Advanced Energy

LOW VOLTAGE MEDICAL POWER SUPPLIES

THE POWER SOLUTIONS OF CHOICE FOR MISSION-CRITICAL APPLICATIONS

PRECISION | POWER | PERFORMANCE

Low Voltage Medical Power Supplies

Power Solutions of Choice
for Medical Applications

Your Global Partner for Medical Power Supplies

Advanced Energy's low voltage power supplies can deliver 25% longer lifetimes than competitor products. Our fanless and fan-cooled products provide efficiencies of up to 94%. Our low voltage products carry full international safety certifications that meet IEC60601-1 (third edition) and IEC60601-1-2 (fourth edition EMC) requirements.

This ensures all our low voltage products meet current and future safety regulations , simplifying system approval. Our five-year warranty helps ensure quality, reliability, and reduces total cost of ownership. The CoolX range of power supplies brings user flexibility to a completely new level allowing system designers to monitor power supply performance using either analog or digital communications (PMBus™). With a wide range of single and multiple output power supplies, AE can deliver your exact volts and amps requirements.

Serving Your Markets, Delivering Your Medical Solutions

Whatever your application, our dedicated teams of Sales and Applications Engineers are ready to assist you in defining and implementing the optimal power solution to meet your requirements. Our power supplies are user and field-configurable.

Applications

- Medical lasers
- X-ray machines
- CT-scanners
- MRI scanners
- Dialysis equipment
- Ablation
- Skin treatment and regeneration
- Cryotherapy equipment
- Cancer treatment equipment
- Clinical diagnostic equipment
- Radiological equipment
- RND/DNA analyzers & sequencers

Precision. Power. Performance.

Advanced Energy (AE) brings over 30 years of experience of leading edge power supply development and applications support to market with our revolutionary CoolX, UltiMod, Xsolo, and Xgen series of products. Our products deliver unrivaled levels of efficiency, flexibility, performance, and reliability, all backed by a market-leading five-year warranty. Together with our network of qualified and experienced manufacturer representatives and distributors, we have established Advanced Energy as the brand of choice for customers seeking the highest performing, most reliable, and most cost-efficient power solutions.

Expertise

Enhanced System Innovation

Through close customer collaboration, application insight, and superior power quality, AE enables you to push the boundaries of innovation and stay ahead of evolving market needs.

Compelling Value

AE low voltage product flexibility, ease of integration, and world-class support provide significant value, improving system manufacturing and performance.

Optimized System Performance

Reliable, accurate low voltage power delivery elevates the performance of your entire system. AE pairs industry-leading technology with unmatched application expertise to implement solutions optimized for the exacting requirements of a variety of industries, including medical, industrial, MIL-COTS, communications, harsh industrial, and acoustic sensitive.

Medical Standards

Medical power supply design and manufacturing demands the highest safety and quality standards including UL/EN60601-1 3rd edition, 2 MOPP and 4kVAC Isolation. The medically certified solutions in the CoolX, UltiMod, Xsolo, and Xgen Platforms are the solutions of choice for a variety of applications.

Table of Contents

COOLX1800 AT A GLANCE

Power

1800 W

Slots

6

Cooling

Variable fan speed control

Parameters

267 mm x 127 mm x 41 mm
(10.5 in x 5 in x 1U)

Certifications

Medical (CX18M)

- IEC60601-1 3rd edition, IEC60601-1-2 4th edition (EMC)
- 2 MOPP
- Dual fused
- Suitable for type B-applications

CoolX1800

Efficient and Reliable 1800 W Modular Power Supplies

Advanced Energy's CoolX®1800 series is an intelligent modular power supply. The CoolX1800 delivers an incredible 1800 W in a compact package with PMBus™ digital communications and control and reliability in addition to the most comprehensive feature set and specifications available.

PRODUCT HIGHLIGHTS

Modular Power Supply

- Up to 1800 W
- Up to 12 outputs
- All outputs isolated (1850 VAC)
- Variable fan speed control

Reliability

- MTBF > 200,000 hours
- Level 4 input surge protection
- 23.5 W always ON auxiliary power output
- Safety approved to 5000 m altitude
- 93% efficiency
- Five-year warranty

Flexibility

- Analog and digital management — PMBus™ monitoring and control capability
- Field-configurable — plug and play power
- Series and parallel outputs — higher voltages/currents
- Mounting options — base/side and DIN-Rail mounting

TYPICAL APPLICATIONS

Medical

- Clinical diagnostic equipment, medical lasers, dialysis equipment, radiological imaging, clinical chemistry

CoolX CoolMods				
CoolMod	**Vnom (V)**	**Set Point Adjust Range (V)**	**Imax (A)**	**Power (W)**
CmA	5	2.5-6.0	30.0	150
CmB[1]	12	6.0-15.0	23.3	280
CmC	24	15.0-28.0	12.5	300
CmD	48	28.0-58.0	6.25	300
High Power Modules (3 Slot)				
CmE	24	22.8-25.2	37.5	900
CmF	48	45.6-50.4	18.75	900
Dual Output Modules (1 Slot)				
CmG[2] V1	24	3.0-30.0	4.0	120
V2	24	3.0-30.0	4.0	120
CmH[3] V1	5	3.0-6.0	10.0	60
V2	24	3.0-30.0	4.0	120
Wide Trim Modules (1 Slot)[4]				
CmM	5	1.0-6.0	30	150
CmN	12	1.0-15.0	23.3	280
CmP	24	1.0-28.0	12.5	300
CmQ	48	3.0-58.0	6.25	300

