.18	5.00 × 3.00 × 1.22	4.00 × 2.00 × 1.25
Unit Weight	kg	0.08	0.13	0.21	0.15	0.08	0.13	0.21	0.15
	lb	0.18	0.29	0.46	0.33	0.18	0.29	0.46	0.33
Cooling System	Convection				Convection / Forced Air				
MTBF <sup>2)</sup>	> 700,000hrs				> 700,000hrs				
<b>Environment</b>									
Operating Temperature <sup>3)</sup>	-10°C to +70°C				-10°C to +70°C				
Storage Temperature	-40°C to +85°C				-40°C to +85°C				
Operating Humidity	10 to 95% RH (Non-Condensing)				10 to 95% RH (Non-Condensing)				
Operating Altitude	0 to 5,000m (0 to 16,400ft)				0 to 5,000m (0 to 16,400ft)				



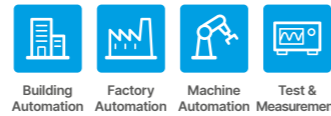
- Notes
- 1) At 25°C ambient temperature.
  - 2) MTBF as per Telcordia SR-332 (I/P: 115V<sub>AC</sub>, O/P: 100% load).
  - 3) Refer power de-rating in the product datasheet.
  - 4) All parameters are specified at 25°C ambient temperature unless otherwise indicated.

# PJT (18V, 24V, 27V)

- Small standard footprint
- Low Leakage Current
- High MTBF > 700,000 hrs as per Telcordia SR-332
- Overvoltage / Overcurrent / Over Temperature / Short Circuit Protections

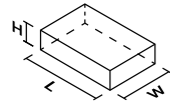


## Applications



Output	PJT-18V40WBA□	PJT-18V65WBA□	PJT-18V100WBA□	PJT-18V100WBB□	PJT-24V40WBA□	PJT-24V65WBA□	PJT-24V100WBA□	PJT-24V100WBB□	PJT-27V150WBNA		
Output Voltage	18V	18V	18V	18V	24V	24V	24V	24V	V1: 27V, V <sub>SB</sub> : 12V		
Output Current	2.22A	3.61A	5.55A	4.44A (Convection) 5.55A (Forced Air)	1.66A	2.71A	4.17A	3.33A (Convection) 4.17A (Forced Air)	V1: 5.55A V <sub>SB</sub> : 0.5A		
Output Power	40W	65W	100W	80W (Convection) 100W (Forced Air)	40W	65W	100W	80W (Convection) 100W (Forced Air)	V1: 150W V <sub>SB</sub> : 6W		
PARD (20MHz)	< 180mVpp				< 240mVpp				V1: < 150mVpp, V <sub>SB</sub> : < 75mVpp		
Hold-up Time	115V <sub>AC</sub>	18ms typ.	16ms typ.	20ms typ.	10ms typ.	18ms typ.	16ms typ.	20ms typ.	10ms typ.	> 40ms	
	230V <sub>AC</sub>	90ms typ.	80ms typ.			90ms typ.	80ms typ.				
<b>Input</b>											
Phase Input	Single Phase				Single Phase						
Input Voltage Range	90-264V <sub>AC</sub>				90-264V <sub>AC</sub>				85-264V <sub>AC</sub>		
Input Frequency	47-63Hz				47-63Hz						
Input Current	115V <sub>AC</sub>	0.85A typ.	1.50A typ.	1.50A typ.	2.50A typ.	0.85A typ.	1.50A typ.	1.50A typ.	2.50A typ.	< 1.80A	
	230V <sub>AC</sub>									< 0.90A	
Efficiency <sup>1)</sup> at 100% Load	115V <sub>AC</sub>	86.0% typ.	87.0% typ.	87.5% typ.	87.0% typ.	86.0% typ.	87.0% typ.	88.0% typ.	88.0% typ.	> 88.5%	
	230V <sub>AC</sub>		88.0% typ.		89.0% typ.	87.0% typ.		88.0% typ.	89.0% typ.	> 89.5%	
Max Inrush Current (Cold Start)	115V <sub>AC</sub>	30A typ.	30A typ.	30A typ.	30A typ.	30A typ.			< 50A		
	230V <sub>AC</sub>	60A typ.	60A typ.	60A typ.	60A typ.	60A typ.			< 100A		
Power Factor	115V <sub>AC</sub>	Conform to EN 61000-3-2				Conform to EN 61000-3-2				> 0.99	
	230V <sub>AC</sub>									> 0.93	
Leakage Current	240V <sub>AC</sub>	< 0.1mA				< 0.1mA				-	
	264V <sub>AC</sub>									< 0.25mA	
<b>Mechanical</b>											
Case Cover / Chassis	-										
Dimensions (L × W × H)	mm	76.2 × 50.8 × 22.9	101.6 × 50.8 × 30	127 × 76.2 × 31	101.6 × 50.8 × 31.8	76.2 × 50.8 × 22.9	101.6 × 50.8 × 30	127 × 76.2 × 31	101.6 × 50.8 × 31.8	127 × 76.2 × 36.5	
	inch	3.00 × 2.00 × 0.90	4.00 × 2.00 × 1.18	5.00 × 3.00 × 1.22	4.00 × 2.00 × 1.25	3.00 × 2.00 × 0.90	4.00 × 2.00 × 1.18	5.00 × 3.00 × 1.22	4.00 × 2.00 × 1.25	5.00 × 3.00 × 1.44	
Unit Weight	kg	0.08	0.13	0.21	0.15	0.08	0.13	0.21	0.15	0.37	
	lb	0.18	0.29	0.46	0.33	0.18	0.29	0.46	0.33	0.82	
Cooling System	Convection			Convection / Forced Air		Convection			Convection / Forced Air		
MTBF <sup>2)</sup>	> 700,000hrs				> 700,000hrs						
<b>Environment</b>											
Operating Temperature <sup>3)</sup>	-10°C to +70°C						-10°C to +70°C				
Storage Temperature	-40°C to +85°C						-40°C to +85°C				
Operating Humidity	10 to 95% RH (Non-Condensing)						10 to 95% RH (Non-Condensing)			5 to 95% RH (Non-Condensing)	
Operating Altitude	0 to 5,000m (0 to 16,400ft)						0 to 5,000m (0 to 16,400ft)				

### Dimensions Reference



#### Notes

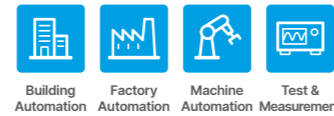
- 1) At 25°C ambient temperature.
- 2) MTBF as per Telcordia SR-332 (I/P: 115V<sub>AC</sub>, O/P: 100% load).
- 3) Refer power de-rating in the product datasheet.
- 4) All parameters are specified at 25°C ambient temperature unless otherwise indicated.

# PJ (5V, 12V)



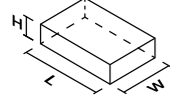
- High PF > 0.97 (for 50W and above)
- Low Inrush Current / Low Leakage Current
- Conforms to harmonic current IEC/EN 61000-3-2, Class A; Class A and Class D for 50W and above
- Conformal coating on PCBAs to protect against common dust and chemical pollutants
- Versatile configuration options: Open Frame, L Frame, Enclosed
- Remote ON/OFF option for selected models
- Long life capacitors

