MODELS: All Models

TITLE: MTBF

1. MTBF (Mean Time Between Failure) for the following inverters are shown below.

Inverter Series	MTBF* [h] Calculated value	MTBF** [h] Performance value based on market failure rate (4 times the MTBF value)
FR-A800	54,000	216,000
FR-F800	54,000	216,000
FR-E800	127,000	508,000
FR-D800	127,000	508,000
FR-CC2	62,000	248,000
FR-A700	54,000	216,000
FR-F700	54,000	216,000
FR-E700	127,000	508,000
FR-D700	127,000	508,000
FR-A701	32,000	128,000
FR-V500	54,000	216,000
FR-A500	54,000	216,000
FR-F500	54,000	216,000
FR-E500	130,000	520,000
FR-S500	150,000 (Without RS-485) 140,000 (With RS-485)	600,000 560,000
FR-F500J	140,000	560,000
FR-A200E	54,000	126,000
FR-V500E	54,000	126,000

* These MTBF values are calculated based on MIL-HDBK-217.
** The market has shown that they could last up to 4 to 8 times longer than the MTBF calculated value, but this MTBF performance value is not guaranteed.

2. About the MTBF

MTBF or MTTF are commonly used as a standard for estimating the number of hours which a product can be used without failure. The MTBF and MTTF are defined as follows.

MTBF (mean time between failures)

MTBF is used to show the average number of operational hours between an initial failure and a following failure after having been repaired.

MTTF (mean time to failure)

MTTF is used to show the number of operational hours to failure if the product is not repaired after initial failure.

The Mitsubishi general purpose inverter consists of many electronic components, such as the cooling fan, relay and smoothing capacitor, which may deteriorate over time and require periodical replacement. Therefore, MTBF is used for Mitsubishi inverters.