

Data Sheet 1SD536F2-CM1800HC-34N

di/dt feedback**Remarks**

di/dt feedback implemented

Note 22

no

Footnotes to the key data

- 1) Supply voltages higher than those specified can lead to the destruction of the driver and protection circuits on the output side. The gate-emitter voltage tracks the primary supply voltage. (Not regulated by the supply circuitry or the gate drive unit.)
- 2) Static power consumption of the gate driver.
- 3) If the specified power consumption is exceeded on average, this indicates an overload of the DC/DC converter. The DC/DC converter is not protected against overload.
- 4) Under-voltage monitoring of power supply. For a voltage lower than this limit, the power modules are switched off. The voltage refers to the secondary supply voltage of the gate driver, which is approximately the same as the voltage between VDC and GND.
- 5) This limit is due to active clamping. Refer to the "Description and Application Manual for 1SD536F2 SCALE High-Power IGBT Drivers".
- 6) Pulse width of the direct output of the gate drive unit. (Excluding the delay of the gate resistors.)
- 7) Duration of blocking the command input (keeping the gate driver and the IGBT in the off-state) after fault detection, i.e. power supply under-voltage lock out, or – only in 2-level mode – short-circuit detection. (For three/multilevel mode, turn-off under the short-circuit condition is managed by the host controller.)
- 8) The gate current is limited by on-board gate resistors.
- 9) Refers to the direct output of the gate drive unit. (Excluding the delay of the gate resistors.)
- 10) Maximum continuous or repeatedly applied DC voltage or peak value of the repeatedly applied AC voltage between the power supply inputs and all other terminals.
- 11) Including the delay of external fiber-optic links. Measured from turn-on transition at direct output of the gate drive unit (excluding the delay of the gate resistors) to the transition of the status signal at the optical receiver on the host controller side.
- 12) Application-specific self-heating of gate drivers and IGBT modules, especially at high switching frequency, must be taken into account. The switching frequency is commonly limited due to switching losses of the IGBT modules. Because CONCEPT cannot predict how the drivers will be incorporated in the user's application, no binding recommended value for self-heating and thus for the maximum useable output power can be made. It is therefore recommended to check the gate driver's ambient temperature within the system.
- 13) Including the delay of external fiber-optic links. Measured from the transition of turn-on or turn-off command at the optical transmitter on the host controller side to direct output of the gate drive unit. (Excluding the delay of the gate resistors.)
- 14) Including the delay of external fiber-optic links. Measured from the transition of turn-on or turn-off command at the optical transmitter on the host controller side to the transition of the acknowledge signal at the optical receiver on the host controller side.