## Applications



Output	PJ-5V15W□□A	PJ-12V15W□□A	PJ-12V30W□□A	PJ-12V50W□□A	PJ-12V100W□□A	PJ-12V150W□□A	
Output Voltage	5V	12V	12V	12V	12V	12V	
Output Voltage Range	4.50-5.50V	10.8-13.2V	10.8-13.2V	10.8-13.2V	10.8-13.2V	10.8-13.2V	
Output Current	3.0A	1.3A	2.5A	4.3A	8.5A	12.5A	
Output Power	15W	15.6W	30W	51.6W	102W	150W	
PARD (20MHz)	< 120mVpp	< 150mVpp			< 150mVpp		
Hold-up Time	100V <sub>AC</sub>	20ms typ.			20ms typ.		
<b>Input</b>							
Phase Input	Single Phase			Single Phase			
Input Voltage Range	85-264V <sub>AC</sub>			85-264V <sub>AC</sub>			
Input Frequency	47-63Hz			47-63Hz			
Input Current	100V <sub>AC</sub>	0.35A typ.	0.35A typ.	0.65A typ.	1.30A typ.	1.90A typ.	
	200V <sub>AC</sub>	0.20A typ.	0.20A typ.	0.35A typ.	0.65A typ.	0.95A typ.	
Efficiency <sup>1)</sup> at 100% Load	100V <sub>AC</sub>	78.0% typ.	81.0% typ.	83.0% typ.	85.0% typ.	88.0% typ.	
	200V <sub>AC</sub>	79.5% typ.	82.5% typ.	85.0% typ.	87.5% typ.	91.0% typ.	
Max Inrush Current (Cold Start)	100V <sub>AC</sub>	15A typ.			15A typ.		
	200V <sub>AC</sub>	30A typ.			30A typ.		
Power Factor	100V <sub>AC</sub>	Conform to EN 61000-3-2			0.98 typ.	0.99 typ.	
	200V <sub>AC</sub>				0.97 typ.	0.97 typ.	
Leakage Current	100V <sub>AC</sub>	< 0.1mA			< 0.2mA		
	240V <sub>AC</sub>	< 0.2mA			< 0.4mA		
<b>Mechanical</b>							
Case Cover / Chassis	SGCC			SGCC			
Dimensions <sup>2)</sup> (L × W × H)	mm	87.5 × 50 × 22	87.5 × 50 × 22	105 × 50 × 25.6	132 × 50 × 26.6	155 × 62 × 33.5	160 × 75 × 37
	inch	3.44 × 1.97 × 0.87	3.44 × 1.97 × 0.87	4.13 × 1.97 × 1.01	5.20 × 1.97 × 1.05	6.10 × 2.44 × 1.32	6.30 × 2.95 × 1.46
Unit Weight <sup>2)</sup>	kg	0.06	0.06	0.11	0.16	0.26	0.30
	lb	0.13	0.13	0.24	0.35	0.57	0.66
Cooling System	Convection			Convection			
MTBF <sup>3)</sup>	> 200,000 hrs			> 200,000 hrs			
<b>Environment</b>							
Operating Temperature <sup>4)</sup>	-10°C to +70°C			-10°C to +70°C			
Storage Temperature	-25°C to +75°C			-25°C to +75°C			
Operating Humidity	5 to 95% RH (Non-Condensing)			5 to 95% RH (Non-Condensing)			
Operating Altitude	0 to 5,000m (0 to 16,400ft)			0 to 5,000m (0 to 16,400ft)			

### Dimensions Reference



#### Notes

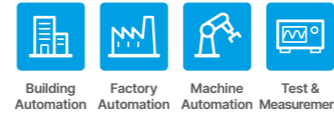
- 1) At 25°C ambient temperature.
- 2) Open Frame (without chassis and cover).
- 3) MTBF as per JEITA RCR-9102B.
- 4) Refer power de-rating in the product datasheet.
- 5) All parameters are specified at 25°C ambient temperature unless otherwise indicated.

# PJ (24 V, 48 V)



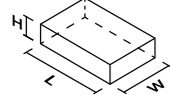
- High PF > 0.97 (for 50 W and above)
- Low Inrush Current / Low Leakage Current
- Conforms to harmonic current IEC/EN 61000-3-2, Class A; Class A and Class D for 50 W and above
- Conformal coating on PCBAs to protect against common dust and chemical pollutants
- Versatile configuration options: Open Frame, L Frame, Enclosed
- Remote ON/OFF option for selected models
- Long life capacitors

## Applications



Output	PJ-24V30W□□A	PJ-24V50W□□A	PJ-24V100W□□A	PJ-24V150W□□A	PJ-48V50W□□A	
Output Voltage	24 V	24 V	24 V	24 V	48 V	
Output Voltage Range	21.6-26.4 V	21.6-26.4 V	21.6-26.4 V	21.6-26.4 V	43.2-52.8 V	
Output Current	1.3 A	2.1 A	4.3 A	6.3 A	1.1 A	
Output Power	31.2 W	50.4 W	103.2 W	150 W	52.8 W	
PARD (20 MHz)		< 150 mVpp		< 150 mVpp	< 250 mVpp	
Hold-up Time	100 V <sub>AC</sub>	20 ms typ.		20 ms typ.		
<b>Input</b>						
Phase Input		Single Phase		Single Phase		
Input Voltage Range		85-264 V <sub>AC</sub>		85-264 V <sub>AC</sub>		
Input Frequency		47-63 Hz		47-63 Hz		
Input Current	100 V <sub>AC</sub>	0.65 A typ.		1.30 A typ.	0.65 A typ.	
	200 V <sub>AC</sub>	0.35 A typ.		0.65 A typ.	0.35 A typ.	
Efficiency <sup>1)</sup> at 100% Load	100 V <sub>AC</sub>	85.0% typ.		86.0% typ.	83.0% typ.	
	200 V <sub>AC</sub>	86.0% typ.		89.0% typ.	85.0% typ.	
Max Inrush Current (Cold Start)	100 V <sub>AC</sub>	15 A typ.		15 A typ.		
	200 V <sub>AC</sub>	30 A typ.		30 A typ.		
Power Factor	100 V <sub>AC</sub>	0.98 typ.		0.99 typ.	0.98 typ.	
	200 V <sub>AC</sub>	0.97 typ.	0.98 typ.		0.97 typ.	
Leakage Current	100 V <sub>AC</sub>	< 0.1 mA		< 0.2 mA	< 0.1 mA	
	240 V <sub>AC</sub>	< 0.2 mA		< 0.4 mA	< 0.2 mA	
<b>Mechanical</b>						
Case Cover / Chassis		SGCC		SGCC		
Dimensions <sup>2)</sup> (L × W × H)	mm	105 × 50 × 25.6	132 × 50 × 26.6	155 × 62 × 33.5	160 × 75 × 37	132 × 50 × 26.6
	inch	4.13 × 1.97 × 1.01	5.20 × 1.97 × 1.05	6.10 × 2.44 × 1.32	6.30 × 2.95 × 1.46	5.20 × 1.97 × 1.05
Unit Weight <sup>2)</sup>	kg	0.11	0.16	0.26	0.29	0.16
	lb	0.24	0.35	0.57	0.64	0.35
Cooling System		Convection		Convection		
MTBF <sup>3)</sup>		> 200,000 hrs		> 200,000 hrs		
<b>Environment</b>						
Operating Temperature <sup>4)</sup>		-10°C to +70°C		-10°C to +70°C		
Storage Temperature		-25°C to +75°C		-25°C to +75°C		
Operating Humidity		5 to 95% RH (Non-Condensing)		5 to 95% RH (Non-Condensing)		
Operating Altitude		0 to 5,000 m (0 to 16,400 ft)		0 to 5,000 m (0 to 16,400 ft)		

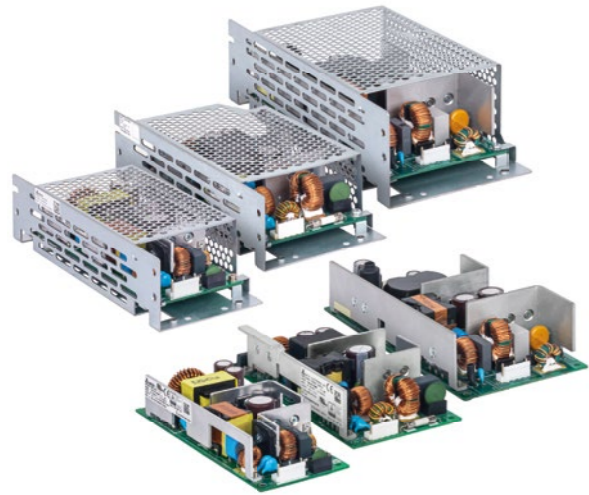
### Dimensions Reference



#### Notes

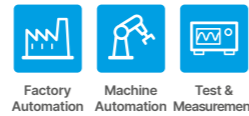
- 1) At 25°C ambient temperature.
- 2) Open Frame (without chassis and cover).
- 3) MTBF as per JEITA RCR-9102B.
- 4) Refer power de-rating in the product datasheet.
- 5) All parameters are specified at 25°C ambient temperature unless otherwise indicated.

