

Kernel driver bel-pfe

Supported chips:

- BEL PFE1100
Prefixes: 'pfe1100'
Addresses scanned: -
Datasheet: <https://www.belfuse.com/resources/datasheets/powersolutions/ds-bps-pfe1100-12-054xa.pdf>
- BEL PFE3000
Prefixes: 'pfe3000'
Addresses scanned: -
Datasheet: <https://www.belfuse.com/resources/datasheets/powersolutions/ds-bps-pfe3000-series.pdf>

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Description

This driver supports hardware monitoring for below power supply devices which support PMBus Protocol:

- BEL PFE1100
1100 Watt AC to DC power-factor-corrected (PFC) power supply. PMBus Communication Manual is not publicly available.
- BEL PFE3000
3000 Watt AC/DC power-factor-corrected (PFC) and DC-DC power supply. PMBus Communication Manual is not publicly available.

The driver is a client driver to the core PMBus driver. Please see Documentation/hwmon/pmbus.rst for details on PMBus client drivers.

Usage Notes

This driver does not auto-detect devices. You will have to instantiate the devices explicitly. Please see Documentation/i2c/instantiating-devices.rst for details.

Example: the following will load the driver for an PFE3000 at address 0x20 on I2C bus #1:

```
$ modprobe bel-pfe
$ echo pfe3000 0x20 > /sys/bus/i2c/devices/i2c-1/new_device
```

Platform data support

The driver supports standard PMBus driver platform data.

Sysfs entries

curr1_label	"iin"
curr1_input	Measured input current
curr1_max	Input current max value
curr1_max_alarm	Input current max alarm
curr[2-3]_label	"iout[1-2]"
curr[2-3]_input	Measured output current
curr[2-3]_max	Output current max value
curr[2-3]_max_alarm	Output current max alarm
fan[1-2]_input	Fan 1 and 2 speed in RPM
fan1_target	Set fan speed reference for both fans
in1_label	"vin"
in1_input	Measured input voltage
in1_crit	Input voltage critical max value
in1_crit_alarm	Input voltage critical max alarm
in1_lcrit	Input voltage critical min value

in1_crit_alarm	Input voltage critical min alarm
in1_max	Input voltage max value
in1_max_alarm	Input voltage max alarm
in2_label	"vcap"
in2_input	Hold up capacitor voltage
in[3-8]_label	"vout[1-3,5-7]"
in[3-8]_input	Measured output voltage
in[3-4]_alarm	vout[1-2] output voltage alarm
power[1-2]_label	"pin[1-2]"
power[1-2]_input	Measured input power
power[1-2]_alarm	Input power high alarm
power[3-4]_label	"pout[1-2]"
power[3-4]_input	Measured output power
temp[1-3]_input	Measured temperature
temp[1-3]_alarm	Temperature alarm

Note

- curr3, fan2, vout[2-7], vcap, pin2, pout2 and temp3 attributes only exist for PFE3000.