

## FETA7000ST

## Ordering information

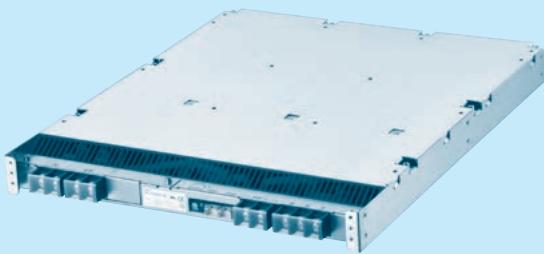
FET A 7000 ST -□□

① ② ③ ④ ⑤

- ① Series name
- ② Single output
- ③ Output wattage
- ④ 3 φ 4-Wire
- ⑤ Output voltage



RoHS



\* 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	FETA7000ST-48	FETA7000ST-144
MAX OUTPUT WATTAGE[W]	*1 7113	7488
DC OUTPUT	48V 148.2A	144V 52A

## SPECIFICATIONS

		FETA7000ST-48	FETA7000ST-144
INPUT	VOLTAGE[V]	AC300 - 480 3 φ 4-Wire (Output derating is required at AC300V - 320V. Refer to instruction manual 4.2)	
	CURRENT[A]	ACIN 400V *2 11.4typ	12.0typ
	FREQUENCY[Hz]	50 / 60 (47 - 63)	
	EFFICIENCY[%]	ACIN 400V 90.5% (Io=100%)	90.5% (Io=100%)
	POWER FACTOR	ACIN 400V 0.98typ (Io=100%)	
	INRUSH CURRENT[A]	ACIN 400V *3 40max / 80max (Primary inrush current /Secondary inrush current) (More than 10 sec. to re-start)	
LEAKAGE CURRENT[mA]		5.0max (ACIN 480V 60Hz, Io=100%, According to IEC62368-1)	
OUTPUT	VOLTAGE[V]	48	144
	CURRENT[A]	ACIN 300V-320V Output derating is required at ACIN 320V or less (refer to instruction manual 4.2)	
	ACIN 320V-480V	148.2	52
	LINE REGULATION[mV]	192max	360max
	LOAD REGULATION[mV]	960max	1800max
	0 to +40°C *4	360max	720max
	-10 to 0°C *4	480max	960max
	0 to +40°C *4	480max	960max
	-10 to 0°C *4	600max	1200max
	0 to +40°C	480max	2200max
	-10 to +40°C	600max	2800max
	DRIFT[mV]	*5 192max	384max
	START-UP TIME[s]	1.7max (ACIN 400V, Io=100%)	
	HOLD-UP TIME[ms]	ACIN 400V 10typ (Io=100%)	
	20typ (Io=50%)		
OUTPUT VOLTAGE ADJUSTMENT RANGE[V]	*6 28.8 - 52.8 *7	86.4 - 158.4 *8	
OUTPUT VOLTAGE SETTING[V]	47 - 49	141 - 147	
PROTECTION CIRCUIT AND OTHERS	OVERCURRENT PROTECTION	Works over 105% of rating (Recovers automatically, Intermittent overcurrent) (Output voltage shuts down when the output voltage continuously drops due to overcurrent protection.)	*9
	OVERVOLTAGE PROTECTION[V]	*9 56 - 60	168 - 180
	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 = 100mA, DC500V 50MΩ min (At room temperature)	
	INPUT-FG	AC2,000V 1minute, Cutoff current = 100mA, 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 +60°C (Output derating is required), 20 - 90%RH (Non condensing), 3,000m (10,000 feet) max	
	STORAGE TEMP., HUMID. AND ALTITUDE	-20 to +75°C, 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	UL62368-1, C-UL (CSA62368-1), EN62368-1	
	CONDUCTED NOISE	Complies with FCC Part15-A, CISPR32-A, EN55011-A, EN55032-A, VCCI-A with an external EMI/EMC filter. (refer to External Component (EMI/EMC Filter))	
	HARMONIC ATTENUATOR	Complies with IEC61000-3-2 (classA) *10	
OTHERS	CASE SIZE/WEIGHT	*11 388 X 43 X 475mm [15.28 X 1.69 X 18.70 inches] (W X H X D) / 11kg max	
	COOLING METHOD	Forced cooling (internal fan)	

\*1 AUX output power is not included.

\*2 The current flowing through the neutral line increases when AC input voltage is over AC456V 3 φ 4-Wire. The flowing current will vary according to the input voltage and the load current. The maximum flowing current will be 18A.

\*3 The current of input surge to a built-in noise filter (0.2ms or less) is excluded.

\*4 Measured by 500MHz oscilloscope.

Ripple and ripple noise is measured on measuring board with capacitor of 22μF within 150mm from the output terminal.

