

Table 6.1 Fault Code List

Code indication (Note 3)	Status message	Meaning	Guidance	Buzzer	External relay contact (Note 1)	Failure lamp (Note 2)
UA801	AC INPUT VOLTAGE OUT OF RANGE	Input line voltage is out of the specific range.	CHECK INPUT POWER SOURCE	Intermittent sound	Alarm AC input abnormal	-
UA802	AC INPUT FREQUENCY OUT OF RANGE	Input line frequency is out of the specified range.	CHECK INPUT POWER SOURCE	Intermittent sound	Alarm AC input abnormal	-
UA803	AC INPUT PHASE ROTATION ERROR	Input line power conductors are not wired in a proper phase sequence.	CHECK INPUT POWER SOURCE	Intermittent sound	Alarm AC input abnormal	-
UA804	CONVERTER OPE. PROHIBITION	The converter interlock is active.	-	Intermittent sound	Alarm	-
UA805	INVERTER OVERLOAD	The output load current has exceeded 105% of the rated current.	WARNING: DECREASE LOAD	Intermittent sound	Alarm Overload	-
UA806	INVERTER OVERLOAD	The output load current has exceeded 110% of the rated current.	WARNING: DECREASE LOAD	Intermittent sound	Alarm Overload	-
UA807	INVERTER OVERLOAD	The output load current has exceeded 125% of the rated current.	WARNING: DECREASE LOAD	Intermittent sound	Alarm Overload	-
UA808	INVERTER OVERLOAD	The output load current has exceeded 150% of the rated current.	WARNING: DECREASE LOAD	Intermittent sound	Alarm Overload	-
UA810	INVERTER OVERLOAD	Short time over-current has exceeded 150% of the rated current	WARNING: DECREASE LOAD	Intermittent sound	Alarm Overload	-
UA812	BYPASS VOLTAGE OUT OF RANGE	Bypass line voltage is out of the specific range.	CHECK BYPASS INPUT	Intermittent sound	Alarm Bypass Input Abnormal	-
UA813	BYPASS PHASE ROTATION ERROR	Bypass line power conductors are not wired in a proper phase sequence.	CHECK BYPASS INPUT	Intermittent sound	Alarm Bypass Input Abnormal	-
UA814	BYPASS FREQUENCY OUT OF RANGE	Bypass line frequency is out of the specific range.	CHECK BYPASS INPUT	Intermittent sound	Alarm Bypass Input Abnormal	-
UA815	TRANSFER PROHIBITION	Transfer to bypass is not available due to bypass abnormality.	-	Intermittent sound	Alarm	-
UA817	EMERGENCY STOP ACTIVATED	The emergency stop was activated by the EPO switch or an external contact.	-	-	Alarm	-
UA821	TRANSFER PROHIBITION	The UPS cannot transfer to the bypass because the inverter output is not synchronized to the bypass.	-	-	Alarm	-

Table 6.1 (continuation)

Code indication (Note 3)	Status message	Meaning	Guidance	Buzzer	External relay contact (Note 1)	Failure lamp (Note 2)
UA822	TRANSFER PROHIBITION	The UPS cannot transfer to the bypass because of backup generator operation.	-	-	Alarm	-
UA824	CB2 OPEN	The battery circuit breaker (CB2) is open.	TURN ON CB2	Intermittent sound	Alarm	-
UA827	52C OPE. PROHIBITION	The interlock for the inverter output contactor (52C) is active.	-	Intermittent sound	Alarm	-
UA831	EMERGENCY BYPASS SWITCH ON	Emergency bypass switch has been turned on.	-	Intermittent sound	Alarm	-
UA833	52L OPEN	The load circuit breaker (52L) is turned off.	-	Intermittent sound	Alarm	-
UA834	BATTERY DEPLETED/AC OUT STOPPED	The battery voltage has reached the depleted level.	-	-	Major End-of-Discharge	Lit on
UA835	TRANSFER PROHIBITION	The UPS could not transfer to the bypass because the bypass source has an abnormality.	-	-	Alarm	-
UA860	REMOTE BUTTON ABNORMAL	Remote start or stop signal is being received continuously for a considerable time.	-	Intermittent sound	Alarm	-
UA861	LOCAL BUTTON ABNORMAL	Local start or stop signal is being received continuously for a considerable time.	-	Intermittent sound	Alarm	-
UA870	BALANCER OVERLOAD	The UPS detected a neutral point voltage unbalance.	-	Intermittent sound	Alarm Overload	-
UA890	EXTERNAL ALARM	External Alarm relay turned on.	-	Intermittent sound	Alarm	-
UF001	INPUT CIRCUIT ABNORMAL	Detection of a large variation of the reference error signal.	CALL SERVICE ENGINEER	Continuous sound	Major	Lit on
UF002	CONVERTER OVERCURRENT	Detection of converter overcurrent.	CALL SERVICE ENGINEER	Continuous sound	Major	Lit on
UF003	CONVERTER ABNORMAL	Pre-charging circuit is not working properly.	CALL SERVICE ENGINEER	Continuous sound	Major	Lit on
UF011	CB1 ABNORMAL	Major discrepancy between reference signal and actual state of contactor CB1.	CALL SERVICE ENGINEER	Continuous sound	Major	Lit on
UF052	CB1 ABNORMAL	Minor discrepancy between reference signal and actual state of contactor CB1.	CALL SERVICE ENGINEER	Intermittent sound	Minor	Flicker
UF056	CONVERTER OVERCURRENT	Detection of converter overcurrent.	CALL SERVICE ENGINEER	Intermittent sound	Minor	Flicker
UF059	INPUT CIRCUIT ABNORMAL	Detection of a large variation of the reference error signal.	CALL SERVICE ENGINEER	Intermittent sound	Minor	Flicker
UF102	DC OVERVOLTAGE	DC voltage surpasses the overvoltage level.	CALL SERVICE ENGINEER	Continuous sound	Major	Lit on

