

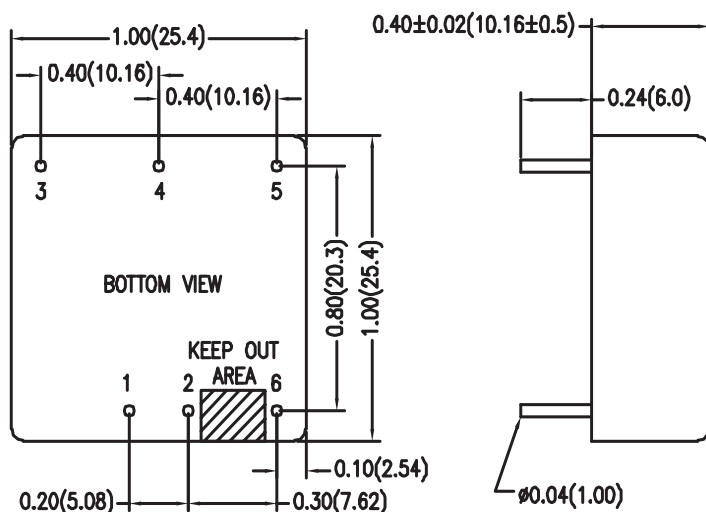
25 Watt QMZ Single and Dual Series



- Efficiency up to 90%
- 1500 VDC Isolation
- 4:1 Ultra Wide Input Range
- Remote On/Off Control
- No Minimum Load Requirement
- Six Sided Shielding
- Trim
- RoHS Compliant
- CSA Approved



Model Number	Voltage			Current			Reflected Ripple Current	Over Voltage Protection	Efficiency	Capacitive Load
	Input		Output	Input		Output				
	Nom. (VDC)	Range (VDC)	(VDC)	@ No Load (mA)	@ Max Load (mA)	Max (mA)	mA (Typ)	VDC	@ Max Load (%, Typ)	Max (Dual each output)
QMZ20H24S3	24	9 - 36	3.3	85	950	6000	50	3.9	87	10300
QMZ25H24S5	24	9 - 36	5	85	1170	5000	50	6.2	89	6800
QMZ25H24S12	24	9 - 36	12	85	1175	2090	50	15	89	1200
QMZ25H24S15	24	9 - 36	15	85	1160	1670	50	18	90	750
QMZ25H24D12	24	9 - 36	±12	85	1170	±1040	50	±15	89	680
QMZ25H24D15	24	9 - 36	±15	85	1180	±840	50	±18	89	380
QMZ20H48S3	48	18 - 75	3.3	45	470	6000	30	3.9	88	10300
QMZ25H48S5	48	18 - 75	5	45	580	5000	30	6.2	90	6800
QMZ25H48S12	48	18 - 75	12	45	580	2090	30	15	90	1200
QMZ25H48S15	48	18 - 75	15	45	580	1670	30	18	90	750
QMZ25H48D12	48	18 - 75	±12	45	585	±1040	30	±15	89	680
QMZ25H48D15	48	18 - 75	±15	45	590	±840	30	±18	89	380



Dimensions are inches (mm) unless noted

Tolerance: Inches	Millimeters
X.XX ±0.02	X.X ±0.5
X.XXX ±0.01	X.XX ±0.25
Pin ±0.002	±0.05

Pin Connections		
Pin	Single	Dual
1	+Vin	+Vin
2	-Vin	-Vin
3	+Vout	+Vout
4	Trim	Common
5	-Vout	-Vout
6	Remote On/Off	Remote On/Off

Keep out area: Keep copper traces in mating assembly away from this area to prevent shorting.