\*5 Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25°C, with the input voltage held constant at the rated input/output.

\*6 Can't be used above the rated output current and the rated output power.

\*7 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.

\*8 When the output voltage is adjusted to higher than 149.82V and the load factor is over 70% of the rated current, if the load current changes quickly (<200msec), the output voltage drops approximately 15V below the setting voltage.

\*9 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.

\*10 Please contact us about another class.

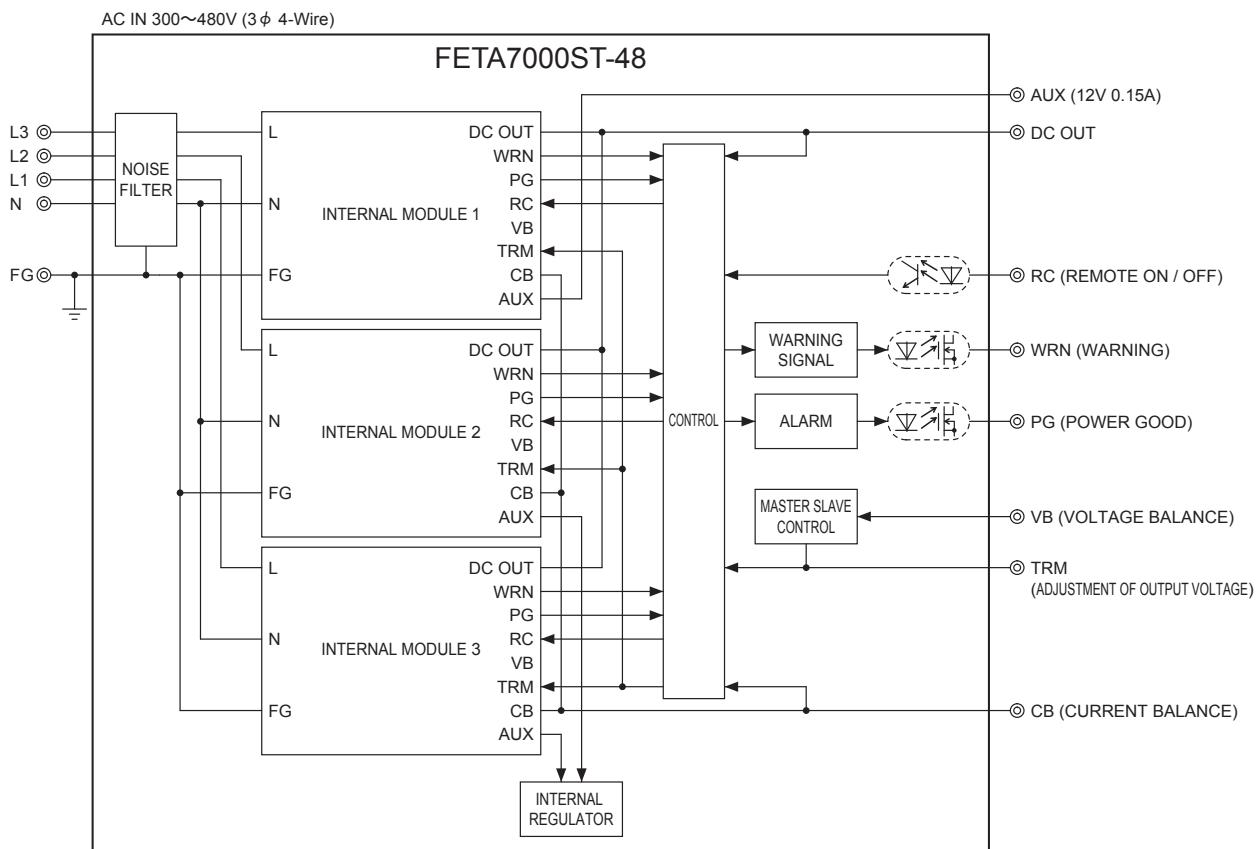
\*11 Case size contains neither the terminal blocks, connector and screw.

\* To meet the specifications, do not operate over-loaded condition.

