



Lightweight, full plug and play, low maintenance and short MTTR.  
Smart topology and fast battery charging for increased availability.

☎ Telecom

☰ Datacom

🚗 Mass transport

🏭 Industry

⚡ Power Utilities

🌿 Renewable

**AC In**  
120 / 240 Vac  
3x208 Vac

**Back up**  
5 Minutes

**AC Out**  
120 / 240 Vac  
3x208 Vac

**30 to 100 kW**

## Introduction

Power protection is vital to operations and revenue for many businesses. Statistics show that 30% of failures in datacenters are due to the UPS, though. Moreover costly maintenance contracts and frequent battery replacements do not achieve the low risk level whilst CFO's see a huge impact on their bottom line. The advanced combination of Sierra converters and Nickel-Zinc Battery of the NextGen UPS is designed to offer the ultimate experience of truly Uninterruptible Power Supply with sweet TCO.

All converters are hot swappable and replaceable by untrained personal whereas the battery blocks can be serviced with the system live. No interruption during maintenance periods, no interruption ever. With a couple more modules in the same bay, most demanding businesses will enjoy N+1 fault-tolerant construction at lowest cost and unbeatable user experience. The NextGen UPS use is especially recommended with heavily disturbed grids thanks to permanent double conversion. It also guarantees unity power factor at input regardless of the load behavior so that it does not interfere with other equipment's connected to the same point of coupling. That's additional saving in power factor correction devices.

Whereas lead acid batteries require temperature controlled room, spill containment and other gas exhaust protections, the Nickel-Zinc battery is stable, safe, non-explosive and nicely temperature tolerant. They are also more environmentally friendly, safer and easier to transport than Lithium whereas they surpass lead-acid in lightweight and power density. Used under the advanced InView controller they offer real-time monitoring and advanced warning of system faults. This unique integrated solution at the leading edge of power electronic and storage chemistry offer an incredible mix of low maintenance burden and quasi instantaneous MTTR.

## UPS Benefits

### Performance

- High Power Density
- Long life expectancy - low maintenance
- Fault tolerant by design
- Wide operating temperature range
- Grid re-injection ready

### Safety

- Nickel-zinc batteries
- Environmentally friendly and recyclable
- Touch-safe system (all 48 Vdc)

### Simplicity

- All plug and play
- Up to 10-year warranty
- No controlled temperature room needed
- Easy capacity expansion



NextGen UPS - 47 kW



NextGen UPS - 101 kW

Illustrations are non-binding and may include customized fittings.

# NextGen UPS Split phase or Three phase

	NextGen UPS - 47 kW - 1 cabinet	NextGen UPS - 101 kW - 2 cabinets
<b>General</b>		
Topology	Online Double Conversion	
Power Rating (for more details, refer table 2 on page 3)	57 kVA / 47 kW	123 kVA / 101 kW
UPS Manual Bypass	Optional external manual bypass	
<b>Environmental</b>		
Operating Temperature Range / Storage Temperature Range	15 to 40°C Ambient / -20 to 70°C Ambient	
Storage Relative Humidity / Operating Relative Humidity	10% - 95% non-condensing / 20% - 90% non-condensing	
Altitude	< 1500 m: No derating, > 1500 m: Derating of 0.8% per 100m	
Audible Noise	<60 dBA @ 1 meter from surface	
<b>Power</b>		
<b>AC Input Data (for rating, refer table 1 on page 3)</b>		
Nominal Input Voltage	120 / 240 split phase / 3x208 Vac + N three phase (for rating and power, refer table 1 on page 3)	
Input Voltage Range	108 - 140 Vac L-N / 216 - 280 L1-L2 / 3 x 187 - 3 x 242 Vac	
Input frequency synchronization range	57 - 63 Hz	
Input Power Factor	> 0.99 typical	
<b>AC Output Data (for rating, refer table 2 on page 3)</b>		
Peak Efficiency AC to AC / DC to AC @80% load	94.5% / 91.9%	
Output Voltage	120 / 240 split phase / 3x208 Vac + N three phase (for rating and power, refer table 2 on page 3)	
Frequency / accuracy on battery	60 Hz / 0.03%	
Short time overload capacity	125% for 15 seconds	
Output THD	< 1.5% with resistive load, < 5% with non-linear load	
Crest Factor at Nominal Power	3:1	
Waveform	Pure Sine Wave	
Output Voltage stability static / dynamic	± 1.0% from 10 to 100% load / ± 5% recovering time below 0.5 sec from 0 to 100% impact	
<b>Battery Data</b>		
Battery Type	Integrated, Sealed, Non-spillable	
Battery Replacement	Field-replaceable	
Battery Technology	Nickel-zinc battery chemistry	
Transportation	No transport restrictions	
UPS run time on battery	5 minutes 3 string 12 blocs at 47kW	5 minutes 5 strings 20 blocs at 100kW
<b>Communications</b>		
Ports	2 x Ethernet, 1 x Modbus (RS485), TCP/IP, SNMP Protocols (Standard)	
Relay Outputs	Two digital inputs and Two dedicated relays for major and minor alarms	
Battery Disconnect	LVD & Switch Fuse (Internal)	LVD (Internal)
Module LED's / Monitoring	Three status LED's / Inview X with 7" touchscreen	
<b>Features</b>		
Ethernet SNMP Interface	Yes	
Power Event Log	Event log captures up to 5000 events as FIFO	
Web-based Software (served from product)	Accessible locally or remotely	
Service Contract	Silver - Gold - Platinum	
<b>Mechanical</b>		
Height x Width x Depth	83.0 in x 23.6 in x 31.5 in	83.0 in x 47.24 in x 31.5 in
Weight (with batteries)	1265 lbs	2520 lbs
<b>Agency Compliance</b>		
UL/CSA	UL1778 (Fifth Edition), CSA-C22.2 No. 107.3, NiZn Batteries: UL1989	
FCC	Part 15 Class A	

