



Functional Devices UL924 Emergency Power Inverters Instruction Manual

[Home](#) » [Functional Devices](#) » Functional Devices UL924 Emergency Power Inverters Instruction Manual 

Contents

- [1 Functional Devices UL924 Emergency Power Inverters](#)
- [2 Product Information](#)
- [3 Product Usage Instructions](#)
- [4 FAQs](#)
- [5 MORE INFO](#)
- [6 FEATURES](#)
- [7 BENEFITS](#)
- [8 POWER INVERTER SELECTION](#)
- [9 CONTACT](#)
- [10 Documents / Resources](#)
 - [10.1 References](#)



Functional Devices UL924 Emergency Power Inverters



Product Information

- **Specifications:**
 - **Models:** Micro Inverters, Mini Inverters, Midsize Inverters
 - **Output Power Range:** 20W – 600 Watts
 - **Backup Power:** Minimum of 90 minutes
 - **Warranty:** 5-year limited warranty

Product Usage Instructions

- **Installation:**
 - Follow these steps to install the UL924 Emergency Power Inverter:
 - Choose the appropriate mounting type based on your needs: Recess, Surface, or T-Grid.
 - Ensure proper spacing and ventilation around the inverter.
 - Connect the input and output according to the selected model specifications.
- **Testing and Maintenance:**
 - Regular testing and maintenance are crucial for optimal performance. Follow these guidelines:
 - Perform self-tests on the battery and circuit voltage as recommended.
 - Check for any signs of wear or damage regularly.
 - Keep the inverter clean and free from dust accumulation.
- **Emergency Illumination:**
 - In case of a power outage, the UL924 Emergency Power Inverter will provide backup power for emergency lighting fixtures. Make sure to:
 - Test the emergency lighting function periodically.
 - Replace batteries as needed to maintain the minimum backup power duration.

FAQs

- **Q: How long does the backup power last on the UL924 Emergency Power Inverters?**

- **A:** The backup power duration ranges from a minimum of 90 minutes, depending on the model and output power.

- **Q: What type of warranty is provided for the UL924 Emergency Power Inverters?**

- **A:** The UL924 Emergency Power Inverters come with a 5-year limited warranty for added peace of mind.

MORE INFO

Our UL924 Emergency Power devices, the EMPS Series, contain our Mini, Micro, and Midsize Power Inverters. These models feature output power ranging from 20W – 600 Watts, with a minimum of 90 minutes of backup power, and a 5 year limited warranty.



Micro Inverters

Mini Inverters

Midsize Inverters

FEATURES

- Universal 120-277 Vac, 60 Hz, Input/Output
- Made for powering incandescent, fluorescent, and LED fixtures
- True sinusoidal AC Pulse with Modulation – PWM
- LED system indicators
- UL924 Listed, NFPA 101 – Life Fire & Safety,
- NFPA 70 – NEC, OSHA, Plenum rated UL2043 meeting Chicago's CCEA requirements
- Mounting options: Surface, Recessed, or T-Grid

BENEFITS

- Lower installation costs by using existing lighting fixtures
- Lower maintenance cost with a single power source for emergency illumination
- Efficiency rated, 98% at full rated load, line
- 5-year limited warranty
- One-stop shop for both UL924 Inverters & Relays

