LEM

Life Energy Motion

AI DATA CENTER SOLUTIONS

Applications & Solutions:

Data centers rely on resilient power infrastructure to ensure continuous operation while cooling and HVAC systems maintain optimal conditions for efficiency and uptime. LEM supports this entire power chain with advanced current sensing solutions, improving efficiency, maximizing reliability, and preparing for next-generation architectures.

GRID INFRASTRUCTURE

Sensors designed for precise AC/DC sensing in MV conversion systems for input and output measurement.

BACK UP POWER

High-accuracy AC/DC current sensors for UPS, BESS, and BBU systems, enabling charge and discharge control, state-of-charge estimation, power smoothing, and fault detection.

POWER DISTRIBUTION

Current and Type-B residual current sensing for PDU, busway, and branch monitoring, supporting load measurement, leakage detection, and system protection.

POWER CONVERSION

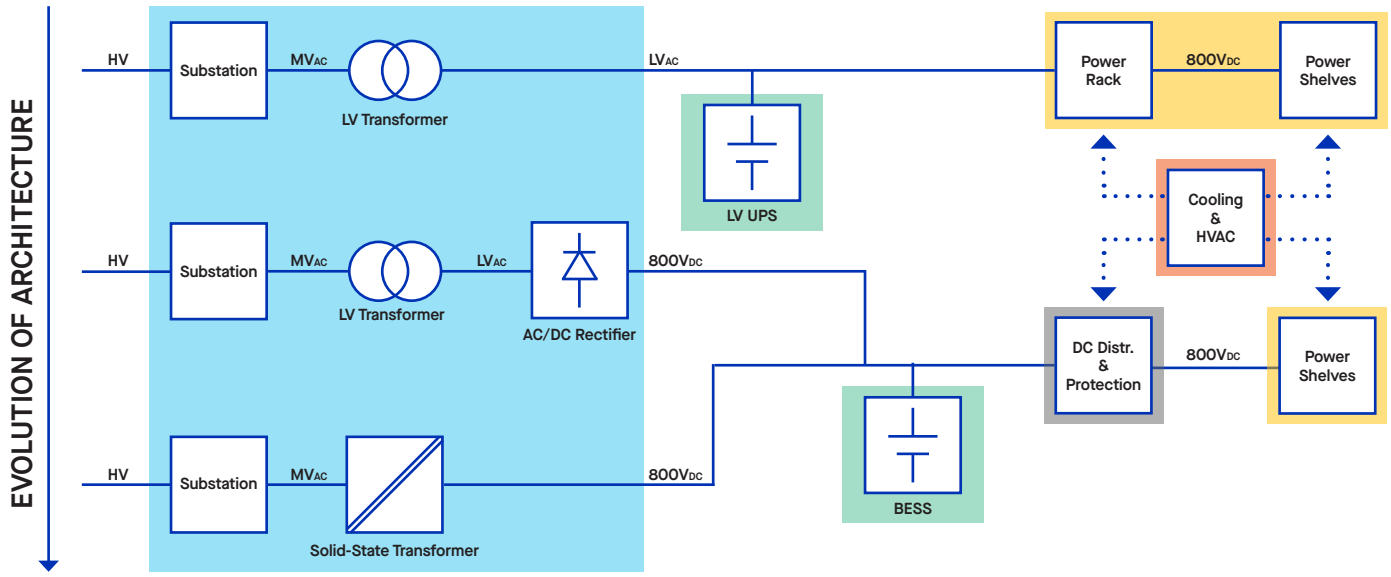
High bandwidth integrated current sensors that enable SiC switching devices in power conversion.

COOLING & HVAC

Sensors designed for reliable current measurement in VFDs for cooling pumps, fans, and refrigerant systems utilized in CDUs.

Power Distribution Architecture:

Data center power distribution architectures are rapidly evolving as rising energy demands make efficiency improvements essential. High-fidelity current measurement enables next-generation efficiency gains, and LEM's sensor solutions deliver support for both legacy systems and future-ready designs.



LEM's Sensor Portfolio:

	Series	Technology	Nominal Current (Arms)	Max Current (A)	AC/DC	Creepage & Clearance (mm)	Accuracy (% Ipn) (25° - over T°C)	Bandwidth (kHz)	Operating Temperature	Visual Appearance
GRID INFRASTRUCTURE	ART	Rogowski Coil (Single & 3 Phase)	10-10,000	No Limit	AC	> 16 > 16	< 0.75	700	-40...80°C	
	FL	Coreless Integral Hall Effect	12,000-28,000	18,000-42,000	AC/DC	> 72 > 100	0.65-1.25 (% Ipm)	100	-40...85°C	
	FRS	Coreless Integral Hall Effect	1,000-3,000	3,000-9,000	AC/DC	> 72 > 100	0.65-1.25 (% Ipm)	1000	-40...85°C	
	LF	Closed Loop Hall Effect	100-2,300	200-4,400	AC/DC	≤ 42 ≤ 28	0.2-0.3	150	-40...85°C	
BACK UP POWER	LAH	PCB Mount Hall Effect	8-125	55-200	AC/DC	> 12 > 12	1-3.5	200	-40...80°C	
	HAX	Aperature Hall Effect	500-5,000	1,500-6,200	AC/DC	> 15.7 > 12.7	1	25	-40...105°C	
	HOYL/HOYS	Aperature Hall Effect	100-810	250-2,000	AC/DC	> 10.5 > 10.5	1-3.8	140-180	-40...105°C	
POWER DISTR.	CTSR	Closed Loop Fluxgate	0.3-5 Residual Current	0.5-8	AC/DC	11	1.9	3.5	-40...105°C	
POWER CONVERSION	GXL-AN	Hall Effect	110 @ 85°C 75 @ 125°C	200	AC/DC	6	< 2	300	-40...150°C	
	GXM-AT	TMR	63 @ 85°C 40 @ 125°C	125	AC/DC	8.5	< 1	2-5	-40...150°C	
	GXS-ANF	Hall Effect	20 @ 125°C	60	AC/DC	4	1-2	400	-40...125°C	
	HOYL/HOYS	Aperature Hall Effect	100-810	250-2,000	AC/DC	> 10.5 > 10.5	1-3.8	140 - 180	-40...105°C	
COOLING & HVAC	GXN-ANC	Hall Effect	40 @ 125°C	100	AC/DC	8	1-3.5	320	-40...125°C	
	GXS-ANF	Hall Effect	20 @ 125°C	60	AC/DC	4	1- 2	400	-40...125°C	
	HO	PCB & Aperature Hall Effect	6-250	20-625	AC/DC	> 8 > 8	1.35-5.22	100	-40...105°C	
	LAH	PCB Mount Hall Effect	8-125	55-200	AC/DC	> 12 > 12	1-3.5	200	-40...80°C	
	LF	Closed Loop Hall Effect	100-2,300	200-4,400	AC/DC	≤ 42 ≤ 28	0.2-0.3	150	-40...85°C