

# EiceDRIVER™

## 200V/600V/1200V Gate Driver ICs for Electric Drives Application

The Infineon EiceDRIVER™ family with Coreless Transformer (CLT) and Level-Shift Technology (LS-SOI) meets the requirements for high performance gate driver ICs in electric drive applications. With the combination of EiceDRIVER™ ICs with MOSFETs like CoolMOS™, IGBTs and Silicon Carbide (SiC) power devices in discretes and modules, Infineon customers can design and build reliable and efficient systems.

The EiceDRIVER™ single channel products **1ED020112-F2** and **1ED020112-B2** start with features like desaturation detection (DESAT), active Miller Clamp, undervoltage lockout (UVLO) and shut down in functional or basic isolation. Both devices **1ED020112-FT** and **1ED020112-BT** also support two-level-turn-off (TLTO) for safe overcurrent shut down. In **2ED020112-F2**, two independent channels are implemented in a compact package providing same functions as **1ED020112-F2**.

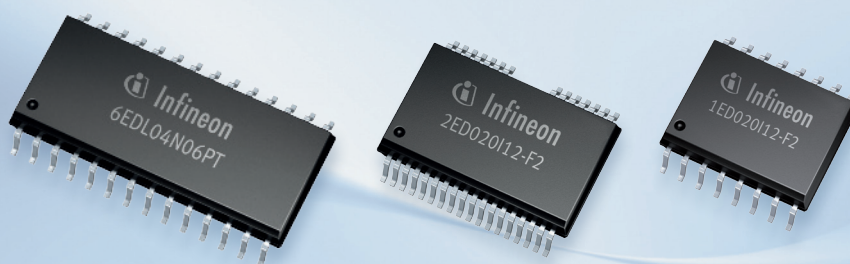
**2ED020112-FI** and **2ED020106-FI** are Infineon's cost efficient half bridge driver ICs with shut down and interlocking feature. The 1200V **2ED020112-FI** also implements an operational amplifier (OpAmp) and a comparator (Comp) for current measurement or overvoltage detection circuits.

Infineon's three phase driver IC family now includes six new variants for low power drive applications. **6ED003L06-F2** and **6ED003L02-F2** in 600V and 200V provide basic functions like undervoltage lockout for IGBT levels, overcurrent shut down (ITRIP), interlocking and enable (EN). **6EDL04I06NT** and **6EDL04I06PT** supplement this functionality with a high speed bootstrap circuit for each highside driver stage. To complete the family, **6EDL04N06PT** and **6EDL04N02PR** are optimized for MOSFET operation.

Infineon's EiceDRIVER™ high voltage Driver IC family covers a wide power range and enables customers to built reliable and efficient drive applications.

### Products

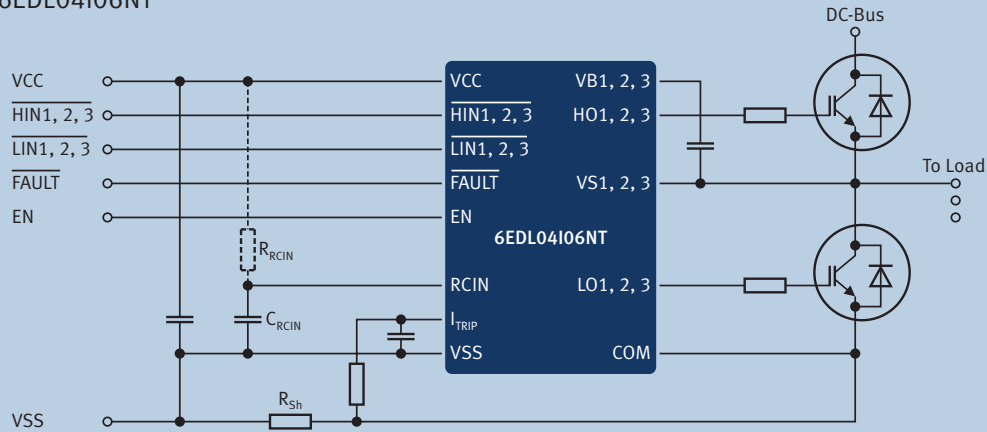
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- 1ED020112-B2
- 1ED020112-FT
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- 2ED020112-F2
- 2ED020112-FI
- 2ED020106-FI
- 6ED003L06-F2
- 6ED003L02-F2
- 6EDL04I06NT
- 6EDL04I06PT
- 6EDL04N06PT
- 6EDL04N02PR



