

# FCA50F

FCA 50 F -24 -□

① ② ③ ④ ⑤

FCA



RoHS



- ① Series name
- ② Output wattage
- ③ Universal input
- ④ Output voltage
- ⑤ Optional \*6  
N1 :with DIN rail attachment

MODEL	FCA50F-24
MAX OUTPUT WATTAGE[W]	50(Peak 160)
DC OUTPUT	24V 2.1(Peak 6.7)A

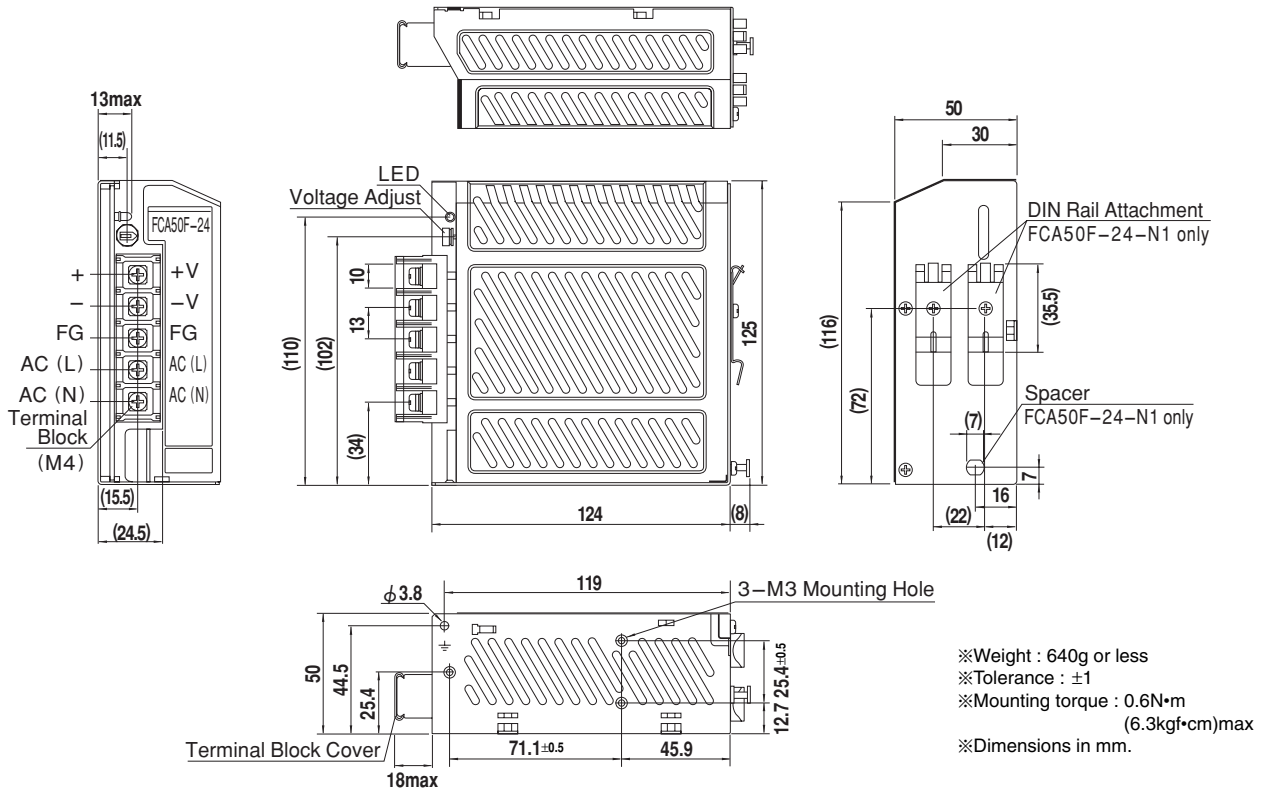
## SPECIFICATIONS

MODEL		FCA50F-24	
INPUT	VOLTAGE[V]	AC187 - 528 1 φ or DC265 - 746	
	CURRENT[A]	ACIN 240V	0.55typ
		ACIN 480V	0.30typ
	FREQUENCY[Hz]	50/60 (47 - 63)	
	EFFICIENCY[%]	ACIN 240V	82typ
		ACIN 480V	78typ
	INRUSH CURRENT[A]	ACIN 240V	25typ (At cold start) (At Room Temperature)
ACIN 480V		50typ (At cold start) (At Room Temperature)	
LEAKAGE CURRENT[mA]	0.75max (60Hz, According to IEC62368-1)		
OUTPUT	VOLTAGE[V]	24	
	CURRENT[A]	*1 2.1 (Peak 6.7)	
	LINE REGULATION[mV]	96max	
	LOAD REGULATION[mV]	0 - 2.1A	150max
		0 - 6.7A	480max
	RIPPLE[mVp-p]	0 to +50°C *2	240max
		-10 - 0°C *2	320max
	RIPPLE NOISE[mVp-p]	0 to +50°C *2	680max
		-10 - 0°C *2	720max
	TEMPERATURE REGULATION[mV]	-10 to +50°C	600max
	DRIFT[mV]	*5	100max
START-UP TIME[ms]	800max (ACIN 240V, Io=100%)		
HOLD-UP TIME[ms]	10typ (ACIN 240V, Io=100%)		
OUTPUT VOLTAGE ADJUSTMENT RANGE[V]	21.6 - 26.4		
PROTECTION CIRCUIT AND OTHERS	OVERCURRENT PROTECTION	Works over 105% of peak current and recovers automatically	
	OVERVOLTAGE PROTECTION	Works at 115 - 140% of rating	
	OPERATING INDICATION	LED (Green)	
