P R
B X

POWERBOX Industrial Line
T8W Series
8W 4:1 Single and Dual Output
DC/DC Converter
Manual

Table of Contents

Line Protection & EMC Considerations

1. Typical Application

- Below shows some blocks connected between power source and DC/DC module. Install the circuit of the block which is re-quired.
- Each block has individual function and should be placed on the corresponding location.

If CEMI is an Aluminum electrolytic capacitor and connected in parallel with CEMS, The capacitance we recommended for meeting EMS requirements could be CEMS pluses CEMI.

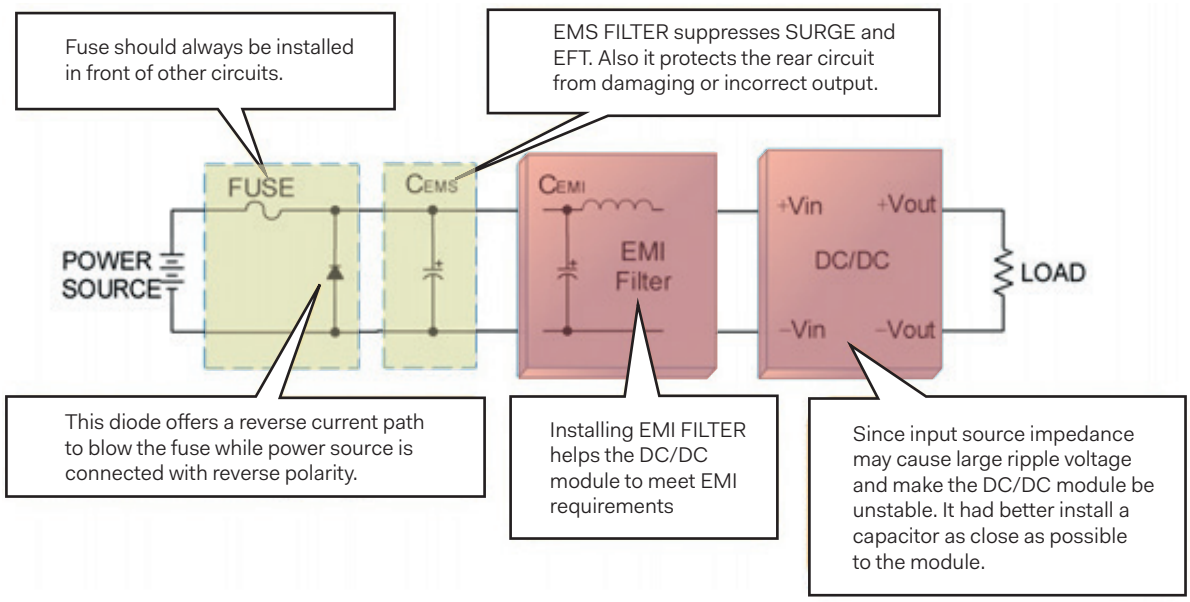

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Fig. 1-1 Typical Application

2. Line Protections

Fuse

- The DC/DC converter is not internally fused. An input line fuse must always be used.
- Fuses should be installed in front of each module when multiple DC/DC converters connect to the same power source.

Model	Fuse Rating (A)	Fuse Type
PME08-24□□□W	2	Slow-Blow
PME08-48□□□W	1	Slow-Blow
PME08-110□□□W	0.5	Slow-Blow

Table 2-1 FUSE selection

- According to actual current value, calculating fuse ratings base on the following equations:

$I_{FUSE} \geq I_{in}$ /(rerating x safety margin)

Melting $I^2t = I^2_{PULSE,act} \cdot t / 0.22$

Where

I_{FUSE} is current rating of fuse.

I_{in} is actual value of input current.

Rerating is percentage of fuse rating base on ambient temperature. Fuse rating is variety under different ambient temperature.

Safety margin is percentage of fuse rating set by user.

Melting I^2t is pulse energy rating of fuse.

$I_{PULSE,act}$ is actual input pulse current.

t is the width of the input pulse current.

Reverse Input Voltage Protection

- Avoid the reverse polarity input voltage; otherwise, it will damage the DC/DC converter.
- It is likely to protect the module from the reverse input voltage by installing an external diode.
- The diode can block reverse voltage or blow the line fuse to protect DC/DC converter.
- Recommend using Schottky diode for reverse input voltage protection.

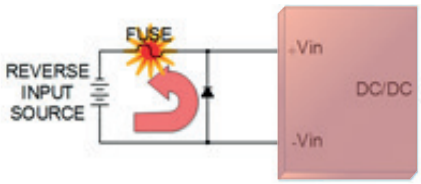


Fig. 2-1 Reverse input voltage protection

Model	Voltage Rating of the Diode	Current Rating of the Diode
PME08-24□□□W	60V	1~1.5 x Fuse Rating
PME08-48□□□W	100V	1~1.5 x Fuse Rating
PME08-110□□□W	200V	1~1.5 x Fuse Rating

Table. 2-2 Reverse protection diode selection

3. EMS Considerations

- The module can meet EMS requirements as below.
- An external input filter capacitor is required if the module has to meet EN61000-4-4, EN61000-4-5.

Parameter	Conditions	Level	
ESD	EN61000-4-2	Air ± 8kV and Contact ± 6kV	Perf. Criteria A
Radiated immunity	EN61000-4-3	20 V/m	Perf. Criteria A
Fast transient	EN61000-4-4	± 2kV	Perf. Criteria A
Surge	EN61000-4-5	± 2kV	Perf. Criteria A
Conducted immunity	EN61000-4-6	10 Vr.m.s	Perf. Criteria A
Power frequency magnetic field	EN61000-4-8	100A/m continuous; 1000A/m 1 second	Perf. Criteria A

Table 3-1 EMS requirements

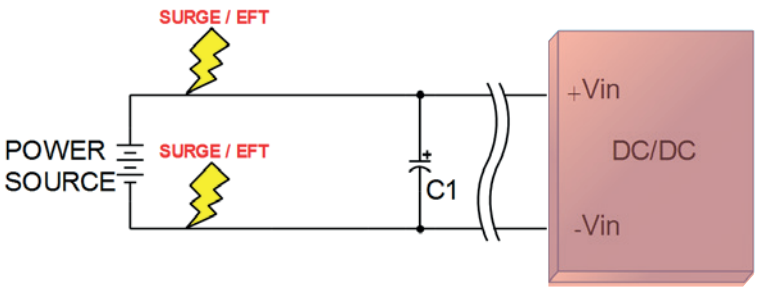


Fig. 3-1 Surge & EFT protections

- It should be noticed that the current path of the PCB trace. Wrong PCB layout reduces ability of suppressing SURGE or EFT.

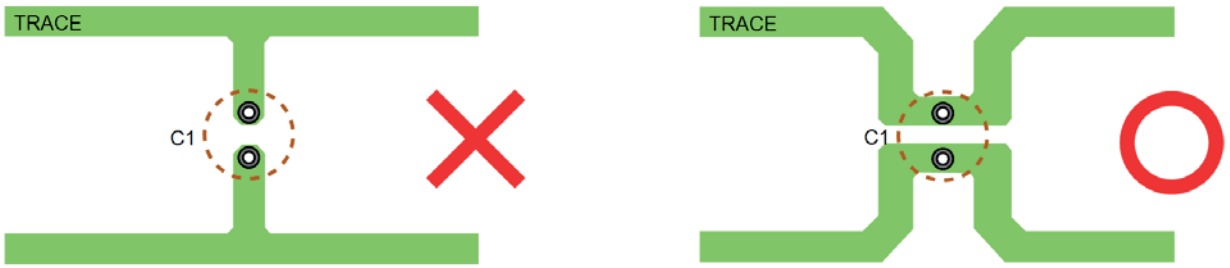


Fig. 3-2 PCB trace

Model	Component	Specification	Reference
PME08-24□□□W	C1	220μF/100V	Nippon Chemi-con KY series
PME08-48□□□W	C1	220μF/100V	Nippon Chemi-con KY series
PME08-110□□□W	C1	150μF/100V	Nippon Chemi-con KXJ series

Table 3-2 Surge & EFT filter

4. EMI Considerations

Recommended External EMI Filter for EN55032 Class A

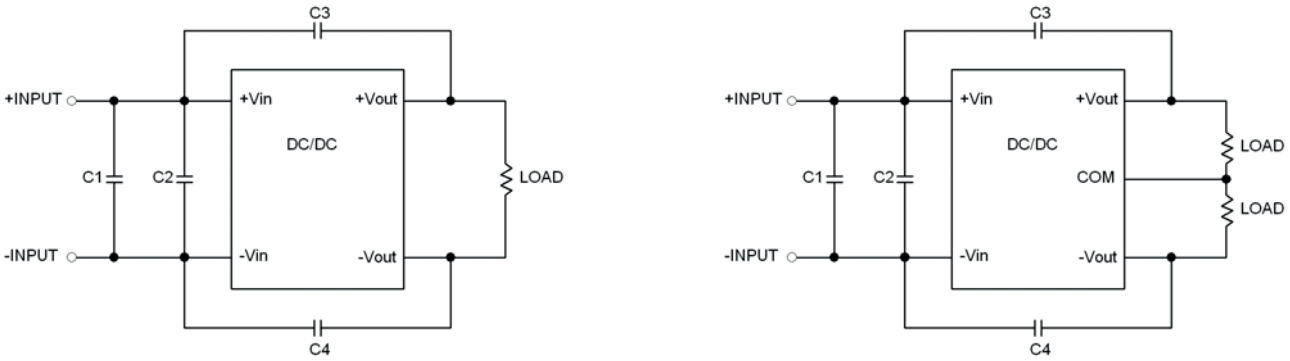


Fig. 4-1 Recommended EMI filter for EN55032 Class A

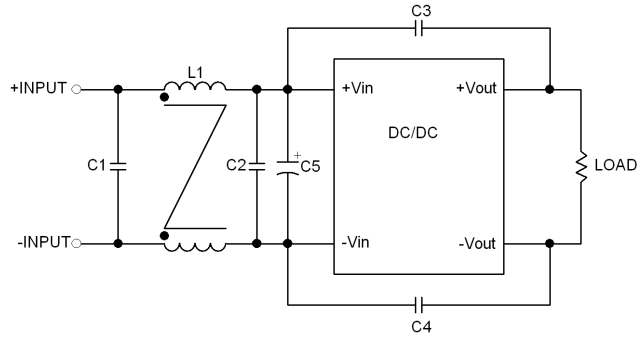
Model	C1	C2	C3	C4
PME08-24□□□W	1μF/50V	N/A	1000pF/2kV	1000pF/2kV
	1210 MLCC		1206 MLCC	1206 MLCC
PME08-48□□□W	0.47μF/100V	N/A	1000pF/2kV	1000pF/2kV
	1812 MLCC		1206 MLCC	1206 MLCC
PME08-110□□□W	1μF/250V	1μF/250V	1000pF/2kV	1000pF/2kV
	1812 MLCC	1812 MLCC	1206 MLCC	1206 MLCC

Table 4-1 B.O.M. of external EMI filter

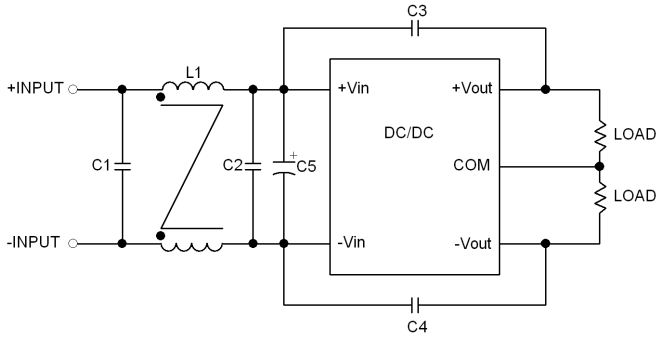
Fig. 4-2 Recommended Layout Pattern for Single Output

Fig. 4-3 Recommended Layout Pattern for Dual Output

Recommended External EMI Filter for EN55032 Class B



Single Output

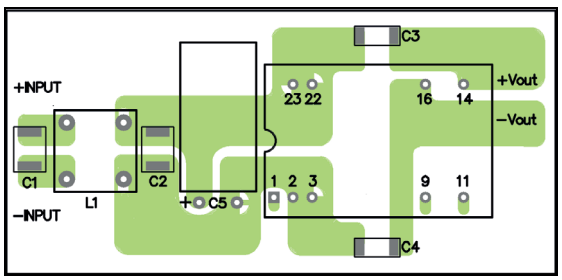


Dual Output

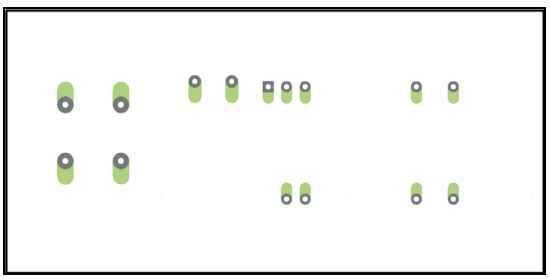
Fig. 4-1 Recommended EMI Filter for EN55032 Class B

Model	C1	C2	C3, C4	C5	L1
PME08-48□□□W	4.7μF/50V 1812 MLCC	N/A	1000pF/2kV 1206 MLCC	N/A	325μH Common Choke PMT-050
PME08-48□□□W	1.5μF/100V 1812 MLCC	1.5μF/100V 1812 MLCC	1000pF/2kV 1206 MLCC	N/A	325μH Common Choke PMT-050
PME08-110□□□W	1μF/250V 1812 MLCC	N/A	1000pF/2kV 1206 MLCC	22μF/200V Al Cap. (lie down) Chemi-con KMF	497μH Common Choke PMT-017

Table 4-1 B.O.M. of External EMI Filter

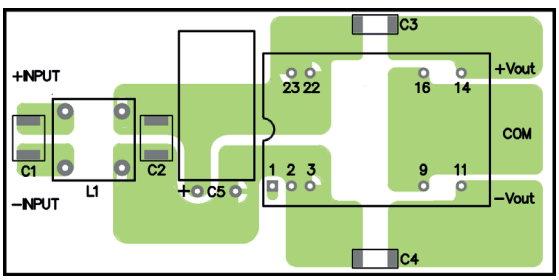


TOP VIEW

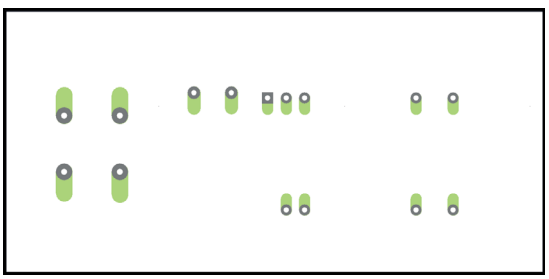


BOTTOM VIEW

Fig. 4-2 Recommended Layout Pattern for Single Output



TOP VIEW



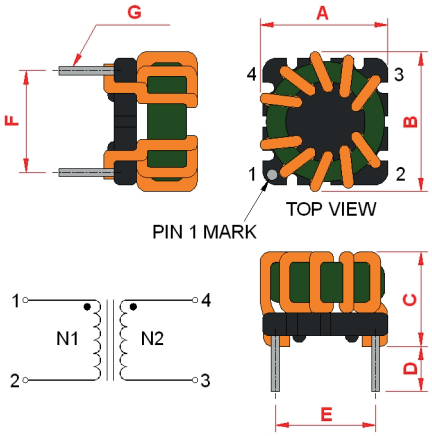
BOTTOM VIEW

Fig. 4-3 Recommended Layout Pattern for Dual Output

Specifications of Common Mode Choke and Differential Inductor

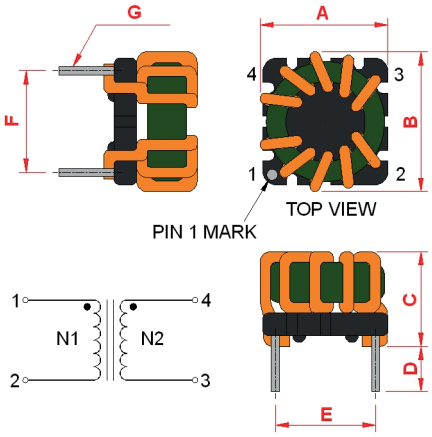
Part number:	**PMT-017**	
Inductance:	497μH ±25% (100kHz/ 20mV)	
DCR:	100 mΩ	
Rated current:	1.7 A, max.	
Dimensions:	A	11.5, max.
	B	11.5, max.
	C	8.8, max.
	D	2.5, min.
	E	7.62 ±0.2
	F	7.62 ±0.2
	G	ϕ0.6 ±0.1

* Recommended through hole: ϕ0.8 mm



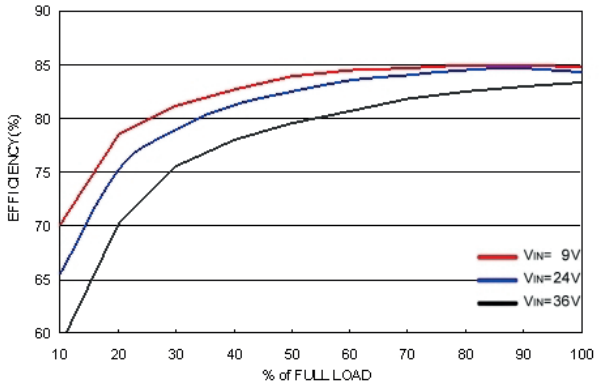
Part number:	**PMT-050**	
Inductance:	325μH ±35% (100kHz/ 100mV)	
DCR:	35 mΩ	
Rated current:	3.3 A, max.	
Dimensions:	A	11.5, max.
	B	11.5, max.
	C	8.8, max.
	D	2.5, min.
	E	7.62 ±0.2
	F	7.62 ±0.2
	G	ϕ0.6 ±0.1

