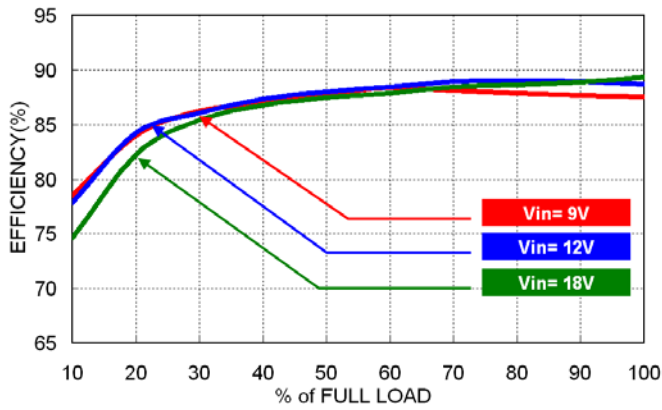
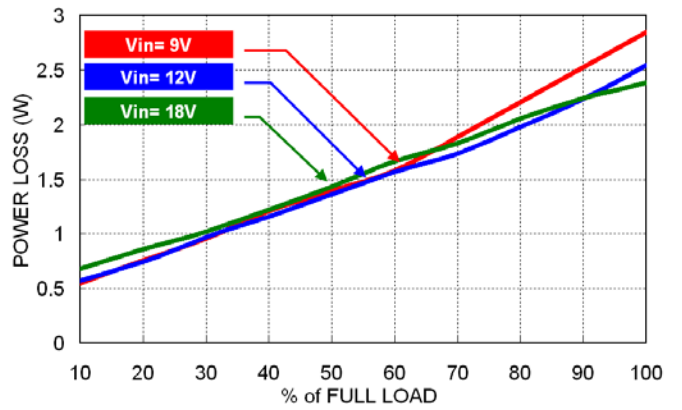


POWERBOX Medline  
 PMM20 Series  
 20W 2:1 & 4:1 Single and Dual Output  
 Medical DC/DC Converter  
 Characteristic Curves

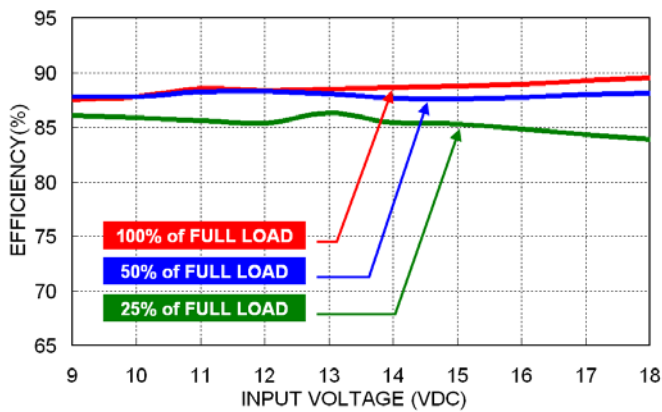
All test conditions are at 25°C. The figures are identical for PMM20-12S05



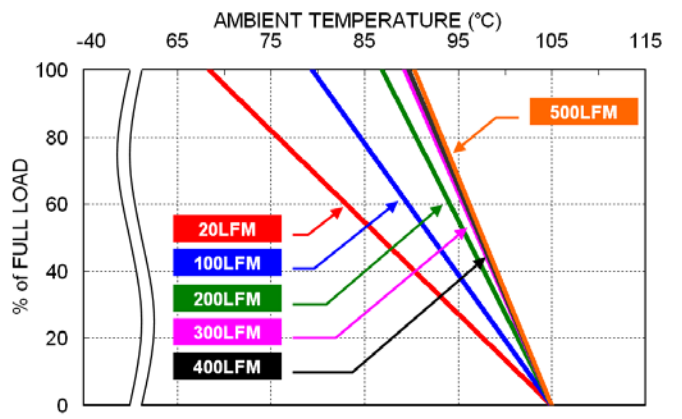
Efficiency Versus Output Load



Power Dissipation Versus Output Load



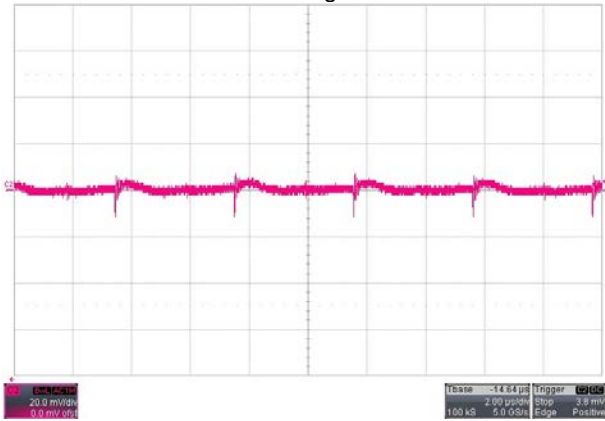
Efficiency Versus Input Voltage.



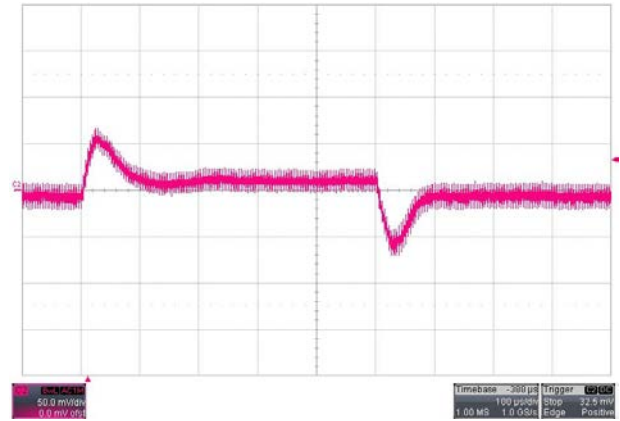
Derating Output Load Versus Ambient Temperature and Airflow  
 Vin(nom)

POWERBOX Medline  
 PMM20 Series  
 20W 2:1 & 4:1 Single and Dual Output  
 Medical DC/DC Converter  
 Characteristic Curves

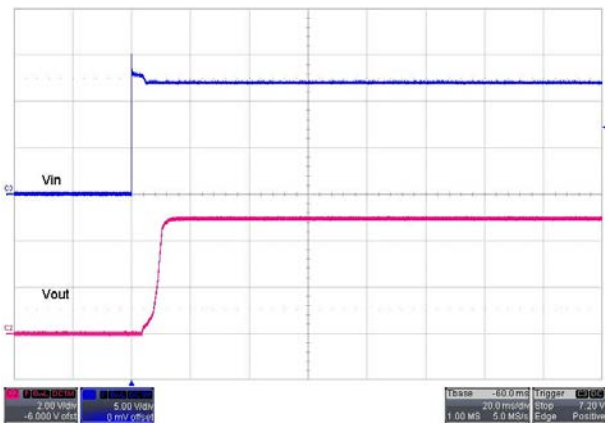
All test conditions are at 25°C. The figures are identical for PMM20-12S05



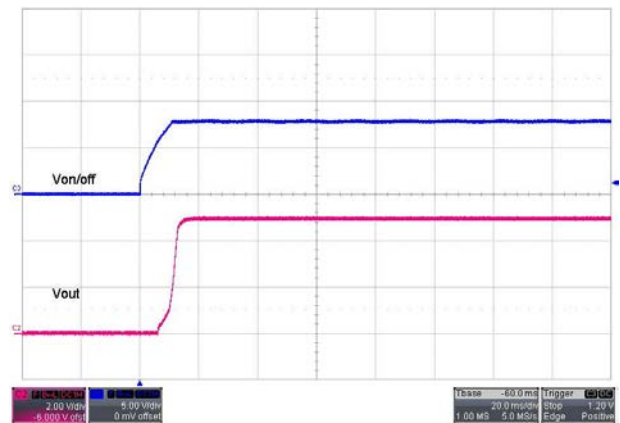
Typical Output Ripple and Noise.  
 Vin(nom), Full Load



Transient Response to Dynamic Load Change from  
 100% to 75% to 100% of Full Load ; Vin(nom)



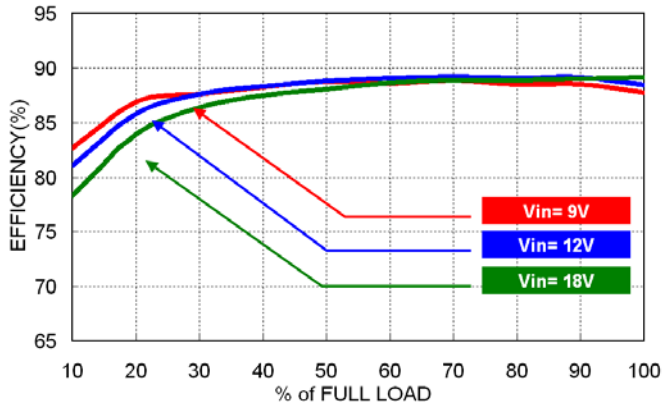
Typical Input Start-Up and Output Rise Characteristic  
 Vin(nom), Full Load



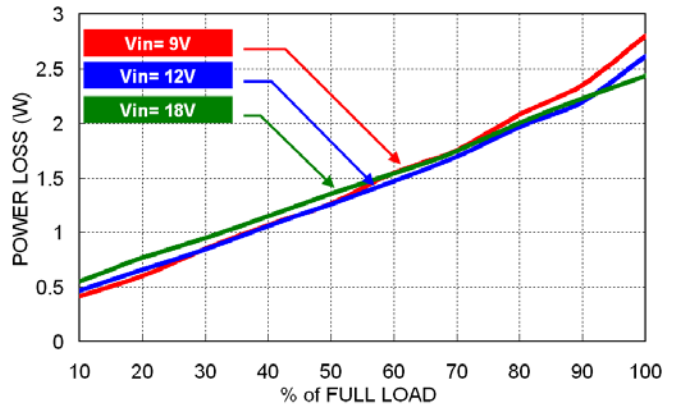
Using ON/OFF Voltage Start-Up and Vo Rise Characteristic  
 Vin(nom), Full Load

POWERBOX Medline  
 PMM20 Series  
 20W 2:1 & 4:1 Single and Dual Output  
 Medical DC/DC Converter  
 Characteristic Curves

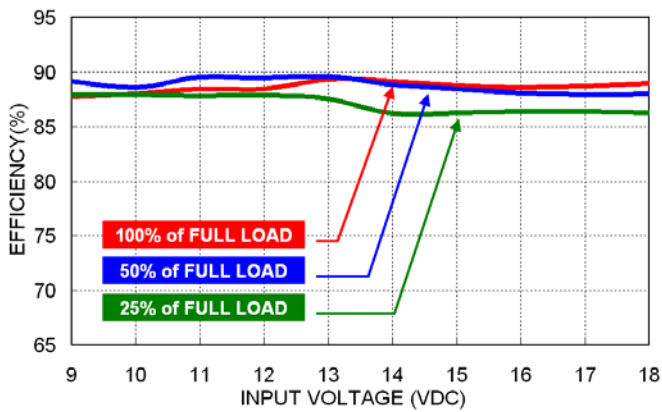
All test conditions are at 25°C. The figures are identical for PMM20-12S12



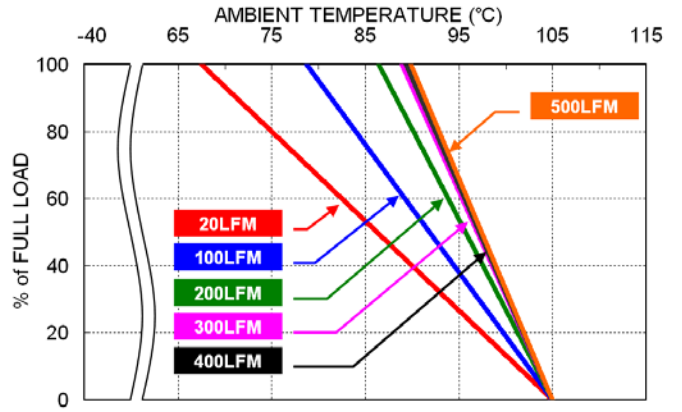
Efficiency Versus Output Load



Power Dissipation Versus Output Load

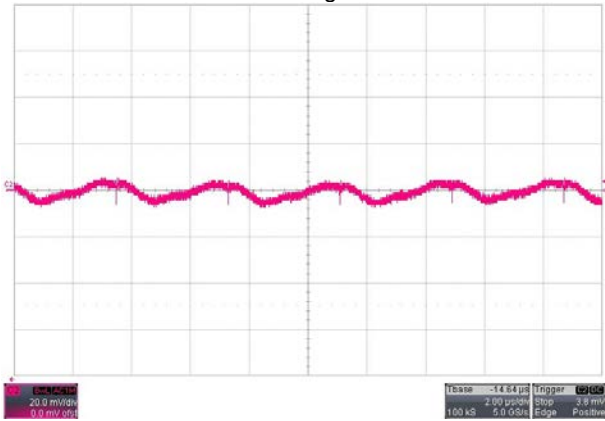


Efficiency Versus Input Voltage.

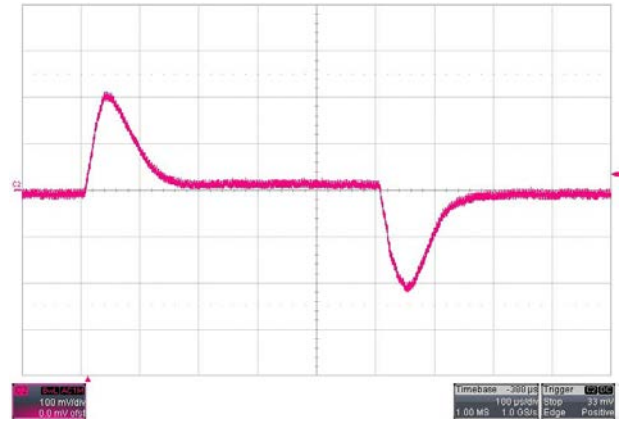


Derating Output Load Versus Ambient Temperature and Airflow  
 Vin(nom)

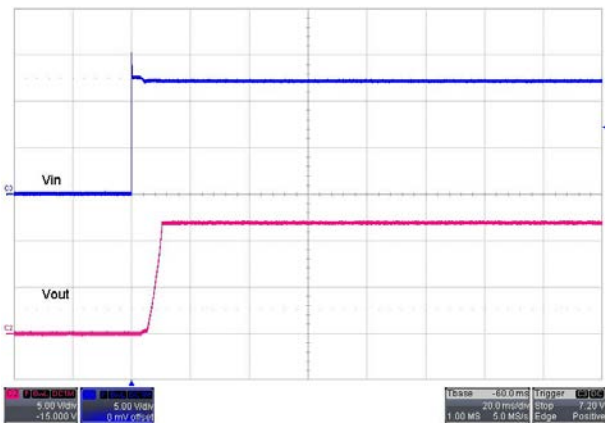
All test conditions are at 25°C. The figures are identical for PMM20-12S12



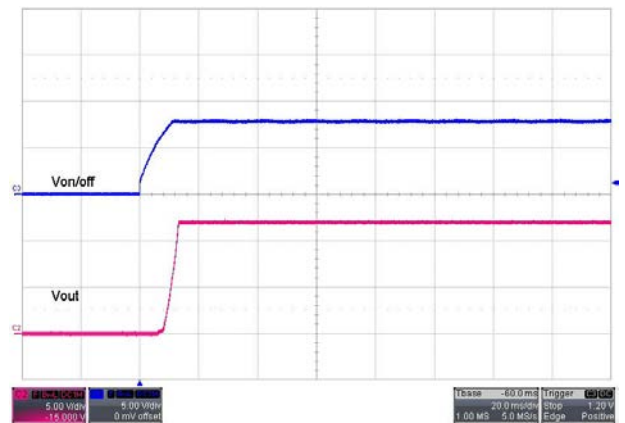
Typical Output Ripple and Noise.  
Vin(nom), Full Load



Transient Response to Dynamic Load Change from  
100% to 75% to 100% of Full Load ; Vin(nom)



Typical Input Start-Up and Output Rise Characteristic  
Vin(nom), Full Load

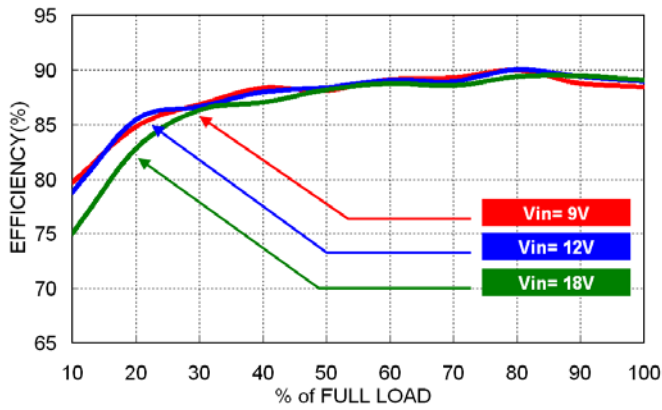


Using ON/OFF Voltage Start-Up and Vo Rise Characteristic  
Vin(nom), Full Load

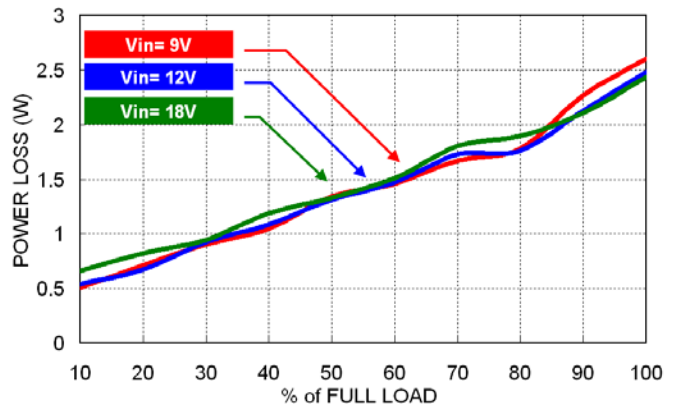


POWERBOX Medline  
 PMM20 Series  
 20W 2:1 & 4:1 Single and Dual Output  
 Medical DC/DC Converter  
 Characteristic Curves

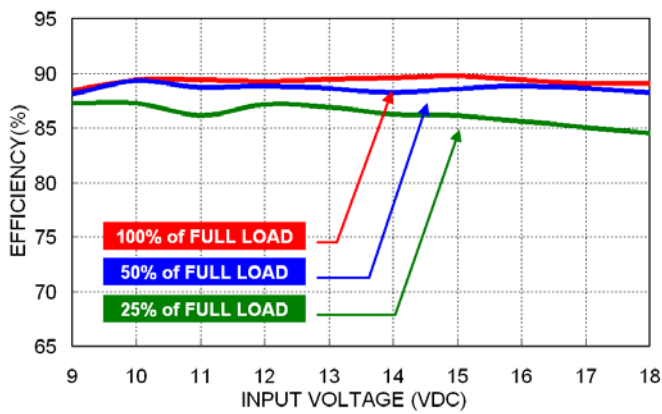
All test conditions are at 25°C. The figures are identical for PMM20-12S15



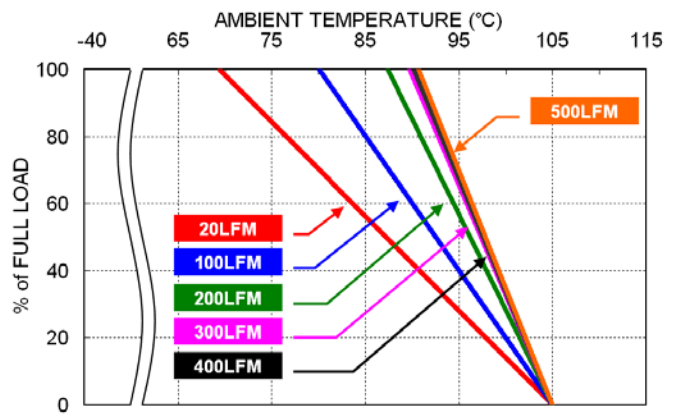
Efficiency Versus Output Load



Power Dissipation Versus Output Load



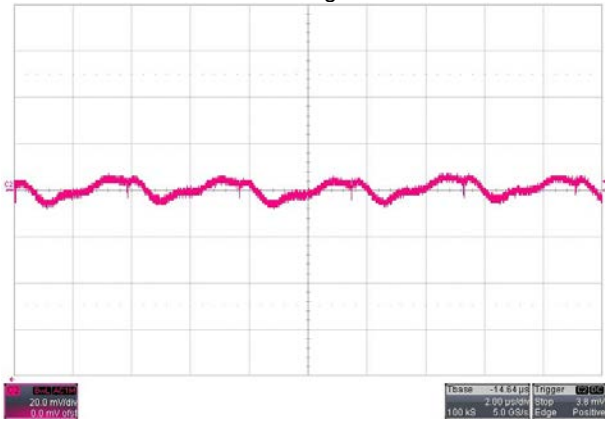
Efficiency Versus Input Voltage.



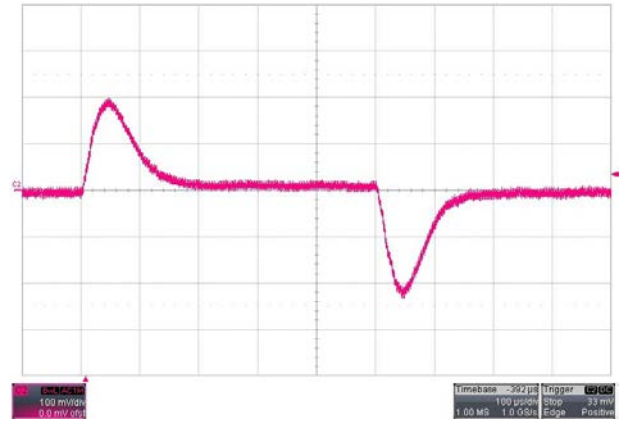
Derating Output Load Versus Ambient Temperature and Airflow  
 Vin(nom)

POWERBOX Medline  
 PMM20 Series  
 20W 2:1 & 4:1 Single and Dual Output  
 Medical DC/DC Converter  
 Characteristic Curves

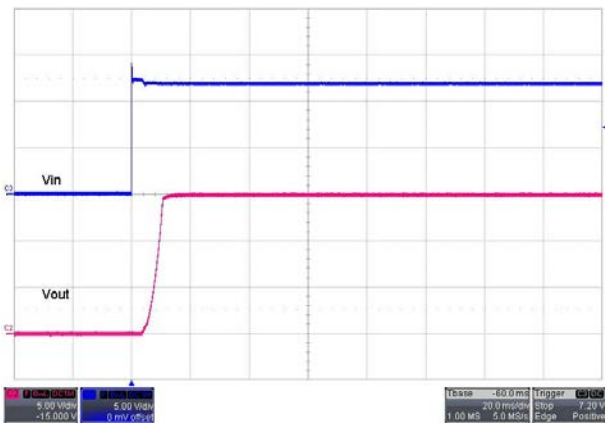
All test conditions are at 25°C. The figures are identical for PMM20-12S15



Typical Output Ripple and Noise.  
 Vin(nom), Full Load



Transient Response to Dynamic Load Change from  
 100% to 75% to 100% of Full Load ; Vin(nom)



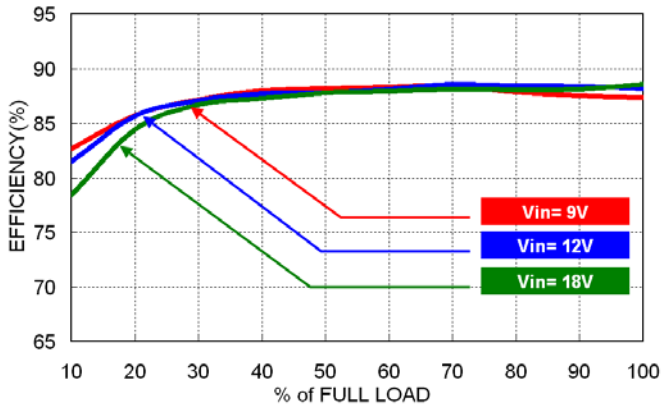
Typical Input Start-Up and Output Rise Characteristic  
 Vin(nom), Full Load



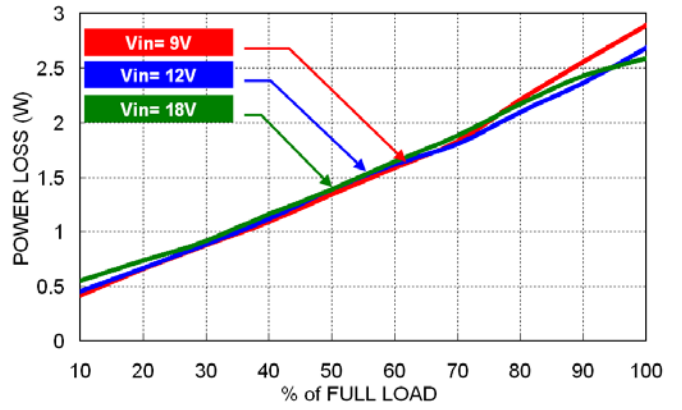
Using ON/OFF Voltage Start-Up and Vo Rise Characteristic  
 Vin(nom), Full Load

POWERBOX Medline  
 PMM20 Series  
 20W 2:1 & 4:1 Single and Dual Output  
 Medical DC/DC Converter  
 Characteristic Curves

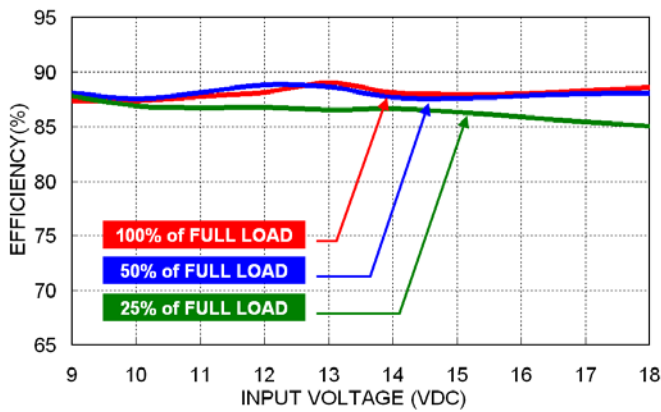
All test conditions are at 25°C. The figures are identical for PMM20-12S24



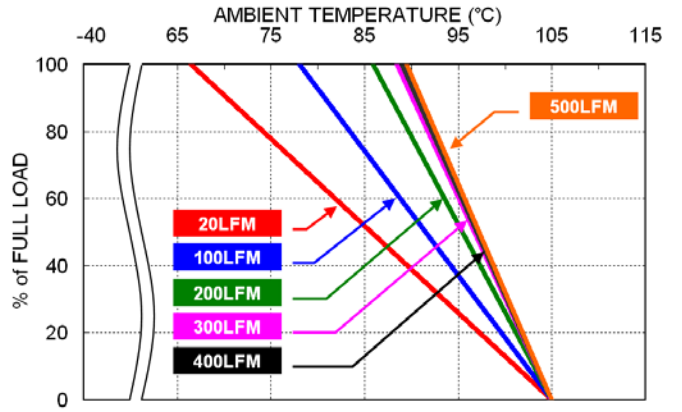
Efficiency Versus Output Load



Power Dissipation Versus Output Load

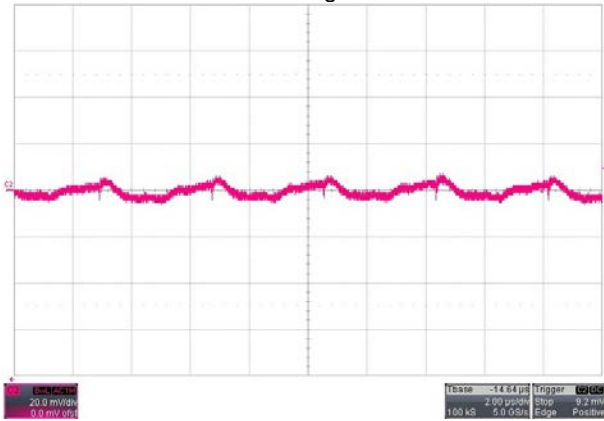


Efficiency Versus Input Voltage.

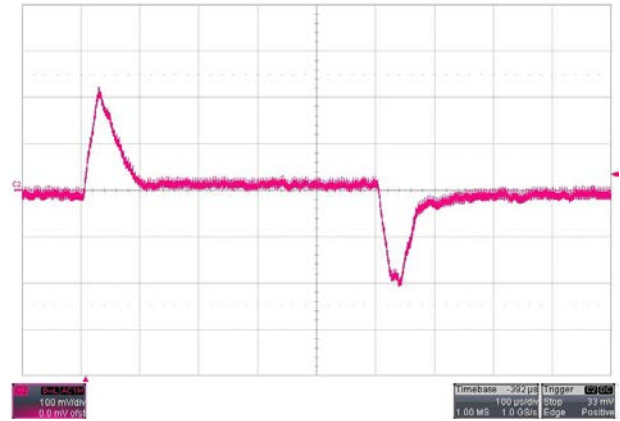


Derating Output Load Versus Ambient Temperature and Airflow  
 Vin(nom)

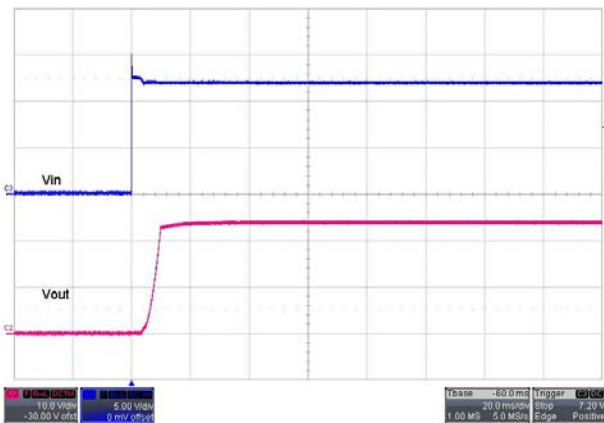
All test conditions are at 25°C. The figures are identical for PMM20-12S24



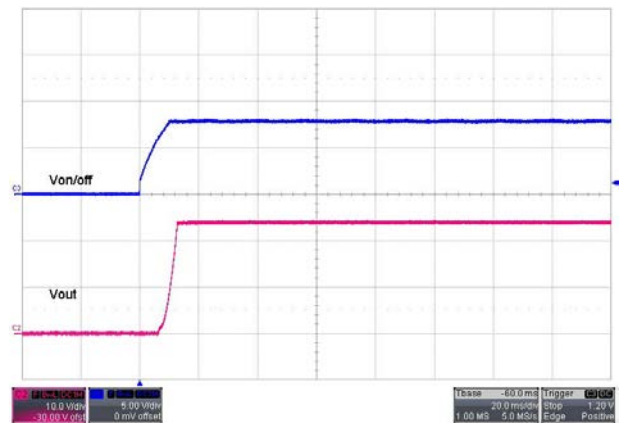
Typical Output Ripple and Noise.  
Vin(nom), Full Load



Transient Response to Dynamic Load Change from  
100% to 75% to 100% of Full Load ; Vin(nom)



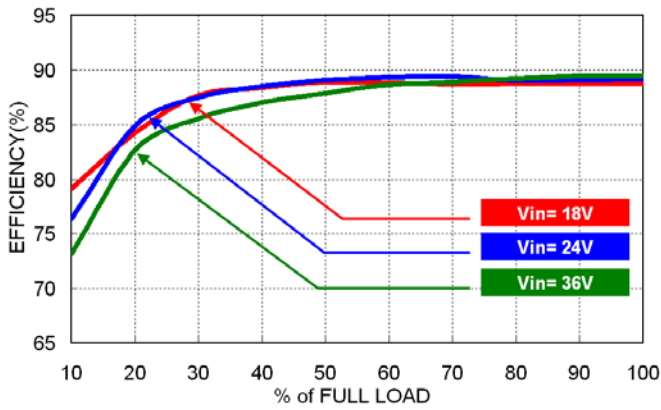
Typical Input Start-Up and Output Rise Characteristic  
Vin(nom), Full Load



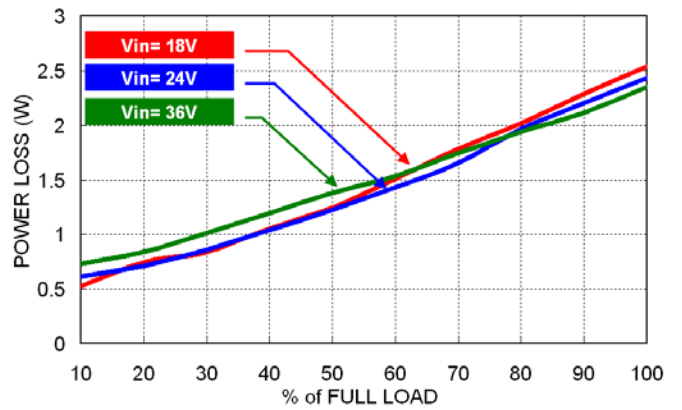
Using ON/OFF Voltage Start-Up and Vo Rise Characteristic  
Vin(nom), Full Load

POWERBOX Medline  
 PMM20 Series  
 20W 2:1 & 4:1 Single and Dual Output  
 Medical DC/DC Converter  
 Characteristic Curves

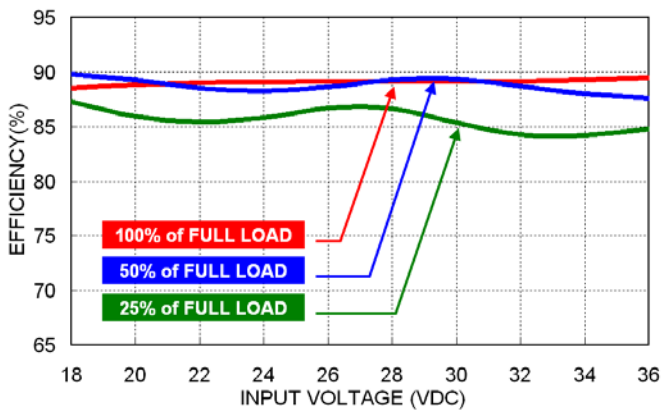
All test conditions are at 25°C. The figures are identical for PMM20-24S05



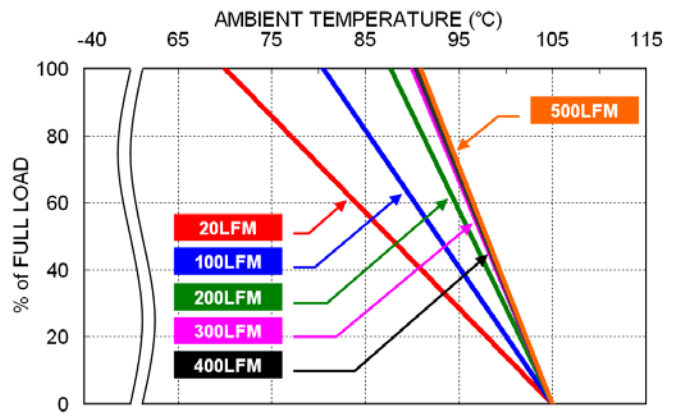
Efficiency Versus Output Load



Power Dissipation Versus Output Load

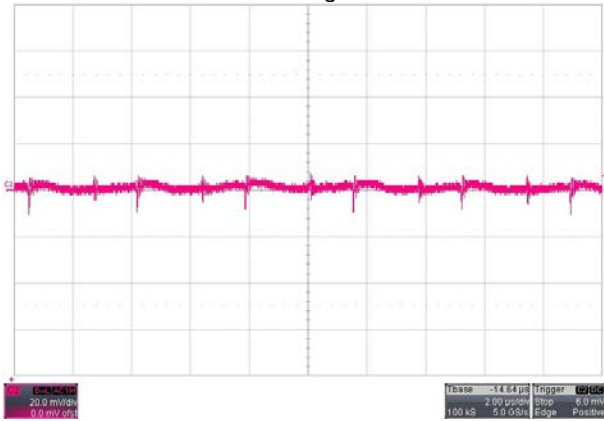


Efficiency Versus Input Voltage.

