



Choke coils for PFC dynamic characteristic data

Pin terminal type

PFC ER series

PFC2723ER

PFC3125ER

PFC3525ER

Choke coils for PFC

PFC ER series

FEATURES

- The PFC ER series realizes a small floor area.
- The rated input voltage corresponds to AC100 to 240V.
- PFC output power corresponds to 75 to 250W.

CONTENTS

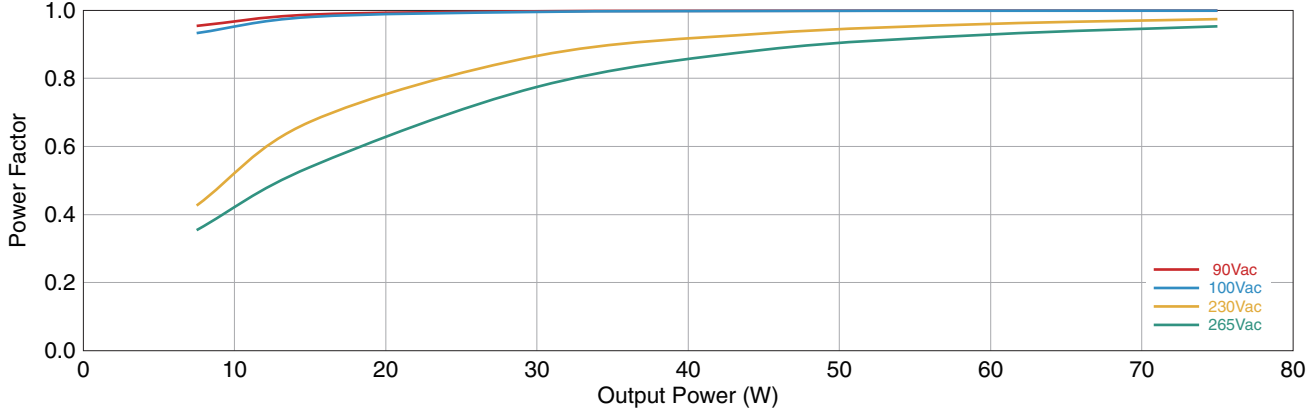
Part number	Height	PFC output power	Page
PFC2723ER-601K02B-00	26mm	75W	3
PFC2723ER-421K03B-50	26mm	100W	5
PFC3125ER-451K03E-00	27mm	100W	7
PFC3125ER-301K05B-00	27mm	150W	9
PFC3125ER-231K06B-00	27mm	200W	11
PFC3525ER-301K04E-00	27mm	150W	13
PFC3525ER-231K06E-00	27mm	200W	15
PFC3525ER-181K09B-00	27mm	250W	17
Reference circuit diagram		75 to 100W	19
Reference circuit diagram		125 to 250W	20

PFC ER series PFC2723ER-601K02B-00

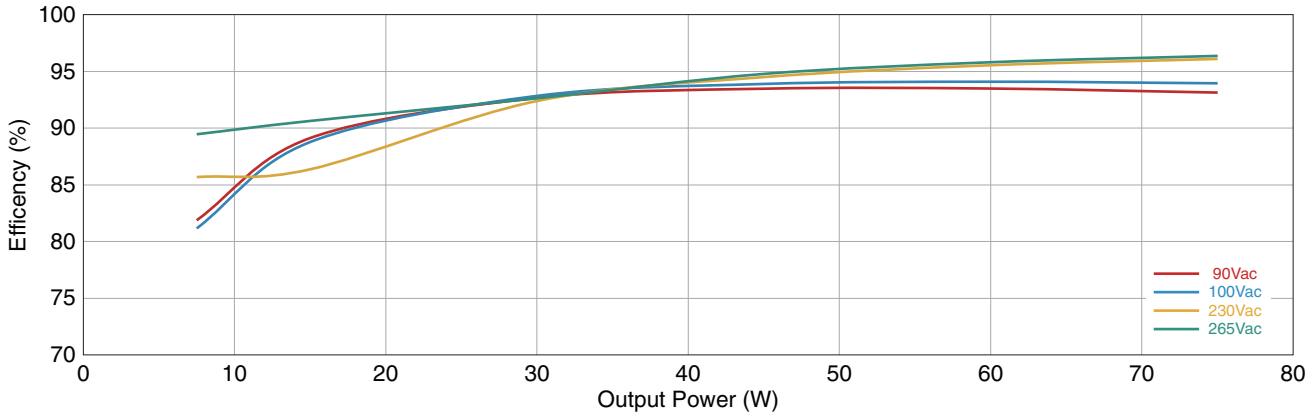
REFERENCE DYNAMIC CHARACTERISTICS

Vout = 396Vdc

Power Factor



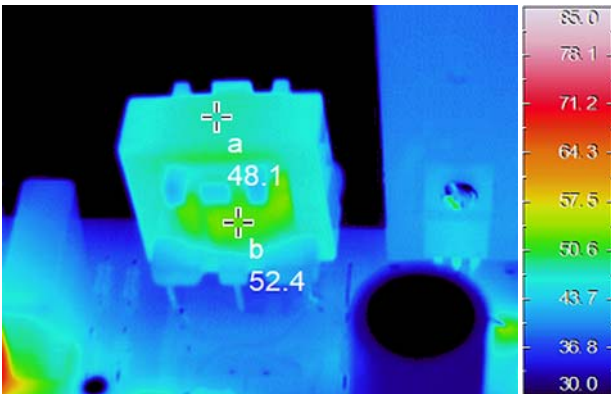
Efficiency




REFERENCE TEMPERATURE

Vin = 90Vac, Vout = 396Vdc, Pout = 75W, Room Temp.

a : Core Surface, b : Coil Surface



Note: The temperature of the PFC choke coil is measured while floating from the board.

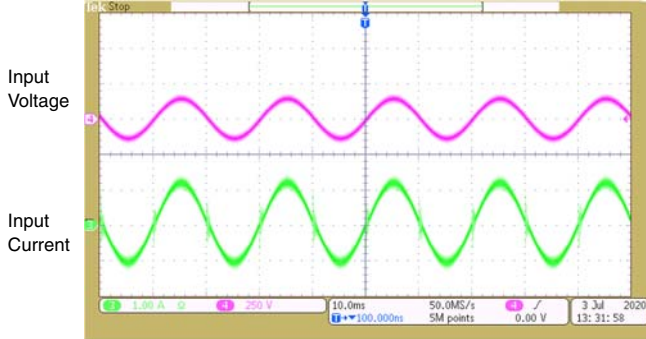
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PFC ER series PFC2723ER-601K02B-00

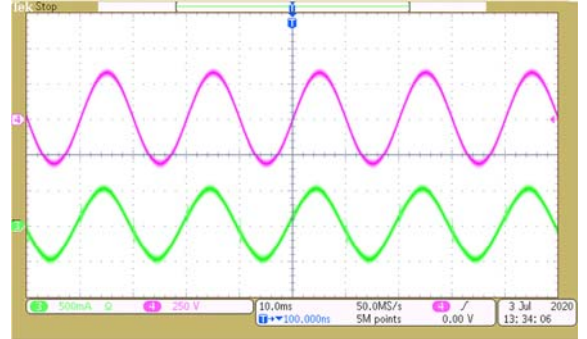
REFERENCE OPERATING WAVEFORM

Input Voltage / Current

Vin=100Vac,Po=75W 1A/div 250V/div 10ms/div

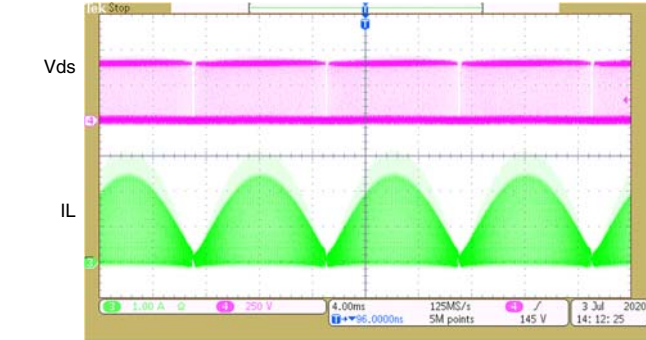


Vin=230Vac,Po=75W 0.5A/div 250V/div 10ms/div

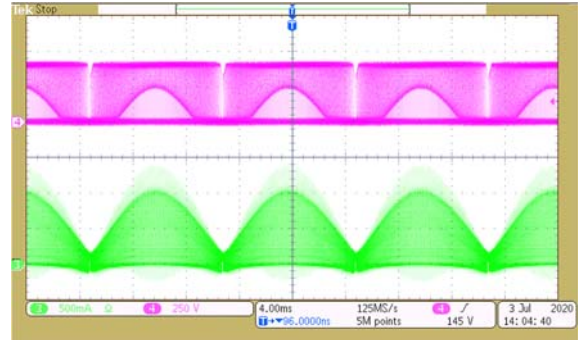


Vds / IL

Vin=100Vac,Po=75W 1A/div 250V/div 4ms/div

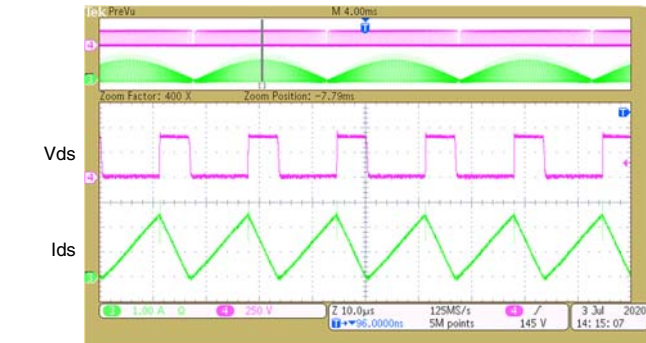


Vin=230Vac,Po=75W 0.5A/div 250V/div 4ms/div

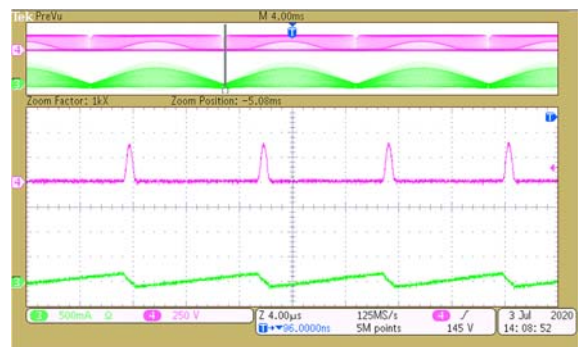
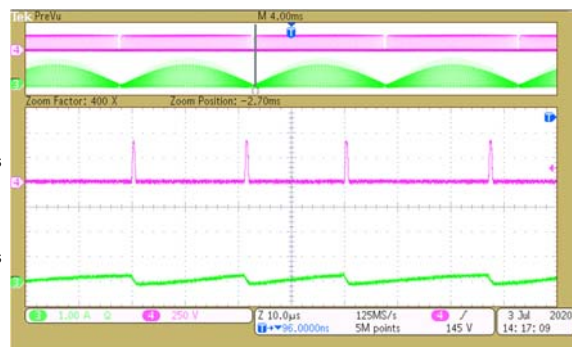
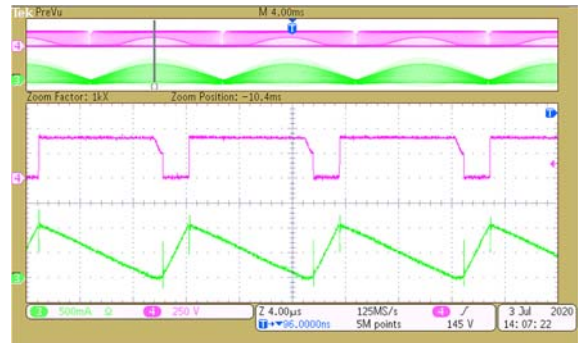


