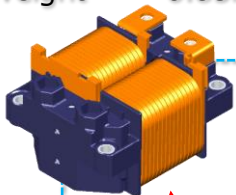


High-efficiency high-power density energy storage · EV super charger application

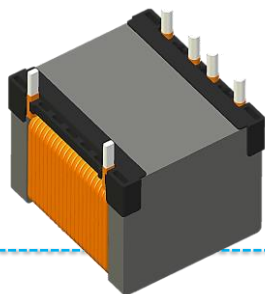
20KW FPC reactor

Inductance 50uH/160A
DCR 5.8mΩ
Size L72xW61xH46
Weight 0.85kg typ.



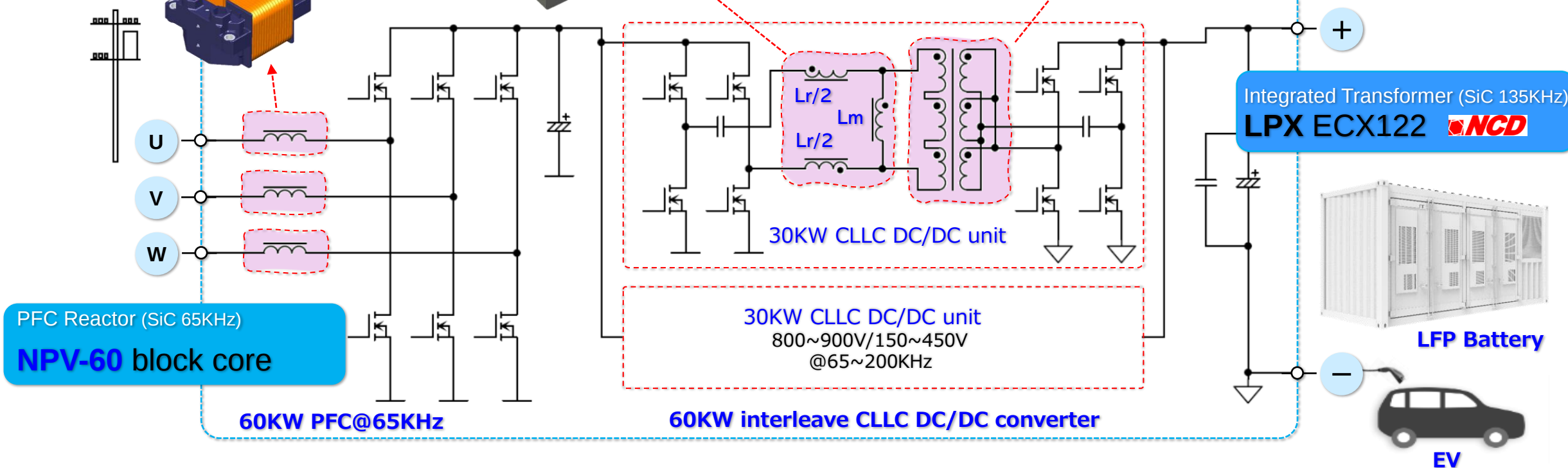
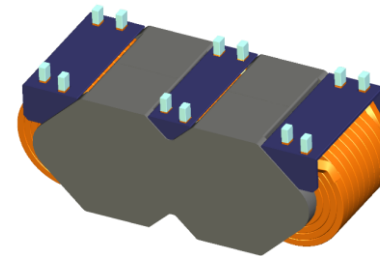
Integrated resonant inductor

Inductance 15uH/70A+95uH/40A
DCR(Lr+Lm) 3.2+9.8mΩ
Size L68xW60xH53
Weight 0.9kg typ.