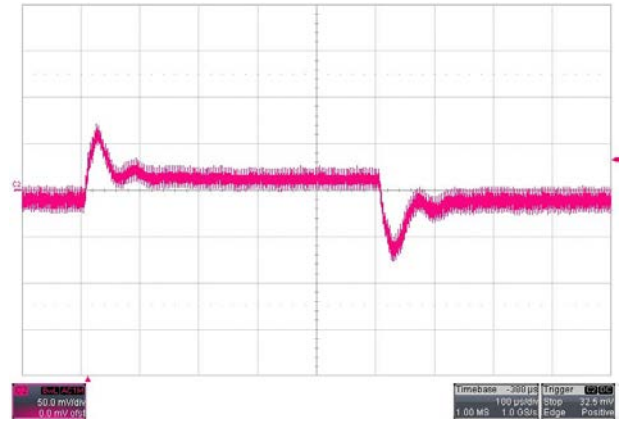


Derating Output Load Versus Ambient Temperature and Airflow  
 Vin(nom)

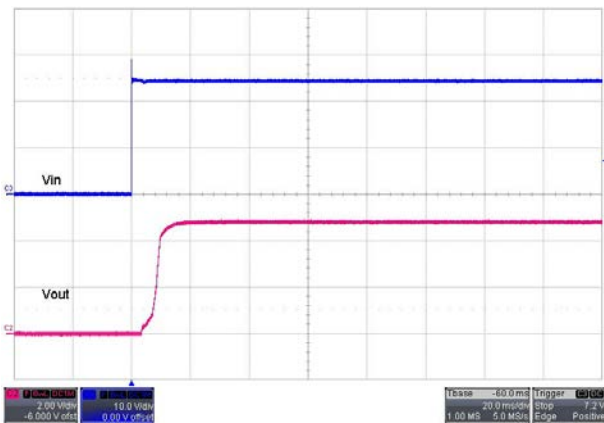
All test conditions are at 25°C. The figures are identical for PMM20-24S05



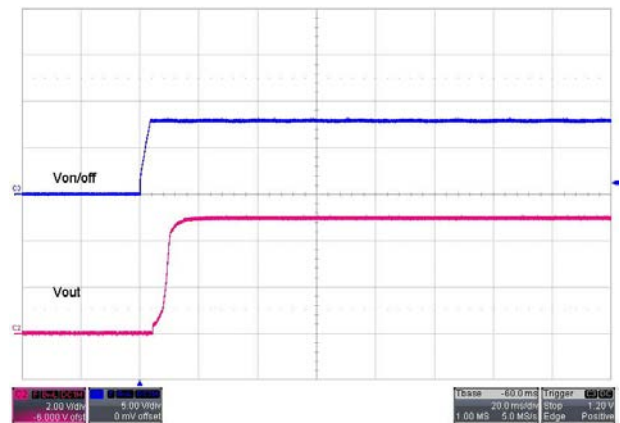
Typical Output Ripple and Noise.  
Vin(nom), Full Load



Transient Response to Dynamic Load Change from  
100% to 75% to 100% of Full Load ; Vin(nom)



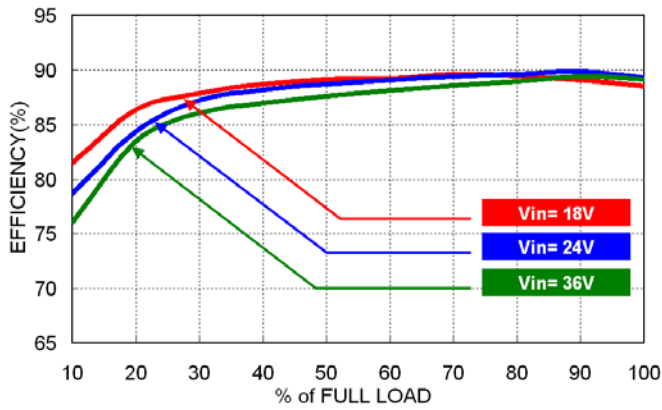
Typical Input Start-Up and Output Rise Characteristic  
Vin(nom), Full Load



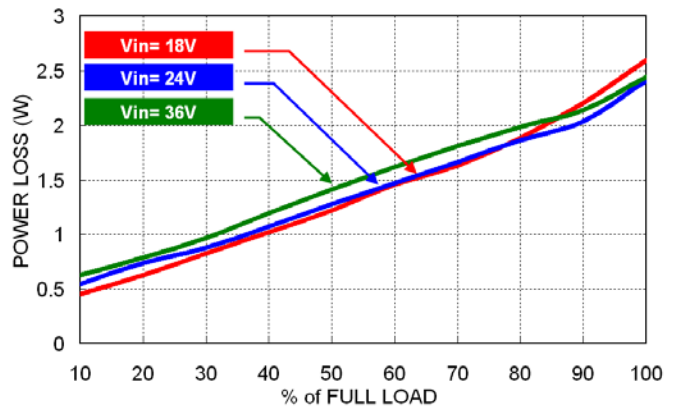
Using ON/OFF Voltage Start-Up and Vo Rise Characteristic  
Vin(nom), Full Load

POWERBOX Medline  
PMM20 Series  
20W 2:1 & 4:1 Single and Dual Output  
Medical DC/DC Converter  
Characteristic Curves

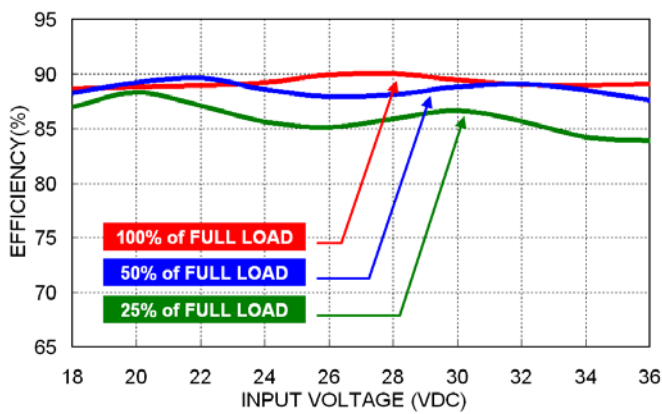
All test conditions are at 25°C. The figures are identical for PMM20-24S12



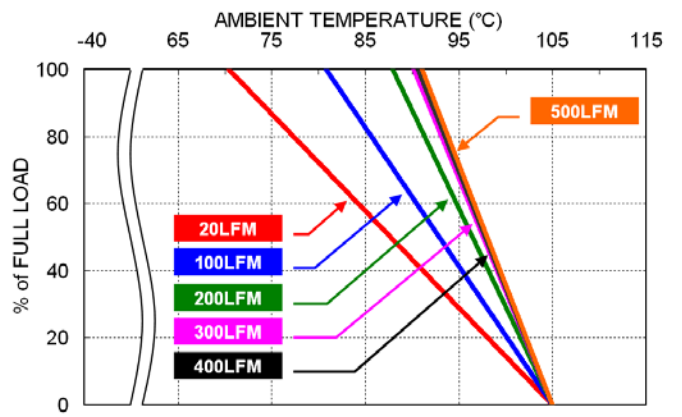
Efficiency Versus Output Load



Power Dissipation Versus Output Load



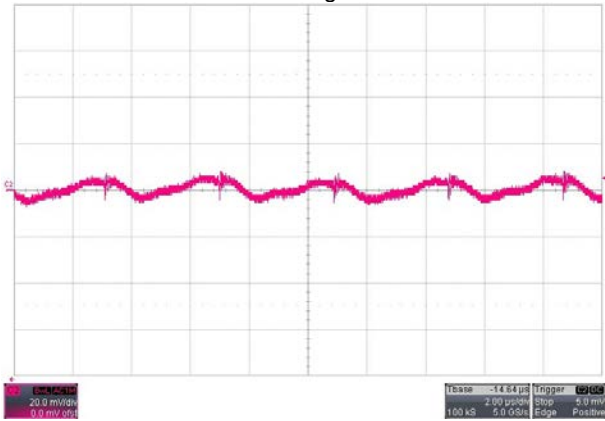
Efficiency Versus Input Voltage.



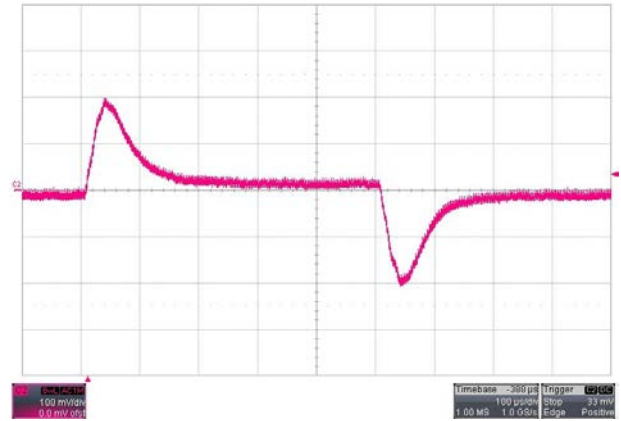
Derating Output Load Versus Ambient Temperature and Airflow  
Vin(nom)

POWERBOX Medline  
 PMM20 Series  
 20W 2:1 & 4:1 Single and Dual Output  
 Medical DC/DC Converter  
 Characteristic Curves

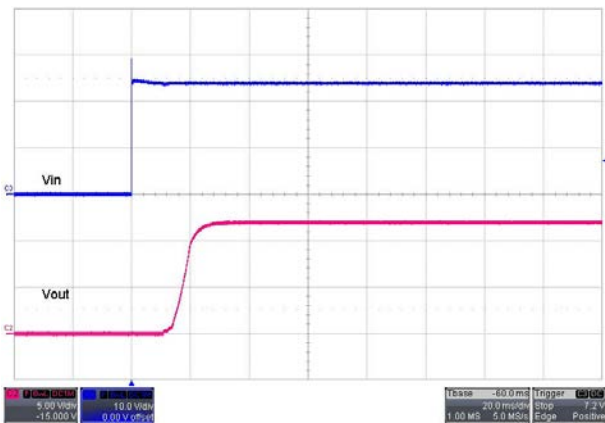
All test conditions are at 25°C. The figures are identical for PMM20-24S12



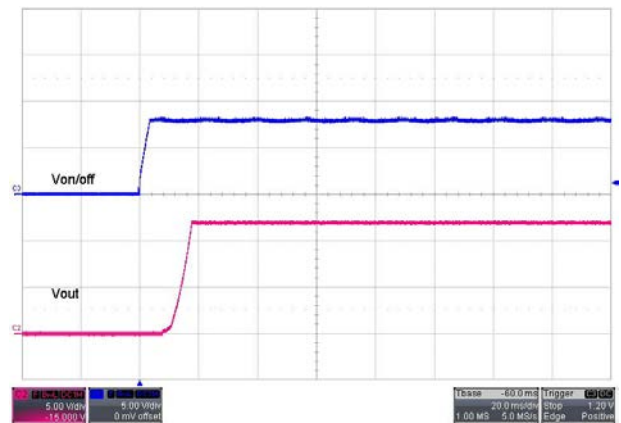
Typical Output Ripple and Noise.  
 Vin(nom), Full Load



Transient Response to Dynamic Load Change from  
 100% to 75% to 100% of Full Load ; Vin(nom)



Typical Input Start-Up and Output Rise Characteristic  
 Vin(nom), Full Load

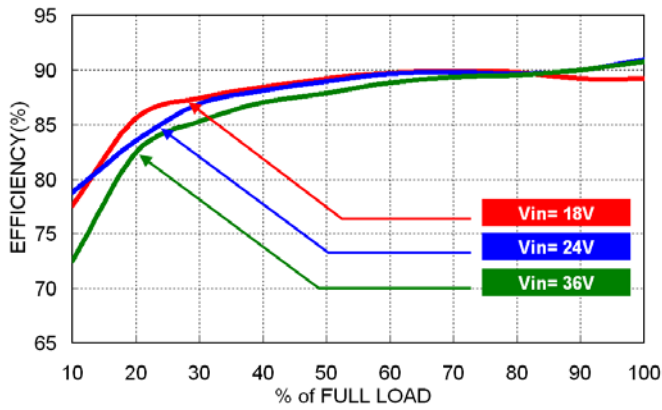


Using ON/OFF Voltage Start-Up and Vo Rise Characteristic  
 Vin(nom), Full Load

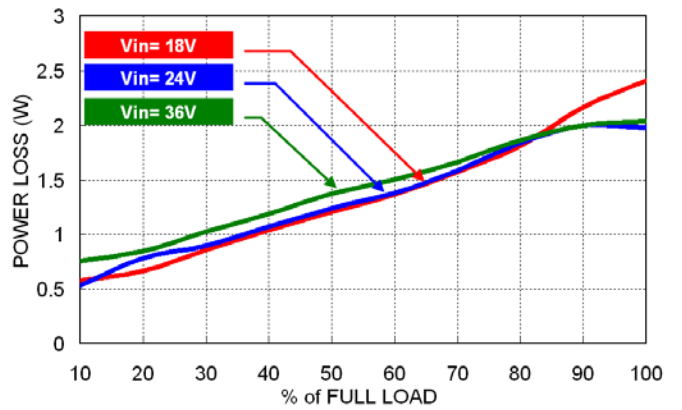


POWERBOX Medline  
PMM20 Series  
20W 2:1 & 4:1 Single and Dual Output  
Medical DC/DC Converter  
Characteristic Curves

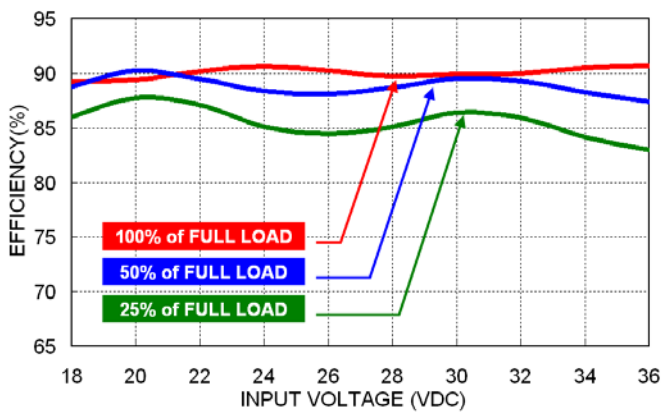
All test conditions are at 25°C. The figures are identical for PMM20-24S15



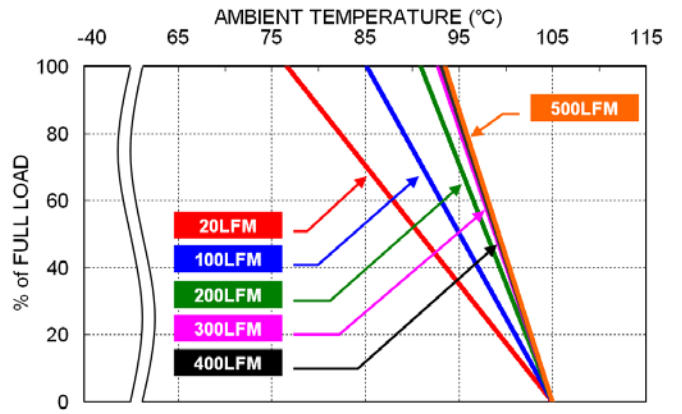
Efficiency Versus Output Load



Power Dissipation Versus Output Load



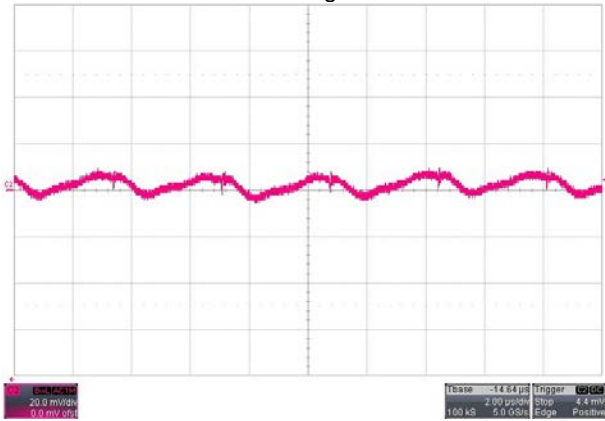
Efficiency Versus Input Voltage.



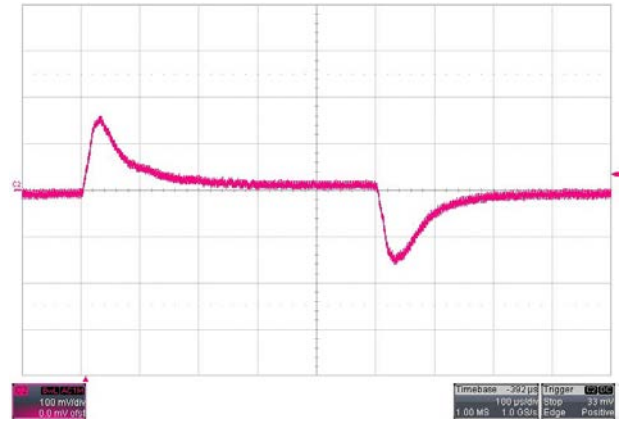
Derating Output Load Versus Ambient Temperature and Airflow  
Vin(nom)

POWERBOX Medline  
 PMM20 Series  
 20W 2:1 & 4:1 Single and Dual Output  
 Medical DC/DC Converter  
 Characteristic Curves

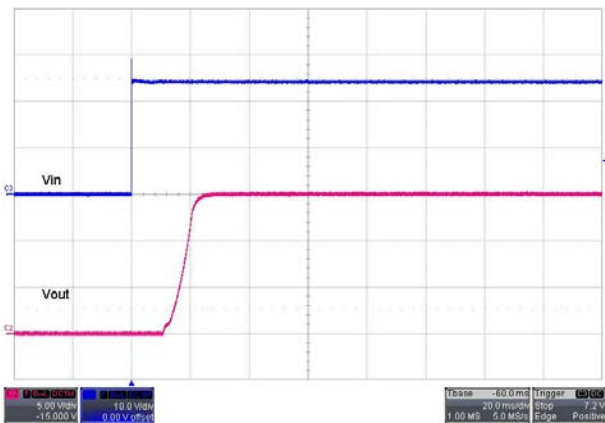
All test conditions are at 25°C. The figures are identical for PMM20-24S15



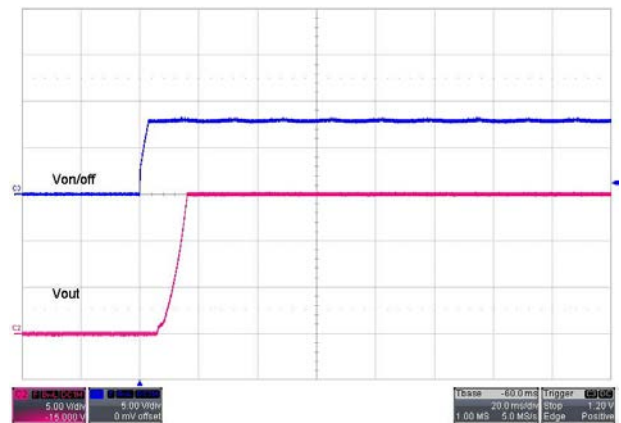
Typical Output Ripple and Noise.  
 Vin(nom), Full Load



Transient Response to Dynamic Load Change from  
 100% to 75% to 100% of Full Load ; Vin(nom)



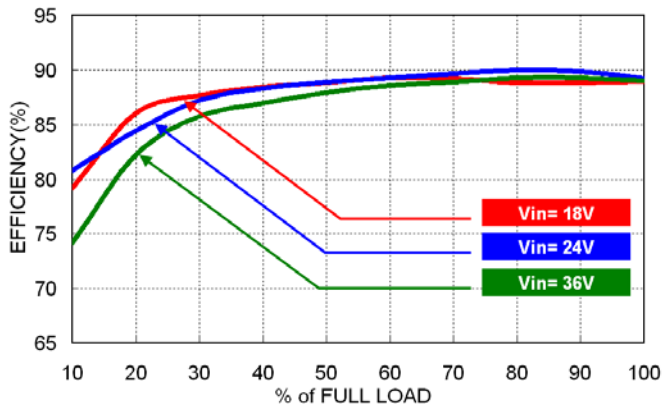
Typical Input Start-Up and Output Rise Characteristic  
 Vin(nom), Full Load



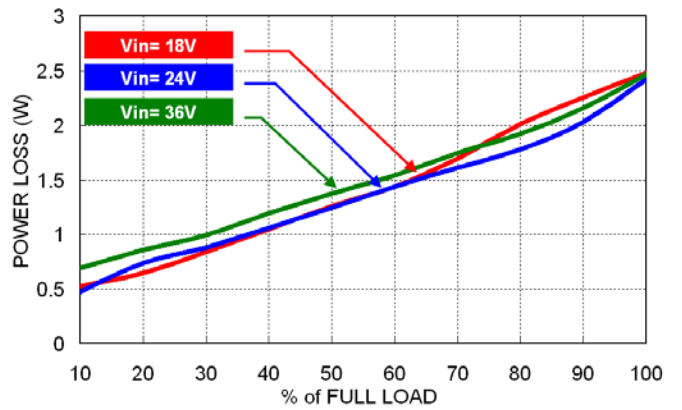
Using ON/OFF Voltage Start-Up and Vo Rise Characteristic  
 Vin(nom), Full Load

POWERBOX Medline  
 PMM20 Series  
 20W 2:1 & 4:1 Single and Dual Output  
 Medical DC/DC Converter  
 Characteristic Curves

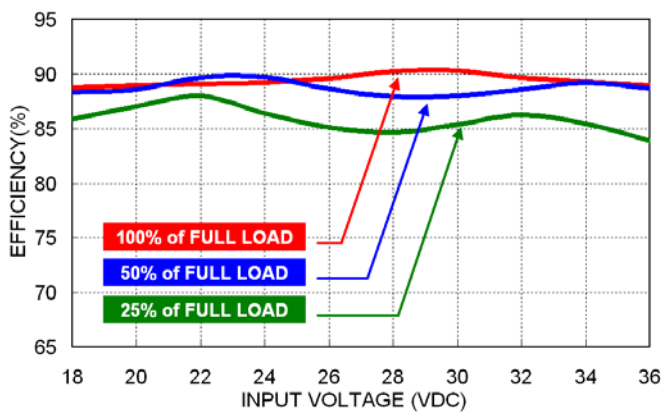
All test conditions are at 25°C. The figures are identical for PMM20-24S24



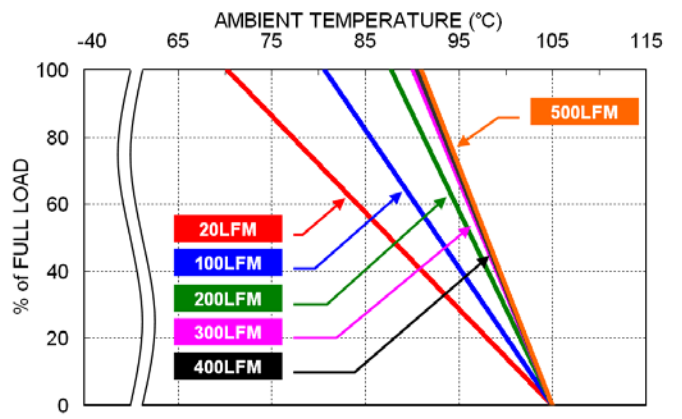
Efficiency Versus Output Load



Power Dissipation Versus Output Load



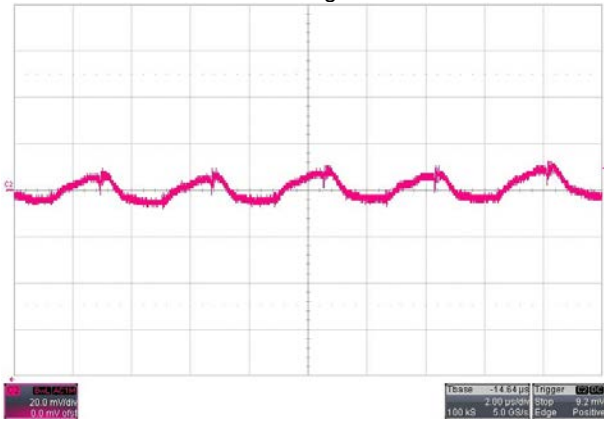
Efficiency Versus Input Voltage.



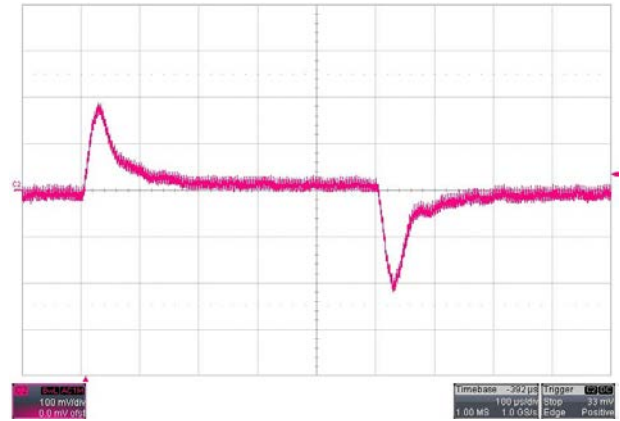
Derating Output Load Versus Ambient Temperature and Airflow  
 Vin(nom)

POWERBOX Medline  
 PMM20 Series  
 20W 2:1 & 4:1 Single and Dual Output  
 Medical DC/DC Converter  
 Characteristic Curves

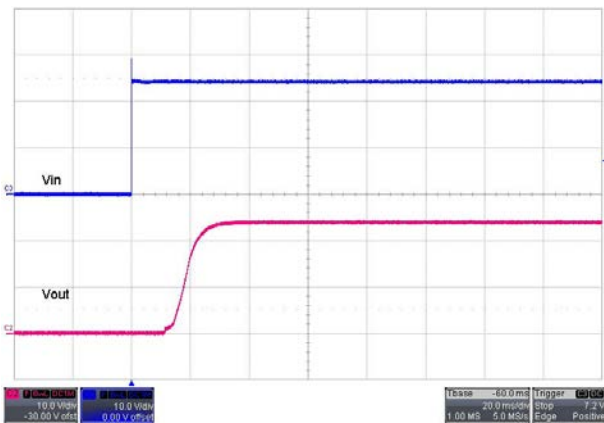
All test conditions are at 25°C. The figures are identical for PMM20-24S24



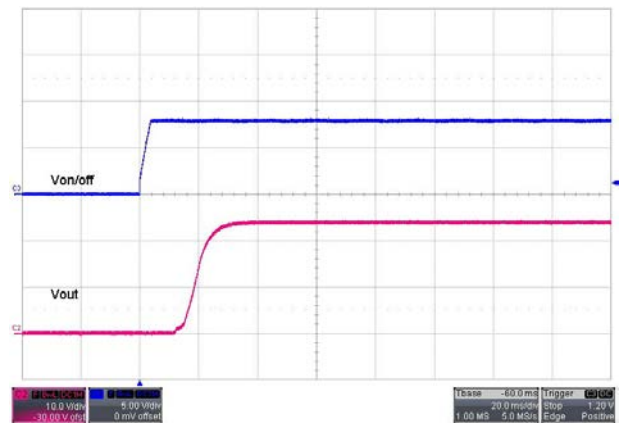
Typical Output Ripple and Noise.  
 Vin(nom), Full Load



Transient Response to Dynamic Load Change from  
 100% to 75% to 100% of Full Load ; Vin(nom)

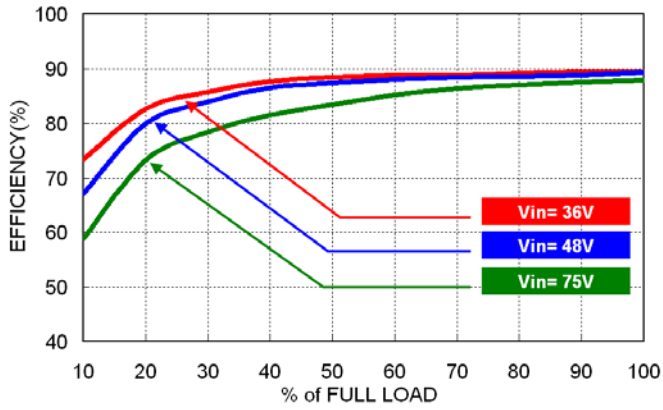


Typical Input Start-Up and Output Rise Characteristic  
 Vin(nom), Full Load

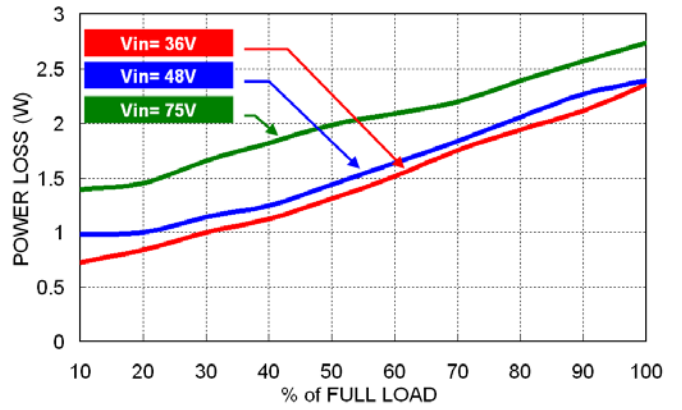


Using ON/OFF Voltage Start-Up and Vo Rise Characteristic  
 Vin(nom), Full Load

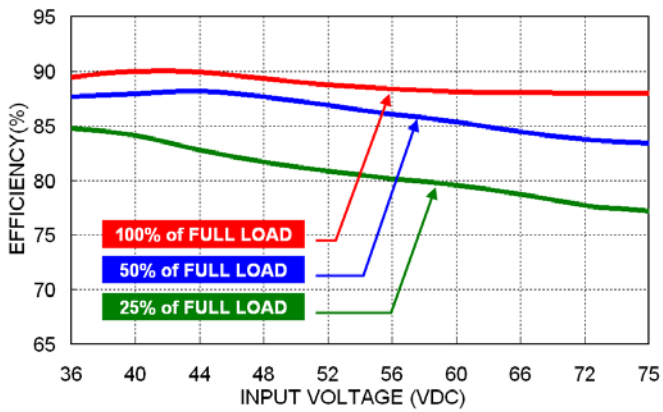
All test conditions are at 25°C. The figures are identical for PMM20-48S05



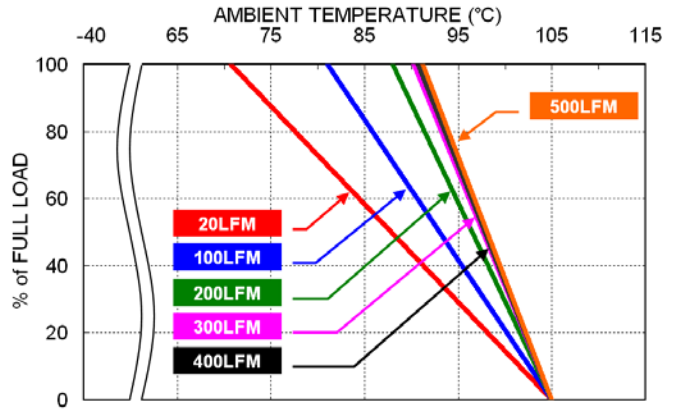
Efficiency Versus Output Load



Power Dissipation Versus Output Load



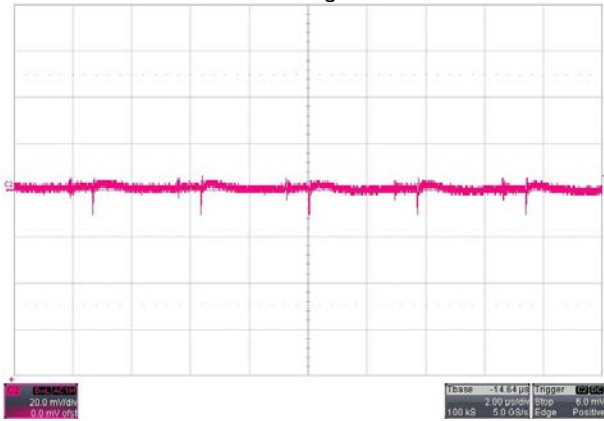
Efficiency Versus Input Voltage.