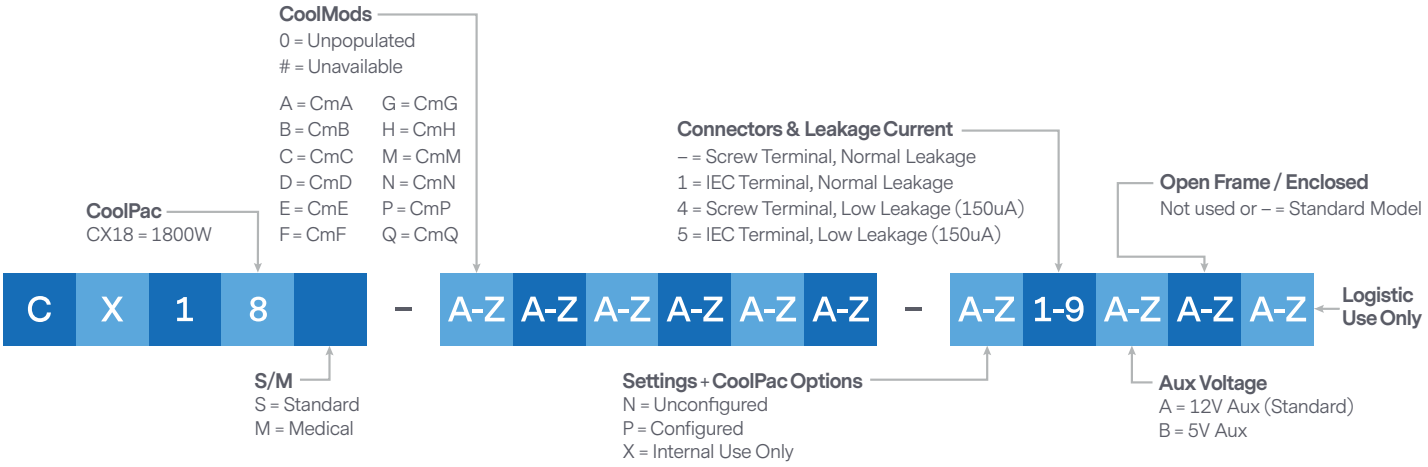
[1] Full dynamic specifications may not be met at full load when output voltage is trimmed above 13 V.

[2] For the CmG module the max combined power of both outputs is 200 W.

[3] For the CmH module the max combined power of both outputs is 180 W.

[4] Pending safety approvals on wide-trim modules only.

CONFIGURATION



*Contact Advanced Energy for conformal coating and ruggedized options.

COOLX1000 AT A GLANCE

Power

1000 W

Slots

6

Cooling

No fan featured , convention cooled

Parameters

254 mm x 165.1 mm x 39.1
(10 in x 6.5 in x 1U)

Certifications

Medical (CX10M)

- IEC60601-1 3rd edition, IEC60601-1-2 4th edition (EMC)
- 2 MOPP
- Dual fused
- Suitable for type B-applications

CoolX1000

Fanless, Intelligent 1000 W Modular Power Supplies

Advanced Energy's CoolX®1000 series is the world's only fanless 1000 W modular power supply. Packaged in a compact 254 mm x 165.1 mm x 39.1 (10 in x 6.5 in x 1U) U-channel design, the CoolX1000 provides up to 1000 W without any requirement for fan or base plate cooling, eliminating acoustic noise detrimental to scientific and medical applications, as well as applications sensitive to vibration or where fan cooling is not available. The CoolX1000 also offers increased flexibility by allowing system designers to monitor and control power supply performance — essential for staving off process disruption — using either analog or digital communications (PMBus™).

PRODUCT HIGHLIGHTS

No Fan Featured

- 1000 W with 100% natural convection cooling
- No base plate needed
- No acoustic noise or vibrations

Flexibility

- Analog and digital management — PMBus™ monitoring and control capability
- Field-configurable — plug and play power
- Series and parallel outputs — higher voltages/currents
- Mounting options — base/side and DIN-Rail mounting
- 23.5 Watt always ON auxillary power output

Reliability

- MTBF > 400,000 hours, 25% better than today's leading solutions
- High-input surge protection — 4 KV line to PE for harsh environments
- Reverse energy protection — no blocking diodes required
- 24 W standby power
- Safety approved to 5000 m altitude
- 94% efficiency
- Five-year warranty

TYPICAL APPLICATIONS

Medical

- Clinical diagnostic equipment, medical lasers, dialysis equipment, radiological imaging, clinical chemistry