# PJB (24 V)



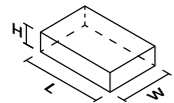
- Power Boost of 200% for 10 seconds
- High PF > 0.97
- Low Inrush Current / Low Leakage Current
- Conformal coating on PCBAs to protect against common dust and chemical pollutants
- Versatile configuration options: Open Frame, L Frame, Enclosed
- Remote ON/OFF option for selected models
- Design compliant with Japan PSE (DENAN) for 150 W - 300 W

## Applications



Output	PJB-24V100W□□□□	PJB-24V150W□□□□	PJB-24V240W□□□□	PJB-24V300W□□□□
Output Voltage	24 V	24 V	24 V	24 V
Output Voltage Range	21.6-26.4 V	21.6-26.4 V	21.6-26.4 V	21.6-26.4 V
Output Current	4.3 A (8.6 A for 10 s)	6.3 A (12.6 A for 10 s)	10.0 A (20.0 A for 10 s)	12.5 A (22.5 A for 10 s)
Output Power	103.2 W (206.4 W for 10 s)	151.2 W (302.4 W for 10 s)	240 W (480 W for 10 s)	300 W (600 W for 10 s)
PARD (20 MHz)	< 150 mVpp			
Hold-up Time	100 V <sub>AC</sub>	20 ms typ.		
<b>Input</b>				
Phase Input	Single Phase			
Input Voltage Range	85-264 V <sub>AC</sub>			
Input Frequency	47-63 Hz			
Input Current	100 V <sub>AC</sub>	1.30 A typ.	1.90 A typ.	2.80 A typ.
	200 V <sub>AC</sub>	0.65 A typ.	0.95 A typ.	1.50 A typ.
Efficiency <sup>1)</sup> at 100% Load	100 V <sub>AC</sub>	86.5% typ.		91.0% typ.
	200 V <sub>AC</sub>	89.0% typ.	90.5% typ.	92.5% typ.
Max Inrush Current (Cold Start)	100 V <sub>AC</sub>	15 A typ.		
	200 V <sub>AC</sub>	30 A typ.		
Power Factor	100 V <sub>AC</sub>	0.98 typ.		0.99 typ.
	200 V <sub>AC</sub>	0.97 typ.	0.95 typ.	0.97 typ.
Leakage Current	100 V <sub>AC</sub>	< 0.2 mA		
	240 V <sub>AC</sub>	< 0.4 mA		
<b>Mechanical</b>				
Case Cover / Chassis	SGCC			
Dimensions <sup>2)</sup> (L × W × H)	mm	155 × 62 × 33.5	160 × 75 × 37	180 × 84 × 42
	inch	6.10 × 2.44 × 1.32	6.30 × 2.95 × 1.46	7.09 × 3.31 × 1.65
Unit Weight <sup>2)</sup>	kg	0.26	0.31	0.44
	lb	0.57	0.68	0.97
Cooling System	Convection			
MTBF <sup>3)</sup>	> 200,000 hrs			
<b>Environment</b>				
Operating Temperature <sup>4)</sup>	-10°C to +70°C			
Storage Temperature	-25°C to +75°C		-25°C to +80°C	
Operating Humidity	5 to 90% RH (Non-Condensing)			
Operating Altitude	0 to 5,000 m (0 to 16,400 ft)		ITE Application: 0 to 5,000 m (0 to 16,400 ft)	0 to 5,000 m (0 to 16,400 ft)

### Dimensions Reference



#### Notes

- 1) At 25°C ambient temperature.
- 2) Open Frame (without chassis and cover).
- 3) MTBF as per JEITA RCR-9102B.
- 4) Refer power de-rating in the product datasheet.
- 5) All parameters are specified at 25°C ambient temperature unless otherwise indicated.

# PJH (24 V, 36 V)



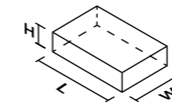
- Household approval to IEC/EN 60335-1
- Available for Class I or Class II (double isolation) configuration
- 300 W with fan cooled and up to 240 W convection cooled
- Standard industrial footprint of 3" × 5"
- Built-in active PFC, remote ON/OFF, remote sense, power good signal
- No load input power consumption < 0.5 W and low earth leakage current < 0.75 mA

## Applications



Output	PJH-24V300WBBA	PJH-24V300WBCA	PJH-36V300WBBA	PJH-36V300WBCA
Output Voltage	V1: 24 V, V <sub>SB</sub> : 5 V	V1: 24 V, V <sub>SB</sub> : 12 V	V1: 36 V, V <sub>SB</sub> : 5 V	V1: 36 V, V <sub>SB</sub> : 12 V
Output Voltage Range	V1: 22.8-25.2 V, V <sub>SB</sub> : Fixed	V1: 22.8-25.2 V, V <sub>SB</sub> : Fixed	V1: 34.2-37.8 V, V <sub>SB</sub> : Fixed	V1: 34.2-37.8 V, V <sub>SB</sub> : Fixed
Output Current	V1: 0-12.5 A V <sub>SB</sub> : 0-1.2 A	V1: 0-12.5 A V <sub>SB</sub> : 0-0.5 A	V1: 0-8.3 A V <sub>SB</sub> : 0-1.2 A	V1: 0-8.3 A V <sub>SB</sub> : 0-0.5 A
Output Power	240 W (Convection) 300 W (with 10 CFM Forced Air)	240 W (Convection) 300 W (with 10 CFM Forced Air)	240 W (Convection) 300 W (with 10 CFM Forced Air)	240 W (Convection) 300 W (with 10 CFM Forced Air)
PARD (20 MHz)	V1: < 240 mVpp, V <sub>SB</sub> : < 120 mVpp		V1: < 360 mVpp, V <sub>SB</sub> : < 120 mVpp	
Hold-up Time	115 V <sub>AC</sub>	> 12 ms (240 W)		
	230 V <sub>AC</sub>	> 10 ms (300 W)		
<b>Input</b>				
Phase Input	Single Phase			
Input Voltage Range	90-264 V <sub>AC</sub>			
Input Frequency	47-63 Hz			
Input Current	115 V <sub>AC</sub>	< 4.0 A	< 4.0 A	< 4.0 A
	230 V <sub>AC</sub>	< 2.0 A	< 2.0 A	< 2.0 A
Efficiency <sup>1)</sup> at 100% Load	115 V <sub>AC</sub>	> 93.0%		
	230 V <sub>AC</sub>	> 94.0%		
Max Inrush Current (Cold Start)	115 V <sub>AC</sub>	< 20 A		
	230 V <sub>AC</sub>	< 40 A		
Power Factor	115 V <sub>AC</sub>	> 0.95		
	230 V <sub>AC</sub>	> 0.95		
Leakage Current	240 V <sub>AC</sub>	< 0.75 mA		
<b>Mechanical</b>				
Case Cover / Chassis	-			
Dimensions (L × W × H)	mm	127 × 76.2 × 35.8	127 × 76.2 × 35.8	127 × 76.2 × 35.8
	inch	5.00 × 3.00 × 1.41	5.00 × 3.00 × 1.41	5.00 × 3.00 × 1.41
Unit Weight	kg	0.45	0.45	0.45
	lb	0.99	0.99	0.99
Cooling System	Convection / Forced Air			
MTBF <sup>2)</sup>	> 700,000 hrs			
<b>Environment</b>				
Operating Temperature <sup>3)</sup>	-25°C to +70°C			
Storage Temperature	-40°C to +85°C			
Operating Humidity	5 to 95% RH (Non-Condensing)			
Operating Altitude	PD3: 0 to 5,000 m (0 to 16,400 ft) PD2: 0 to 3,000 m (0 to 9,840 ft)			

### Dimensions Reference



#### Notes

- 1) At 25°C ambient temperature.
- 2) MTBF as per Telcordia SR-332 (I/P: 115 Vac, O/P: 100% load).
- 3) Refer power de-rating in the product datasheet.
- 4) All parameters are specified at 25°C ambient temperature unless otherwise indicated.