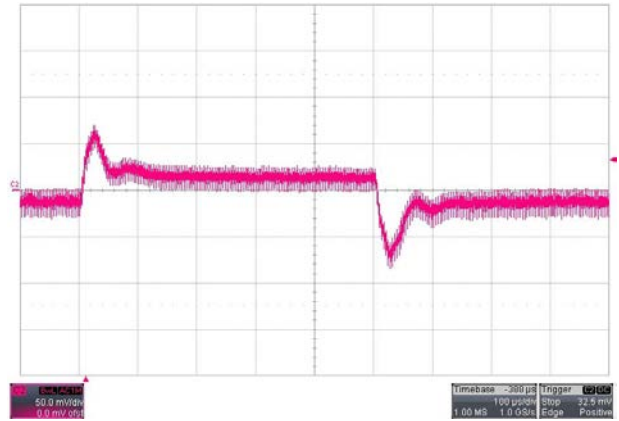
Derating Output Load Versus Ambient Temperature and Airflow  
Vin(nom)

POWERBOX Medline  
 PMM20 Series  
 20W 2:1 & 4:1 Single and Dual Output  
 Medical DC/DC Converter  
 Characteristic Curves

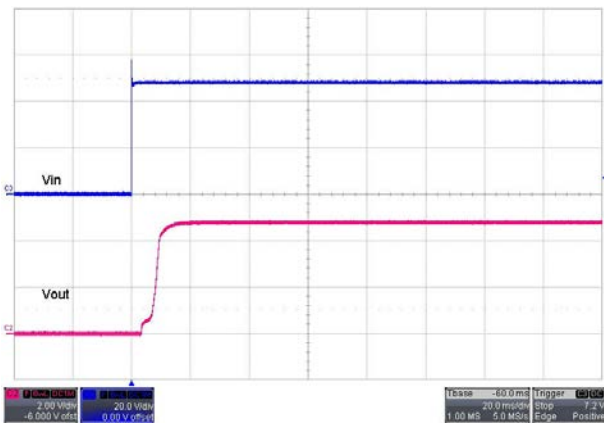
All test conditions are at 25°C. The figures are identical for PMM20-48S05



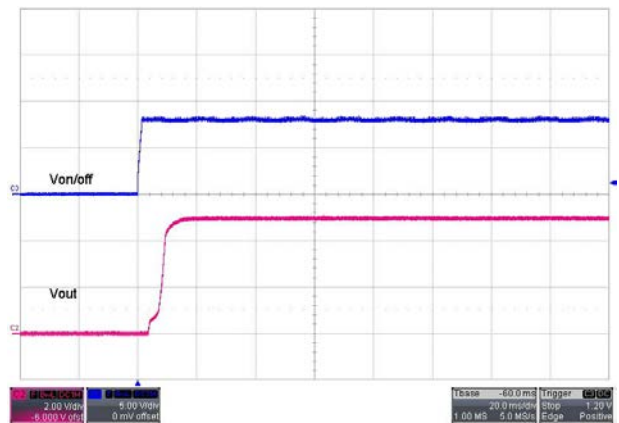
Typical Output Ripple and Noise.  
 Vin(nom), Full Load



Transient Response to Dynamic Load Change from  
 100% to 75% to 100% of Full Load ; Vin(nom)

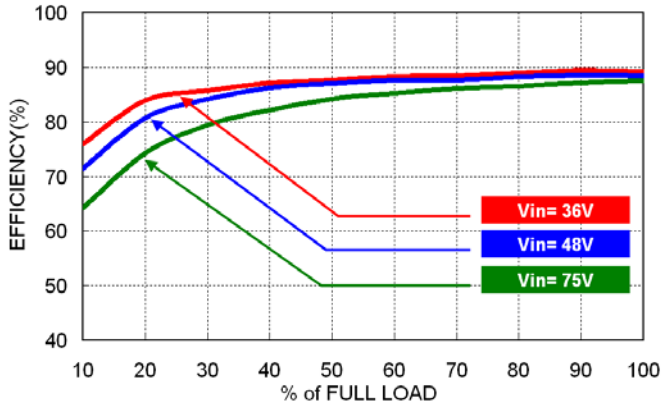


Typical Input Start-Up and Output Rise Characteristic  
 Vin(nom), Full Load

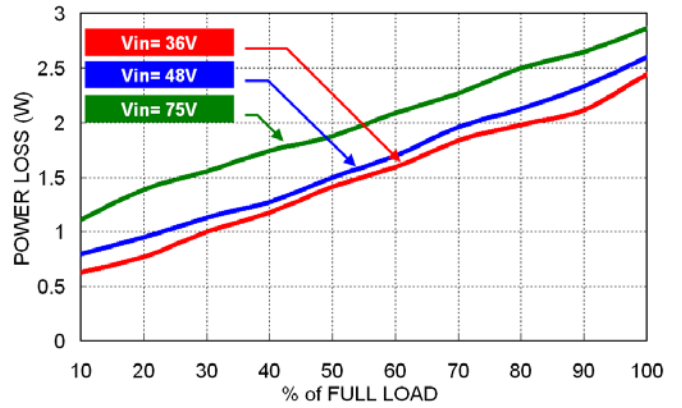


Using ON/OFF Voltage Start-Up and Vo Rise Characteristic  
 Vin(nom), Full Load

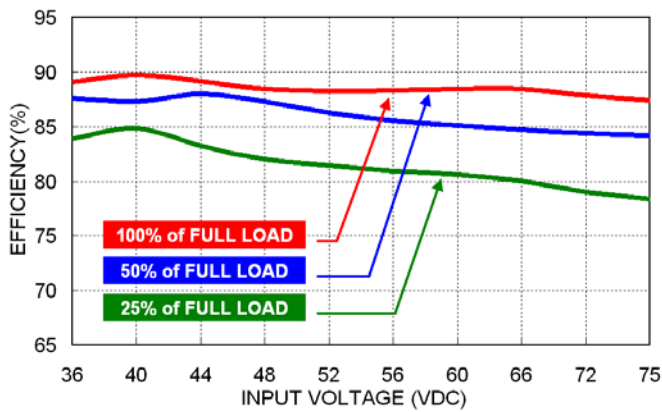
All test conditions are at 25°C. The figures are identical for PMM20-48S12



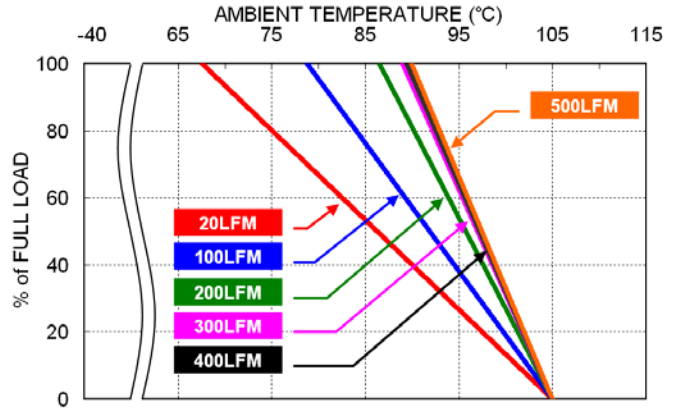
Efficiency Versus Output Load



Power Dissipation Versus Output Load



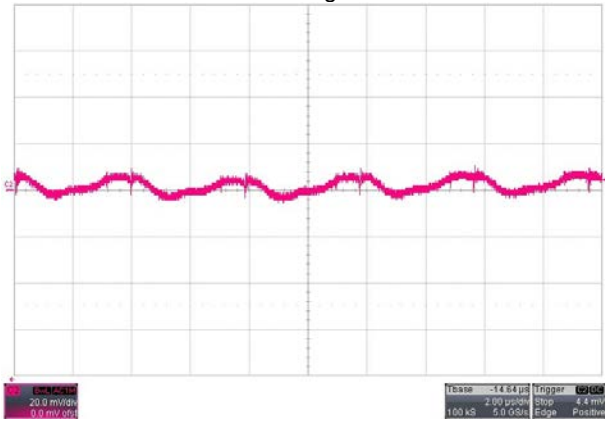
Efficiency Versus Input Voltage.



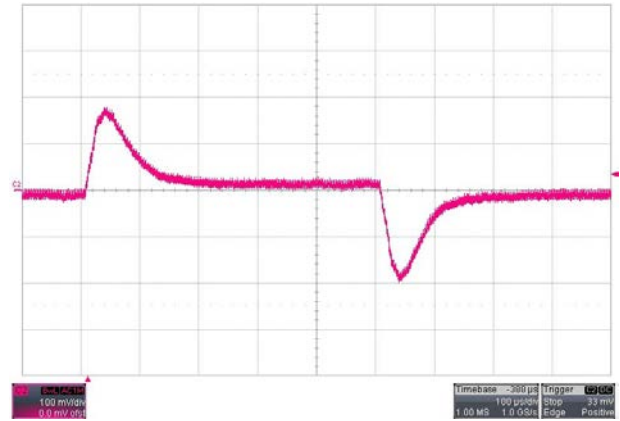
Derating Output Load Versus Ambient Temperature and Airflow  
Vin(nom)



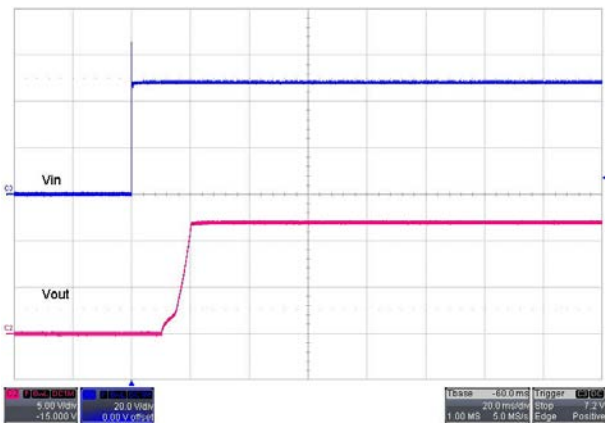
All test conditions are at 25°C. The figures are identical for PMM20-48S12



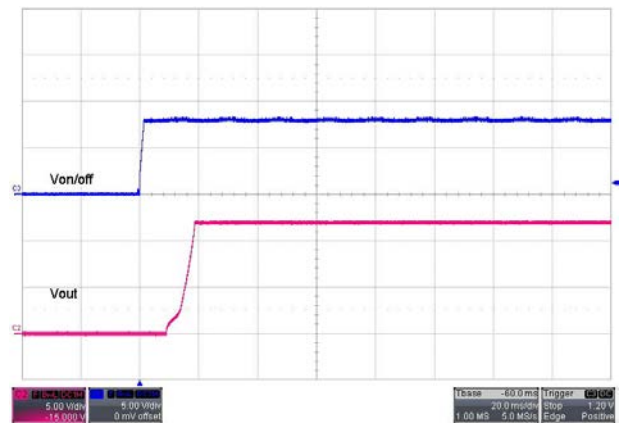
Typical Output Ripple and Noise.  
Vin(nom), Full Load



Transient Response to Dynamic Load Change from  
100% to 75% to 100% of Full Load ; Vin(nom)



Typical Input Start-Up and Output Rise Characteristic  
Vin(nom), Full Load

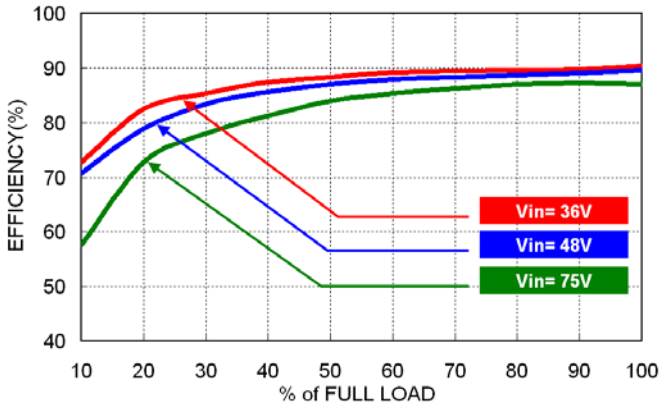


Using ON/OFF Voltage Start-Up and Vo Rise Characteristic  
Vin(nom), Full Load

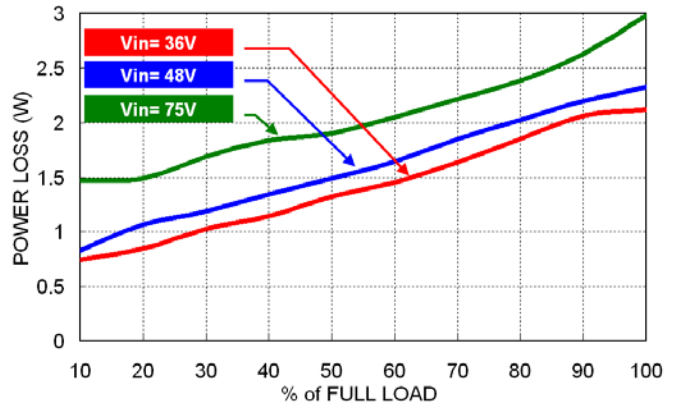


POWERBOX Medline  
 PMM20 Series  
 20W 2:1 & 4:1 Single and Dual Output  
 Medical DC/DC Converter  
 Characteristic Curves

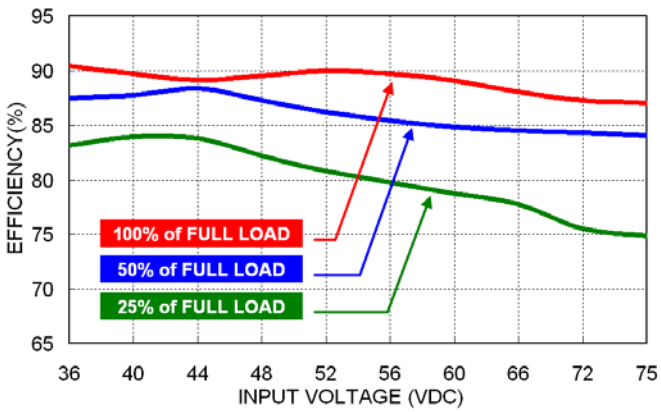
All test conditions are at 25°C. The figures are identical for PMM20-48S15



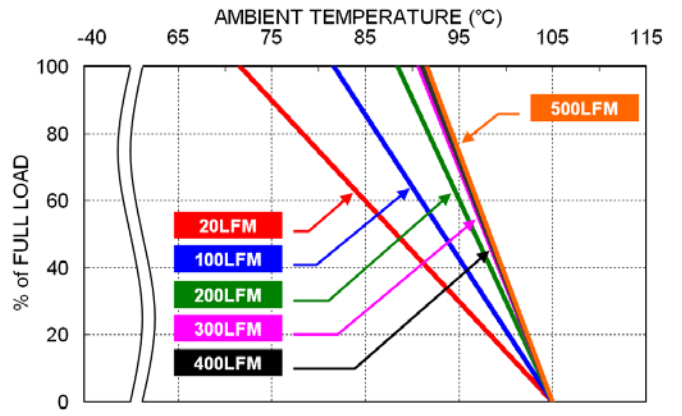
Efficiency Versus Output Load



Power Dissipation Versus Output Load

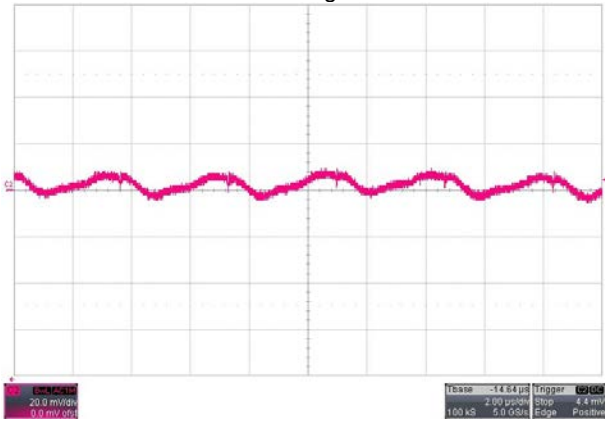


Efficiency Versus Input Voltage.

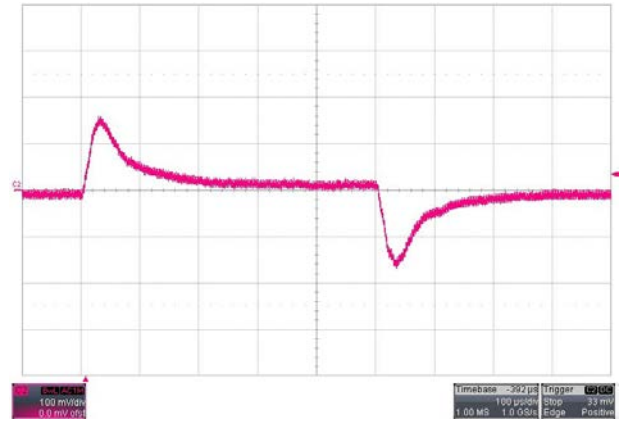


Derating Output Load Versus Ambient Temperature and Airflow  
 Vin(nom)

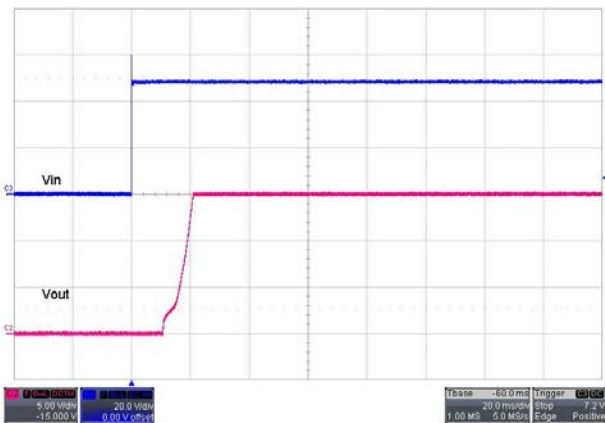
All test conditions are at 25°C. The figures are identical for PMM20-48S15



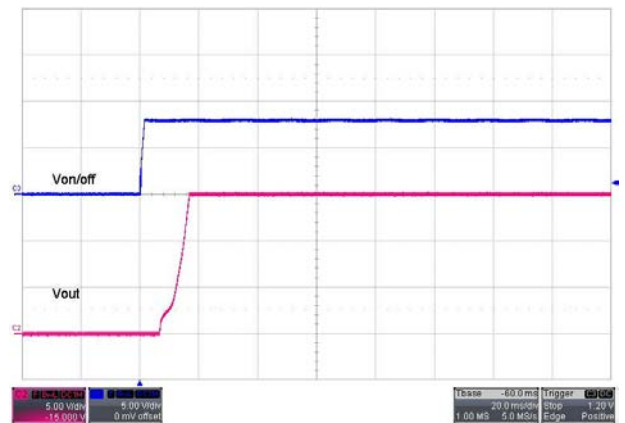
Typical Output Ripple and Noise.  
Vin(nom), Full Load



Transient Response to Dynamic Load Change from  
100% to 75% to 100% of Full Load ; Vin(nom)



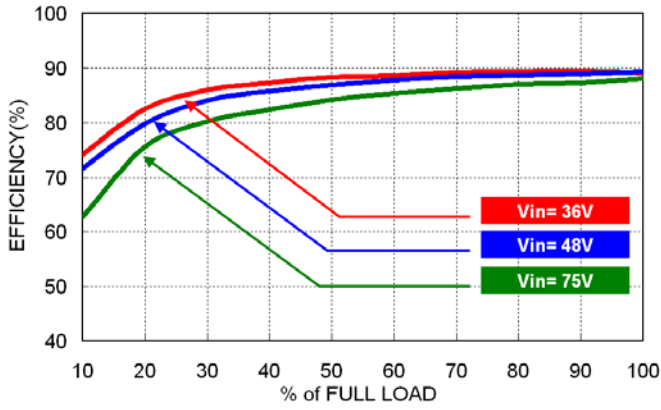
Typical Input Start-Up and Output Rise Characteristic  
Vin(nom), Full Load



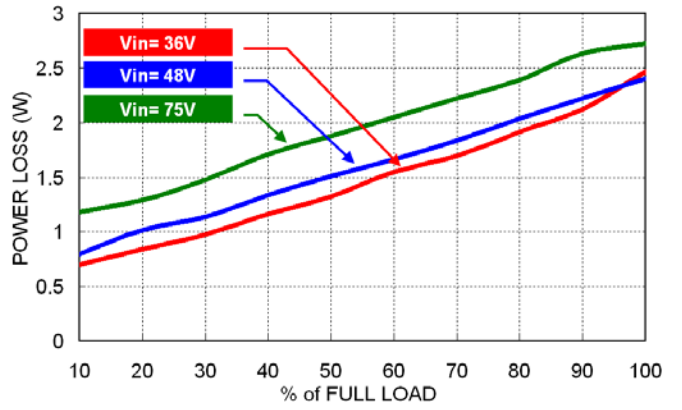
Using ON/OFF Voltage Start-Up and Vo Rise Characteristic  
Vin(nom), Full Load

POWERBOX Medline  
 PMM20 Series  
 20W 2:1 & 4:1 Single and Dual Output  
 Medical DC/DC Converter  
 Characteristic Curves

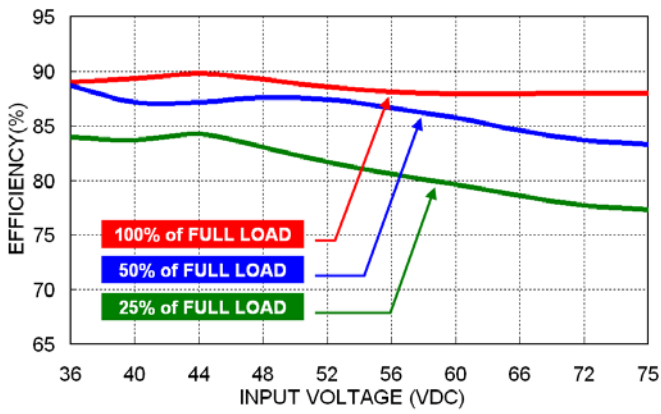
All test conditions are at 25°C. The figures are identical for PMM20-48S24



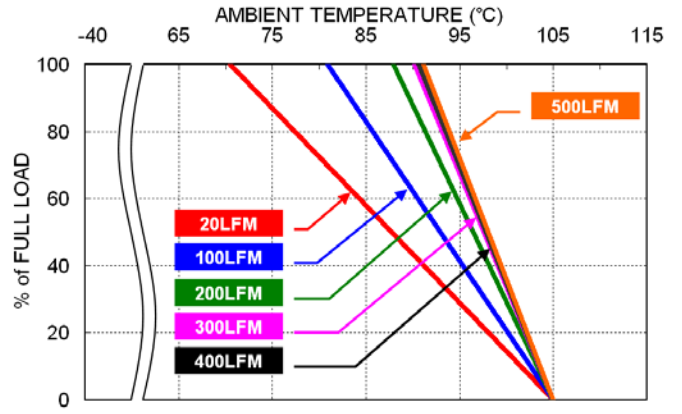
Efficiency Versus Output Load



Power Dissipation Versus Output Load

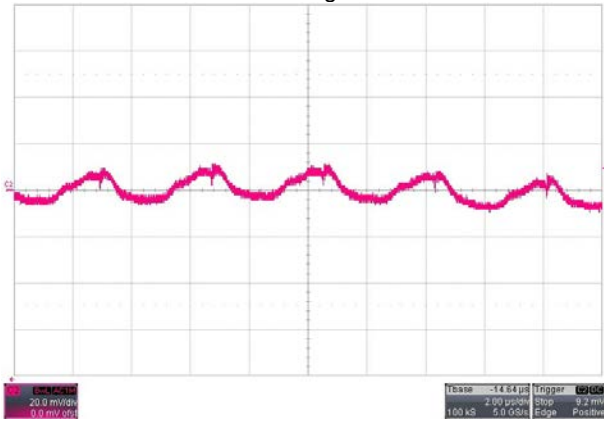


Efficiency Versus Input Voltage.

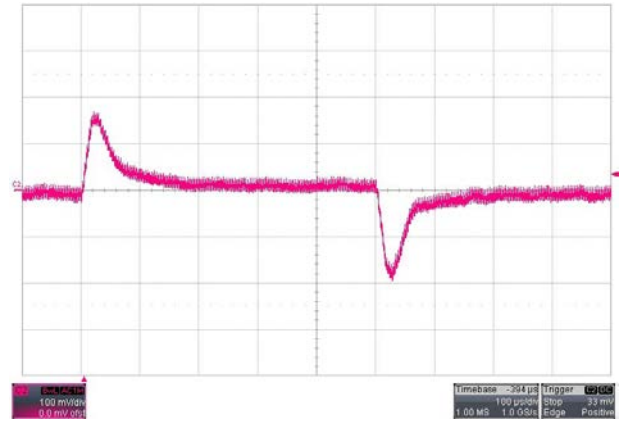


Derating Output Load Versus Ambient Temperature and Airflow  
 Vin(nom)

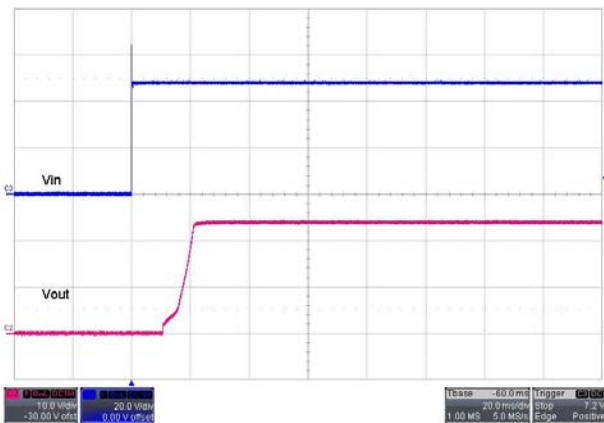
All test conditions are at 25°C. The figures are identical for PMM20-48S24



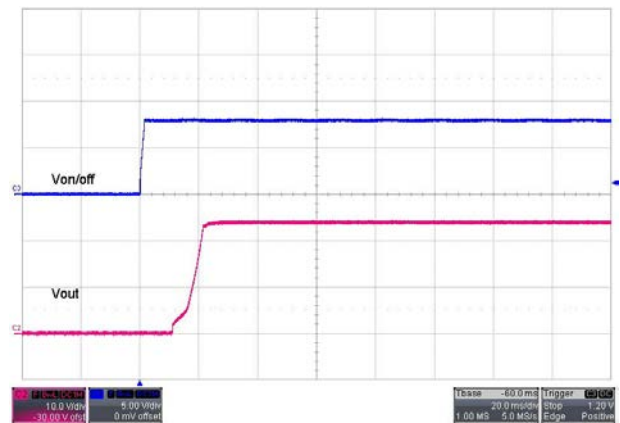
Typical Output Ripple and Noise.  
Vin(nom), Full Load



Transient Response to Dynamic Load Change from  
100% to 75% to 100% of Full Load ; Vin(nom)



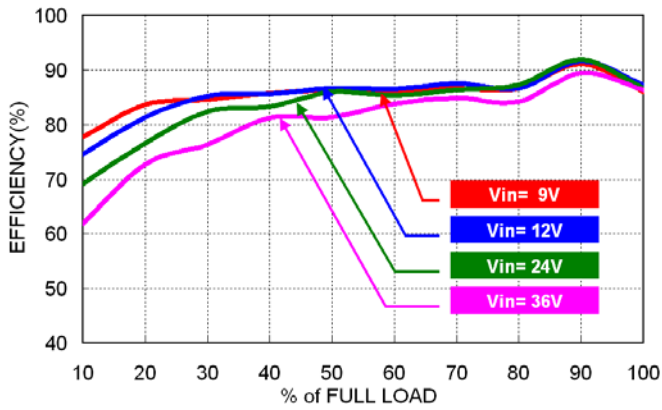
Typical Input Start-Up and Output Rise Characteristic  
Vin(nom), Full Load



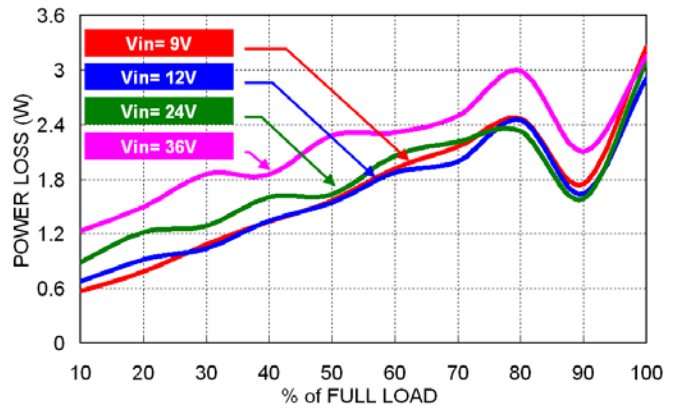
Using ON/OFF Voltage Start-Up and Vo Rise Characteristic  
Vin(nom), Full Load

POWERBOX Medline  
 PMM20 Series  
 20W 2:1 & 4:1 Single and Dual Output  
 Medical DC/DC Converter  
 Characteristic Curves

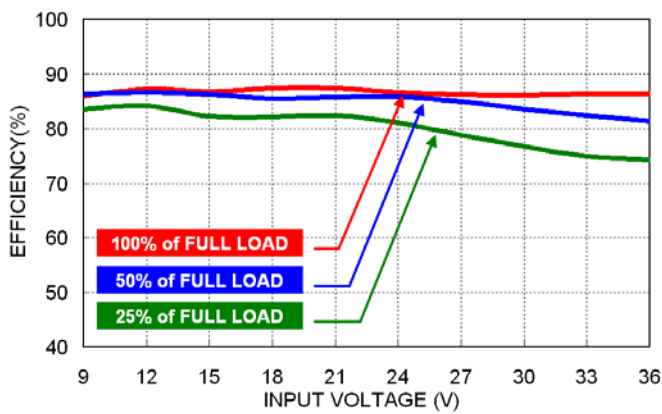
All test conditions are at 25°C. The figures are identical for PMM20-24S05W



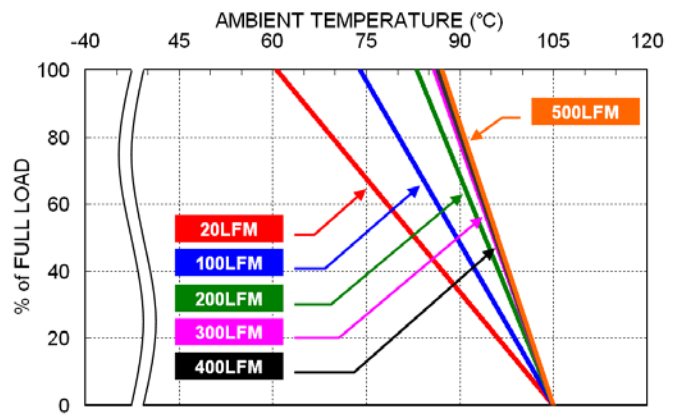
Efficiency Versus Output Load



Power Dissipation Versus Output Load



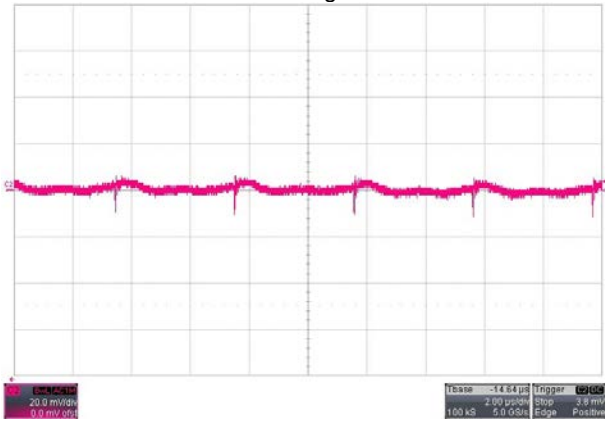
Efficiency Versus Input Voltage.



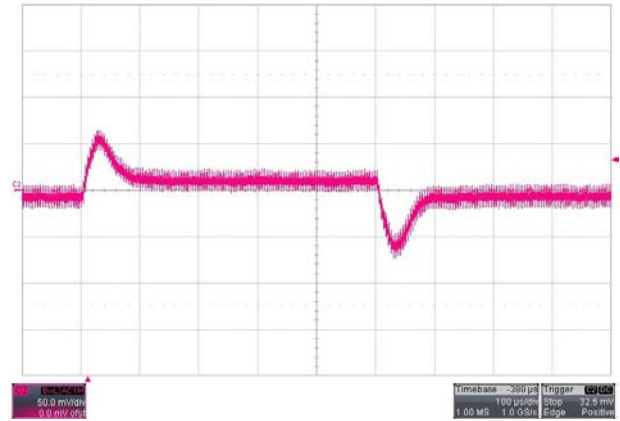
Derating Output Load Versus Ambient Temperature and Airflow  
 Vin(nom)

POWERBOX Medline  
 PMM20 Series  
 20W 2:1 & 4:1 Single and Dual Output  
 Medical DC/DC Converter  
 Characteristic Curves

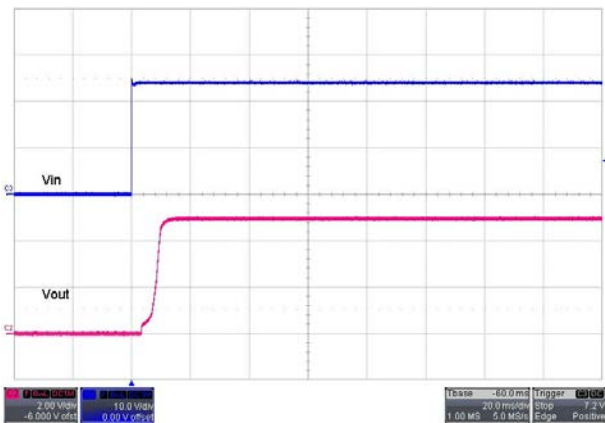
All test conditions are at 25°C. The figures are identical for PMM20-24S05W



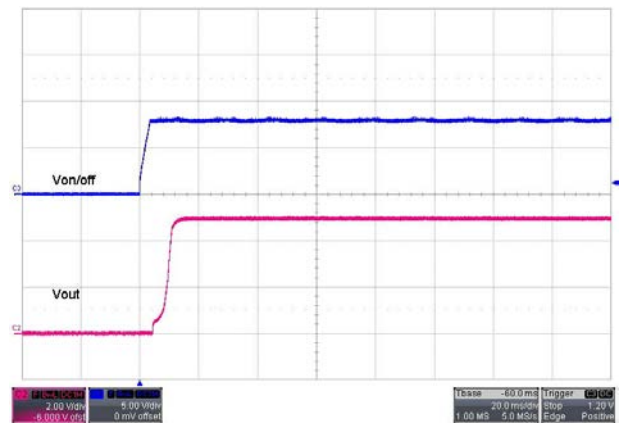
Typical Output Ripple and Noise.  
 Vin(nom), Full Load



Transient Response to Dynamic Load Change from  
 100% to 75% to 100% of Full Load ; Vin(nom)

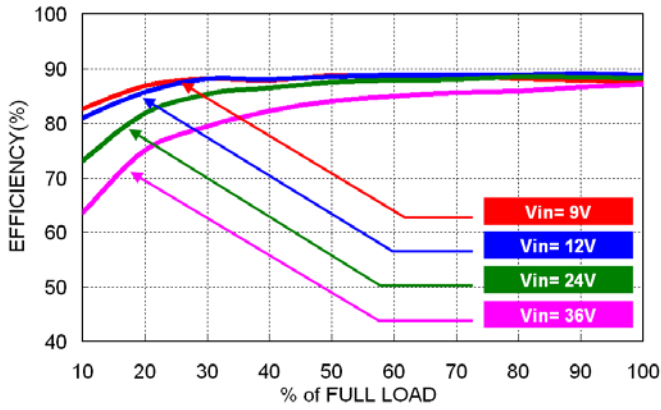


Typical Input Start-Up and Output Rise Characteristic  
 Vin(nom), Full Load

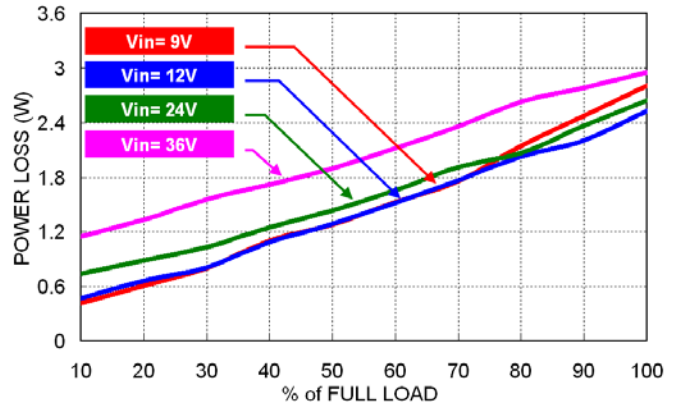


Using ON/OFF Voltage Start-Up and Vo Rise Characteristic  
 Vin(nom), Full Load

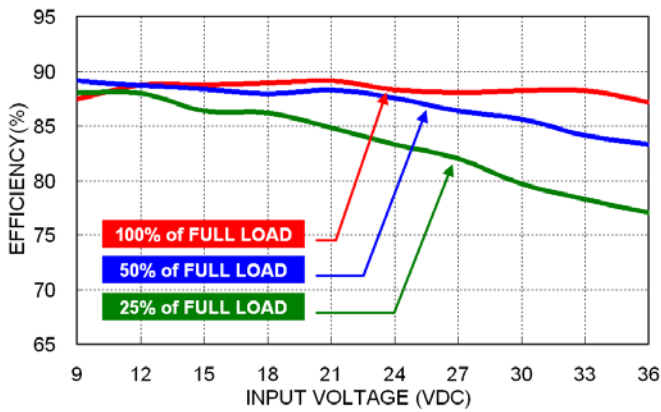
All test conditions are at 25°C. The figures are identical for PMM20-24S12W



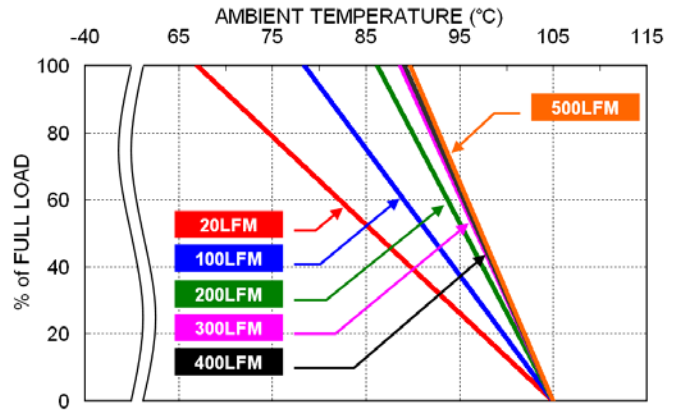
Efficiency Versus Output Load



Power Dissipation Versus Output Load



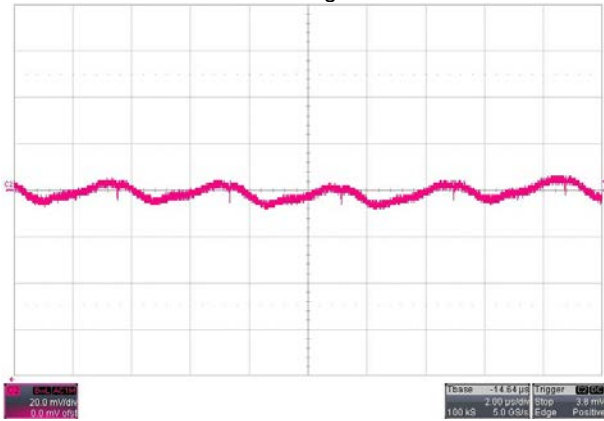
Efficiency Versus Input Voltage.