See Model Selection Table for Model Specific Parameters

Input Parameters	Min	Typ	Max	Units
Input Surge Voltage (100mS max) 24 Vin 48 Vin	-0.7 -0.7		50 100	VDC
Start-up Threshold Voltage 24 Vin 48 Vin			9 18	VDC
Switching Frequency		285		kHz
Start Time (Nom Vin and constant resistive load) Power Up Remote ON/OFF			30 30	ms
Input Filter	Internal LC Filter			
Conducted EMI	Meets EN55022, FCC part 15 Class A, Class B			
Output Parameters	Min	Typ	Max	Units
Output Voltage Accuracy			±1.0	%Vnom
Output Voltage Balance Dual Output, Balanced Loads			±2.0	%
Load Regulation Single Dual Io=0% to 100%			±0.2 ±1.0	%
Line Regulation Vin=Min. to Max.			±0.2	%
Cross Regulation (Dual) Asymmetrical load 25%/100% FL			±5.0	%
Ripple & Noise (0-20MHz) 3.3 & 5 V All other models			100 150	mV P-P
Transient Recovery Time 25% Load Step Change		250		µs
Transient Response Deviation 25% Load Step Change		±3	±5	%
Temperature Coefficient			±0.02	% / °C
Minimum Load	No Minimum Load Requirement			
Over Current Protection	150% of Iout Max.			
Short Circuit Protection	Hiccup 0.6Hz Typ. Automatic Recovery			
Remote On Off	Min	Typ	Max	Units
DC/DC On	3.5V-12VDC or Open Circuit			
DC/DC Off	0v -1.2VDC or Short Circuit			
Control Input Current (on) Vctrl = 5.0V			0.5	mA
Control Input Current (off) Vctrl = 0V			-0.5	mA
Control Common	Referenced to Negative Input			
Standby Input Current Supply Off & Nominal Vin		3		mA
Output Voltage Trim	Min	Typ	Max	Units
Trim Up / Trim Down (7)	±10			%

General Specifications	Min	Typ	Max	Units
Isolation Voltage, 60 seconds	1500			VDC
Isolation Resistance 500VDC	1000			Mohms
Isolation Capacitance, 100kHz, 1V			2000	pF
Operating Temperature (Ambient)	-40		+80	°C
Operating Temperature (Case)			+105	°C
Storage Temperature	-50		+125	°C
Humidity			95	%
Thermal Impedance Natural Convection w/o heatsink Natural Convection with heatsink	17.6 14.8			°C/W
MTBF MIL-HDBK-217F @25°C, Ground Benign	444			K Hours
Cooling	Natural Convection			
Case Size	1.0 x 1.0x 0.4 inches 25.4 x 25.4 x 10.16 mm			
Case Material	Six-Sided shielded, Metal Case UL94-V0			
Weight	16.5g			
Agency Approvals (Pending)	CSA 60950-1			

Notes:

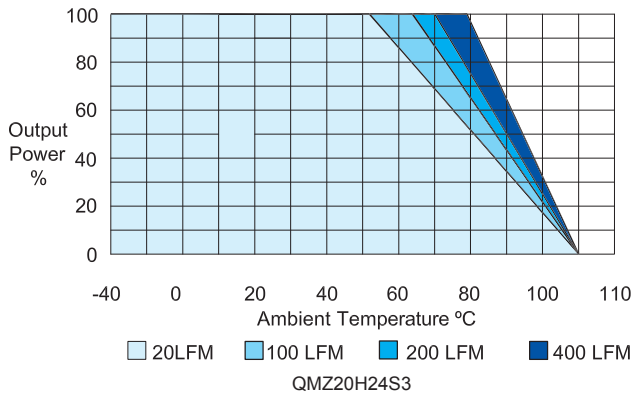
- Specifications typical at Ta=+25°C, resistive load, nominal input voltage, full rated output current unless otherwise noted.
- Ripple & Noise measurement bandwidth is 20MHz.
- Transient recovery time is measured to within 1% error band for a step change in output load 75% to 100%.
- Water washability - ConTech DC/DC converters are designed to withstand most solder/wash processes. Careful attention should be used when assessing the applicability in your specific manufacturing process. Converters are not hermetically sealed.
- See ConTech website for Definition of Terms, Application Notes, and Test Setups and Parameters. www.ConTech-us.com/appnotes.html.
- Specifications subject to change without notice.
- Output voltage trimming must use resistive components only. Applying external voltage to the trim pin can damage unit.
- See ConTech website www.ConTech-us.com/pdf/rohs.pdf for RoHS Statement.