# PJU (13.8V, 27.6V)

- Zero switch over time from loss of AC to battery operation
- Protection against reverse polarity battery connection
- Built-in diagnostic monitoring for AC OK and Battery Low status
- Overvoltage / Overcurrent / Over Temperature / Short Circuit Protections
- Built-in over current and short circuit protection in Buffering (battery discharging) mode operation



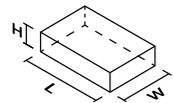
## Applications



Building Automation

Output	PJU-13V60W□A□	PJU-13V60W□B□	PJU-27V60W□A□	PJU-27V60W□B□
Output Voltage	V1: 13.8V, B+: 13.6V	V1: 13.8V, B+: 13.6V	V1: 27.6V, B+: 27.4V	V1: 27.6V, B+: 27.4V
Output Voltage Range	V1: 13.52-14.00V	V1: 13.52-14.00V	V1: 27.04-28.00V	V1: 27.04-28.00V
Output Current	V1: 3.9A, B+: 0.4A	V1: 3.9A, B+: 0.4A	V1: 1.75A, B+: 0.4A	V1: 1.75A, B+: 0.4A
Output Power	60W	60W	60W	60W
PARD (20MHz)	< 100mVpp			
Hold-up Time (100% Load)	115V <sub>AC</sub> > 10ms	> 10ms	> 10ms	> 10ms
<b>Input</b>				
Phase Input	Single Phase			
Input Voltage Range	90-264V <sub>AC</sub>			
Input Frequency	47-63Hz			
Input Current	115V <sub>AC</sub> < 1.2A	< 1.2A	< 1.2A	< 1.2A
	230V <sub>AC</sub> < 0.8A	< 0.8A	< 0.8A	< 0.8A
Efficiency <sup>1)</sup> at 100% Load	115V <sub>AC</sub> > 85.0%	> 85.0%	> 88.0%	> 88.0%
	230V <sub>AC</sub> > 86.0%	> 86.0%	> 89.0%	> 89.0%
Max Inrush Current (Cold Start)	115V <sub>AC</sub> < 60A	< 60A	< 60A	< 60A
	230V <sub>AC</sub> < 60A	< 60A	< 60A	< 60A
Power Factor	Conform to EN 61000-3-2			
Leakage Current (264V <sub>AC</sub> )	TT/TN < 0.5mA	< 0.5mA	< 0.5mA	< 0.5mA
	IT < 1.0mA	< 1.0mA	< 1.0mA	< 1.0mA
<b>Mechanical</b>				
Case Cover / Chassis	SECC Steel			
Dimensions <sup>2)</sup> (L x W x H)	mm 101.6 x 50.8 x 30.6	101.6 x 50.8 x 30.6	101.6 x 50.8 x 30.6	101.6 x 50.8 x 30.6
	inch 4.00 x 2.00 x 1.20	4.00 x 2.00 x 1.20	4.00 x 2.00 x 1.20	4.00 x 2.00 x 1.20
Unit Weight <sup>2)</sup>	kg 0.12	0.12	0.12	0.12
	lb 0.26	0.26	0.26	0.26
Cooling System	Convection			
MTBF <sup>3)</sup>	> 350,000hrs			
<b>Environment</b>				
Operating Temperature <sup>4)</sup>	-20°C to +70°C			
Storage Temperature	-40°C to +85°C			
Operating Humidity	5 to 95% RH (Non-Condensing)			
Operating Altitude	0 to 5,000m (0 to 16,400ft)			

### Dimensions Reference



#### Notes

- 1) At 25°C ambient temperature.
- 2) Open frame (without chassis and cover).
- 3) MTBF as per Telcordia SR-332 (I/P: 115V<sub>AC</sub> & 230V<sub>AC</sub>, O/P: 100% load).
- 4) Refer power de-rating in the product datasheet.
- 5) All parameters are specified at 25°C ambient temperature unless otherwise indicated.

# PJL (48V)

- Lighting approvals to UL 8750, IEC 61347-2-13
- Low inrush current < 20A
- Up to 90.0% efficiency
- Low earth leakage current < 500µA
- Extreme low temperature operation at -40°C



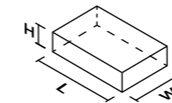
## Applications



LED Lighting

Output	PJL-48V200WBAA	PJL-48V400WBAA	PJL-48V600WLAA
Output Voltage	48V	48V	48V
Output Voltage Range	48-50Vdc	48-50Vdc	48-50Vdc
Output Current	0-4.17A	0-8.33A	0-12.5A
Output Power	150W (Convection) 200W (with 400 LFM Forced Air)	200W (Convection) 400W (with 400 LFM Forced Air)	300W (Convection) 600W (with 600 LFM Forced Air)
PARD (20MHz) <sup>1)</sup>	< 480mVpp		< 680mVpp
Hold-up Time (100% Load)	115V <sub>AC</sub> > 5ms	> 5ms	> 16ms
	230V <sub>AC</sub> > 5ms	> 5ms	> 16ms
<b>Input</b>			
Phase Input	Single Phase		
Input Voltage Range	85-305V <sub>AC</sub>		
Input Frequency	47-63Hz		
Input Current	115V <sub>AC</sub> < 2.20A	< 4.74A	< 6.5A
Efficiency at 100% Load <sup>2)</sup>	230V <sub>AC</sub> > 85.0%	> 85.0%	> 87.5%
	230V <sub>AC</sub> > 90.0%	> 90.0%	> 90.0%
Max Inrush Current (Cold Start)	115V <sub>AC</sub> < 20A	< 20A	< 12A
	230V <sub>AC</sub> < 20A	< 20A	< 12A
Power Factor	115V <sub>AC</sub> > 0.95	> 0.95	> 0.95
	230V <sub>AC</sub> > 0.95	> 0.95	> 0.95
Leakage Current	< 500µA		
<b>Mechanical</b>			
Case Cover / Chassis	-		
Dimensions (L x W x H)	mm 127.6 x 76.2 x 34.8	127 x 76.6 x 40.8	177.8 x 101.6 x 41.0
	inch 5.02 x 3.00 x 1.38	5.00 x 3.02 x 1.61	7.00 x 4.00 x 1.61
Unit Weight	kg 0.42	0.44	0.82
	lb 0.93	0.97	1.80
Cooling System	Convection / Forced Air		
MTBF <sup>3)</sup>	> 500,000hrs		
<b>Environment</b>			
Operating Temperature <sup>4)</sup>	-40°C to +70°C	> 70°C	-40°C to +80°C
Storage Temperature	-40°C to +85°C		
Operating Humidity	5 to 95% RH (Non-Condensing)		
Operating Altitude	0 to 5,000m (0 to 16,400ft)		

### Dimensions Reference



#### Notes

- 1) PARD is measured with an AC coupling mode, 5cm wires, and in parallel with 0.1µF ceramic capacitor & 47µF electrolytic capacitor.
- 2) At 25°C ambient temperature by vertical mounting orientation.
- 3) MTBF as per Telcordia SR-332 (Confidence level: 90%, I/P: 115V<sub>AC</sub>, O/P: 100% load).
- 4) Refer power de-rating in the product datasheet.
- 5) All parameters are specified at 25°C ambient temperature unless otherwise indicated.



# DIN Rail Modules



## Redundancy Module

N+1 redundancy allows a system to continue operating when one power supply unit fails unexpectedly

Current Range: 20-40 A



## Buffer Module

Allows a system to continue operating during power disruptions lasting from milliseconds to seconds

Current Range: 20-40 A



## DC-UPS Module

Allows a system to continue operating during power failures lasting from minutes to hours

Current Range: 10-40 A



## Battery Module

Designed to support 2 x 12 V 7.2 AH lead-acid battery in series for 24 V system

## Applications



Building  
Automation



Process  
Automation



Factory  
Automation



Machine  
Automation



Renewable  
Energy

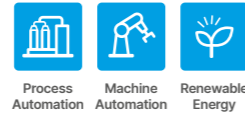


# cliQ<sup>II</sup> Redundancy Module



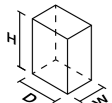
- Wide input and output range of 22-60 V<sub>DC</sub>
- Very wide operating temperature from -40°C to +80°C
- Built-in 2 channel DC OK signal and alarm relay contact
- Support N+1 Redundancy connection
- Conformal coating on PCBAs to protect against common dust and chemical pollutants
- Hazardous Locations approval to ATEX and Class I, Div 2
- IP20 Certified

## Applications



Output	DRR-20□	DRR-40□
Output Current	Normal mode = 0-20 Amps; Short Circuit or Overload = 25Amps max	Normal mode = 0-40 Amps; Short Circuit or Overload = 50Amps max
Voltage Drop (V <sub>in</sub> - V <sub>out</sub> )	Typical 0.65V	
Input		
Input Voltage Range	22-60 V <sub>DC</sub>	
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
Mechanical		
Case Cover / Chassis	Aluminium	
Dimensions (H x W x D)	mm	121 x 50 x 122.1
	inch	4.76 x 1.97 x 4.81
Unit Weight	kg	0.38
	lb	0.84
Cooling System	Convection	
LED Indicators	Green LED DC OK: V <sub>in1</sub> and V <sub>in2</sub>	
MTBF <sup>1)</sup>	> 800,000 hrs	
Environment		
Operating Temperature <sup>2)</sup>	-40°C to +80°C	
Storage Temperature	-40°C to +85°C	
Operating Humidity	5 to 95% RH (Non-Condensing)	
Operating Altitude	0 to 2,500m (0 to 8,200ft)	

### Dimensions Reference



#### Notes

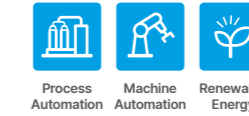
- 1) MTBF as per Telcordia SR-332 (Confidence level: 90%, I/P: 24 V<sub>DC</sub>, O/P: 100% load) for vertical mounting orientation.
- 2) Refer power de-rating in the product datasheet.
- 3) All parameters are specified at 25°C ambient temperature unless otherwise indicated.