* Recommended through hole: ϕ0.8 mm

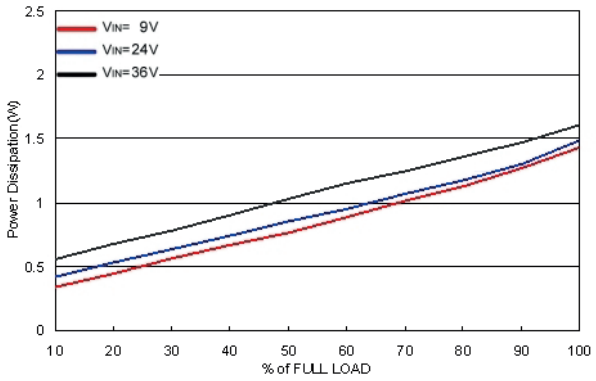


5. Characteristic Curves

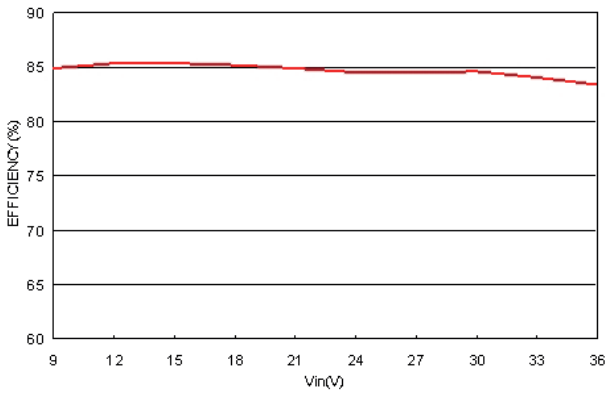
All test conditions are at 25°C.The figures are identical for PME08-24D05W



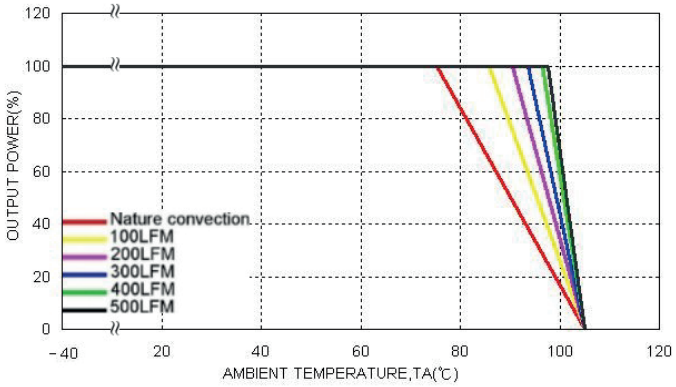
Efficiency versus Output Load



Power Dissipation versus Output Load

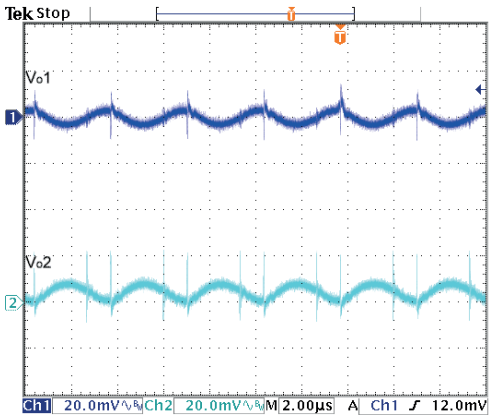


Efficiency versus Input Voltage
Full Load

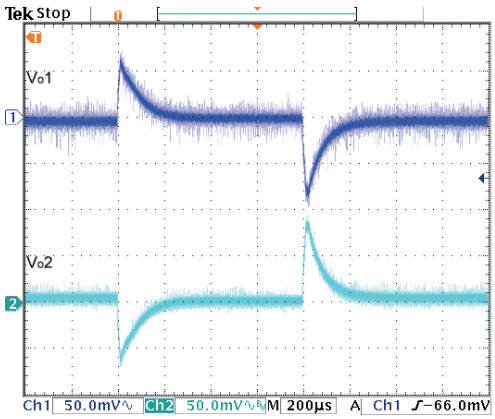


Derating Output Load versus Ambient Temperature and Airflow
Vin(nom)

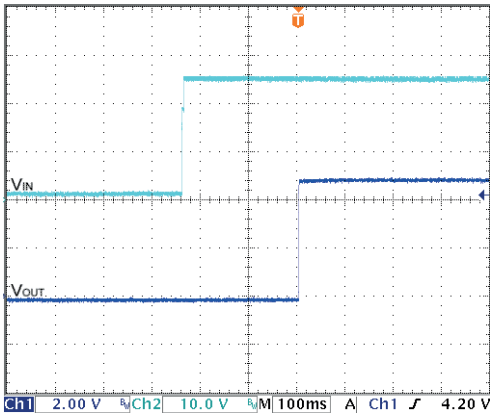
All test conditions are at 25°C.The figures are identical for PME08-24D05W



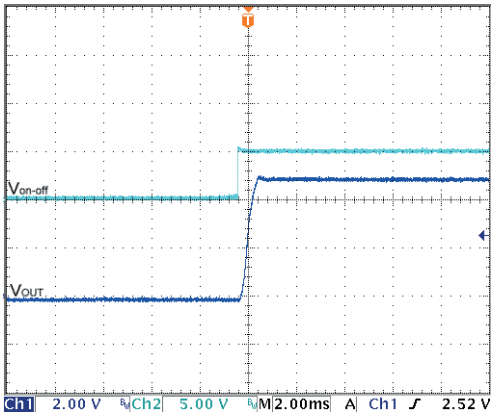
Typical Output Ripple and Noise.
Vin(nom); Full Load



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

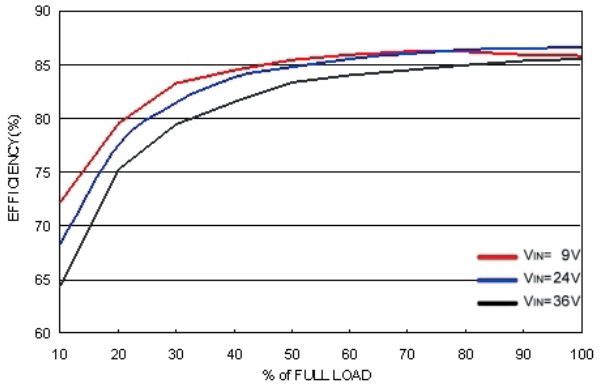


Typical Input Start-Up and Output Rise Characteristic
Vin(nom); Full Load

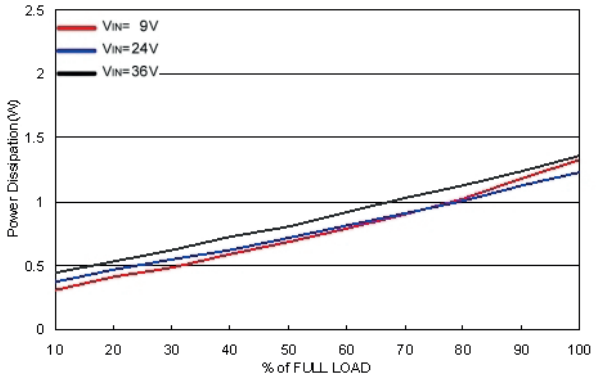


Using ON/OFF Voltage Start-Up and Output Rise Characteristic
Vin(nom); Full Load

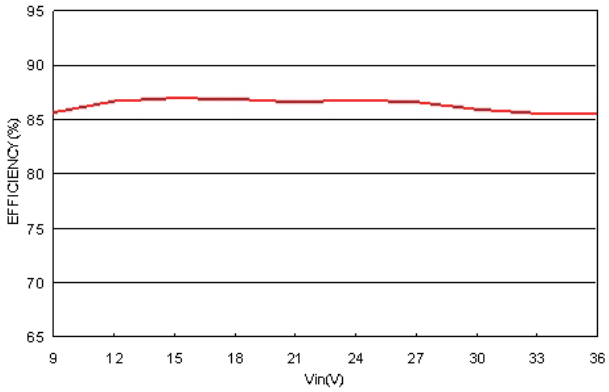
All test conditions are at 25°C.The figures are identical for PME08-24D12W



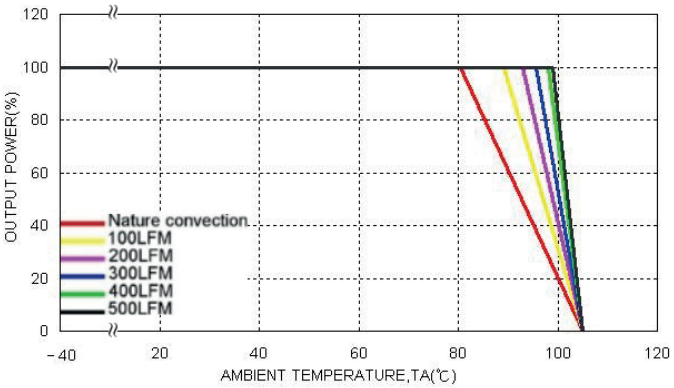
Efficiency versus Output Load



Power Dissipation versus Output Load

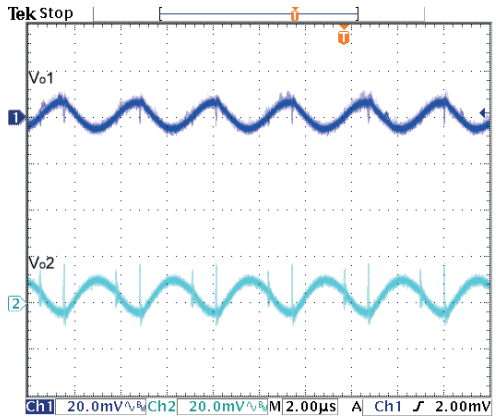


Efficiency versus Input Voltage
Full Load

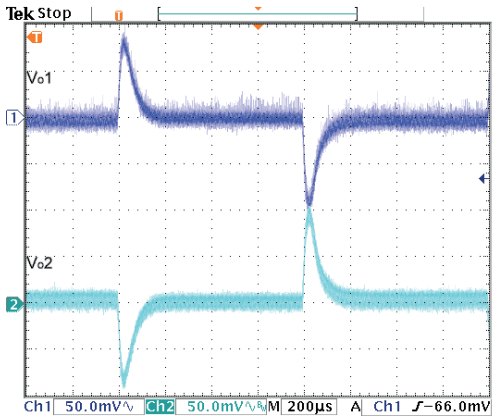


Derating Output Load versus Ambient Temperature and Airflow
Vin(nom)

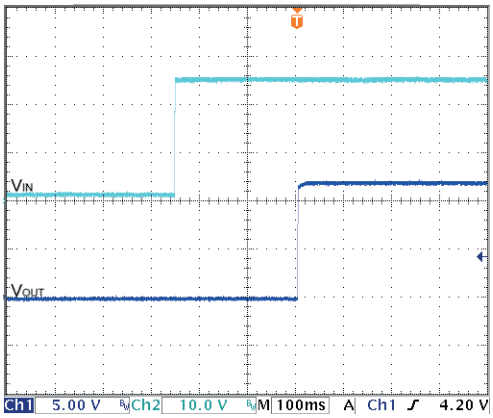
All test conditions are at 25°C.The figures are identical for PME08-24D12W



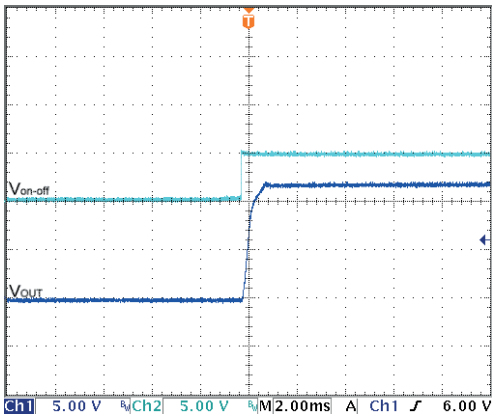
Typical Output Ripple and Noise.
Vin(nom); Full Load



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

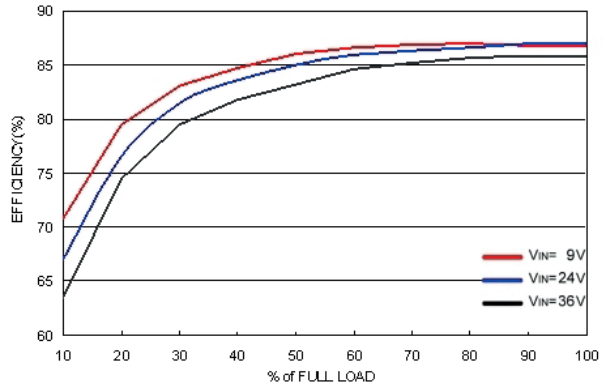


Typical Input Start-Up and Output Rise Characteristic
Vin(nom); Full Load

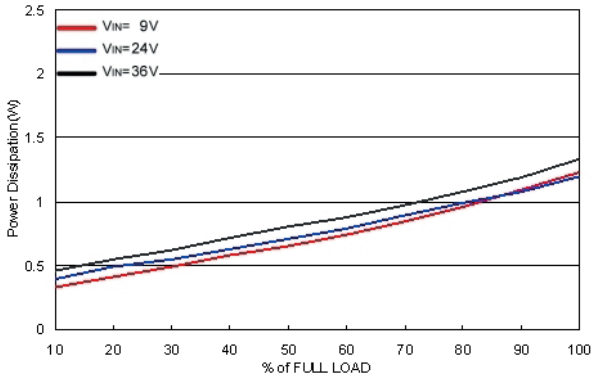


Using ON/OFF Voltage Start-Up and Output Rise Characteristic
Vin(nom); Full Load

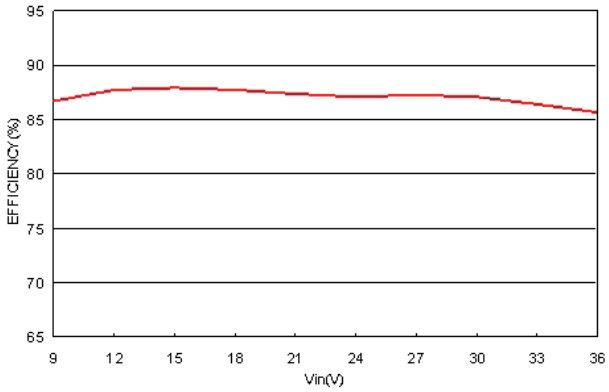
All test conditions are at 25°C.The figures are identical for PME08-24D15W



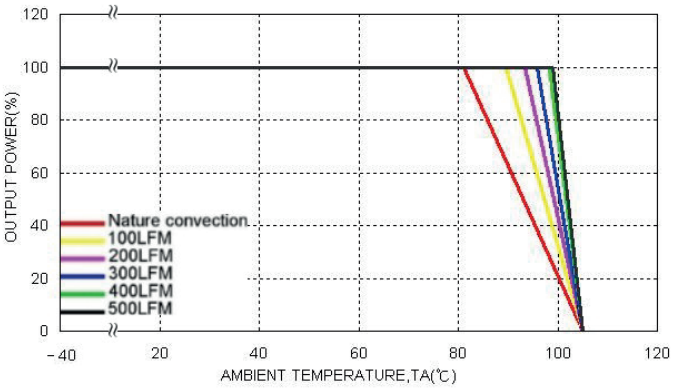
Efficiency versus Output Load



Power Dissipation versus Output Load

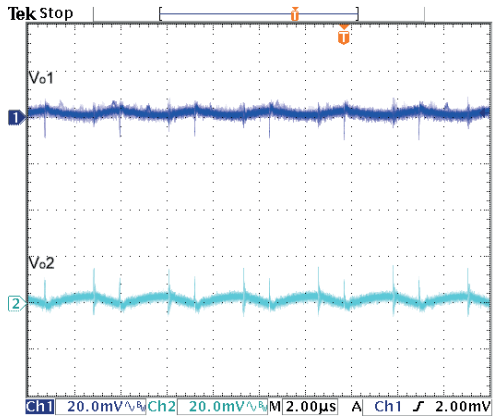


Efficiency versus Input Voltage
Full Load

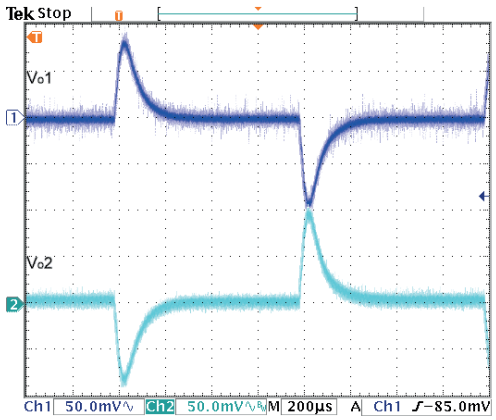


Derating Output Load versus Ambient Temperature and Airflow
Vin(nom)

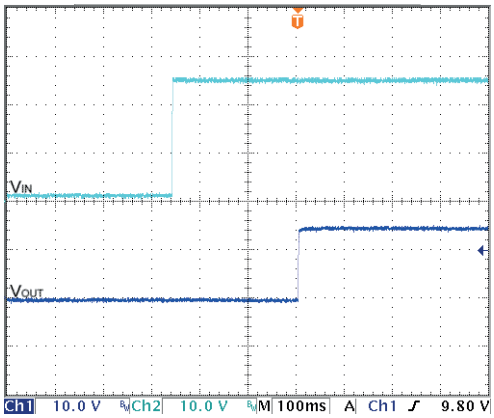
All test conditions are at 25°C.The figures are identical for PME08-24D15W



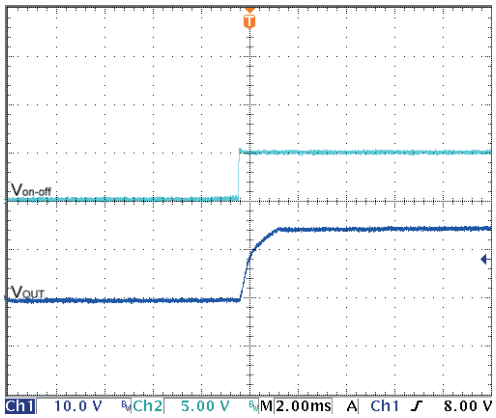
Typical Output Ripple and Noise.
Vin(nom); Full Load