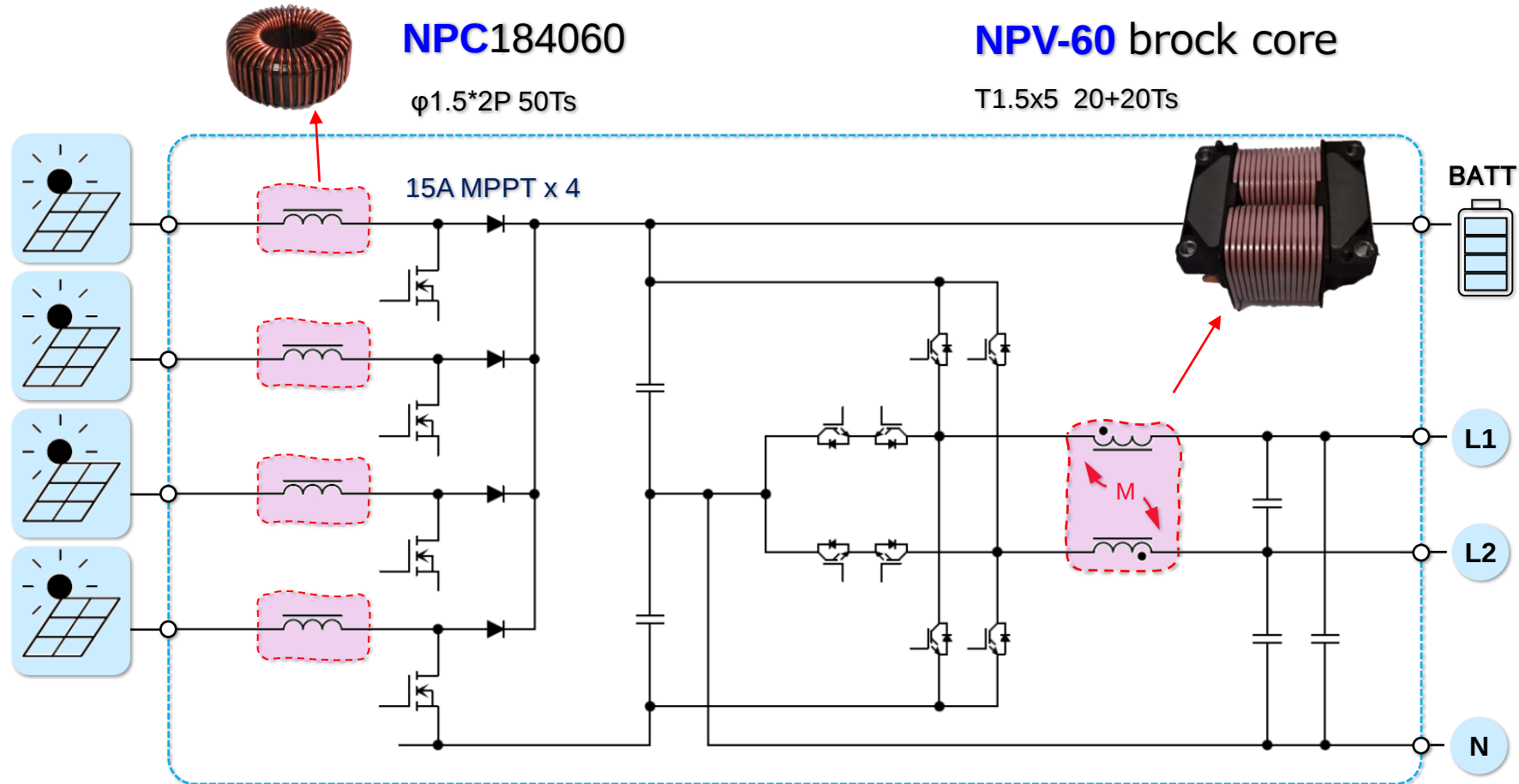


30KW Transformer

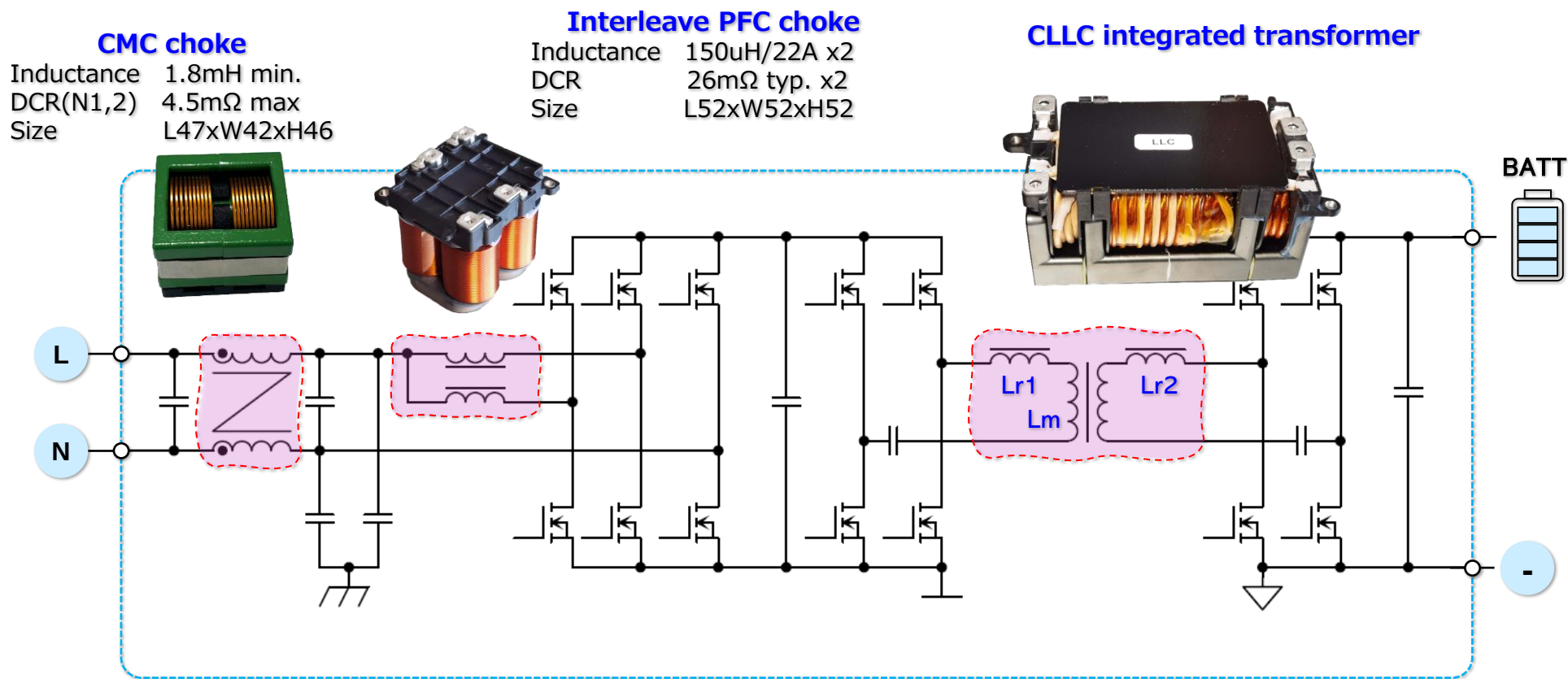
Min. Lm >1.0mH
Max.V.S 3.8V.mS
Max.Sec.Curr. 260Arms
Np:Ns 48Ts:18Ts
Size L145xW60xH53
Weight 1.6kg typ.