# cliQ<sup>II</sup> Buffer Module



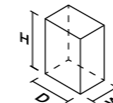
- Minimum buffering time of:
  - 250 ms @ 24 V / 20 A for DRB-24V020AB□
  - 200 ms @ 24 V / 40 A for DRB-24V040ABN
- Flexible operating buffering voltage modes: Fixed mode at 22 V<sub>DC</sub>; Dynamic mode for Vin-1V
- Support parallel connection to extend buffering time
- Conformal coating on PCBAs to protect against common dust and chemical pollutants
- Hazardous Locations approval to ATEX and Class I, Div 2 (DRB-24V020ABA)

## Applications



Output	DRB-24V020AB□	DRB-24V040ABN
Output Voltage	24 V <sub>DC</sub> typ. (Depends on V <sub>in</sub> )	24 V <sub>DC</sub> typ. (Depends on V <sub>in</sub> )
Output Voltage Range	22-28V (Switch = "Fix 22V" buffering starts if terminal voltage falls below 22V) (Switch = "V <sub>in</sub> - 1V" buffering starts if terminal voltage is decreased by more than 1V)	
Output Current	20.0A Max	40.0A Max
PARD (20MHz)	< 200mVpp, Buffering Mode	< 350mVpp, Buffering Mode
Buffer Time	250ms Min @ 24V/20A load, 5s Min @ 24V/1A load	200ms Min @ 24V/40A load, 8s Min @ 24V/1A load
Input		
Input Voltage Range	22.8-28.8V <sub>DC</sub>	
Input Current	Charging Mode: < 0.6A	Charging Mode: < 0.6A
Input Power	2.5W average (Standby Mode)	
Charging Time	< 30s	< 40s
Polarity Protection	Yes	Yes
Mechanical		
Case Cover / Chassis	Aluminium	
Dimensions (H x W x D)	mm	121 x 70 x 120.1
	inch	4.76 x 2.76 x 4.73
Unit Weight	kg	0.76
	lb	1.68
Cooling System	Convection	
LED Indicators	Green LED	
MTBF <sup>1)</sup>	> 800,000 hrs	
Environment		
Operating Temperature <sup>2)</sup>	-25°C to +75°C	
Storage Temperature	-25°C to +85°C	
Operating Humidity	5 to 95% RH (Non-Condensing)	
Operating Altitude	0 to 2,500m (0 to 8,200ft)	

### Dimensions Reference



#### Notes

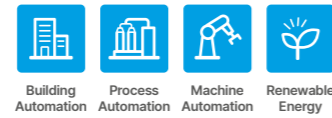
- 1) MTBF as per Telcordia SR-332 (Confidence level: 90%, I/P: 24 V<sub>DC</sub>, O/P: 100% load) for vertical mounting orientation.
- 2) Refer power de-rating in the product datasheet.
- 3) All parameters are specified at 25°C ambient temperature unless otherwise indicated.

# cliX<sup>II</sup> DC-UPS Module

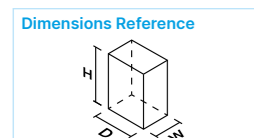


- Full corrosion resistant aluminium casing
- Suitable for 24 V system up to 40 A
- Built-in diagnostic monitoring for DC OK, Discharge and Battery Fail by relay contacts
- LED indicator for DC OK, Battery Charging, Battery Discharging, Battery Fail and Battery Reverse Polarity
- High MTBF > 500,000 hrs per Telcordia SR-332
- Conformal coating option on PCBAs to protect against common dust and chemical pollutants

## Applications



<b>Output</b>	<b>DRU-24V40ABN</b>	
Output Voltage Range	23-28 V <sub>DC</sub>	
Output Current	40.0 A Max	
Output Power	960 W Max	
<b>Input</b>		
Input Voltage Range	24-28 V <sub>DC</sub>	
Input Current	Charging Mode: 2.0 A ± 1.0 A	
Charging Time	< 3 hr ± 1 hr (for battery 24 V/15 AH)	
Efficiency	Charging Mode: > 70.0% Buffering Mode: > 99.0%	
<b>Mechanical</b>		
Case Cover / Chassis	Aluminium	
Dimensions (H × W × D)	mm	121 × 50 × 117.3
	inch	4.76 × 1.97 × 4.62
Unit Weight	kg	0.60
	lb	1.32
Cooling System	Convection	
LED Indicators	Green LED Orange LED Red LED	
MTBF <sup>1)</sup>	> 500,000 hrs	
<b>Environment</b>		
Operating Temperature <sup>2)</sup>	-20°C to +60°C	
Storage Temperature	-40°C to +85°C	
Operating Humidity	5 to 95% RH (Non-Condensing)	
Operating Altitude	0 to 3,000 m (0 to 9,840 ft)	



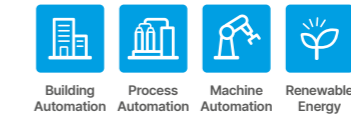
- Notes**
- 1) MTBF as per Telcordia SR-332 (Confidence level: 90%, I/P: 24 V<sub>DC</sub>, O/P: 100% load) for vertical mounting orientation.
  - 2) Refer power de-rating in the product datasheet.
  - 3) All parameters are specified at 25°C ambient temperature unless otherwise indicated.

# CHROME DC-UPS Module

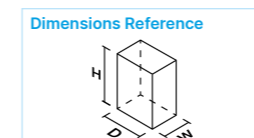


- Suitable for 24 V system up to 10 A
- Zero switch over time from loss of DC input to battery operation
- Built-in diagnostic monitoring for DC OK, Discharge and Battery Fail by relay contacts
- Full power for the entire temperature range from -20°C to +60°C
- LED indicator for DC OK, Battery Charging, Battery Discharging, Battery Fail and Battery Reverse Polarity
- High MTBF > 500,000 hrs as per Telcordia SR-332

## Applications



<b>Output</b>	<b>DRU-24V10ACZ</b>	
Output Voltage Range	23-28 V <sub>DC</sub>	
Output Current	10.0 A Max	
Output Power	240 W Max	
<b>Input</b>		
Input Voltage Range	24-28 V <sub>DC</sub>	
Input Current	Charging Mode: 0.5 A ± 0.1 A	
Charging Time	< 30 hr ± 5 hr (for battery 24 V/12 AH)	
Efficiency	Charging Mode: > 80.0% Buffering Mode: > 99.0%	
<b>Mechanical</b>		
Case Cover / Chassis	Plastic	
Dimensions (H × W × D)	mm	91 × 71 × 55.6
	inch	3.58 × 2.80 × 2.19
Unit Weight	kg	0.14
	lb	0.31
Cooling System	Convection	
LED Indicators	Green LED Orange LED Red LED	
MTBF <sup>1)</sup>	> 500,000 hrs	
<b>Environment</b>		
Operating Temperature <sup>2)</sup>	-20°C to +60°C	
Storage Temperature	-40°C to +85°C	
Operating Humidity	5 to 95% RH (Non-Condensing)	
Operating Altitude	0 to 3,000 m (0 to 9,840 ft)	



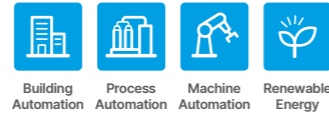
- Notes**
- 1) MTBF as per Telcordia SR-332 (Confidence level: 90%, I/P: 24 V<sub>DC</sub>, O/P: 100% load) for vertical mounting orientation.
  - 2) Refer power de-rating in the product datasheet.
  - 3) All parameters are specified at 25°C ambient temperature unless otherwise indicated.