Derating Curves

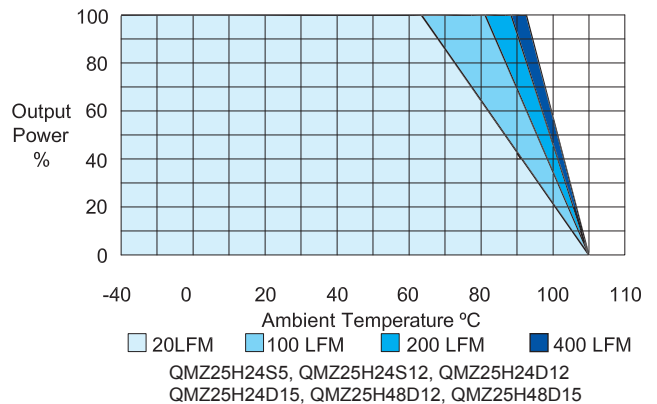
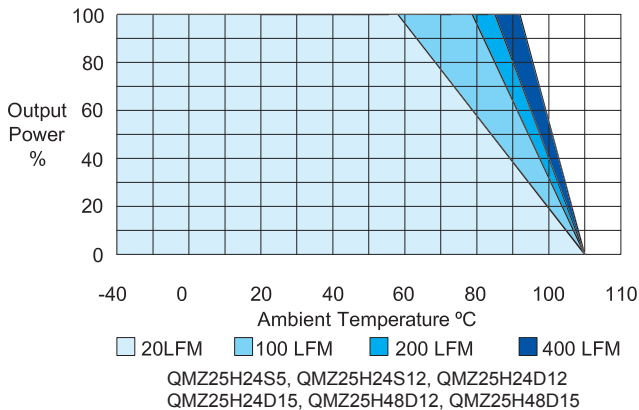
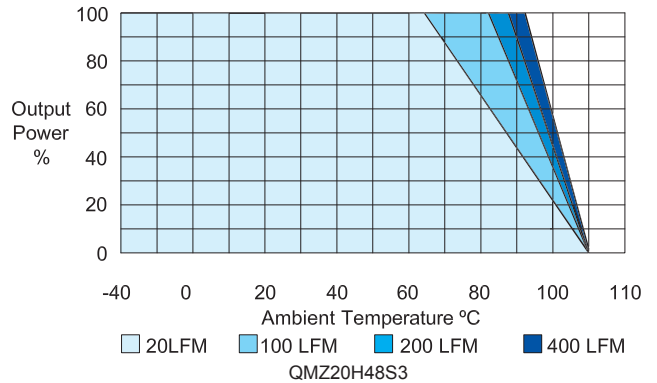
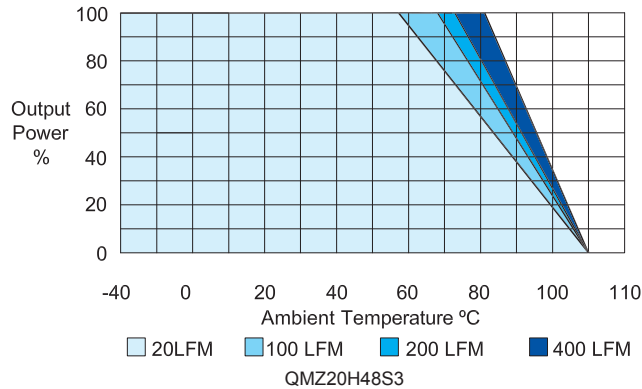
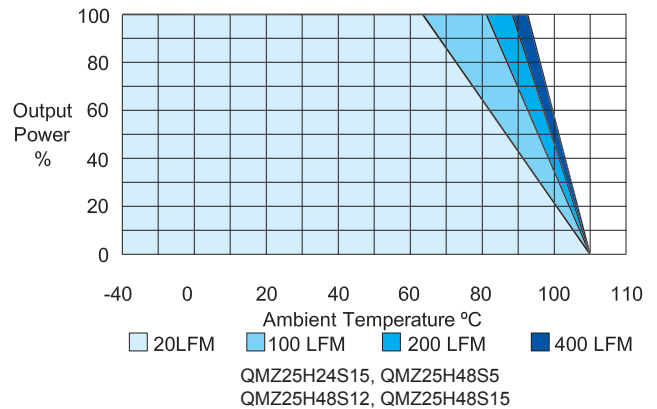