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

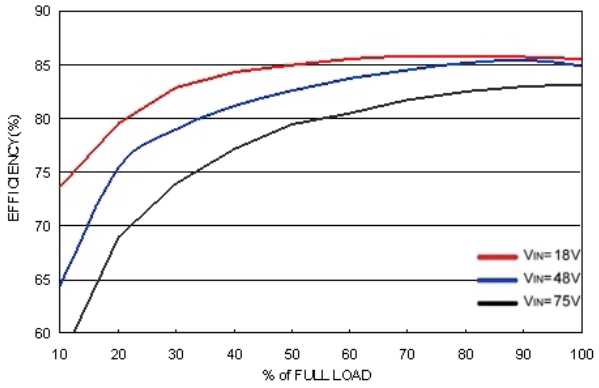


Typical Input Start-Up and Output Rise Characteristic
Vin(nom); Full Load

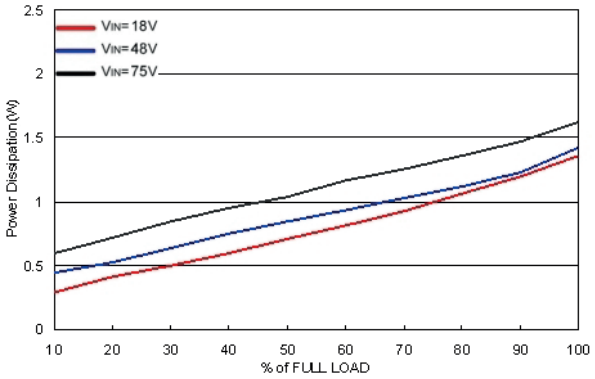


Using ON/OFF Voltage Start-Up and Output Rise Characteristic
Vin(nom); Full Load

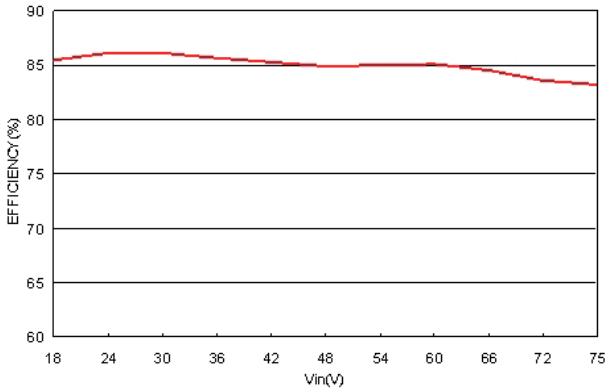
All test conditions are at 25°C.The figures are identical for PME08-48D05W



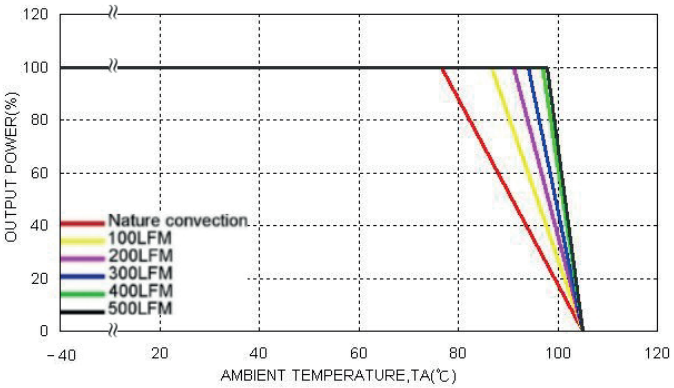
Efficiency versus Output Load



Power Dissipation versus Output Load

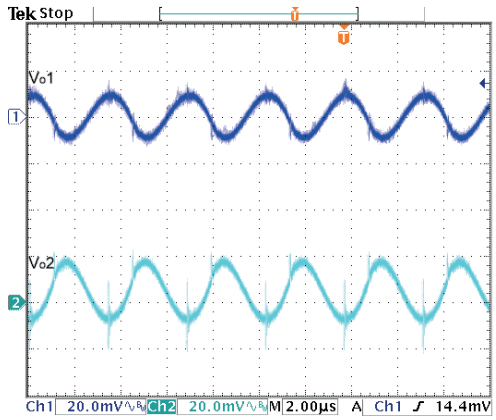


Efficiency versus Input Voltage
Full Load

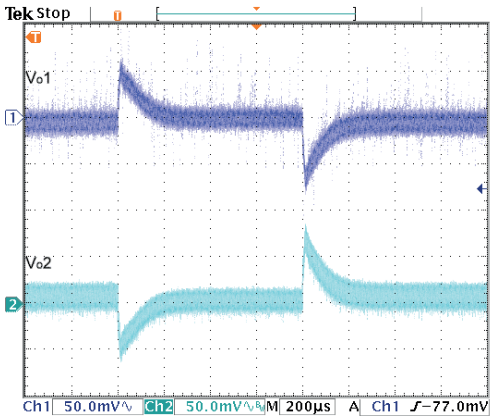


Derating Output Load versus Ambient Temperature and Airflow
Vin(nom)

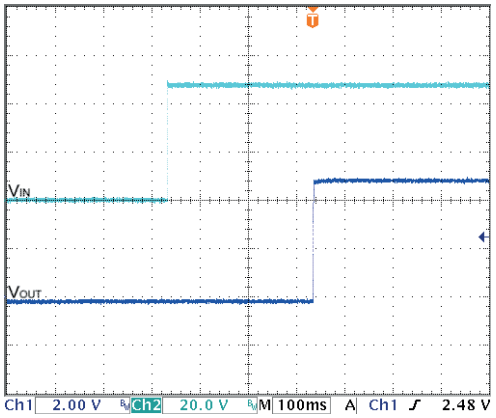
All test conditions are at 25°C.The figures are identical for PME08-48D05W



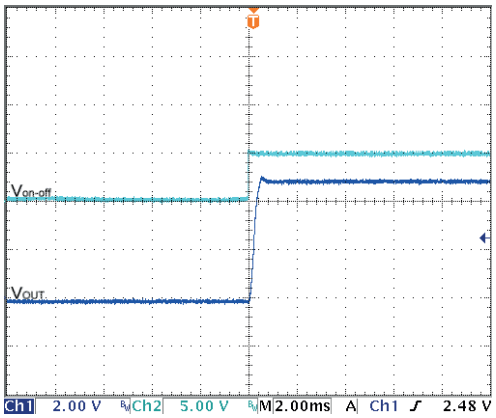
Typical Output Ripple and Noise.
Vin(nom); Full Load



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

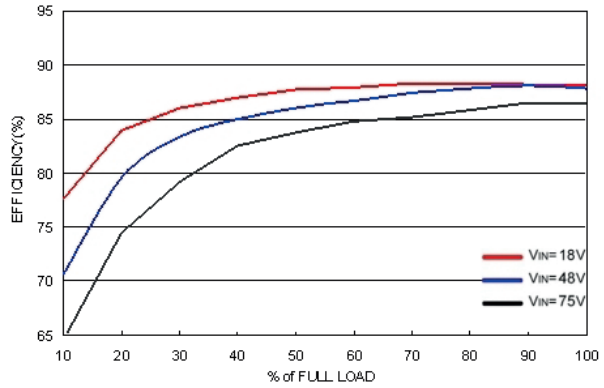


Typical Input Start-Up and Output Rise Characteristic
Vin(nom); Full Load

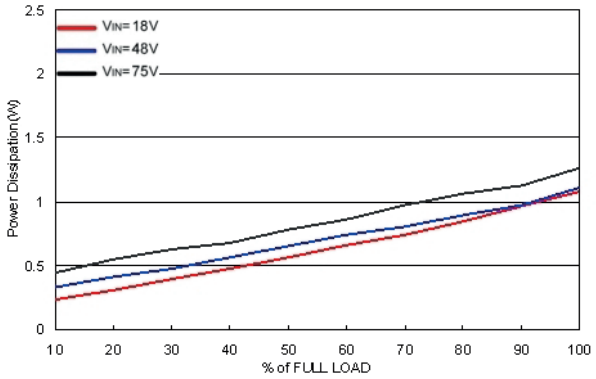


Using ON/OFF Voltage Start-Up and Output Rise Characteristic
Vin(nom); Full Load

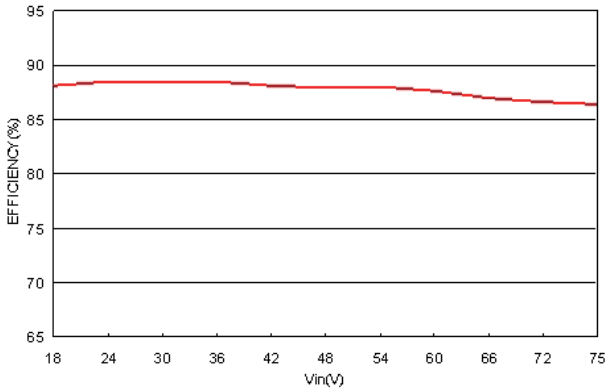
All test conditions are at 25°C.The figures are identical for PME08-48D12W



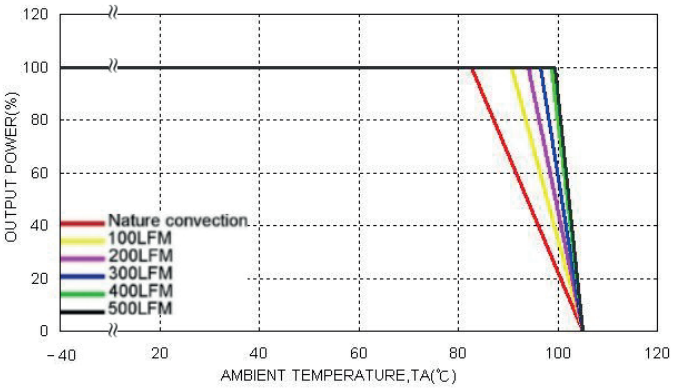
Efficiency versus Output Load



Power Dissipation versus Output Load

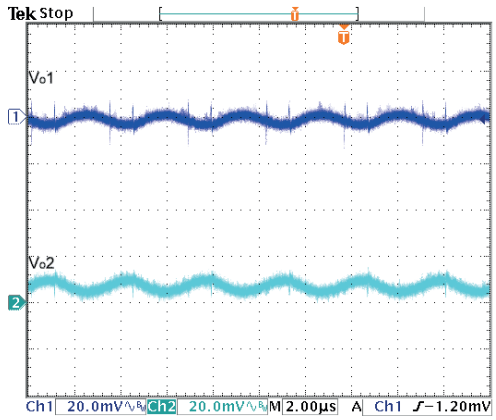


Efficiency versus Input Voltage
Full Load

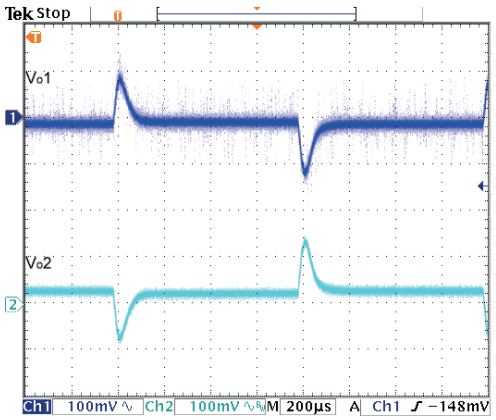


Derating Output Load versus Ambient Temperature and Airflow
Vin(nom)

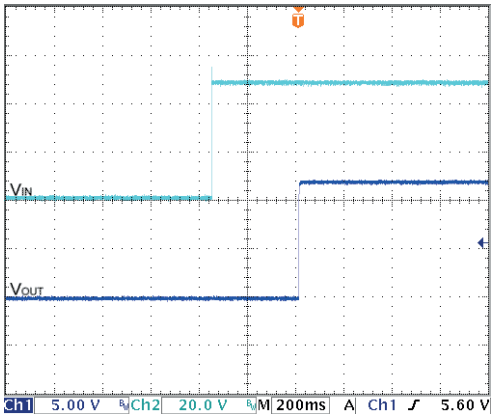
All test conditions are at 25°C.The figures are identical for PME08-48D12W



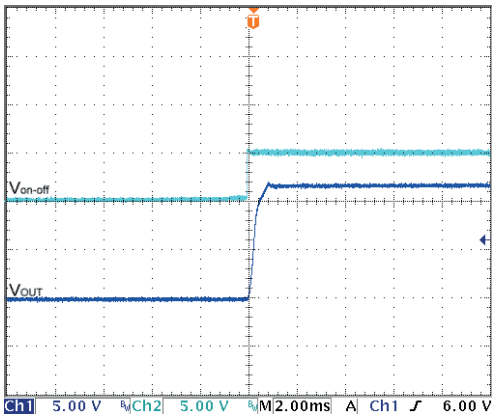
Typical Output Ripple and Noise.
Vin(nom); Full Load



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

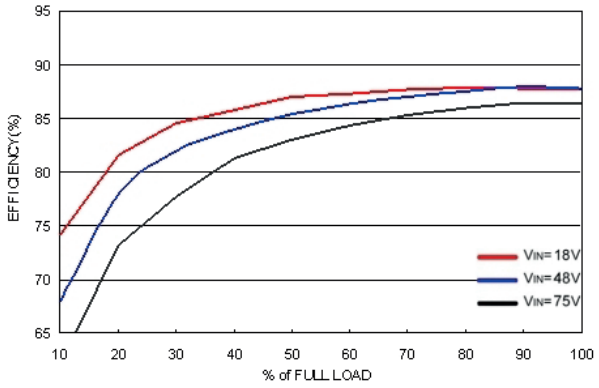


Typical Input Start-Up and Output Rise Characteristic
Vin(nom); Full Load

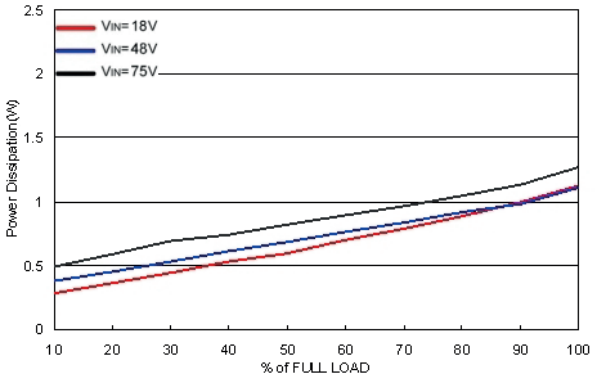


Using ON/OFF Voltage Start-Up and Output Rise Characteristic
Vin(nom); Full Load

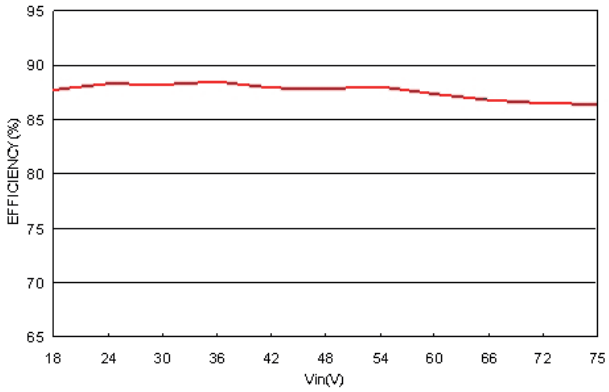
All test conditions are at 25°C.The figures are identical for PME08-48D15W



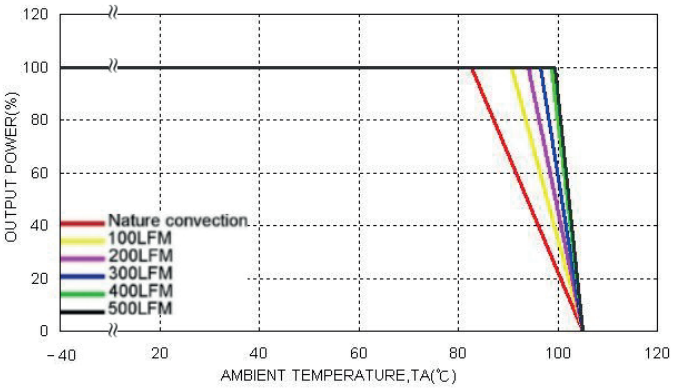
Efficiency versus Output Load



Power Dissipation versus Output Load

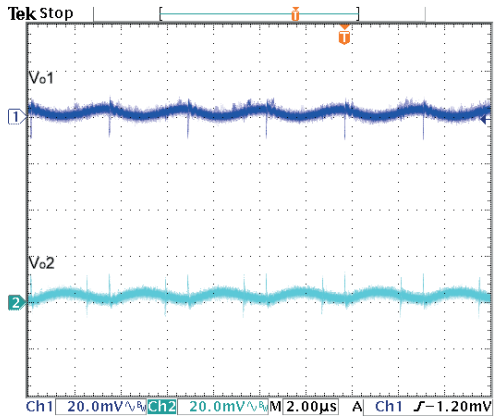


Efficiency versus Input Voltage
Full Load

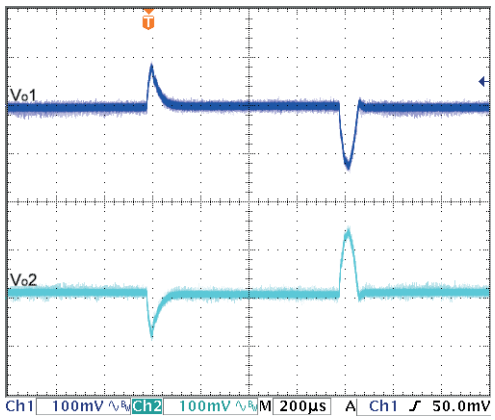


Derating Output Load versus Ambient Temperature and Airflow
Vin(nom)

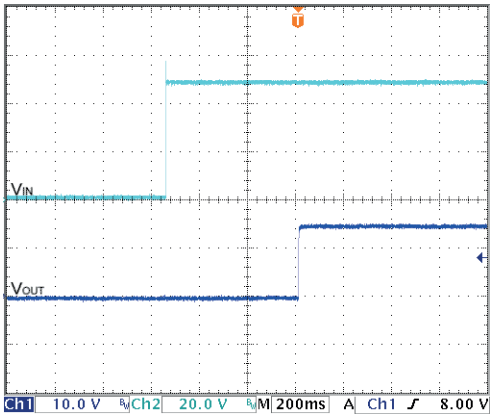
All test conditions are at 25°C.The figures are identical for PME08-48D15W



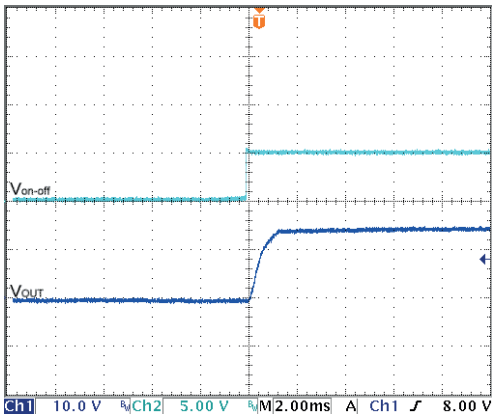
Typical Output Ripple and Noise.
Vin(nom); Full Load