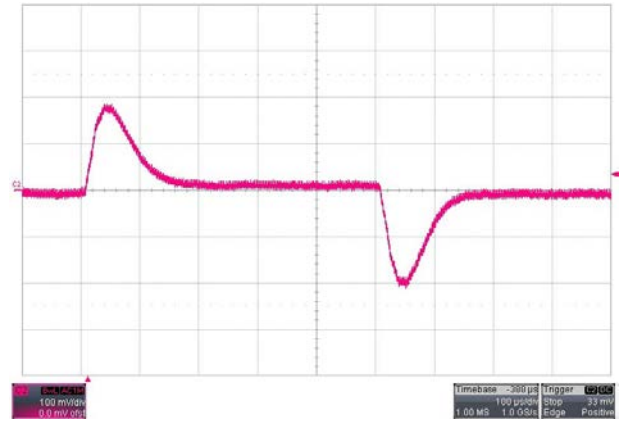
Derating Output Load Versus Ambient Temperature and Airflow  
Vin(nom)



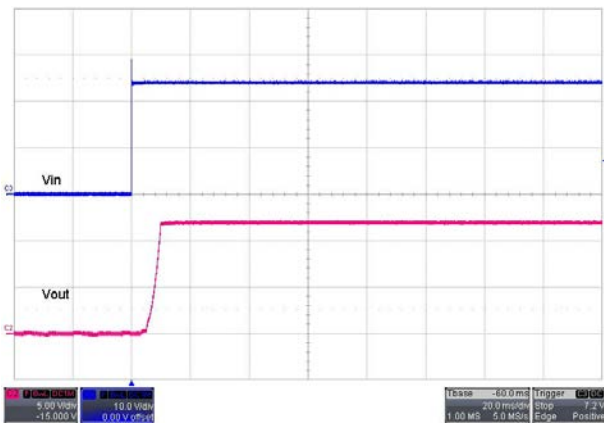
All test conditions are at 25°C. The figures are identical for PMM20-24S12W



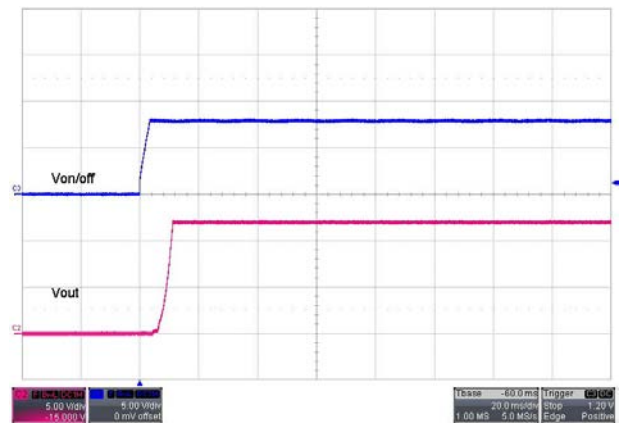
Typical Output Ripple and Noise.  
Vin(nom), Full Load



Transient Response to Dynamic Load Change from  
100% to 75% to 100% of Full Load ; Vin(nom)



Typical Input Start-Up and Output Rise Characteristic  
Vin(nom), Full Load

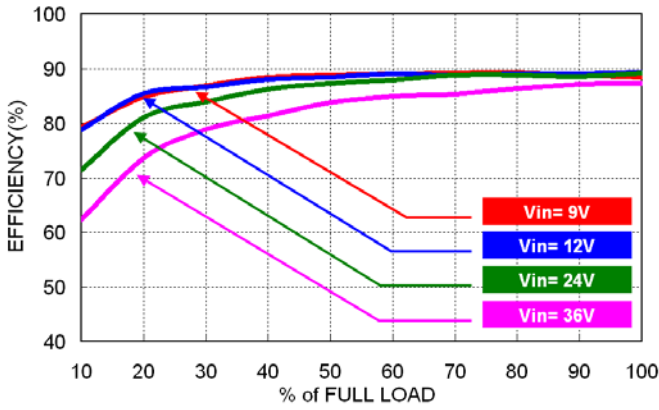


Using ON/OFF Voltage Start-Up and Vo Rise Characteristic  
Vin(nom), Full Load

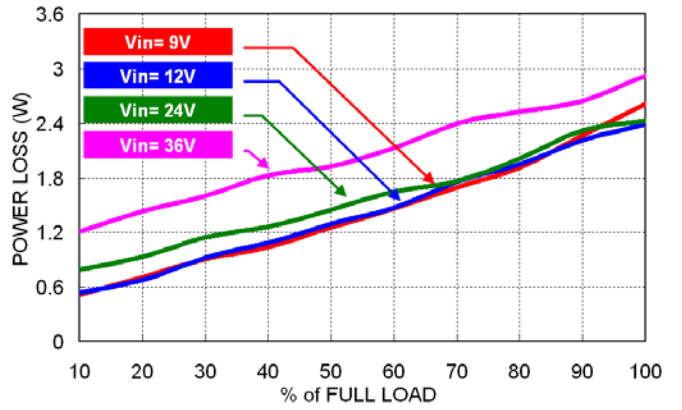


POWERBOX Medline  
PMM20 Series  
20W 2:1 & 4:1 Single and Dual Output  
Medical DC/DC Converter  
Characteristic Curves

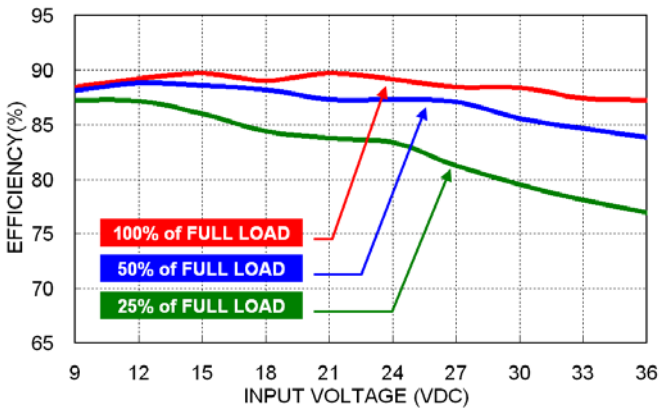
All test conditions are at 25°C. The figures are identical for PMM20-24S15W



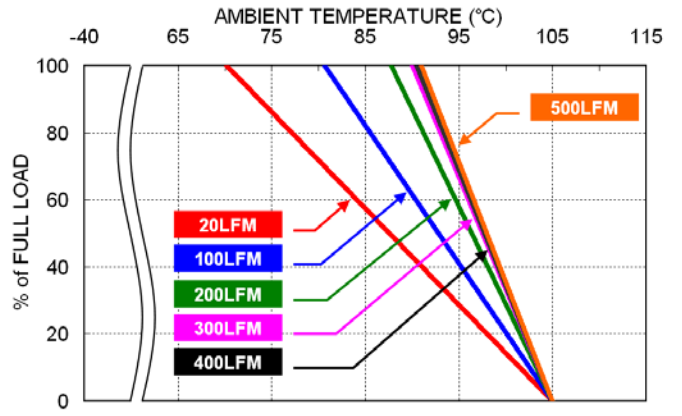
Efficiency Versus Output Load



Power Dissipation Versus Output Load

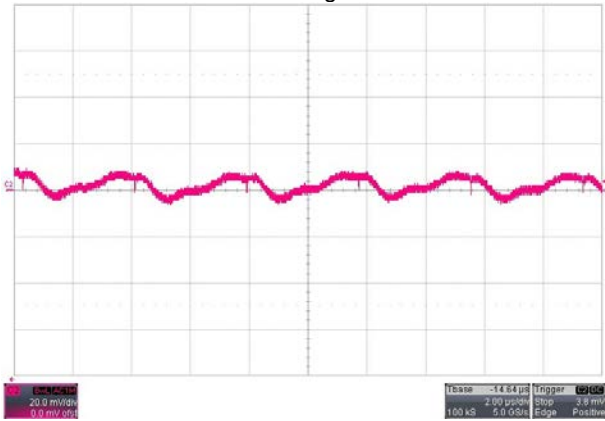


Efficiency Versus Input Voltage.

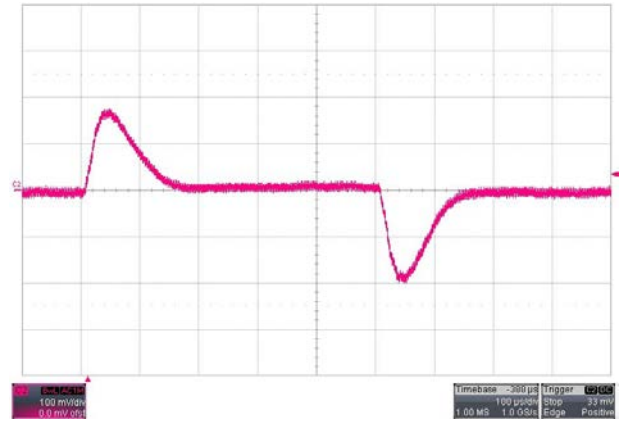


Derating Output Load Versus Ambient Temperature and Airflow  
Vin(nom)

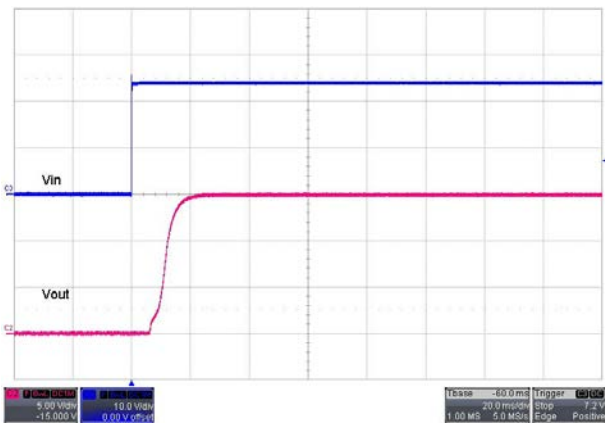
All test conditions are at 25°C. The figures are identical for PMM20-24S15W



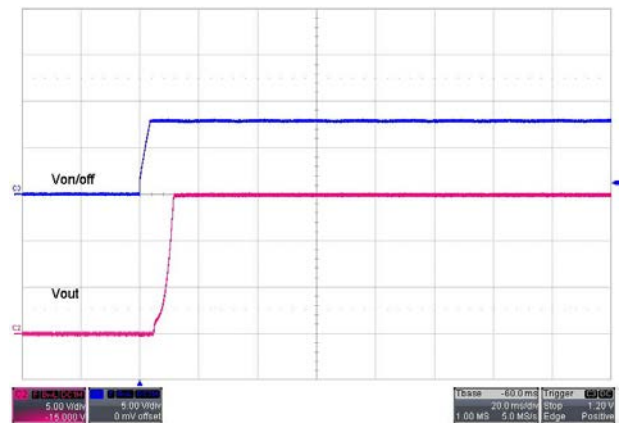
Typical Output Ripple and Noise.  
Vin(nom), Full Load



Transient Response to Dynamic Load Change from  
100% to 75% to 100% of Full Load ; Vin(nom)



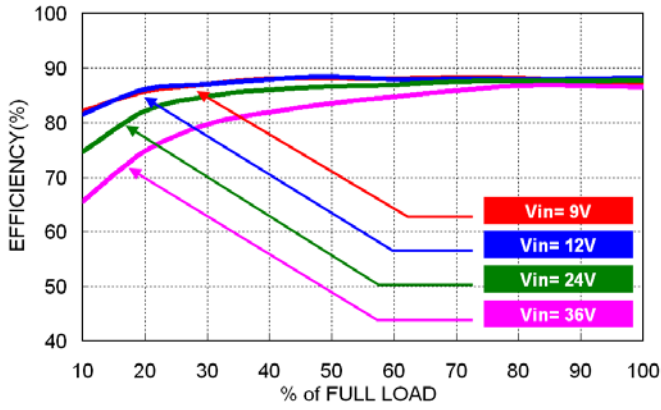
Typical Input Start-Up and Output Rise Characteristic  
Vin(nom), Full Load



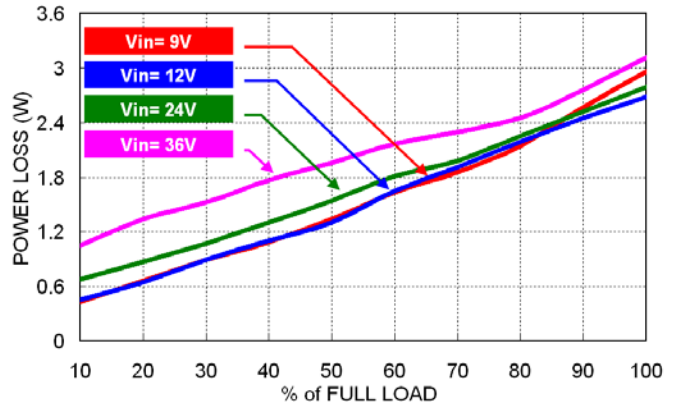
Using ON/OFF Voltage Start-Up and Vo Rise Characteristic  
Vin(nom), Full Load

POWERBOX Medline  
 PMM20 Series  
 20W 2:1 & 4:1 Single and Dual Output  
 Medical DC/DC Converter  
 Characteristic Curves

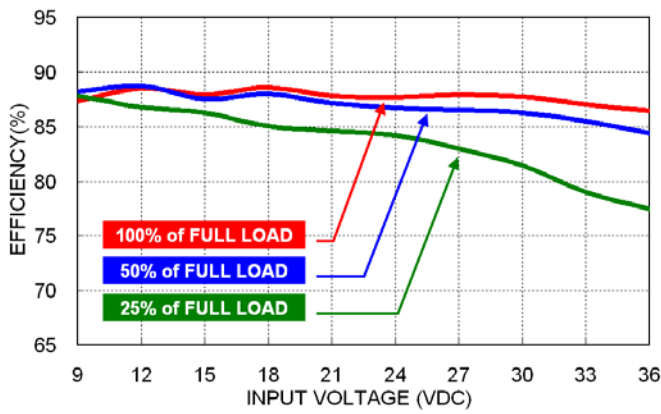
All test conditions are at 25°C. The figures are identical for PMM20-24S24W



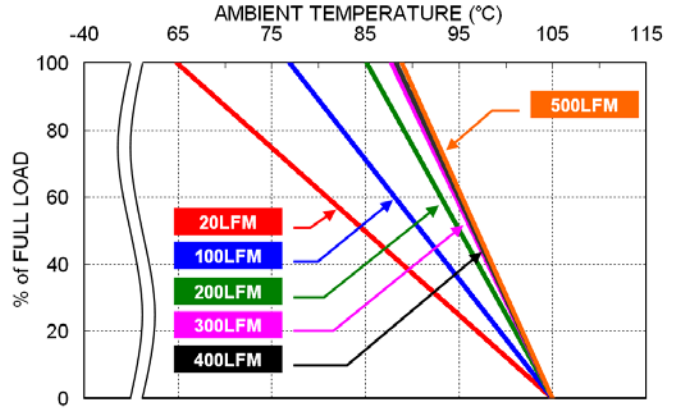
Efficiency Versus Output Load



Power Dissipation Versus Output Load

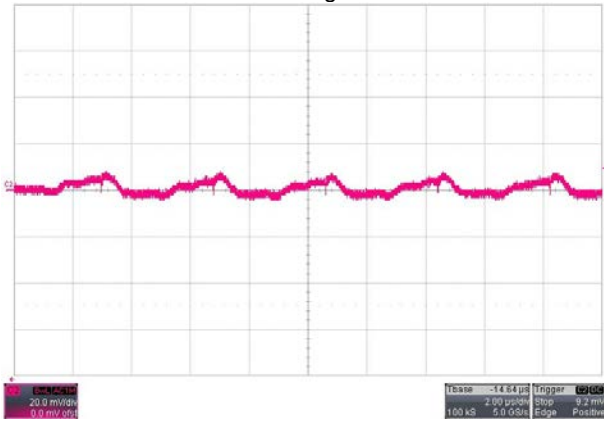


Efficiency Versus Input Voltage.

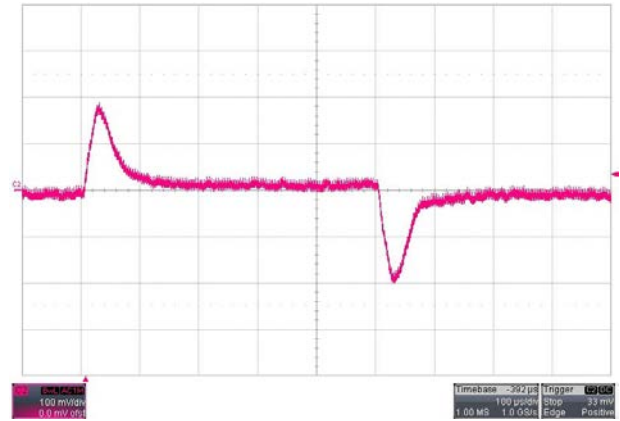


Derating Output Load Versus Ambient Temperature and Airflow  
 Vin(nom)

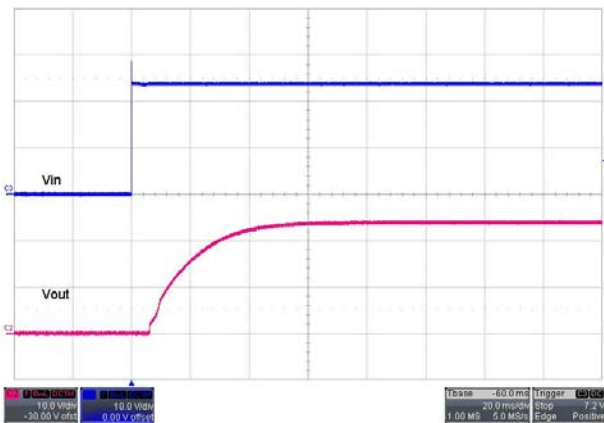
All test conditions are at 25°C. The figures are identical for PMM20-24S24W



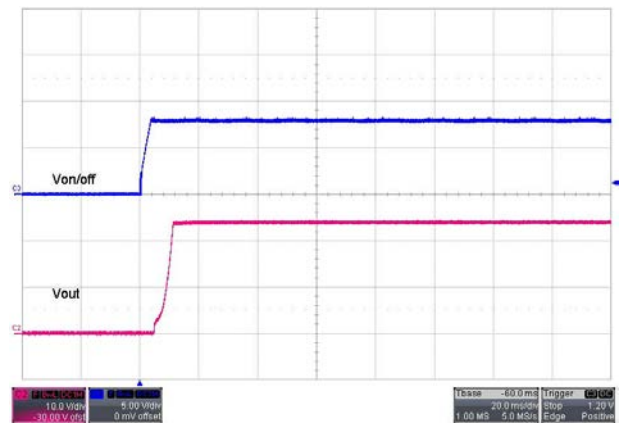
Typical Output Ripple and Noise.  
Vin(nom), Full Load



Transient Response to Dynamic Load Change from  
100% to 75% to 100% of Full Load ; Vin(nom)



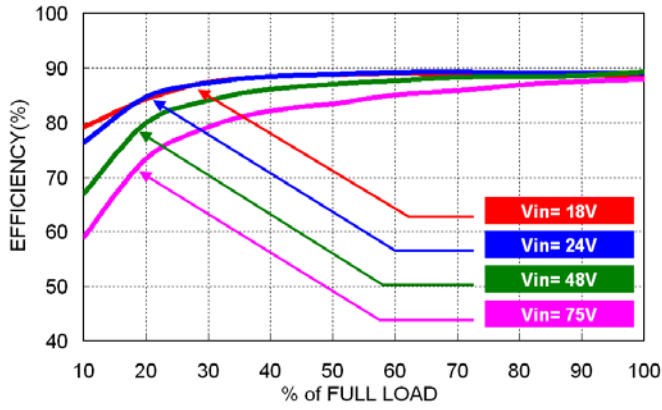
Typical Input Start-Up and Output Rise Characteristic  
Vin(nom), Full Load



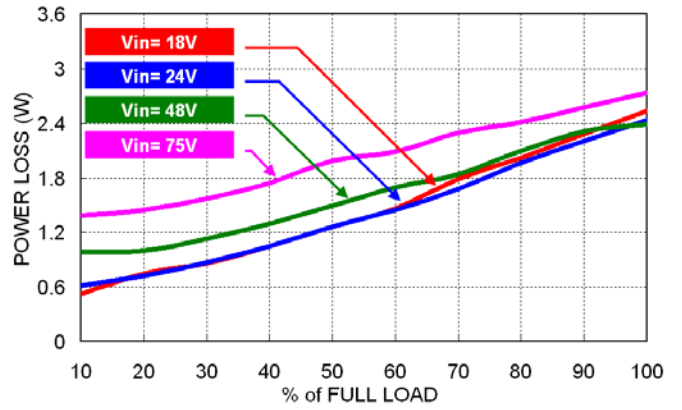
Using ON/OFF Voltage Start-Up and Vo Rise Characteristic  
Vin(nom), Full Load

POWERBOX Medline  
PMM20 Series  
20W 2:1 & 4:1 Single and Dual Output  
Medical DC/DC Converter  
Characteristic Curves

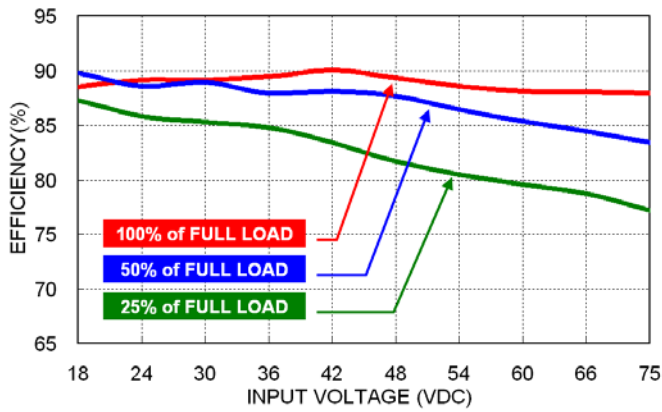
All test conditions are at 25°C. The figures are identical for PMM20-48S05W



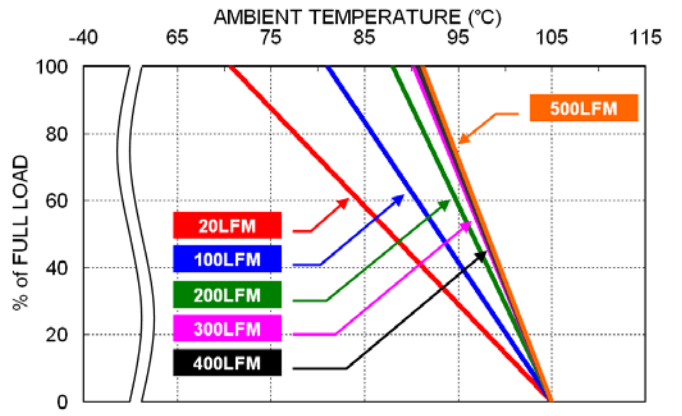
Efficiency Versus Output Load



Power Dissipation Versus Output Load



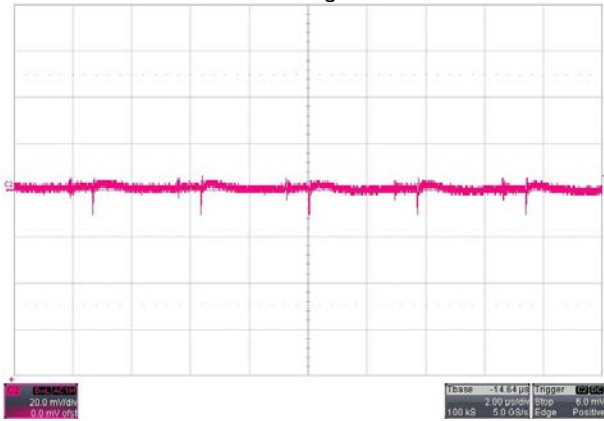
Efficiency Versus Input Voltage.



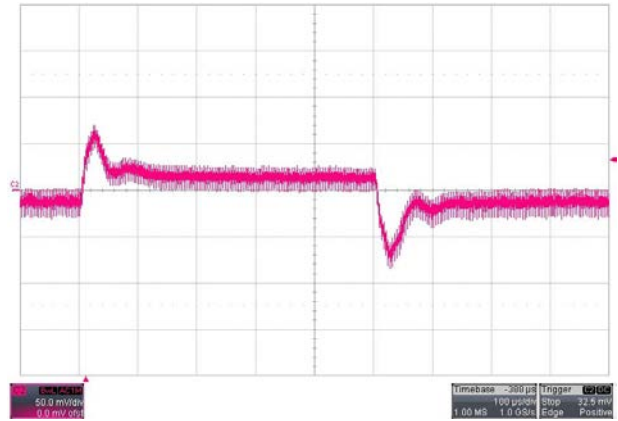
Derating Output Load Versus Ambient Temperature and Airflow  
Vin(nom)

POWERBOX Medline  
 PMM20 Series  
 20W 2:1 & 4:1 Single and Dual Output  
 Medical DC/DC Converter  
 Characteristic Curves

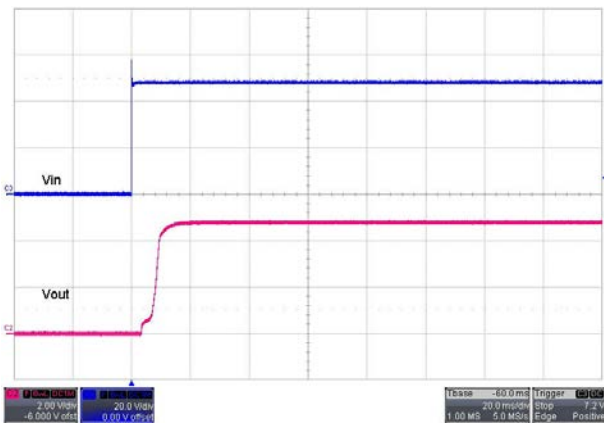
All test conditions are at 25°C. The figures are identical for PMM20-48S05W



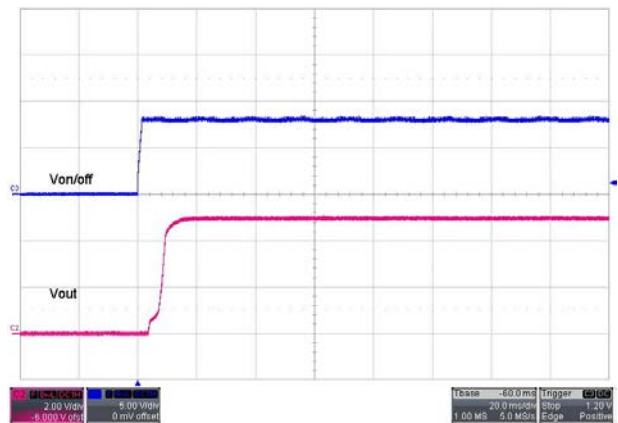
Typical Output Ripple and Noise.  
 Vin(nom), Full Load



Transient Response to Dynamic Load Change from  
 100% to 75% to 100% of Full Load ; Vin(nom)



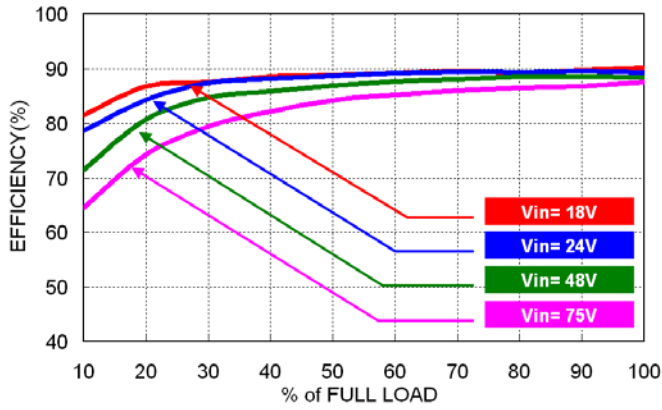
Typical Input Start-Up and Output Rise Characteristic  
 Vin(nom), Full Load



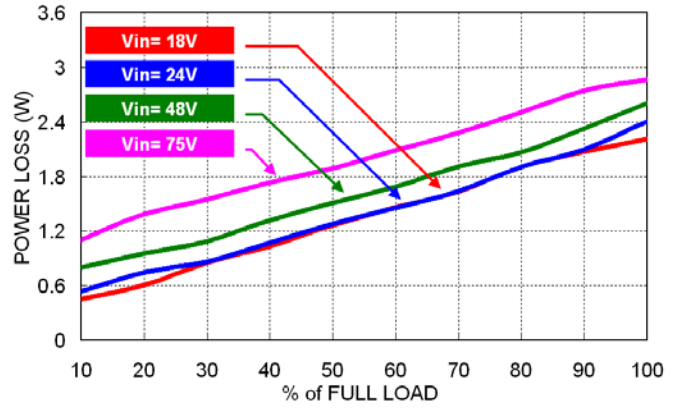
Using ON/OFF Voltage Start-Up and Vo Rise Characteristic  
 Vin(nom), Full Load

POWERBOX *Medline*  
 PMM20 Series  
 20W 2:1 & 4:1 Single and Dual Output  
 Medical DC/DC Converter  
 Characteristic Curves

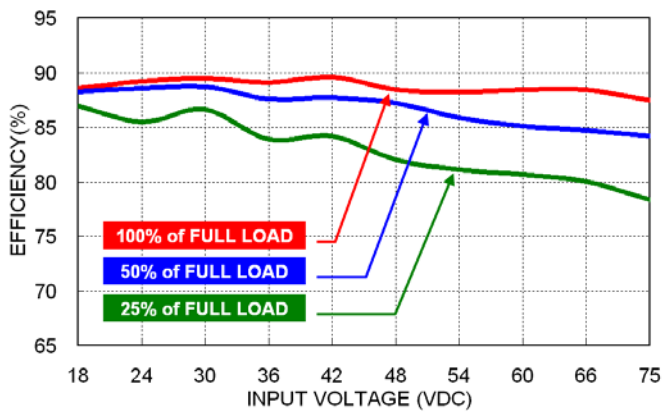
All test conditions are at 25°C. The figures are identical for PMM20-48S12W



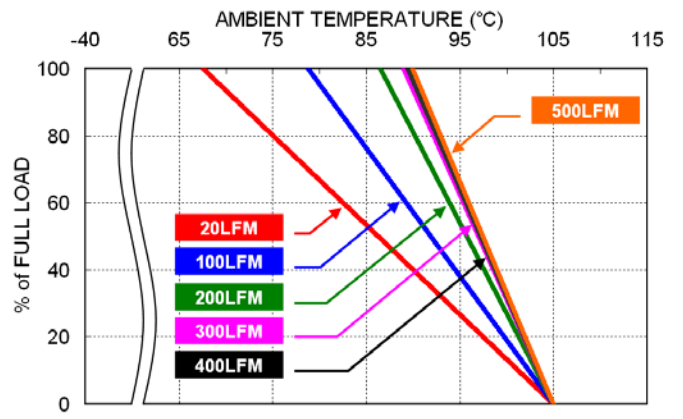
Efficiency Versus Output Load



Power Dissipation Versus Output Load



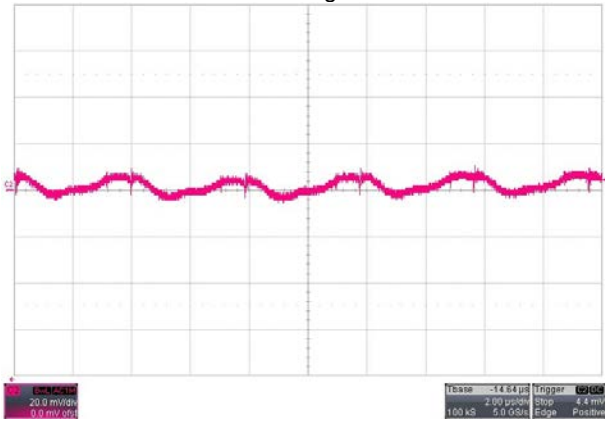
Efficiency Versus Input Voltage.



