COSEL AC-DC Power Supplies Enclosed Type

# FETA2500BA

## Ordering information

FE T A 2500 B A -□□ -□

① ② ③ ④ ⑤ ⑥ ⑦ ⑧

Example recommended EMI/EMC filter
NAC-20-472

High voltage pulse noise type : NAP series
Low leakage current type : NAM series

＊A higher current rating EMI/EMC filter may be recommended in view of the other devices that could be connected in parallel with the power supply.

①Series name
②External form
T:Terminal block interface
③Single output
④Output wattage
⑤200/230V input
⑥Version
⑦Output voltage
⑧Optional
F2: Reverse air exhaust
R: with Remote ON/OFF Positive logic control

＊Make sure necessary tests will be carried out on your end equipment with the power supply installed in accordance with any required EMC/EMI regulations.

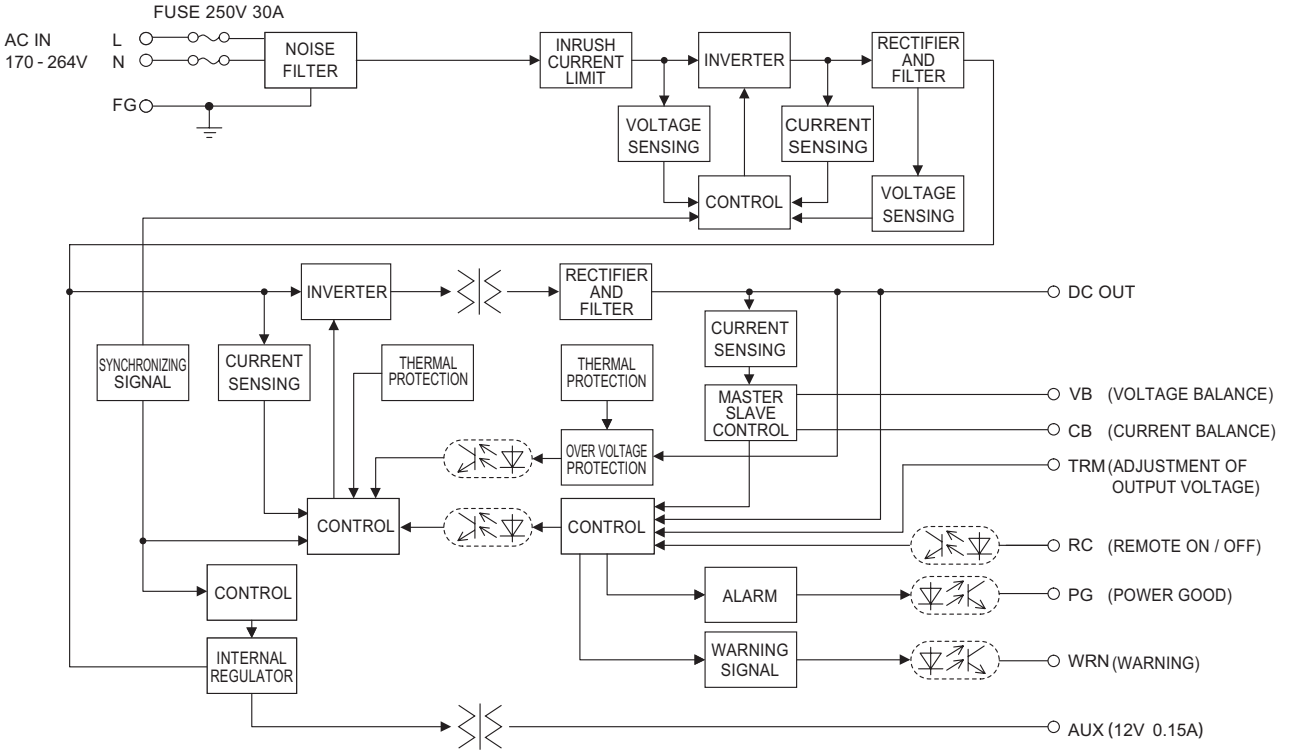
| MODEL | | FETA2500BA-36 | FETA2500BA-48 |
|---|---|---|---|
| MAX OUTPUT WATTAGE[W] | ＊1 | 1980 | 2496 |
| DC OUTPUT | | 36V 55A | 48V 52A |

