

# Power Solutions for Network Equipment and Telecom



*Enclosed and Open Frame  
AC-DC and DC-DC converters*



## About Murata

**Murata is a worldwide leader in the design and manufacture of ceramic passive electronic components, wireless connectivity modules, and power conversion technologies.**



Today, Murata is a global enterprise with over 100 offices worldwide. Aspiring to the slogan, "Innovator in Electronics," approximately 70,000 Murata employees strive every day

to develop promising new technologies, "world's first" innovations, and products shaping the future of electronics, all toward enabling our customers to realize their visions.



## Murata Power Solutions... A leader in power conversion

**Murata has decades of experience designing and manufacturing advanced power solutions for network equipment, data center, enterprise, telecom, industrial, and medical applications.**

We have an unmatched ability to design and develop power conversion solutions for your specific network system needs, focusing on optimizing power density and efficiency to reduce the total cost of ownership. Our broad portfolio of standard AC-DC power supply solutions from

250W to 7,000W can be customized to meet almost every conceivable application requirement in terms of power, performance, efficiency, communications, protection, size, output, safety approvals compliance, and cooling requirements.



## Our offering of front end power solutions includes:

- Open frame AC-DC converters
- 1U enclosed Front End AC-DC and DC-DC converters
- 2U enclosed Front End 3 phase AC-DC converters

## Why select Murata?

- Highest efficiency
- Highest density
- Ultimate reliability
- Broadest portfolio
- Design versatility
- Great scalability
- Operational excellence
- Dedicated project team
- Outstanding technical support

# Enclosed Front-End 1U

## D1U54 series: AC-DC or DC-DC power supply

450 up to 2000 Watt

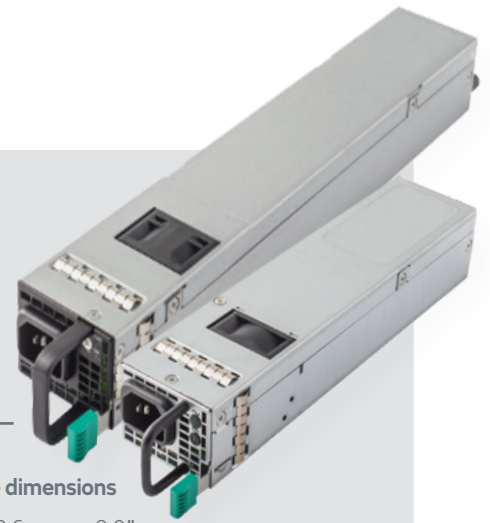
Power density 35W/in<sup>3</sup>

- N+1 redundancy capable; hot plugging ( up to 8 in parallel )
- PMBus™ / I<sup>2</sup>C interface with status indicators
- Current sharing on 12V main output; ORing isolation

	Output power	Input voltage	Output voltage
D1U54P-W-450-12-Hx	450W	90-264Vac	12V
D1U54-D-450-12-Hx	450W	40-72Vdc	12V
D1U54P-W-650-12-Hx	650W	90-264Vac	12V
D1U54-D-650-12-Hx	650W	40-72Vdc	12V
D1U54P-M-800-12-HBxBC	800W	260-400Vdc	12V
D1U54-D-800-12-HBxBC	800W	40-72Vdc	12V
D1U54-D-1200-12-Hx	1200W	40-72Vdc	12V
D1U54P-W-1200-12-Hx	1200W	90-264Vac	12V
D1U54P-W-1500-12-Hx	1500W	90-264Vac	12V
D1U54-D-1500-12-Hx	1500W	40-72Vdc	12V
D1U54P-W-2000-12-Hx	2000W	90-264Vac	12V

### Package dimensions

L	322.0mm	12.7"
W	54.5mm	2.15"
H	1U	1U



### Package dimensions

L	228.6mm	9.0"
W	54.5mm	2.15"
H	1U	1U



## D1U86 series: AC-DC or DC-DC power supply

460 up to 2200 Watt

Power density up to 53W/in<sup>3</sup>

- N+1 redundancy capable; hot plugging ( up to 8 in parallel )
- PMBus™ / I<sup>2</sup>C interface with status indicators
- Current sharing on 12V main output; ORing FET