# CliQ<sup>M</sup> DC-UPS Module



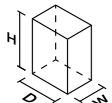
- Full corrosion resistant aluminium casing
- Selectable Charging Current
- Selectable Buffering Time to prevent battery over discharge
- Battery temperature protection to extend battery life
- Conformal coating on PCBAs to protect against common dust and chemical pollutants

## Applications



	NEW		NEW
Output	DRU-24V10AMN		DRU-24V20AMN
Output Voltage Range	17.5-29.5 V <sub>DC</sub>		17.5-29.5 V <sub>DC</sub>
Output Current	10.0 A Max		20.0 A Max
Output Power	240 W Max		480 W Max
<b>Input</b>			
Input Voltage Range	18-30 V <sub>DC</sub>		
Input Current	0.5 A, 1 A, 1.5 A, 2 A (typ.) (constant current)	0.75 A, 1.5 A, 2.25 A, 3 A (typ.) (constant current)	1 A, 2 A, 3 A, 4 A (typ.) (constant current)
Charging Time	< 9 hr ± 1 hr (2 A charging current for 24 V/12 AH battery)	< 6 hr ± 1 hr (3 A charging current for 24 V/12 AH battery)	< 4.5 hr ± 1 hr (4 A charging current for 24 V/12 AH battery)
Efficiency	Normal Operation: 98% typ.		
<b>Mechanical</b>			
Case Cover / Chassis	Aluminium		
Dimensions (H × W × D)	mm	124 × 38 × 117	124 × 38 × 117
	inch	4.88 × 1.50 × 4.61	4.88 × 1.50 × 4.61
Unit Weight	kg	0.52	0.66
	lb	1.15	1.46
Cooling System	Convection		
LED Indicators <sup>1)</sup>	Green LED Red LED Orange LED		
MTBF <sup>2)</sup>	> 500,000 hrs		
<b>Environment</b>			
Operating Temperature <sup>1)</sup>	-30°C to +70°C		
Storage Temperature	-40°C to +85°C		
Operating Humidity	5 to 95% RH (Non-Condensing)		
Operating Altitude <sup>3)</sup>	0 to 6,000 m (0 to 19,680 ft)		

### Dimensions Reference



#### Notes

- 1) Refer LED indicator status and power de-rating in the product datasheet.
- 2) MTBF as per Telcordia SR-332.
- 3) Approvals apply only up to 5,000 m (16,400 ft).
- 4) All parameters are specified at 25°C ambient temperature unless otherwise indicated.

# CliQ<sup>M</sup> Battery Module



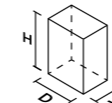
- Anti-corrosion powder coated chassis
- Suitable for 7.2 AH Lead-Acid battery
- Built-in battery voltage LED indicator
- Built-in battery over temperature protection (need to be used with the CliQ M DC-UPS modules)

## Applications



	NEW	
Battery	DRN-24V7AAEN	
Nominal Battery Voltage	24 V <sub>DC</sub> , SLA Sealed lead acid battery 2 x 12 V <sub>DC</sub> , SLA Sealed lead acid battery	
Battery Capability	7.2 AH lead-acid battery	
Recommended Charging Voltage	27.6 V <sub>DC</sub>	
<b>Battery Current</b>		
Charging Current <sup>1)</sup>	2.1 A Max	
Discharging Current	40 A Max	
Battery Fuse	2 pcs in parallel	
<b>Mechanical</b>		
Case Chassis	Metal	
Dimensions (H × W × D)	mm	211.5 × 148 × 109.2
	inch	8.33 × 5.83 × 4.30
Unit Weight	kg	1.40
	lb	3.09
Cooling System	Convection	
LED Indicators	Green LED	
<b>Environment</b>		
Operating Temperature	Charging	0°C to +40°C
	Discharging	-10°C to +50°C
Storage Temperature	-15°C to +40°C	
Operating Humidity	5 to 95% RH (Non-Condensing)	
Operating Altitude	0 to 6,000 m (0 to 19,680 ft)	

### Dimensions Reference



#### Notes

- 1) Cannot exceed max charging current limitation of battery specification.
- 2) All parameters are specified at 25°C ambient temperature unless otherwise indicated.

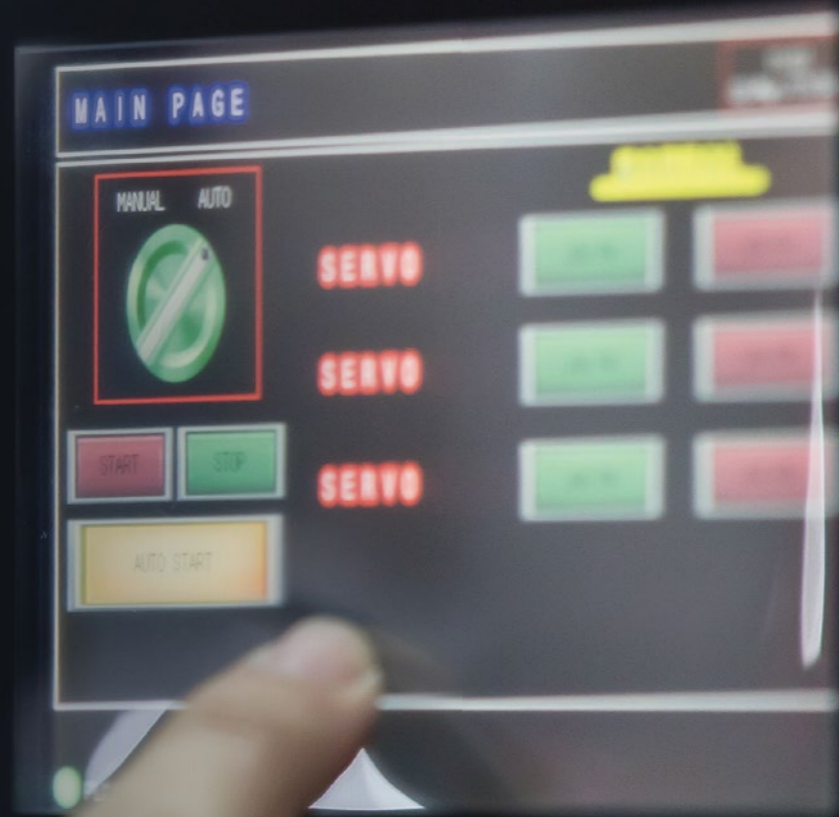
# Adapter



## ADT

Meet efficiency DoE Level VI & CoC Tier 2

Power Range: 60-150W



## ADT (12V, 15V)

- Meet efficiency DoE Level VI
- Meet CoC Tier 2 (150W model)
- No load power consumption < 0.15W
- Fully enclosed plastic case
- Protection: short circuit / over voltage / overload / over temperature



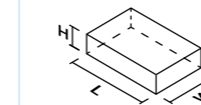
### Applications



Test & Measurement

Output	ADT-060A12A□	ADT-150B12AA	ADT-060A15A□
Output Voltage	12V	12V	15V
Output Current (Max)	5.0A	12.5A	4.0A
Output Power	60W	150W	60W
PARD (20MHz)	< 240mVpp @ 0°C to +40°C, < 480mVpp @ -10°C to 0°C		
Hold-up Time	115V <sub>AC</sub>	12ms typ.	40ms typ.
	230V <sub>AC</sub>	60ms typ.	60ms typ.
<b>Input</b>			
Input Voltage Range	85-264V <sub>AC</sub>	90-264V <sub>AC</sub>	85-264V <sub>AC</sub>
Input Frequency	47-63Hz		
Input Current	115V <sub>AC</sub>	< 1.4A	< 2.0A
	230V <sub>AC</sub>	< 1.0A	< 1.0A
Efficiency at 100% Load	115V <sub>AC</sub>	87.6% typ.	89.0% typ.
	230V <sub>AC</sub>	90.2% typ.	90.0% typ.
Max Inrush Current (Cold Start)	No damage		
Power Factor	230V <sub>AC</sub>	-	> 0.90
Leakage Current	240V <sub>AC</sub>	< 0.1mA	
<b>Mechanical</b>			
Dimensions (L × W × H)	mm	108 × 46 × 29.5	155 × 76 × 30
	inch	4.25 × 1.81 × 1.16	6.10 × 3.00 × 1.20
Unit Weight	kg	0.18	0.54
	lb	0.40	1.19
Connector Type	ADT-060A□AA: Input: C6; Output: Tuning fork ADT-060A□AB: Input: C8; Output: Tuning fork ADT-150B12AA: Input: C6; Output: Barrel type		
Cooling System	Convection		
MTBF <sup>1)</sup>	> 700,000 hrs	> 300,000 hrs	> 700,000 hrs
<b>Environment</b>			
Operating Temperature <sup>2)</sup>	-10°C to +60°C		
Storage Temperature	-40°C to +85°C		
Operating Humidity	5 to 95% RH (Non-Condensing)		
Operating Altitude	0 to 5,000 m (0 to 16,400 ft)		
Protection Against Shock	Class II	Class I	Class II