## SPECIFICATIONS

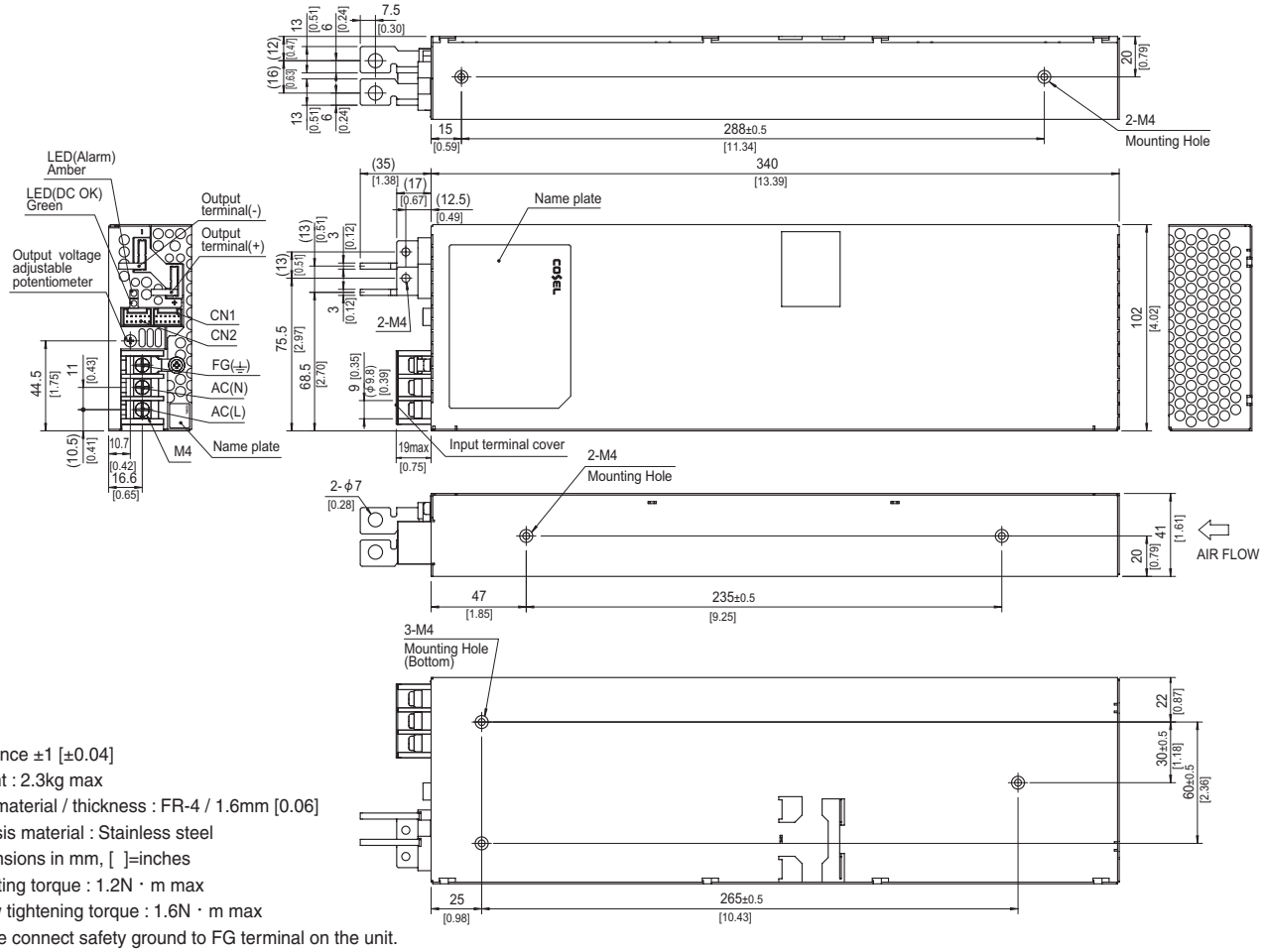
| | MODEL | | FETA2500BA-36 | FETA2500BA-48 |
|---|---|---|---|---|
| INPUT | VOLTAGE[V] | | AC170 - 264 1φ (Output derating is required at AC170V - 180V. Refer to instruction manual 4.2) | |
| | CURRENT[A] | ACIN 200V | 11.3typ | |
| | FREQUENCY[Hz] | | 50 / 60 (47 - 63) | |
| | EFFICIENCY[%] | ACIN 230V | 80typ (Io=10%) | 83typ (Io=10%) |
| | | | 87typ (Io=20%) | 89typ (Io=20%) |
| | | | 91typ (Io=50%) | 92.5typ (Io=50%) |
| | | | 90typ (Io=100%) | 91.5typ (Io=100%) |
| | POWER FACTOR | ACIN 230V | 0.98typ (Io=100%) | |
| | INRUSH CURRENT[A] | ACIN 200V ＊2 | 20max / 60max (Primary inrush current /Secondary inrush current) (More than 10 sec. to re-start) | |
| | LEAKAGE CURRENT[mA] | | 0.85max (ACIN 240V 60Hz, Io=100%, According to IEC60950-1) | |
| OUTPUT | VOLTAGE[V] | | 36 | 48 |
| | CURRENT[A] | ACIN 170V-180V | Output derating is required at ACIN 180V or less (refer to instruction manual 4.2) | |
| | | ACIN 180V-264V | 55 | 52 |
| | LINE REGULATION[mV] | | 144max | 192max |
| | LOAD REGULATION[mV] | | 360max | 480max |
| | RIPPLE[mVp-p] | 0 to +50℃ ＊3 | 300max | 360max |
| | | -10 to 0℃ ＊3 | 360max | 480max |
| | RIPPLE NOISE[mVp-p] | 0 to +50℃ ＊3 | 360max | 480max |
| | | -10 to 0℃ ＊3 | 480max | 600max |
| | TEMPERATURE REGULATION[mV] | 0 to +50℃ | 360max | 480max |
| | | -10 to +50℃ | 440max | 600max |
| | DRIFT[mV] | ＊4 | 144max | 192max |
| | START-UP TIME[s] | | 1.7max (ACIN 200V, Io=100%) | |
| | HOLD-UP TIME[ms] | ACIN 200V | 10typ (Io=100%) | |
| | | | 20typ (Io=50%) | |
| | OUTPUT VOLTAGE ADJUSTMENT RANGE[V] ＊5 | | 28.80 - 39.60 | 38.40 - 52.80 ＊6 |
| | OUTPUT VOLTAGE SETTING[V] | | 36.00 - 37.44 | 48.00 - 49.92 |
| PROTECTION CIRCUIT AND OTHERS | OVERCURRENT PROTECTION | | Activate over 105% - 120% of rated current and recovers automatically. (Output voltage shuts down when the output voltage continuously drops due to overcurrent protection.) ＊7 | |
| | OVERVOLTAGE PROTECTION[V] | ＊7 | 42.00 - 45.00 | 56.00 - 60.00 |
| | DC_OK LAMP | | LED (Green) | |
| | ALARM LAMP | | LED (Amber) | |
| | REMOTE ON/OFF | | Provided | |
| ISOLATION | INPUT-OUTPUT·AUX·RC·WRN·PG | | AC3,000V 1minute, Cutoff current = 25mA, DC500V 50MΩ min (At room temperature) | |
| | INPUT-FG | | AC2,000V 1minute, Cutoff current = 25mA, DC500V 50MΩ min (At room temperature) | |
| | OUTPUT·AUX·RC·WRN·PG-FG | | AC500V 1minute, Cutoff current = 100mA, DC500V 50MΩ min (At room temperature) | |
| | OUTPUT-AUX·RC·WRN·PG | | AC100V 1minute, Cutoff current = 100mA, DC100V 50MΩ min (At room temperature) | |
| ENVIRONMENT | OPERATING TEMP.,HUMID.AND ALTITUDE | | -10 to +70℃ (Output derating is required), 20 - 90%RH (Non condensing), 3,000m (10,000 feet) max | |
| | STORAGE TEMP.,HUMID.AND ALTITUDE | | -20 to +85℃, 20 - 90%RH (Non condensing), 9,000m (30,000 feet) max | |
| | VIBRATION | | 10 - 55Hz, 19.6m/s² (2G), 3minutes period, 60minutes each along X, Y and Z axis | |
| | IMPACT | | 196.1m/s² (20G), 11ms, once each along X, Y and Z axis | |
| SAFETY AND NOISE REGULATIONS | AGENCY APPROVALS | | UL60950-1, C-UL (CSA60950-1), EN60950-1 | |
| | CONDUCTED NOISE | | Complies with FCC Part15-A, CISPR22-A, EN55011-A, EN55022-A, VCCI-A | |
| | HARMONIC ATTENUATOR | | Complies with IEC61000-3-2 Class A ＊8 | |
| OTHERS | CASE SIZE/WEIGHT | ＊9 | 102×41×340mm [4.02×1.61×13.39 inches] (W×H×D) / 2.3kg max | |
| | COOLING METHOD | | Forced cooling (internal fan) | |