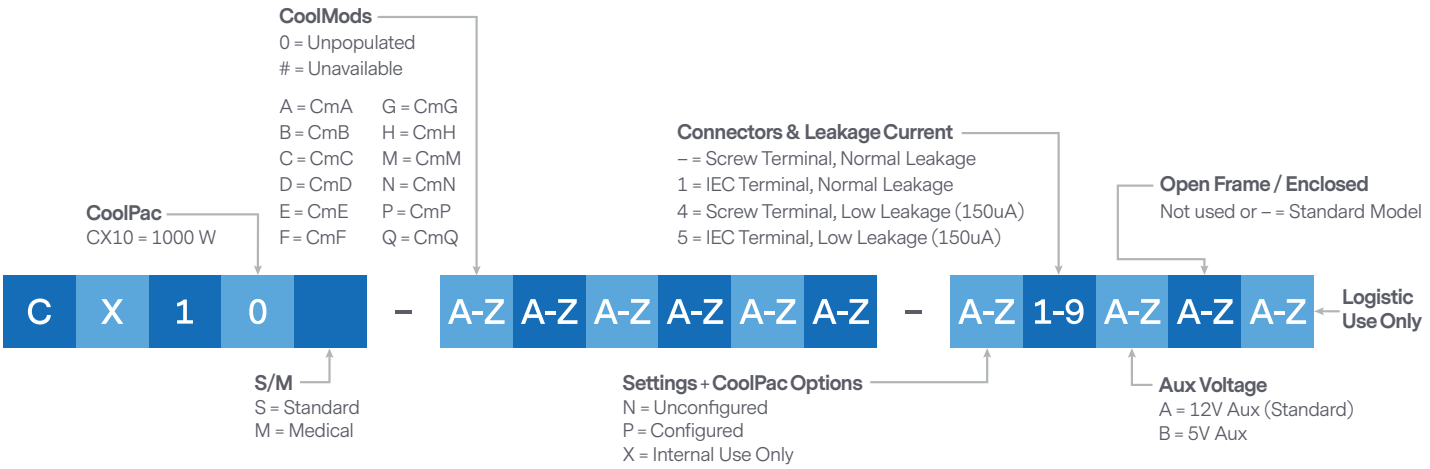
CoolX CoolMods				
CoolMod	**Vnom (V)**	**Set Point Adjust Range (V)**	**Imax (A)**	**Power (W)**
CmA	5	2.5-6.0	21.0	105
CmB[1]	12	6.0-15.0	15.0	180
CmC	24	15.0-28.0	8.3	200
CmD	48	28.0-58.0	4.17	200
High Power Modules (3 Slot)				
CmE	24	22.8-25.2	25.0	600
CmF	48	45.6-50.4	12.50	600
Dual Output Modules (1 Slot)				
CmG[2] V1	24	3.0-30.0	3.0	90
V2	24	3.0-30.0	3.0	90
CmH[3] V1	5	3.0-6.0	6.0	36
V2	24	3.0-30.0	3.0	90
Wide Trim Modules (1 Slot)				
CmM	5	1.0-6.0	21	105
CmN	12	1.0-15.0	15	180
CmP	24	1.0-28.0	8.33	200
CmQ	48	3.0-58.0	4.17	200

[1] Full dynamic specifications may not be met at full load when output voltage is trimmed by above 13 V

[2] For the CmG module, the max combined power of both outputs is 120 W

[3] For the CmH module, the max combined power of both outputs is 100 W

CONFIGURATION



COOLX600 AT A GLANCE

Power

600 W

Slots

4

Cooling

No fan featured, convection-cooled

Parameters

215.9 mm x 114.3 mm x 39.1 mm
(8.5 in x 4.5 in x 1 U)

Certifications

Medical (CX06M)

- IEC60601-1 3rd edition, IEC60601-1-2 4th edition (EMC)
- 2 MOPP
- Dual fused
- Suitable for type B-applications

CoolX600

Fanless, Natural Convection-Cooled Modular Power Supply

Advanced Energy's CoolX®600 series is the world's first fanless, natural convection-cooled modular power supply. The CoolX600 delivers an incredible 600 W without fan-assisted cooling from a very compact package. The CoolX600 offers system designers best-in-class efficiency and reliability in addition to the most comprehensive feature set and specifications available.

PRODUCT HIGHLIGHTS

No Fan Featured

- 600 W with 100% natural convection cooling
- No base plate needed
- No acoustic noise or vibrations

Flexibility

- Analog and digital management — PMBus™ monitoring and control capability
- Field-configurable — plug and play power
- Series and parallel outputs — higher voltages/currents
- Mounting options — base/side and DIN-Rail mounting
- 23.5 Watt always ON auxillary power output

Reliability

- MTBF > 400,000 hours, 25% better than today's leading solutions
- High input surge protection — 4 KV line to PE for harsh environments
- Reverse energy protection — no blocking diodes required
- 24 W always ON auxiliary power output
- Safety approved to 5000 m altitude
- > 94% efficiency
- Five-year warranty

TYPICAL APPLICATIONS

Medical

- Clinical diagnostic equipment, medical lasers, dialysis equipment, radiological imaging, clinical chemistry