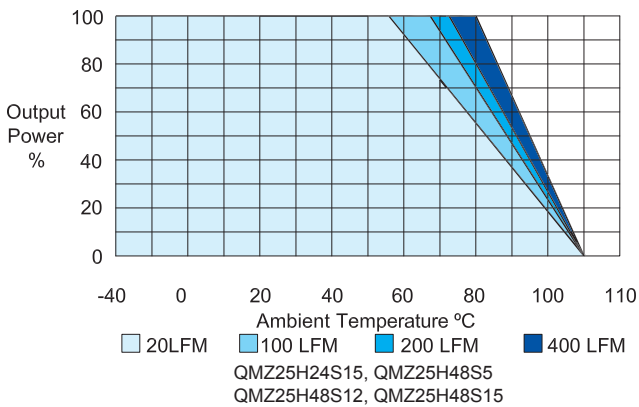
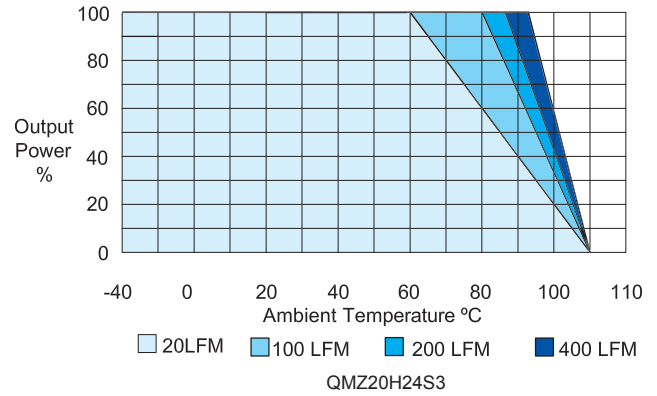
To avoid exceeding the maximum temperature rating of the components inside the power module, the case temperature must be kept below 105°C.