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

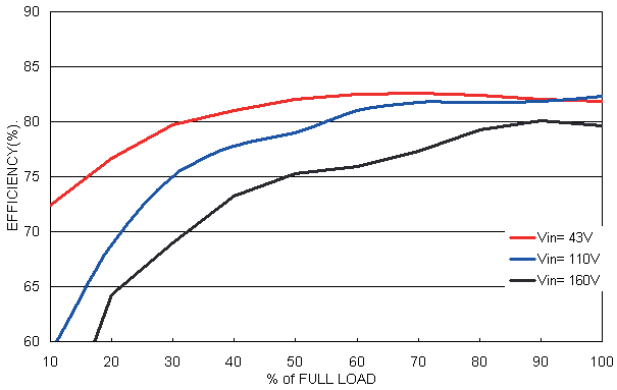


Typical Input Start-Up and Output Rise Characteristic
Vin(nom); Full Load

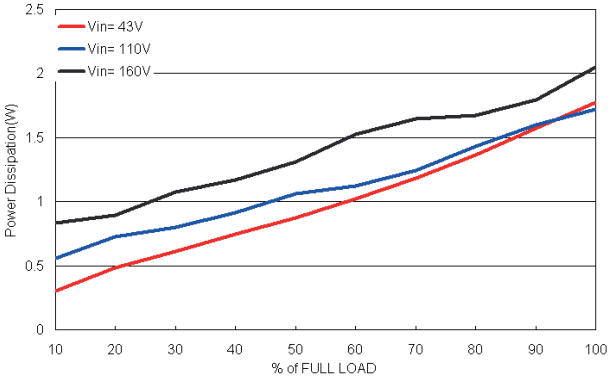


Using ON/OFF Voltage Start-Up and Output Rise Characteristic
Vin(nom); Full Load

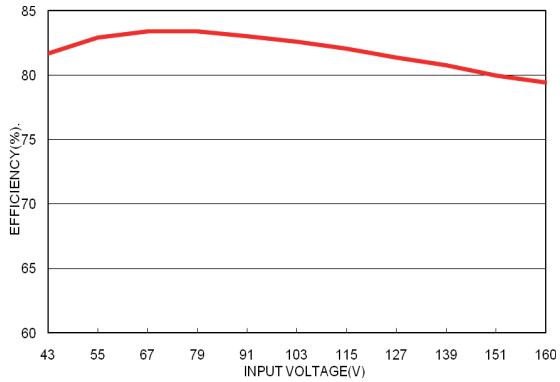
All test conditions are at 25°C.The figures are identical for PME08-110D05W



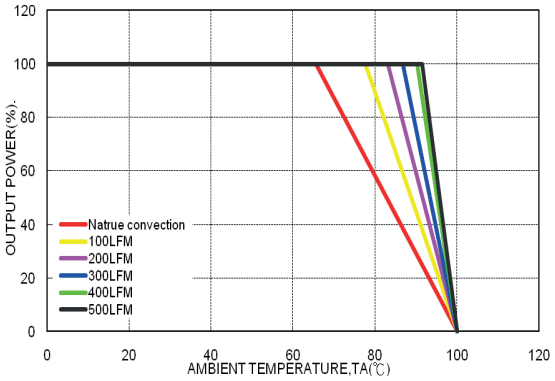
Efficiency versus Output Load



Power Dissipation versus Output Load

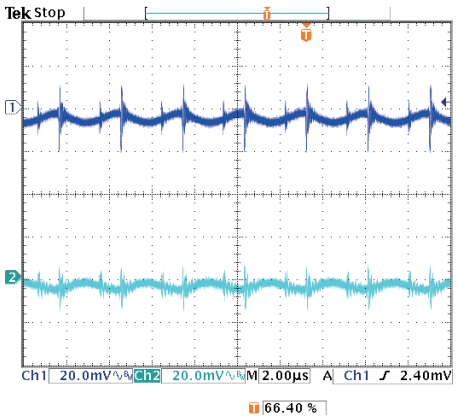


Efficiency versus Input Voltage
Full Load

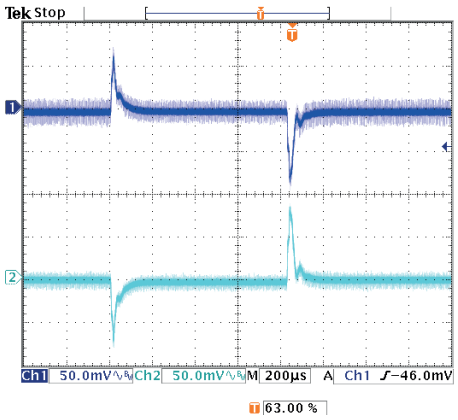


Derating Output Load versus Ambient Temperature and Airflow
Vin(nom)

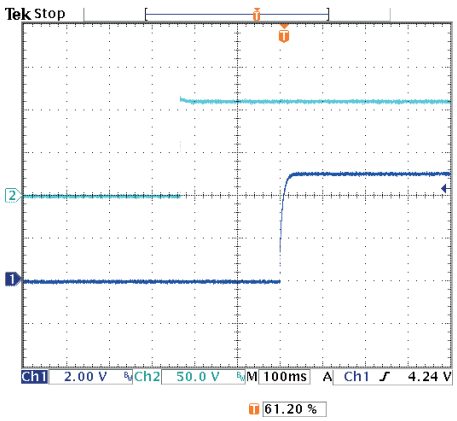
All test conditions are at 25°C.The figures are identical for PME08-110D05W



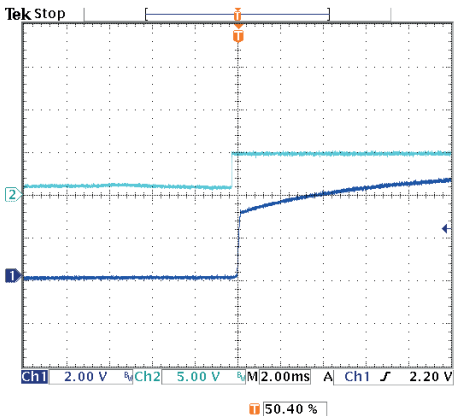
Typical Output Ripple and Noise.
Vin(nom); Full Load



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

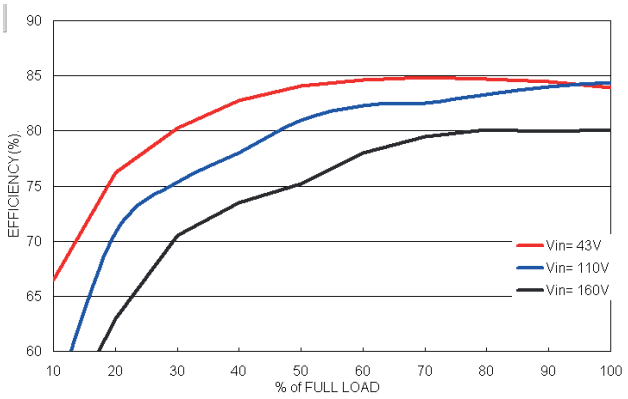


Typical Input Start-Up and Output Rise Characteristic
Vin(nom); Full Load

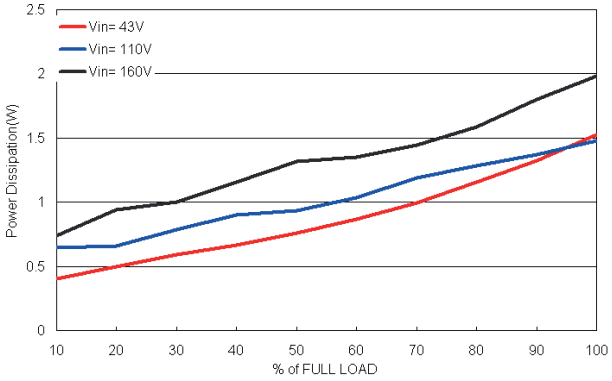


Using ON/OFF Voltage Start-Up and Output Rise Characteristic
Vin(nom); Full Load

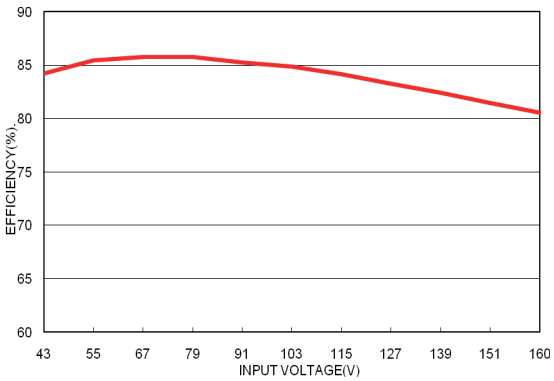
All test conditions are at 25°C.The figures are identical for PME08-110D12W



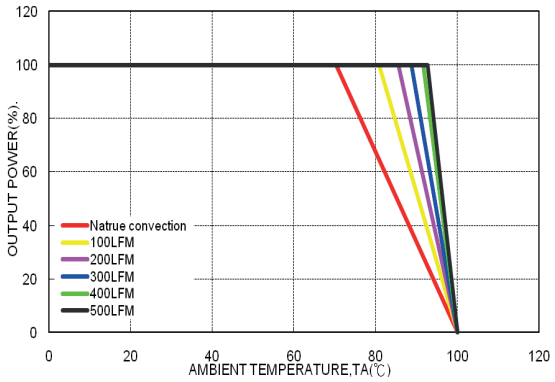
Efficiency versus Output Load



Power Dissipation versus Output Load

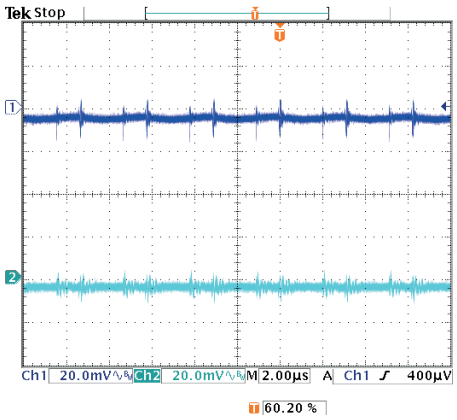


Efficiency versus Input Voltage
Full Load

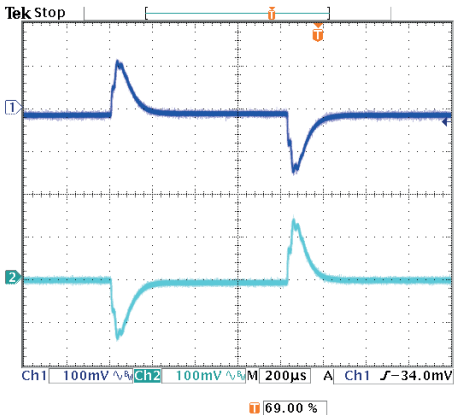


Derating Output Load versus Ambient Temperature and Airflow
Vin(nom)

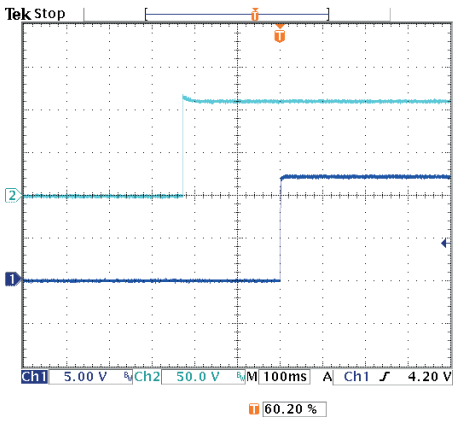
All test conditions are at 25°C.The figures are identical for PME08-110D12W



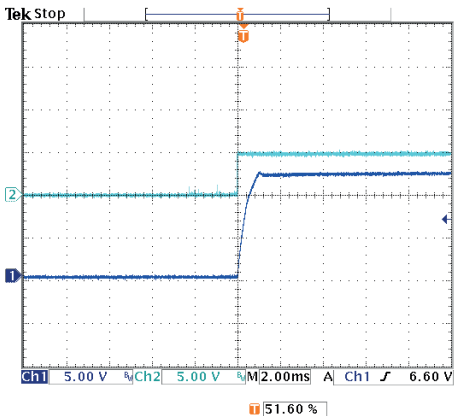
Typical Output Ripple and Noise.
Vin(nom); Full Load



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

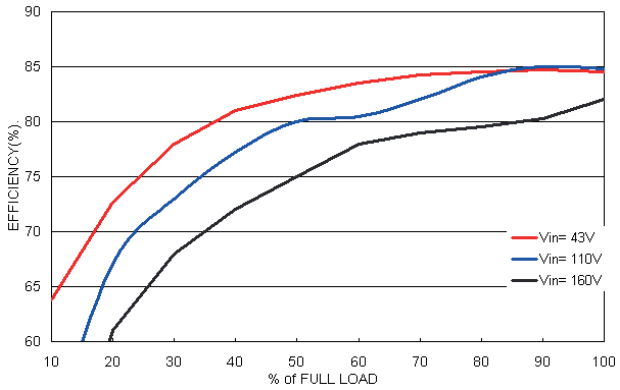


Typical Input Start-Up and Output Rise Characteristic
Vin(nom); Full Load

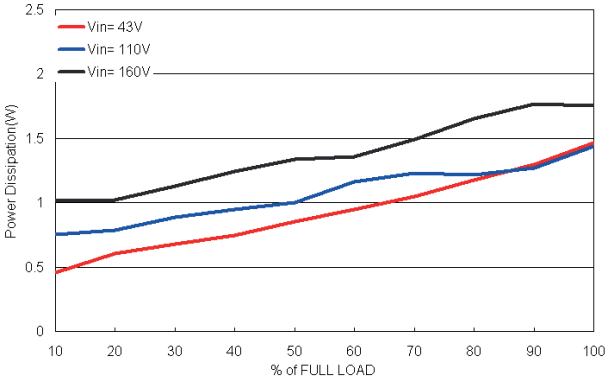


Using ON/OFF Voltage Start-Up and Output Rise Characteristic
Vin(nom); Full Load

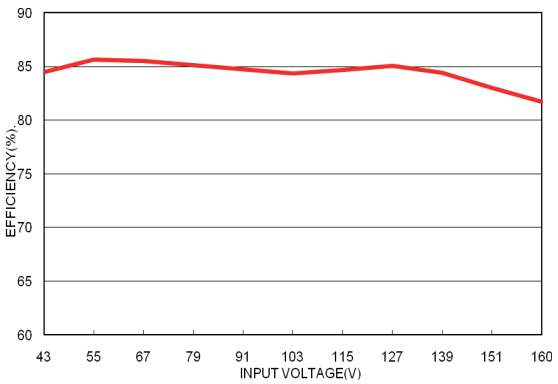
All test conditions are at 25°C.The figures are identical for PME08-110D15W



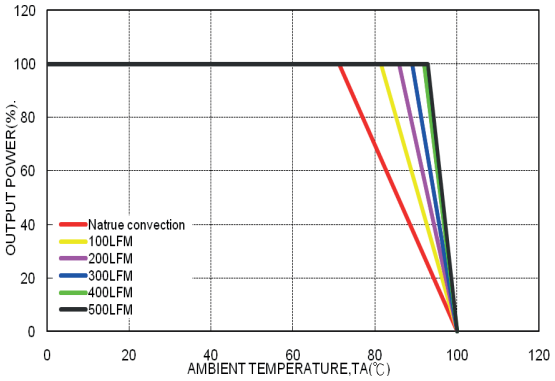
Efficiency versus Output Load



Power Dissipation versus Output Load

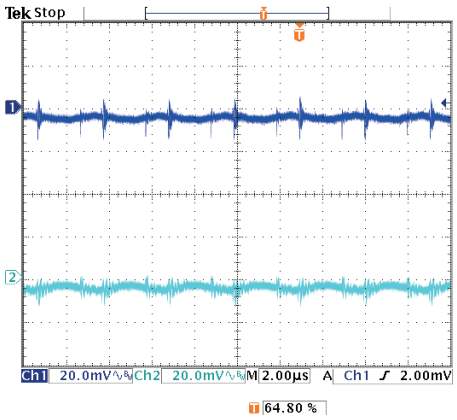


Efficiency versus Input Voltage
Full Load

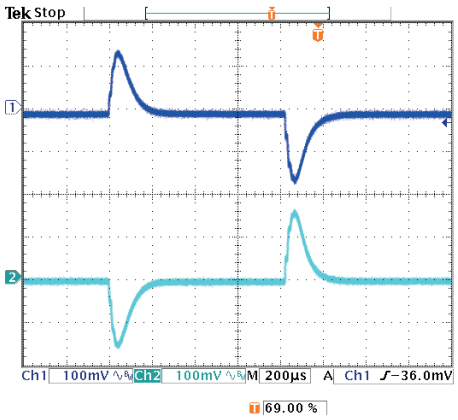


Derating Output Load versus Ambient Temperature and Airflow
Vin(nom)

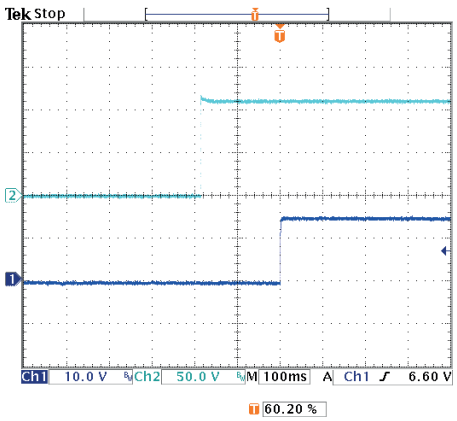
All test conditions are at 25°C.The figures are identical for PME08-110D15W



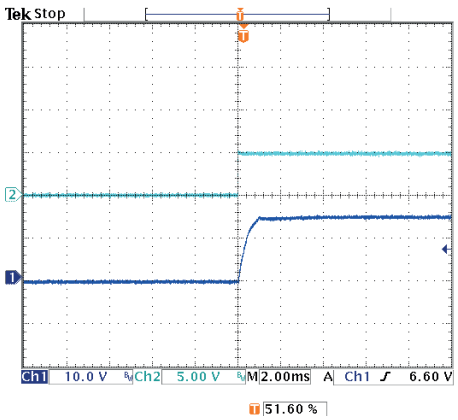
Typical Output Ripple and Noise.
Vin(nom); Full Load



