

(IR)



'07

()

DC-Link





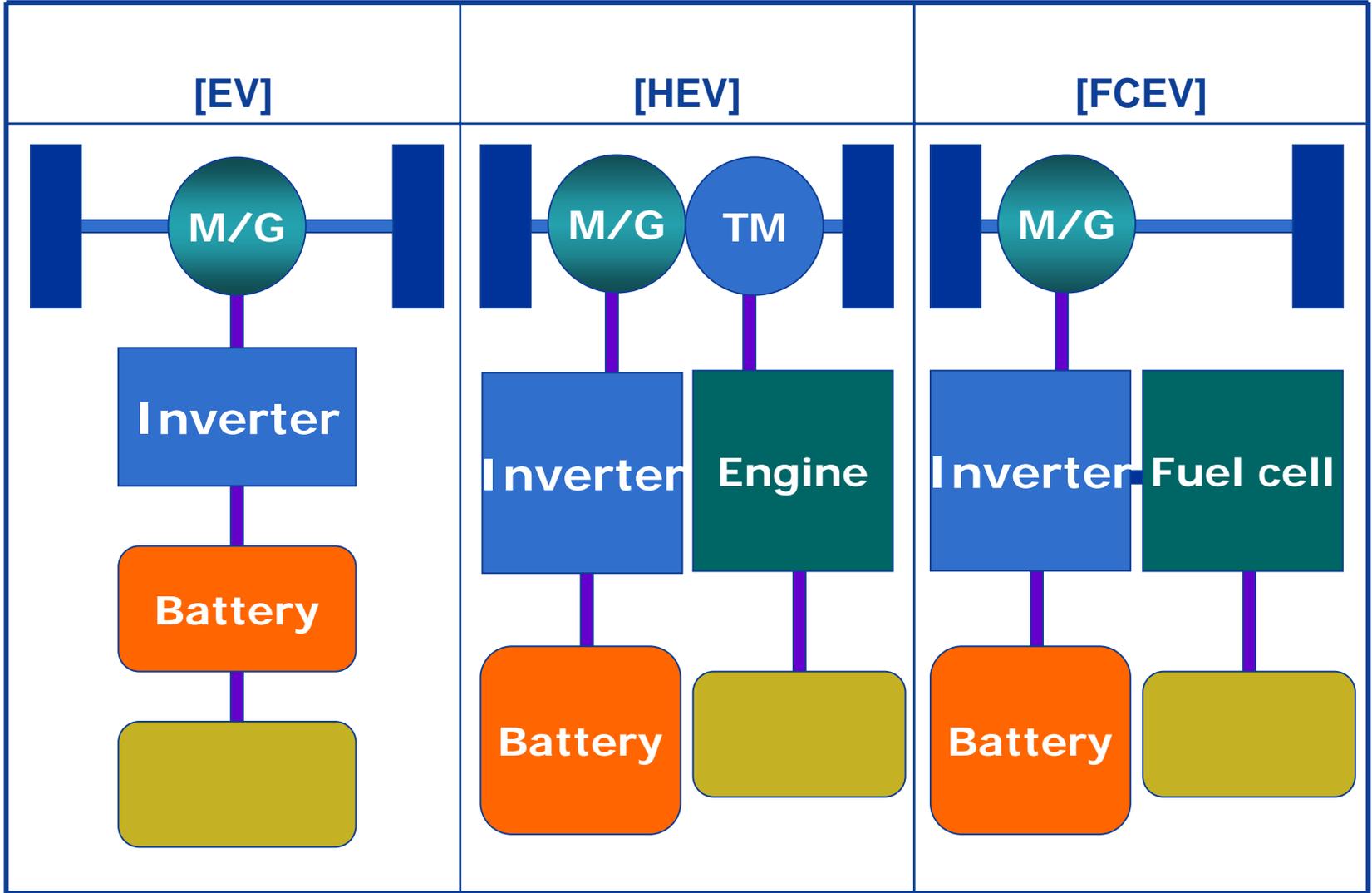
Hybrid





1.