ISOLATION	INPUT-OUTPUT	AC3,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (At Room Temperature)	
	INPUT-FG	AC2,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (At Room Temperature)	
	OUTPUT-FG	AC500V 1minute, Cutoff current = 100mA, DC500V 50MΩ min (At Room Temperature)	
ENVIRONMENT	OPERATING TEMP., HUMID. AND ALTITUDE	-10 to +70°C, 20 - 90%RH (Non condensing) (Refer to DERATING CURVE), 3,000m (10,000feet) max	
	STORAGE TEMP., HUMID. AND ALTITUDE	-20 to +75°C, 20 - 90%RH (Non condensing), 9,000m (30,000feet) max	
	VIBRATION	*3 10 - 55Hz, 19.6m/s <sup>2</sup> (2G), 3minutes period, 60minutes each along X, Y and Z axis	
	IMPACT	*3 196.1m/s <sup>2</sup> (20G), 11ms, once each X, Y and Z axis	
SAFETY AND NOISE REGULATIONS	AGENCY APPROVALS	UL60950-1, C-UL, EN62368-1	
	CONDUCTED NOISE	Complies with FCC-A, CISPR11-A, EN55011-A	
OTHERS	CASE SIZE/WEIGHT	*4 50 X 125 X 124mm (W X H X D) / 640g max	
	COOLING METHOD	Convection	

\*1 Peak current for 150ms in a 30seconds period is acceptable.  
 \*2 In case of rated input/output(ACIN240-480V/2.1A), either the 20MHz oscilloscope or the ripple noise meter(equivalent to Keisokugiken:RM101) is used.  
 \*3 Option with DIN rail attachment(N1) is only for direction X(Refer to sec4.2 in manual).  
 \*4 Depth of power supply is 132mm with DIN rail attachment.  
 \*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 Please contact us about safety approvals for the model with option.