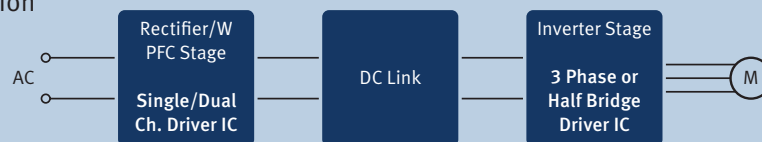
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Typical usage 6EDL04I06NT

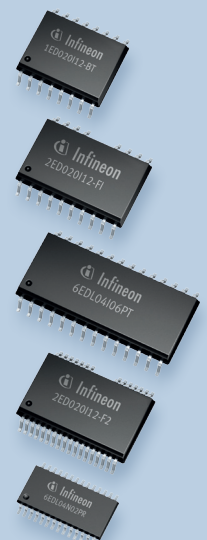


Typical Drives Application



### Detailed Product Features

| Product List | Technology      | Max. Voltage [V] | Input Logic | Features                   | Basic * Isolation | Typ. UVLO [V] | Package  |
|--------------|-----------------|------------------|-------------|----------------------------|-------------------|---------------|----------|
| 1ED020I12-F2 | 1channel-CLT    | 1200             | pos & neg   | RST, DESAT, RDY            | -                 | 11 / 12       | DSO-16   |
| 1ED020I12-B2 | 1channel-CLT    | 1200             | pos & neg   | RST, DESAT, RDY            | X                 | 11 / 12       | DSO-16   |
| 1ED020I12-FT | 1channel-CLT    | 1200             | pos & neg   | RST, DESAT, RDY, TLTO      | -                 | 11 / 12       | DSO-16   |
| 1ED020I12-BT | 1channel-CLT    | 1200             | pos & neg   | RST, DESAT, RDY, TLTO      | X                 | 11 / 12       | DSO-16   |
| 2ED020I12-F2 | 2channel-CLT    | 1200             | pos & neg   | RST, DESAT, RDY            | -                 | 11 / 12       | DSO-36   |
| 2ED020I12-FI | half bridge-CLT | 1200             | pos         | SD, Interlock, OpAmp, Comp | -                 | 11 / 12.2     | DSO-18   |
| 2ED020I06-FI | half bridge-CLT | 600              | pos         | SD, Interlock              | -                 | 11 / 12.2     | DSO-18   |
| 6ED003L06-F2 | 3phase-LS-SOI   | 600              | neg         | EN, Interlock, ITRIP       | -                 | 9.8 / 11.7    | DSO-28   |
| 6ED003L02-F2 | 3phase-LS-SOI   | 200              | neg         | EN, Interlock, ITRIP       | -                 | 9.8 / 11.7    | TSSOP-28 |
| 6EDL04I06NT  | 3phase-LS-SOI   | 600              | neg         | EN, Interlock, ITRIP, BS   | -                 | 9.8 / 11.7    | DSO-28   |
| 6EDL04I06PT  | 3phase-LS-SOI   | 600              | pos         | EN, Interlock, ITRIP, BS   | -                 | 9.8 / 11.7    | DSO-28   |
| 6EDL04N06PT  | 3phase-LS-SOI   | 600              | pos         | EN, Interlock, ITRIP, BS   | -                 | 8.1 / 9       | DSO-28   |
| 6EDL04N02PR  | 3phase-LS-SOI   | 200              | pos         | EN, Interlock, ITRIP, BS   | -                 | 8.1 / 9       | TSSOP-28 |



\* Certified according to DIN EN 60747-5-2

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