\*All Specifications Valid at 25°C \*All Specifications Subject to Change

**Table 1: UPS AC input utility ratings**

Code	Models Maximum Ambient Temperature: 40° C	Number of modules	Rated Power		Voltage Nominal	Rated Current Nominal	Recommended Breaker
			kVA	KW			
	UPS Product code	Pces	Vac	(A)	(A)		
A	NxtGn-UPS-0Z5-048-100-3-100-048-048-208	45 + 3*	123.75	101.25	3 x 120/208	318.8	450
B	NxtGn-UPS-0Z5-048-100-3-080-039-039-208	36 + 3*	99.00	81.00	3 x 120/208	255.0	350
C	NxtGn-UPS-0Z5-048-100-3-060-030-030-208	27 + 3*	74.25	60.75	3 x 120/208	191.3	250
D	NxtGn-UPS-0Z5-048-100-2-067-032-032-240	30 + 2*	82.50	67.50	2 x 120/240**	318.8	450
E	NxtGn-UPS-0Z5-024-050-3-047-024-024-208	21 + 3*	57.75	47.25	3 x 120/208	148.8	200
F	NxtGn-UPS-0Z5-024-050-2-030-016-016-240	14 + 2*	38.50	31.50	2 x 120/240**	148.8	200
G	NxtGn-UPS-0Z5-024-050-1-030-016-016-120	15 + 1*	41.25	33.75	120	318.8	450