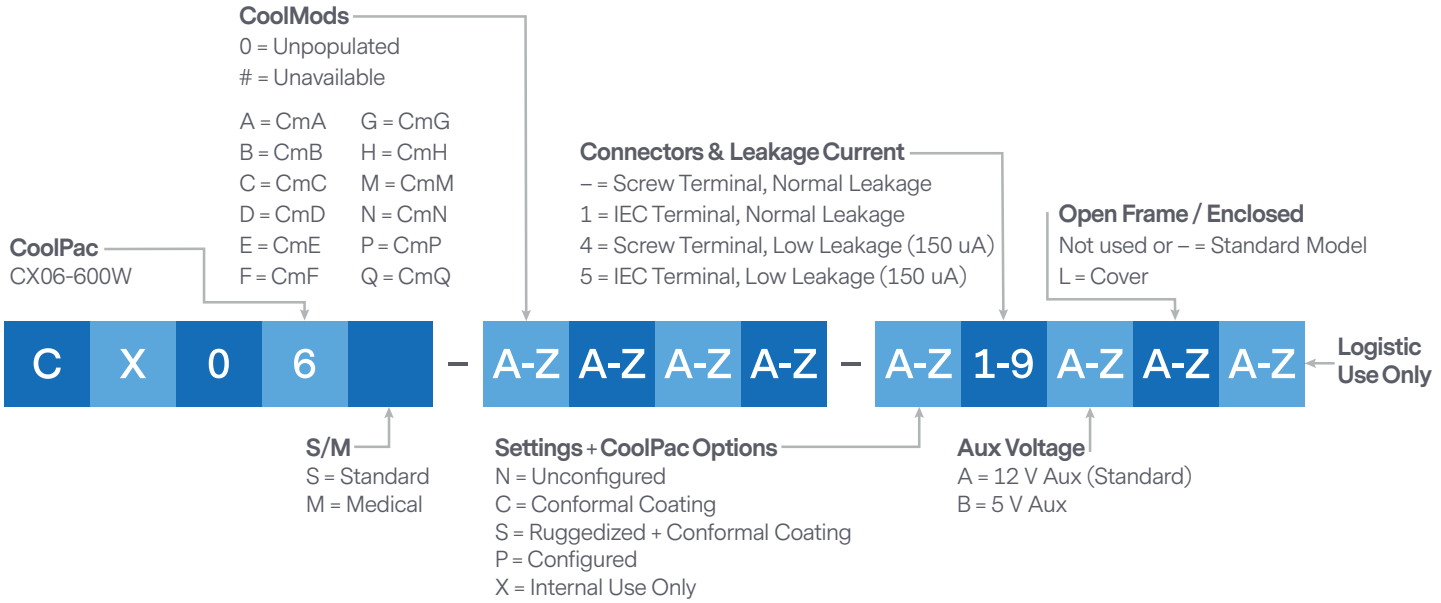
CoolX CoolMods				
CoolMod	**Vnom (V)**	**Set Point Adjust Range (V)**	**Imax (A)**	**Power (W)**
CmA[1]	5	2.5-6.0	21.0	105
CmB[1]	12	6.0-15.0	15.0	180
CmC[1]	24	15.0-28.0	8.3	200
CmD[1]	48	28.0-58.0	4.2	200
High Power Modules (3 Slot)				
CmE	24	22.8-25.2	25.0	600
CmF	48	45.6-50.4	12.5	600
Dual Output Modules (1 Slot)				
CmG[2] V1	24	3.0-30.0	3.0	90
V2	24	3.0-30.0	3.0	90
CmH[3] V1	5	3.0-6.0	6.0	36
V2	24	3.0-30.0	3.0	90
Wide Trim Modules (1 Slot)				
CmM	5	1.0-6.0	21	105
CmN	12	1.0-15.0	15	180
CmP	24	1.0-28.0	8.33	200
CmQ	48	3.0-58.0	4.17	200

[1] Full dynamic specifications may not be met at full load when output voltage is trimmed above 13 V.

[2] For the CmG module the max combined power of both outputs is 120 W.

[3] For the CmH module the max combined power of both outputs is 100 W.

CONFIGURATION



ULTIMOD AT A GLANCE

Power

UX4	600 W
UX6	1200 W

Slots

UX4	4
UX6	6

Certifications

Medical

- UL/EN60601-1 3rd edition
- UL/EN60601-1-2 4th edition (EMC)

UltiMod

Unique in Flexibility, Unrivalled in Performance, Ultra-Cost Competitive

Advanced Energy's UltiMod series brings modular power supplies to a new paradigm, combining technical excellence with logistics simplicity to exceed the most demanding requirements from any industry. The UltiMod range of power supplies offers unrivalled performance and demonstrates our global leadership in product reliability, efficiency and cost competitiveness. The UX4 delivers up to 600 W and can be populated with up to four powerMods, and the UX6 delivers up to 1200 W and can be populated with up to 6 powerMods.

PRODUCT HIGHLIGHTS

- Highest efficiency — up to 91%
- User and field configurable
- Standard medical features
  - Leakage current < 300 µA (< 150 µA optional)
  - 2 MOPP
  - 4 KV Isolation
- -40°C startup temperature
- Extra ruggedized optional
  - Vibration: MIL-STD-810G
- No minimum load
- Extra-low profile < 1U height
- All outputs fully floating
- Series/parallel of multiple outputs
- 5 V isolated standby voltage
- Active PFC (Power Factor Correction)
- Product options: Conformal coating, low leakage current, connector, cabling and mounting options, and reverse fans additional ruggedization

TYPICAL APPLICATIONS

Medical

- Clinical diagnostic and dialysis equipment, medical lasers, radiological imaging, clinical chemistry