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WITHOUT HEATSINK



WITH HEATSINK



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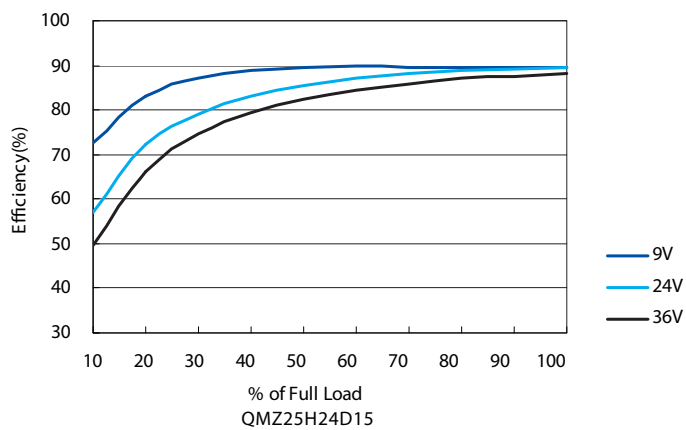
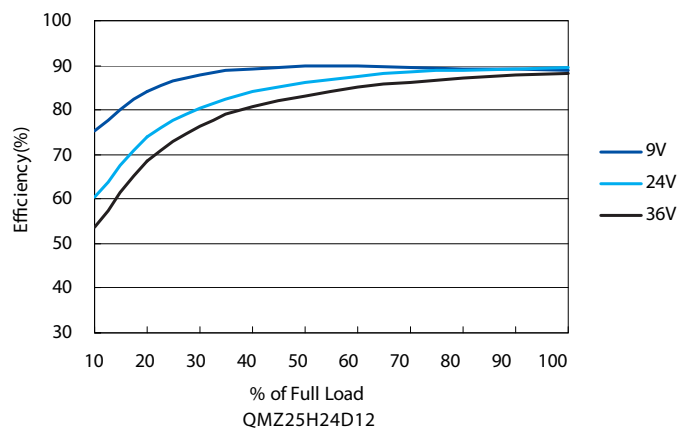
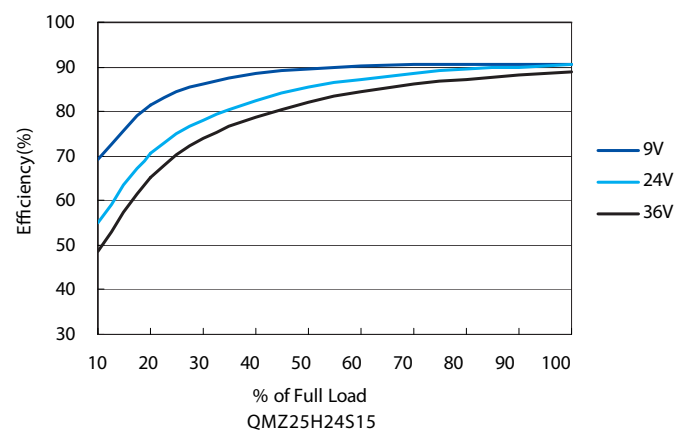
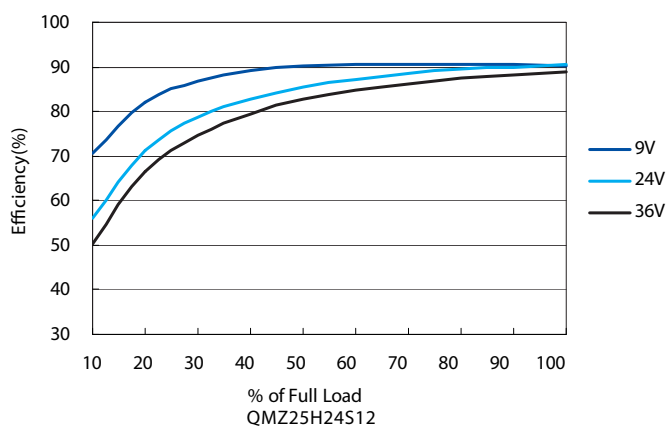
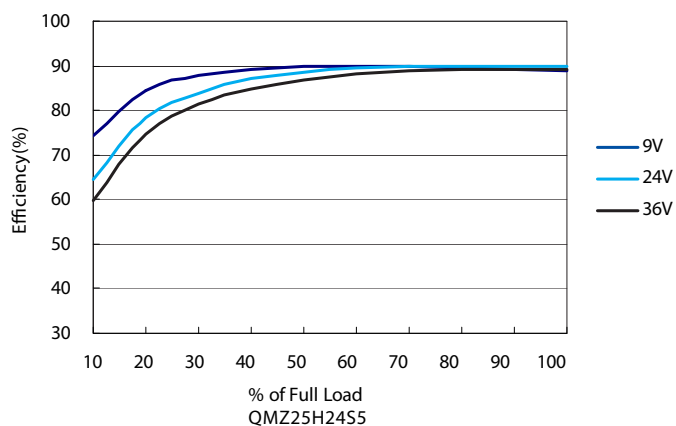
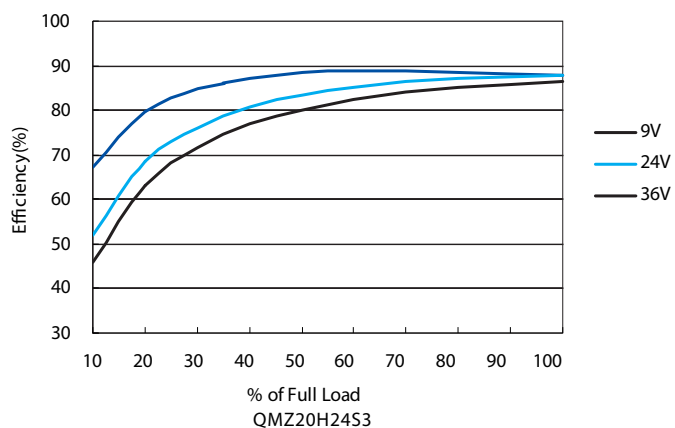
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Efficiency Curves - Typical @25°C