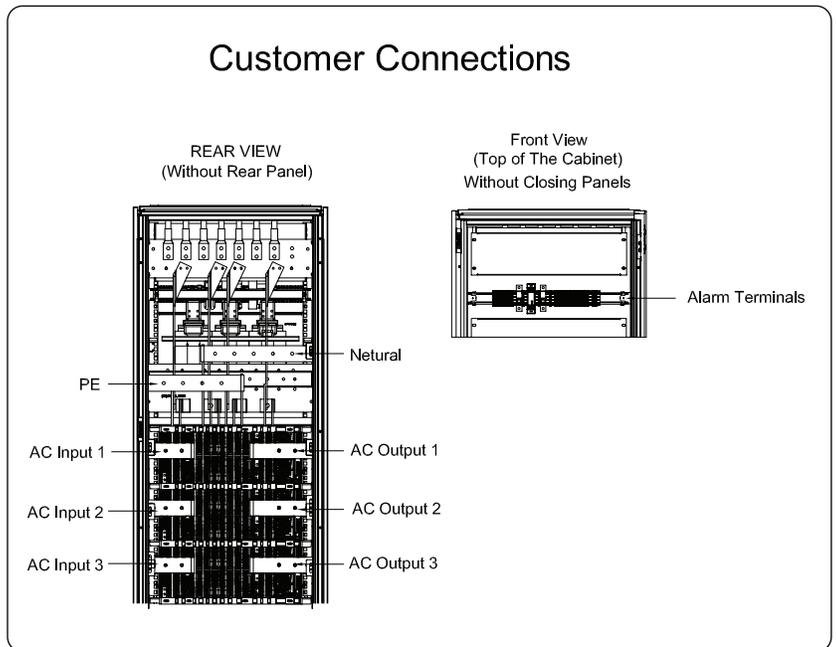
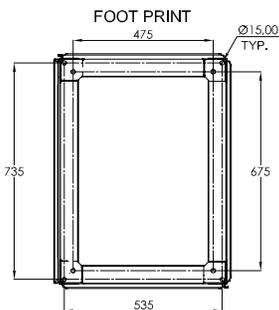
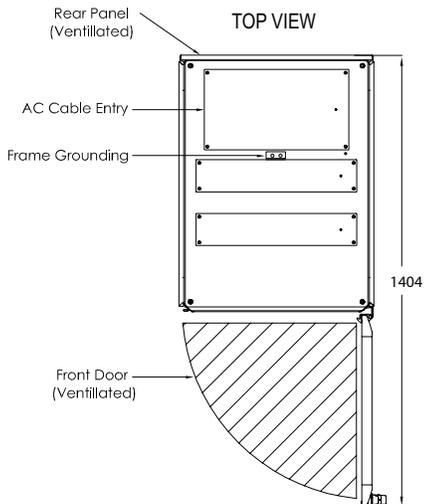
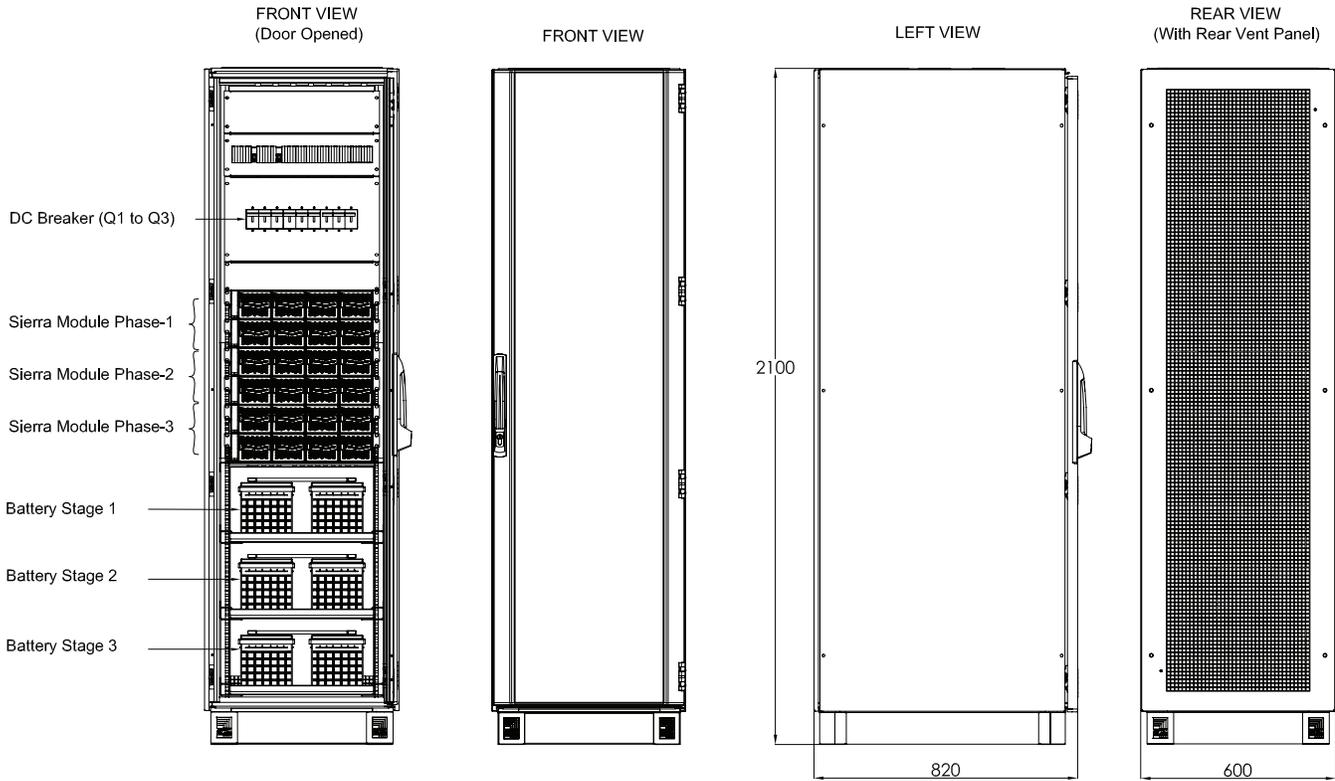
**Table 2: UPS AC output ratings**