POWER INVERTER SELECTION

UL924 EMERGENCY LIGHTING POWER INVERTER SELECTION GUIDE

UL924 EMERGENCY LIGHTING POWER INVERTER SELECTION GUIDE

90 MINUTE CAPACITY

MODEL #		SERIES	WATTS	VA	INPUT/OUTPUT	BATTERY TYPE	BATTERY VOLTAGE	SELF-TEST / SELF DIAG.	4 OUTPUT CIRCUIT SWITCHING	TITLE 20 COMPLIANT	MOUNTING TYPE	LENGTH	WIDTH	HEIGHT
EMPS20WR	•	Micro	20 W	20 VA	120/277 Vac	Lead-Acid	12 Vdc				Recess	16.25"	3.125"	8.875"
EMPS20WS	•	Micro	20 W	20 VA	120/277 Vac	Lead-Acid	12 Vdc				Surface	14.75"	3.125"	7.375"
EMPS20WT	•	Micro	20 W	20 VA	120/277 Vac	NiCad	12 Vdc				T-Grid	23.875"	6.188"	8.563"
EMPS32WR	•	Micro	32 W	32 VA	120/277 Vac	NiCad	12 Vdc				Recess	16.25"	3.125"	8.875"
EMPS32WS	•	Micro	32 W	32 VA	120/277 Vac	NiCad	12 Vdc				Surface	14.75"	3.125"	7.375"
EMPS32WT	•	Micro	32 W	32 VA	120/277 Vac	NiCad	12 Vdc				T-Grid	23.875"	6.188"	8.563"
EMPS35WR	•	Micro	35 W	35 VA	120/277 Vac	NiCad	12 Vdc				Recess	16.25"	4.375"	8.875"
EMPS35WS	•	Micro	35 W	35 VA	120/277 Vac	NiCad	12 Vdc				Surface	14.75"	4.375"	7.375"
EMPS35WT	•	Micro	35 W	35 VA	120/277 Vac	NiCad	12 Vdc				T-Grid	23.875"	6.188"	8.563"
EMPS55WR	•	Micro	55 W	55 VA	120/277 Vac	Lead-Acid	12 Vdc				Recess	16.25"	4.375"	8.875"
EMPS55WS	•	Micro	55 W	55 VA	120/277 Vac	Lead-Acid	12 Vdc				Surface	14.75"	4.375"	7.375"
EMPS55WT	•	Micro	55 W	55 VA	120/277 Vac	Lead-Acid	12 Vdc				T-Grid	23.875"	6.188"	8.563"

EMPS110 125RSDT C	•	Min i	110 W	125 VA	120/2 77 Va c	Lead -Calc	24 V dc	•		•	Reces s	18.1 25"	4.37 5"	13.1 25"
EMPS110 125SSDT C	•	Min i	110 W	125 VA	120/2 77 Va c	Lead -Calc	24 V dc	•		•	Surfac e	16.7 5"	4.37 5"	11.7 5"
EMPS110 125TSDT C	•	Min i	110 W	125 VA	120/2 77 Va c	Lead -Calc	24 V dc	•		•	T-Grid	23.8 75"	6.18 8"	8.56 3"
EMPS110 125RSDT	•	Min i	110 W	125 VA	120/2 77 Va c	Lead -Calc	24 V dc	•			Reces s	18.1 25"	4.37 5"	13.1 25"
EMPS110 125S	•	Min i	110 W	125 VA	120/2 77 Va c	Lead -Calc	24 V dc				Surfac e	16.7 5"	4.37 5"	11.7 5"
EMPS110 125SSDT	•	Min i	110 W	125 VA	120/2 77 Va c	Lead -Calc	24 V dc	•			Surfac e	16.7 5"	4.37 5"	11.7 5"
EMPS110 125T	•	Min i	110 W	125 VA	120/2 77 Va c	Lead -Calc	24 V dc				T-Grid	23.8 75"	6.18 8"	8.56 3"
EMPS110 125TSDT	•	Min i	110 W	125 VA	120/2 77 Va c	Lead -Calc	24 V dc	•			T-Grid	23.8 75"	6.18 8"	8.56 3"
EMPS110 250SSDT C	•	Min i	110 W	250 VA	120/2 77 Va c	Lead -Calc	48 V dc	•		•	Surfac e	16.7 5"	6.37 5"	11.7 5"
EMPS110 250S	•	Min i	110 W	250 VA	120/2 77 Va c	Lead -Calc	48 V dc				Surfac e	16.7 5"	6.37 5"	11.7 5"
EMPS110 250SSDT	•	Min i	110 W	250 VA	120/2 77 Va c	Lead -Calc	48 V dc	•			Surfac e	16.7 5"	6.37 5"	11.7 5"
EMPS220 250SSDT C	•	Min i	220 W	250 VA	120/2 77 Va c	Lead -Calc	48 V dc	•		•	Surfac e	16.7 5"	6.37 5"	11.7 5"
EMPS220 250S	•	Min i	220 W	250 VA	120/2 77 Va c	Lead -Calc	48 V dc				Surfac e	16.7 5"	6.37 5"	11.7 5"
EMPS220 250SSDT	•	Min i	220 W	250 VA	120/2 77 Va c	Lead -Calc	48 V dc	•			Surfac e	16.7 5"	6.37 5"	11.7 5"
EMPS551 25RSDTC	•	Min i	55 W	125 VA	120/2 77 Va c	Lead -Calc	24 V dc	•		•	Reces s	18.1 25"	4.37 5"	13.1 25"