Table 6.1 (continuation)

Code indication (Note 3)	Status message	Meaning	Guidance	Buzzer	External relay contact (Note 1)	Failure lamp (Note 2)
UF103	DC UNDERVOLTAGE	DC voltage dropped below the undervoltage level.	CALL SERVICE ENGINEER	Continuous sound	Major	Lit on
UF108	CHOPPER OVERCURRENT	Detection of DC overcurrent.	CALL SERVICE ENGINEER	Continuous sound	Major	Lit on
UF109	DC UNBALANCED	Major unbalance of the neutral point voltage.	CALL SERVICE ENGINEER	Continuous sound	Major	Lit on
UF110	ZERO PHASE OVERCURRENT	Detection of converter zero-sequence overcurrent.	CALL SERVICE ENGINEER	Continuous sound	Major	Lit on
UF111	UPS CONTROL CIRCUIT ERROR	Battery current unbalance.	CALL SERVICE ENGINEER	Continuous sound	Major	Lit on
UF112	DC CIRCUIT ABNORMAL	Sudden change of the DC voltage level.	CALL SERVICE ENGINEER	Continuous sound	Major	Lit on
UF119	DC GROUND FAULT	Detection of DC ground fault.	CALL SERVICE ENGINEER	Continuous sound	Major	Lit on
UF128	CONTROL POWER SUPPLY ABNORMAL	Power supply voltage to IGBT driver PCB is below the specified level.	CALL SERVICE ENGINEER	Continuous sound	Major	Lit on
UF151	DC VOLTAGE ABNORMAL	24 hours after input power restoration, batteries do not reach float voltage level.	CALL SERVICE ENGINEER	Intermittent sound	Minor	Flicker
UF152	DC VOLTAGE ABNORMAL	Unable to equalize the voltage of various batteries after 24 hours.	CALL SERVICE ENGINEER	Intermittent sound	Minor	Flicker
UF154	CB2 ABNORMAL	During UVT, status signal from CB2 is ON.	CALL SERVICE ENGINEER	Intermittent sound	Minor	Flicker
UF156	CHG.STOPPED (BATTERY OVERTEMP.)	UF157 failure persisted for over 2 hours.	CHECK BATTERY	Intermittent sound	Minor Battery abnormal	Flicker
UF157	BATTERY OVERTEMPERATURE	Detection of overtemperature at the batteries.	CHECK BATTERY	Intermittent sound	Minor Battery abnormal	Flicker
UF158	BATTERY LIQUID LOW	Low level of battery electrolyte solution.	CHECK BATTERY	Intermittent sound	Minor Battery abnormal	Flicker
UF159	DC GROUND FAULT	Detection of DC ground fault.	CALL SERVICE ENGINEER	Intermittent sound	Minor	Flicker
UF160	UPS CONTROL CIRCUIT ERROR	Abnormal behavior of DC current sensor.	CALL SERVICE ENGINEER	Intermittent sound	Minor	Flicker
UF161	CHG.STOPPED (DC VOLT. ABNORMAL)	UF151 failure is running for over 24 hours.	CALL SERVICE ENGINEER	Intermittent sound	Minor	Flicker
UF162	BATTERY ABNORMAL	Failure detection based on battery self-check.	CALL SERVICE ENGINEER	Intermittent sound	Minor	Flicker

Table 6.1 (continuation)