＊1 AUX output power is not included.
＊2 The current of input surge to a built-in noise filter (0.2ms or less) is excluded.
＊3 Measured by 500MHz oscilloscope.
Ripple and ripple noise is measured on measuring board with capacitor of 22μF within 150mm from the output terminal.
＊4 Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25℃, with the input voltage held constant at the rated input/output.
＊5 Can not be used above the rated output current and the rated output power.
＊6 When the output voltage is adjusted to higher than 49.92V and the load factor is over 70% of the rated current, if the load current changes quickly (< 200msec), the output voltage drops approximately 5V below the setting voltage.
＊7 Output voltage recovers from protection by shutting down the input voltage and waiting more than 10 seconds then turning on AC input again, or turning off the output voltage by remote control.
＊8 Please contact us about another class.
＊9 Case size contains neither the terminal blocks, connector and screw nor.
＊ To meet the specifications. Do not operate over-loaded condition.
＊ A sound may occur from power supply at peak loading.

## Block diagram




## External view




* Tolerance ±1 [±0.04]
* Weight : 2.3kg max
* PCB material / thickness : FR-4 / 1.6mm [0.06]
* Chassis material : Stainless steel
* Dimensions in mm, [ ]=inches
* Maunting torque : 1.2N・m max
* Screw tightening torque : 1.6N・m max
* Please connect safety ground to FG terminal on the unit.