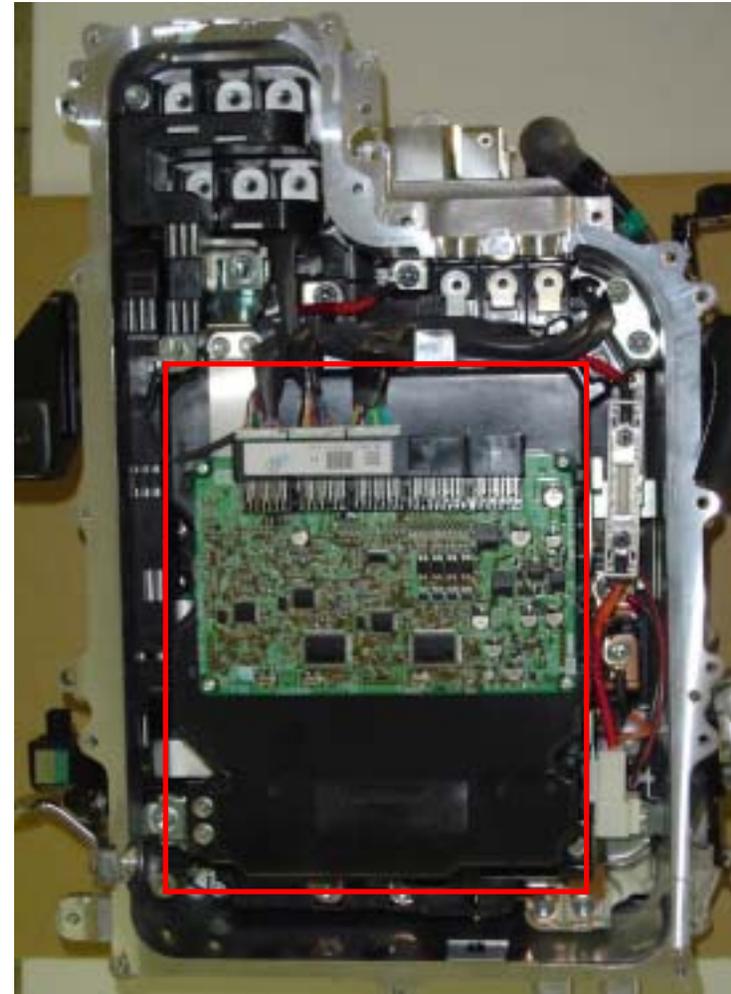
1.1





1.2

(Toyota Lexus Rx400h)