60KW SiC Dual direction EV super charging Module (150~450Vdc@240Amax)



PV photovoltaic inverter (6KW·100V·30A×2) + energy-storage



Dual direction OBC for EV application (6.6KW·150~450V)

High-power high-power density DC/DC boost reactor for hybrid vehicle application

- **200V HEV**
- **330V PHEV**

【Interleave reactor main specification】

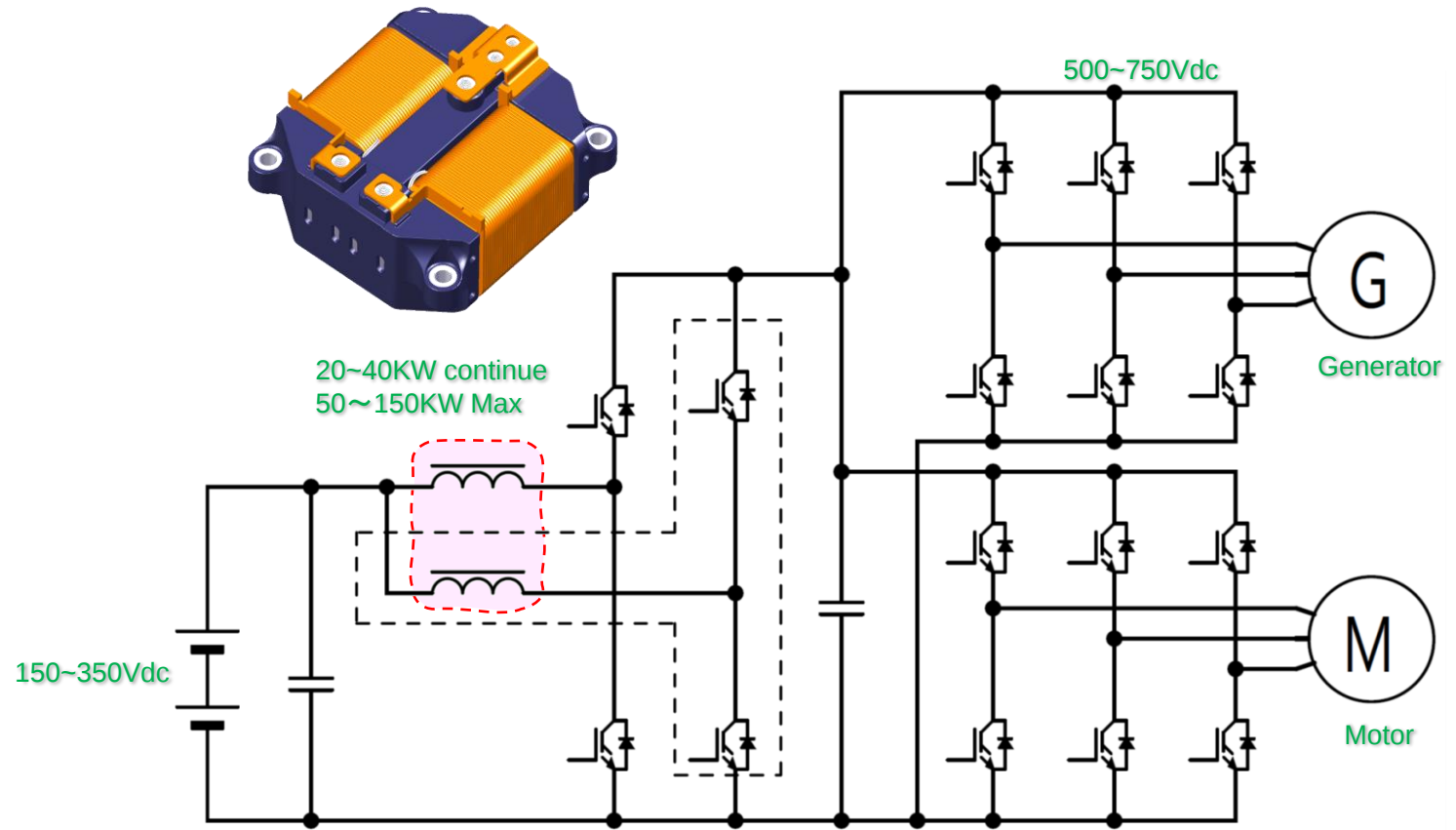
Continue current	70Adc x2
Max. operating current	180Adc x2
Boost voltage	500~750Vdc
Operating frequency	10~20KHz
Inductance	350uH@70A x2 250uH@150A x2
Dimension	L115 x W110 x H60
Weight	< 3.2 Kg
Cooling	Water cooling
Operating temperature	-40~155℃

