

FOR ENERGY EFFICIENT INNOVATIONS

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Silicon Carbide – SiC Auxiliary Power Supply for 15W and 40W

Ecosystem solutions for WBG

Public Information



Isolated Auxiliary Power supply 15W SiC – Full auto Qual BOM

Benefits

- Superior Efficiency with SiC Devices
- Stable Performance across a Wide Input Voltage Range (250 Vdc – 900 Vdc)
- Reduced Bill-of-Material and Cost-optimized
- Fully AEC-Q Qualified Parts
- EMC within EN 55015 Limits
- Single Layer PCB



[Learn more](#)

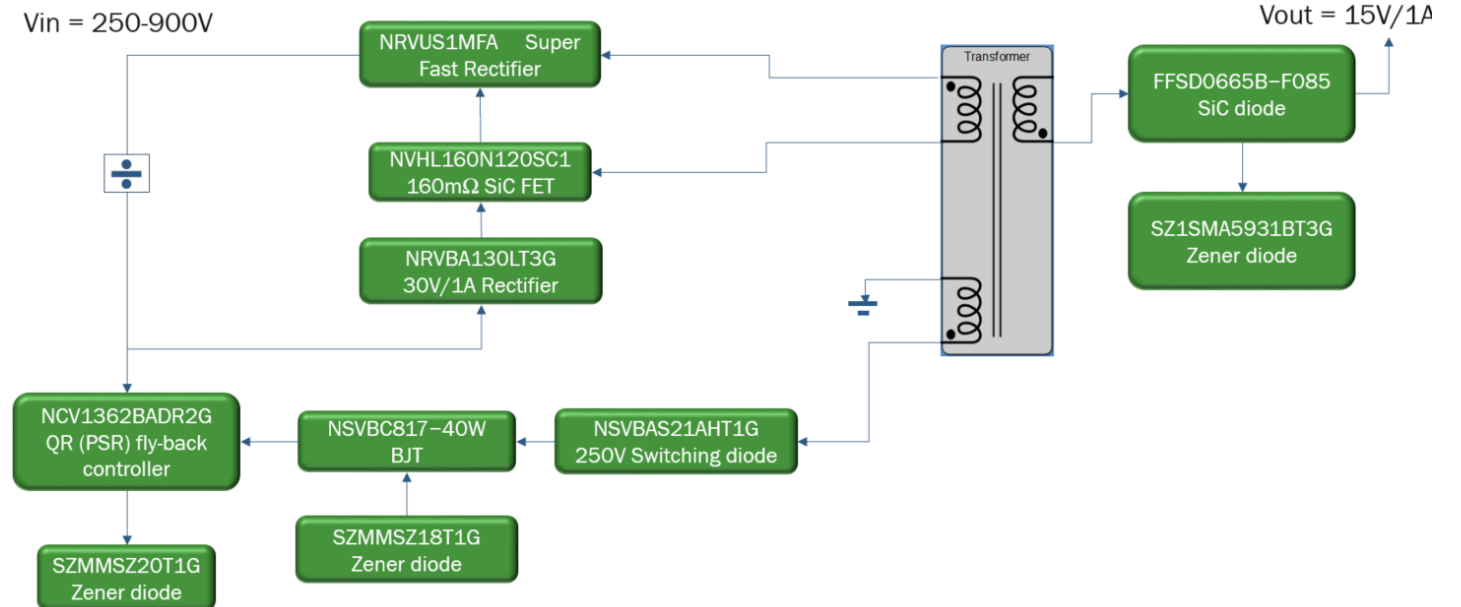


[Video](#)

SECO-HVDCDC1362-15W15V-GEVB

Specification

Vin	250-900 Vdc
Vout	~15 V
Power	15 W
Isolation Level	4 kV
Switching freq.	50kHz(max load)-200kHz
Key BOM	NCV/P1362, NVH4L0160N120SC1
Regulations	IEC 62368-1, pollution degree1