### Dimensions Reference



### Notes

- 1) ADT-060A12A and ADT-060A15A, MTBF as per Telcordia SR-332 (I/P: 115V<sub>AC</sub>, O/P: 100% load). ADT-150B12AA, MTBF as per Telcordia SR-332 (I/P: 100V<sub>AC</sub>, O/P: 100% load).
- 2) Refer power de-rating in the product datasheet.
- 3) All parameters are specified at 25°C ambient temperature unless otherwise indicated.

## Applications



Test & Measurement

# ADT (19V, 24V)

- Meet efficiency DoE Level VI
- Meet CoC Tier 2 (150W models)
- No load power consumption < 0.15W
- Fully enclosed plastic case
- Protection: short circuit / over voltage / overload / over temperature



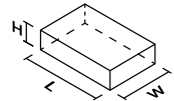
## Applications



Test & Measurement

Output	ADT-060A19A□	ADT-120A19AA	ADT-150A19AA	ADT-060A24A□	ADT-090A24AA	ADT-120A24AA	ADT-150A24AA	ADT-150C24AC	
Output Voltage	19V	19.5V	19.5V	24V	24V	24V	24V	24V	
Output Current (Max)	3.2A	6.15A	7.7A	2.5A	3.75A	5.0A	6.25A	6.25A	
Output Power	60.8W	120W	150W	60W	90W	120W	150W	150W	
PARD (20MHz)	< 380mVpp @ 0°C to +40°C, < 760mVpp @ -10°C to 0°C			< 480mVpp @ 0°C to +40°C, < 960mVpp @ -10°C to 0°C		< 240mVpp @ 0°C to +40°C, < 480mVpp @ -10°C to 0°C			
Hold-up Time	115V <sub>AC</sub>	12ms typ.	> 20ms	> 16ms	12ms typ.	40ms typ.	30ms typ.	16ms typ.	
	230V <sub>AC</sub>	60ms typ.			60ms typ.				
<b>Input</b>									
Input Voltage Range	85-264V <sub>AC</sub>		90-264V <sub>AC</sub>		85-264V <sub>AC</sub>		90-264V <sub>AC</sub>		
Input Frequency	47-63Hz				47-63Hz				
Input Current	115V <sub>AC</sub>	< 1.4A	< 1.4A	< 1.8A	< 1.4A	< 1.3A	< 1.85A	< 1.85A	
	230V <sub>AC</sub>	< 1.0A	< 0.7A	< 0.9A	< 1.0A	< 0.6A	< 1.0A	< 1.0A	
Efficiency at 100% Load	115V <sub>AC</sub>	88.1% typ.	90.0% typ.		88.8% typ.	90.0% typ.	91.0% typ.		
	230V <sub>AC</sub>	90.3% typ.	91.5% typ.		90.1% typ.	91.5% typ.	92.0% typ.		
Max Inrush Current (Cold Start)	No damage				No damage				
Power Factor	230V <sub>AC</sub>	-	> 0.9		-	> 0.9			
Leakage Current	240V <sub>AC</sub>	< 0.1mA		< 0.25mA	< 0.1mA		< 250µA		
<b>Mechanical</b>									
Dimensions (L × W × H)	mm	108 × 46 × 29.5	138 × 68.5 × 24.5	160 × 76.2 × 25.8	108 × 46 × 29.5	126 × 51 × 30	138 × 68.5 × 24.5	160 × 76.2 × 25.8	165.1 × 76.1 × 31.5
	inch	4.25 × 1.81 × 1.16	5.43 × 2.70 × 0.96	6.30 × 3.00 × 1.02	4.25 × 1.81 × 1.16	4.96 × 2.00 × 1.18	5.43 × 2.70 × 0.96	6.30 × 3.00 × 1.02	6.50 × 3.00 × 1.24
Unit Weight	kg	0.18	0.34	0.41	0.18	0.18	0.34	0.41	0.47
	lb	0.40	0.75	0.90	0.40	0.40	0.75	0.90	1.04
Connector Type	ADT-060A19AA, ADT-120A19AA: Input: C6; Output: Tuning fork ADT-060A19AB: Input: C8; Output: Tuning fork ADT-150A19AA: Input: C6; Output: Barrel type				ADT-060A24AA, ADT-120A24AA: Input: C6; Output: Tuning fork ADT-090A24AA: Input: C6; Output: Barrel type ADT-060A24AB: Input: C8; Output: Tuning fork ADT-150A24AA: Input: C6; Output: Tuning fork ADT-150C24AC: Input: C14, Output: 4-pin DIN				
Cooling System	Convection				Convection				
MTBF <sup>1)</sup>	> 700,000hrs	> 300,000hrs		> 700,000hrs	> 300,000hrs				
<b>Environment</b>									
Operating Temperature <sup>2)</sup>	-10°C to +60°C				-10°C to +60°C				
Storage Temperature	-40°C to +85°C				-40°C to +85°C				
Operating Humidity	5 to 95% RH (Non-Condensing)				5 to 95% RH (Non-Condensing)				
Operating Altitude	0 to 5,000m (0 to 16,400ft)				0 to 5,000m (0 to 16,400ft)				
Protection Against Shock	Class II		Class I		Class II		Class I		

### Dimensions Reference



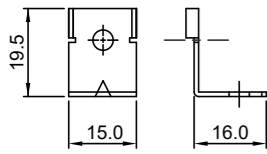
#### Notes

- 1) MTBF as per Telcordia SR-332 (I/P: 115Vac, O/P: 100% load).
- 2) Refer power de-rating in the product datasheet.
- 3) All parameters are specified at 25°C ambient temperature unless otherwise indicated.

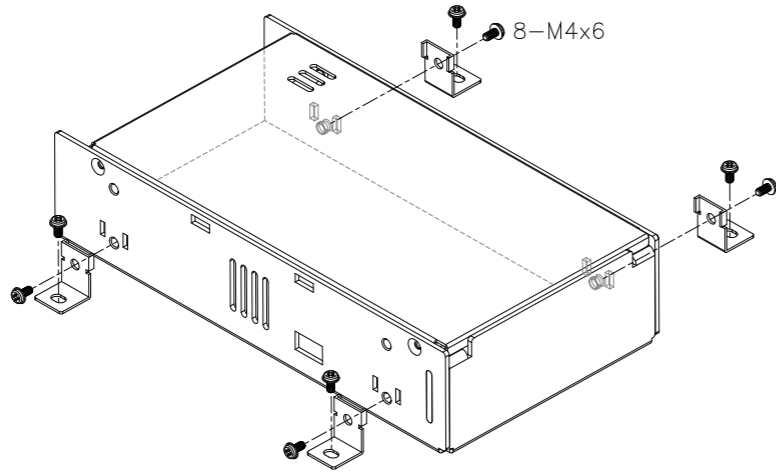
# Accessories

## Panel Mount Accessories


• LM-01



### Accessories Assembly



### Model Information


Item	Model Number	Compatible Models
	LM-01	PMT-12V350W2B□□ PMT-24V350W2B□□ PMT-36V350W2B□□ PMT-48V350W2B□□ PMF-4V320WC□□ PMF-5V320WC□□ PMF-24V240WC□□, PMF-24V320WC□□ PMR-4V320WC□A, PMR-4V320WD□A PMR-5V320WC□A, PMR-5V320WD□A

# Contact Us

For more information, find us at:

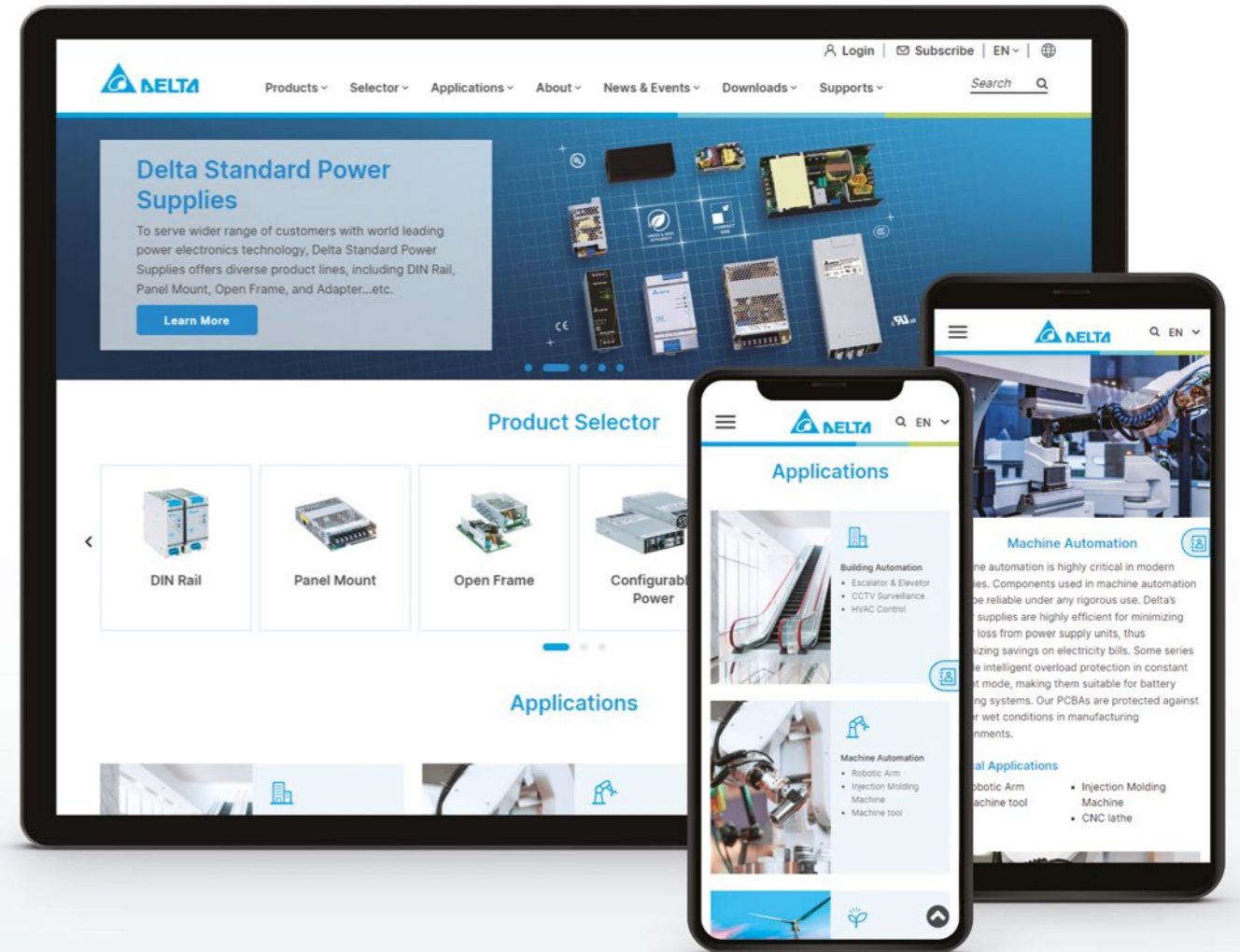
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# FAQs

## ? What is Power Boost?

It is the reserve power available constantly that allows reliable startup of loads with high inrush current.

## ? Why is Power Boost beneficial?

Such feature is especially useful for applications where loads are active; the high surge current can cause the power supply unit (PSU) output to dip down if the PSU does not have the capability to withstand this surge current. Consequently, this could reset the system and result in system downtime.

## ? What is Advanced Power Boost (APB)?

Within a multiple loads connection, Advanced Power Boost (APB) can detect a faulty current path and provide a large inrush current to trip the circuit breaker connected to the faulty path. This prevents the system from shutting down while the other connected current paths continue to operate without interruption.

## ? What should I consider when selecting a power supply unit (PSU)?

- Input Type (Single Phase or 3 Phase)
- Output Power
- Efficiency and Reliability

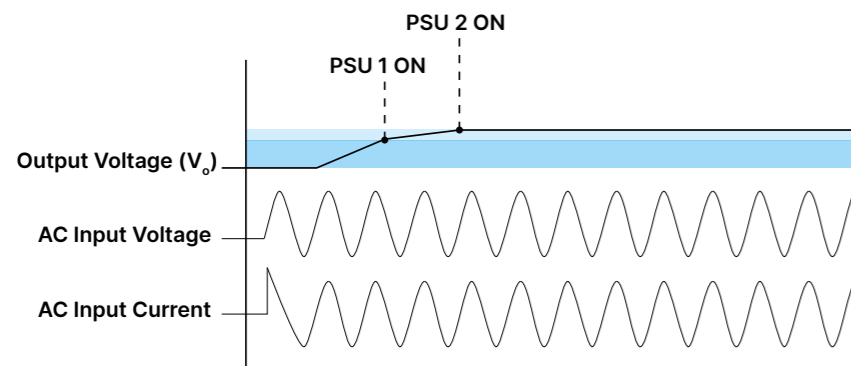
Efficiency and Reliability are the two most important factors to consider in selecting a PSU.

The best way to ensure the reliability of the PSU is to choose one that provides a maximum of 30% more output than your actual total requirement. For example, if your system has a 90W power requirement, you should choose a PSU with at least 120W power output rating. By doing so, you are boosting the reliability of the PSU as well as prolonging the entire system life.

An efficient PSU will thus ensure that power loss is minimized and will greatly help to lower your operating costs in the long run. By choosing a cheaper, but less efficient PSU will just mean that you are paying for it through your monthly electric bills. Delta's Force-GT DIN rail power supply easily give our users a substantial efficiency of up to 95%. Other factors to consider include the operating conditions, types of safety certifications, PSU protection and application functions. Please contact your nearest Delta sales representative for a recommendation based on your requirements.

## ? What critical parameters do I have to watch out for when connecting the power supplies in series?

The turn ON would be non-monotonic as the power supply with the fastest startup time and rise time will turn on first. As a result, the startup waveform with 2 power supplies connected in series would see a step.



# Notes

## Warranty

Delta warrants that the products ("Products") sold in this catalog will be free of defects in material and workmanship within the warranty period. The warranty does not apply to Products which have been subjected to abuse, misuse, accident, neglect, unauthorized and/or improper installation, operation, use, maintenance, repair or alteration, or accident of unusual deterioration or degradation of the Products or parts thereof due to physical environment beyond the requirements of the Product specifications.

## Attention

Delta provides all information in the catalog and datasheets on an "AS IS" basis and does not offer any kind of warranty through the information for using the product. In the event of any discrepancy between the information in the catalog and datasheets, the datasheets shall prevail (please refer to [www.DeltaPSU.com](http://www.DeltaPSU.com) for the latest datasheets information). Delta shall have no liability of indemnification for any claim or action arising from any error for the provided information in the catalog and datasheets. Customer shall take its responsibility for evaluation of using the product before placing an order with Delta.

Delta reserves the right to make changes to the information described in the catalog and datasheets without notice.

## EMC Directives

At Delta, all of our products are designed to meet the highest quality standards. All national and international safety certifications including EMC directives are conducted by qualified and independent laboratories. For EMC directives' compliance, the power supplies are tested to ensure compliance as a stand-alone product. Power supplies like the panel mount and open frame types are typically considered component power supply. Therefore, Delta cannot guarantee the system which is installed with Delta's component power supply can meet the related EMC directives. Customers are advised to contact the system manufacturer for confirmation.

## Availability

Products with "New" tab are slated for official release with immediate effect, while products with "Coming Soon" tab will be available within the next two months from this catalog's publication month (refer to back cover page). Kindly contact your local Delta distributor for availability, ordering and delivery details. You may also get in touch with us via the Feedback Form on [www.DeltaPSU.com/feedback](http://www.DeltaPSU.com/feedback).



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