	Output power	Input voltage	Output voltage	Standby voltage
D1U86G-W-460-12-HBxDC	460W	90-264Vac	12Vdc	12Vdc
D1U86T-W-800-12-Hx ( CRPS features )	800W	90-264Vac	12Vdc	12Vdc
D1U86P-W-1600-12-HBxDC	1600W	90-264Vac	12Vdc	12Vdc
D1U86-D-1600-12-HBxDC	1600W	40-72Vac	12Vdc	12Vdc
D1U86P-W-2200-12-HBxDC	2200W	90-264Vdc	12Vdc	12Vdc

### Package dimensions

L	196.9mm	7.75"
W	86.4mm	3.4"
H	1U	1U



## D1U3CS series: AC-DC or DC-DC power supply

850 up to 1600 Watt

Power density up to 21.7W/in<sup>3</sup>

- N+1 redundant; hot pluggable; ORing FET
- PMBus™ / I<sup>2</sup>C interface with status indicators
- Variable speed fan; active current sharing

	Output power	Input voltage	Output voltage
D1U3CS-W-850-12-Hx	850W	90-264Vac	12Vdc
D1U3CS-W-1300F-12-Hx	1300W	90-264Vac	12Vdc
D1U3CS-D-1600-12-Hx	1600W	40-72Vdc	12Vdc

### Package dimensions

L	279.4mm	11"
W	81.3	3.2"
H	1U	1U



# Enclosed Front-End 1U

## MWOCP74-3000-A-RM power supply

3030 Watt

- 80 Plus® Titanium efficiency; 96% efficiency @ 50% load
- 30.4W/cubic inch power density
- N+1 redundancy capable
- PMBus™ / I<sup>2</sup>C interface with dual LED status indicators

### Package dimensions

L	550mm	21.65"
W	73.5mm	2.89"
H	40mm	1.57"



	Output power	Input voltage	Output voltage	Standby voltage
MWOCP74-3000-A-RM	3030W	90-300Vac or 192-400Vdc	12.3Vdc	12.2Vdc



## D1U4 series: AC-DC power supply

1600 to 2200 Watt

Power density up to 17.9W/in<sup>3</sup>

- N+1 redundant; hot pluggable; ORing FET
- PMBus™ power management bus supported by dual redundant I<sup>2</sup>C interfaces
- PoE compatible

### Package dimensions

L	355.6mm	14"
W	101.6mm	4"
H	1U	1U



	Output power	Input voltage	Output voltage
D1U4-W-1600-54-HBxC (PoE compliant)	1600W	90-264Vac	54Vdc
D1U4CS-W-2200-12-Hx	2200W	90-264Vac	12Vdc



# Enclosed 3-phase power supply

## D2U5T: 3-phase AC-DC power supply

5kW/7kW (480Vac); 3.5kW (230Vac)

- High efficiency; 95.4% @ 50% load
- 380 V/54V main output
- N+1 redundant; droop sharing; I<sup>2</sup>C bus interface
- Selectable 3.3V or 5V standby output

### Package dimensions

L	457.2mm	18"
W	129.5mm	5.1"
H	2U	3.3"



	Output power	Input voltage	Output voltage	Standby voltage
D2U5T-H3-5000-380-HU3C	5000W	180-528Vac	380Vdc	Selectable (3.3 or 5V)
D2U5T-H3-7000-54-HU4C	7000W	180-528Vac	54Vdc	Selectable (3.3 or 5V)



# Open frame

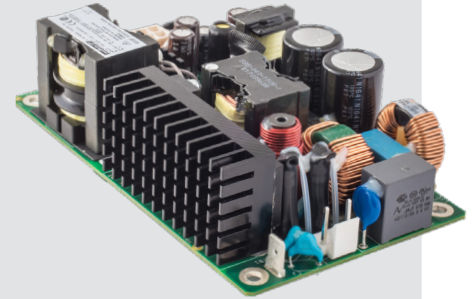
## PQC250: 3"x5" AC-DC power supply

250 Watt convection cooled at 50°C  
High convection rating at 50°C (250W)  
and 70°C (200W) in compact 3"x5"

- Industry-leading MTBF – 2 million hours
- High efficiency – 94% @ 50% load
- Designed to comply with IEC60601-1-2 4th edition EMC
- PoE compatible