Vds / Ids

Vin=100Vac,Po=75W 1A/div 250V/div 10µs/div



Vin=230Vac,Po=75W 0.5A/div 250V/div 4µs/div



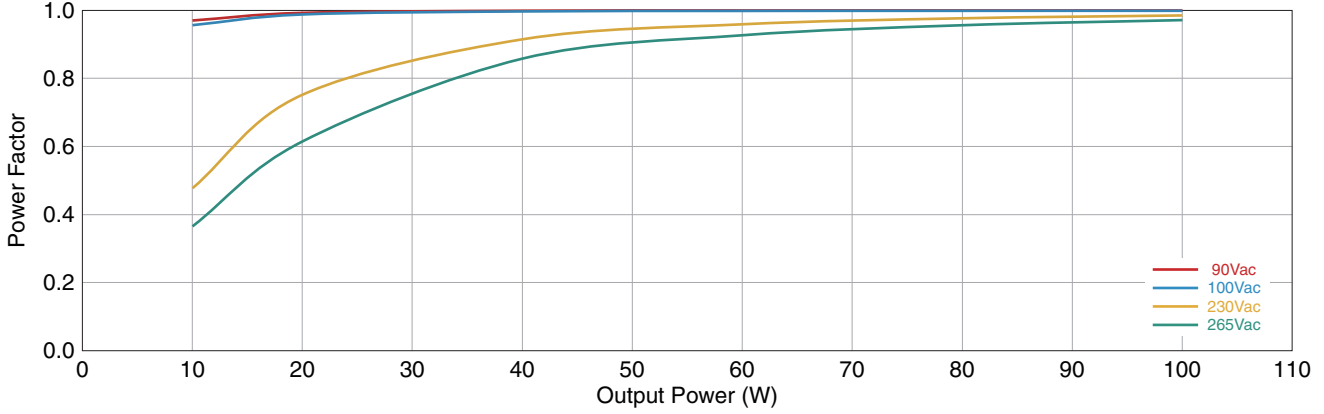
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PFC ER series PFC2723ER-421K03B-50

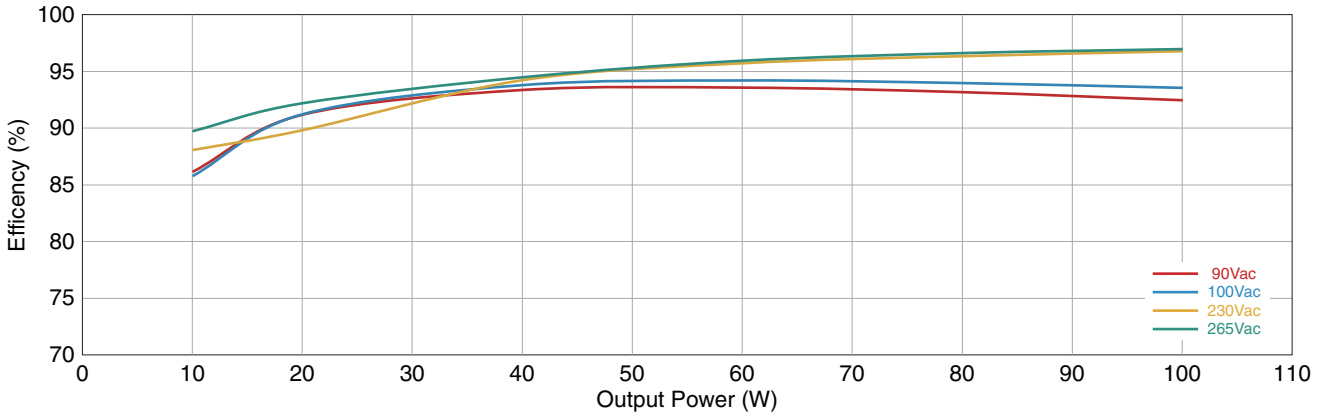
REFERENCE DYNAMIC CHARACTERISTICS

Vout = 396Vdc

Power Factor



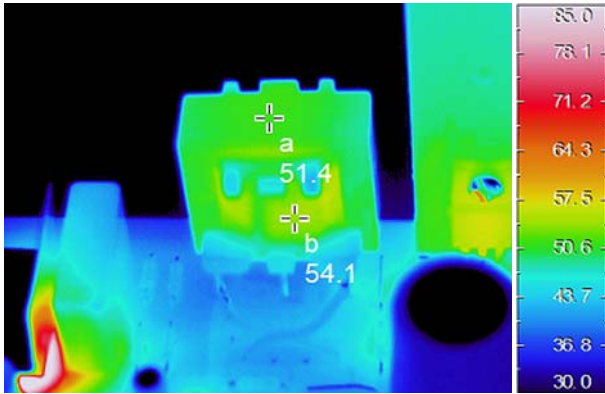
Efficiency




REFERENCE TEMPERATURE

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a : Core Surface, b : Coil Surface



Note: The temperature of the PFC choke coil is measured while floating from the board.

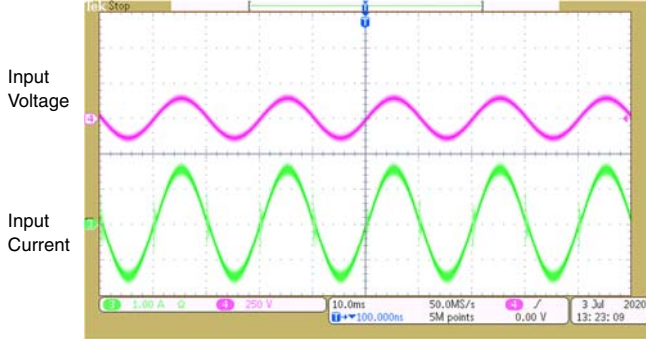
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PFC ER series PFC2723ER-421K03B-50

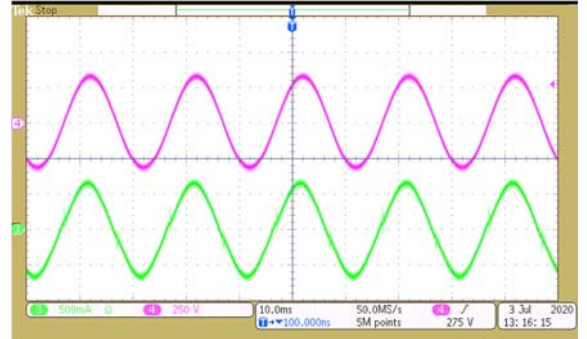
REFERENCE OPERATING WAVEFORM

Input Voltage / Current

Vin=100Vac,Po=100W 1A/div 250V/div 10ms/div

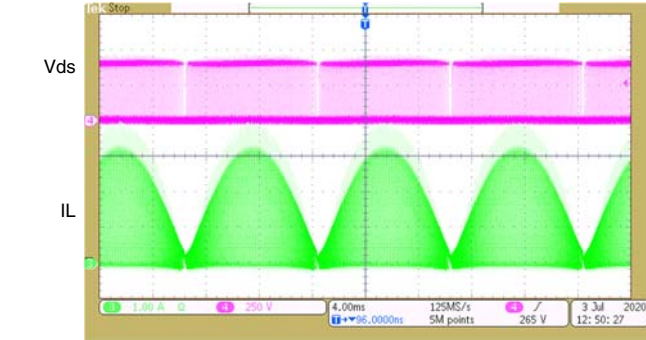


Vin=230Vac,Po=100W 0.5A/div 250V/div 10ms/div

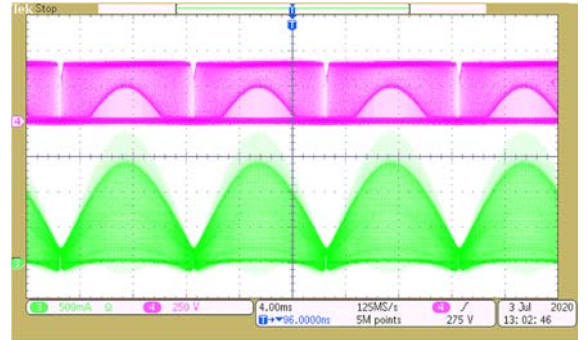


Vds / IL

Vin=100Vac,Po=100W 1A/div 250V/div 4ms/div

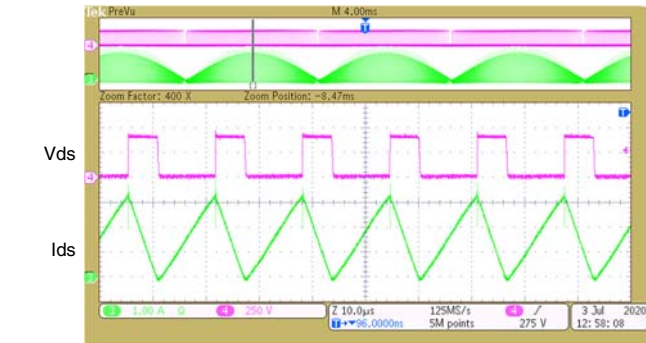


Vin=230Vac,Po=100W 0.5A/div 250V/div 4ms/div

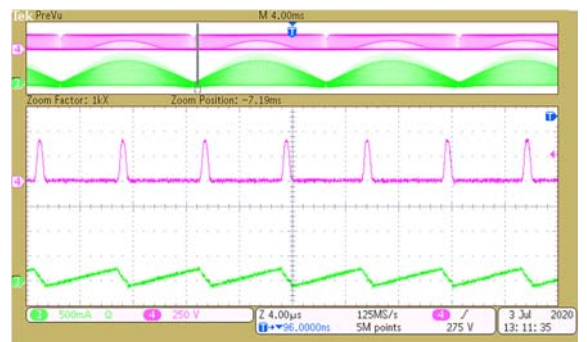
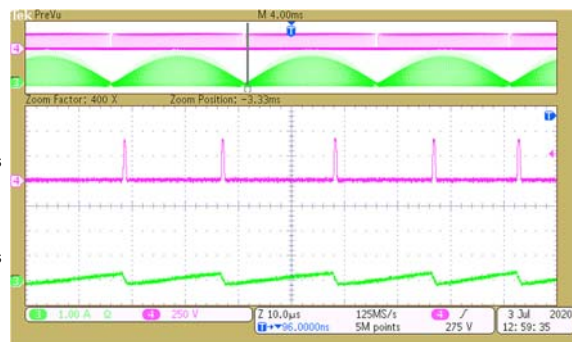
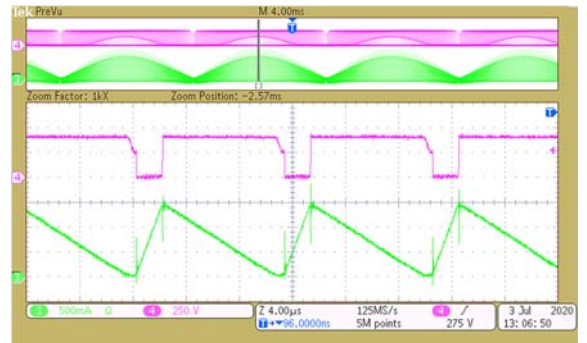


