BDA Model: GUARDIAN-A

BDA Specifications	
BDA Power Consumption =	80W

Compatible BBU Specifications:

TQ-BBU (24 Volt)		
BBU Charger Efficiency =	88%	(12% Dissipated as Heat)
Power Dissipation=	5.6W	

PE-24V-240-55AH-UL2524		
BBU Charger Efficiency =	91%	(9% Dissipated as Heat)
Power Dissipation=	28.0W	

PE-24V-240-100AH-UL2524		
BBU Charger Efficiency =	91%	(9% Dissipated as Heat)
Power Dissipation=	28.0W	

Heat Load Calculations (BDA+BBU):

Battery Backup Unit:	TQ-BBU (24 Volt)
Heat Load (BTU/hr) =	*BBU Heat Load (W) + BDA Heat Load (W)*
Heat Load (BTU/hr) =	*(BBU Power Dissipation (W) x 3.412 BTU/hr) + (BDA Power (W) x 3.412 BTU/hr)*
Heat Load (BTU/hr) =	*(5.6W x 3.412 BTU/hr) + (80W x 3.412 BTU/hr)*
Heat Load (BTU/hr) =	*19.107 BTU/hr + 272.96 BTU/hr*
Heat Load (BTU/hr) =	*292.067 BTU/hr*

Battery Backup Unit:	PE-24V-240-55AH-UL2524
Heat Load (BTU/hr) =	*BBU Heat Load (W) + BDA Heat Load (W)*
Heat Load (BTU/hr) =	*(BBU Power Dissipation (W) x 3.412 BTU/hr) + (BDA Power (W) x 3.412 BTU/hr)*
Heat Load (BTU/hr) =	*(28W x 3.412 BTU/hr) + (80W x 3.412 BTU/hr)*
Heat Load (BTU/hr) =	*95.536 BTU/hr + 272.96 BTU/hr*
Heat Load (BTU/hr) =	*368.496 BTU/hr*

Battery Backup Unit:	PE-24V-240-100AH-UL2524
Heat Load (BTU/hr) =	*BBU Heat Load (W) + BDA Heat Load (W)*
Heat Load (BTU/hr) =	*(BBU Power Dissipation (W) x 3.412 BTU/hr) + (BDA Power (W) x 3.412 BTU/hr)*
Heat Load (BTU/hr) =	*(28W x 3.412 BTU/hr) + (80W x 3.412 BTU/hr)*
Heat Load (BTU/hr) =	*95.536 BTU/hr + 272.96 BTU/hr*
Heat Load (BTU/hr) =	*368.496 BTU/hr*

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BDA Model: GUARDIAN-B-27

BDA Specifications	
BDA Power Consumption =	60W

Compatible BBU Specifications:

TQ-BBU (24 Volt)		
BBU Charger Efficiency =	88%	(12% Dissipated as Heat)
Power Dissipation=	5.6W	

PE-24V-240-55AH-UL2524		
BBU Charger Efficiency =	91%	(9% Dissipated as Heat)
Power Dissipation=	28.0W	

PE-24V-240-100AH-UL2524		
BBU Charger Efficiency =	91%	(9% Dissipated as Heat)
Power Dissipation=	28.0W	

Heat Load Calculations (BDA+BBU):

Battery Backup Unit: TQ-BBU (24 Volt)	
Heat Load (BTU/hr) =	*BBU Heat Load (W) + BDA Heat Load (W)*
Heat Load (BTU/hr) =	*(BBU Power Dissipation (W) x 3.412 BTU/hr) + (BDA Power (W) x 3.412 BTU/hr)*
Heat Load (BTU/hr) =	*(5.6W x 3.412 BTU/hr) + (60W x 3.412 BTU/hr)*
Heat Load (BTU/hr) =	*19.107 BTU/hr + 204.72 BTU/hr*
Heat Load (BTU/hr) =	*223.827 BTU/hr*

Battery Backup Unit: PE-24V-240-55AH-UL2524	
Heat Load (BTU/hr) =	*BBU Heat Load (W) + BDA Heat Load (W)*
Heat Load (BTU/hr) =	*(BBU Power Dissipation (W) x 3.412 BTU/hr) + (BDA Power (W) x 3.412 BTU/hr)*
Heat Load (BTU/hr) =	*(28W x 3.412 BTU/hr) + (60W x 3.412 BTU/hr)*
Heat Load (BTU/hr) =	*95.536 BTU/hr + 204.72 BTU/hr*
Heat Load (BTU/hr) =	*300.256 BTU/hr*