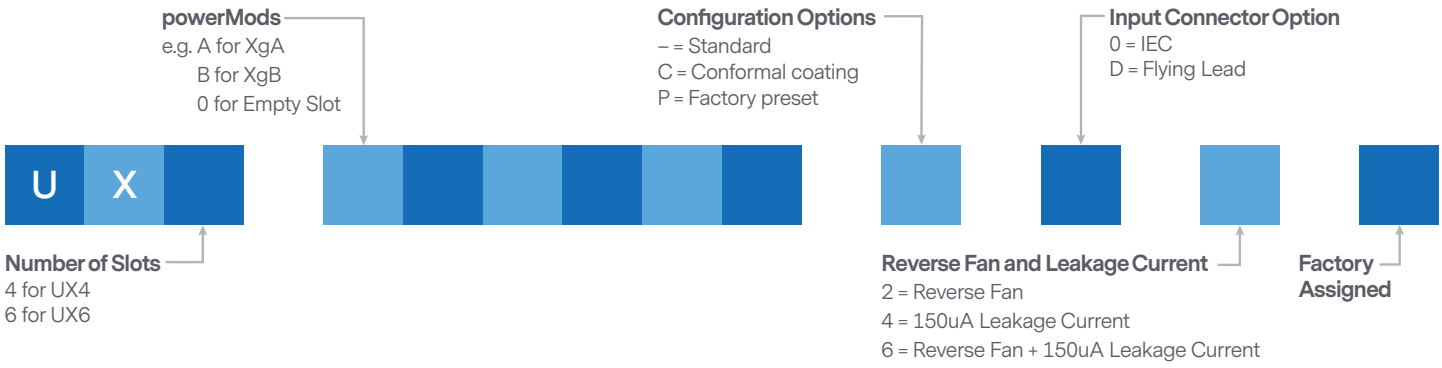
powerMods							
Model	Vnom (V)	Set Point Adjust Range	Dynamic Vtrim Range (v)	Imax (A)	Power (W)	Remote Sense	Power Good
XgA	12.0	10.8-15.6	—	12.5	150	—	—
XgB	24.0	19.2-26.4	—	8.3	200	—	—
XgC	36.0	28.8-39.6	—	5.6	200	—	—
XgD	48.0	38.5-50.4	—	4.2	200	—	—
XgE/Xg7	24.0	5.0-28.0	—	5.0	120	—	—
XgF/Xg8	24.0	5.0-28.0	—	3.0	72	—	Yes
	24.0	5.0-28.0	—	3.0	72	—	Yes
XgG	2.5	1.5-3.6	1.15-3.6	40.0	100	Yes	Yes
XgH	5.0	3.2-6.0	1.5-6.0	36.0	180	Yes	Yes
XgJ	12.0	6.0-15.0	4.0-15.0	18.3	220	Yes	Yes
XgK	24.0	12.0-30.0	8.0-30.0	9.2	220	Yes	Yes
XgL	48.0	28.0-58.0	8.0-58.0	5.0	240	Yes	Yes
Xg1	2.5	1.5-3.6	1.15-3.6	50.0	125	Yes	Yes
Xg2	5.0	3.2-6.0	1.5-6.0	40.0	200	Yes	Yes
Xg3	12.0	6.0-15.0	4.0-15.0	20.0	240	Yes	Yes
Xg4	24.0	12.0-30.0	8.0-30.0	10.0	240	Yes	Yes
Xg5	48.0	28.0-58.0	8.0-58.0	6.0	288	Yes	Yes
XgM	5.0	3.2-6.0	1.0-6.0	40.0	200	Yes	Yes
XgN	12.0	6.0-15.0	1.0-15.0	20.0	240	Yes	Yes
XgP	24.0	12.0-30.0	1.0-30.0[3]	10.0	240	Yes	Yes
XgQ	48.0	24.0-58.0	1.0-58.0[3]	6.0	288	Yes	Yes
XgR	24.0	12.0-30.0	8.0-30.0	10.0	240	—	Yes
XgT	48.0	28.0-58.0	8.0-58.0	6.0	288	—	Yes

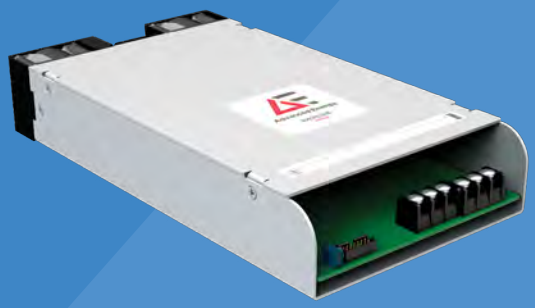
[1] SEMI F47 compliant at input voltages > 160 VAC. Consult Advanced Energy for details

[2] Visit www.advancedenergy.com for configuration, ordering and contact information.

[3] XgP & XgQ- output ripple and noise are load dependent. Contact Advanced Energy or sales.support@aei.com for details.

CONFIGURATION





XSOLO AT A GLANCE

Power

XS500 **504 W**

XS1000 **1008 W**

Output Voltage

24, 36, 48

Certifications

- **IEC60601-1 2nd and 3rd edition**
- **IEC60601-1-2 4th edition (EMC)**
- **2 MOPP**
- **SEMI F47**
- **MIL-STD-810G**

Xsolo

Ultra-compact, high-efficiency 500 W and 1000 W single output power supplies

Advanced Energy's Xsolo series delivers an incredible convection-cooled 504 W in an open-frame U-channel form factor and up to 1008 W in an enclosed, fan-cooled chassis. This high-efficiency, high-reliability product is available in two compact package types.