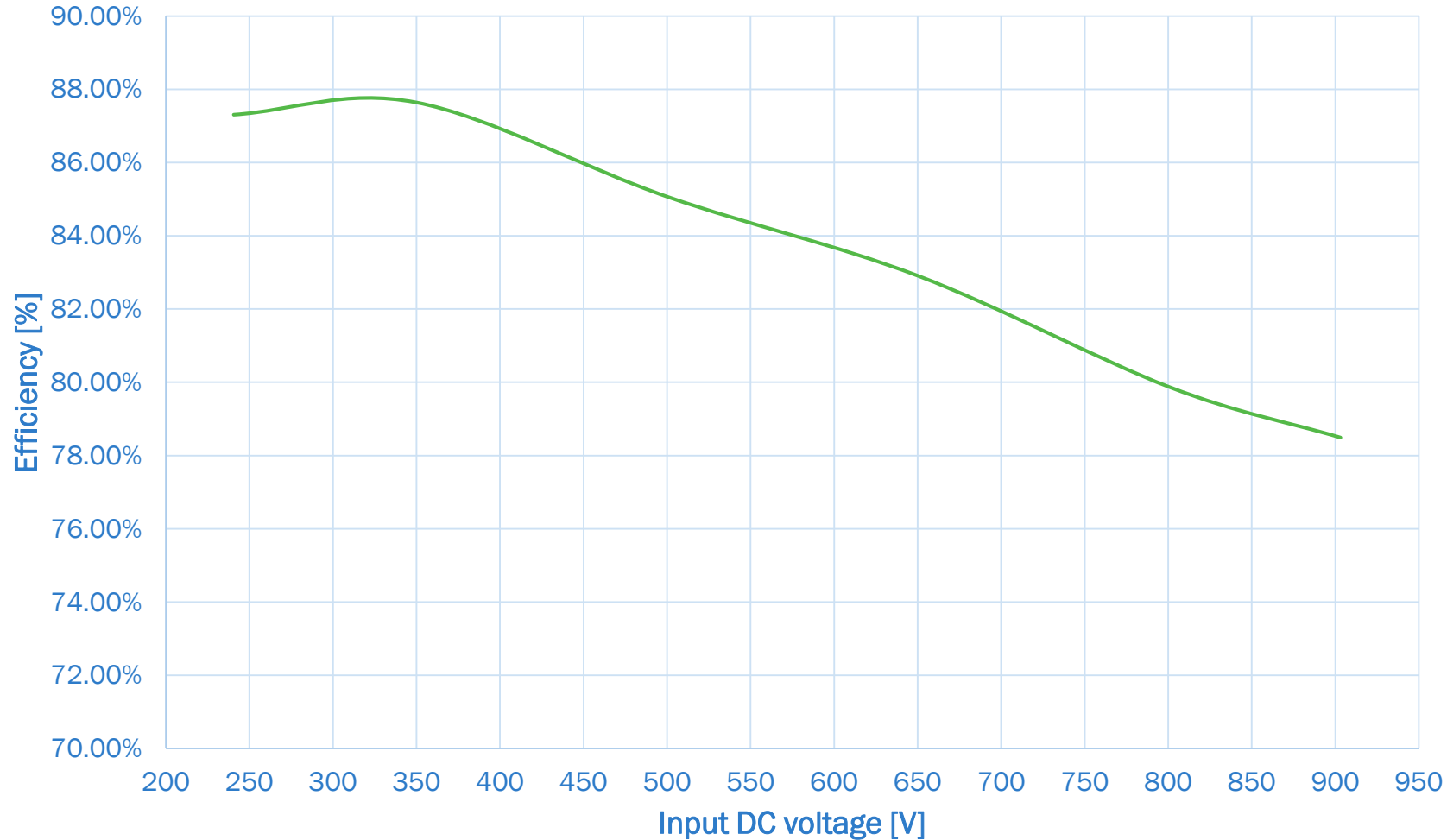


Public Information



Efficiency Figures at input voltage range and full load conditions

Efficiency @15W HV Auxiliary



Measured conditions:

- Output power $P_{out} \sim 15W$
- Electronic load: Chroma 6147A used channel 3 as CRH (constant resistance high mode 15 Ohm \rightarrow 1.0A)

List of equipment:

- DC source: Magna-Power 0-1000V
- Power analyzer: Textronix PA3000
- Electronic load: Chroma

40W - Isolated Auxiliary Power supply SiC – Full auto Qual BOM

Benefits

- Superior efficiency with SiC devices
- Stable performance across a wide input voltage range (250 Vdc – 900 Vdc)
- Reduced bill-of-material and cost-optimized
- Fully AEC-Q qualified parts
- EMC within EN 55015 limits
- Single layer PCB



[Learn more](#)