Vds / Ids

Vin=100Vac,Po=100W 1A/div 250V/div 10µs/div



Vin=230Vac,Po=100W 0.5A/div 250V/div 4µs/div



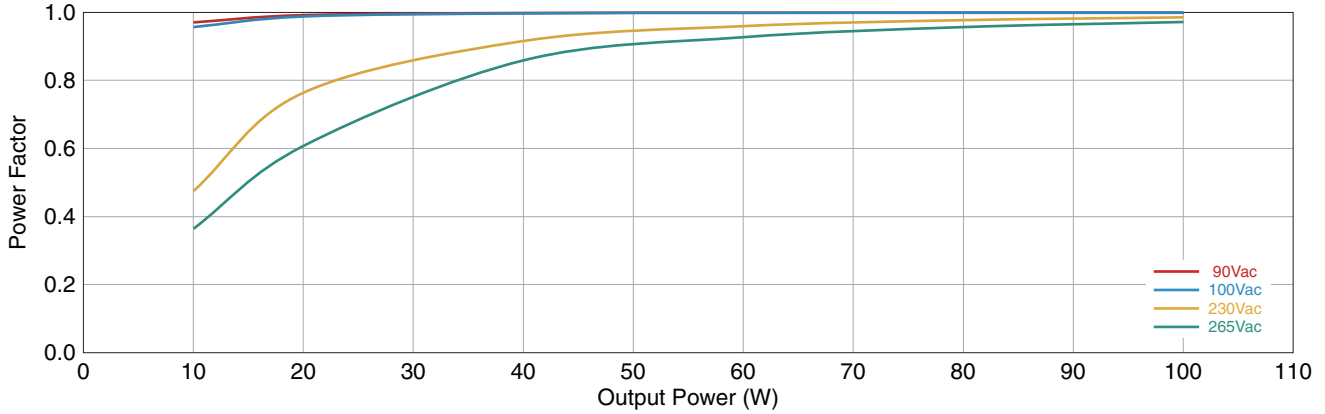
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PFC ER series PFC3125ER-451K03E-00

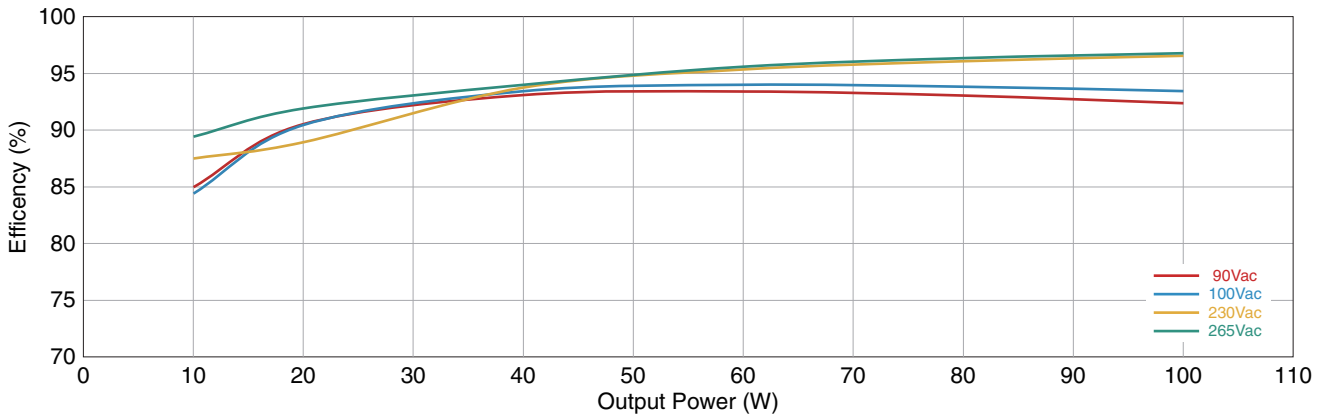
REFERENCE DYNAMIC CHARACTERISTICS

Vout = 396Vdc

Power Factor



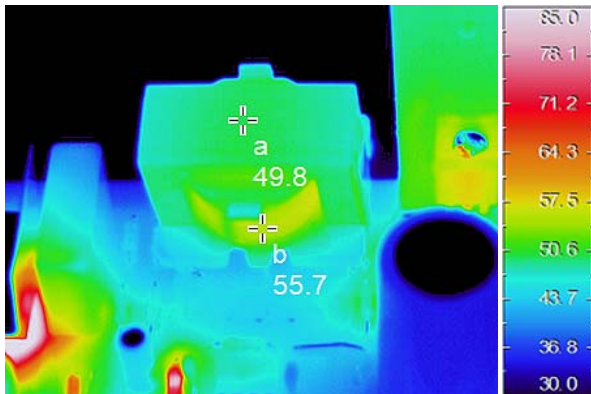
Efficiency




REFERENCE TEMPERATURE

Vin = 90Vac, Vout = 396Vdc, Pout = 100W, Room Temp.

a : Core Surface, b : Coil Surface



Note: The temperature of the PFC choke coil is measured while floating from the board.

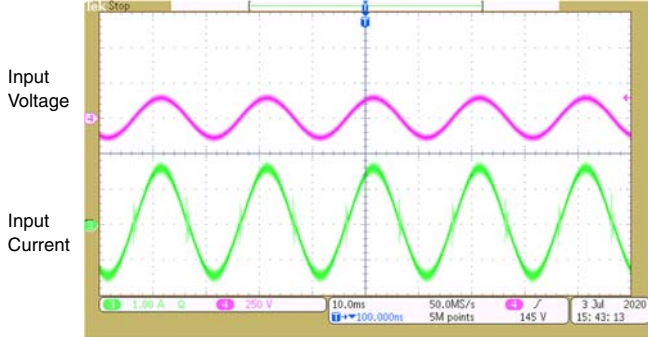
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PFC ER series PFC3125ER-451K03E-00

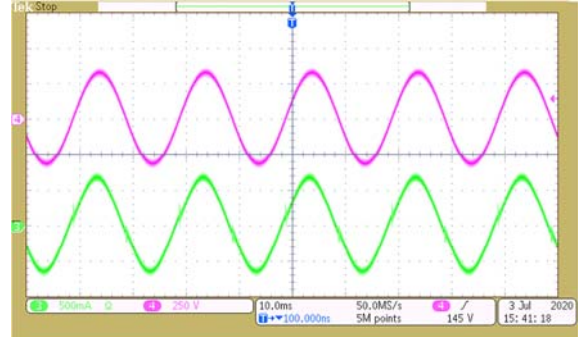
REFERENCE OPERATING WAVEFORM

Input Voltage / Current

Vin=100Vac,Po=100W 1A/div 250V/div 10ms/div

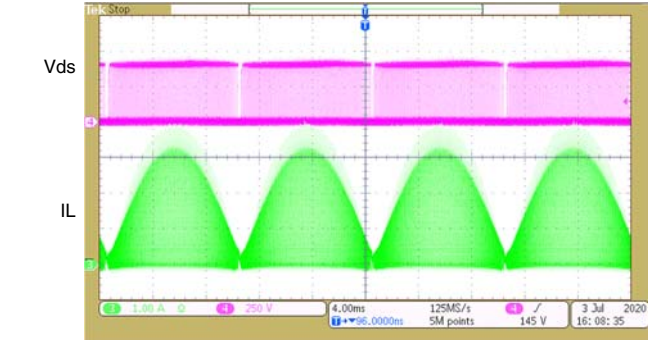


Vin=230Vac,Po=100W 0.5A/div 250V/div 10ms/div

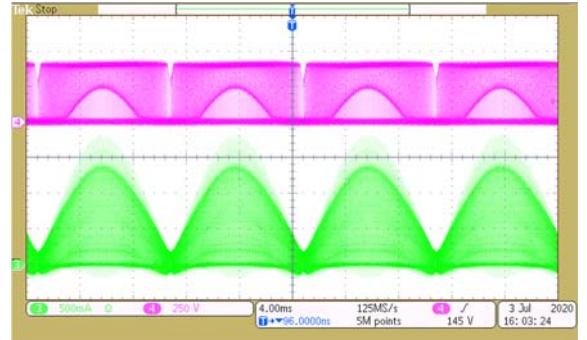


Vds / IL

Vin=100Vac,Po=100W 1A/div 250V/div 4ms/div

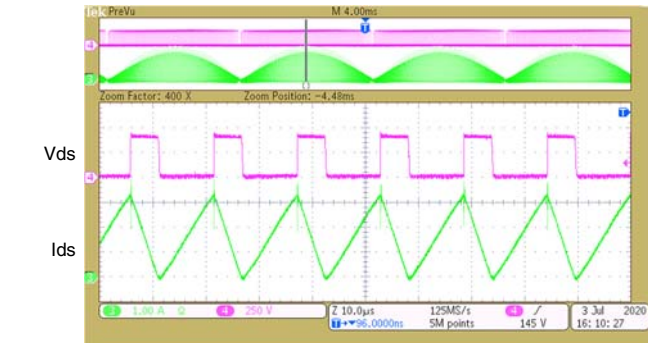


Vin=230Vac,Po=100W 0.5A/div 250V/div 4ms/div

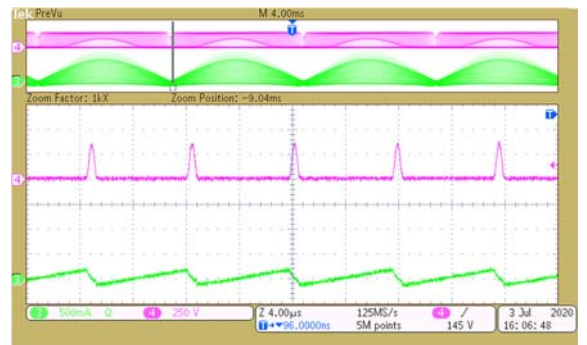
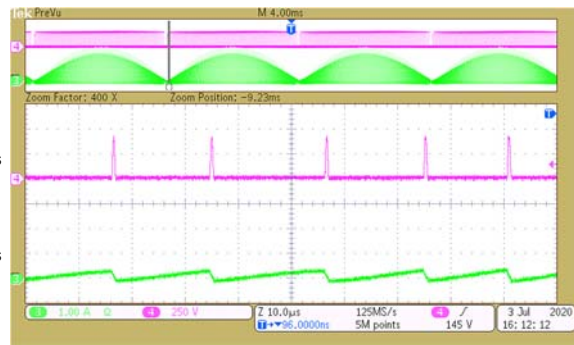
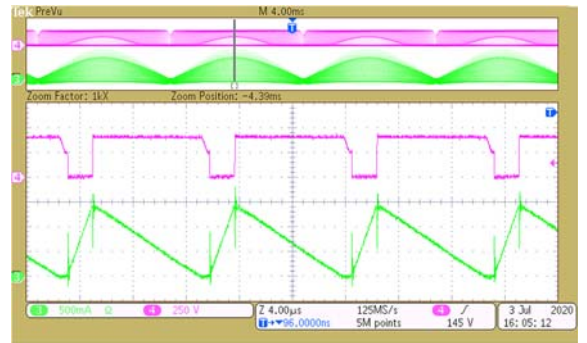