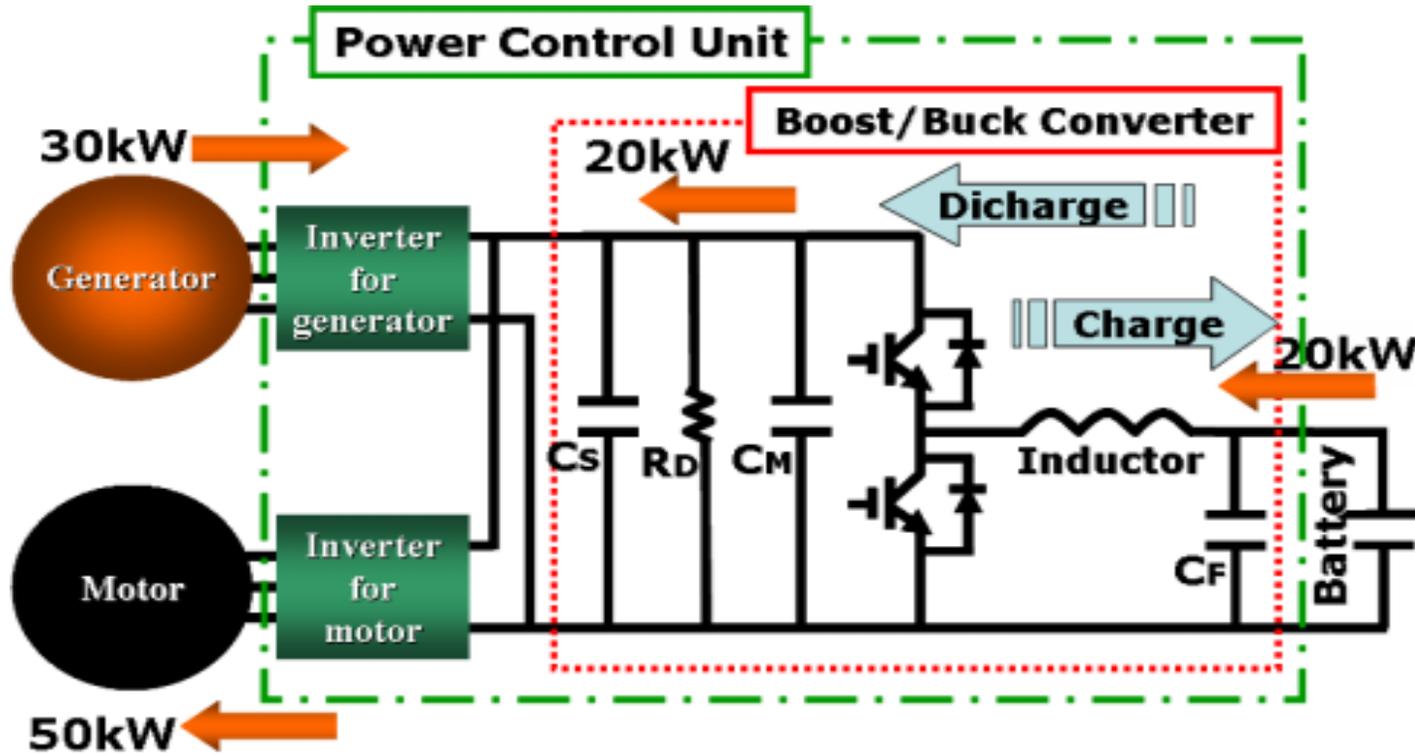




2.

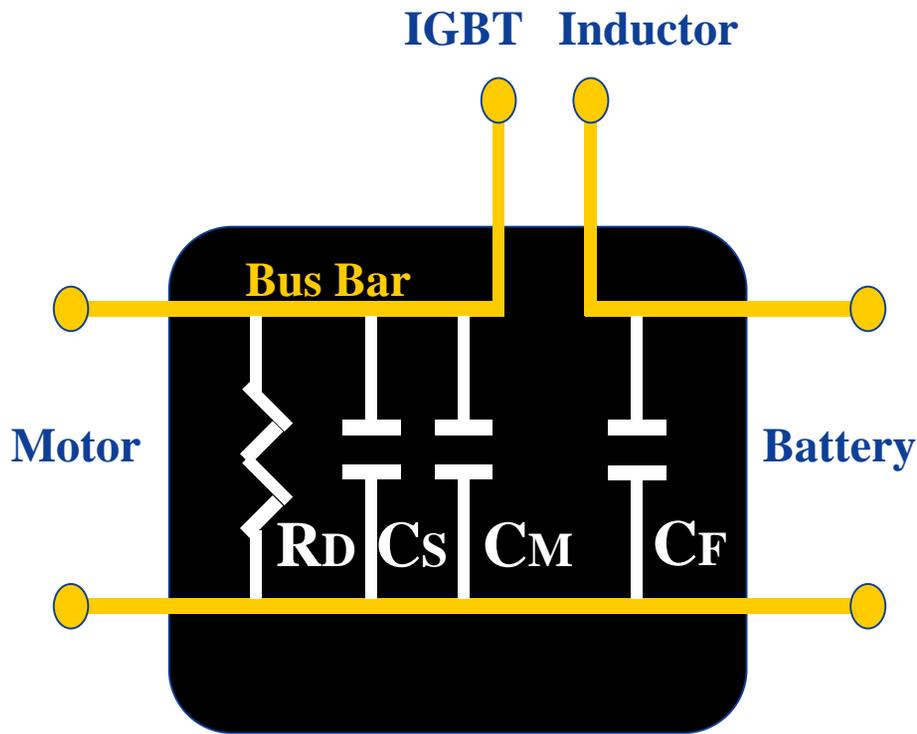
2.1

DC/DC





2.2





2.3

| | | | (2009) | [%] |
|---------------------------------------|---------|----------|----------|-----|
| | | 2009 | | |
| Capacitance [uF] | 500 | 3000 | 3000 | 100 |
| Voltage rating [Vdc] | 600 | 750 | 750 | 100 |
| Leakage current at rated voltage [mA] | 1 | 1 | 1 | 100 |
| Dissipation factor [%] | < 1 | < 1 | < 1 | 100 |
| ESR [m] | < 3 | < 3 | < 3 | 100 |
| ESL [mH] | 30 | 30 | 30 | 100 |
| Ripple current [Arms] | 100 | 250 | 250 | 100 |
| Switching freq. [kHz] | 3 | 10 | 10 | 100 |
| Temperature range of ambient air [] | -40 +85 | -40 +105 | -40 +105 | 100 |



2.4



Main capacitor(Boost)

- Harmonics/transients(ripple)
-

Filter capacitor(Buck)

- Harmonics/transients(ripple)