PRODUCT HIGHLIGHTS

- Single output voltages are 24 V, 36 V, or 48 V with wide adjustment ranges and user-defined set-points
- Ultra high efficiency, > 92%
- Low profile: 1U height (40 mm)
- Convection-cooled 500 W
- Fan-cooled 1000 W (variable speed fan)
- 12 V/300 mA bias standby voltage provided
- Remote ON/OFF signal
- Power Good signal
- Suitable for type B-rated applications
- Optional I²C PMBus™ communications
- Optional OR-ing function
- Five-year warranty
- Adjustable output voltage control
- 5000 m altitude for EN60950 applications
- All models feature active power factor correction as standard
- Product options: Conformal coating, low leakage current and ruggedized

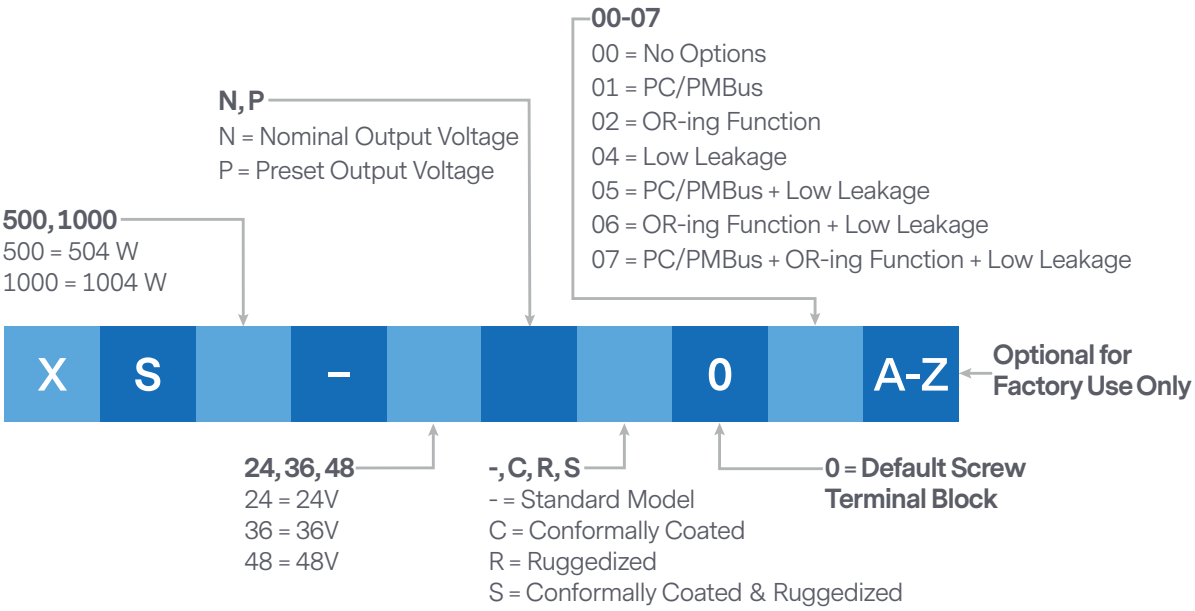
TYPICAL APPLICATIONS

- Industrial
- Test and measurement
- Acoustically sensitive laboratory and medical environments
- Hi-Rel MIL-COTS
- Communication

Model	Power (W)	Output Voltage	Output Current (A)	Medical Approval UL/EN60601-1, 3rd Edition	Industrial Approval UL/EN60950, 2rd Edition
XS500-24	504	24	21.0	Yes	Yes
XS1000-24	1008	24	42.0	Yes	Yes
XS500-36	504	36	14.0	Yes	Yes
XS1000-36	1008	36	28.0	Yes	Yes
XS500-48	504	48	10.5	Yes	Yes
XS1000-48	1008	48	21.0	Yes	Yes

Model	Vnom (W)	Description	Set Point Adjust Range (V)	Dynamic Vtrim Range (V)	Imax (A)	Remote Sense	Power Good
XS500-24	24	Convection-cooled U-channel	19-28	14-28	21.0	Yes	Yes
XS1000-24	24	Enclosed fan-cooled	19-28	14-28	42.0	Yes	Yes
XS500-36	36	Convection-cooled U-channel	26-40	20-40	14.0	Yes	Yes
XS1000-36	36	Enclosed fan-cooled	26-40	20-40	28.0	Yes	Yes
XS500-48	48	Convection-cooled U-channel	36-58	39-58	10.5	Yes	Yes
XS1000-48	48	Enclosed fan-cooled	36-58	29-58	21.0	Yes	Yes

CONFIGURATION



Example 1: XS1000-24N-000 = Xsolo 1000 W, 24 V, output with no options

Example 2: XS1000-24N-003 = Xsolo 1000 W, 24 V, output with PC/PMBus and OR-ing function

XGEN XM AT A GLANCE

Power

XMA	200 W
XMB	400 W
XMC	600 W
XMD	750 W

Slots

4

Certifications

Medical

- UL/EN60601-1
- UL/EN60601-1 3rd edition

Xgen XM

Medical Power Supply. User Configurable 1U Size Requirements.