Vds / Ids

Vin=100Vac,Po=100W 1A/div 250V/div 10µs/div



Vin=230Vac,Po=100W 0.5A/div 250V/div 4µs/div



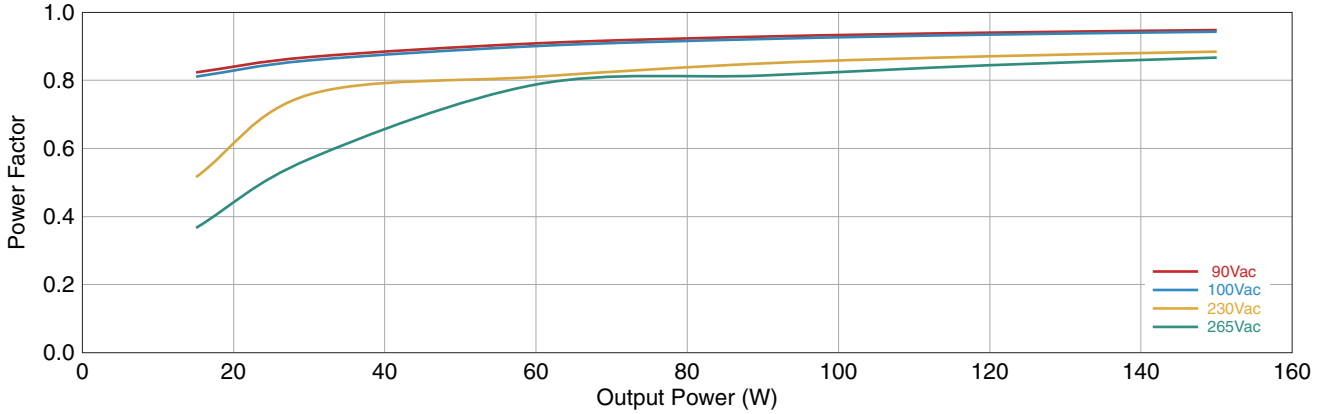
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PFC ER series PFC3125ER-301K05B-00

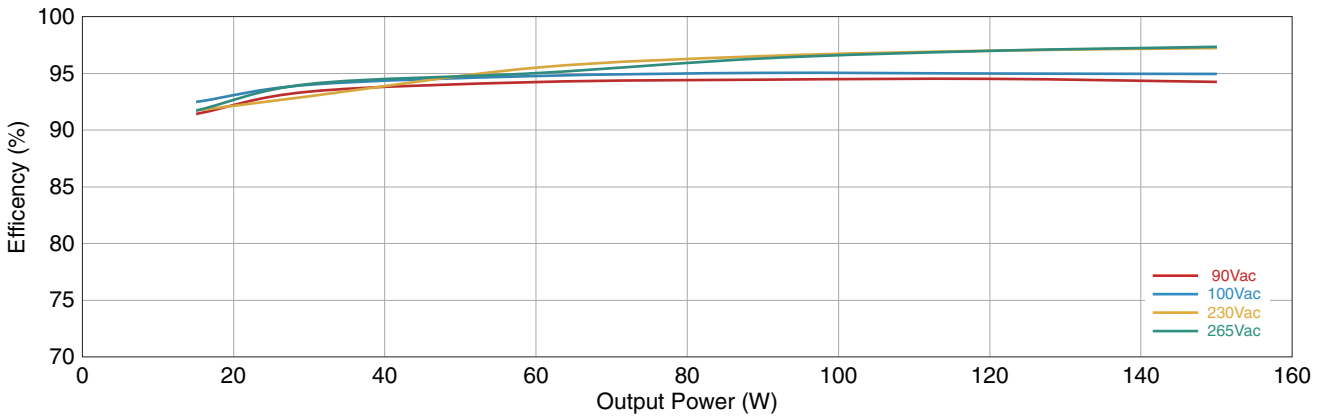
REFERENCE DYNAMIC CHARACTERISTICS

Vout = 392Vdc

Power Factor



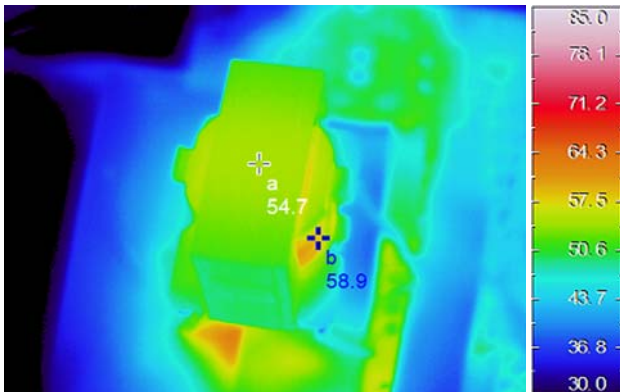
Efficiency



REFERENCE TEMPERATURE

Vin = 90Vac, Vout = 392Vdc, Pout = 150W, Room Temp.

a : Core Surface, b : Coil Surface



Note: The temperature of the PFC choke coil is measured while floating from the board.

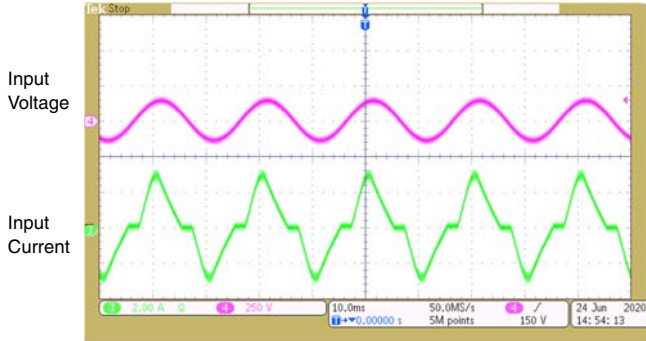
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PFC ER series **PFC3125ER-301K05B-00**

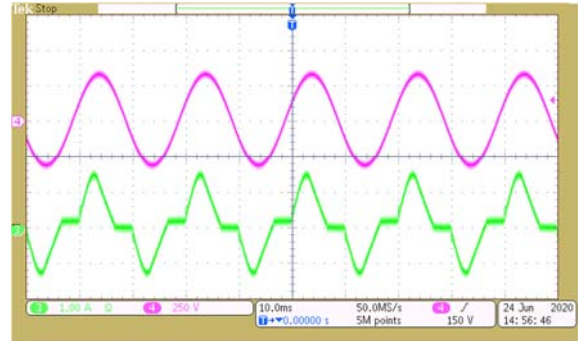
REFERENCE OPERATING WAVEFORM

Input Voltage / Current

Vin=100Vac,Po=150W 2A/div 250V/div 10ms/div

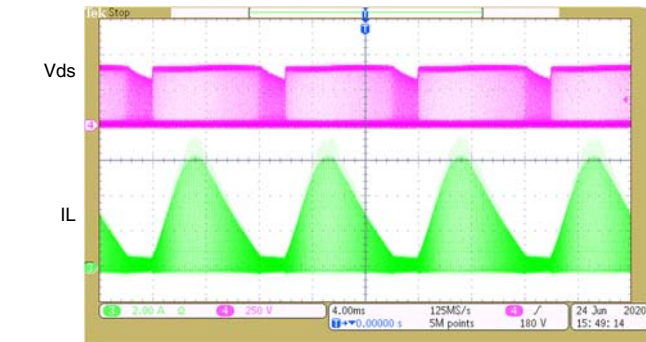


Vin=230Vac,Po=150W 1A/div 250V/div 10ms/div

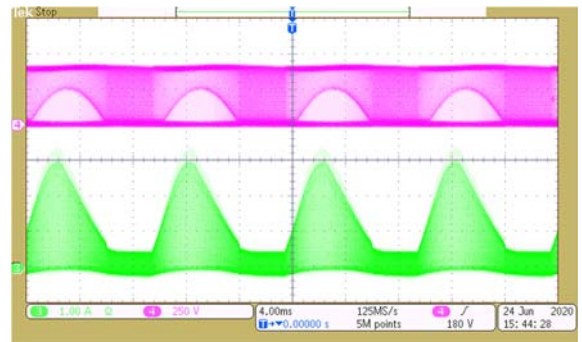


Vds / IL

Vin=100Vac,Po=150W 2A/div 250V/div 4ms/div

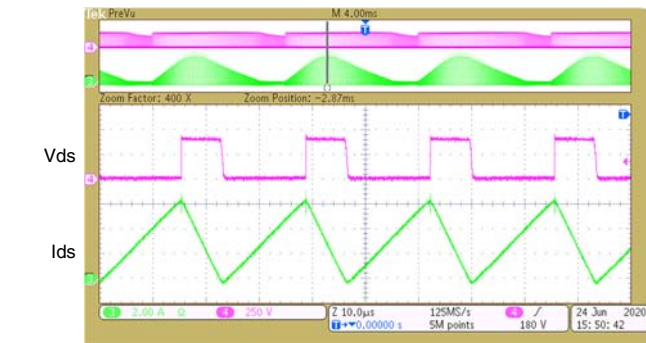


Vin=230Vac,Po=150W 1A/div 250V/div 4ms/div

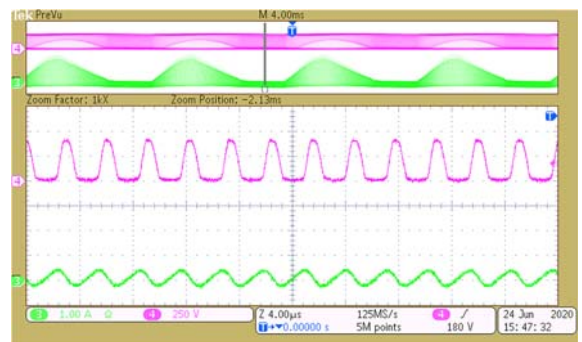
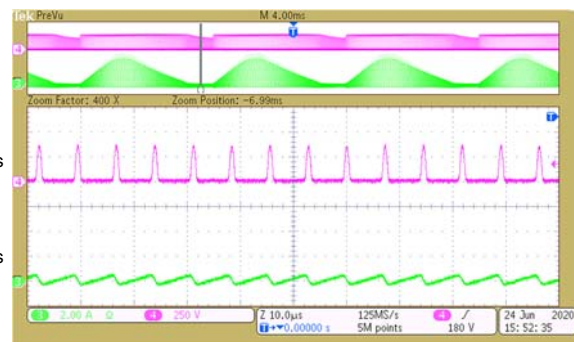
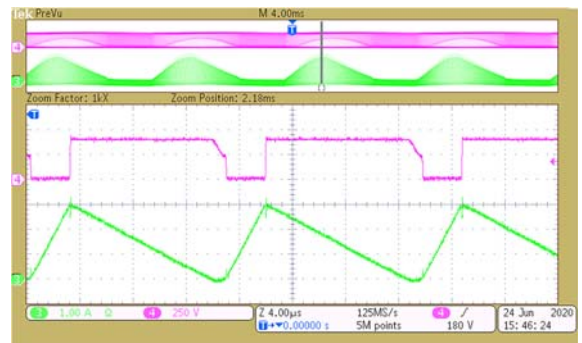


