

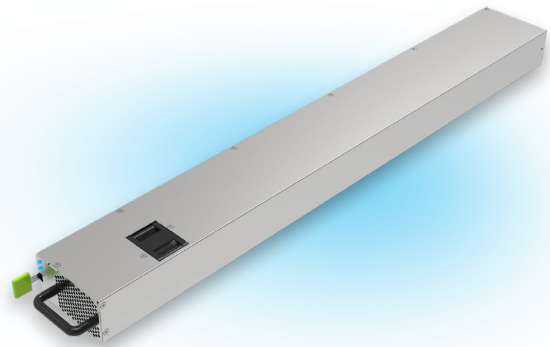
# World's First 8.5 kW PSU for AI Data Centers using only GaN and SiC



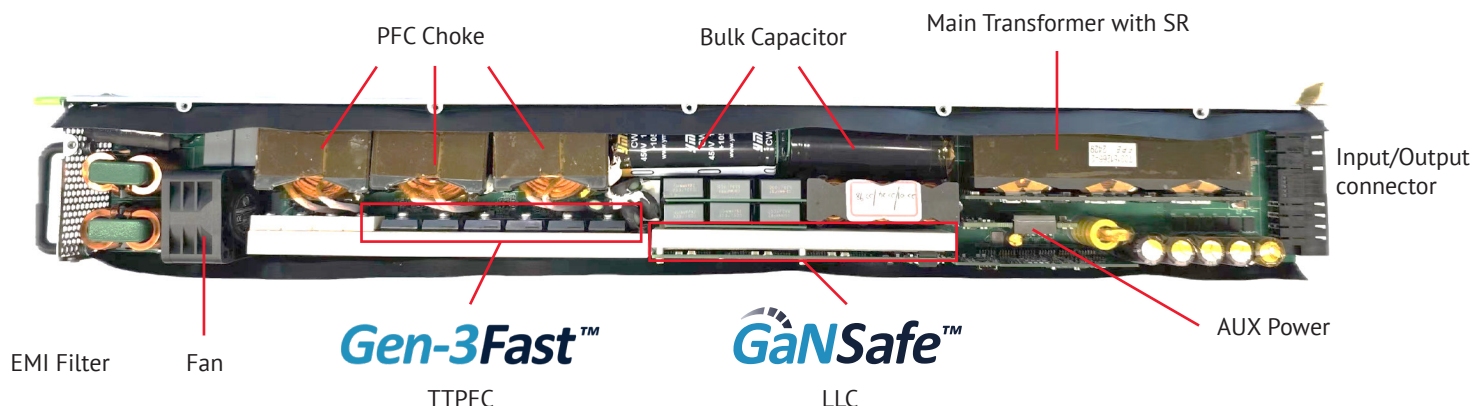
Navitas introduces the world's first GaN and SiC pure-play, next generation, 8.5 kW PSU for AI Data Centers which meet OCP guidelines and complies to ORV3.0. This complete wide bandgap solution of GaN and SiC enables the continuation of higher power density solutions above 12 kW.

**8.5 kW, 54 V<sub>OUT</sub>, 98% peak efficiency**

**3-Phased Interleaved CCM Totem Pole PFC & 3-Phase LLC provides the highest efficiency, performance, with lowest component count.**



	Competition	Navitas	Why Navitas is the leader
Power	8 kW	8.5 kW	Higher power density solution
PFC topology	2-Phase interleaved CCM TP-PFC	3-Phase interleaved CCM TP-PFC	3-Phase solution provides lowest ripple current & EMI
PFC: SiC device qty	8 pcs	6 pcs	25% lower component count & better cost
LLC topology	Single-Phase FB LLC	3-Phase LLC	3-Phase solution provides lowest ripple current & EMI
LLC: GaN device qty	8 pcs	6 pcs	25% lower component count & better cost advantage
System efficiency	97.5% peak	98% peak	Meets OCP efficiency requirements of 98% peak
Reliability	High current ripple	Low current ripple	Low current ripple currents enables lifetime of bus capacitors to meet OCP reliability regulations



