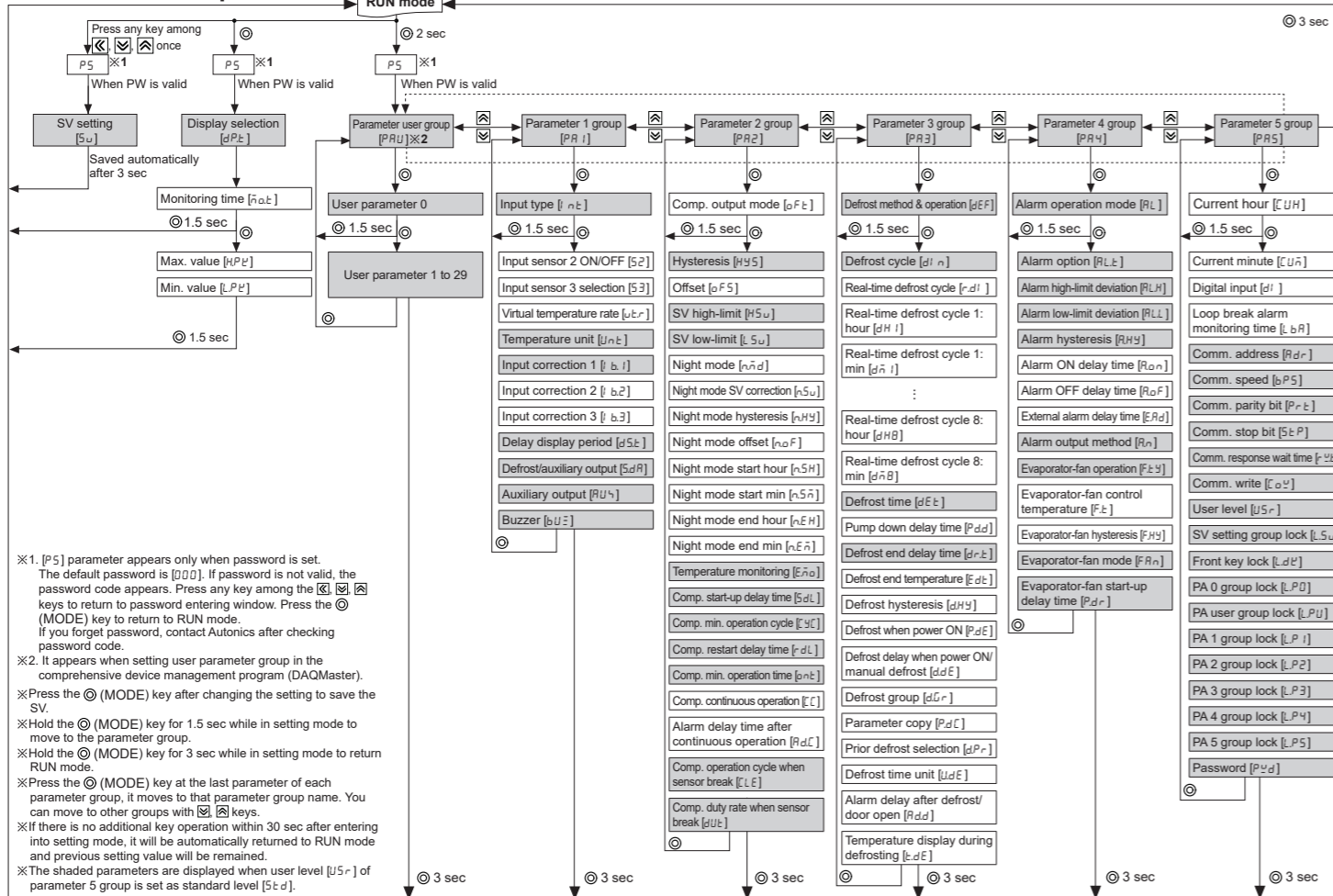




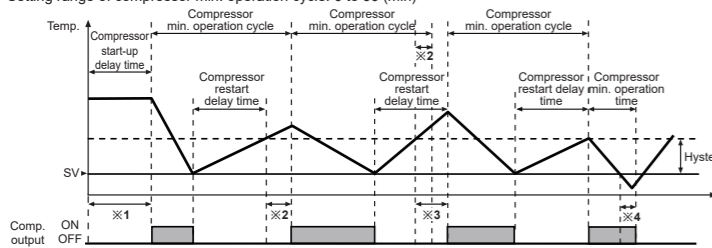
Parameter Group



Compressor Protection

This function is for preventing compressor from life cycle shortening or malfunction by overload and frequent ON/OFF of compressor.

- Compressor start-up delay time [SdL]
Compressor restart delay time [r dL]
Compressor min. operation time [o n t], Compressor min. operation cycle [C y C]



- When starting compressor, if present value (PV) is out of hysteresis range, compressor output does not turn ON and the compressor (COMP) output indicator is flashing during compressor start-up delay time.

Compressor Control When Sensor Break

If normal temperature control is impossible due to sensor break, it controls compressor output by the set operation cycle and duty ratio to protect control object.

- Compressor operation cycle when sensor break [L L E]
Compressor duty ratio when sensor break [d U t]

Defrost Control (except 1CH, compressor output model: TF31-1□□)

When operating a compressor for a long time, an evaporator and a freezer are freezing and thermal efficiency of compressor is decreased.