The XM family of medically-approved power supplies provides up to 750 W in a slimline 1U package. The XM family carries the latest safety agency approvals to EN60601-1 and UL60601-1 3rd Edition, meeting the stringent creepage and clearance requirements in this compact package. Providing up to eight isolated outputs, the XM family is the most flexible power supply in its class and brings affordable configurable power to the 200 to 750 W medical market. The XM family consists of four powerPac models in 200 W, 400 W, 600 W, and 750 W power levels. Each powerPac model may be populated with up to four powerMods selected from the table of powerMods shown below.

PRODUCT HIGHLIGHTS

- EN60601-1 3rd edition approved
- Less than 300 µA leakage current
- 150 µA option available
- 4000 VAC isolation
- Ultra high efficiency, up to 89%
- Extra low profile: 1U height (40 mm)
- Plug & Play Power - allows fast custom configuration
- Individual output control signals
- All outputs fully floating
- Series / Parallel of multiple outputs
- Few electrolytic capacitors (all long life)
- 5 V bias standby voltage provided
- Standard Xgen product options include: conformal coating, low acoustic noise, low leakage current, extra ruggedisation, connector, cabling and mounting options, thermal signals and reverse fans.

TYPICAL APPLICATIONS

- Radiological imaging
- Clinical diagnostics
- Medical lasers
- Clinical chemistry

powerMods							
Model	Vnom(V)	Set Point Adjust Range	Dynamic Vtrim Range (v)	Imax (A)	Power (W)	Remote Sense	Power Good
XgA	12.5	10.8-15.6	—	12.5	150	—	—
XgB	24	19.2-26.4	—	8.3	200	—	—
XgC	36	28.8-39.6	—	5.6	200	—	—
XgD	48	38.4-50.4	—	4.2	200	—	—
XgE/ Xg7	24	5.0-28.0	—	5	120	—	Yes
XgF/Xg8 v1	24	5.0-28.0	—	3	72	—	Yes
XgF/Xg8 v2	24	5.0-28.0	—	3	72	—	Yes
XgG	2.5	1.5-3.6	1.15-3.6	40	100	Yes	Yes
XgH	5	3.2-6.0	1.5-6.0	36	180	Yes	Yes
XgJ	12	6.0-15.0	4.0-15.0	18.3	220	Yes	Yes
XgK	24	12.0-30.0	8.0-30.0	9.2	220	Yes	Yes
XgL	48	28.0-58.0	8.0-58.0	5	240	Yes	Yes
Xg1	2.5	1.5-3.6	1.15-3.6	50.0	125	Yes	Yes
Xg2	5.0	3.2-6.0	1.5-6.0	40.0	200	Yes	Yes
Xg3	12.0	6.0-15.0	4.0-15.0	20.0	240	Yes	Yes
Xg4	24.0	12.0-30.0	8.0-30.0	10.0	240	Yes	Yes
Xg5	48.0	28.0-58.0	8.0-58.0	6.0	288	Yes	Yes
XgM	5	3.2-6.0	1.0-6.0	40	200	Yes	Yes
XgN	12	6.0-15.0	1.0-15.0	20	240	Yes	Yes
XgP	24	12.0-30.0	1.0-0.0[3]	10	240	Yes	Yes
XgQ	48	24.0-58.0	1.0-8.0[3]	6	288	Yes	Yes
XgR	24	12.0-30.0	8.0-30.0	10	240	No	Yes
XgT	48	28.0-58.0	8.0-58.0	6	288	No	Yes

[1] SEMI F47 compliant at input voltages > 160 VAC. Consult Advanced Energy for details

[2] Visit www.advancedenergy.com for configuration, ordering and contact information.

[3] XgP & XgQ- output ripple and noise are load dependent. Contact Advanced Energy or sales.support@aei.com for details.

Input						
Parameter		Conditions/Description	Min	Nom	Max	Units
Input Voltage Range		Universal Input 47-440 Hz	85	—	264	VAC
			120	—	380	VDC
Power Rating		XMA:200W, XMB:400W, XMC:600W, XMD:750W	—	600	—	W
Input Current	XMA	85 VAC in 200 W out	—	6	—	A
	XMB	85 VAC in 400 W out	—	7.5	—	A
	XMC	85 VAC in 400 W out	—	7.5	—	A
	XMD	85 VAC in 525 W out	—	11.5	—	A
Inrush Current		230 VAC @ 25°C	—	—	50	A
Undervoltage Lockout		Shutdown	65	—	74	VAC
Fusing	XMA	250 V 5 x 20mm	—	F5A HRC	—	—
	XMA	250 V 5 x 20mm	—	F6.3A HRC	—	—
	XMC, XMD	250 V 5 x 20mm	—	F8A HRC		

XGEN XV AT A GLANCE

Power

XVA	400 W
XVB	700 W
XVC	1000 W
XVD	1200 W
XVE	1340 W

Slots

6

Certifications

Medical

- UL/EN60601-1 3rd edition
- UL/EN60601-1-2 4th edition (EMC)

Xgen XV

Medical Power Supply. User Configurable 1U Size Requirements.