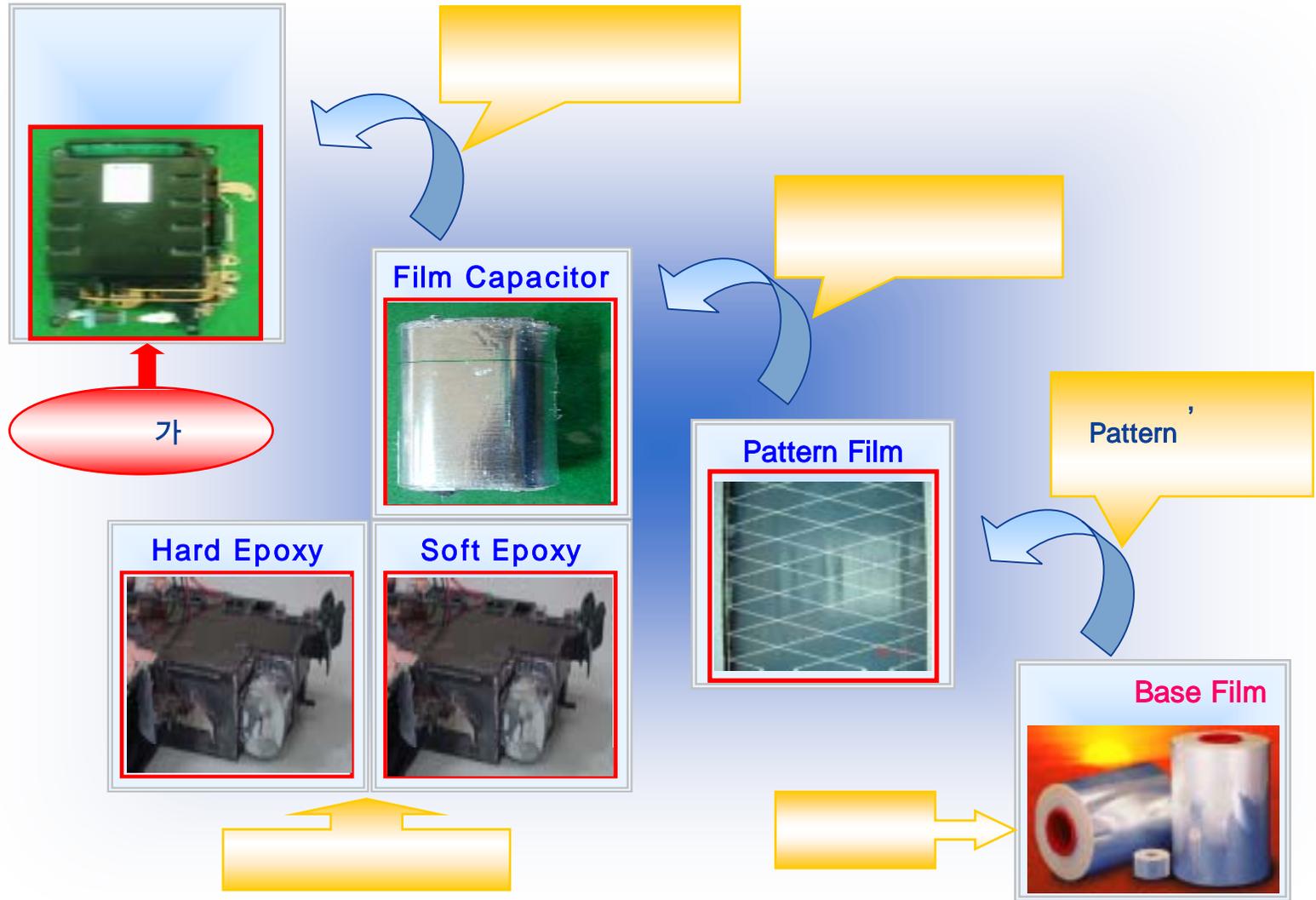
Surge absorption capacitor

- Inverter switching surge

| Capacitor bank | Requiements |
|--------------------------------------|----------------------------------|
| Capacitance, μF | $3000 \pm 10\%$ |
| Votage rating, VDC | 750 |
| Peak transient voltage for 50 ms | 900 |
| Leakage current at rated voltage, mA | 1 |
| Dissipation factor, % | < 1 |
| ESR, m | < 3 |
| ESL, nH | 30 |
| Ripple current, Arms | 250 |
| Temperature range of ambient air, | -40 to +105 |
| Failure mode | Self-healing |
| Life@80% rated voltage | > 7,500 hr, 20Arms, 85 |



2.5





Thank You !

/ 가! / 가! / 가!