Code indication (Note 3)	Status message	Meaning	Guidance	Buzzer	External relay contact (Note 1)	Failure lamp (Note 2)
UF163	BATTERY VOLTAGE ABNORMAL	Battery voltage is abnormality.	CALL SERVICE ENGINEER	Intermittent sound	Minor	Flicker
UF170	VDB SENSOR ABNORMAL	Detection of a large variation of the difference between control-only and protection-only battery voltage.	CALL SERVICE ENGINEER	Intermittent sound	Minor	Flicker
UF171	UPS CONTROL CIRCUIT ERROR	Battery current unbalance.	CALL SERVICE ENGINEER	Intermittent sound	Minor	Flicker
UF201	INVERTER OVERVOLTAGE	Detection of output overvoltage.	CALL SERVICE ENGINEER	Continuous sound	Major	Lit on
UF202	INVERTER UNDERVOLTAGE	Output voltage dropped.	CALL SERVICE ENGINEER	Continuous sound	Major	Lit on
UF203	INVERTER OVERCURRENT	Detection of inverter overcurrent.	CALL SERVICE ENGINEER	Continuous sound	Major	Lit on
UF204	OUTPUT CIRCUIT ABNORMAL	Detection of a large variation of the reference error signal (current reference and actual current).	CALL SERVICE ENGINEER	Continuous sound	Major	Lit on
UF206	UPS CONTROL CIRCUIT ERROR	Discrepancy between output voltage and external voltage (bypass, common ac bus)	CALL SERVICE ENGINEER	Continuous sound	Major	Lit on
UF207	ZERO PHASE OVERCURRENT	Inverter zero-sequence overcurrent.	CALL SERVICE ENGINEER	Continuous sound	Major	Lit on
UF208	UPS CONTROL CIRCUIT ERROR	Cross current is abnormality.	CALL SERVICE ENGINEER	Continuous sound	Major	Lit on
UF209	52C ABNORMAL	Error to close the contactor 52C.	CALL SERVICE ENGINEER	Continuous sound	Major	Lit on
UF210	52C ABNORMAL	Error to open the contactor 52C.	CALL SERVICE ENGINEER	Continuous sound	Major	Lit on
UF211	52C ABNORMAL	No answer from contactor 52C during inverter operation.	CALL SERVICE ENGINEER	Continuous sound	Major	Lit on
UF213	OVERTEMPERATURE	Heatsink's temperature exceeds thermal settings.	CALL SERVICE ENGINEER	Continuous sound	Major	Lit on
UF214	COOLING FAN ABNORMAL	Thermal relay activated protection.	CALL SERVICE ENGINEER	Continuous sound	Major	Lit on
UF217	INVERTER OVERVOLTAGE	Detection of inverter output phase overvoltage.	CALL SERVICE ENGINEER	Continuous sound	Major	Lit on
UF230	ZERO PHASE OVERCURRENT	Detection of zero-sequence overcurrent.	CALL SERVICE ENGINEER	Continuous sound	Major	Lit on

Table 6.1 (continuation)