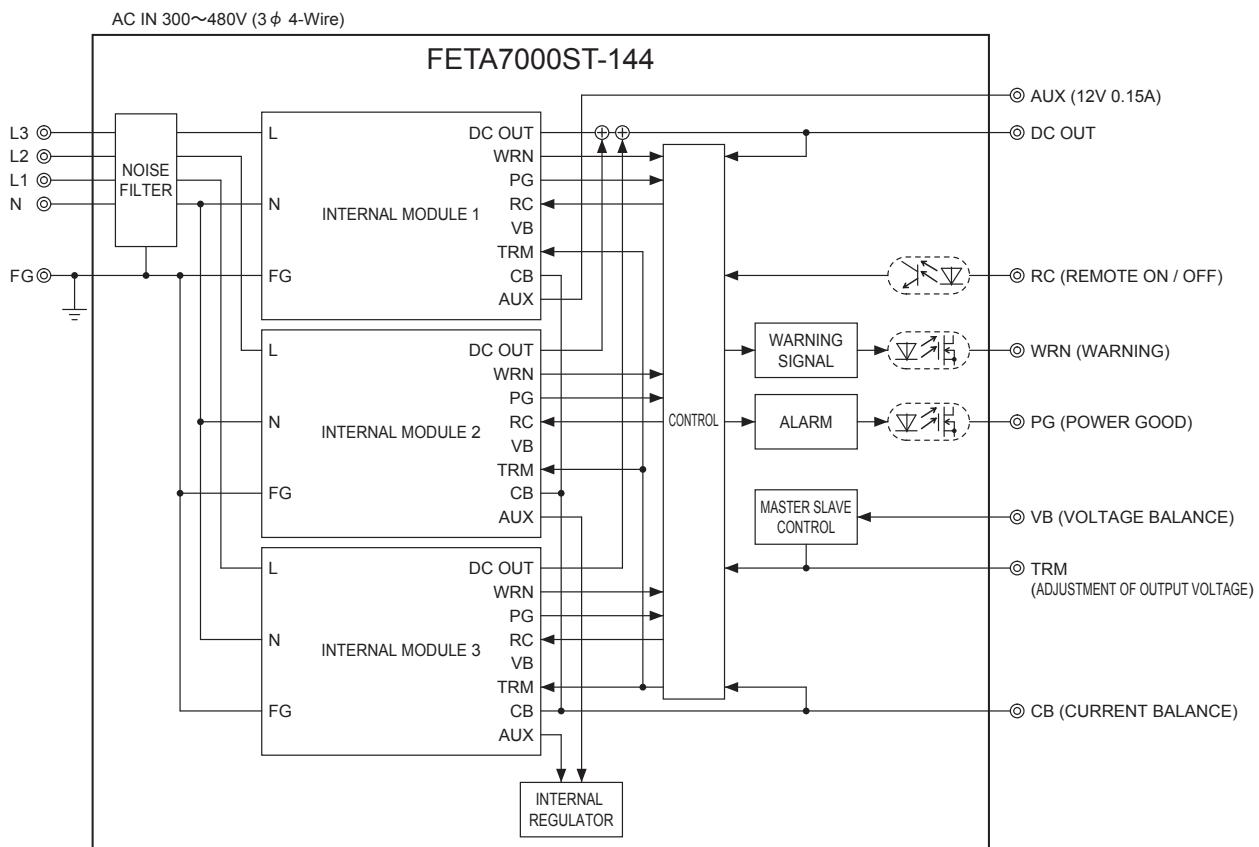
\* A sound may occur from power supply at peak loading.