Vds / Ids

Vin=100Vac,Po=150W 2A/div 250V/div 10µs/div



Vin=230Vac,Po=150W 1A/div 250V/div 4µs/div



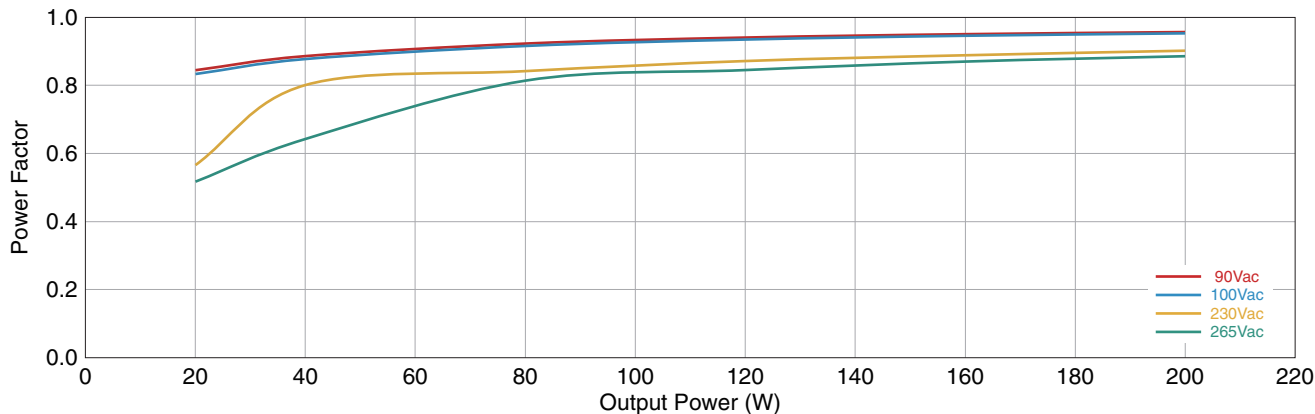
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PFC ER series PFC3125ER-231K06B-00

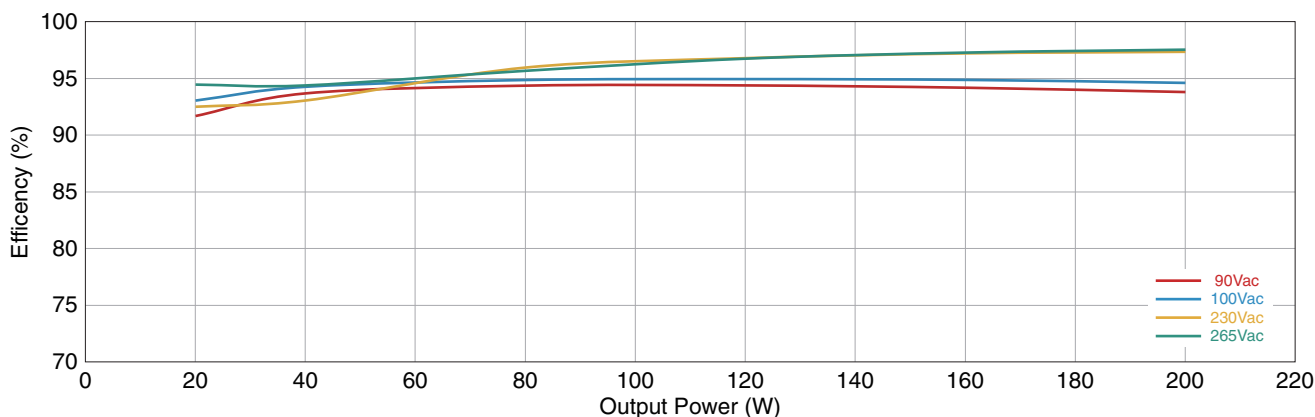
REFERENCE DYNAMIC CHARACTERISTICS

Vout = 392Vdc

Power Factor



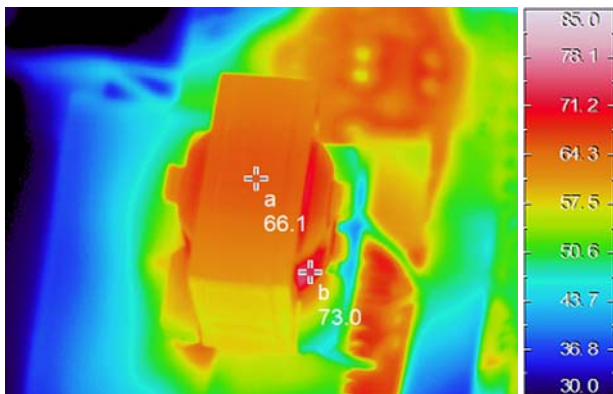
Efficiency




REFERENCE TEMPERATURE

Vin = 90Vac, Vout = 392Vdc, Pout = 200W, Room Temp.

a : Core Surface, b : Coil Surface



Note: The temperature of the PFC choke coil is measured while floating from the board.

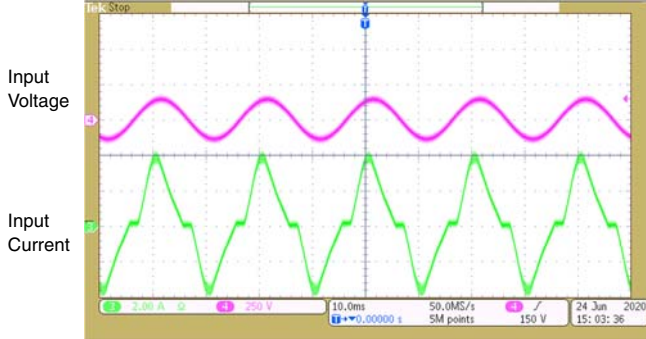
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PFC ER series PFC3125ER-231K06B-00

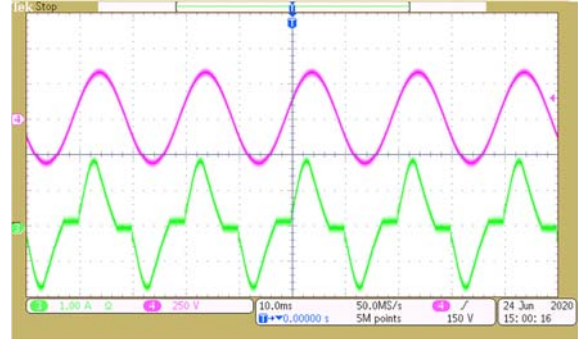
REFERENCE OPERATING WAVEFORM

Input Voltage / Current

Vin=100Vac,Po=200W 2A/div 250V/div 10ms/div

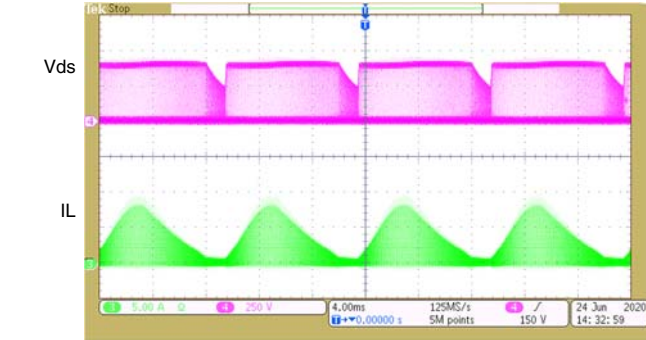


Vin=230Vac,Po=200W 1A/div 250V/div 10ms/div

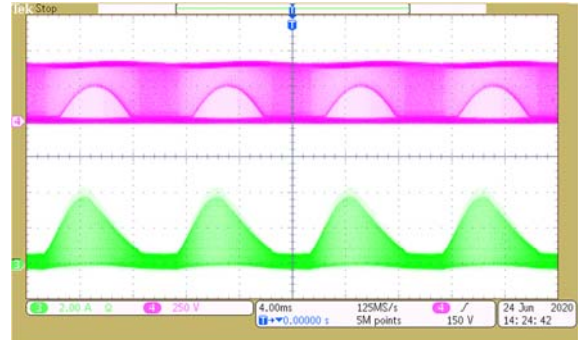


Vds / IL

Vin=100Vac,Po=200W 5A/div 250V/div 4ms/div

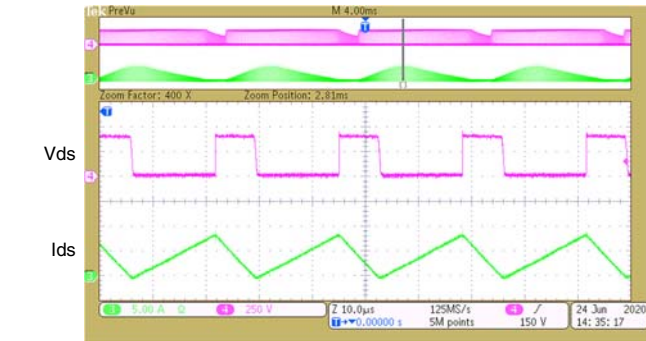


Vin=230Vac,Po=200W 2A/div 250V/div 4ms/div

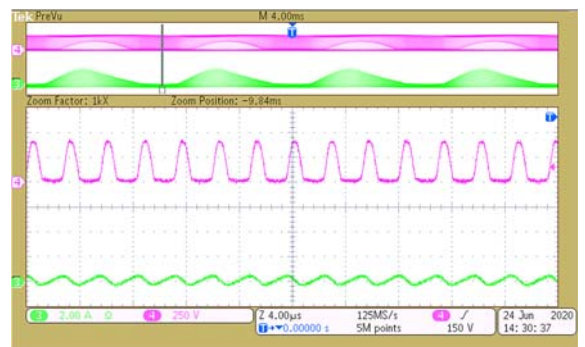
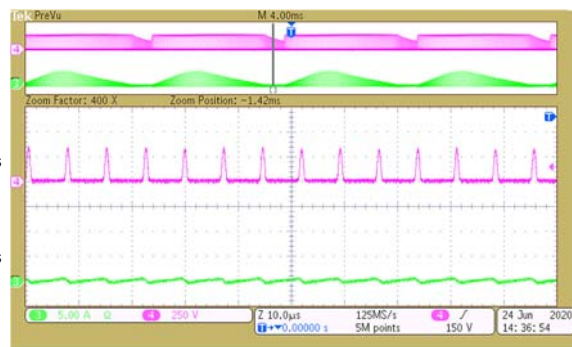
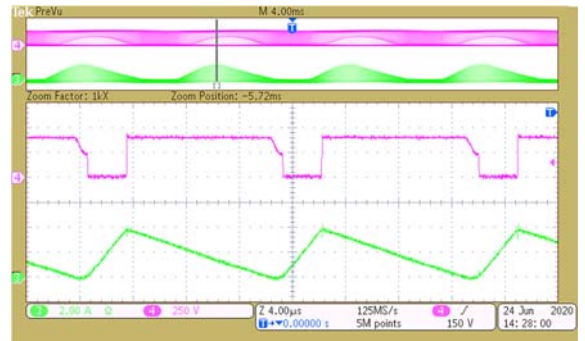