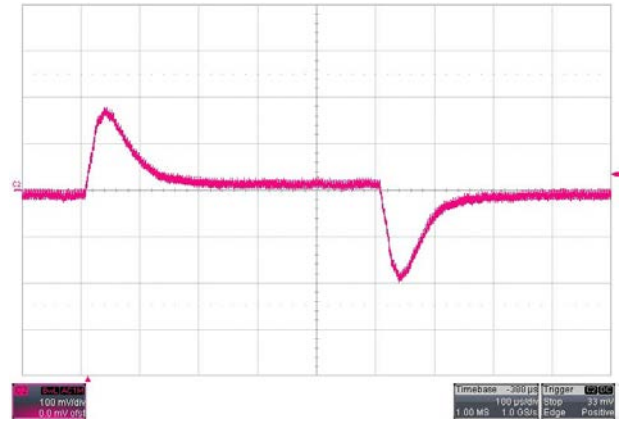
Derating Output Load Versus Ambient Temperature and Airflow  
 Vin(nom)



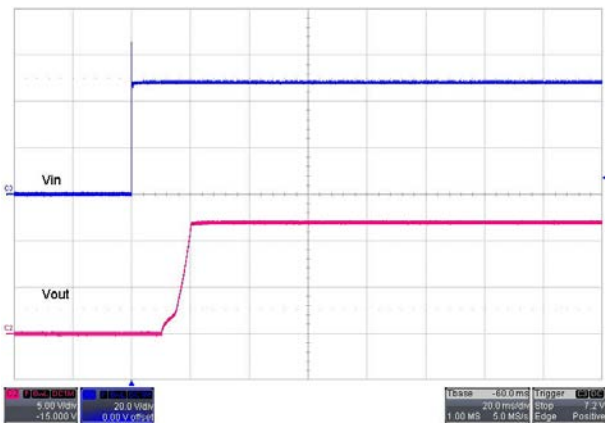
All test conditions are at 25°C. The figures are identical for PMM20-48S12W



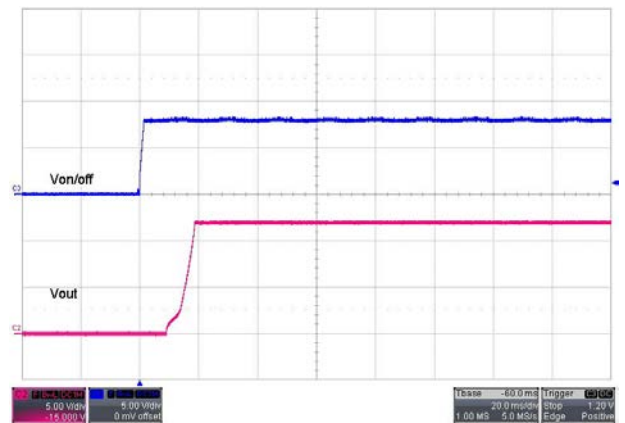
Typical Output Ripple and Noise.  
Vin(nom), Full Load



Transient Response to Dynamic Load Change from  
100% to 75% to 100% of Full Load ; Vin(nom)



Typical Input Start-Up and Output Rise Characteristic  
Vin(nom), Full Load

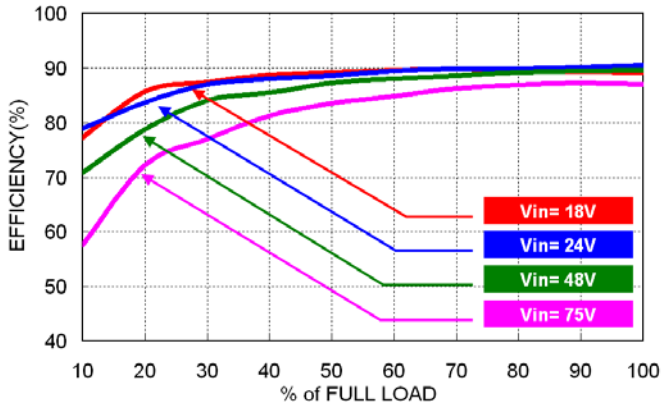


Using ON/OFF Voltage Start-Up and Vo Rise Characteristic  
Vin(nom), Full Load

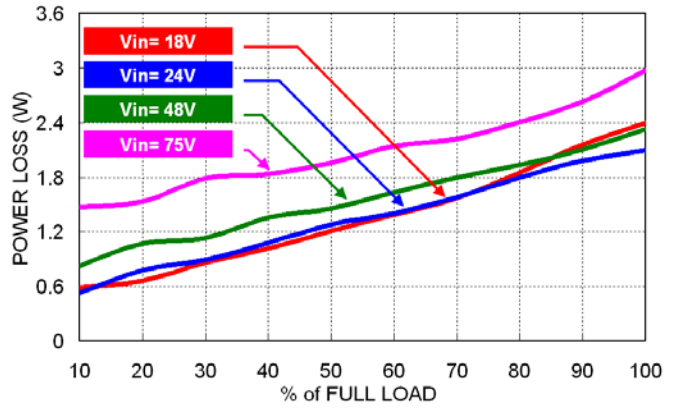


POWERBOX Medline  
PMM20 Series  
20W 2:1 & 4:1 Single and Dual Output  
Medical DC/DC Converter  
Characteristic Curves

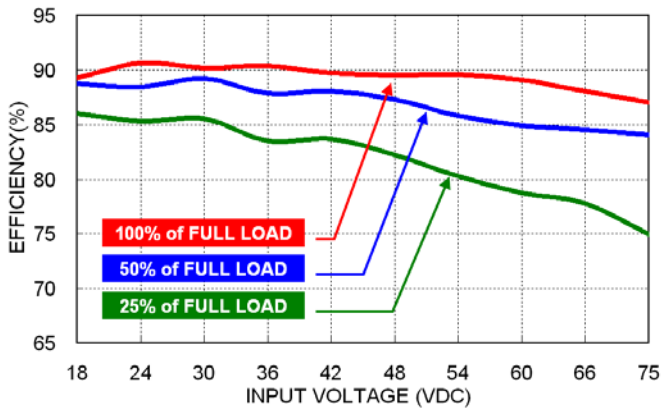
All test conditions are at 25°C. The figures are identical for PMM20-48S15W



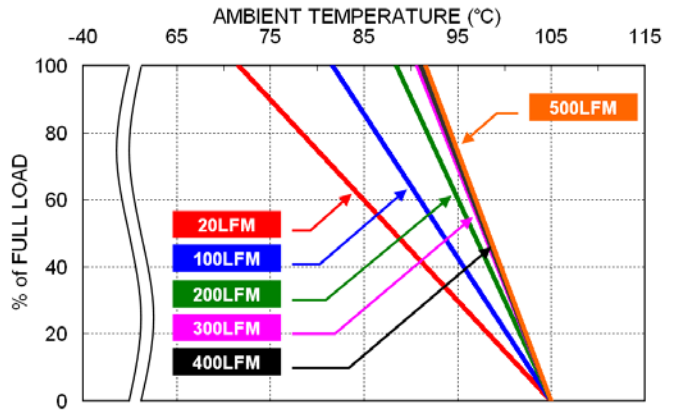
Efficiency Versus Output Load



Power Dissipation Versus Output Load



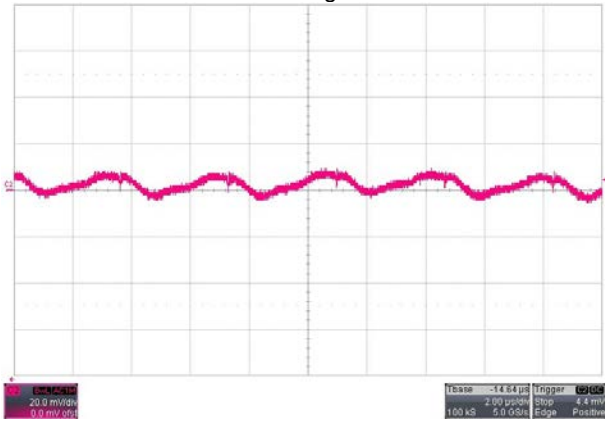
Efficiency Versus Input Voltage.



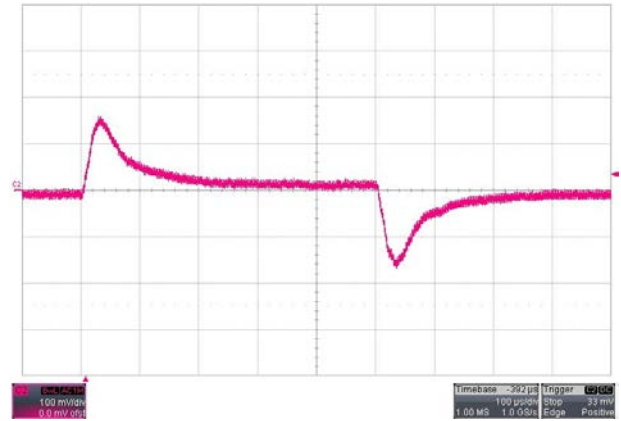
Derating Output Load Versus Ambient Temperature and Airflow  
Vin(nom)

POWERBOX Medline  
 PMM20 Series  
 20W 2:1 & 4:1 Single and Dual Output  
 Medical DC/DC Converter  
 Characteristic Curves

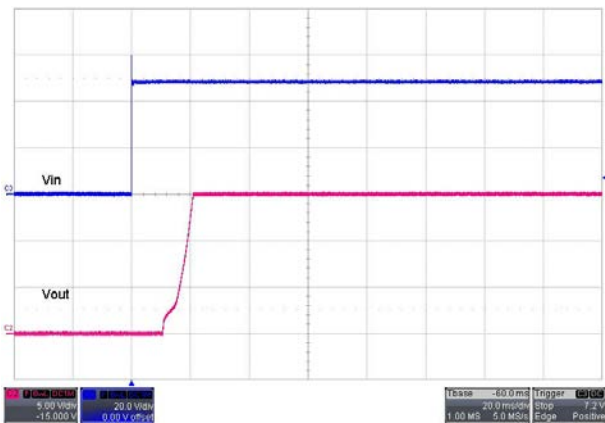
All test conditions are at 25°C. The figures are identical for PMM20-48S15W



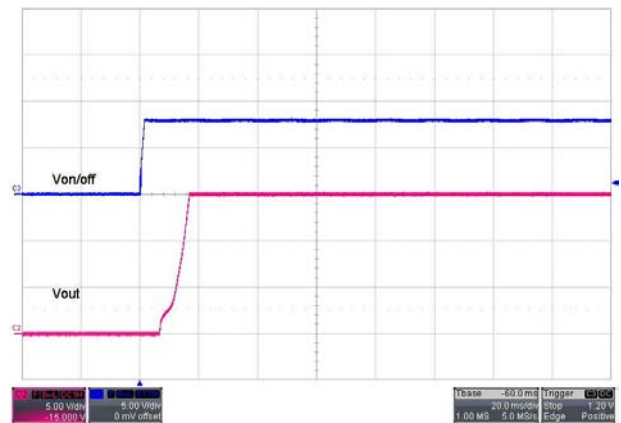
Typical Output Ripple and Noise.  
 Vin(nom), Full Load



Transient Response to Dynamic Load Change from  
 100% to 75% to 100% of Full Load ; Vin(nom)



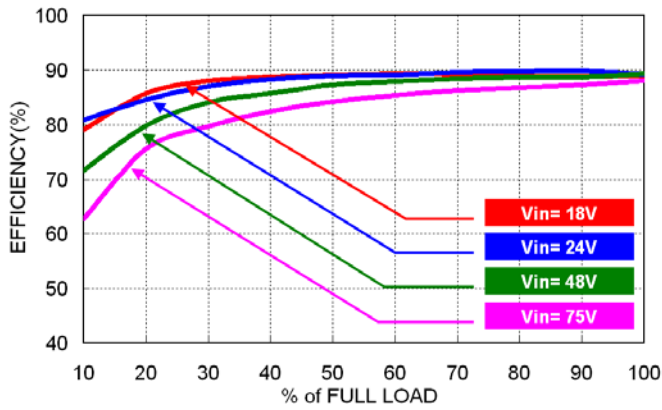
Typical Input Start-Up and Output Rise Characteristic  
 Vin(nom), Full Load



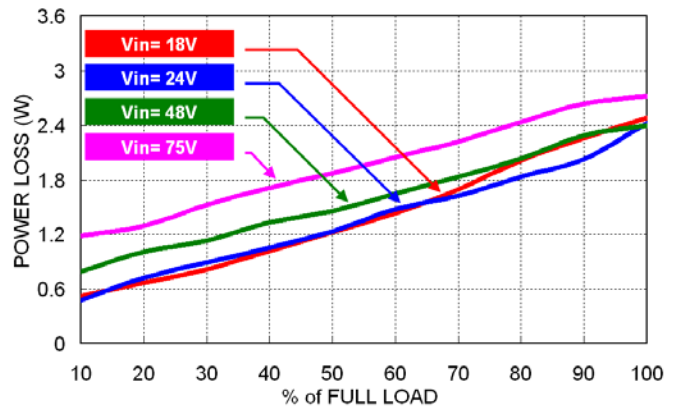
Using ON/OFF Voltage Start-Up and Vo Rise Characteristic  
 Vin(nom), Full Load

POWERBOX Medline  
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 Characteristic Curves

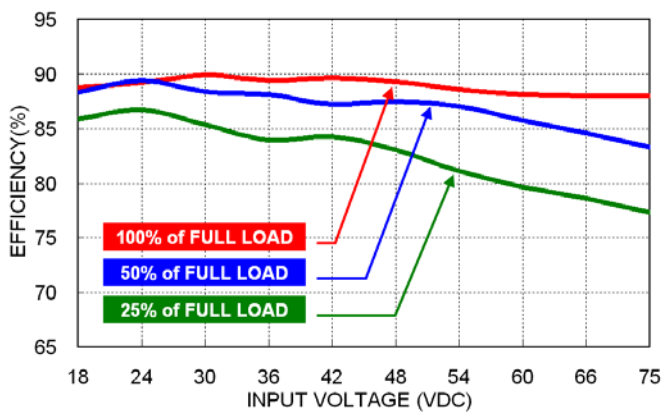
All test conditions are at 25°C. The figures are identical for PMM20-48S24W



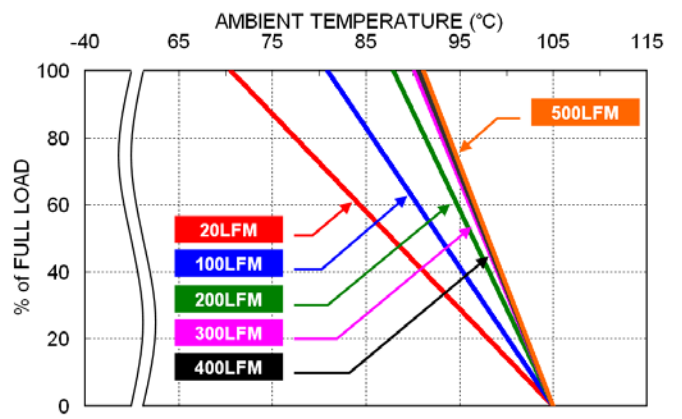
Efficiency Versus Output Load



Power Dissipation Versus Output Load

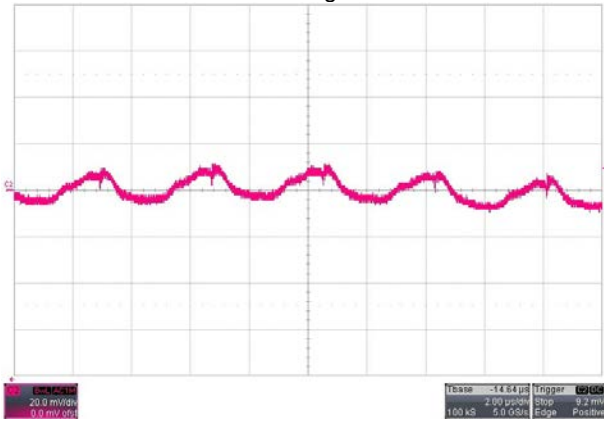


Efficiency Versus Input Voltage.

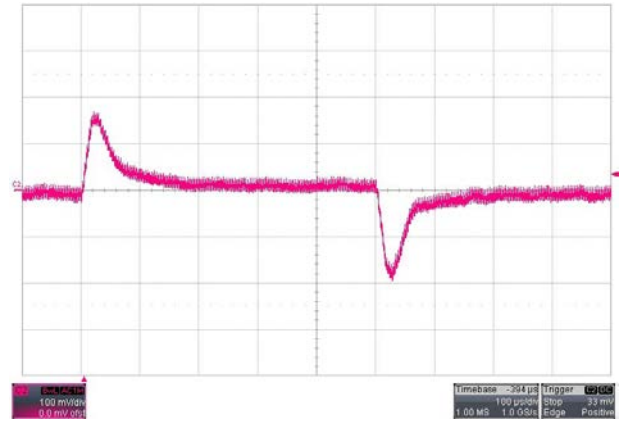


Derating Output Load Versus Ambient Temperature and Airflow  
 Vin(nom)

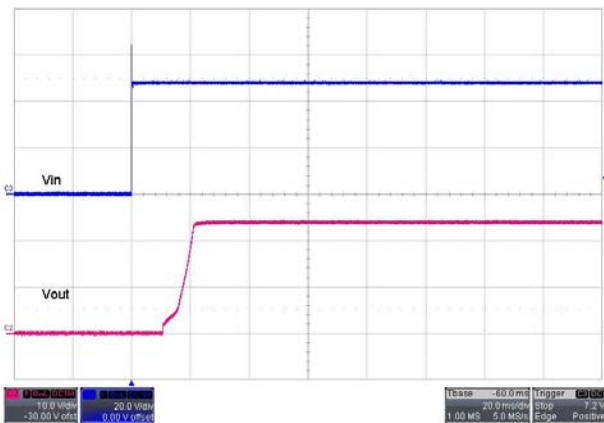
All test conditions are at 25°C. The figures are identical for PMM20-48S24W



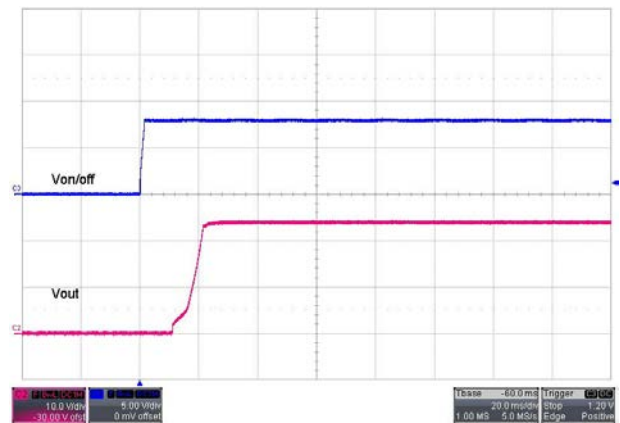
Typical Output Ripple and Noise.  
Vin(nom), Full Load



Transient Response to Dynamic Load Change from  
100% to 75% to 100% of Full Load ; Vin(nom)



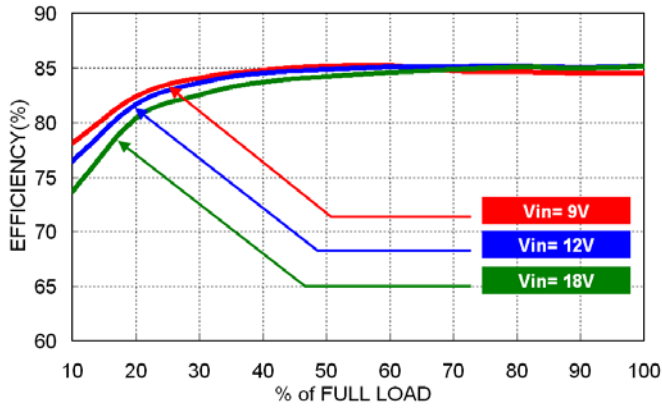
Typical Input Start-Up and Output Rise Characteristic  
Vin(nom), Full Load



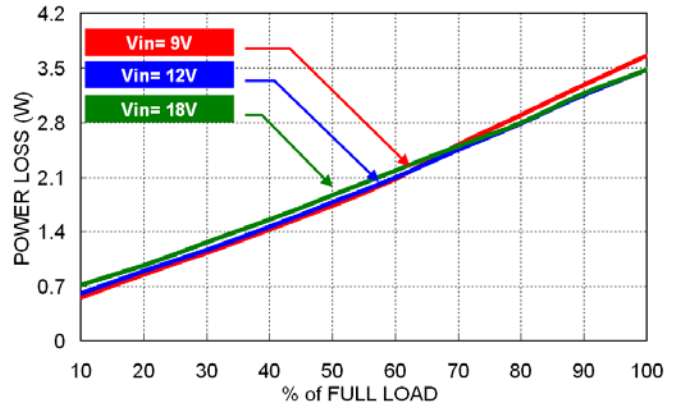
Using ON/OFF Voltage Start-Up and Vo Rise Characteristic  
Vin(nom), Full Load

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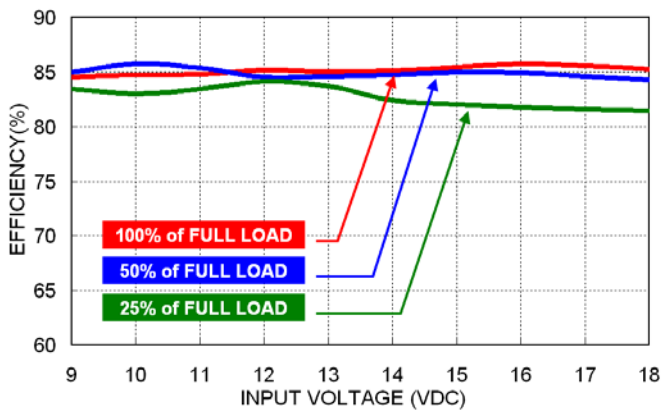
All test conditions are at 25°C. The figures are identical for PMM20-12D05



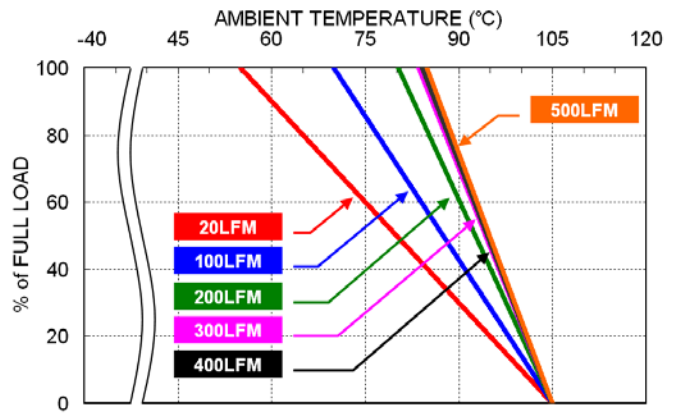
Efficiency Versus Output Load



Power Dissipation Versus Output Load

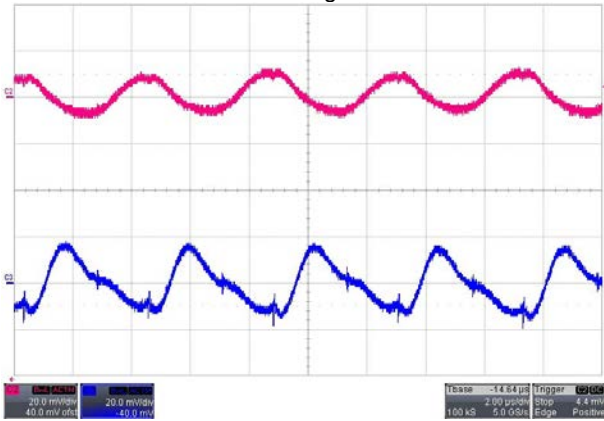


Efficiency Versus Input Voltage.

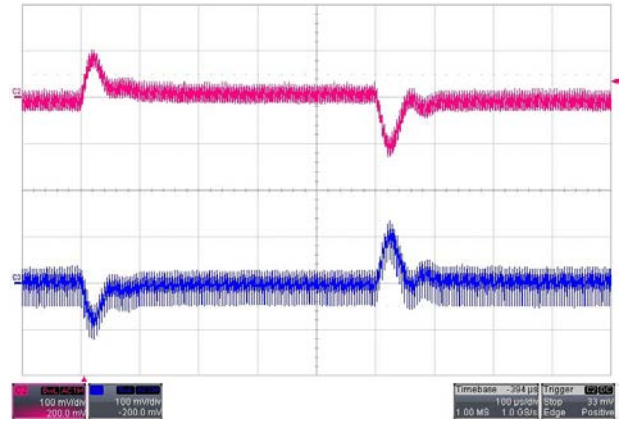


Derating Output Load Versus Ambient Temperature and Airflow  
 Vin(nom)

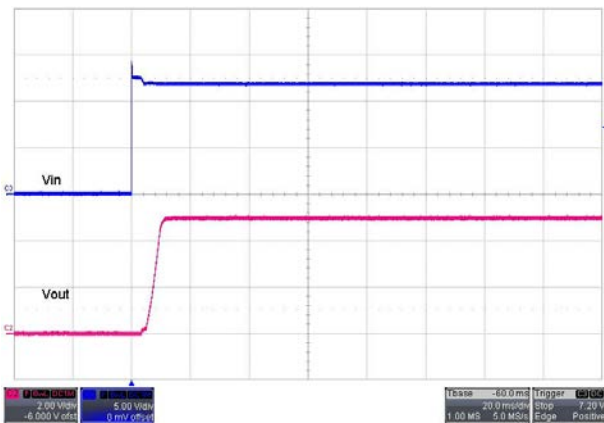
All test conditions are at 25°C. The figures are identical for PMM20-12D05



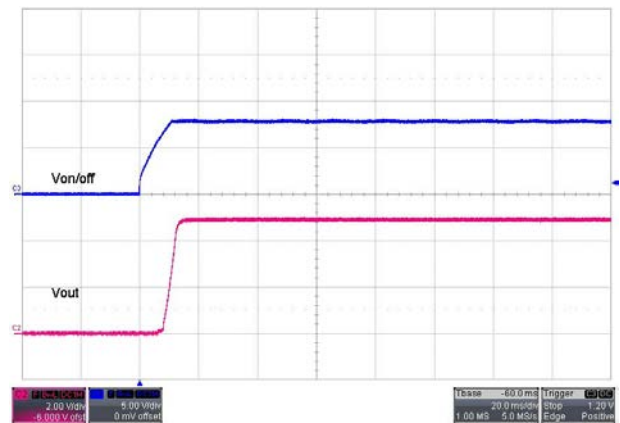
Typical Output Ripple and Noise.  
Vin(nom), Full Load



Transient Response to Dynamic Load Change from  
100% to 75% to 100% of Full Load ; Vin(nom)

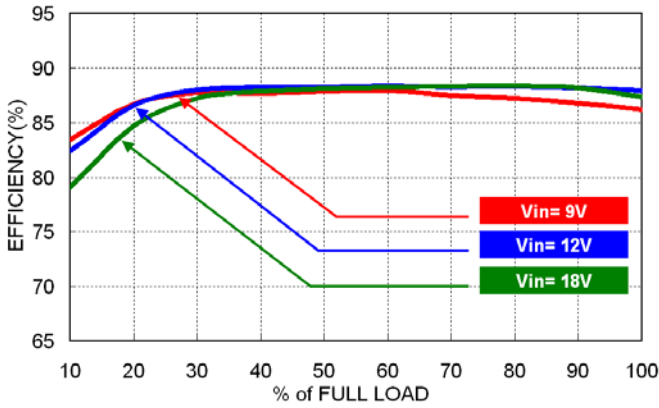


Typical Input Start-Up and Output Rise Characteristic  
Vin(nom), Full Load

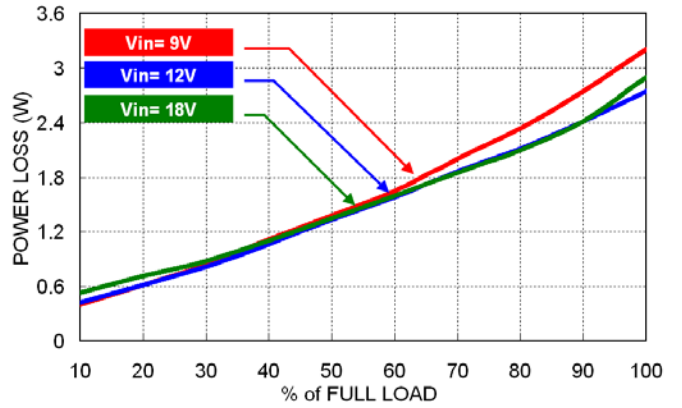


Using ON/OFF Voltage Start-Up and Vo Rise Characteristic  
Vin(nom), Full Load

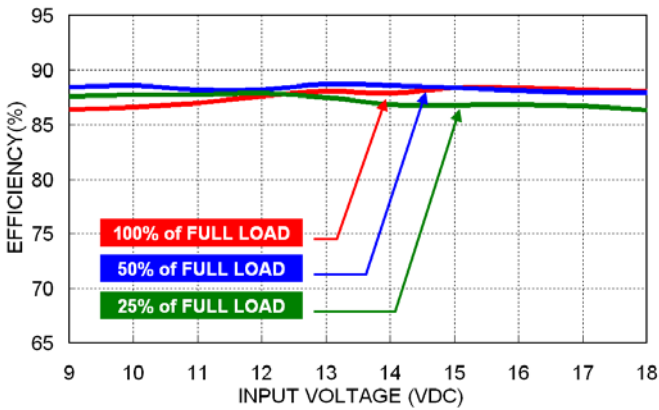
All test conditions are at 25°C. The figures are identical for PMM20-12D12



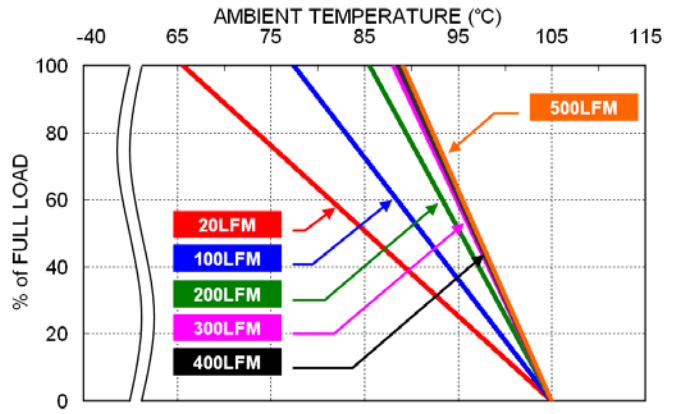
Efficiency Versus Output Load



Power Dissipation Versus Output Load



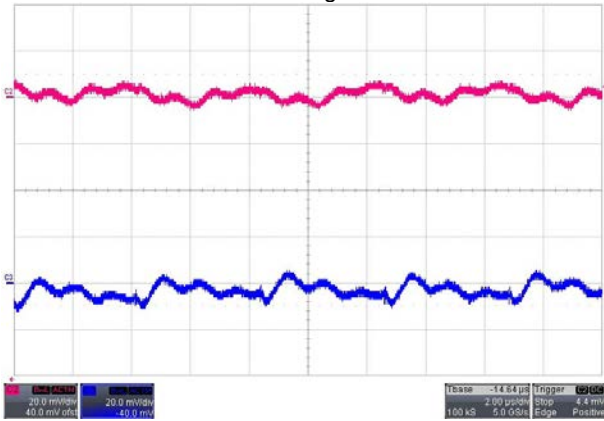
Efficiency Versus Input Voltage.