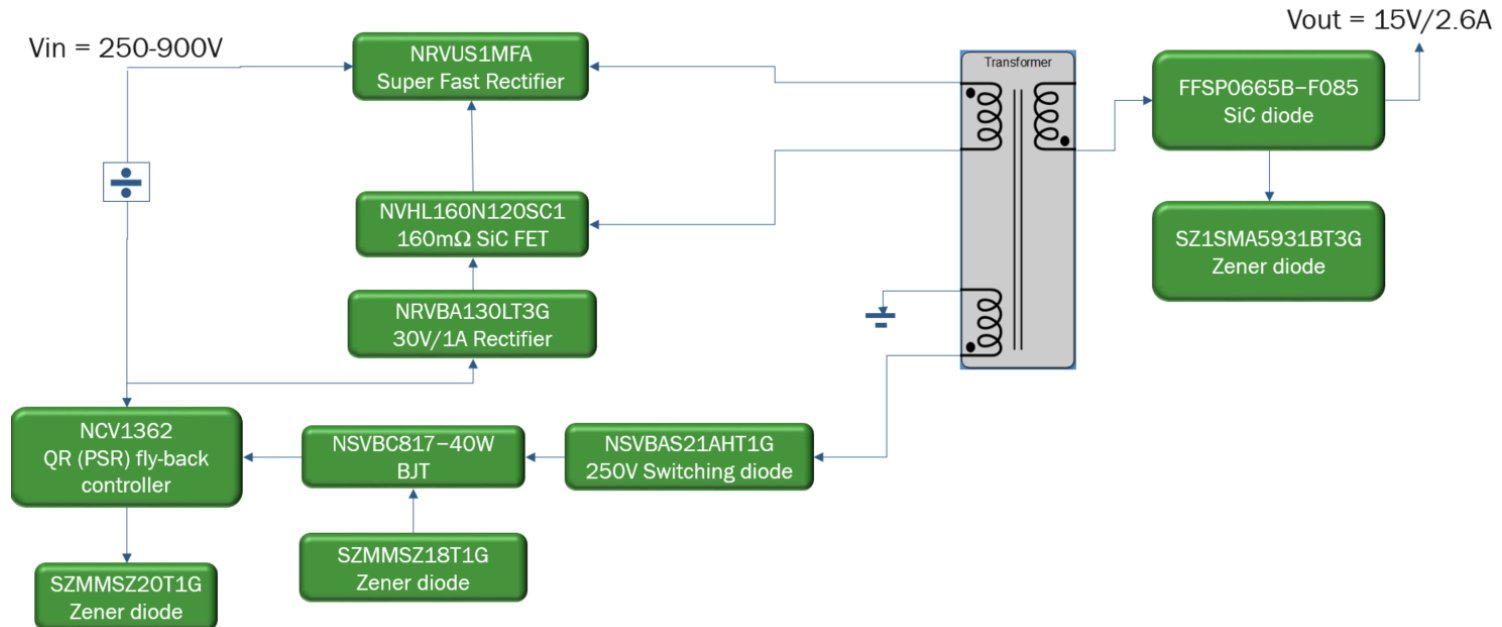
[All files - SP](#)



SEC0-HVDCDC1362-40W15V-GEVB

Specification

Vin	250-900 Vdc
Vout	~15 V
Power	40 W
Isolation Level	4kV
Switching freq.	60kHz(max load)-200kHz
Key BOM	Automotive NCV1362, NVH4L0160N120SC1
Regulations	IEC 62368-1, pollution degree1