Vds / Ids

Vin=100Vac,Po=200W 5A/div 250V/div 10µs/div



Vin=230Vac,Po=200W 2A/div 250V/div 4µs/div



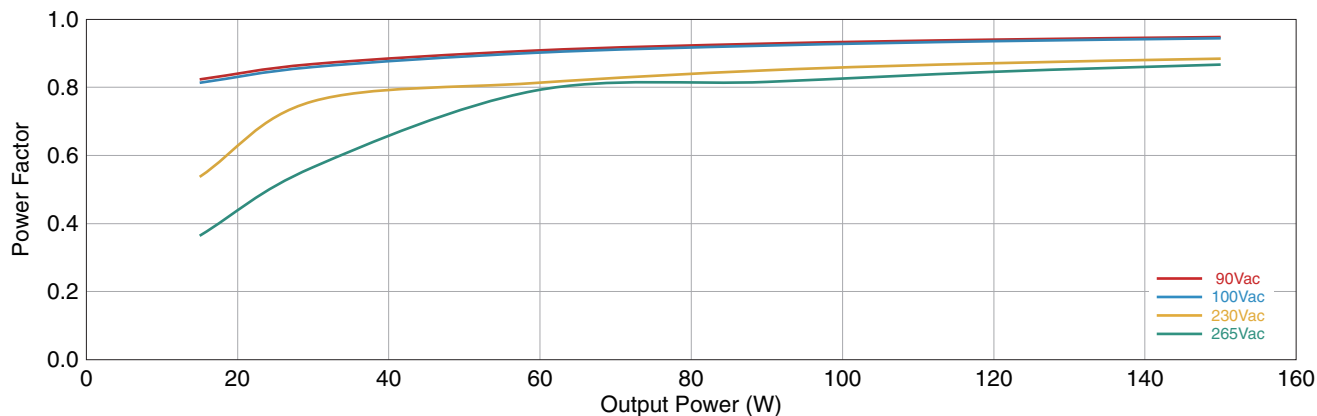
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PFC ER series PFC3525ER-301K04E-00

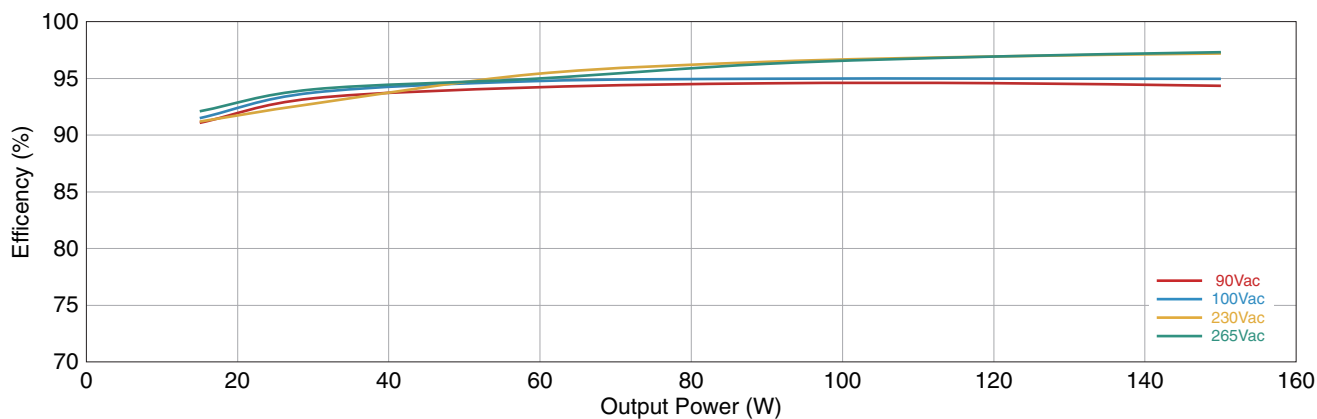
REFERENCE DYNAMIC CHARACTERISTICS

Vout = 392Vdc

Power Factor



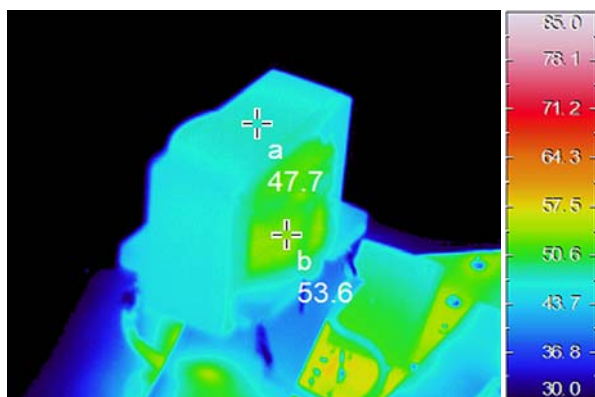
Efficiency




REFERENCE TEMPERATURE

Vin = 90Vac, Vout = 392Vdc, Pout = 150W, Room Temp.

a : Core Surface, b : Coil Surface



Note: The temperature of the PFC choke coil is measured while floating from the board.

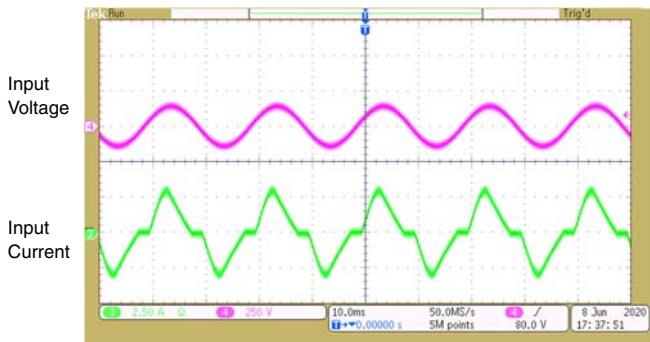
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PFC ER series PFC3525ER-301K04E-00

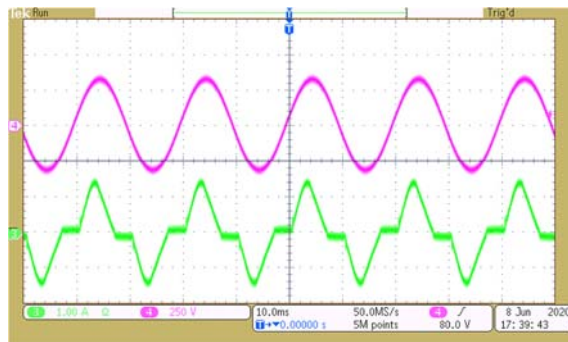
REFERENCE OPERATING WAVEFORM

Input Voltage / Current

Vin=100Vac,Po=150W 2.5A/div 250V/div 10ms/div

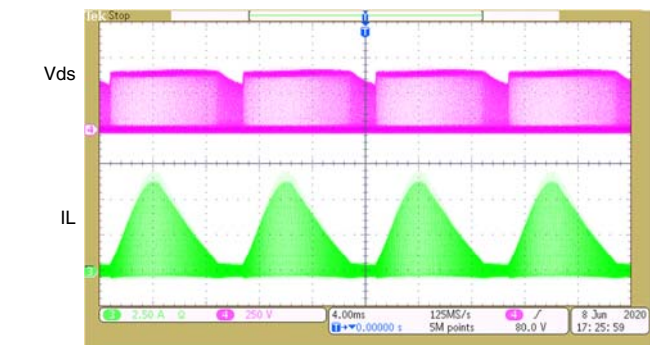


Vin=230Vac,Po=150W 1A/div 250V/div 10ms/div

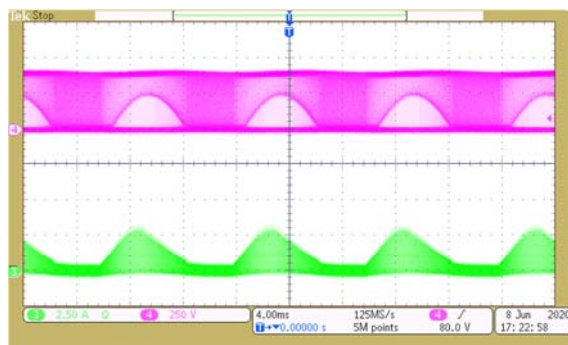


Vds / IL

Vin=100Vac,Po=150W 2.5A/div 250V/div 4ms/div

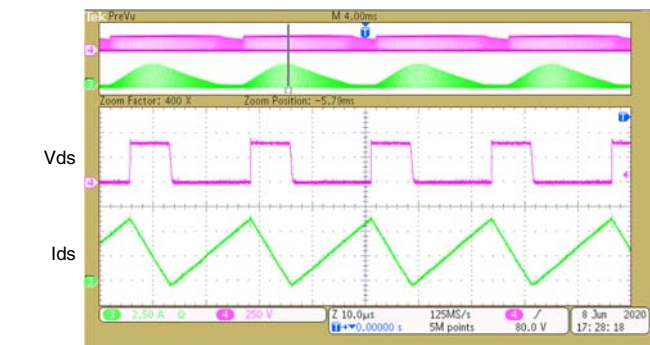


Vin=230Vac,Po=150W 2.5A/div 250V/div 4ms/div

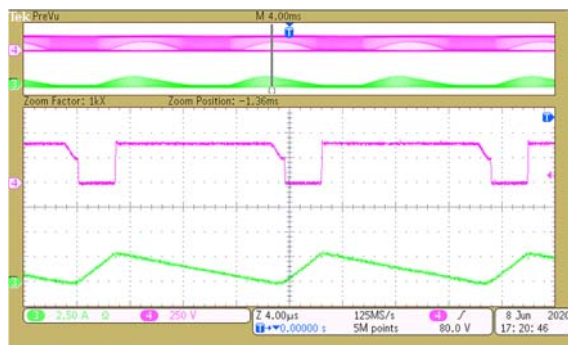


Vds / Ids

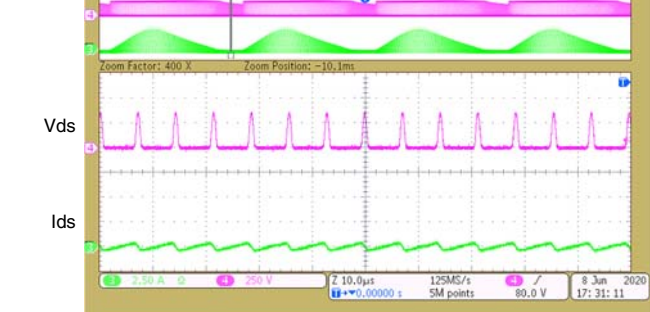
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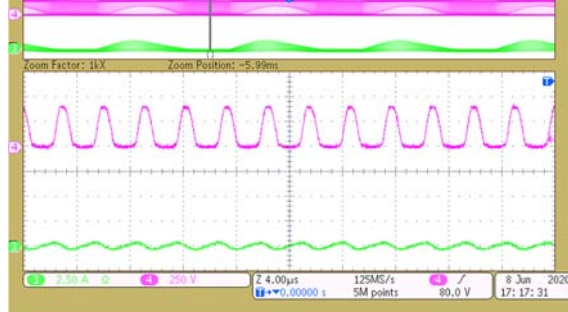
Vin=230Vac,Po=150W 2.5A/div 250V/div 4µs/div