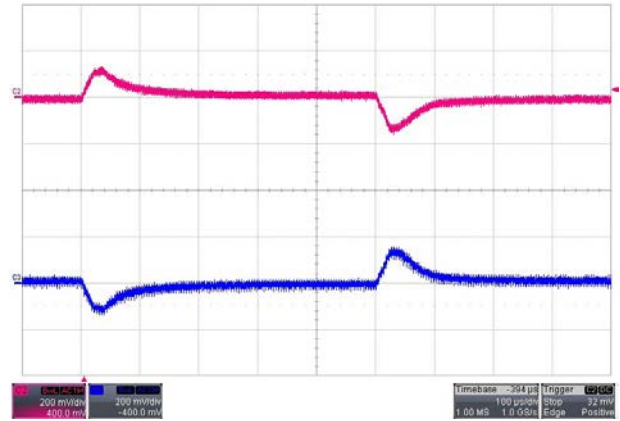
Derating Output Load Versus Ambient Temperature and Airflow  
Vin(nom)



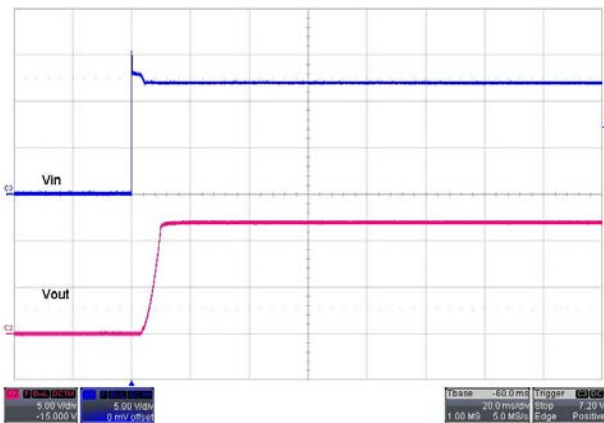
All test conditions are at 25°C. The figures are identical for PMM20-12D12



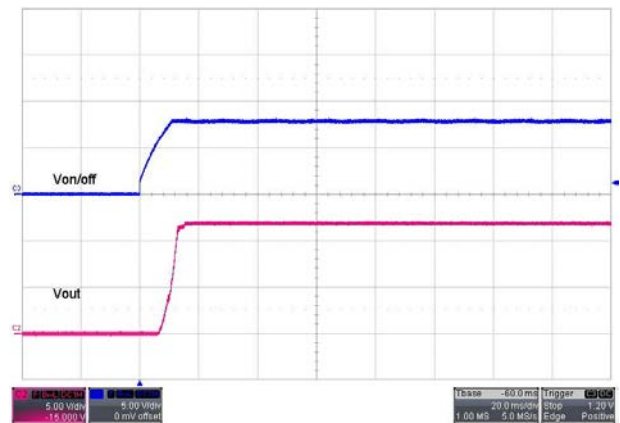
Typical Output Ripple and Noise.  
Vin(nom), Full Load



Transient Response to Dynamic Load Change from  
100% to 75% to 100% of Full Load ; Vin(nom)



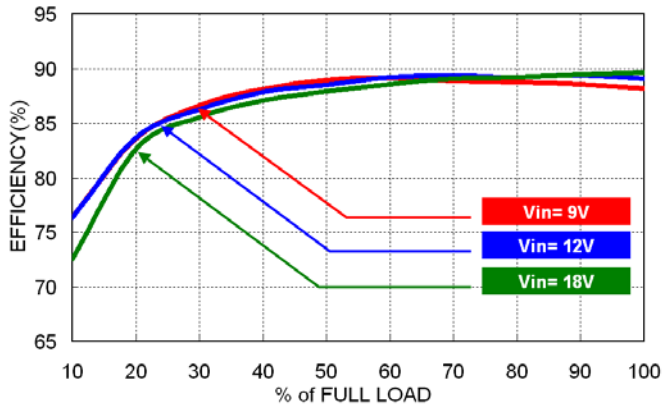
Typical Input Start-Up and Output Rise Characteristic  
Vin(nom), Full Load



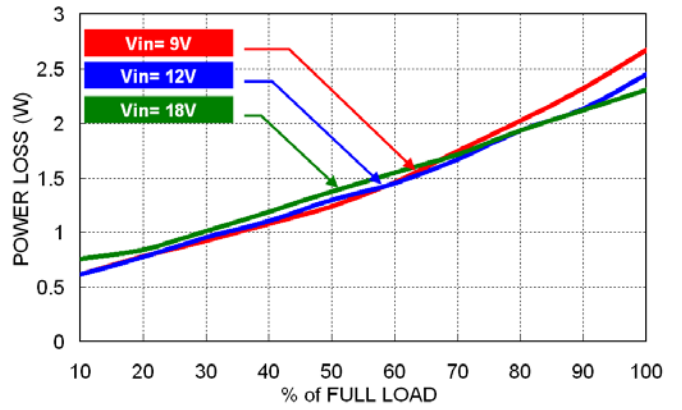
Using ON/OFF Voltage Start-Up and Vo Rise Characteristic  
Vin(nom), Full Load

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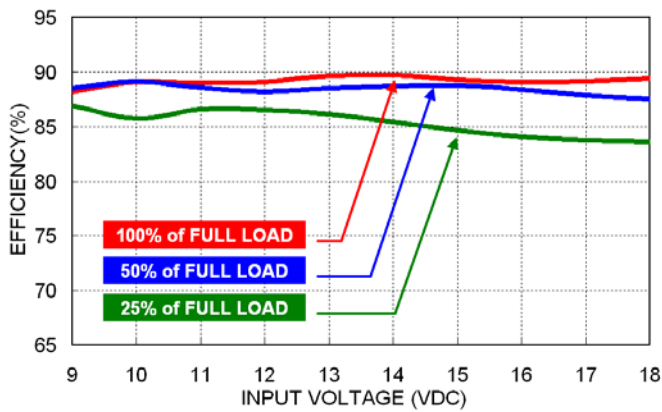
All test conditions are at 25°C. The figures are identical for PMM20-12D15



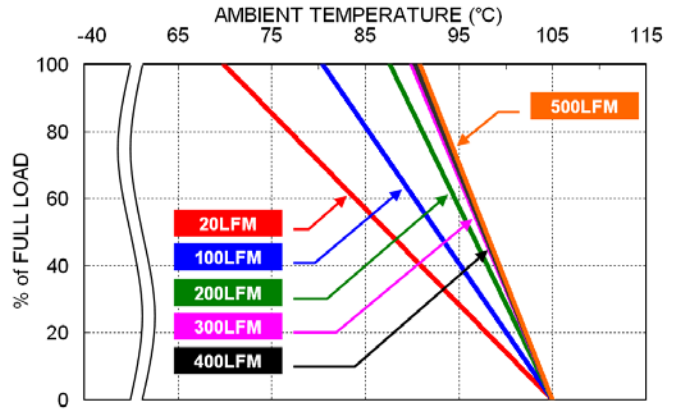
Efficiency Versus Output Load



Power Dissipation Versus Output Load



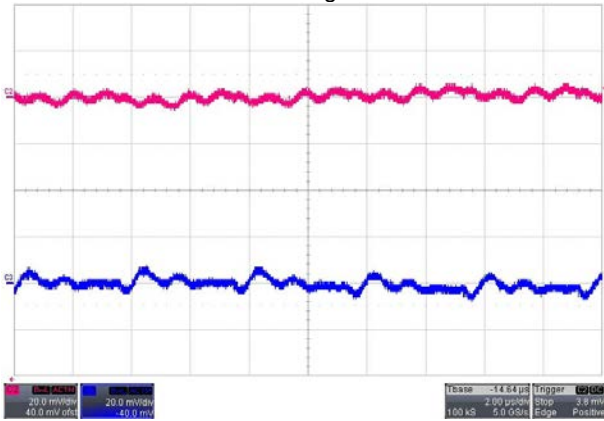
Efficiency Versus Input Voltage.



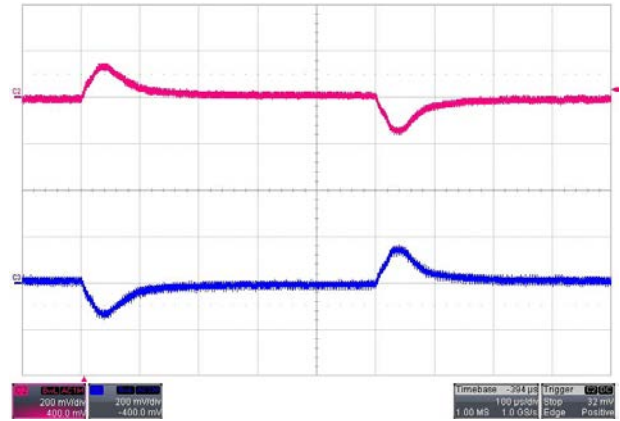
Derating Output Load Versus Ambient Temperature and Airflow  
 Vin(nom)

POWERBOX Medline  
 PMM20 Series  
 20W 2:1 & 4:1 Single and Dual Output  
 Medical DC/DC Converter  
 Characteristic Curves

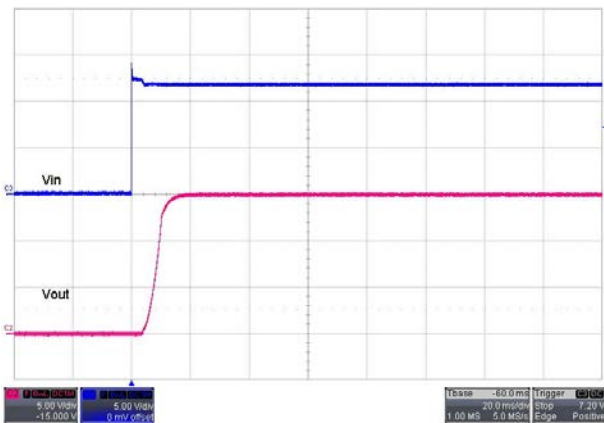
All test conditions are at 25°C. The figures are identical for PMM20-12D15



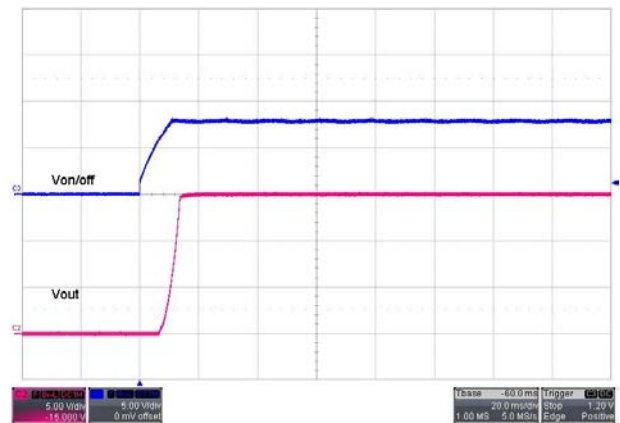
Typical Output Ripple and Noise.  
 Vin(nom), Full Load



Transient Response to Dynamic Load Change from  
 100% to 75% to 100% of Full Load ; Vin(nom)

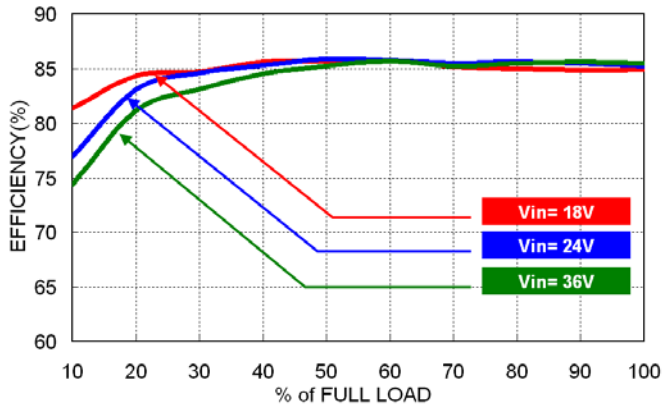


Typical Input Start-Up and Output Rise Characteristic  
 Vin(nom), Full Load

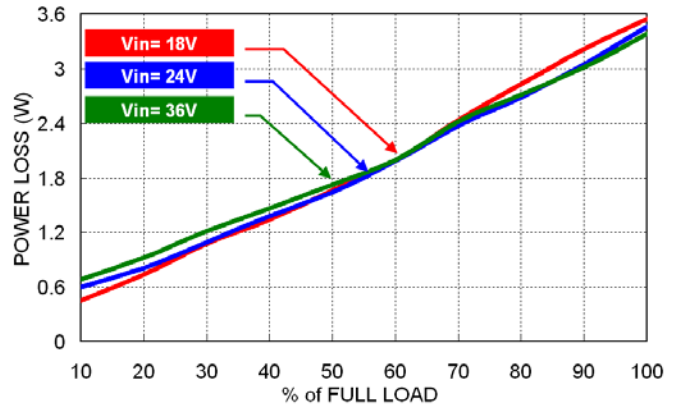


Using ON/OFF Voltage Start-Up and Vo Rise Characteristic  
 Vin(nom), Full Load

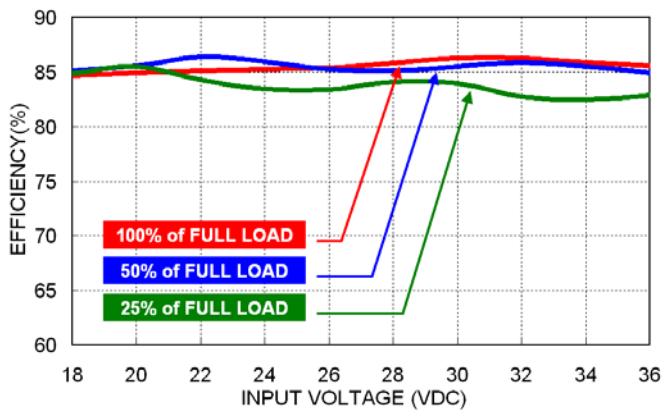
All test conditions are at 25°C. The figures are identical for PMM20-24D05



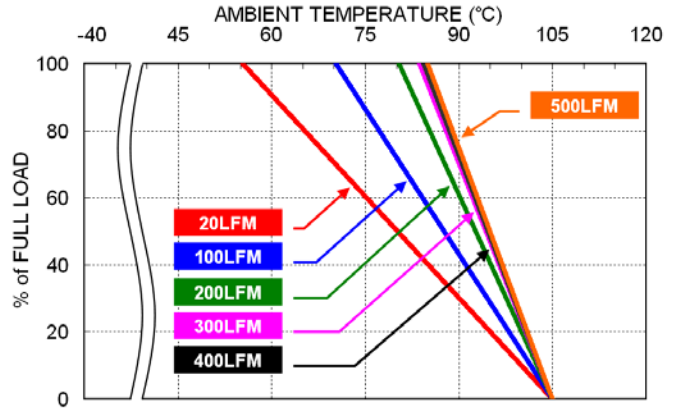
Efficiency Versus Output Load



Power Dissipation Versus Output Load



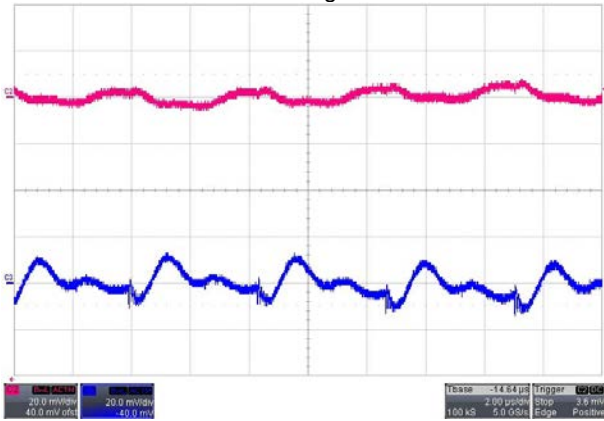
Efficiency Versus Input Voltage.



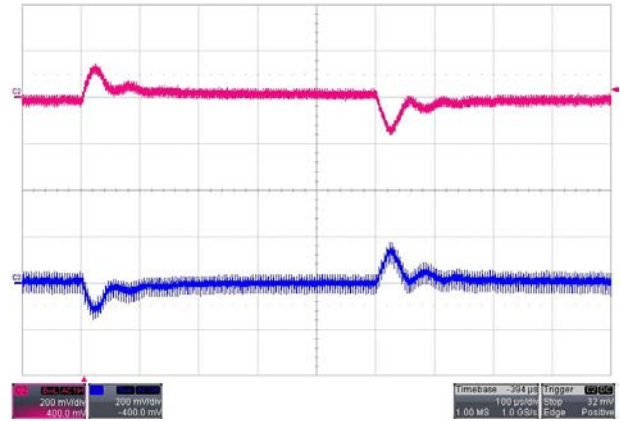
Derating Output Load Versus Ambient Temperature and Airflow  
Vin(nom)

POWERBOX **Medline**  
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 Characteristic Curves

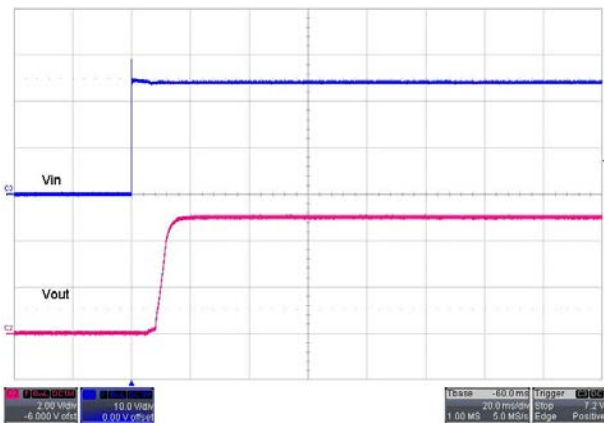
All test conditions are at 25°C. The figures are identical for PMM20-24D05



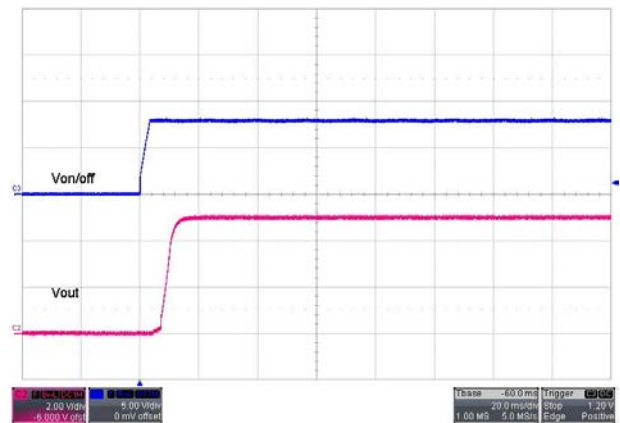
Typical Output Ripple and Noise.  
 Vin(nom), Full Load



Transient Response to Dynamic Load Change from  
 100% to 75% to 100% of Full Load ; Vin(nom)



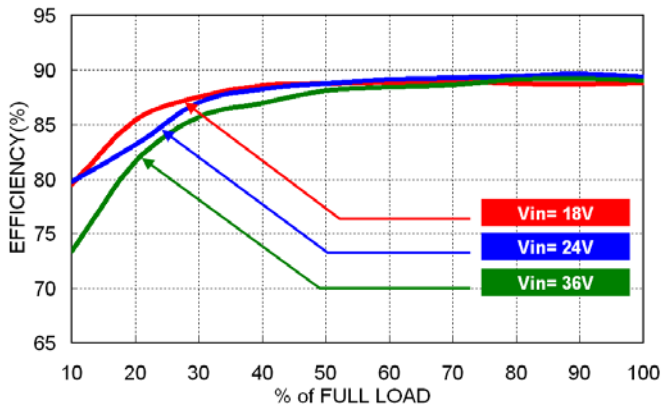
Typical Input Start-Up and Output Rise Characteristic  
 Vin(nom), Full Load



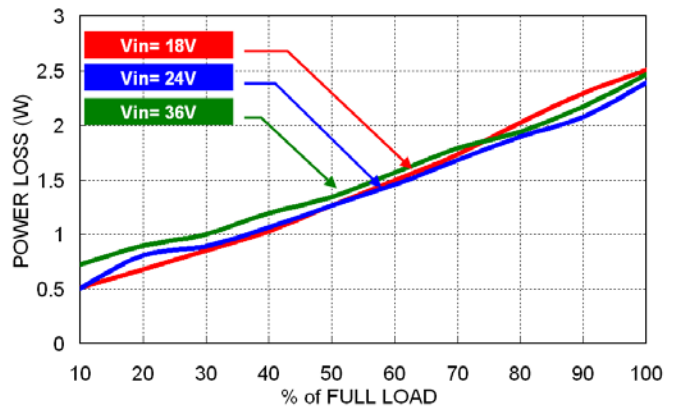
Using ON/OFF Voltage Start-Up and Vo Rise Characteristic  
 Vin(nom), Full Load

POWERBOX Medline  
 PMM20 Series  
 20W 2:1 & 4:1 Single and Dual Output  
 Medical DC/DC Converter  
 Characteristic Curves

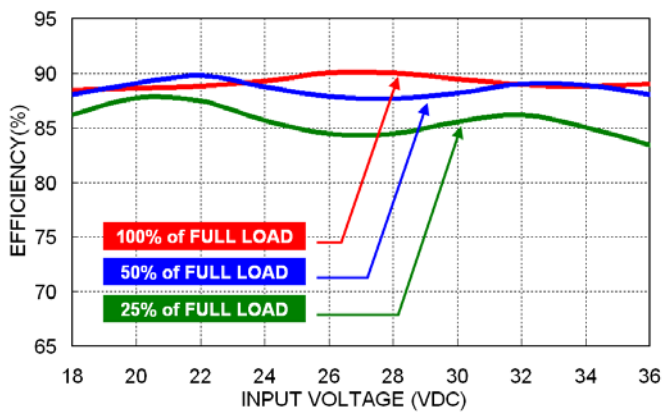
All test conditions are at 25°C. The figures are identical for PMM20-24D12



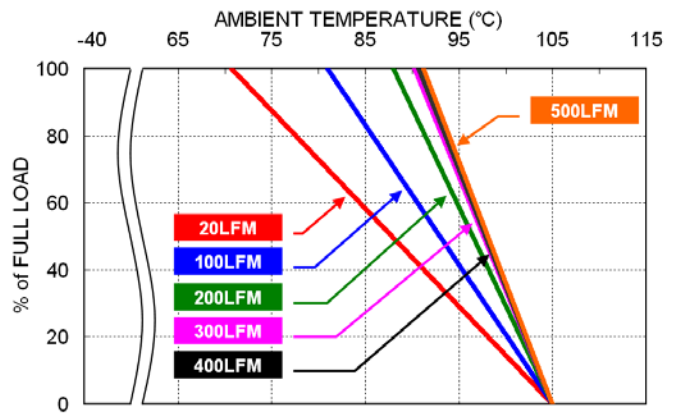
Efficiency Versus Output Load



Power Dissipation Versus Output Load

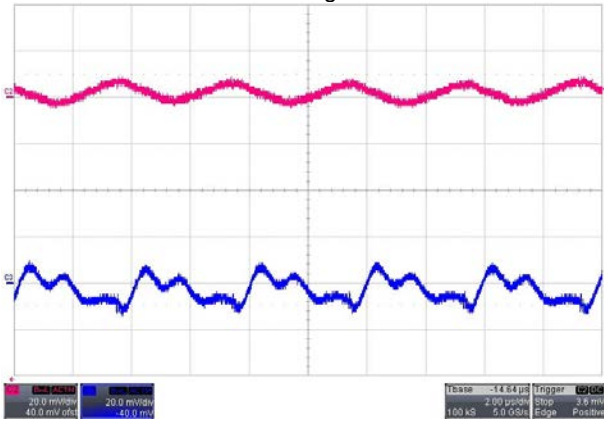


Efficiency Versus Input Voltage.

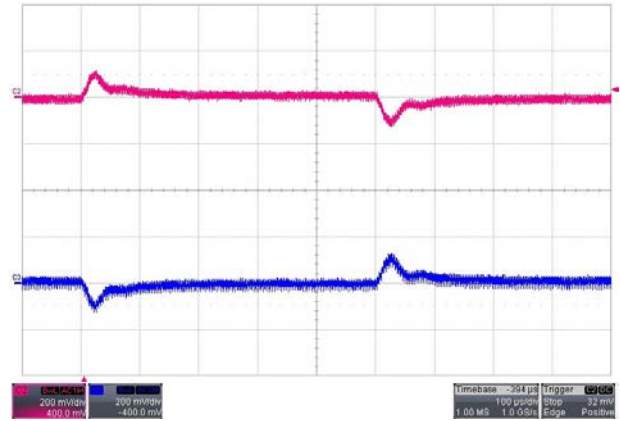


Derating Output Load Versus Ambient Temperature and Airflow  
 Vin(nom)

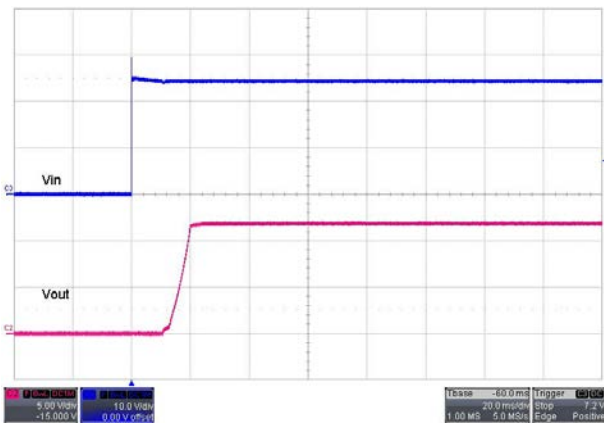
All test conditions are at 25°C. The figures are identical for PMM20-24D12



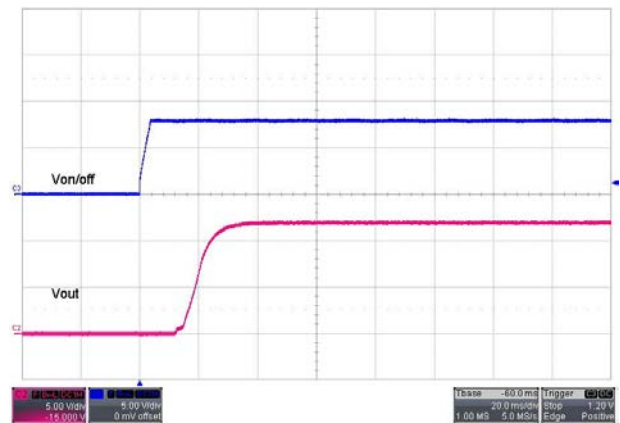
Typical Output Ripple and Noise.  
Vin(nom), Full Load



Transient Response to Dynamic Load Change from  
100% to 75% to 100% of Full Load ; Vin(nom)



Typical Input Start-Up and Output Rise Characteristic  
Vin(nom), Full Load

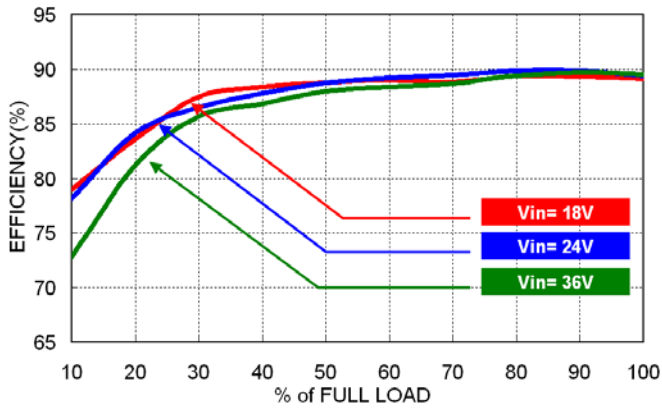


Using ON/OFF Voltage Start-Up and Vo Rise Characteristic  
Vin(nom), Full Load

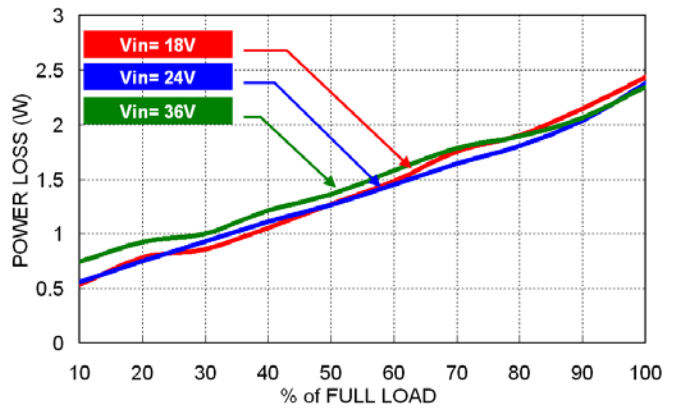


POWERBOX Medline  
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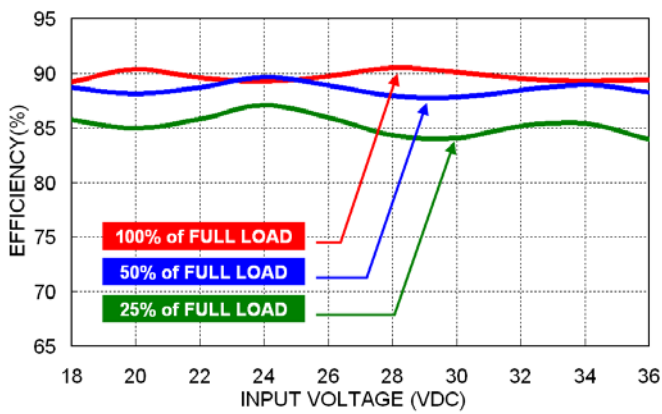
All test conditions are at 25°C. The figures are identical for PMM20-24D15



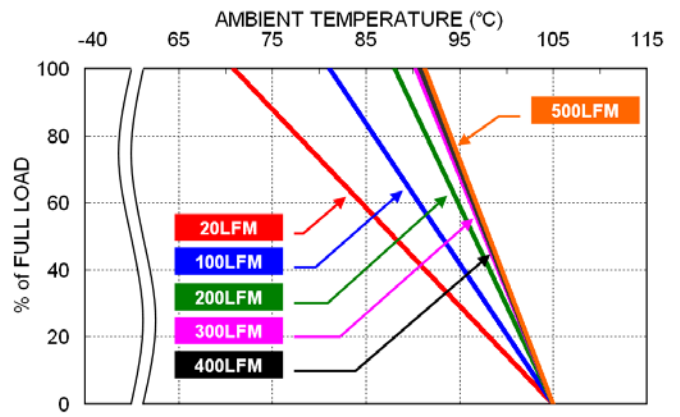
Efficiency Versus Output Load



Power Dissipation Versus Output Load



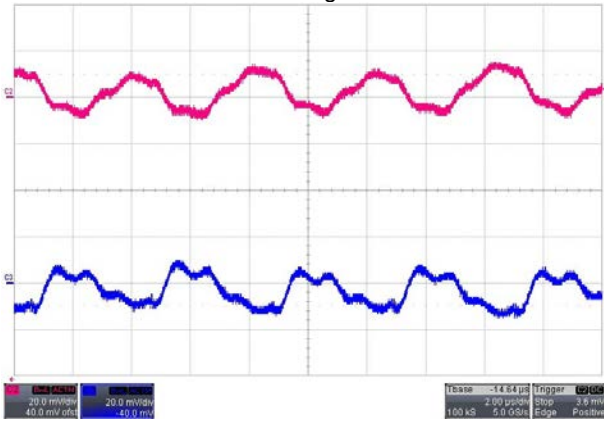
Efficiency Versus Input Voltage.



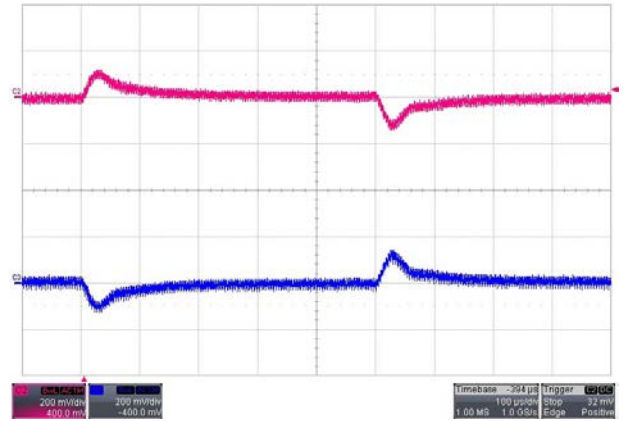
Derating Output Load Versus Ambient Temperature and Airflow  
 Vin(nom)

POWERBOX Medline  
 PMM20 Series  
 20W 2:1 & 4:1 Single and Dual Output  
 Medical DC/DC Converter  
 Characteristic Curves

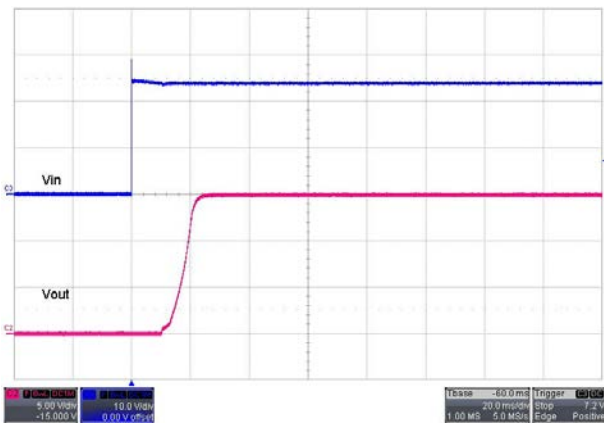
All test conditions are at 25°C. The figures are identical for PMM20-24D15



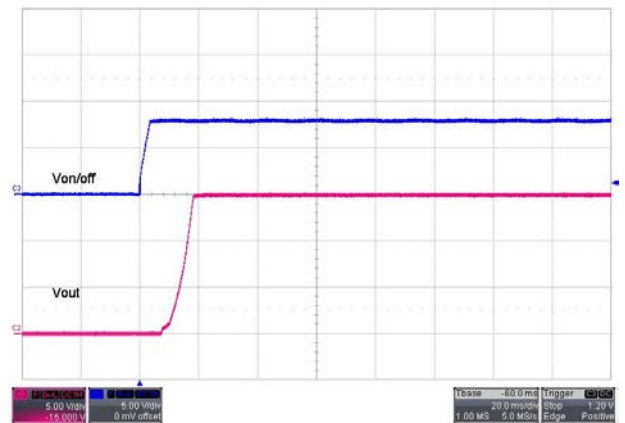
Typical Output Ripple and Noise.  
 Vin(nom), Full Load



Transient Response to Dynamic Load Change from  
 100% to 75% to 100% of Full Load ; Vin(nom)



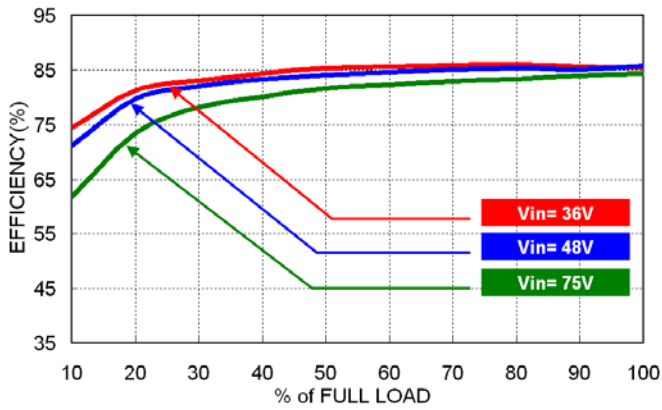
Typical Input Start-Up and Output Rise Characteristic  
 Vin(nom), Full Load



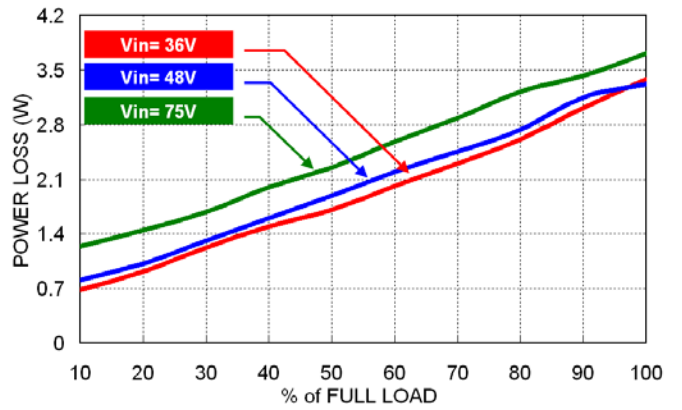
Using ON/OFF Voltage Start-Up and Vo Rise Characteristic  
 Vin(nom), Full Load

POWERBOX Medline  
PMM20 Series  
20W 2:1 & 4:1 Single and Dual Output  
Medical DC/DC Converter  
Characteristic Curves

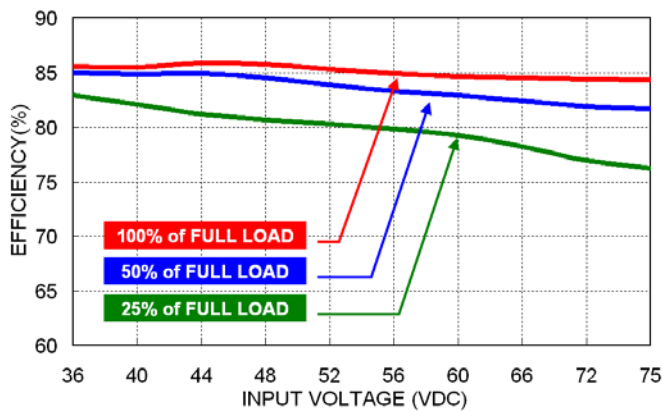
All test conditions are at 25°C. The figures are identical for PMM20-48D05



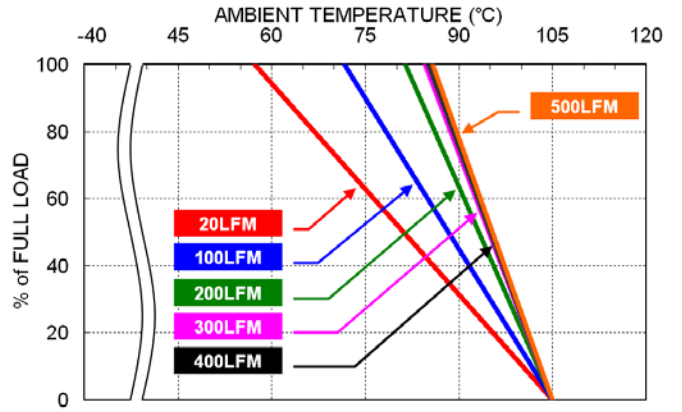
Efficiency Versus Output Load



Power Dissipation Versus Output Load

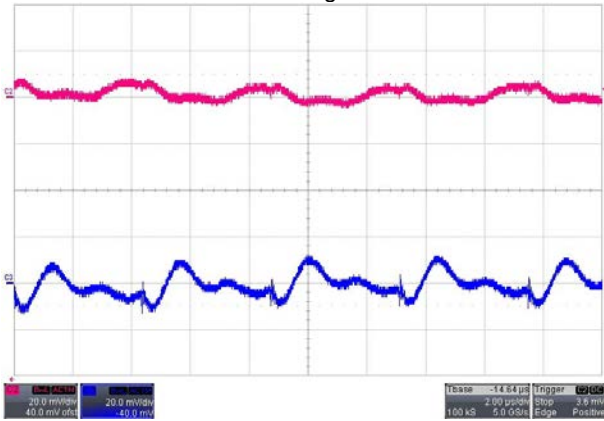


Efficiency Versus Input Voltage.