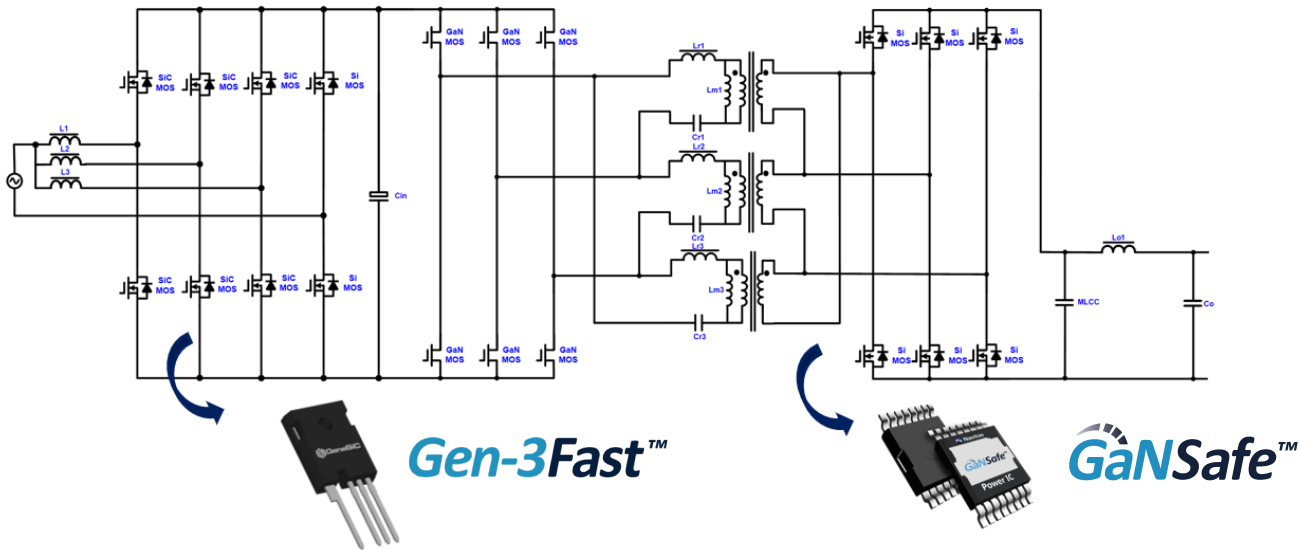
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## Specification

Input voltage range	HL:180 ~ 264 Vac, (277 Vac input is considered in 2 <sup>nd</sup> version)
Frequency	47 ~ 63 Hz
Output power	8500 W
Output voltage & current	50 V/170 A
Standby output voltage & current	12 V/2 A
Efficiency	Peak 98%
Operating temperature range	-5C ~ +55°C
Hold up time	10ms@8500 W, (20ms hold up time can be achieved by extender)
Power density	84.6 W/inch <sup>3</sup>
Oring	Yes
Special features	Active current sharing, OC/OV/UV/OT, I <sup>2</sup> C
Size L x W x H mm	560mm (L)*73.5mm (W)*40mm (H)
Cooling	Internal fan

## Schematic



## Portfolio

Family	Part Number	V <sub>DS(CONT)</sub> (V)	V <sub>DS(TMAN)</sub> (V)	R <sub>DS(ON)</sub> (max, mΩ)	I <sub>DS(CONT)</sub> (A)	Package
  	NV6511	650	800	98	22	 TOLL-4L, 10x10 mm
	NV6512C			55	34	
	NV6513			45	48	
	NV6515			35	57	
	NV6514C			25	80	
	NV6522			55	34	
	NV6523			45	48	 TOLL-16L, 10x15 mm
	NV6525			35	57	
	NV6524			25	80	

Family	Part Number	V <sub>DS</sub> (V)	R <sub>DS(ON)</sub> (mΩ)	ID (A)	Package
	G3F25MT06K	650	20	100	 TO-247-4
	G3F33MT06K		29	74	
	G3F45MT06K		42	37	
	G3F60MT06K		55	30	
	G3F25MT06L		20	90	 TOLL
	G3F33MT06L		29	90	
	G3F45MT06L		42	61	
	G3F60MT06L		55	48	