Battery Backup Unit: PE-24V-240-100AH-UL2524	
Heat Load (BTU/hr) =	*BBU Heat Load (W) + BDA Heat Load (W)*
Heat Load (BTU/hr) =	*(BBU Power Dissipation (W) x 3.412 BTU/hr) + (BDA Power (W) x 3.412 BTU/hr)*
Heat Load (BTU/hr) =	*(28W x 3.412 BTU/hr) + (60W x 3.412 BTU/hr)*
Heat Load (BTU/hr) =	*95.536 BTU/hr + 204.72 BTU/hr*
Heat Load (BTU/hr) =	*300.256 BTU/hr*

BDA Model: GUARDIAN-B-33

BDA Specifications	
BDA Power Consumption =	60W

Compatible BBU Specifications:

TQ-BBU (24 Volt)		
BBU Charger Efficiency =	88%	(12% Dissipated as Heat)
Power Dissipation=	5.6W	

PE-24V-240-55AH-UL2524		
BBU Charger Efficiency =	91%	(9% Dissipated as Heat)
Power Dissipation=	28.0W	

PE-24V-240-100AH-UL2524		
BBU Charger Efficiency =	91%	(9% Dissipated as Heat)
Power Dissipation=	28.0W	

Heat Load Calculations (BDA+BBU):

Battery Backup Unit: TQ-BBU (24 Volt)	
Heat Load (BTU/hr) =	*BBU Heat Load (W) + BDA Heat Load (W)*
Heat Load (BTU/hr) =	*(BBU Power Dissipation (W) x 3.412 BTU/hr) + (BDA Power (W) x 3.412 BTU/hr)*
Heat Load (BTU/hr) =	*(5.6W x 3.412 BTU/hr) + (60W x 3.412 BTU/hr)*
Heat Load (BTU/hr) =	*19.107 BTU/hr + 204.72 BTU/hr*
Heat Load (BTU/hr) =	*223.827 BTU/hr*

Battery Backup Unit: PE-24V-240-55AH-UL2524	
Heat Load (BTU/hr) =	*BBU Heat Load (W) + BDA Heat Load (W)*
Heat Load (BTU/hr) =	*(BBU Power Dissipation (W) x 3.412 BTU/hr) + (BDA Power (W) x 3.412 BTU/hr)*
Heat Load (BTU/hr) =	*(28W x 3.412 BTU/hr) + (60W x 3.412 BTU/hr)*
Heat Load (BTU/hr) =	*95.536 BTU/hr + 204.72 BTU/hr*
Heat Load (BTU/hr) =	*300.256 BTU/hr*

Battery Backup Unit: PE-24V-240-100AH-UL2524	
Heat Load (BTU/hr) =	*BBU Heat Load (W) + BDA Heat Load (W)*
Heat Load (BTU/hr) =	*(BBU Power Dissipation (W) x 3.412 BTU/hr) + (BDA Power (W) x 3.412 BTU/hr)*
Heat Load (BTU/hr) =	*(28W x 3.412 BTU/hr) + (60W x 3.412 BTU/hr)*
Heat Load (BTU/hr) =	*95.536 BTU/hr + 204.72 BTU/hr*
Heat Load (BTU/hr) =	*300.256 BTU/hr*

BDA Model: GUARDIAN-UHF

BDA Specifications	
BDA Power Consumption =	90W

Compatible BBU Specifications:

TQ-BBU (24 Volt)		
BBU Charger Efficiency =	88%	(12% Dissipated as Heat)
Power Dissipation=	5.6W	

PE-24V-240-55AH-UL2524		
BBU Charger Efficiency =	91%	(9% Dissipated as Heat)
Power Dissipation=	28.0W	

PE-24V-240-100AH-UL2524		
BBU Charger Efficiency =	91%	(9% Dissipated as Heat)
Power Dissipation=	28.0W	

Heat Load Calculations (BDA+BBU):