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

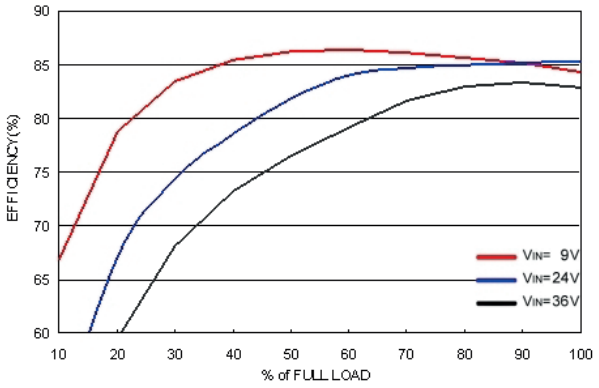


Typical Input Start-Up and Output Rise Characteristic
Vin(nom); Full Load

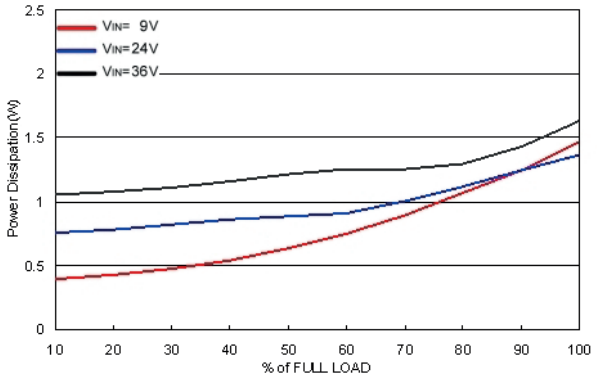


Using ON/OFF Voltage Start-Up and Output Rise Characteristic
Vin(nom); Full Load

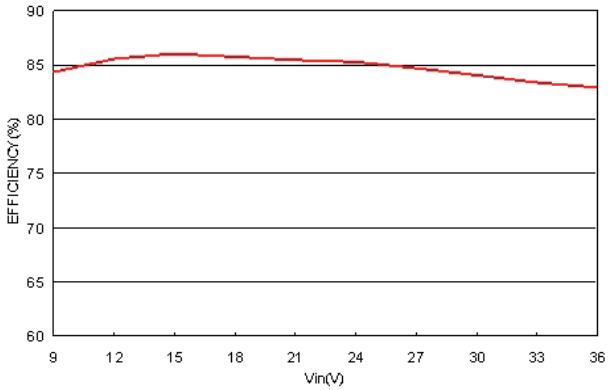
All test conditions are at 25°C.The figures are identical for PME08-24S3P3W



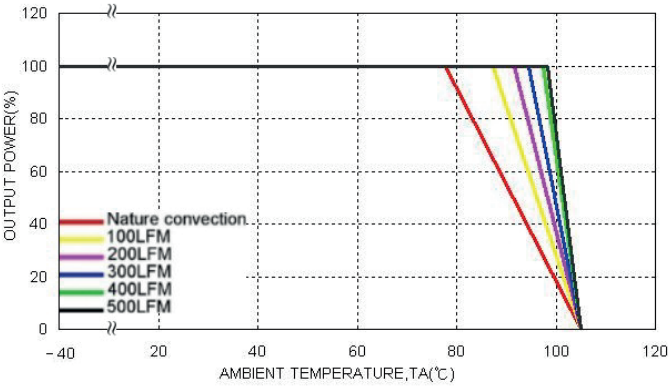
Efficiency versus Output Load



Power Dissipation versus Output Load

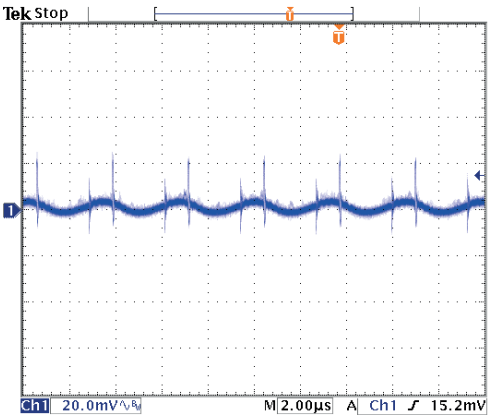


Efficiency versus Input Voltage
Full Load

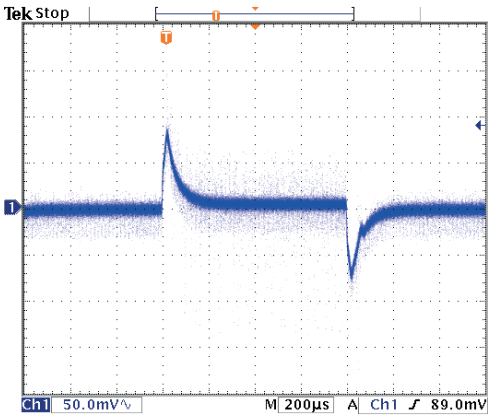


Derating Output Load versus Ambient Temperature and Airflow
Vin(nom)

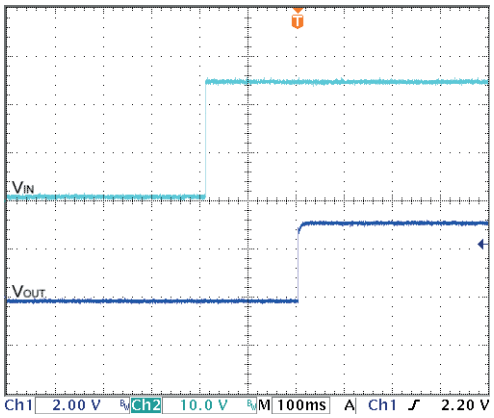
All test conditions are at 25°C.The figures are identical for PME08-24S3P3W



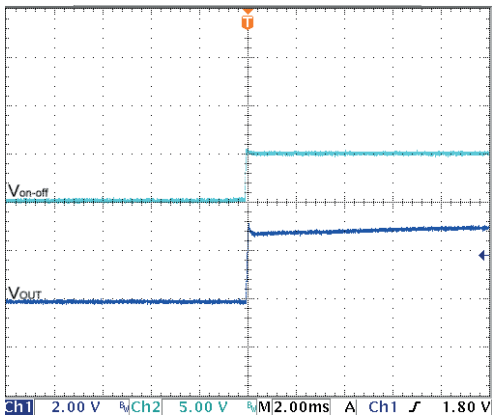
Typical Output Ripple and Noise.
Vin(nom); Full Load



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

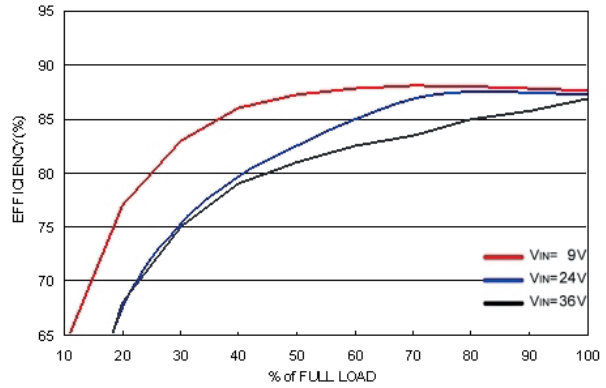


Typical Input Start-Up and Output Rise Characteristic
Vin(nom); Full Load

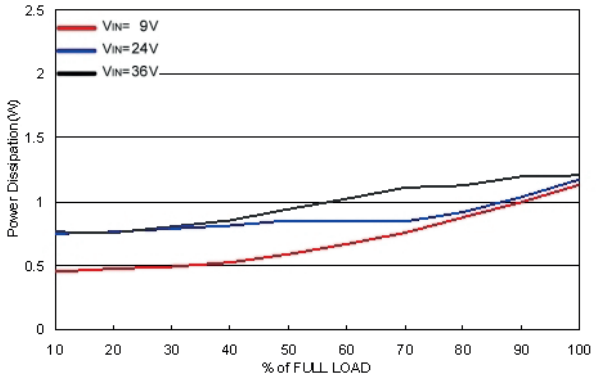


Using ON/OFF Voltage Start-Up and Output Rise Characteristic
Vin(nom); Full Load

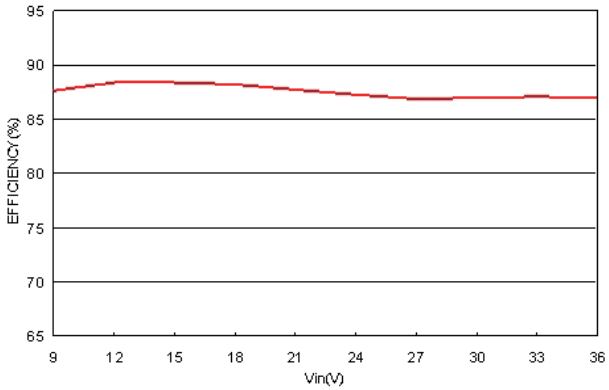
All test conditions are at 25°C.The figures are identical for PME08-24S05W



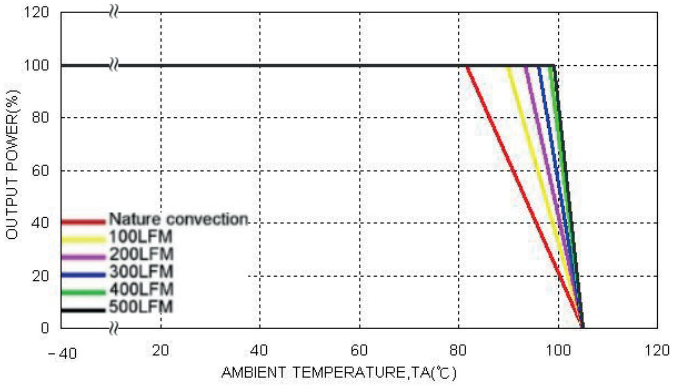
Efficiency versus Output Load



Power Dissipation versus Output Load

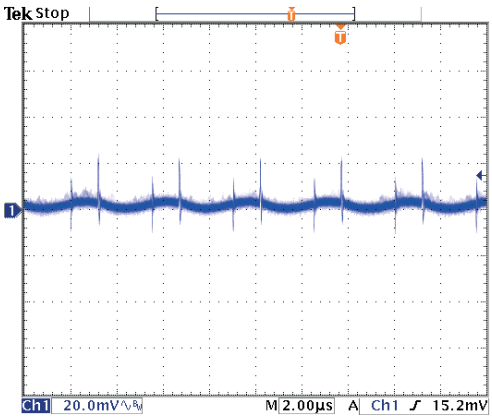


Efficiency versus Input Voltage
Full Load

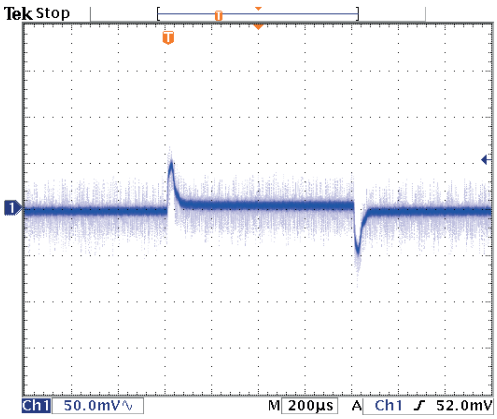


Derating Output Load versus Ambient Temperature and Airflow
Vin(nom)

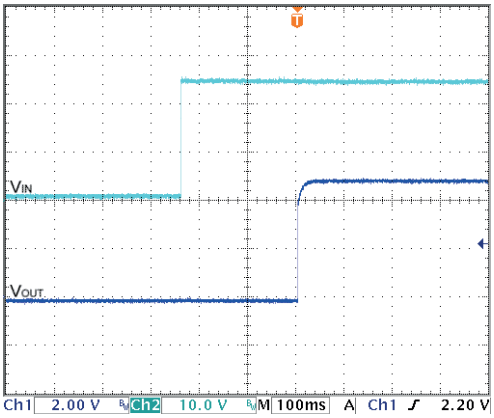
All test conditions are at 25°C.The figures are identical for PME08-24S05W



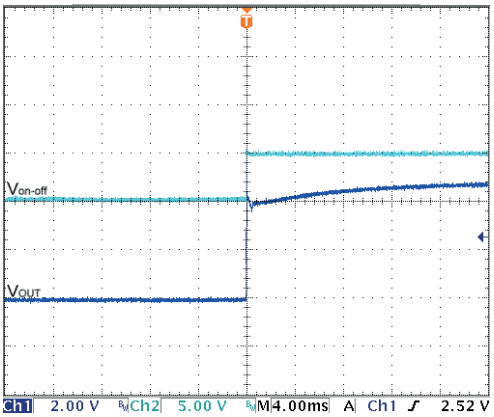
Typical Output Ripple and Noise.
Vin(nom); Full Load



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

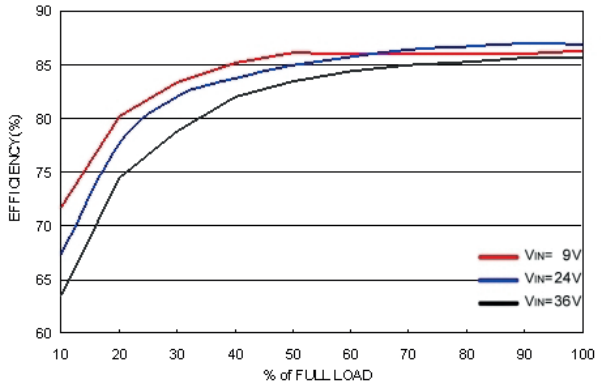


Typical Input Start-Up and Output Rise Characteristic
Vin(nom); Full Load

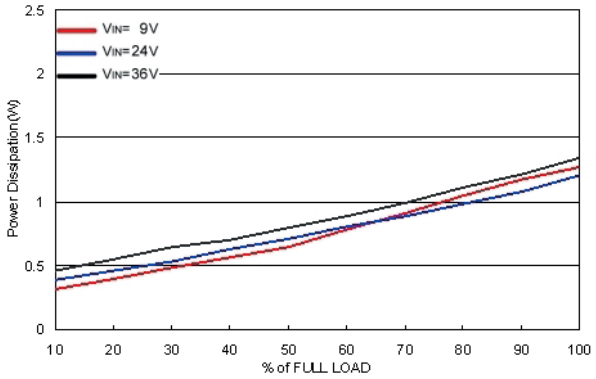


Using ON/OFF Voltage Start-Up and Output Rise Characteristic
Vin(nom); Full Load

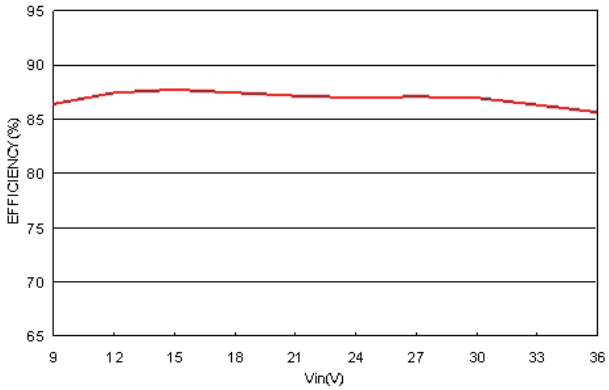
All test conditions are at 25°C.The figures are identical for PME08-24S12W



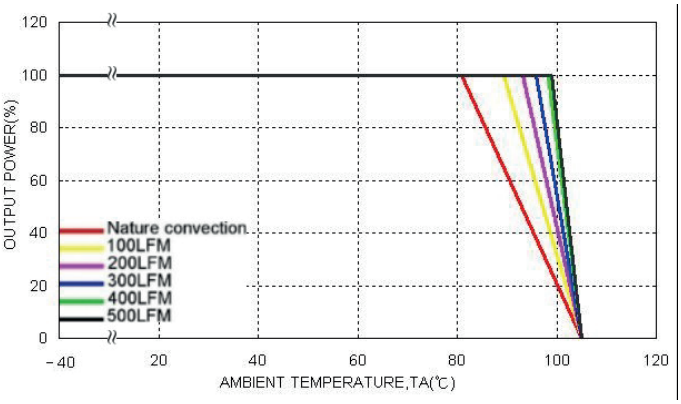
Efficiency versus Output Load



Power Dissipation versus Output Load

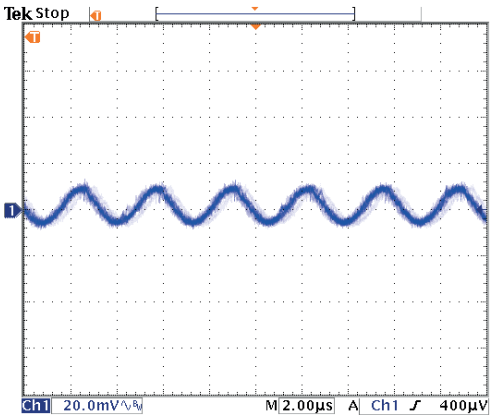


Efficiency versus Input Voltage
Full Load

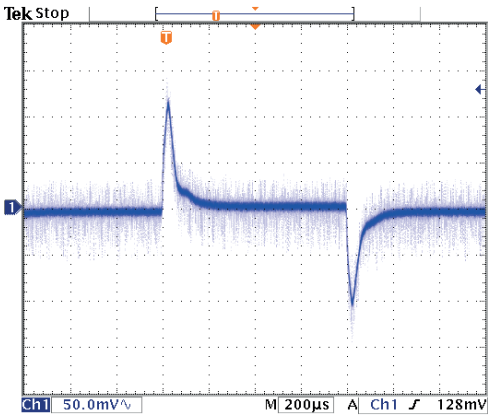


Derating Output Load versus Ambient Temperature and Airflow
Vin(nom)

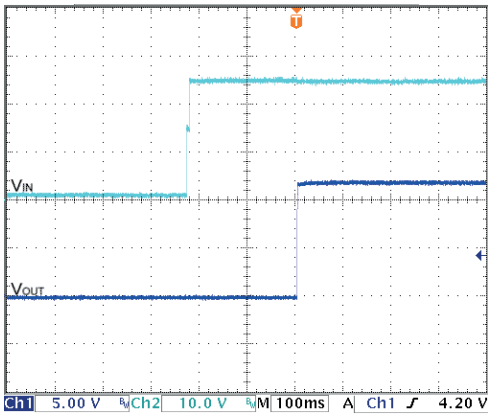
All test conditions are at 25°C.The figures are identical for PME08-24S12W



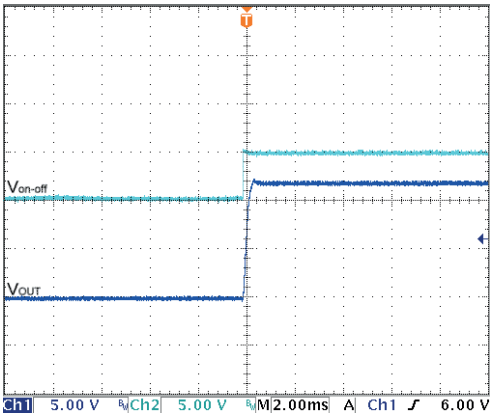
Typical Output Ripple and Noise.
Vin(nom); Full Load