Advanced magnetic material

Boost reactor (10~20KHz)

- **NPI** Block core
- **NPV-I** Block core
- **NPN** Block core

★ All core material under MP



30~100KW PHEV/HEV boost reactor application

Low loss FeSi powder resonant inductor An alternative material to ferrite



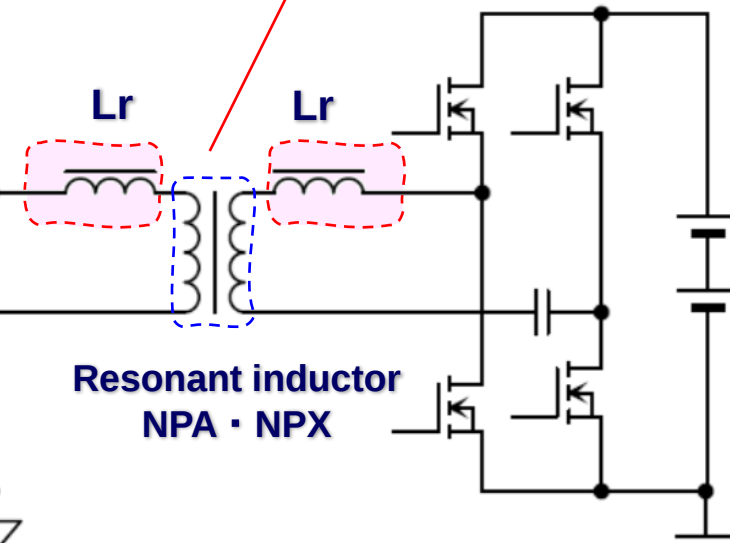
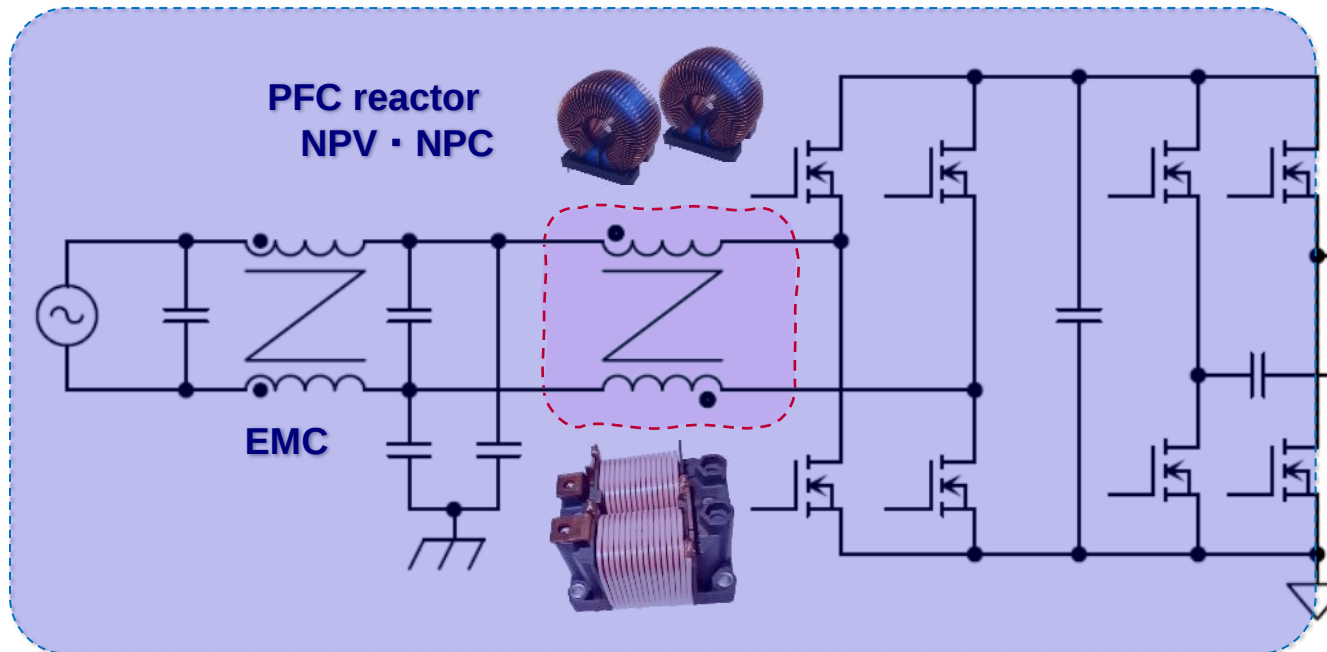
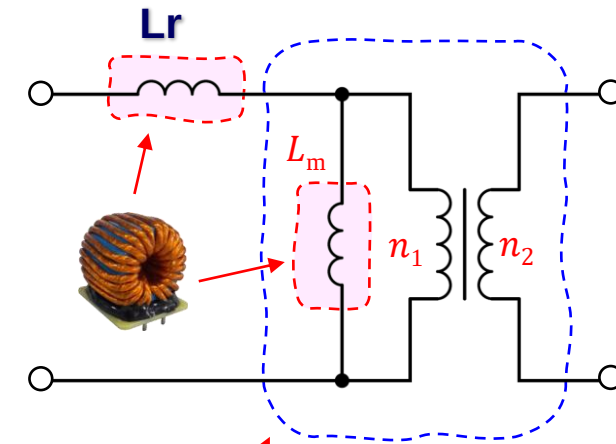
Lr Lm
NPA • NPX