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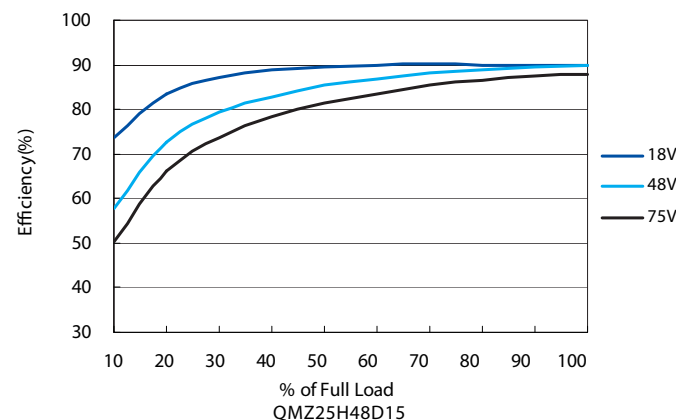
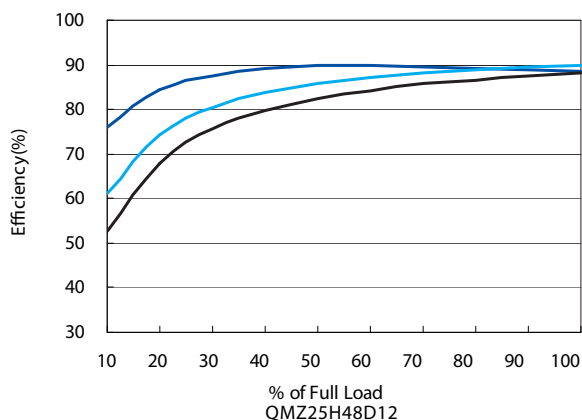
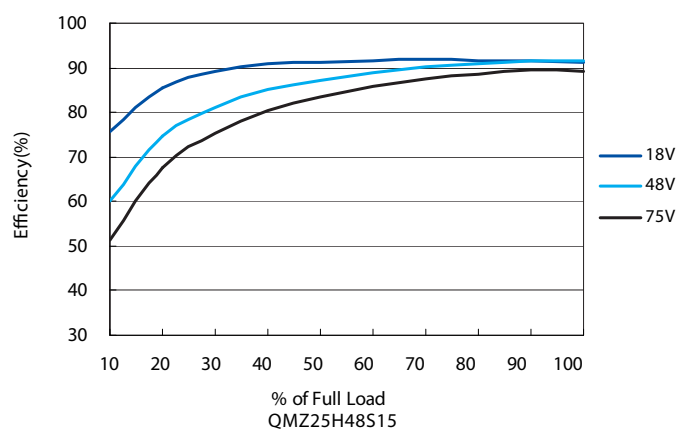
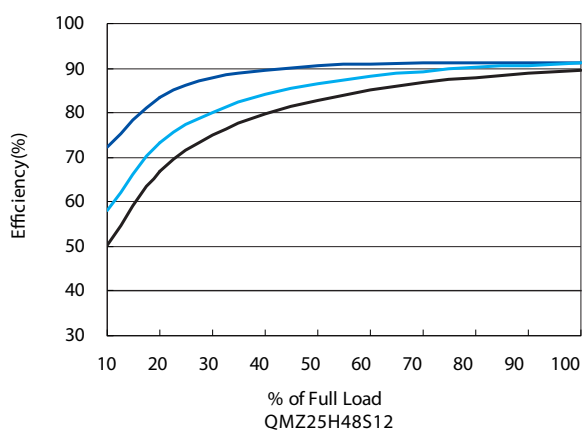
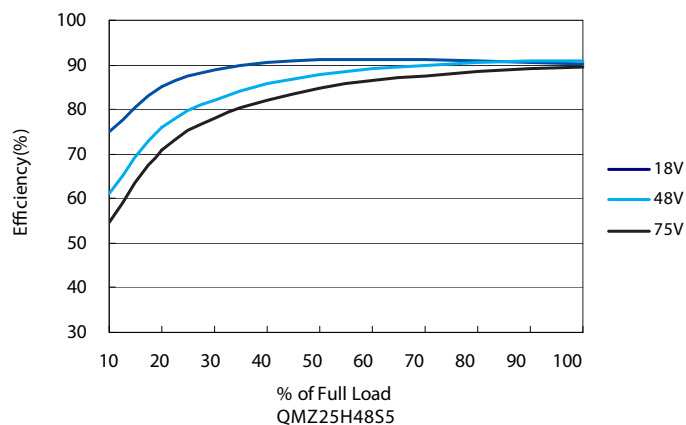
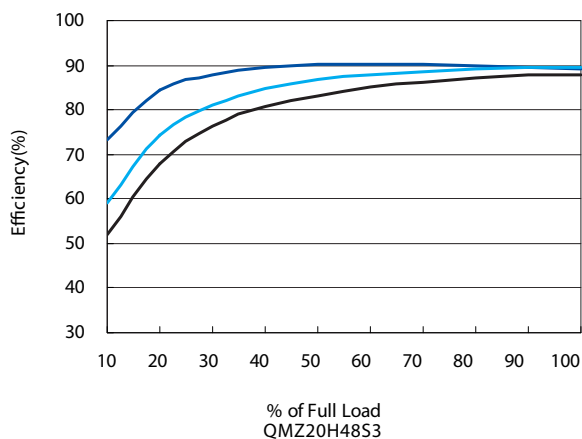
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