Code	Models Maximum Ambient Temperature: 40° C	Number of modules	Rated Power		Voltage Nominal	Rated Current Nominal	Recommended Breaker
			kVA	KW			
	UPS Product code	Pces	Vac	(A)	(A)		
A	NxtGn-UPS-0Z5-048-100-3-100-048-048-208	45 + 3*	123.75	101.25	3 x 120/208	343.8	450
B	NxtGn-UPS-0Z5-048-100-3-080-039-039-208	36 + 3*	99.00	81.00	3 x 120/208	275.0	350
C	NxtGn-UPS-0Z5-048-100-3-060-030-030-208	27 + 3*	74.25	60.75	3 x 120/208	206.3	250
D	NxtGn-UPS-0Z5-048-100-2-067-032-032-240	30 + 2*	82.50	67.50	2 x 120/240**	343.8	450
E	NxtGn-UPS-0Z5-024-050-3-047-024-024-208	21 + 3*	57.75	47.25	3 x 120/208	160.4	200
F	NxtGn-UPS-0Z5-024-050-2-030-016-016-240	14 + 2*	38.50	31.50	2 x 120/240**	160.4	200
G	NxtGn-UPS-0Z5-024-050-1-030-016-016-120	15 + 1*	41.25	33.75	120	343.8	450