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

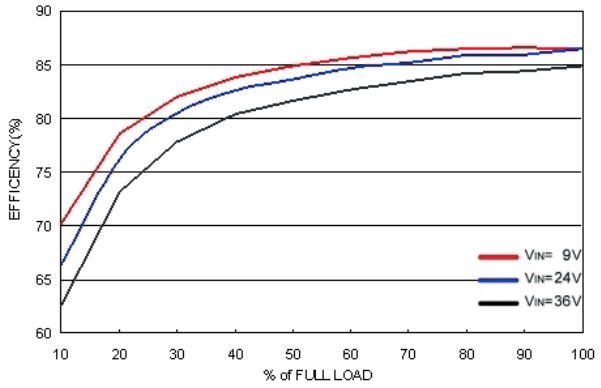


Typical Input Start-Up and Output Rise Characteristic
Vin(nom); Full Load

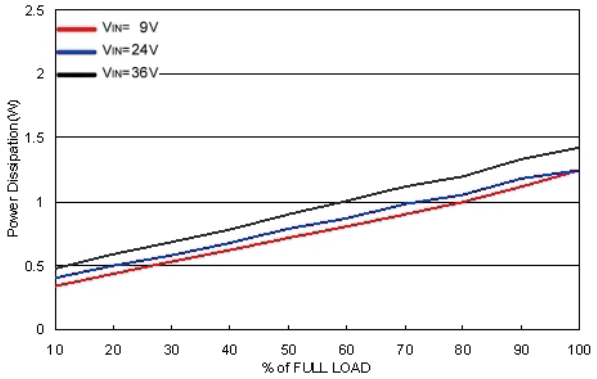


Using ON/OFF Voltage Start-Up and Output Rise Characteristic
Vin(nom); Full Load

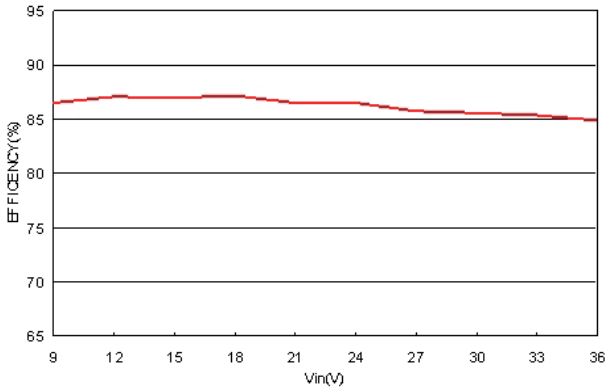
All test conditions are at 25°C.The figures are identical for PME08-24S15W



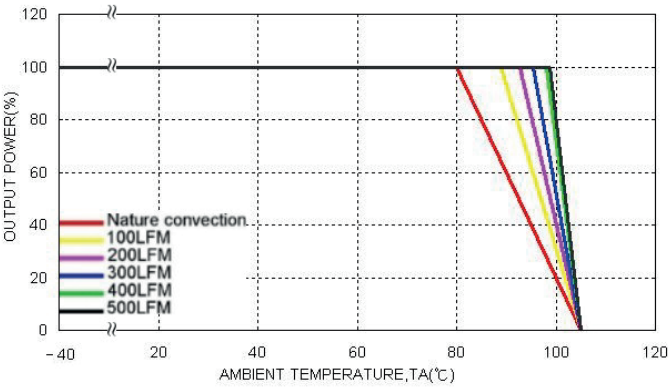
Efficiency versus Output Load



Power Dissipation versus Output Load

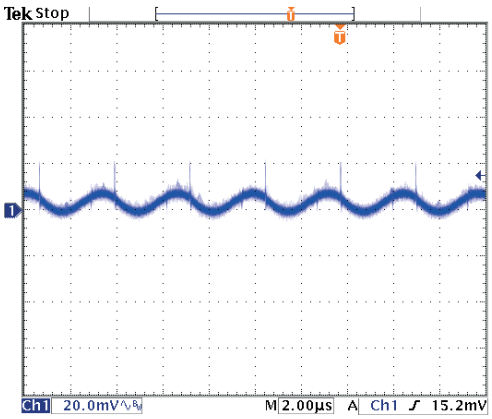


Efficiency versus Input Voltage
Full Load

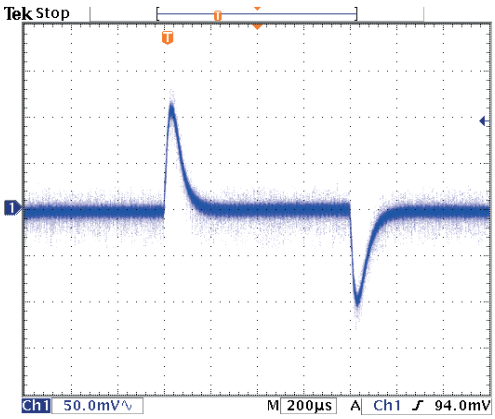


Derating Output Load versus Ambient Temperature and Airflow
Vin(nom)

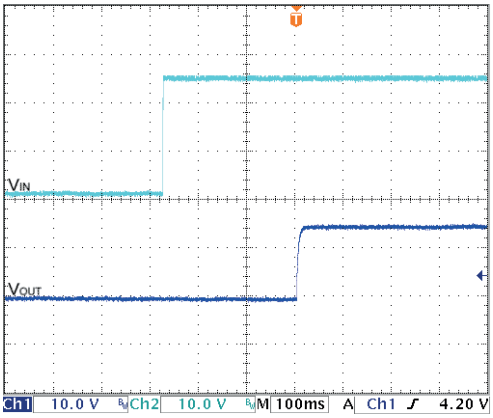
All test conditions are at 25°C.The figures are identical for PME08-24S15W



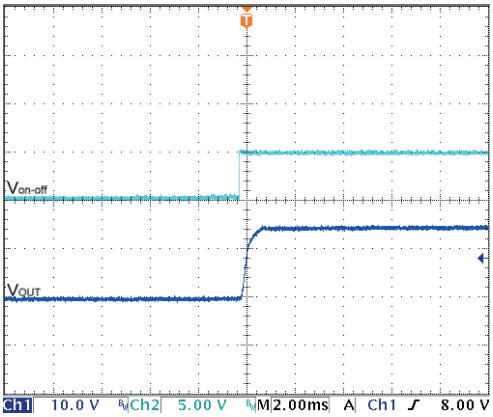
Typical Output Ripple and Noise.
Vin(nom); Full Load



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

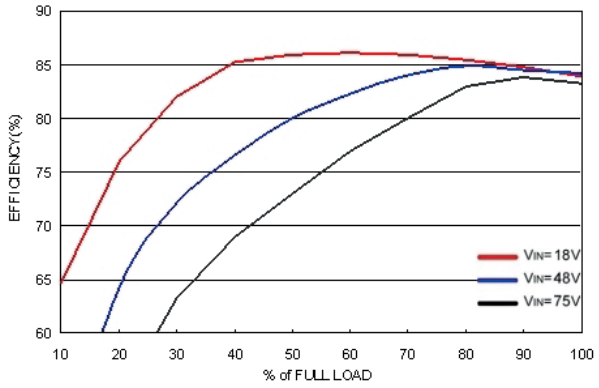


Typical Input Start-Up and Output Rise Characteristic
Vin(nom); Full Load

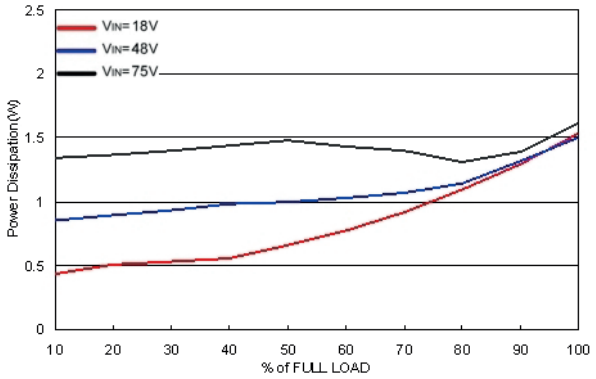


Using ON/OFF Voltage Start-Up and Output Rise Characteristic
Vin(nom); Full Load

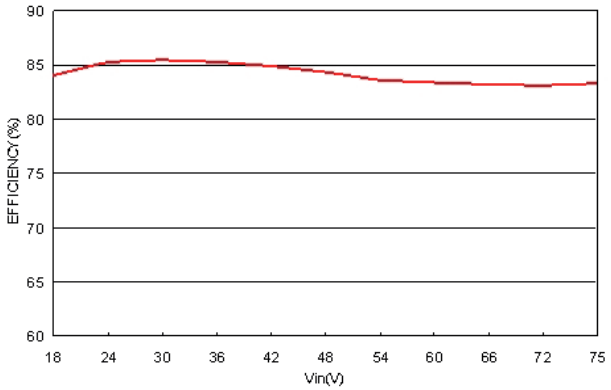
All test conditions are at 25°C.The figures are identical for PME08-48S3P3W



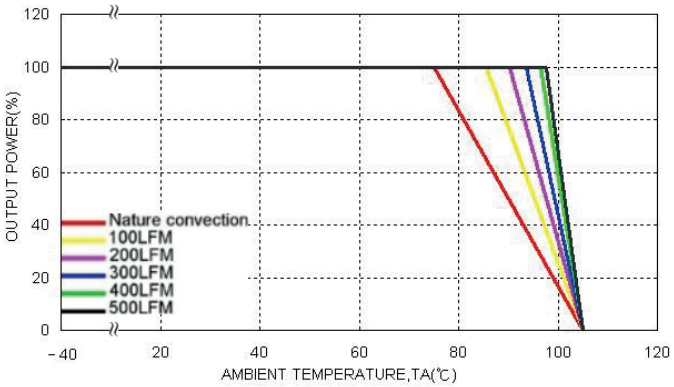
Efficiency versus Output Load



Power Dissipation versus Output Load

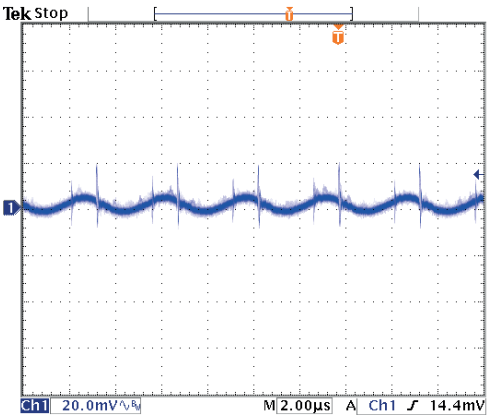


Efficiency versus Input Voltage
Full Load

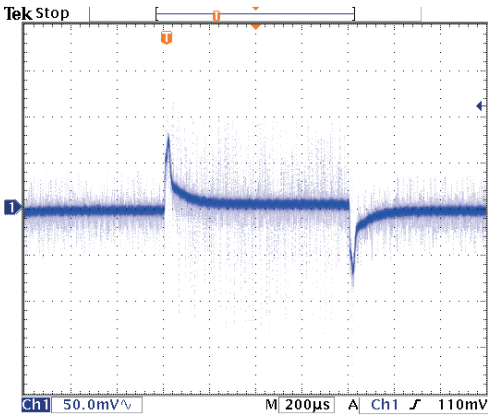


Derating Output Load versus Ambient Temperature and Airflow
Vin(nom)

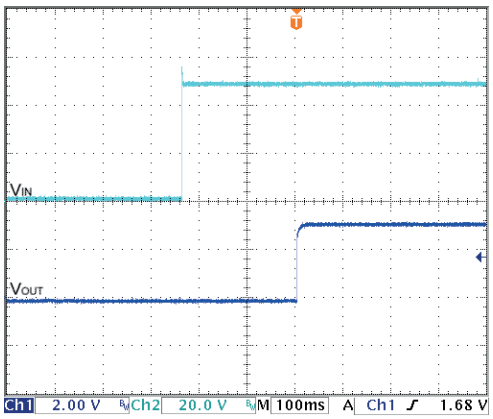
All test conditions are at 25°C.The figures are identical for PME08-48S3P3W



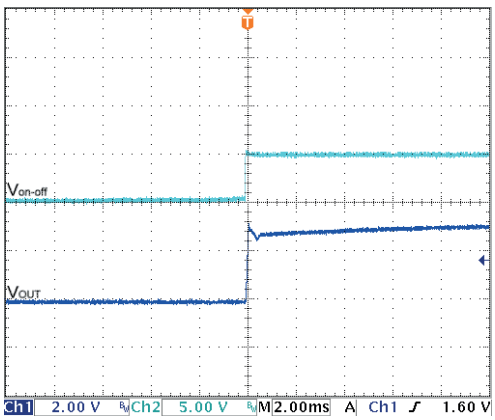
Typical Output Ripple and Noise.
Vin(nom); Full Load



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

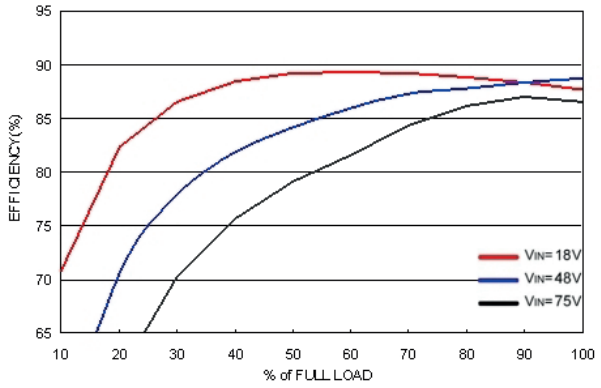


Typical Input Start-Up and Output Rise Characteristic
Vin(nom); Full Load

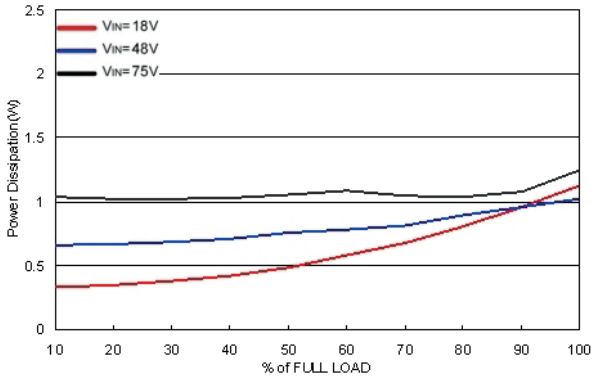


Using ON/OFF Voltage Start-Up and Output Rise Characteristic
Vin(nom); Full Load

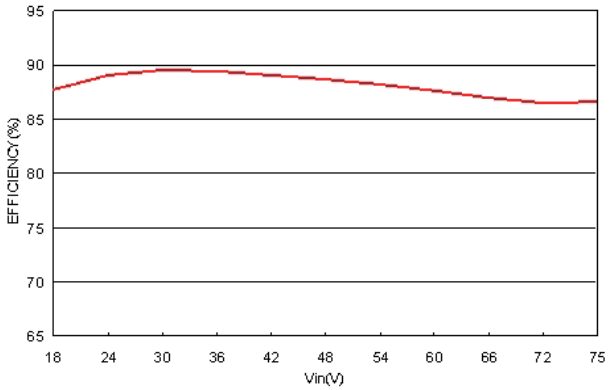
All test conditions are at 25°C.The figures are identical for PME08-48S05W



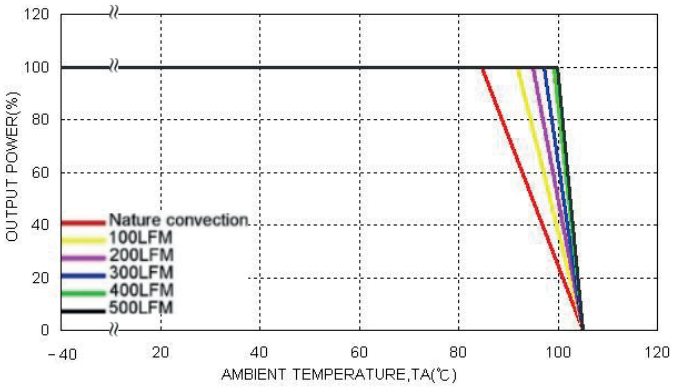
Efficiency versus Output Load



Power Dissipation versus Output Load

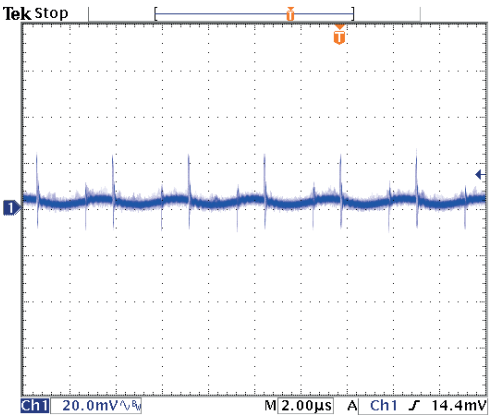


Efficiency versus Input Voltage
Full Load

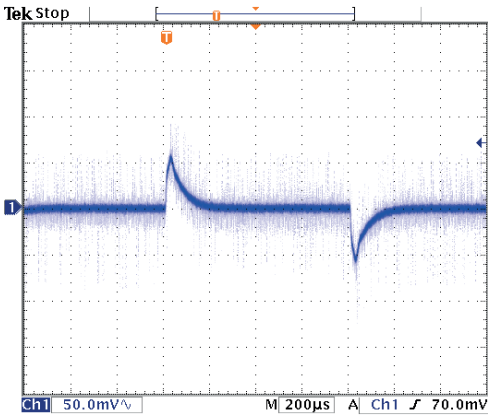


Derating Output Load versus Ambient Temperature and Airflow
Vin(nom)

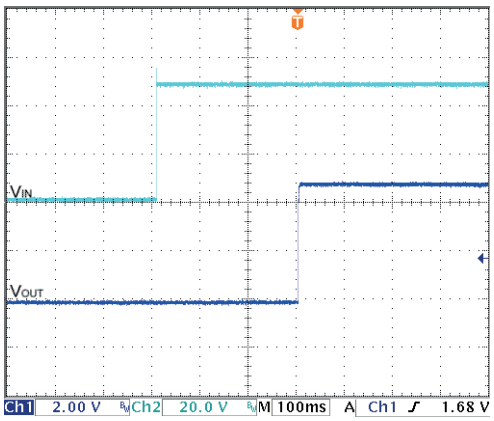
All test conditions are at 25°C.The figures are identical for PME08-48S05W



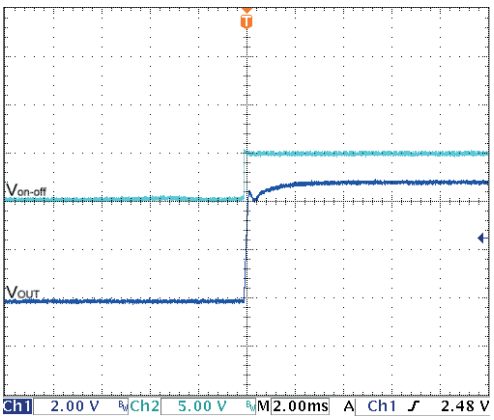
Typical Output Ripple and Noise.
Vin(nom); Full Load