Code indication (Note 3)	Status message	Meaning	Guidance	Buzzer	External relay contact (Note 1)	Failure lamp (Note 2)
UF253	UPS CONTROL CIRCUIT ERROR	Discrepancy between output voltage and inverter voltage, or between output voltage and bypass voltage.	CALL SERVICE ENGINEER	Intermittent sound	Minor	Flicker
UF256	OUTPUT VOLTAGE ABNORMAL	Output voltage is out of the specified range.	CALL SERVICE ENGINEER	Intermittent sound	Minor	Flicker
UF257	52C ABNORMAL	Contactors 52C failed to open during load transfer from inverter to bypass.	CALL SERVICE ENGINEER	Intermittent sound	Minor	Flicker
UF258	LOAD ABNORMAL	Load transfer due to overload for over 4 times within 5 minutes.	CALL SERVICE ENGINEER	Intermittent sound	Minor	Flicker
UF259	ANOTHER UPS ABNORMAL	No detection of another UPS voltage signal.	CALL SERVICE ENGINEER	Intermittent sound	Minor	Flicker
UF301	UPS CONTROL CIRCUIT ERROR	AD reference has an abnormal value.	CALL SERVICE ENGINEER	Continuous sound	Major	Lit on
UF302	UPS CONTROL CIRCUIT ERROR	Detection of an external interruption during the software execution.	CALL SERVICE ENGINEER	Continuous sound	Major	Lit on
UF303	UPS CONTROL CIRCUIT ERROR	Timer does not reset in the specified period (WDT settings)	CALL SERVICE ENGINEER	Continuous sound	Major	Lit on
UF305	UPS CONTROL CIRCUIT ERROR	Detection of an abnormal clock speed in the DSP or FPGA.	CALL SERVICE ENGINEER	Continuous sound	Major	Lit on
UF306	UPS CONTROL CIRCUIT ERROR	Control power supply voltage is below the specified level.	CALL SERVICE ENGINEER	Continuous sound	Major	Lit on
UF309	INVERTER VOLTAGE ABNORMAL	Inverter voltage is out of the specified range.	CALL SERVICE ENGINEER	Continuous sound	Major	Lit on
UF310	CONTROL POWER SUPPLY ABNORMAL	Backup control power supplies exhibit abnormal condition.	CALL SERVICE ENGINEER	Continuous sound	Major	Lit on
UF320	UPS CONTROL CIRCUIT ERROR	Cable disconnection in the parallel interface board during load supply.	CALL SERVICE ENGINEER	Continuous sound	Major	Lit on
UF323	UPS CONTROL CIRCUIT ERROR	Major communication error during parallel operation.	CALL SERVICE ENGINEER	Continuous sound	Major	Lit on
UF352	CONTROL POWER SUPPLY ABNORMAL	Backup control power supplies exhibit abnormal condition.	CALL SERVICE ENGINEER	Intermittent sound	Minor	Flicker
UF363	UPS CONTROL CIRCUIT ERROR	Synchronization status signal is being received for a considerable time.	CALL SERVICE ENGINEER	Intermittent sound	Minor	Flicker
UF371	UPS CONTROL CIRCUIT ERROR	Minor communication error during parallel operation.	CALL SERVICE ENGINEER	Intermittent sound	Minor	Flicker
UF372	UPS CONTROL CIRCUIT ERROR	Unable to synchronize the inverter output and the bypass voltage.	CALL SERVICE ENGINEER	Intermittent sound	Minor	Flicker

Table 6.1 (continuation)

Code indication (Note 3)	Status message	Meaning	Guidance	Buzzer	External relay contact (Note 1)	Failure lamp (Note 2)
UF374	UPS CONTROL CIRCUIT ERROR	Cable disconnection in the parallel interface board.	CALL SERVICE ENGINEER	Intermittent sound	Minor	Flicker
UF375	UPS CONTROL CIRCUIT ERROR	Unable to achieve synchronization for parallel operation.	CALL SERVICE ENGINEER	Intermittent sound	Minor	Flicker
UF376	UPS CONTROL CIRCUIT ERROR	No control response from another UPS although its detection is possible.	CALL SERVICE ENGINEER	Intermittents ound	Minor	Flicker
UF377	UPS CONTROL CIRCUIT ERROR	Overload detection signal is being received continuously for a considerable time.	CALL SERVICE ENGINEER	Intermittent sound	Minor	Flicker
UF378	UPS CONTROL CIRCUIT ERROR	No answer for sending synchronizing signal.	CALL SERVICE ENGINEER	Intermittent sound	Minor	Flicker
UF379	UPS CONTROL CIRCUIT ERROR	Abnormal clock speed of the parallel control board processor.	CALL SERVICE ENGINEER	Intermittent sound	Minor	Flicker
UF401	52S ABNORMAL	Error to close the contactor 52S.	CALL SERVICE ENGINEER	Continuous sound	Major	Lit on
UF402	52S ABNORMAL	Error to open the contactor 52S.	CALL SERVICE ENGINEER	Continuous sound	Major	Lit on
UF420	52L OPERATION ERROR	Load circuit breaker 52L opened during inverter operation.	CHECK 52L	Continuous sound	Major	Lit on
UF451	52S ABNORMAL	Contactor 52S failed during load transfer from inverter to bypass.	CALL SERVICE ENGINEER	Intermittent sound	Minor	Flicker
UF452	CB3 ABNORMAL	Contactor CB3 is not working properly.	CALL SERVICE ENGINEER	Intermittent sound	Minor	Flicker

- (Note 1) 1) "Major" is defined as a major failure. Load transferred from the inverter circuit to the static bypass line;
2) "Minor" is defined as a minor failure. UPS continues to operate normally, but cause of alarm must be identified;

(Note 2) Indicates one of two possible LED illumination patterns - continuously on (lit on) or intermittent (flicker).

(Note 3) Code indication means:

UA+++----- Alarm
 UF+++----- Failure
 U%0++----- Rectifier circuit failure
 U%1++----- DC circuit failure
 U%2++----- Inverter circuit failure
 U%3++----- Control circuit failure
 U%4++----- Bypass system failure

U%8++ ----- Alarm
U%+00 - U%+49 ----- Major failure
U%+50 - U%+99 ----- Minor failure

- *) “+” denotes any numeral from 0 to 9
- *) “%” denotes either “A” or “F”