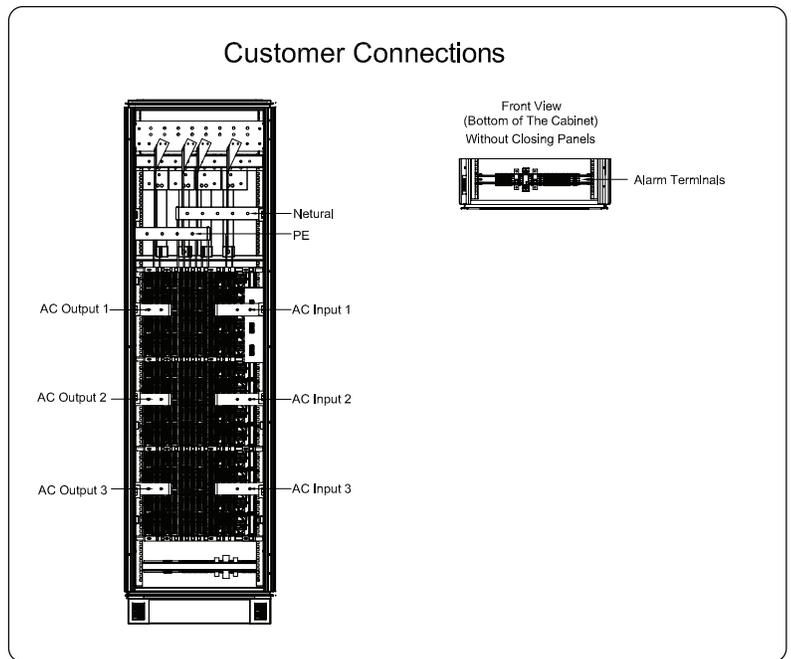
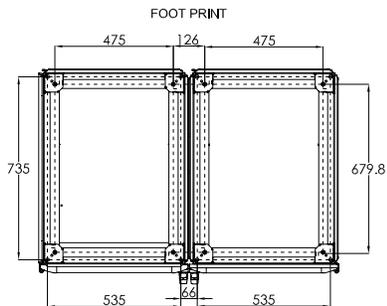
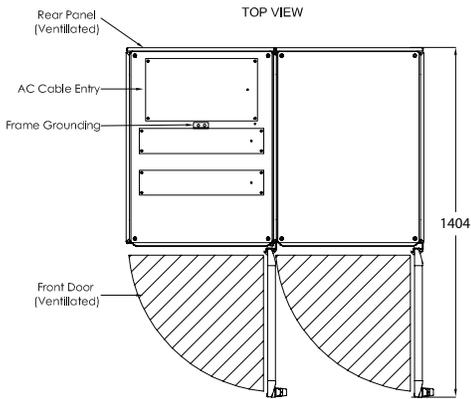
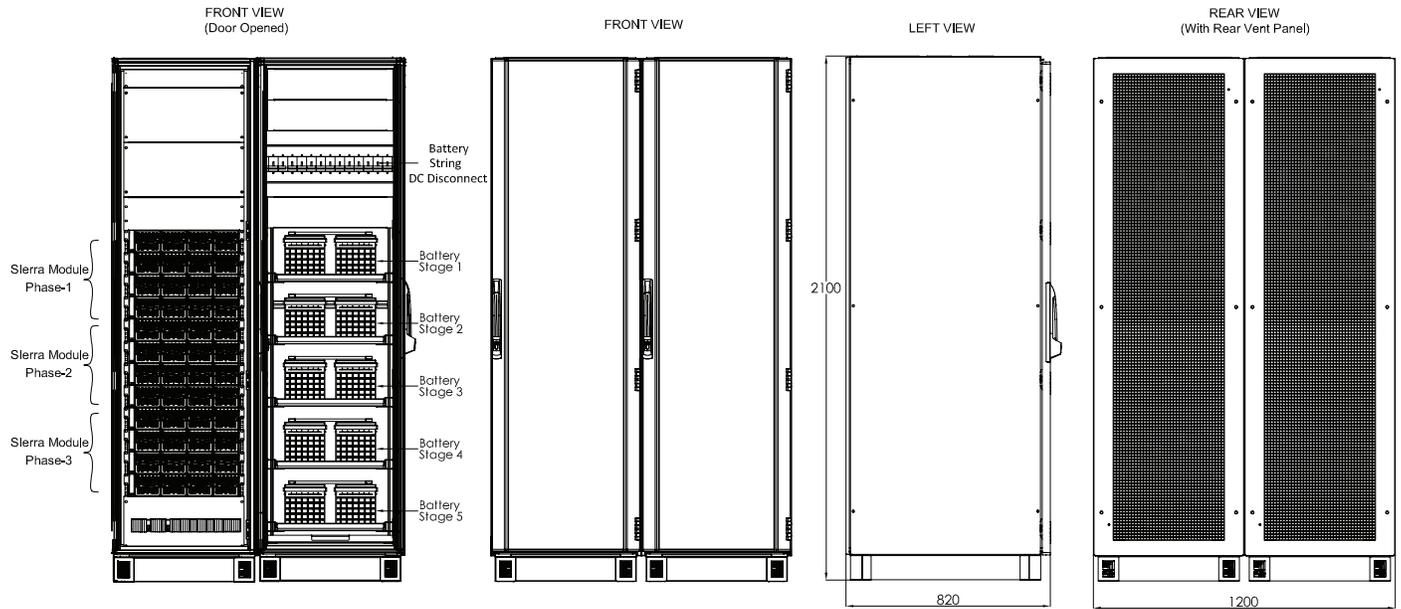
\* Extra module for N+1 redundancy