## Block diagram

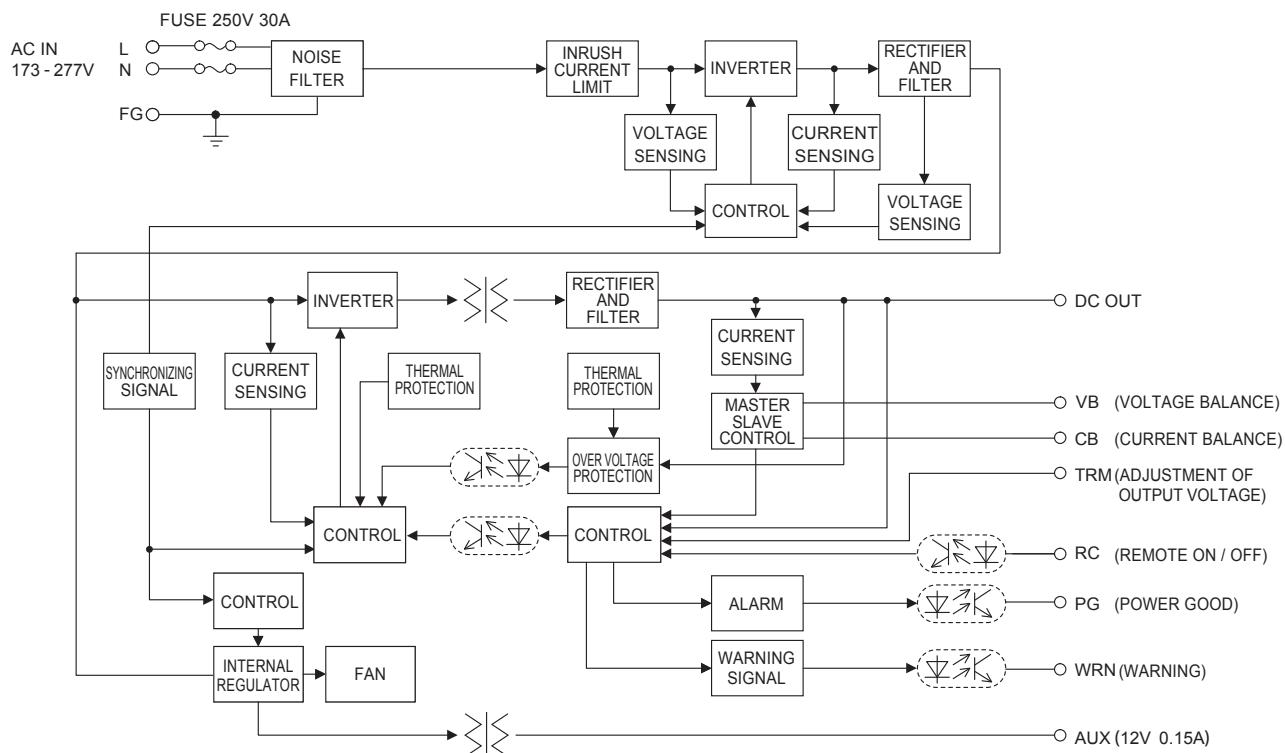
## ●FETA7000ST-48



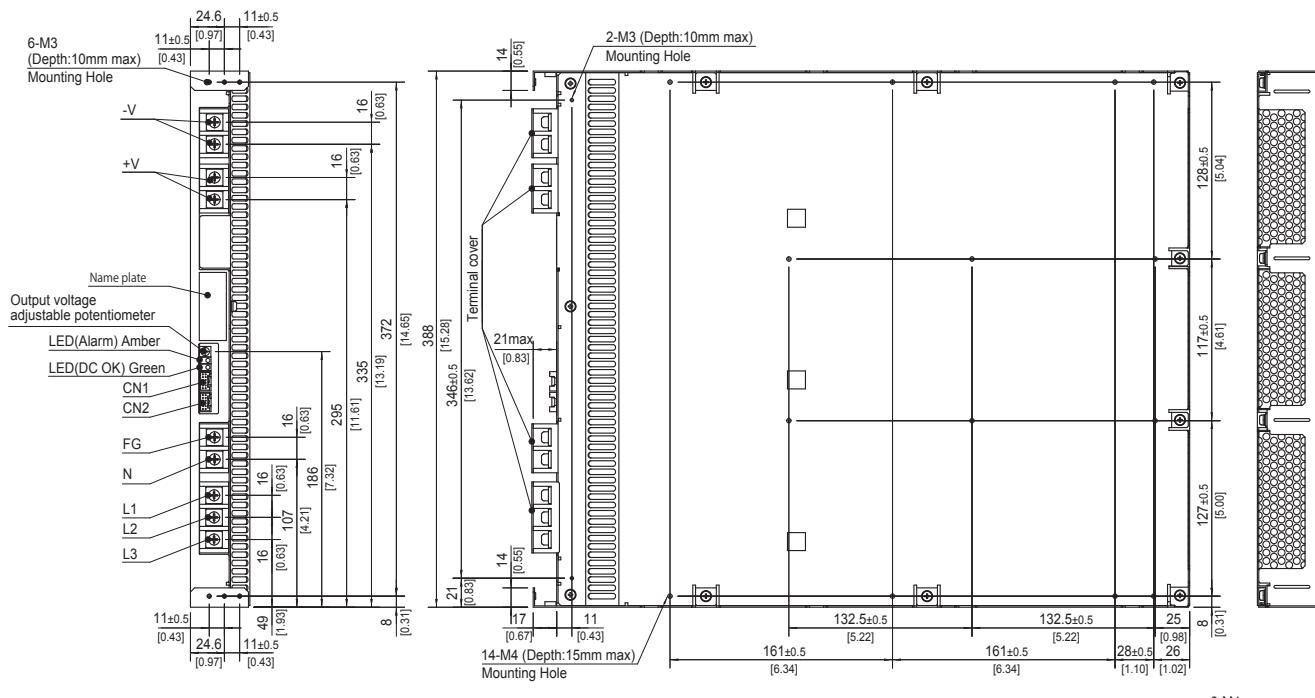
## ●FETA7000ST-144



## Block diagram of internal module



## External view



\* Tolerance  $\pm 1$  [ $\pm 0.04$ ]

\* Weight : 11kg max

\* PCB Material / thickness : FR-4 / 1.6mm [0.06]

\* Chassis Material : Stainless steel

\* Dimensions in mm, [ ]=inches

\* Screw tightening torque : M3 Mounting Hole 0.6N · m max

M4 Mounting Hole 1.2N · m max

M5 Terminal block 3.0N · m max

\* Please connect safety ground to FG terminal on the unit.

