

# Highly Reliable, Rugged, Cost-Effective Power Solution for Medical Patient Monitors

## INDUSTRY

Medical Life  
Science

## SOLUTION

70 W Custom AC-DC  
Power Supply

## EQUIPMENT

Patient Monitor

## CHALLENGE

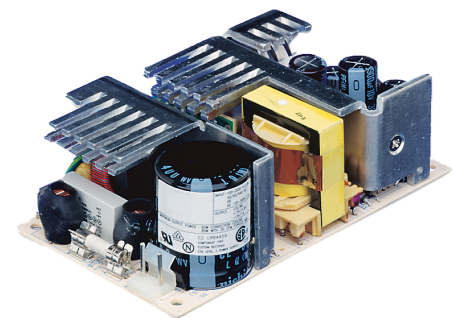
The Covid-19 pandemic has driven a global increase in demand for medical equipment, particularly for patient monitors. A world-renowned provider of patient monitoring devices with sizeable volume requirements has approached Advanced Energy, specifically the Artesyn product line, to provide a highly reliable, rugged, and low-cost power supply for its patient monitors for use on global installations.

## SOLUTION

For many years Advanced Energy has been the partner of various healthcare equipment suppliers for patient monitors. Applications include standard low-power, open-frame models, modified standard variants, and custom solutions, if cost competitiveness is needed. A universal AC input 70 W AC-DC power supply, leveraged from proven existing power supply designs, with low stand-by power and with various safety protections, have been quoted in a quick turnaround time. The well-balanced component layout, along with a good thermal design, ensures 24 x 7 operation, about 2.9 million hours of calculated MTBF, and more than 15 years of e-cap life for these power supplies. The mechanical design of the AC inlet ensures that electronic components are protected from possible water ingress for installations in operating rooms and more harsh environments.

Additional features of 70 W Custom AC-DC PSU:

- Meets EMI Class B with margin
- Complies with IEC 60601-1-2 4th Edition
- Suitable for Type BF (Body Floating) medical devices
- 0°C to 60°C ambient temperature operations



Artesyn low power AC-DC power supply

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## RESULT

The 70 W custom AC-DC power supply from Advanced Energy's Artesyn product line meets the electrical specifications, ruggedness, and reliability necessary for intense applications expected for patient monitors. A custom design helped to meet the customer's target costs along with the quality and reliability requirements. Furthermore, Advanced Energy has demonstrated, through multiple approaches, including online discussion, past in-person audits, and recent virtual factory audits, that strict quality and process controls are in place. The showcase of automated production lines provide assurance of more than enough available capacity for the customer. The factory is also ISO13845 certified for manufacturing medical power supplies.

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## CONCLUSION

With over 40 years of experience in the design and manufacturing of medical power supplies, Advanced Energy been the strategic partner of global brands for medical equipment. The broad portfolio of standard, custom, and modified standards have enabled a quick selection of the appropriate platform to use to meet the customer's targets on cost, quality, and reliability.



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PRECISION | POWER | PERFORMANCE

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