Resonant inductor

LLC, DAB, Phase-shift converter

Magnetization inductor

Separated inductor in parallel with LLC no gap transformer



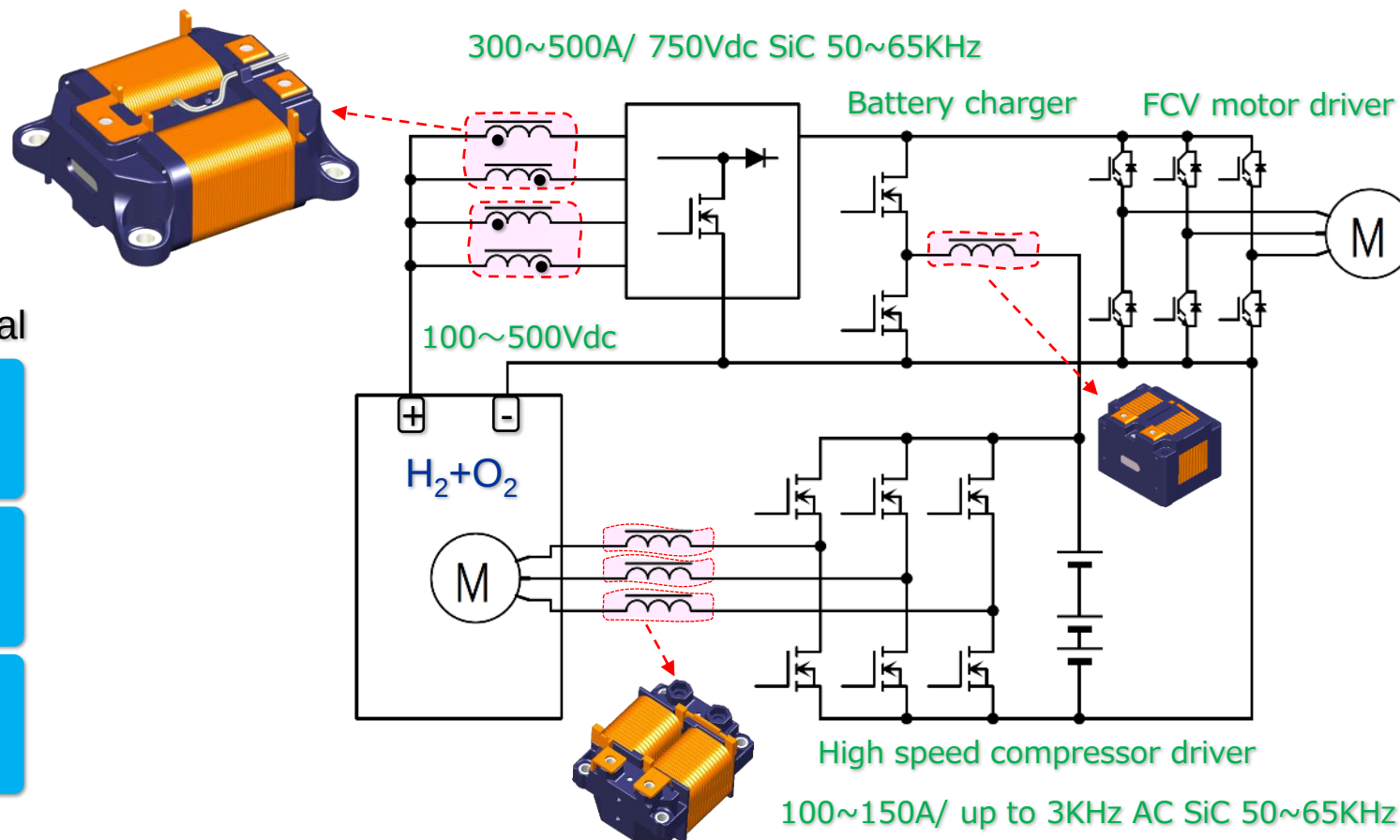
High-power high-power density DC/DC reactor for FCV application

200~300KW FCV Magnetic solution

Advanced magnetic material

- FCV boost reactor
 - **NPV** block core
- Compressor ACL
 - **NPN-LH** block core
- Battery charger DCL
 - **NPC** block core

★ All core material under MP



200~300KW FCV All-in-One driver solution

Contact us



私たちは持続可能な開発目標(SDGs)を支援しています



Guest Professor of Zhejiang University of Technology
Membership of IEEE Power Electronics Society(IEEE PELS)
Member of Experts Committee-China Power Supply Society (CPSS)
Deputy Team Leader of CPSS Magnetic Technical Services Expert Group

