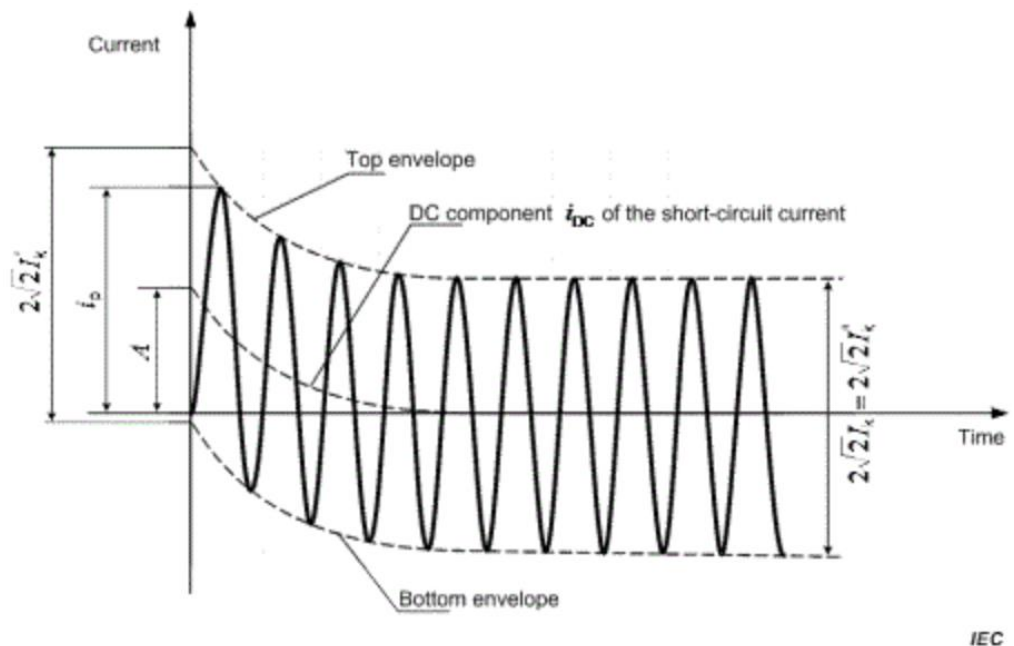


## Short Current Contribution

1. This documents provides short-circuits information of Huawei SUN2000MA inverters. Unless agreed in writing by Huawei, it is not allowed to reproduce or disseminate the contents of this document, otherwise it will be considered infringement.
2. According to IEC60909-0:2016, the definitions of  $i_p$ ,  $I''_k$  and  $I_k$  is used for calculation of short-circuits current of power generators.



### Key

- $I''_k$  initial symmetrical short-circuit current
- $i_p$  peak short-circuit current
- $I_k$  steady-state short-circuit current

3.  $I_k$  is the steady-state short-circuit current which could be measured for 5 cycles (100ms). It is rms value of the short-current which remains after the decay of the transient phenomena. For inverters,  $I_k$  is the max output current  $I_{acmax}$  because at fault the max reactive current is  $I_{acmax}$  controlled by the firmware. Normally short circuit contribution means  $I_k$ .
4.  $I''_k$  is initial symmetrical short circuit current. It is rms value of AC symmetrical

component of a prospective short circuit current applicable at the instant of short circuit if the impedance remains at zero-time value. In the inverter we take the first 20ms rms value for it.

5.  $i_p$  is peak short-circuit current. It is maximum possible instantaneous value of the prospective short-circuit current.
6. Therefore, we declare the short current as below:

Inverter Type	Max. AC Apparent Power(kVA)	Rated Output Voltage(line voltage)(V)	Short circuit contribution ( $I_k$ ) (Steady-state) (A)	Initial short circuit current ( $I''_k$ ) (1 cycles or 20ms)(A)	peak short-circuit current( $i_p$ )
SUN2000-40KTL-M3	44	400	63.8	95.7	198.5
SUN2000-36KTL-M3	40	400	58	87	180.4
SUN2000-30KTL-M3	33	400	47.9	71.85	149.0
SUN2000-29.9KTL-M3	29.9	400	43.2	64.8	134.4
SUN2000-20KTL-M3 (巴西)	22	220	58	87	180.4
SUN2000-20KTL-M3 (日本)	22	202	63.2	94.8	196.6