- Defrost method and operation [d E F]
Defrost cycle [d i n], Defrost time [d E t]

Defrost cycle [d i n], Defrost time [d E t]

Set defrost cycle and time to operate defrost at every set cycle and during the set time. Defrost cycle setting range: 0 to 24 (hour)/0 to 100 (min).

Defrost end temperature [E d t], Defrost hysteresis [d H y]

Set defrost end temperature and defrost hysteresis from input sensor 2 (defrost temperature). When the measured temperature of defrost sensor is same as the set defrost end temperature, defrost operation is stopped.

Manual defrost

Execute defrost manually regardless of the set defrost cycle which consists of defrost method and operation setting.

Defrost synchronization (only for digitalized defrost function model: TF33-□□A-S, RS485 communication model: TF33-□□A-T/A)

When connecting over 2 units of TF3, defrost and compressor operation is able to synchronize via synchronize terminal/RS485 communication.

Alarm (except 1CH, compressor output model: TF31-1□□)

Set both alarm operation and alarm option by combining. Alarm function is available for compressor+defrost or auxiliary (alarm/evaporator-fan) output model (TF3-□□□□).

Table with columns: Mode, Name, Alarm operation, Description. Rows include Deviation high, low-limit alarm and Alarm operation mode.

Table with columns: Mode, Name, Description. Rows include Standard alarm, Alarm latch, Standby sequence 1, Alarm latch and standby sequence 1, Standby sequence 2, Alarm latch and standby sequence 2.

Digital Input [d i]

Table with columns: Parameter, Function. Rows include OFF, RUN/STOP, Door switch, Night mode ON/OFF, External alarm, Defrost ON/OFF, Manual defrost.

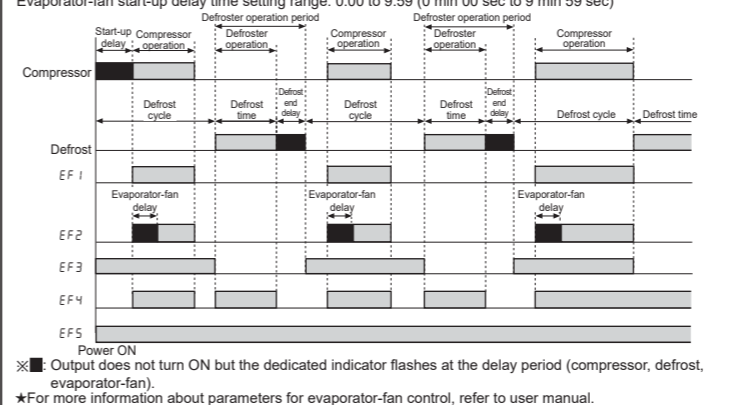
Evaporator-fan Control (except 1CH, compressor output model: TF31-1□□)

To improve the efficiency of cooling, install and control evaporator-fan at evaporator. It is available for compressor+defrost or auxiliary (alarm/evaporator-fan) output model (TF3-□□□□).

- Evaporator-fan operation [F t y]
Evaporator-fan control temperature [F t y] and hysteresis [F H y]
Evaporator-fan operation mode [F R n] and evaporator-fan start-up delay time [P d r]

Table with columns: Parameter, Operation method. Rows include EF1, EF2, EF3, EF4, EF5.

If evaporator temperature is increased by defrost operation, warm air may flow into cooling system by evaporator-fan operation.



Parameter Reset

Hold [K] + [H] keys for 5 sec to reset all parameters in memory to default value. Set [n i] parameter to [E 5] to reset all parameters.

Error Display

Table with columns: Flashing in turn, Description, Troubleshooting. Rows include Er 1, Er 2, Er 3, Er r.

Factory Default

Tables for SV setting [S v], Parameter 0 group, Parameter 1 group [P R 1], Parameter 2 group [P R 2], Parameter 3 group [P R 3], Parameter 4 group [P R 4], Parameter 5 group [P R 5].

User Manual

For the detail information and instructions, please refer to user manual and user manual for communication, and be sure to follow cautions written in the technical descriptions (catalog, homepage).

Cautions during Use

- Follow instructions in 'Cautions during Use'. Otherwise, it may cause unexpected accidents. Check the polarity of the terminals before wiring the temperature sensor.

Major Products

- Photoelectric Sensors, Temperature Controllers, Fiber Optic Sensors, SSRs/Power Controllers, Door Sensors, Counters, Door Side Sensors, Timers, Area Sensors, Panel Meters, Proximity Sensors, Tachometer/Pulse (Rate) Meters, Pressure Sensors, Display Units, Rotary Encoders, Display Units, Connector/Sockets, Power Controllers, Switching Mode Power Supplies, Control Switches/Lamps/Buzzers, I/O Terminal Blocks & Cables, Stepper Motors/Drivers/Motion Controllers, Graphic/Logic Panels, Field Network Devices, Laser Marking System (Fiber, Co., Nd: yag), Laser Welding/Cutting System.

Autonics corporation logo and website URL: http://www.autonics.com

HEADQUARTERS: 18, Banson-ro 513beon-gil, Haundae-gu, Busan, South Korea, 48002. TEL: 82-51-519-3232. E-mail: sales@autonics.com

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