Vin=100Vac,Po=150W 2.5A/div 250V/div 10µs/div



Vin=230Vac,Po=150W 2.5A/div 250V/div 4µs/div



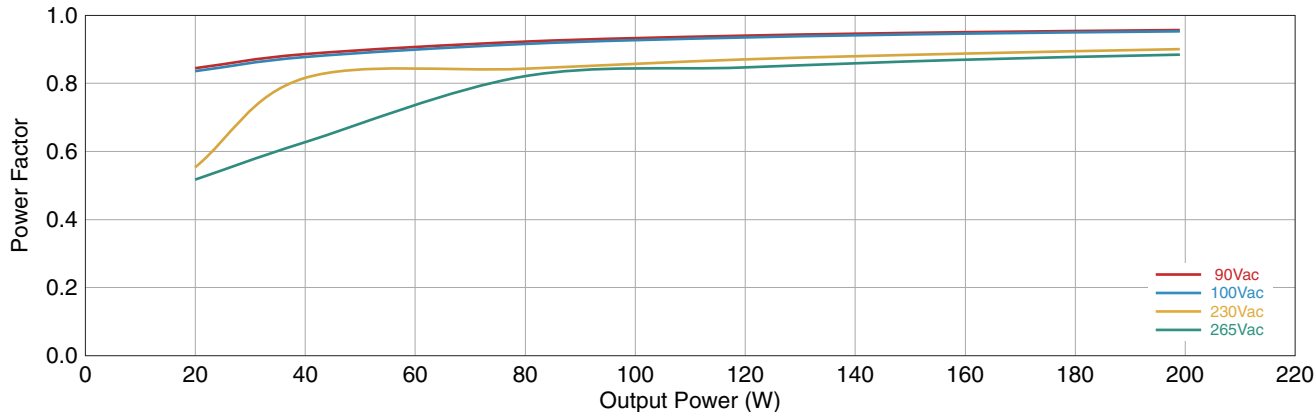
Please be sure to request delivery specifications that provide further details on the features and specifications of the products for proper and safe use. Please note that the contents may change without any prior notice due to reasons such as upgrading.

PFC ER series PFC3525ER-231K06E-00

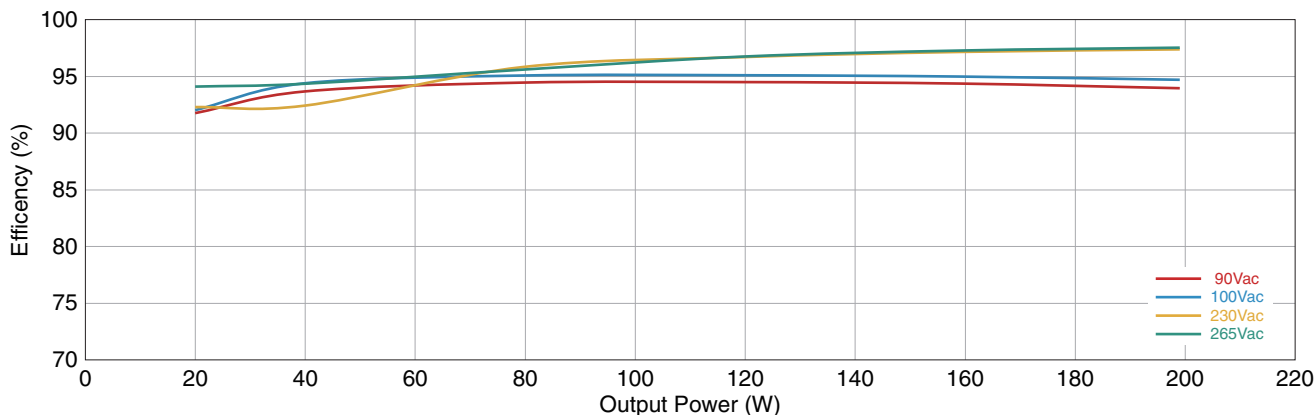
REFERENCE DYNAMIC CHARACTERISTICS

Vout = 392Vdc

Power Factor



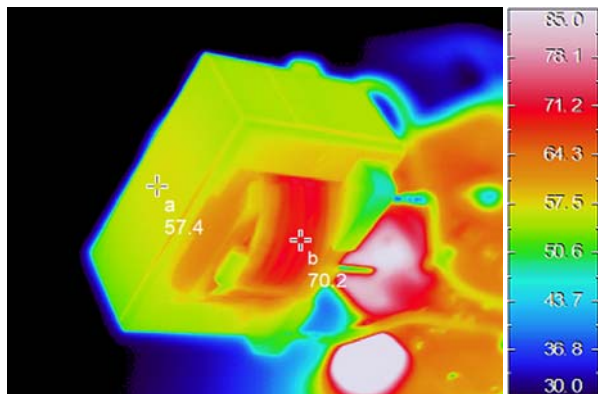
Efficiency




REFERENCE TEMPERATURE

Vin = 90Vac, Vout = 392Vdc, Pout = 200W, Room Temp.

a : Core Surface, b : Coil Surface



Note: The temperature of the PFC choke coil is measured while floating from the board.

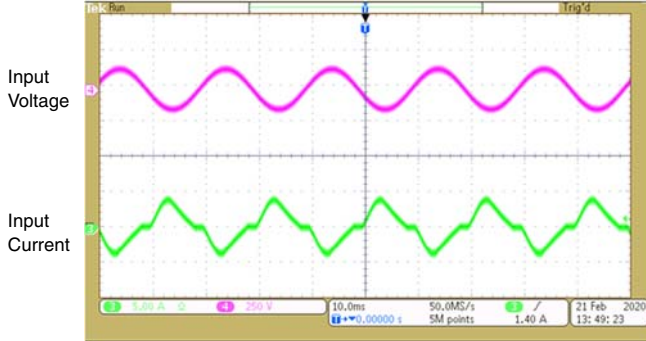
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PFC ER series PFC3525ER-231K06E-00

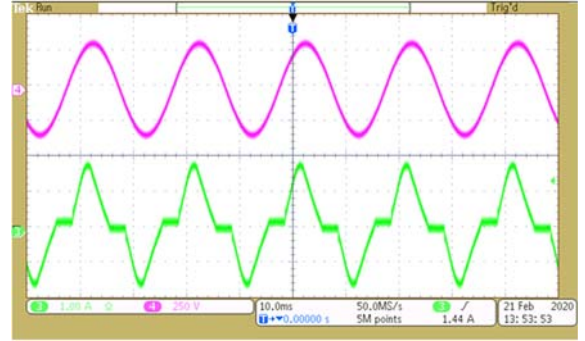
REFERENCE OPERATING WAVEFORM

Input Voltage / Current

Vin=100Vac,Po=200W 5A/div 250V/div 10ms/div

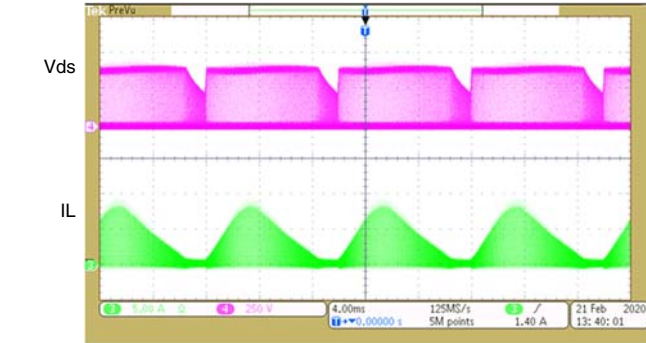


Vin=230Vac,Po=200W 1A/div 250V/div 10ms/div

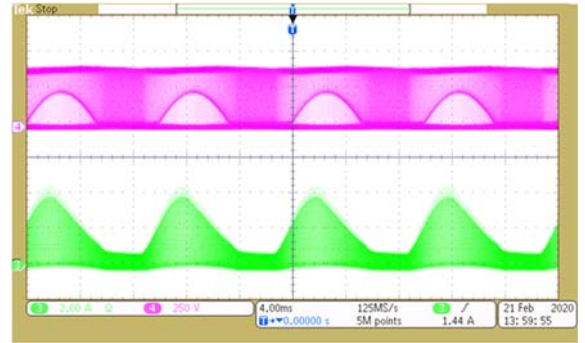


Vds / IL

Vin=100Vac,Po=200W 5A/div 250V/div 4ms/div

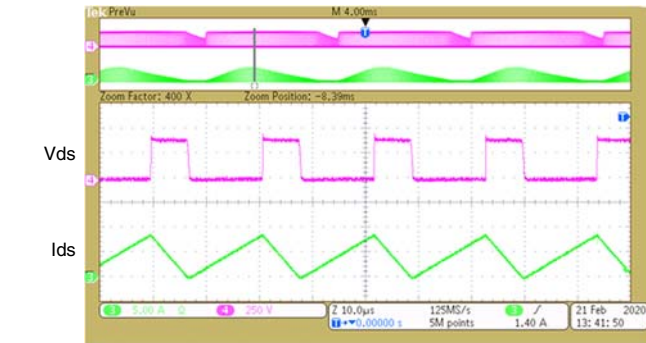


Vin=230Vac,Po=200W 2A/div 250V/div 4ms/div

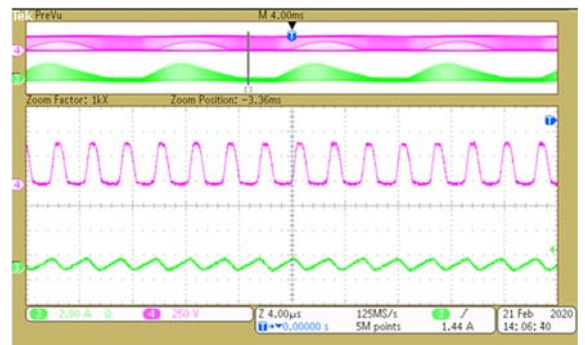
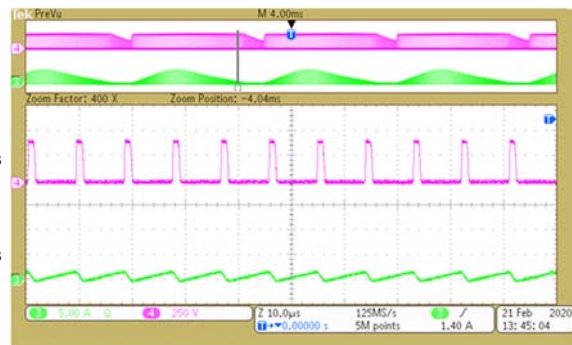
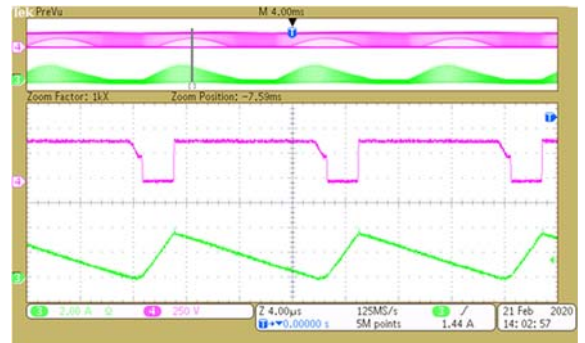