Public Information

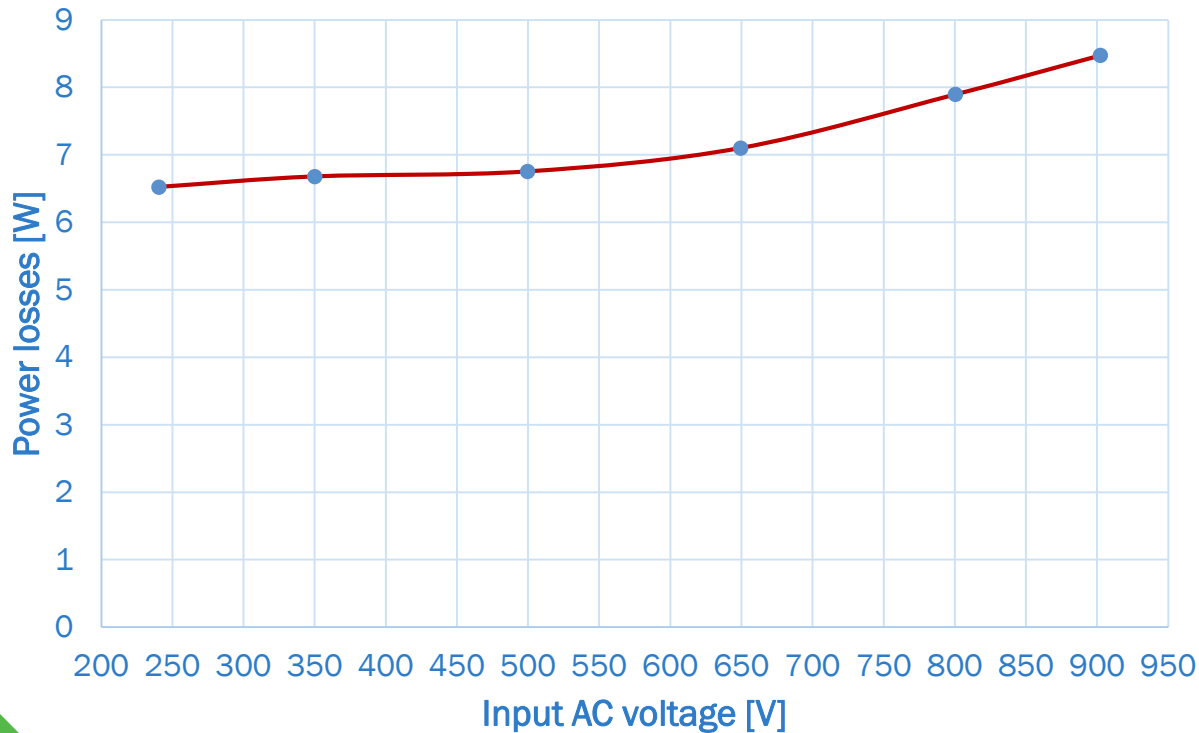


Efficiency DC-DC at input voltage range and full load conditions

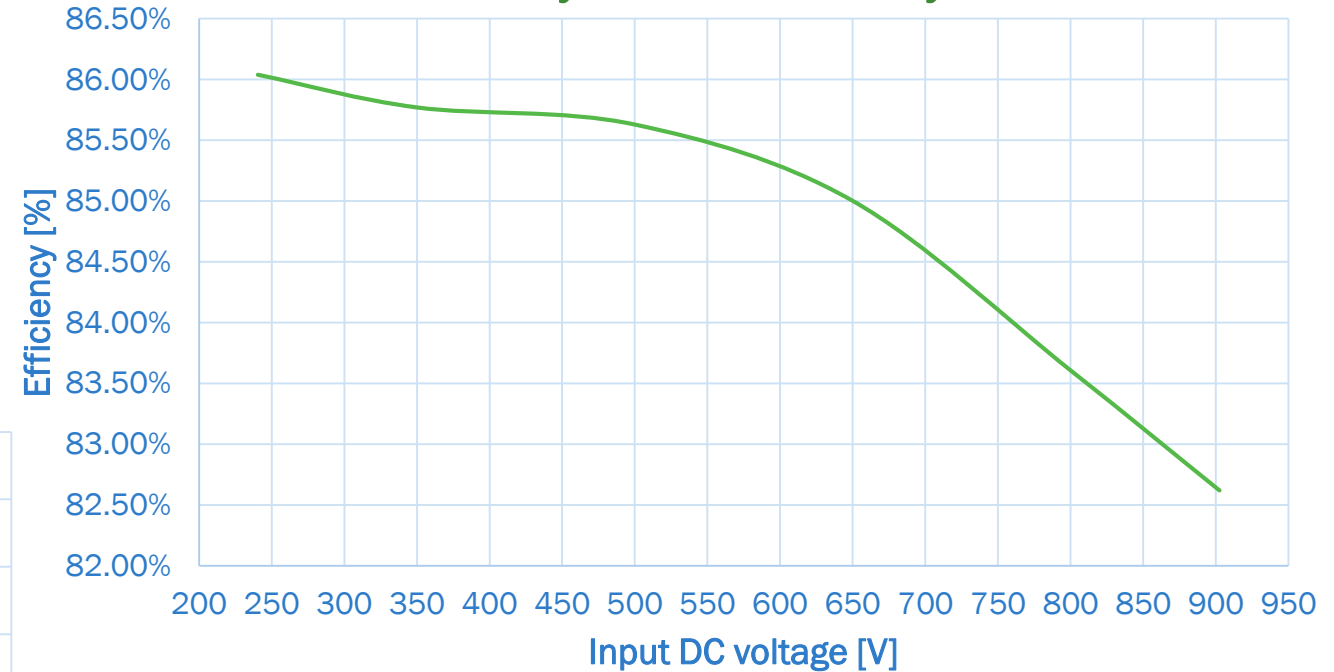
Measured conditions:

- Output power $P_{out} \sim 40W$
- Electronic load: Chroma 6147A used channel 3 as CRH (constant resistance high mode 5.65 Ohm \rightarrow 2.58A)

Power losses 40W HV Auxiliary



Efficiency 40W HV Auxiliary



List of equipment:

- DC source: Magna-Power 0-1000V
- Power analyzer: Textronix PA3000
- Electronic load: Chroma