The XV family of medically approved power supplies provides up to an incredible 1340W in an extremely compact 1U package. The XV family consists of 5 powerPacs ranging in power levels from 400W to 1450W peak and 6 powerMod DC output modules. Simply select the appropriate powerPac and up to 6 powerMods from the tables below to complete your custom power supply.

PRODUCT HIGHLIGHTS

- UL/EN60950 2nd edition
- UL/EN60601-1 3rd edition
- UL/EN60601-1-2 4th edition EMC compliant
- Less than 300 µA leakage current
- 150 µA option available
- 4000 VAC isolation
- Ultra high efficiency, up to 90%
- Extra low profile: 1U height (40 mm)
- Plug & Play Power - allows fast custom configuration
- Individual output control signals
- All outputs fully floating
- Series / Parallel of multiple outputs
- Few electrolytic capacitors (all long life)
- 5 V bias standby voltage provided
- Active PFC (Power Factor Correction)
- Standard Xgen product options include: conformal coating, low acoustic noise, low leakage current, extra ruggedisation, connector, cabling and mounting options, thermal signals and reverse fans.

TYPICAL APPLICATIONS

Medical

- Clinical diagnostic and dialysis equipment, medical lasers, radiological imaging, clinical chemistry

powerMods							
Model	Vnom(V)	Set Point Adjust Range	Dynamic Vtrim Range (v)	Imax (A)	Power (W)	Remote Sense	Power Good
XgA	12.5	10.8-15.6	—	12.5	150	—	—
XgB	24	19.2-26.4	—	8.3	200	—	—
XgC	36	28.8-39.6	—	5.6	200	—	—
XgD	48	38.4-50.4	—	4.2	200	—	—
XgE/ Xg7	24	5.0-28.0	—	5	120	—	Yes
XgF/Xg8 v1	24	5.0-28.0	—	3	72	—	Yes
XgF/Xg8 v2	24	5.0-28.0	—	3	72	—	Yes
XgG	2.5	1.5-3.6	1.15-3.6	40	100	Yes	Yes
XgH	5	3.2-6.0	1.5-6.0	36	180	Yes	Yes
XgJ	12	6.0-15.0	4.0-15.0	18.3	220	Yes	Yes
XgK	24	12.0-30.0	8.0-30.0	9.2	220	Yes	Yes
XgL	48	28.0-58.0	8.0-58.0	5	240	Yes	Yes
Xg1	2.5	1.5-3.6	1.15-3.6	50.0	125	Yes	Yes
Xg2	5.0	3.2-6.0	1.5-6.0	40.0	200	Yes	Yes
Xg3	12.0	6.0-15.0	4.0-15.0	20.0	240	Yes	Yes
Xg4	24.0	12.0-30.0	8.0-30.0	10.0	240	Yes	Yes
Xg5	48.0	28.0-58.0	8.0-58.0	6.0	288	Yes	Yes
XgM	5	3.2-6.0	1.0-6.0	40	200	Yes	Yes
XgN	12	6.0-15.0	1.0-15.0	20	240	Yes	Yes
XgP	24	12.0-30.0	1.0-0.0[3]	10	240	Yes	Yes
XgQ	48	24.0-58.0	1.0-8.0[3]	6	288	Yes	Yes
XgR	24	12.0-30.0	8.0-30.0	10	240	No	Yes
XgT	48	28.0-58.0	8.0-58.0	6	288	No	Yes

[1] SEMI F47 compliant at input voltages > 160 VAC. Consult Advanced Energy for details

[2] Visit www.advancedenergy.com for configuration, ordering and contact information.

[3] XgP & XgQ- output ripple and noise are load dependent. Contact Advanced Energy or sales.support@aei.com for details.

Input						
Parameter	Conditions/Description	Min	Nom	Max	Units
Input Voltage Range	Universal Input 47-440 Hz	85	—	264	VAC
		120	—	380	VDC
Power Rating	XVA:400W, XVB:700W, XVC:1000W, XVD:1200W, XVE:1340W	—	—	—	—
Input Current XVA	85 VAC in 400 W out	—	7.5	—	A
XVB	85 VAC in 700 W out	—	9.5	—	A
XVC, XVD	85 VAC in 850 W out	—	11.5	—	A
XVE	85 VAC in 1000 W out	—	14	—	A
Inrush Current	230 VAC @ 25°C	—	—	25	A
Undervoltage Lockout	Shutdown	65	—	74	VAC
Power Factor	110 VAC @ Full Load	0.98	0.99	—	—
Fusing XVA	250 V	—	F8A HRC	—	—
XVB	250 V	—	F10A HRC	—	—
XVC, XVD	250 V	—	F12A HRC	—	—
XVE	250 V	—	F15A HRC	—	—

ABOUT ADVANCED ENERGY

Advanced Energy (AE) has devoted more than three decades to perfecting power for its global customers. AE designs and manufactures highly engineered, precision power conversion, measurement and control solutions for mission-critical applications and processes.

AE's power solutions enable customer innovation in complex semiconductor and industrial thin film plasma manufacturing processes, demanding high and low voltage applications, and temperature-critical thermal processes.

With deep applications know-how and responsive service and support across the globe, AE builds collaborative partnerships to meet rapid technological developments, propel growth for its customers and power the future of technology.

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