CEO **KAKURYO SHO**

Magroots Technology Corporation

7F Nihonbashi Mizuno Bldg., 1-11-12 Nihonbashi muromachi, Chuo-ku, Tokyo
Tel 03-6674-0155 (Rep.) Zip 103-0022
MP +81 80-9675-7810
email g.shao@magroots.co.jp <https://www.magroots.co.jp>

POCO 日本アプリケーション技術窓口 POCO Application Tech. Support

Magrootsテクノロジー株式会社

技術担当 邵 革良(Sho Kakuryo)

〒103-0022 東京都中央区日本橋室町1丁目11番12号日本橋水野ビル7階

Tel 03-6674-0155 MP 080-9675-7810

email poco_techsupport@magroots.co.jp

Web <https://www.magroots.co.jp>



中国電源学会専門家委員会
CPSSマグネティック技術コンサルティング組
浙江工業大学
Membership of IEEE Power Electronics Society

委員長
邵 革良
客席教授

SHO KAKURYO
代表取締役社長 **邵 革良**

Magrootsテクノロジー株式会社

〒103-0022 東京都中央区日本橋室町1丁目11番12号日本橋水野ビル7階

Tel 03-6674-0155

MP 080-9675-7810

email g.shao@magroots.co.jp

<https://www.magroots.co.jp>