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

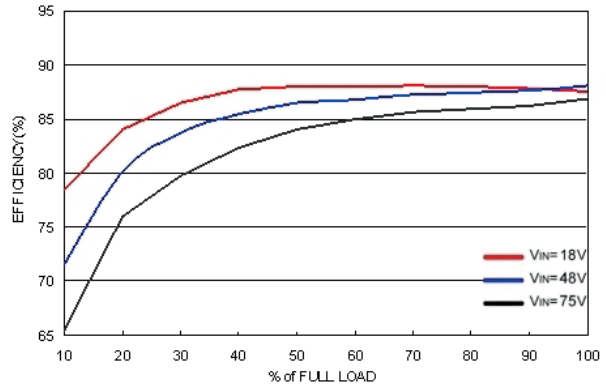


Typical Input Start-Up and Output Rise Characteristic
Vin(nom); Full Load

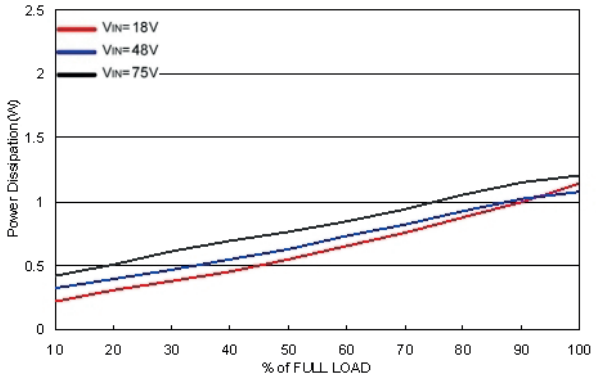


Using ON/OFF Voltage Start-Up and Output Rise Characteristic
Vin(nom); Full Load

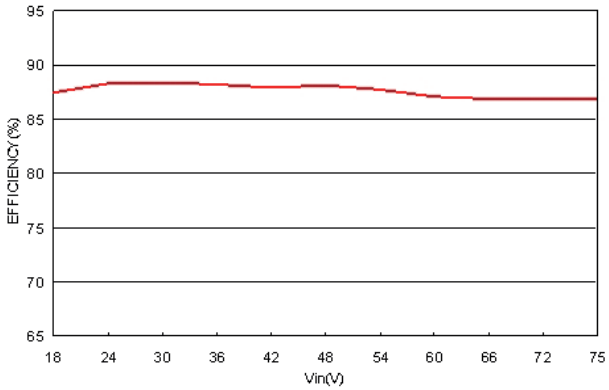
All test conditions are at 25°C.The figures are identical for PME08-48S12W



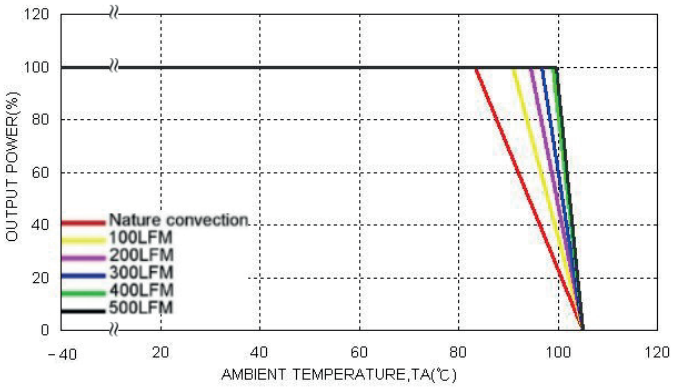
Efficiency versus Output Load



Power Dissipation versus Output Load

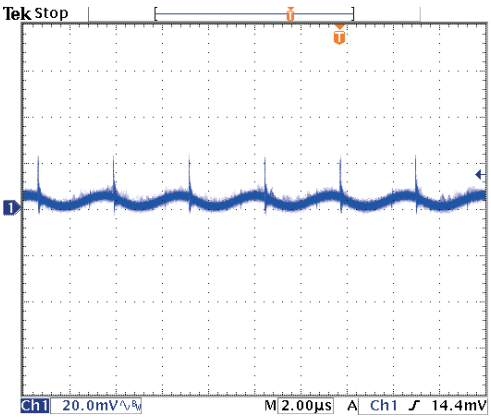


Efficiency versus Input Voltage
Full Load

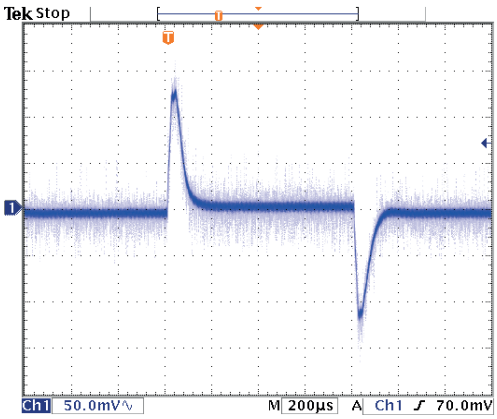


Derating Output Load versus Ambient Temperature and Airflow
Vin(nom)

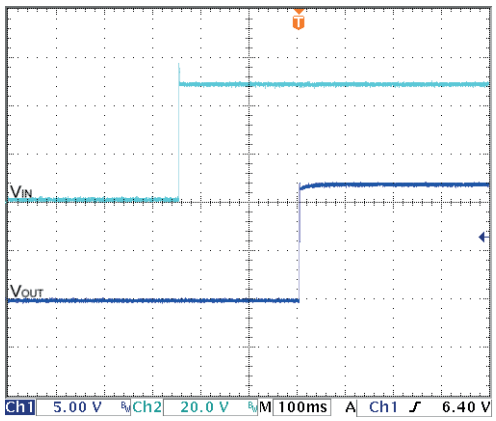
All test conditions are at 25°C.The figures are identical for PME08-48S12W



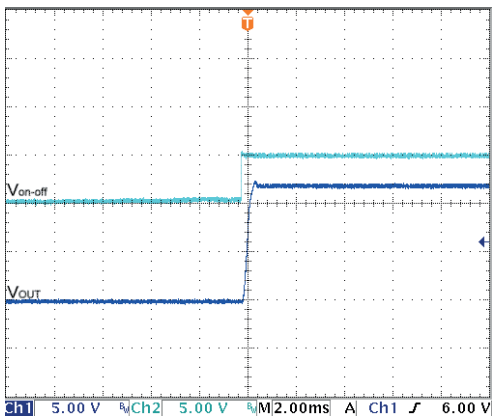
Typical Output Ripple and Noise.
Vin(nom); Full Load



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

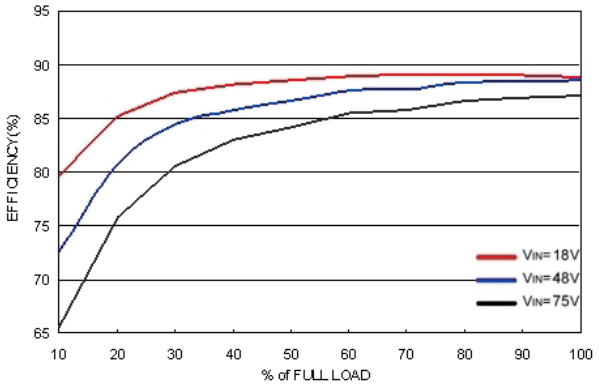


Typical Input Start-Up and Output Rise Characteristic
Vin(nom); Full Load

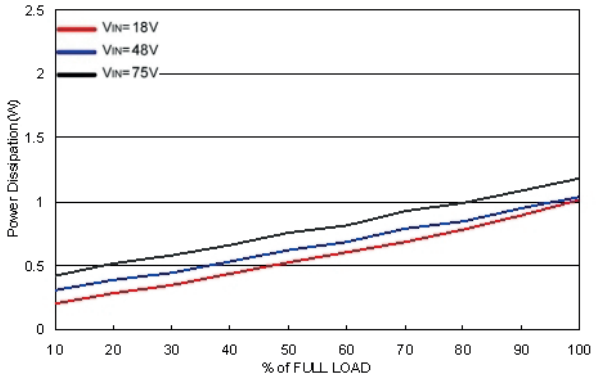


Using ON/OFF Voltage Start-Up and Output Rise Characteristic
Vin(nom); Full Load

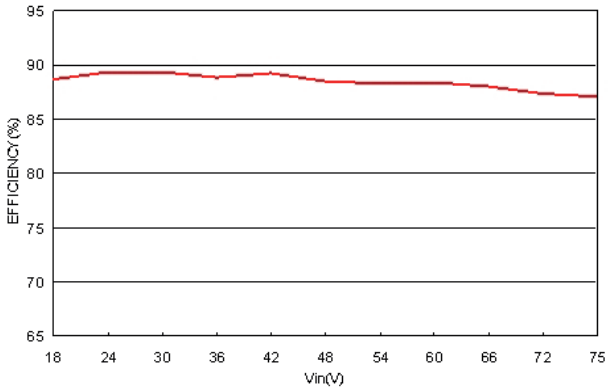
All test conditions are at 25°C.The figures are identical for PME08-48S12W



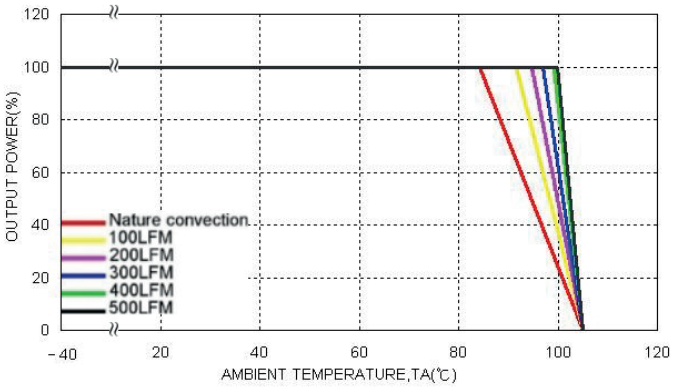
Efficiency versus Output Load



Power Dissipation versus Output Load

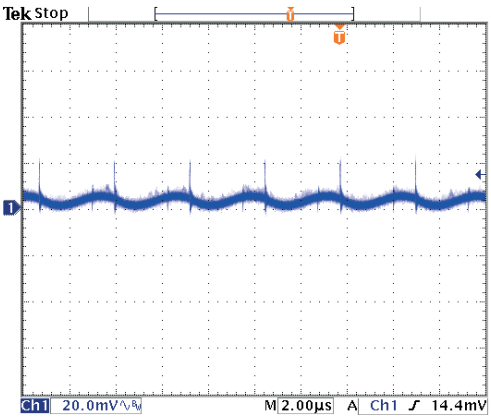


Efficiency versus Input Voltage
Full Load

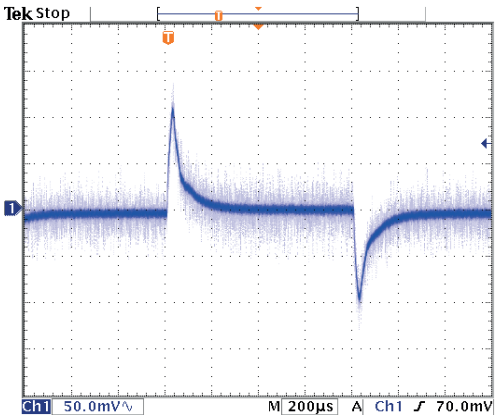


Derating Output Load versus Ambient Temperature and Airflow
Vin(nom)

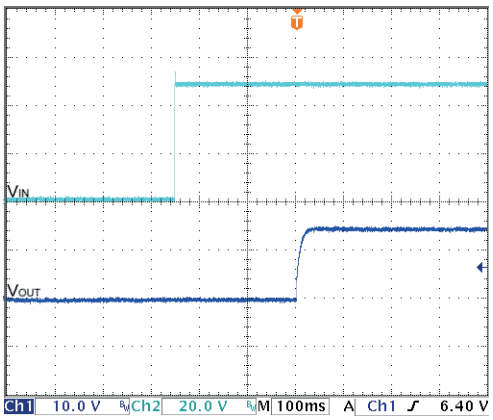
All test conditions are at 25°C.The figures are identical for PME08-48S15W



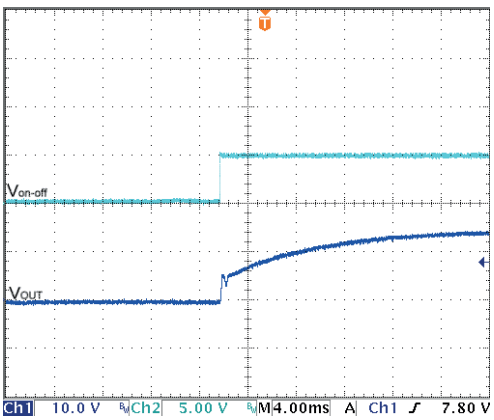
Typical Output Ripple and Noise.
Vin(nom); Full Load



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

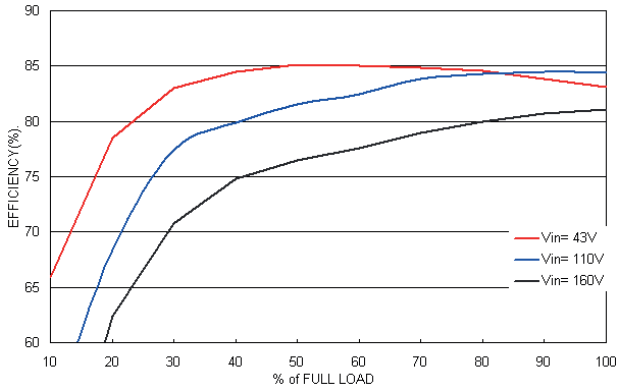


Typical Input Start-Up and Output Rise Characteristic
Vin(nom); Full Load

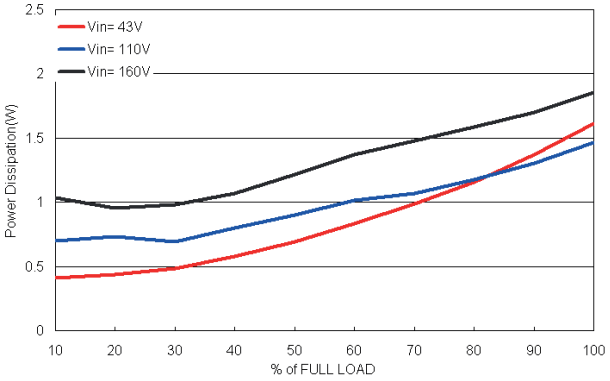


Using ON/OFF Voltage Start-Up and Output Rise Characteristic
Vin(nom); Full Load

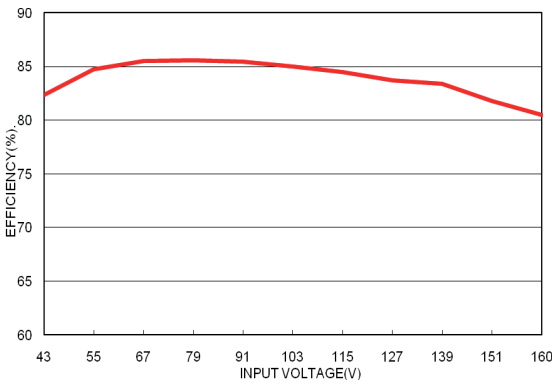
All test conditions are at 25°C.The figures are identical for PME08-110S3P3W



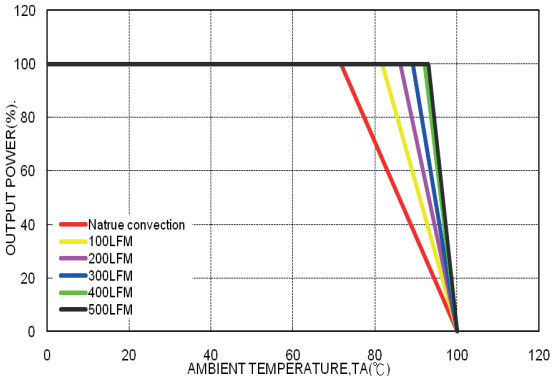
Efficiency versus Output Load



Power Dissipation versus Output Load

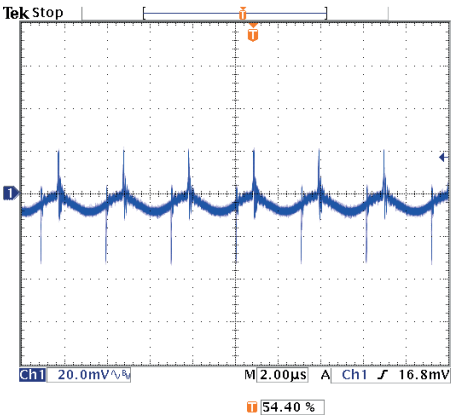


Efficiency versus Input Voltage
Full Load

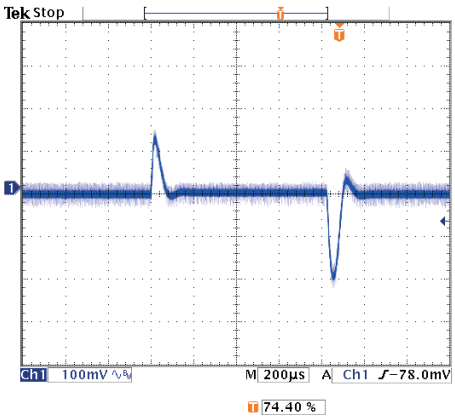


Derating Output Load versus Ambient Temperature and Airflow
Vin(nom)

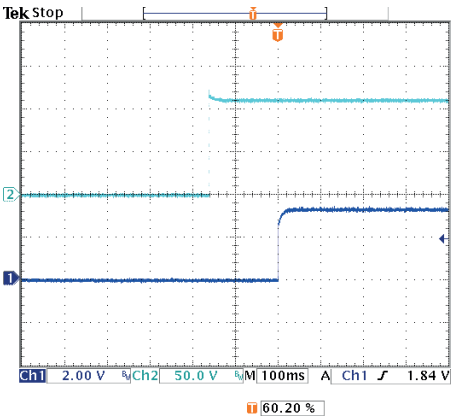
All test conditions are at 25°C.The figures are identical for PME08-110S3P3W