EMPS551 25SSDTC	•	Min i	55 W	125 VA	120/2 77 Va c	Lead -Calc	24 V dc	•		•	Surfac e	16.7 5"	4.37 5"	11.7 5"
EMPS551 25TSDTC	•	Min i	55 W	125 VA	120/2 77 Va c	Lead -Calc	24 V dc	•		•	T-Grid	23.8 75"	6.18 8"	8.56 3"
EMPS551 25R	•	Min i	55 W	125 VA	120/2 77 Va c	Lead -Calc	24 V dc				Reces s	18.1 25"	4.37 5"	13.1 25"
EMPS551 25RSDT	•	Min i	55 W	125 VA	120/2 77 Va c	Lead -Calc	24 V dc	•			Reces s	18.1 25"	4.37 5"	13.1 25"
EMPS551 25S	•	Min i	55 W	125 VA	120/2 77 Va c	Lead -Calc	24 V dc				Surfac e	16.7 5"	4.37 5"	11.7 5"
EMPS551 25SSDT	•	Min i	55 W	125 VA	120/2 77 Va c	Lead -Calc	24 V dc	•			Surfac e	16.7 5"	4.37 5"	11.7 5"
EMPS551 25T	•	Min i	55 W	125 VA	120/2 77 Va c	Lead -Calc	24 V dc				T-Grid	23.8 75"	6.18 8"	8.56 3"
EMPS551 25TSDT	•	Min i	55 W	125 VA	120/2 77 Va c	Lead -Calc	24 V dc	•			T-Grid	23.8 75"	6.18 8"	8.56 3"
EMPS375 4AOSDT	•	Mid size	375 W	375 VA	120/2 77 Va c	Lead -Calc	60 V dc	•	•		Surfac e	18"	8.25 "	16.6 25"
EMPS375 4CSDT	•	Mid size	375 W	375 VA	120/2 77 Va c	Lead -Calc	60 V dc	•	•		Surfac e	18"	8.25 "	16.6 25"
EMPS375	•	Mid size	375 W	375 VA	120/2 77 Va c	Lead -Calc	60 V dc				Surfac e	18"	8.25 "	16.6 25"
EMPS600 4AOSDT	•	Mid size	600 W	600 VA	120/2 77 Va c	Lead -Calc	96 V dc	•	•		Surfac e	18"	8.25 "	25.2 5"
EMPS600 4CSDT	•	Mid size	600 W	600 VA	120/2 77 Va c	Lead -Calc	96 V dc	•	•		Surfac e	18"	8.25 "	25.2 5"
EMPS600	•	Mid size	600 W	600 VA	120/2 77 Va c	Lead -Calc	96 V dc				Surfac e	18"	8.25 "	25.2 5"

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Documents / Resources



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UL924 Emergency Power Inverters, UL924, Emergency Power Inverters, Power Inverters, Inverters

References

- [User Manual](#)

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