Vds / Ids

Vin=100Vac,Po=200W 5A/div 250V/div 10µs/div



Vin=230Vac,Po=200W 2A/div 250V/div 4µs/div



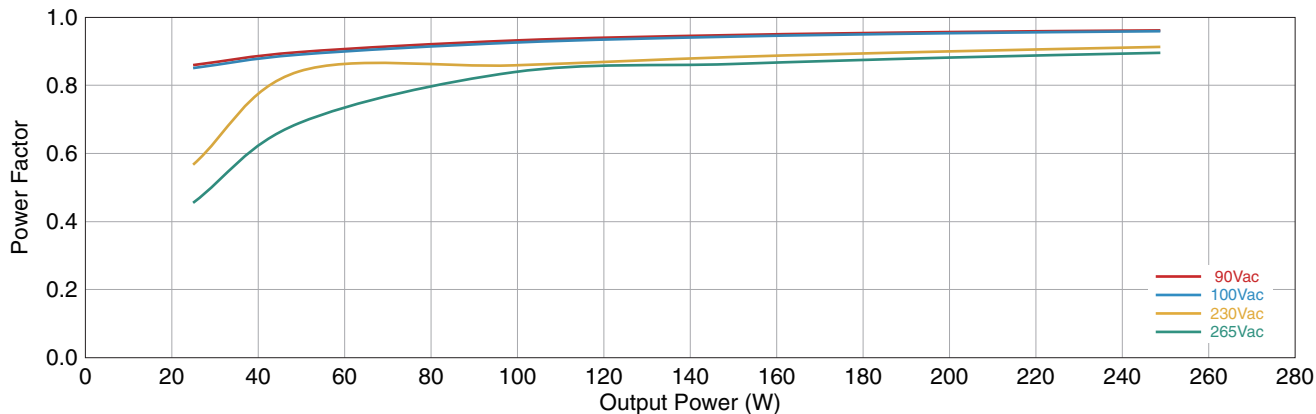
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PFC ER series PFC3525ER-181K09B-00

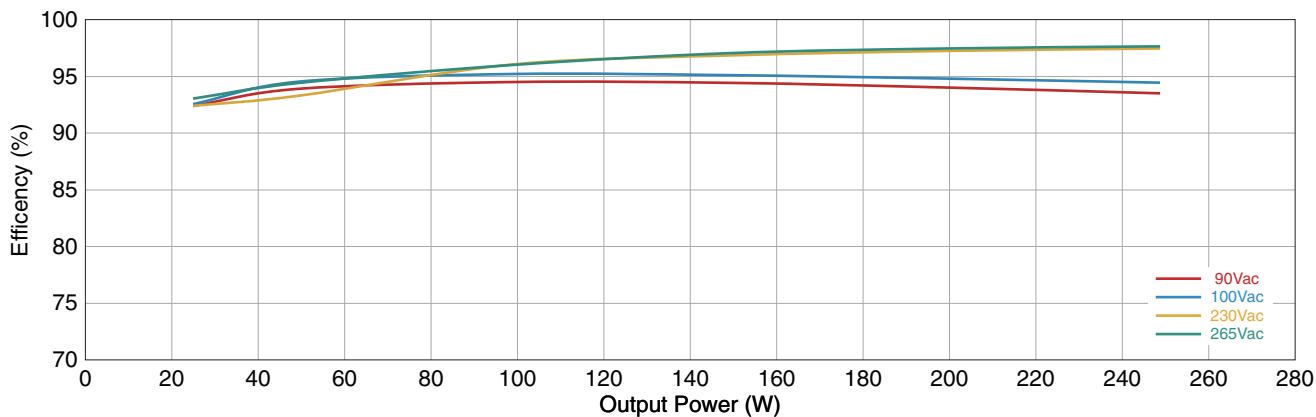
REFERENCE DYNAMIC CHARACTERISTICS

Vout = 392Vdc

Power Factor



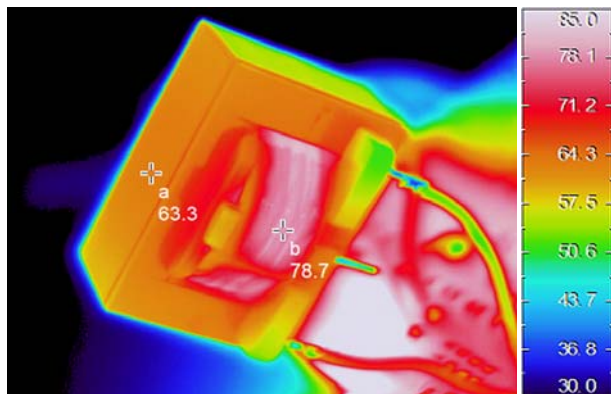
Efficiency




REFERENCE TEMPERATURE

Vin = 90Vac, Vout = 392Vdc, Pout = 250W, Room Temp.

a : Core Surface, b : Coil Surface



Note: The temperature of the PFC choke coil is measured while floating from the board.

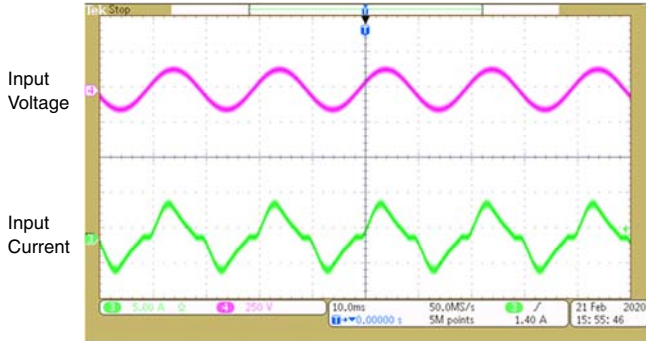
 Please be sure to request delivery specifications that provide further details on the features and specifications of the products for proper and safe use. Please note that the contents may change without any prior notice due to reasons such as upgrading.

PFC ER series **PFC3525ER-181K09B-00**

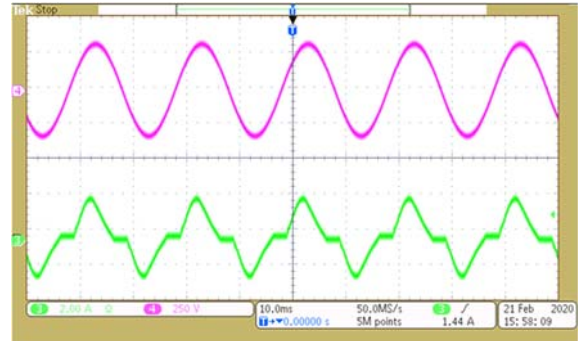
REFERENCE OPERATING WAVEFORM

Input Voltage / Current

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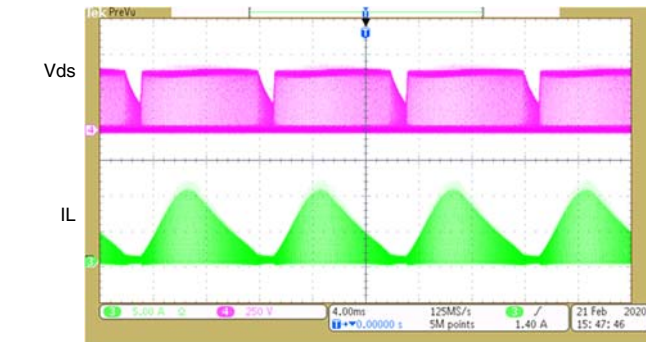


Vin=230Vac,Po=250W 2A/div 250V/div 10ms/div

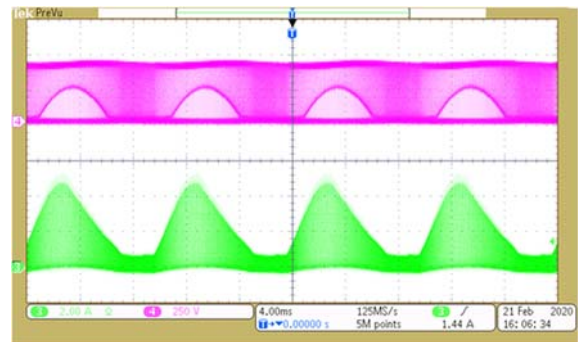


Vds / IL

Vin=100Vac,Po=250W 5A/div 250V/div 4ms/div

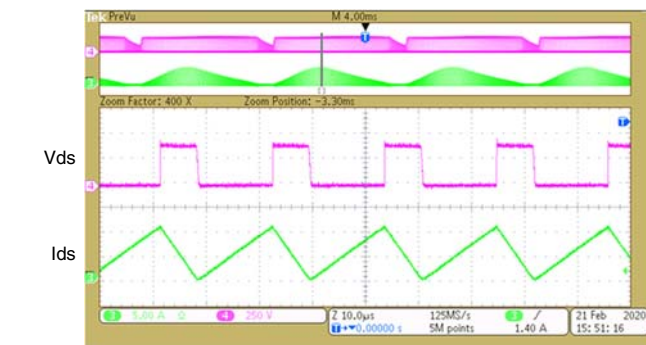


Vin=230Vac,Po=250W 2A/div 250V/div 4ms/div

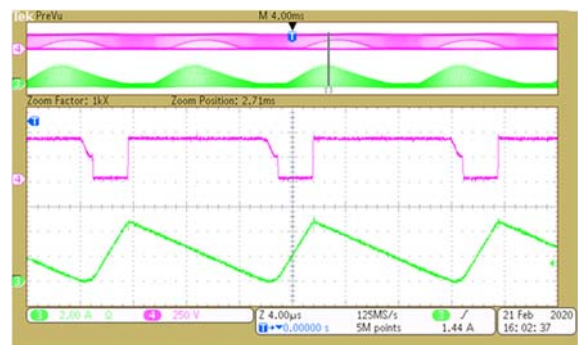


Vds / Ids

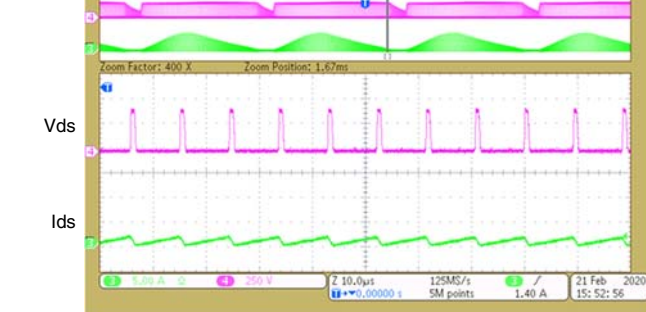
Vin=100Vac,Po=250W 5A/div 250V/div 10µs/div



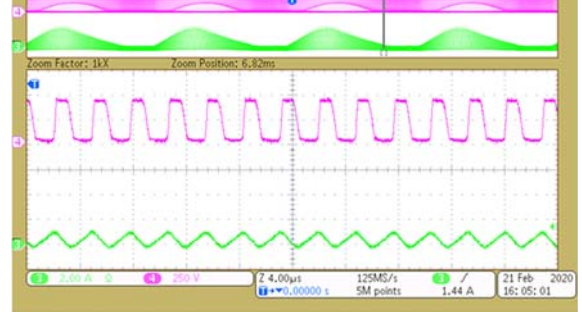
Vin=230Vac,Po=250W 2A/div 250V/div 4µs/div



Vin=100Vac,Po=250W 5A/div 250V/div 10µs/div



Vin=230Vac,Po=250W 2A/div 250V/div 4µs/div



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