\*\* or 120/208 by setting

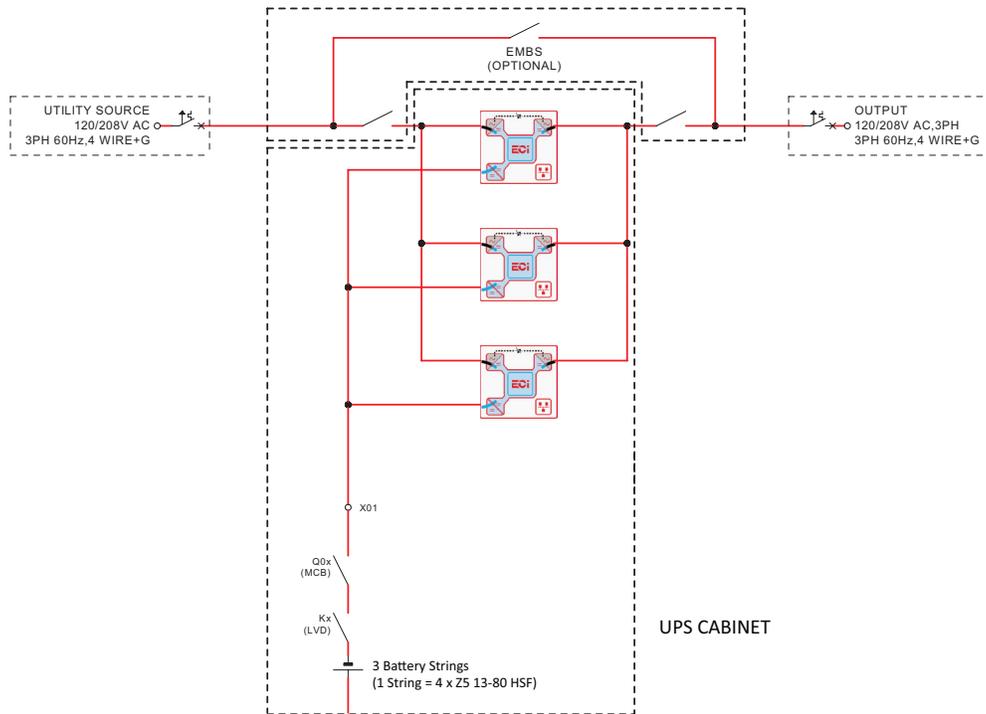
# NextGen UPS System - 50 kW - General Arrangement



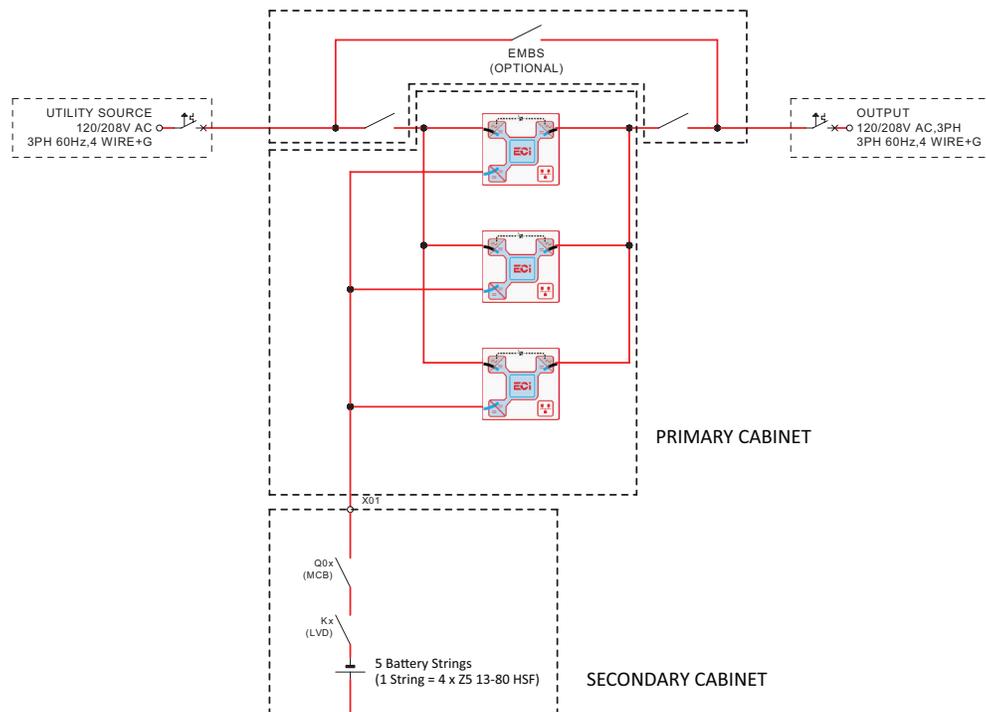
# NextGen UPS System - 100 kW - General Arrangement



## NextGen UPS System - 50 kW - SLD



## NextGen UPS System - 100 kW - SLD



NextGen UPS Split phase or Three phase - Datasheet - v1.0 Specifications can change without notice. New data will be updated on our website: [www.cet-power.com](http://www.cet-power.com).  
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