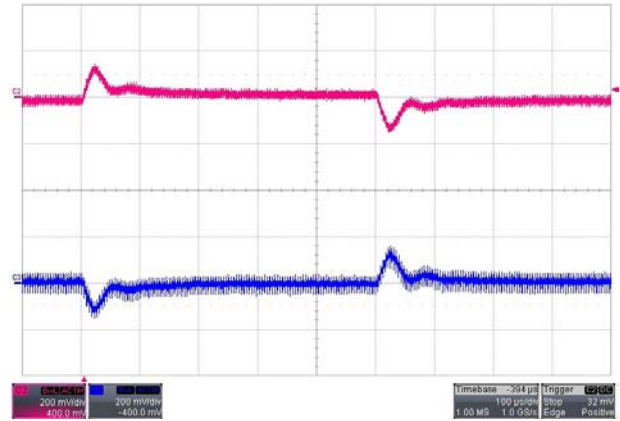


Derating Output Load Versus Ambient Temperature and Airflow  
Vin(nom)

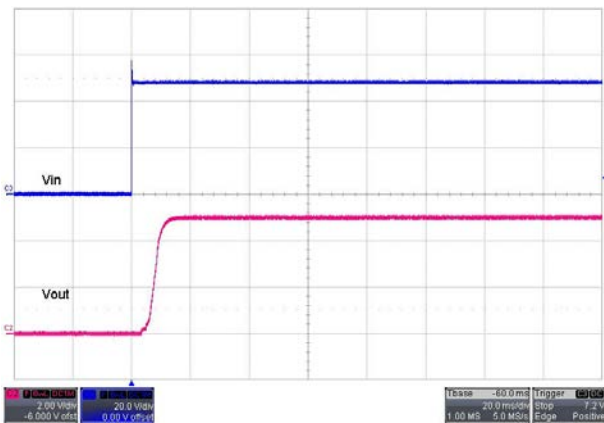
All test conditions are at 25°C. The figures are identical for PMM20-48D05



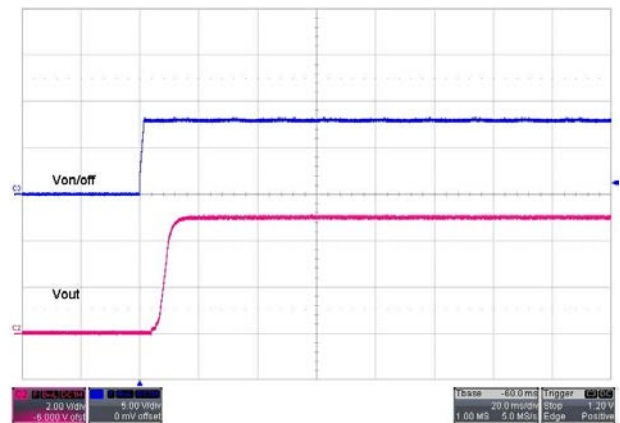
Typical Output Ripple and Noise.  
Vin(nom), Full Load



Transient Response to Dynamic Load Change from  
100% to 75% to 100% of Full Load ; Vin(nom)



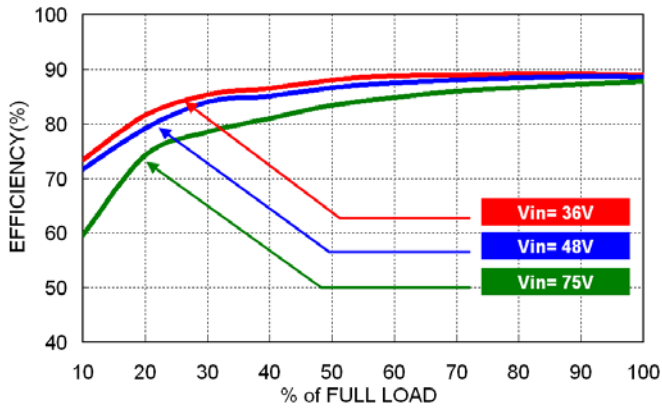
Typical Input Start-Up and Output Rise Characteristic  
Vin(nom), Full Load



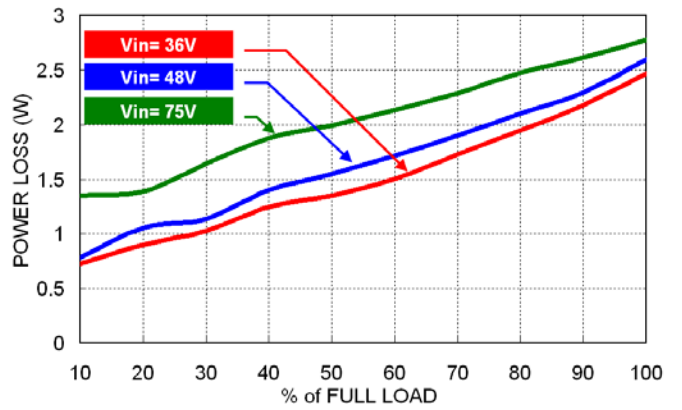
Using ON/OFF Voltage Start-Up and Vo Rise Characteristic  
Vin(nom), Full Load

POWERBOX Medline  
PMM20 Series  
20W 2:1 & 4:1 Single and Dual Output  
Medical DC/DC Converter  
Characteristic Curves

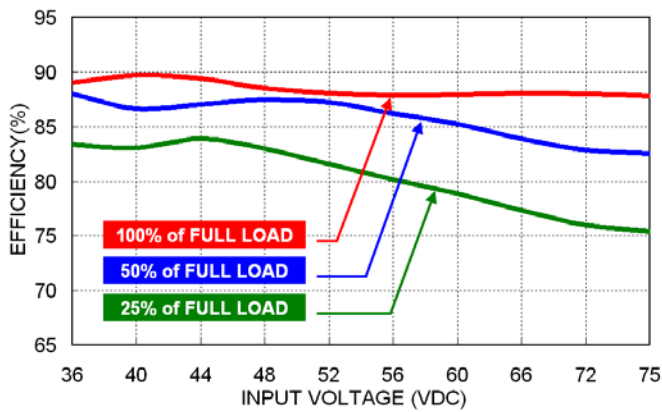
All test conditions are at 25°C. The figures are identical for PMM20-48D12



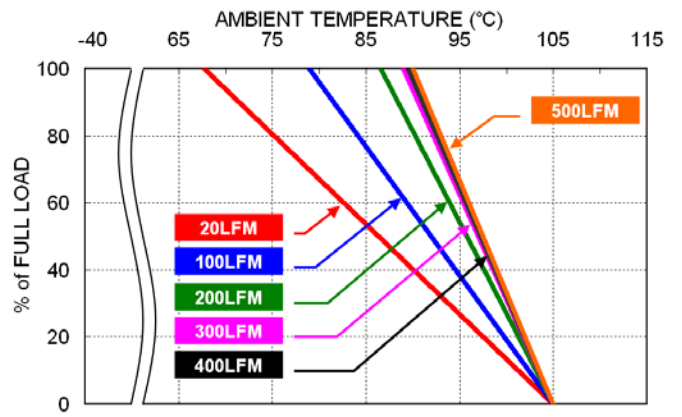
Efficiency Versus Output Load



Power Dissipation Versus Output Load

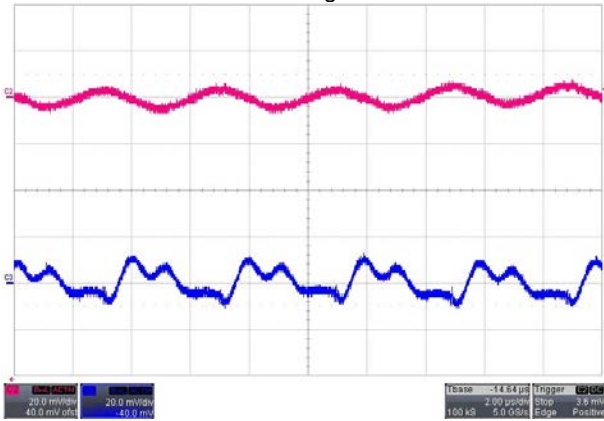


Efficiency Versus Input Voltage.

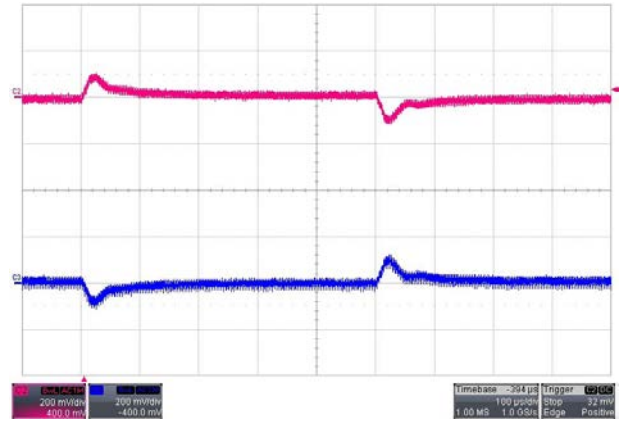


Derating Output Load Versus Ambient Temperature and Airflow  
Vin(nom)

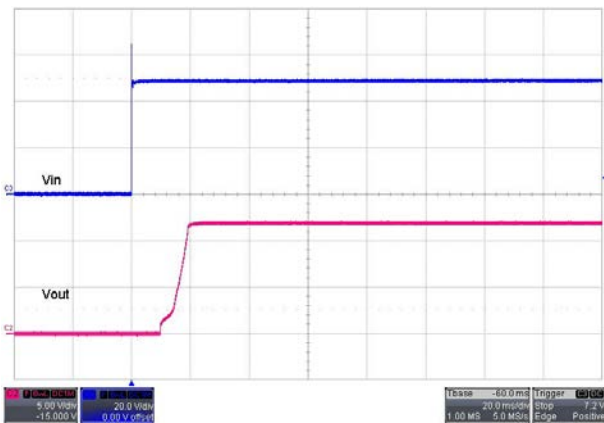
All test conditions are at 25°C. The figures are identical for PMM20-48D12



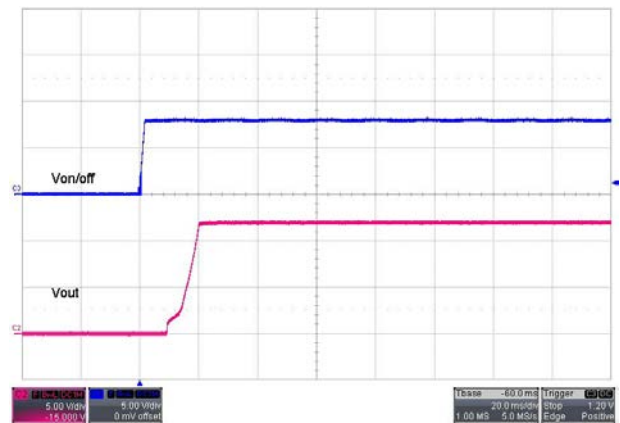
Typical Output Ripple and Noise.  
Vin(nom), Full Load



Transient Response to Dynamic Load Change from  
100% to 75% to 100% of Full Load ; Vin(nom)



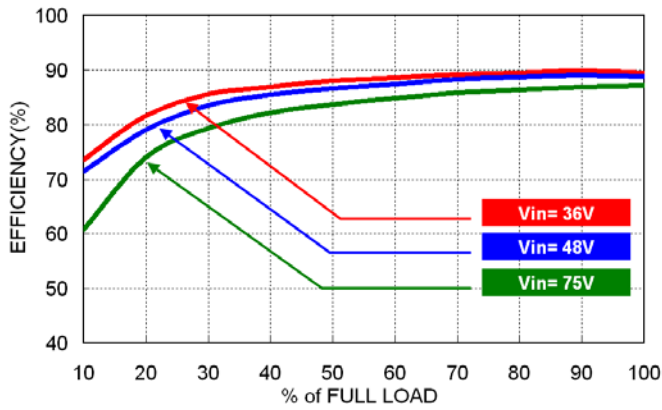
Typical Input Start-Up and Output Rise Characteristic  
Vin(nom), Full Load



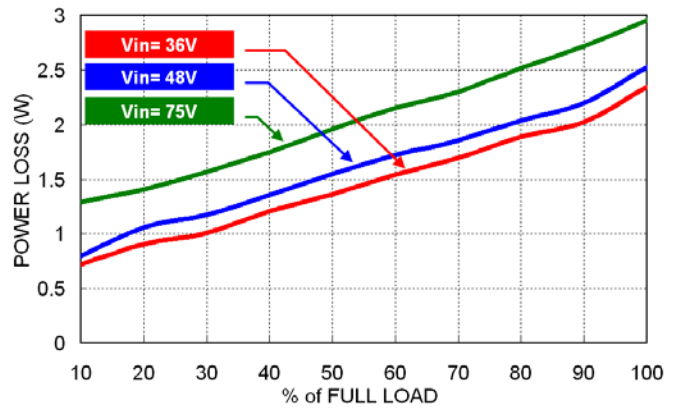
Using ON/OFF Voltage Start-Up and Vo Rise Characteristic  
Vin(nom), Full Load

POWERBOX Medline  
 PMM20 Series  
 20W 2:1 & 4:1 Single and Dual Output  
 Medical DC/DC Converter  
 Characteristic Curves

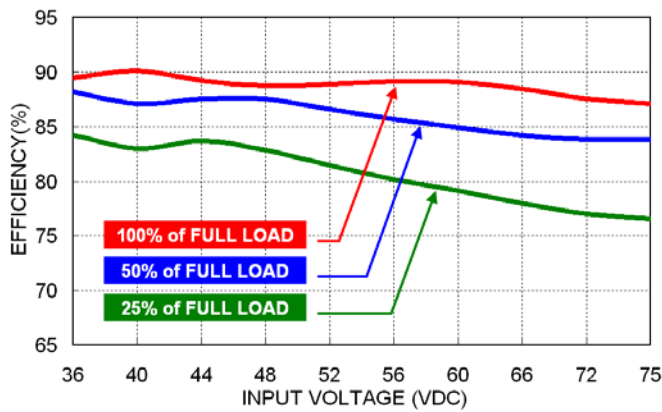
All test conditions are at 25°C. The figures are identical for PMM20-48D15



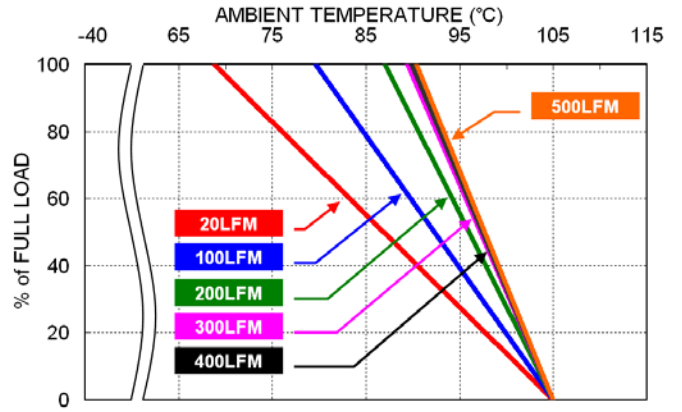
Efficiency Versus Output Load



Power Dissipation Versus Output Load



Efficiency Versus Input Voltage.

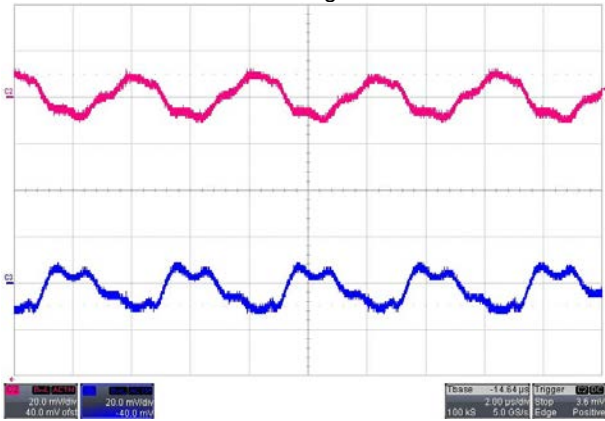


Derating Output Load Versus Ambient Temperature and Airflow  
 Vin(nom)

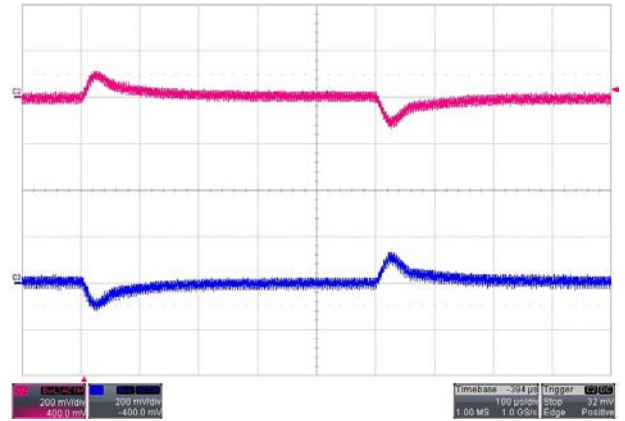


POWERBOX Medline  
 PMM20 Series  
 20W 2:1 & 4:1 Single and Dual Output  
 Medical DC/DC Converter  
 Characteristic Curves

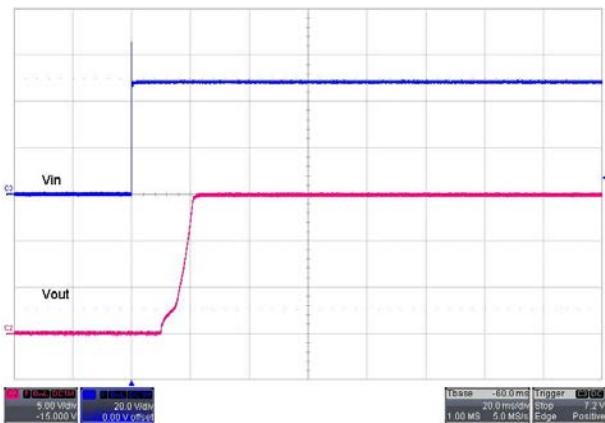
All test conditions are at 25°C. The figures are identical for PMM20-48D15



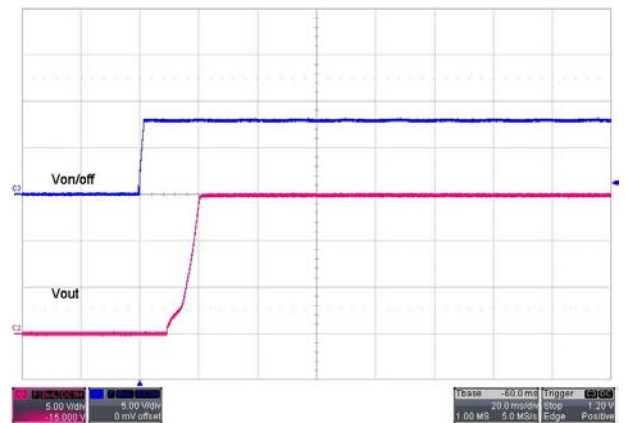
Typical Output Ripple and Noise.  
 Vin(nom), Full Load



Transient Response to Dynamic Load Change from  
 100% to 75% to 100% of Full Load ; Vin(nom)



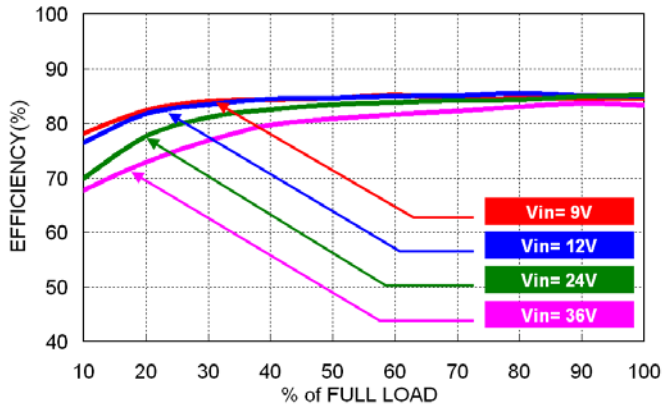
Typical Input Start-Up and Output Rise Characteristic  
 Vin(nom), Full Load



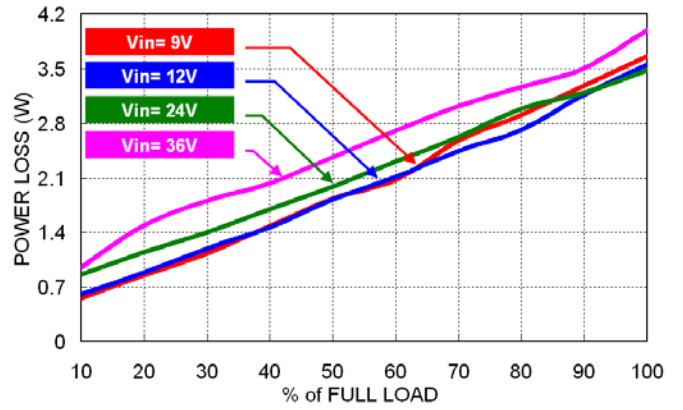
Using ON/OFF Voltage Start-Up and Vo Rise Characteristic  
 Vin(nom), Full Load

POWERBOX Medline  
 PMM20 Series  
 20W 2:1 & 4:1 Single and Dual Output  
 Medical DC/DC Converter  
 Characteristic Curves

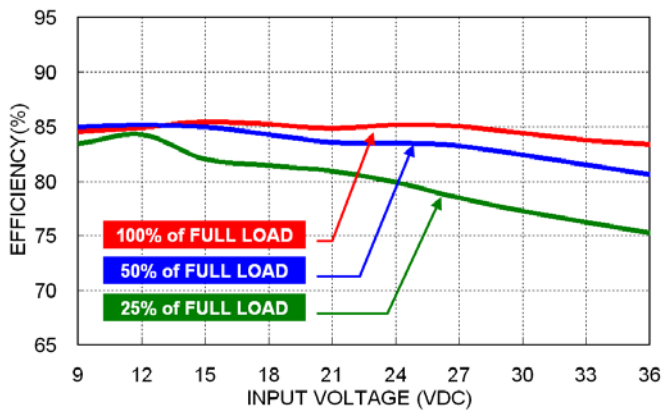
All test conditions are at 25°C. The figures are identical for PMM20-24D05W



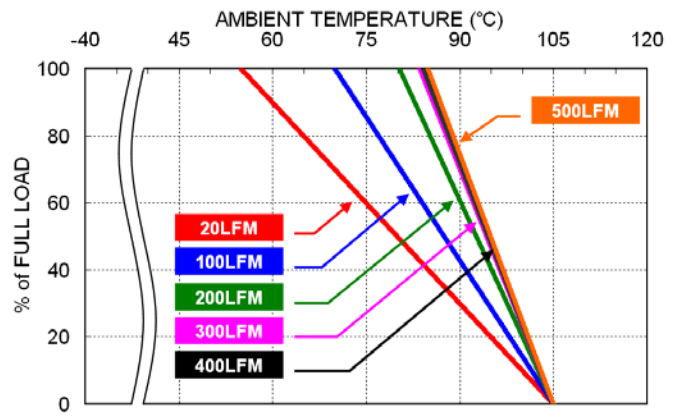
Efficiency Versus Output Load



Power Dissipation Versus Output Load

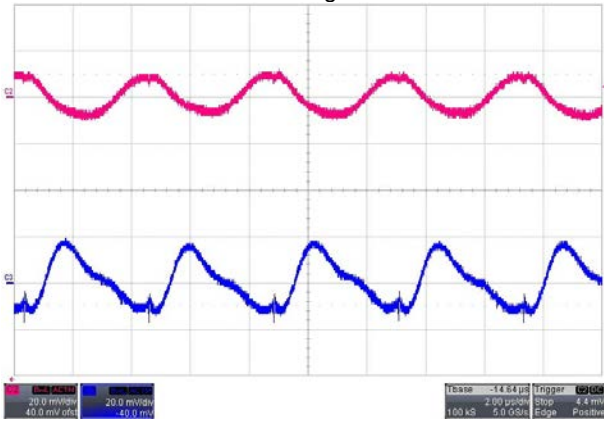


Efficiency Versus Input Voltage.

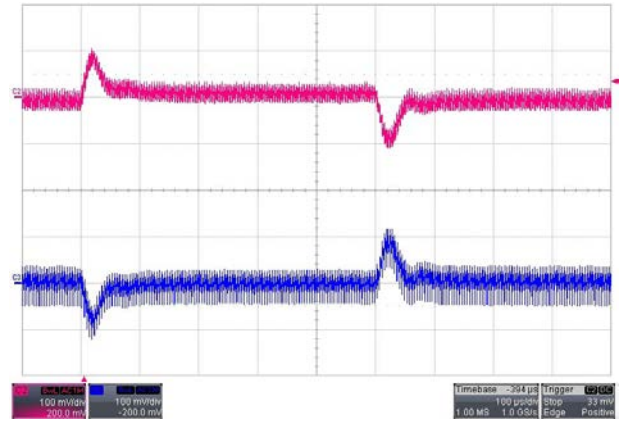


Derating Output Load Versus Ambient Temperature and Airflow  
 Vin(nom)

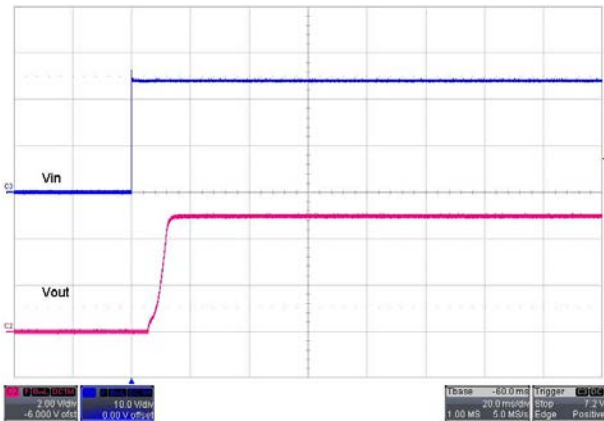
All test conditions are at 25°C. The figures are identical for PMM20-24D05W



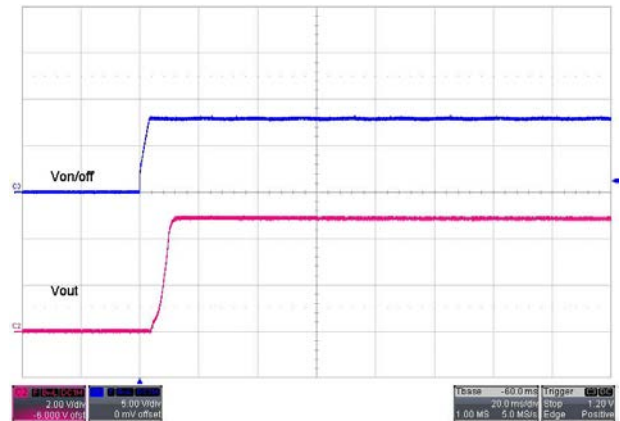
Typical Output Ripple and Noise.  
Vin(nom), Full Load



Transient Response to Dynamic Load Change from  
100% to 75% to 100% of Full Load ; Vin(nom)



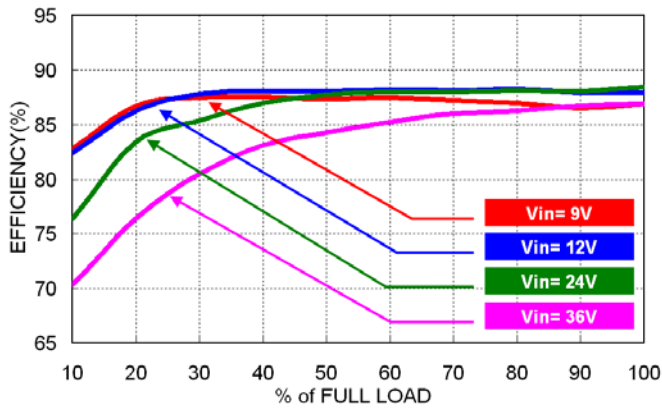
Typical Input Start-Up and Output Rise Characteristic  
Vin(nom), Full Load



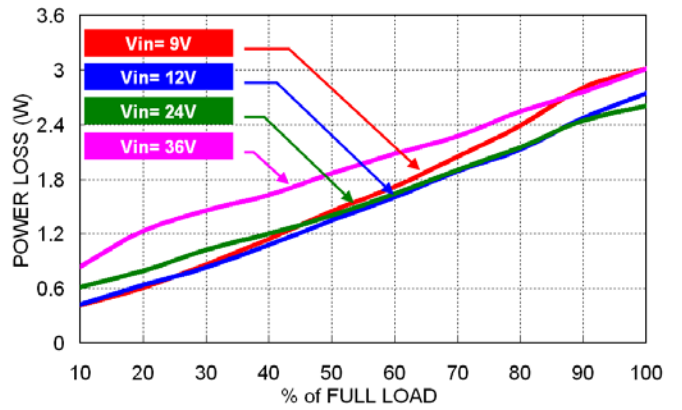
Using ON/OFF Voltage Start-Up and Vo Rise Characteristic  
Vin(nom), Full Load

POWERBOX Medline  
PMM20 Series  
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Medical DC/DC Converter  
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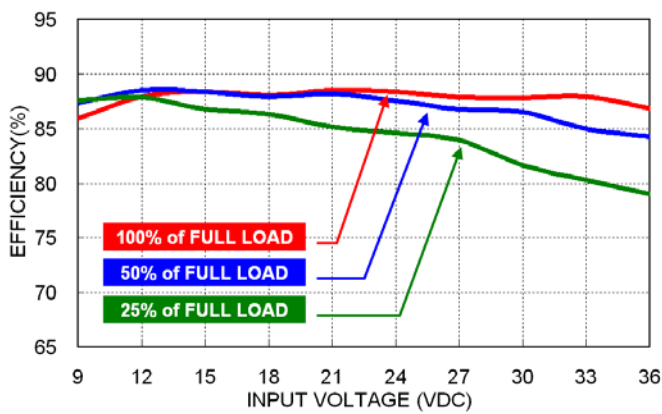
All test conditions are at 25°C. The figures are identical for PMM20-24D12W



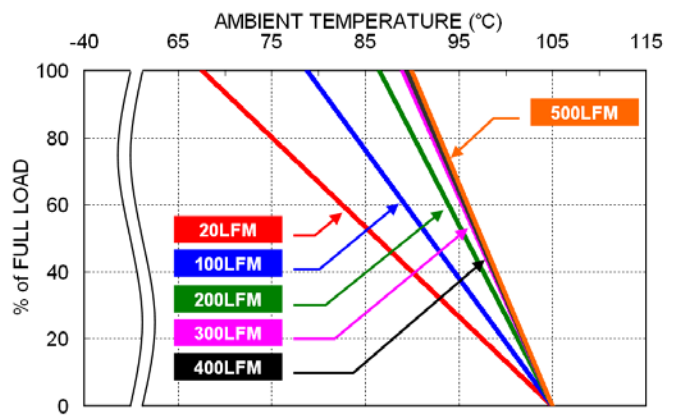
Efficiency Versus Output Load



Power Dissipation Versus Output Load

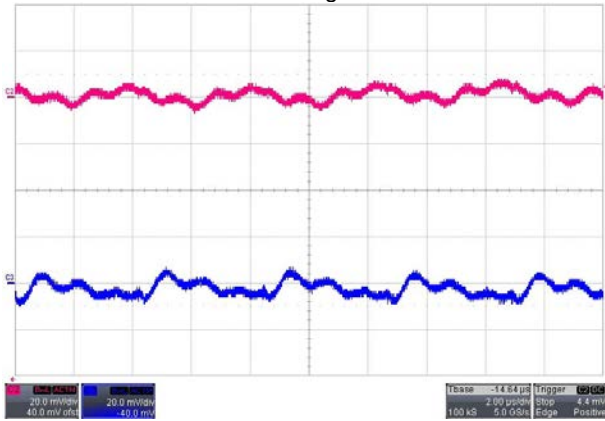


Efficiency Versus Input Voltage.