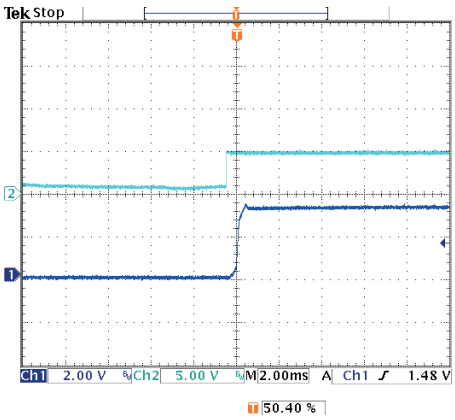
Typical Output Ripple and Noise.
Vin(nom); Full Load



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

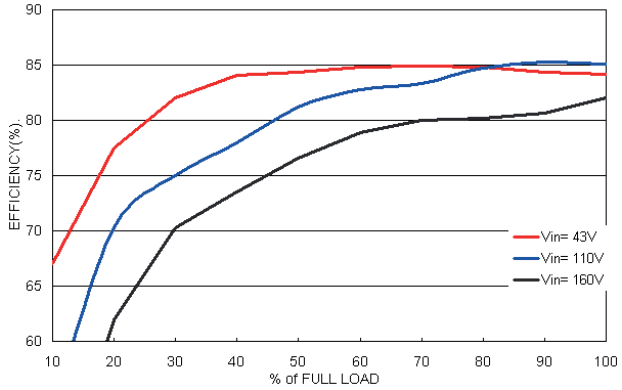


Typical Input Start-Up and Output Rise Characteristic
Vin(nom); Full Load

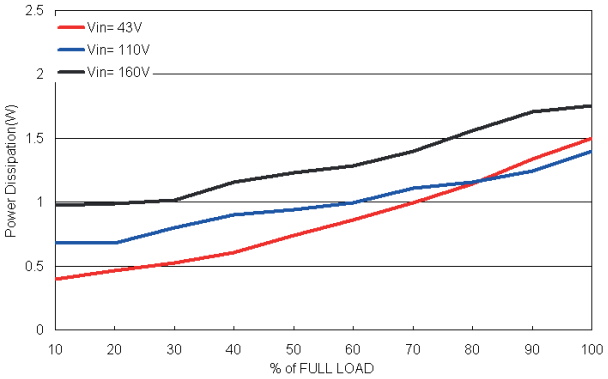


Using ON/OFF Voltage Start-Up and Output Rise Characteristic
Vin(nom); Full Load

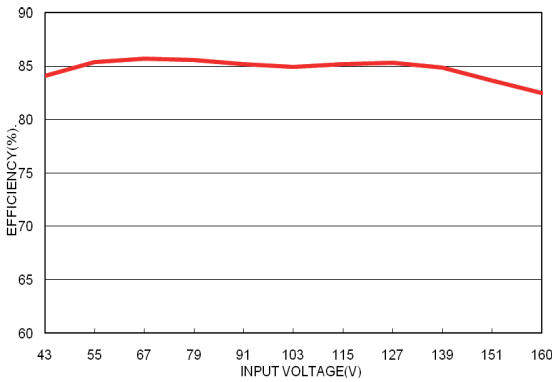
All test conditions are at 25°C.The figures are identical for PME08-110S05W



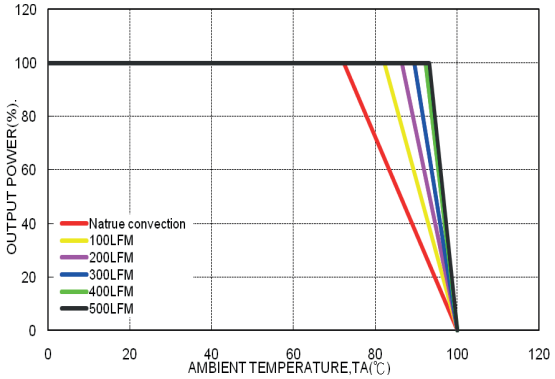
Efficiency versus Output Load



Power Dissipation versus Output Load

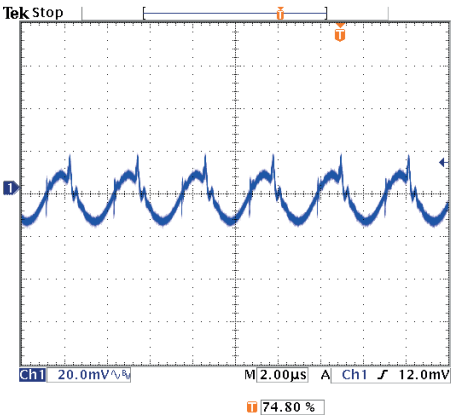


Efficiency versus Input Voltage
Full Load

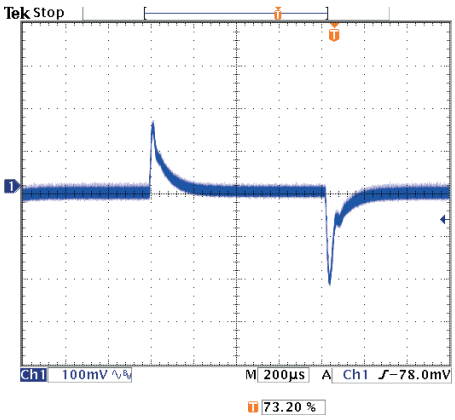


Derating Output Load versus Ambient Temperature and Airflow
Vin(nom)

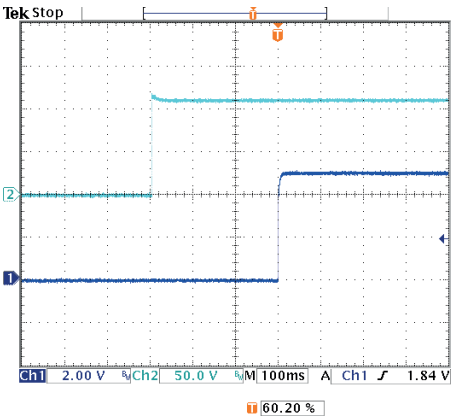
All test conditions are at 25°C.The figures are identical for PME08-110S05W



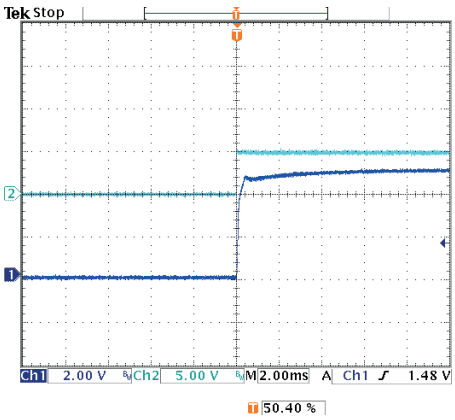
Typical Output Ripple and Noise.
Vin(nom); Full Load



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

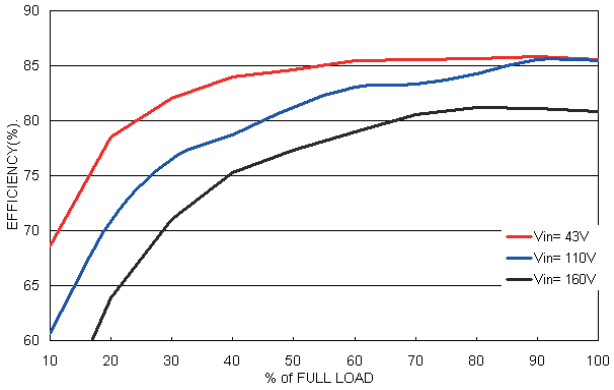


Typical Input Start-Up and Output Rise Characteristic
Vin(nom); Full Load

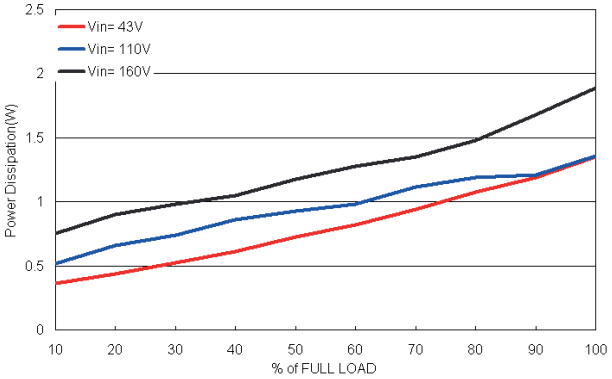


Using ON/OFF Voltage Start-Up and Output Rise Characteristic
Vin(nom); Full Load

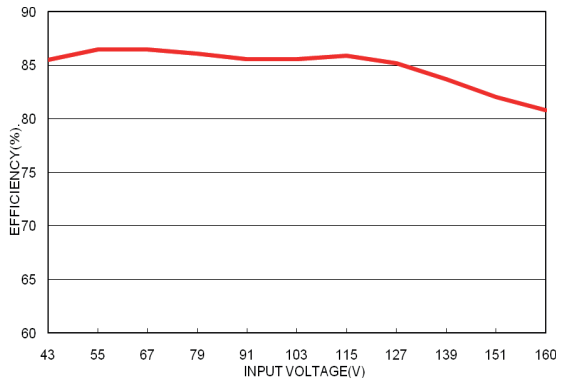
All test conditions are at 25°C.The figures are identical for PME08-110S12W



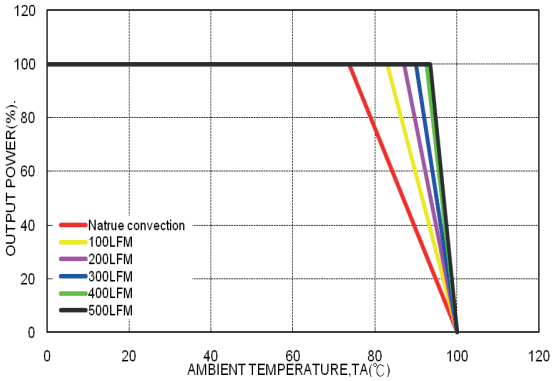
Efficiency versus Output Load



Power Dissipation versus Output Load

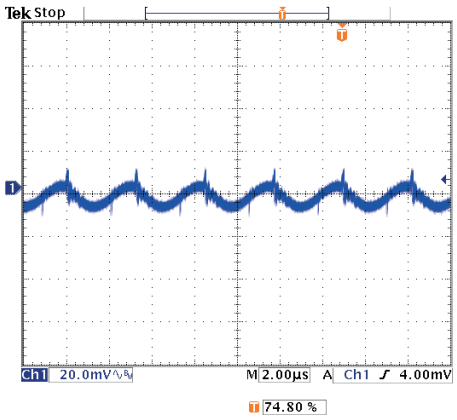


Efficiency versus Input Voltage
Full Load

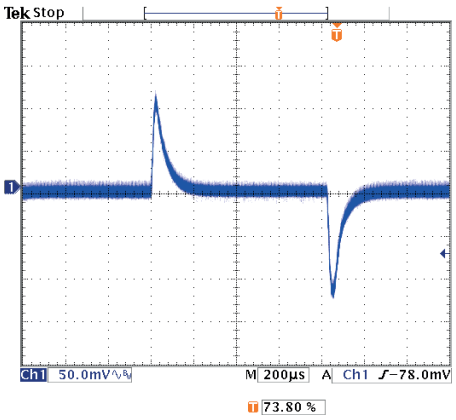


Derating Output Load versus Ambient Temperature and Airflow
Vin(nom)

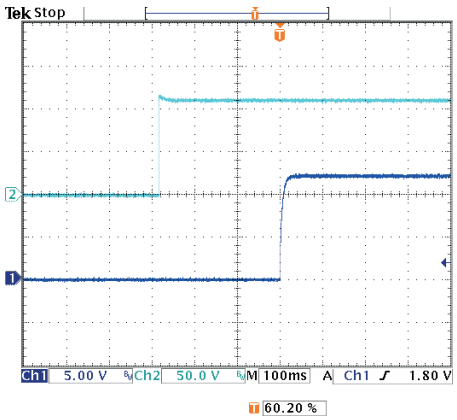
All test conditions are at 25°C.The figures are identical for PME08-110S12W



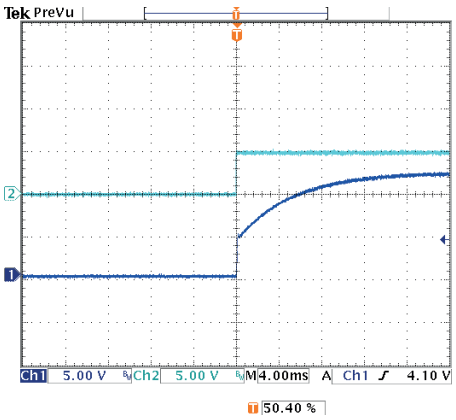
Typical Output Ripple and Noise.
Vin(nom); Full Load



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

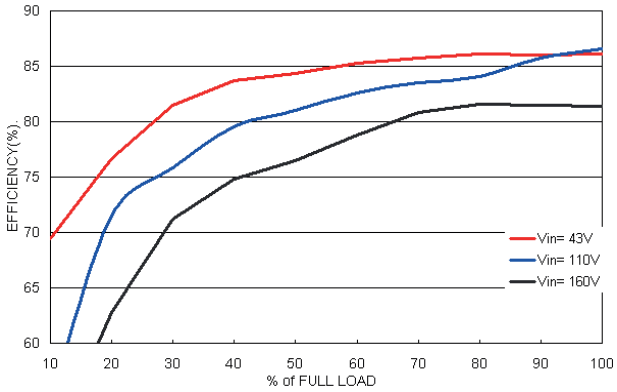


Typical Input Start-Up and Output Rise Characteristic
Vin(nom); Full Load

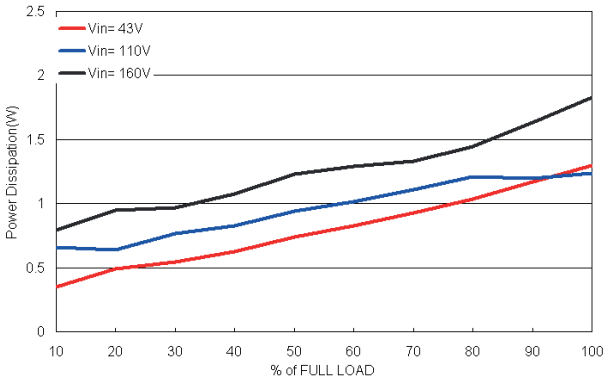


Using ON/OFF Voltage Start-Up and Output Rise Characteristic
Vin(nom); Full Load

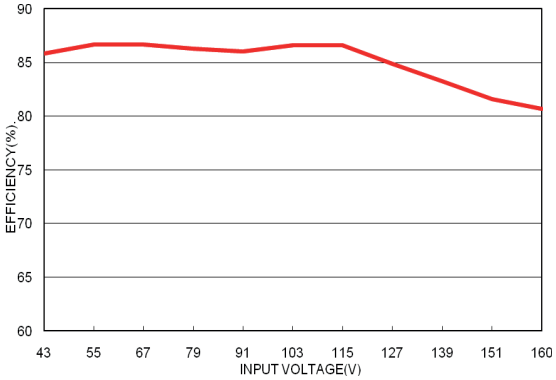
All test conditions are at 25°C.The figures are identical for PME08-110S15W



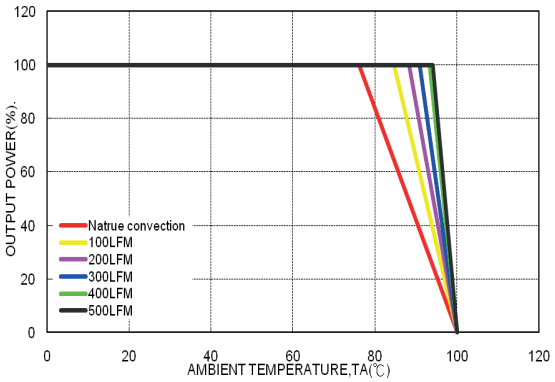
Efficiency versus Output Load



Power Dissipation versus Output Load

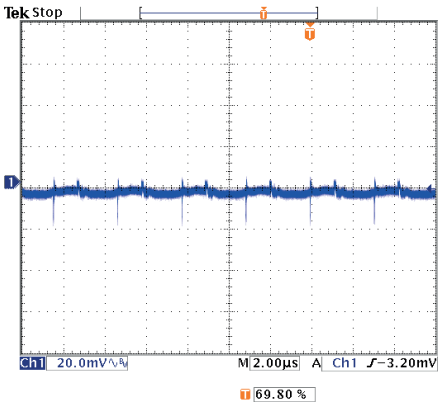


Efficiency versus Input Voltage
Full Load

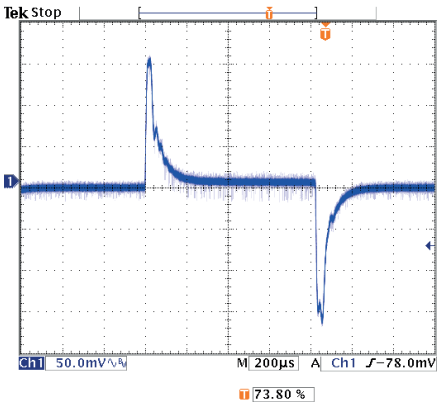


Derating Output Load versus Ambient Temperature and Airflow
Vin(nom)

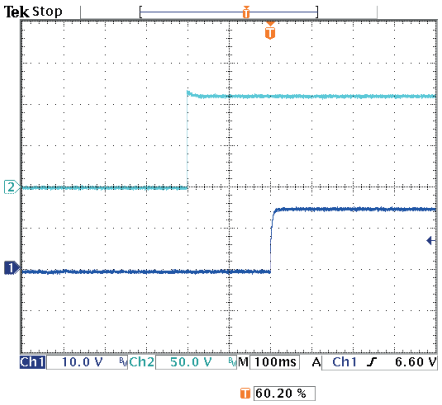
All test conditions are at 25°C.The figures are identical for PME08-110S15W



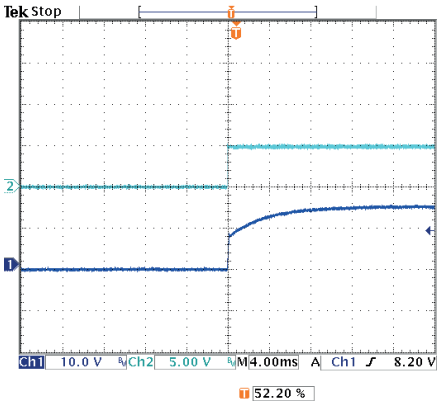
Typical Output Ripple and Noise.
Vin(nom); Full Load



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 Output Rise Characteristic
Vin(nom); Full Load