Battery Backup Unit: TQ-BBU (24 Volt)	
Heat Load (BTU/hr) =	*BBU Heat Load (W) + BDA Heat Load (W)*
Heat Load (BTU/hr) =	*(BBU Power Dissipation (W) x 3.412 BTU/hr) + (BDA Power (W) x 3.412 BTU/hr)*
Heat Load (BTU/hr) =	*(5.6W x 3.412 BTU/hr) + (90W x 3.412 BTU/hr)*
Heat Load (BTU/hr) =	*19.107 BTU/hr + 307.08 BTU/hr*
Heat Load (BTU/hr) =	*326.187 BTU/hr*

Battery Backup Unit: PE-24V-240-55AH-UL2524	
Heat Load (BTU/hr) =	*BBU Heat Load (W) + BDA Heat Load (W)*
Heat Load (BTU/hr) =	*(BBU Power Dissipation (W) x 3.412 BTU/hr) + (BDA Power (W) x 3.412 BTU/hr)*
Heat Load (BTU/hr) =	*(28W x 3.412 BTU/hr) + (90W x 3.412 BTU/hr)*
Heat Load (BTU/hr) =	*95.536 BTU/hr + 307.08 BTU/hr*
Heat Load (BTU/hr) =	*402.616 BTU/hr*

Battery Backup Unit: PE-24V-240-100AH-UL2524	
Heat Load (BTU/hr) =	*BBU Heat Load (W) + BDA Heat Load (W)*
Heat Load (BTU/hr) =	*(BBU Power Dissipation (W) x 3.412 BTU/hr) + (BDA Power (W) x 3.412 BTU/hr)*
Heat Load (BTU/hr) =	*(28W x 3.412 BTU/hr) + (90W x 3.412 BTU/hr)*
Heat Load (BTU/hr) =	*95.536 BTU/hr + 307.08 BTU/hr*
Heat Load (BTU/hr) =	*402.616 BTU/hr*

BDA Model: GUARDIAN-QR700

BDA Specifications	
BDA Power Consumption =	30W

Compatible BBU Specifications:

TQ-BBU (12 Volt)		
BBU Charger Efficiency =	88%	(12% Dissipated as Heat)
Power Dissipation=	4.9W	

PE-12V-120-55AH-UL2524		
BBU Charger Efficiency =	90%	(10% Dissipated as Heat)
Power Dissipation=	17.0W	

PE-12V-120-100AH-UL2524		
BBU Charger Efficiency =	90%	(10% Dissipated as Heat)
Power Dissipation=	17.0W	

Heat Load Calculations (BDA+BBU):

Battery Backup Unit: TQ-BBU (12 Volt)	
Heat Load (BTU/hr) =	*BBU Heat Load (W) + BDA Heat Load (W)*
Heat Load (BTU/hr) =	*(BBU Power Dissipation (W) x 3.412 BTU/hr) + (BDA Power (W) x 3.412 BTU/hr)*
Heat Load (BTU/hr) =	*(4.909W x 3.412 BTU/hr) + (30W x 3.412 BTU/hr)*
Heat Load (BTU/hr) =	*16.75 BTU/hr + 102.36 BTU/hr*
Heat Load (BTU/hr) =	*119.11 BTU/hr*

Battery Backup Unit: PE-12V-120-55AH-UL2524	
Heat Load (BTU/hr) =	*BBU Heat Load (W) + BDA Heat Load (W)*
Heat Load (BTU/hr) =	*(BBU Power Dissipation (W) x 3.412 BTU/hr) + (BDA Power (W) x 3.412 BTU/hr)*
Heat Load (BTU/hr) =	*(17W x 3.412 BTU/hr) + (30W x 3.412 BTU/hr)*
Heat Load (BTU/hr) =	*58.004 BTU/hr + 102.36 BTU/hr*
Heat Load (BTU/hr) =	*160.364 BTU/hr*

Battery Backup Unit: PE-12V-120-100AH-UL2524	
Heat Load (BTU/hr) =	*BBU Heat Load (W) + BDA Heat Load (W)*
Heat Load (BTU/hr) =	*(BBU Power Dissipation (W) x 3.412 BTU/hr) + (BDA Power (W) x 3.412 BTU/hr)*
Heat Load (BTU/hr) =	*(17W x 3.412 BTU/hr) + (30W x 3.412 BTU/hr)*
Heat Load (BTU/hr) =	*58.004 BTU/hr + 102.36 BTU/hr*
Heat Load (BTU/hr) =	*160.364 BTU/hr*