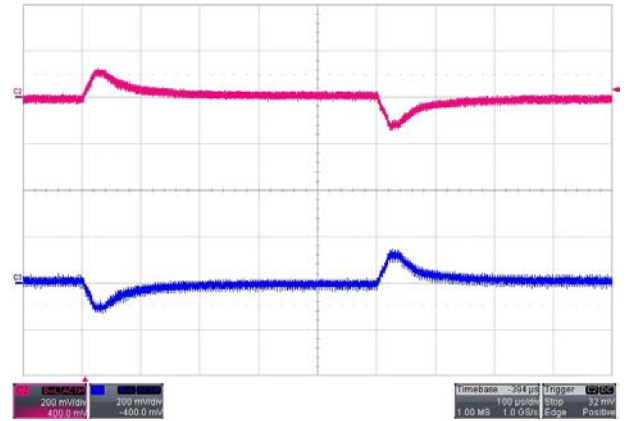


Derating Output Load Versus Ambient Temperature and Airflow  
Vin(nom)

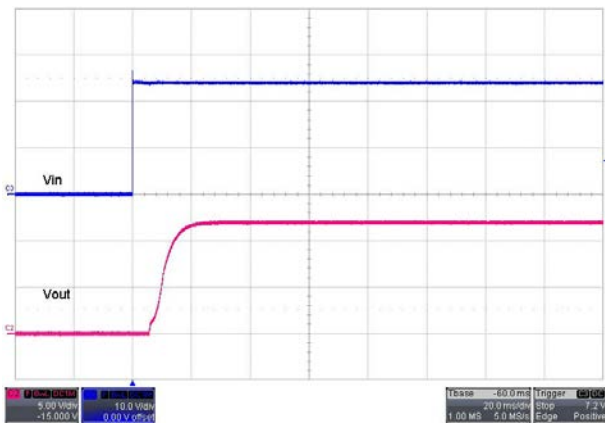
All test conditions are at 25°C. The figures are identical for PMM20-24D12W



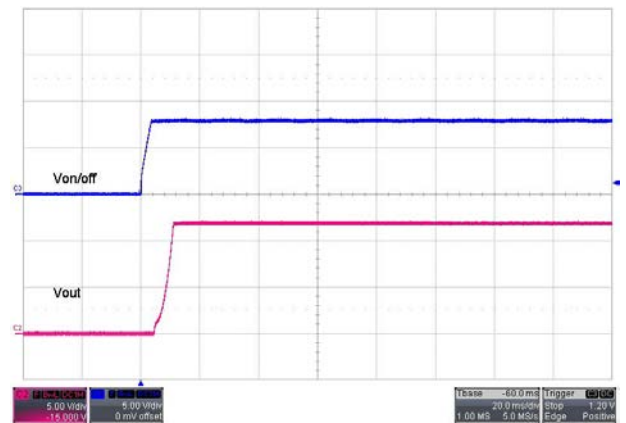
Typical Output Ripple and Noise.  
Vin(nom), Full Load



Transient Response to Dynamic Load Change from  
100% to 75% to 100% of Full Load ; Vin(nom)



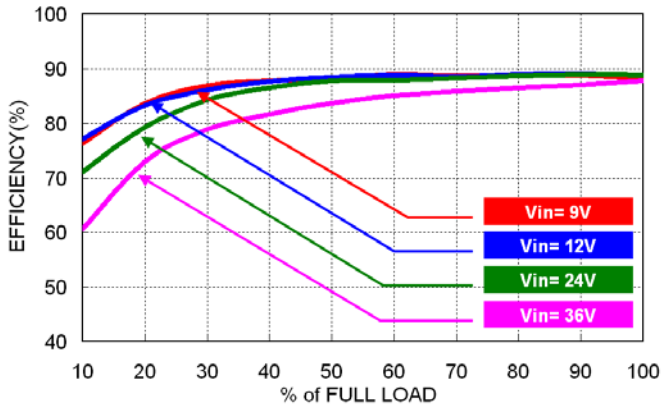
Typical Input Start-Up and Output Rise Characteristic  
Vin(nom), Full Load



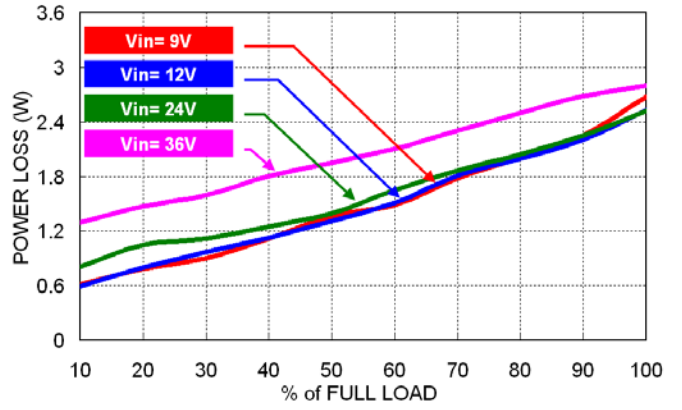
Using ON/OFF Voltage Start-Up and Vo Rise Characteristic  
Vin(nom), Full Load

POWERBOX Medline  
 PMM20 Series  
 20W 2:1 & 4:1 Single and Dual Output  
 Medical DC/DC Converter  
 Characteristic Curves

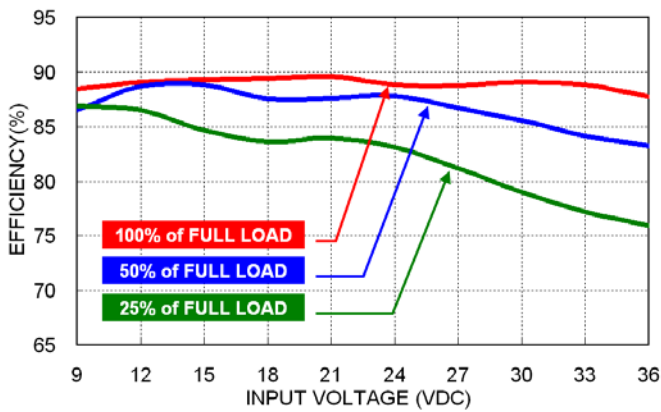
All test conditions are at 25°C. The figures are identical for PMM20-24D15W



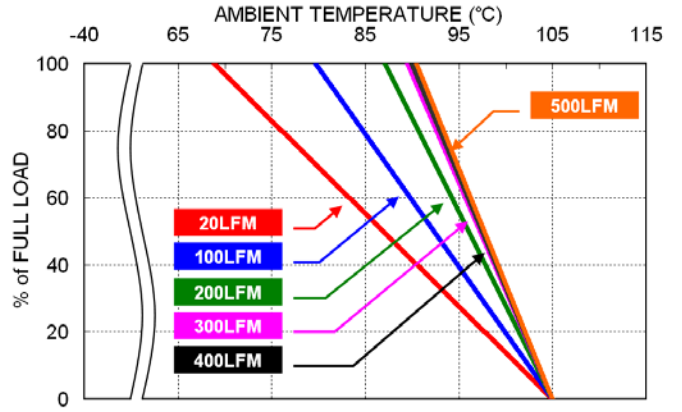
Efficiency Versus Output Load



Power Dissipation Versus Output Load

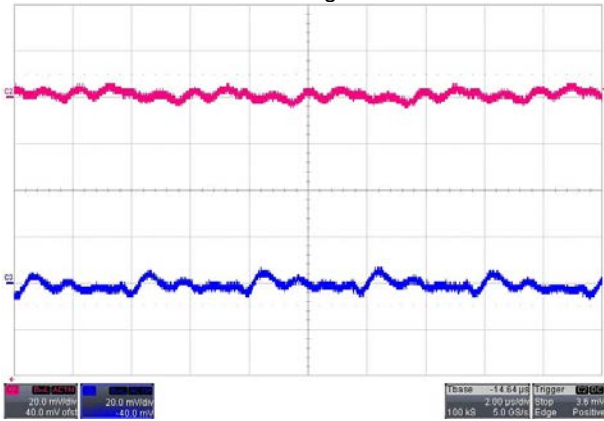


Efficiency Versus Input Voltage.

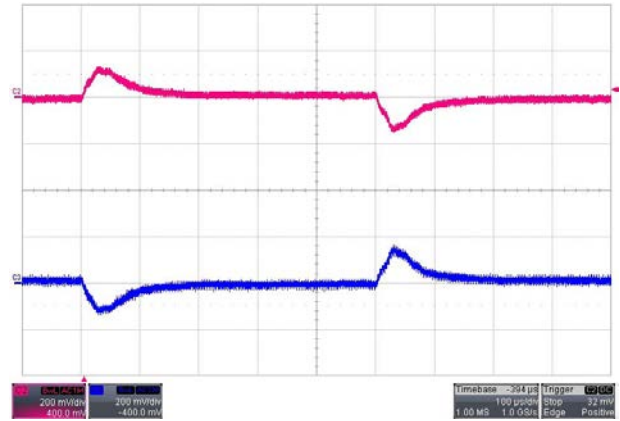


Derating Output Load Versus Ambient Temperature and Airflow  
 Vin(nom)

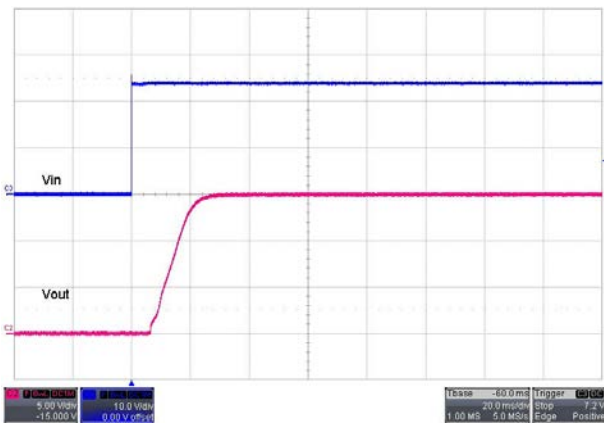
All test conditions are at 25°C. The figures are identical for PMM20-24D15W



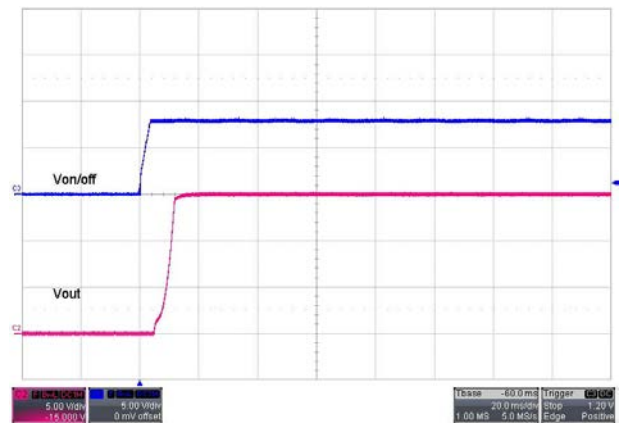
Typical Output Ripple and Noise.  
Vin(nom), Full Load



Transient Response to Dynamic Load Change from  
100% to 75% to 100% of Full Load ; Vin(nom)



Typical Input Start-Up and Output Rise Characteristic  
Vin(nom), Full Load

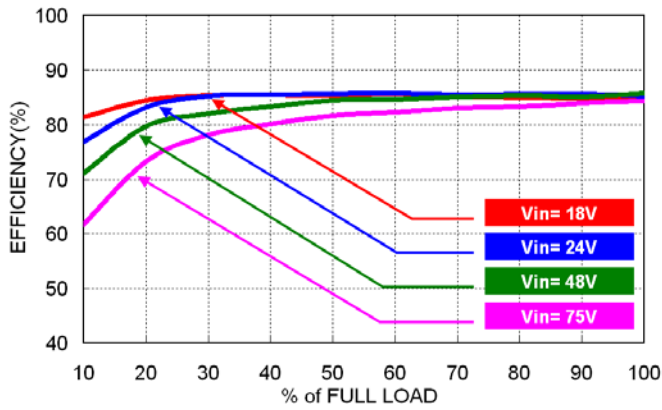


Using ON/OFF Voltage Start-Up and Vo Rise Characteristic  
Vin(nom), Full Load

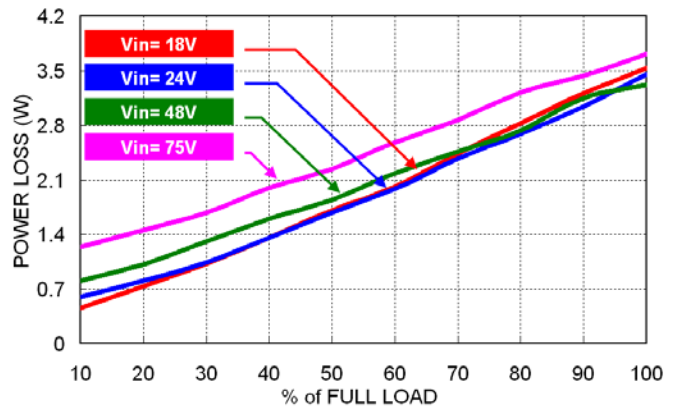


POWERBOX Medline  
 PMM20 Series  
 20W 2:1 & 4:1 Single and Dual Output  
 Medical DC/DC Converter  
 Characteristic Curves

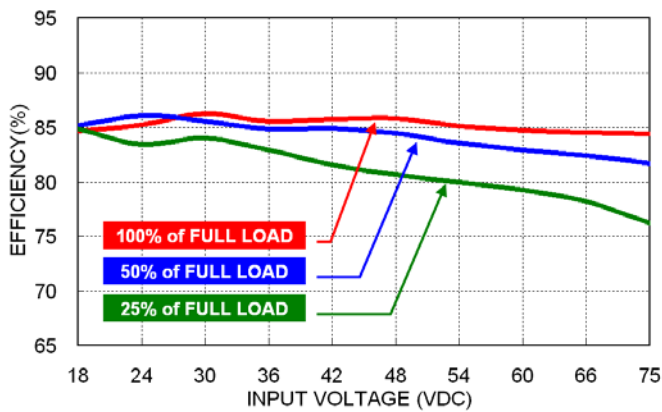
All test conditions are at 25°C. The figures are identical for PMM20-48D05W



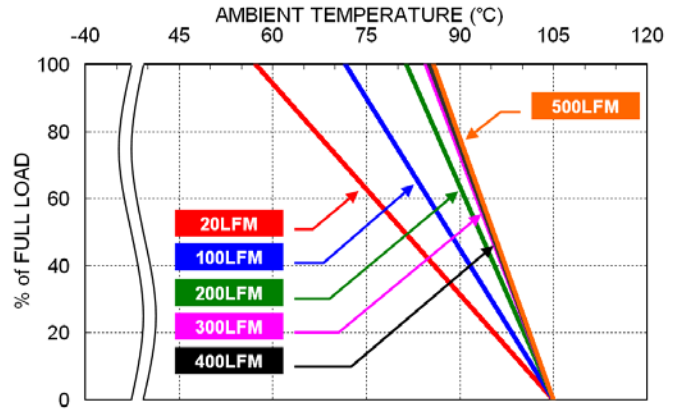
Efficiency Versus Output Load



Power Dissipation Versus Output Load

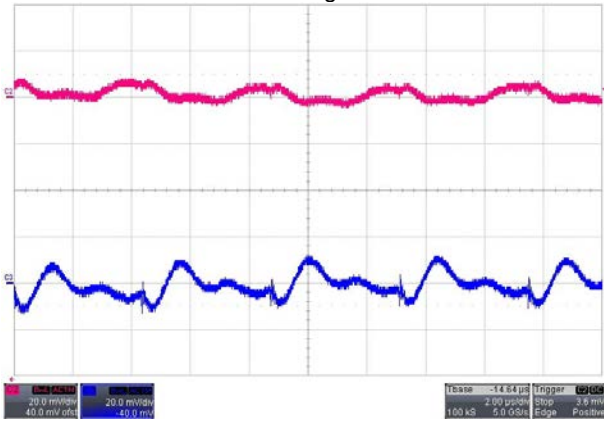


Efficiency Versus Input Voltage.

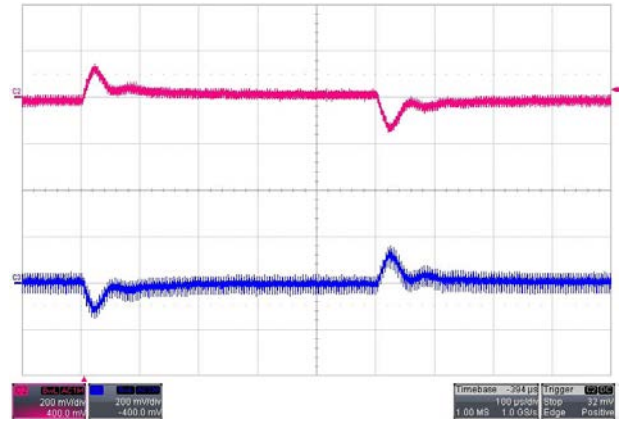


Derating Output Load Versus Ambient Temperature and Airflow  
 Vin(nom)

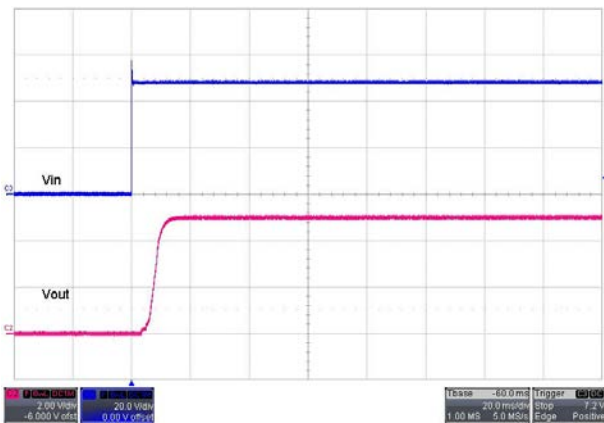
All test conditions are at 25°C. The figures are identical for PMM20-48D05W



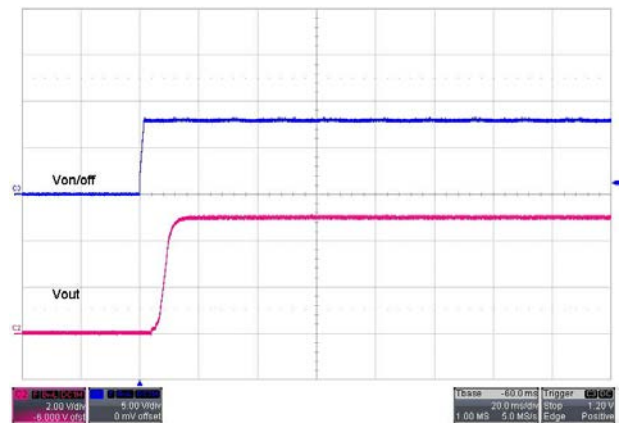
Typical Output Ripple and Noise.  
Vin(nom), Full Load



Transient Response to Dynamic Load Change from  
100% to 75% to 100% of Full Load ; Vin(nom)

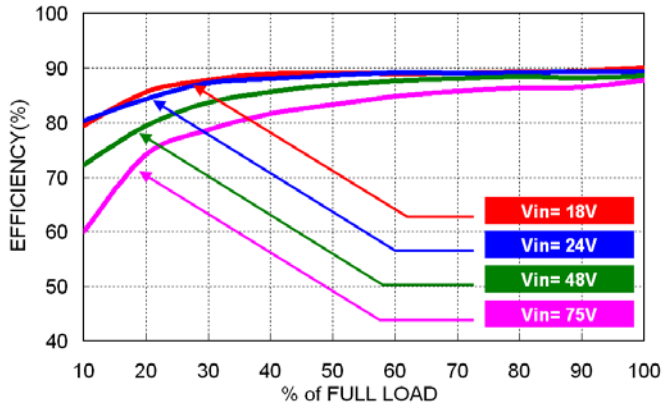


Typical Input Start-Up and Output Rise Characteristic  
Vin(nom), Full Load

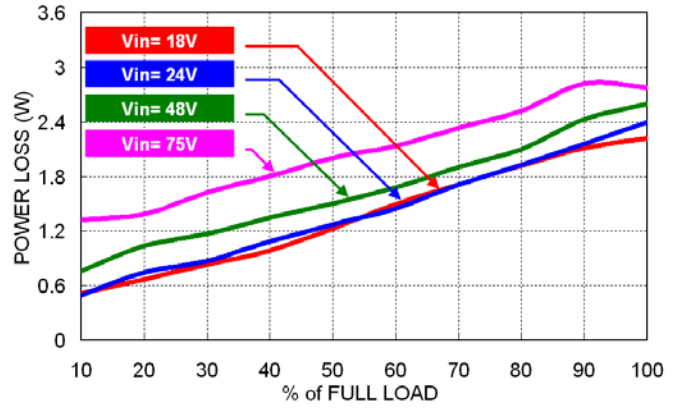


Using ON/OFF Voltage Start-Up and Vo Rise Characteristic  
Vin(nom), Full Load

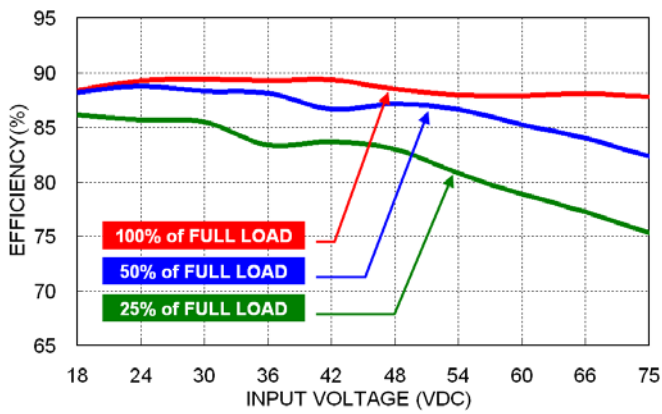
All test conditions are at 25°C. The figures are identical for PMM20-48D12W



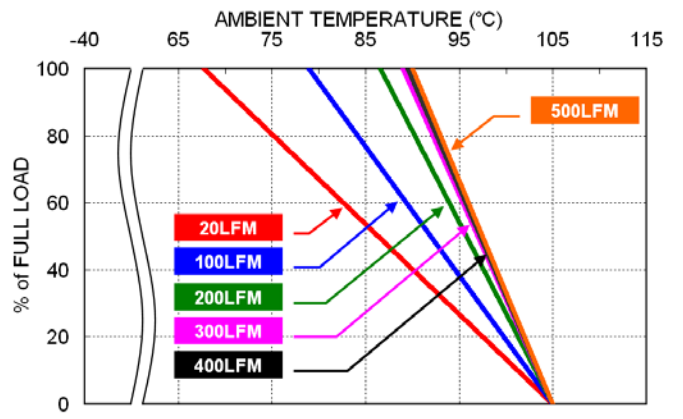
Efficiency Versus Output Load



Power Dissipation Versus Output Load



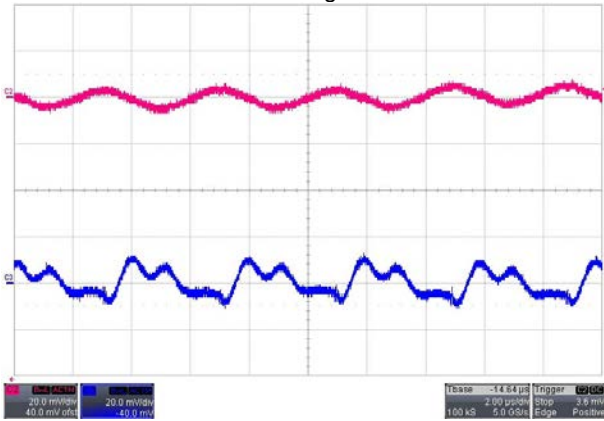
Efficiency Versus Input Voltage.



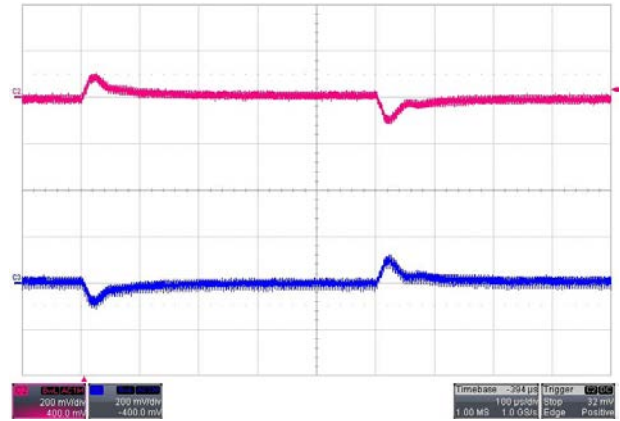
Derating Output Load Versus Ambient Temperature and Airflow  
Vin(nom)

POWERBOX Medline  
 PMM20 Series  
 20W 2:1 & 4:1 Single and Dual Output  
 Medical DC/DC Converter  
 Characteristic Curves

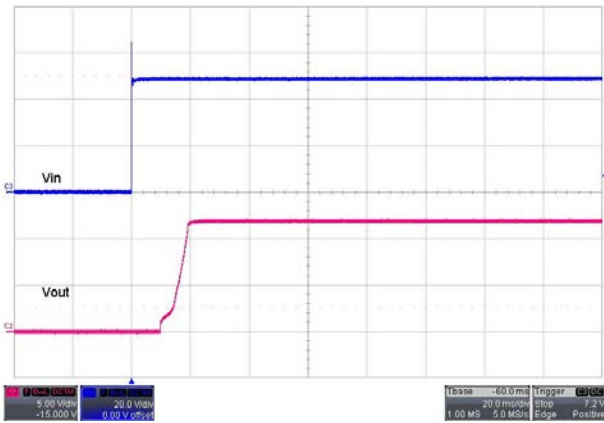
All test conditions are at 25°C. The figures are identical for PMM20-48D12W



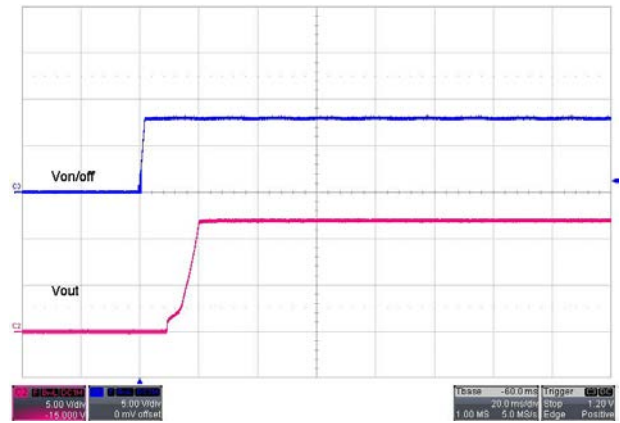
Typical Output Ripple and Noise.  
 Vin(nom), Full Load



Transient Response to Dynamic Load Change from  
 100% to 75% to 100% of Full Load ; Vin(nom)



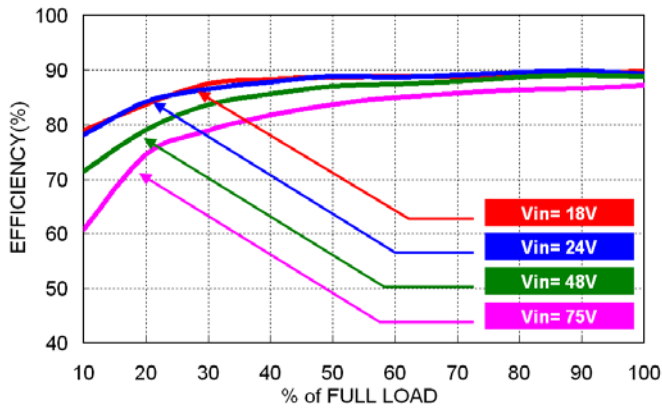
Typical Input Start-Up and Output Rise Characteristic  
 Vin(nom), Full Load



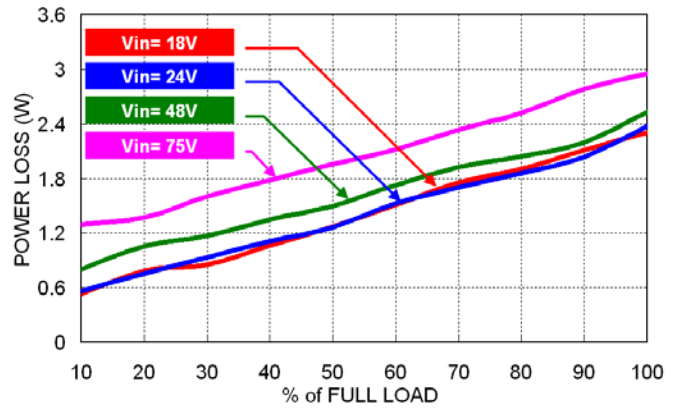
Using ON/OFF Voltage Start-Up and Vo Rise Characteristic  
 Vin(nom), Full Load

POWERBOX Medline  
 PMM20 Series  
 20W 2:1 & 4:1 Single and Dual Output  
 Medical DC/DC Converter  
 Characteristic Curves

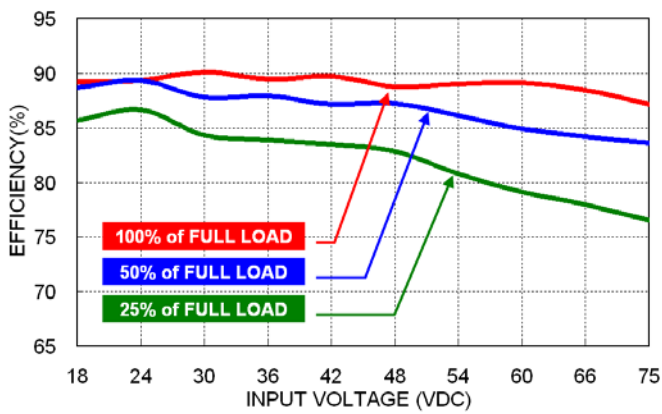
All test conditions are at 25°C. The figures are identical for PMM20-48D15W



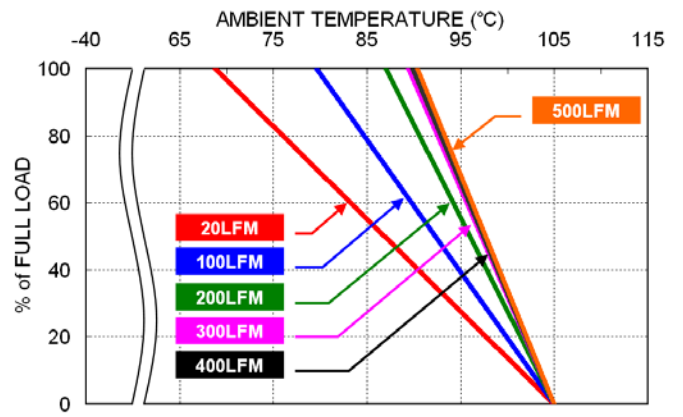
Efficiency Versus Output Load



Power Dissipation Versus Output Load

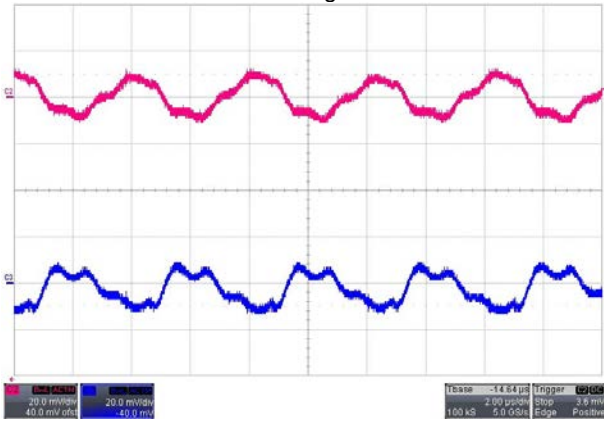


Efficiency Versus Input Voltage.

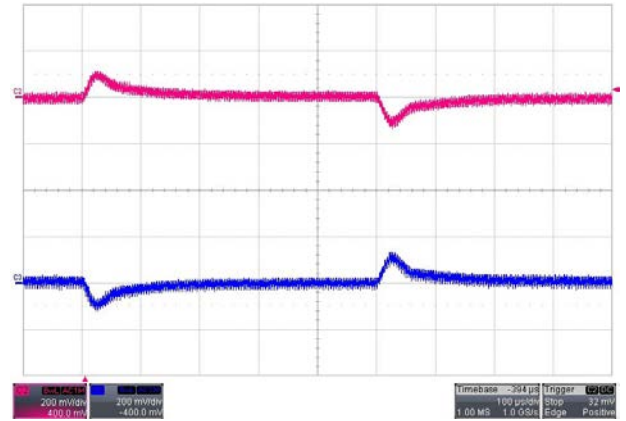


Derating Output Load Versus Ambient Temperature and Airflow  
 Vin(nom)

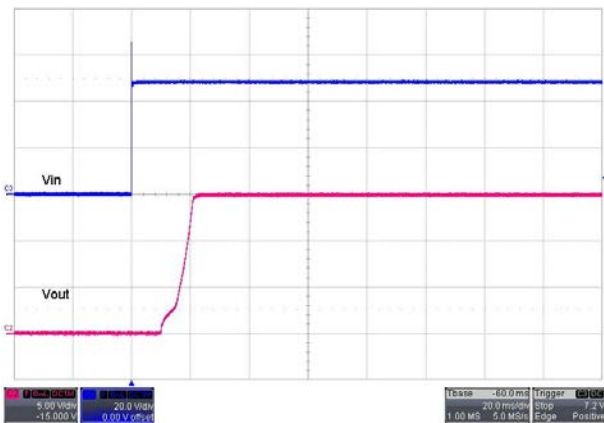
All test conditions are at 25°C. The figures are identical for PMM20-48D15W



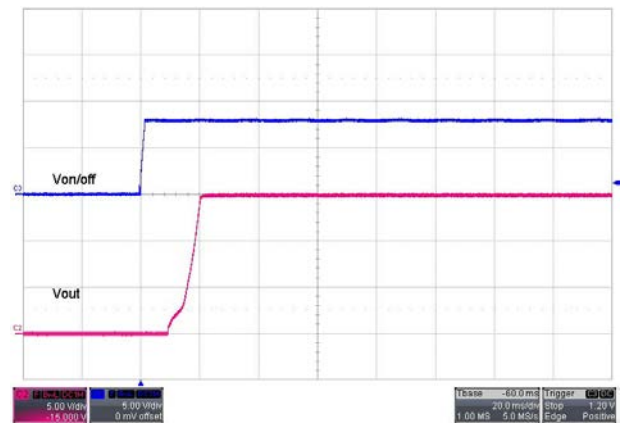
Typical Output Ripple and Noise.  
Vin(nom), Full Load



Transient Response to Dynamic Load Change from  
100% to 75% to 100% of Full Load ; Vin(nom)



Typical Input Start-Up and Output Rise Characteristic  
Vin(nom), Full Load



Using ON/OFF Voltage Start-Up and Vo Rise Characteristic  
Vin(nom), Full Load