### Package dimensions

<b>L</b>	127mm	5"
<b>W</b>	76.2mm	3"
<b>H</b>	35.2mm	1.3"



	Natural convection cooling	Main output (v1)	Standby output (v2)	Typical efficiency
<b>PQC250-12xxx</b>	250W	12V	5V	94%
<b>PQC250-18xxx</b>	250W	18V	5V	94%
<b>PQC250-24xxx</b>	250W	24V	5V	94%
<b>PQC250-30xxx</b>	250W	30V	5V	94%
<b>PQC250-36xxx</b>	250W	36V	5V	94%
<b>PQC250-48 (PoE compliant)</b>	250W	48V	5V	94%
<b>PQC250-54 (PoE compliant)</b>	250W	54V	5V	94%
<b>PQC-COVER</b>	Optional cover kit assembly see PQC-COVER datasheet for details			
<b>Options</b>	D=Droop DRT=ORing; Droop; Output Terminal Block			



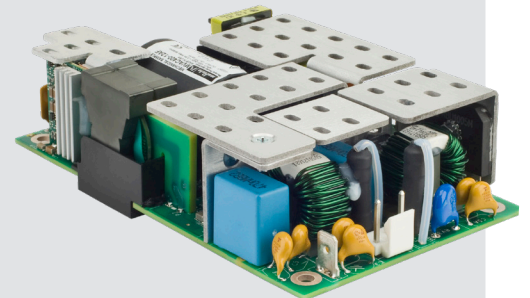
## MVAC400: 3"x5" AC-DC power supply

400 Watt forced air cooling

- IEC60601 Ed.3 medical (2 x MOPP Pri-Sec)
- EN60950 ITE safety approved
- 400W compact high density
- High efficiency up to 94%
- Less than 1U high
- Convection-cooled operation up to 250W

### Package dimensions

<b>L</b>	127mm	5"
<b>W</b>	76.2mm	3"
<b>H</b>	35.6 mm	1.4"



	Natural convection cooling	Forced air cooling	Main output	Fan output	Typical efficiency
<b>MVAC400-12xxx</b>	250W	400W @ 250LFM	12V	12V @ 12W	93%
<b>MVAC400-24xxx</b>	250W	400W @ 250LFM	24V	12V @ 12W	93%
<b>MVAC400-48xxx</b>	250W	400W @ 250LFM	50V	12V @ 12W	94%
<b>PQC-COVER</b>	Optional cover				



# Global locations

For details please visit [www.murata.com](http://www.murata.com)



## Note

### 1 Export Control

*For customers outside Japan:*

No Murata products should be used or sold, through any channels, for use in the design, development, production, utilization, maintenance or operation of, or otherwise contribution to (1) any weapons (Weapons of Mass Destruction [nuclear, chemical or biological weapons or missiles] or conventional weapons) or (2) goods or systems specially designed or intended for military end-use or utilization by military end-users.

*For customers in Japan:*

For products which are controlled items subject to the "Foreign Exchange and Foreign Trade Law" of Japan, the export license specified by the law is required for export.

2 Please contact our sales representatives or product engineers before using the products in this catalog for the applications listed below, which require especially high reliability for the prevention of defects which might directly damage a third party's life, body or property, or when one of our products is intended for use in applications other than those specified in this catalog.

- ① Aircraft equipment
- ② Aerospace equipment
- ③ Undersea equipment
- ④ Power plant equipment
- ⑤ Medical equipment
- ⑥ Transportation equipment (vehicles, trains, ships, etc.)
- ⑦ Traffic signal equipment
- ⑧ Disaster prevention /crime prevention equipment
- ⑨ Data-processing equipment
- ⑩ Application of similar complexity and/or reliability requirements to the applications listed above

3 Product specifications in this catalog are as of November 2018. They are subject to change or our products in it may be discontinued without advance notice. Please check with our sales representatives or product engineers before ordering. If there are any questions, please contact our sales representatives or product engineers.

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5 This catalog has only typical specifications. Therefore, please approve our product specifications or transact the approval sheet for product specifications before ordering.

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7 No ozone depleting substances (ODS) under the Montreal Protocol are used in our manufacturing process.

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