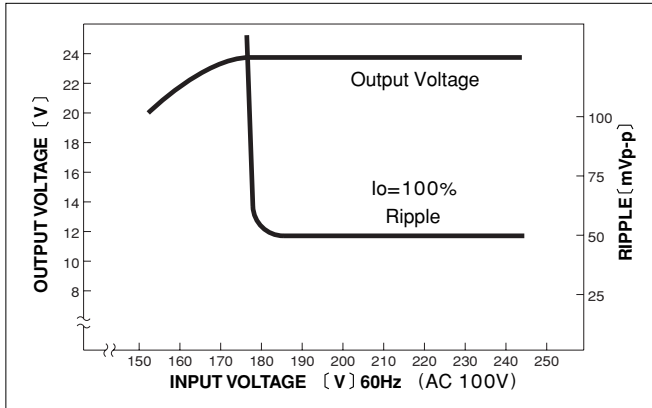
External view

FCA

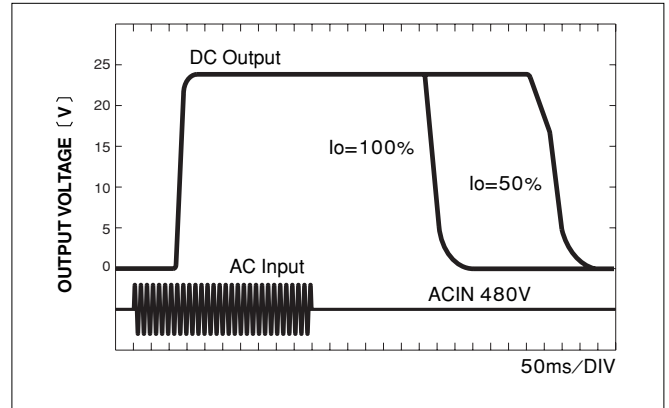


Performance data

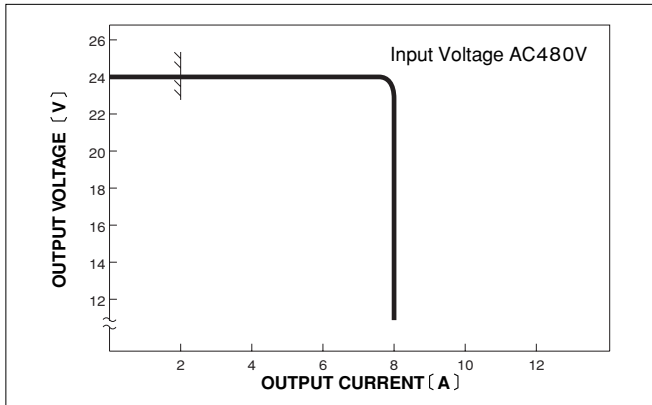
STATIC CHARACTERISTICS



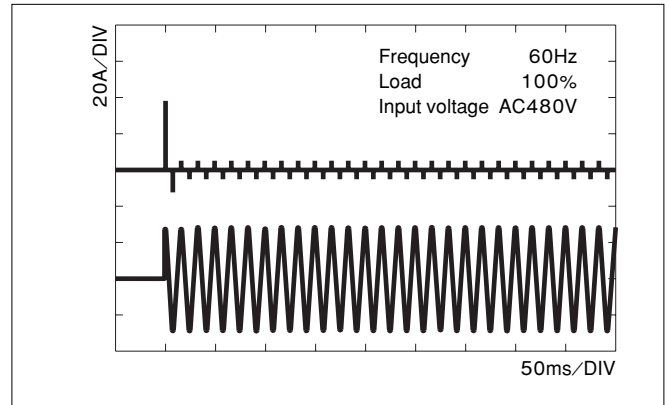
RISE TIME & FALL TIME



OVERCURRENT CHARACTERISTICS



INRUSH CURRENT



# FCA75F

FCA 75 F -24 -□

① ② ③ ④ ⑤

FCA



RoHS



- ① Series name
- ② Output wattage
- ③ Universal input
- ④ Output voltage
- ⑤ Optional \*6  
N1 :with DIN rail attachment

MODEL	FCA75F-24
MAX OUTPUT WATTAGE[W]	75(Peak 240)
DC OUTPUT	24V 3.1(Peak 10)A

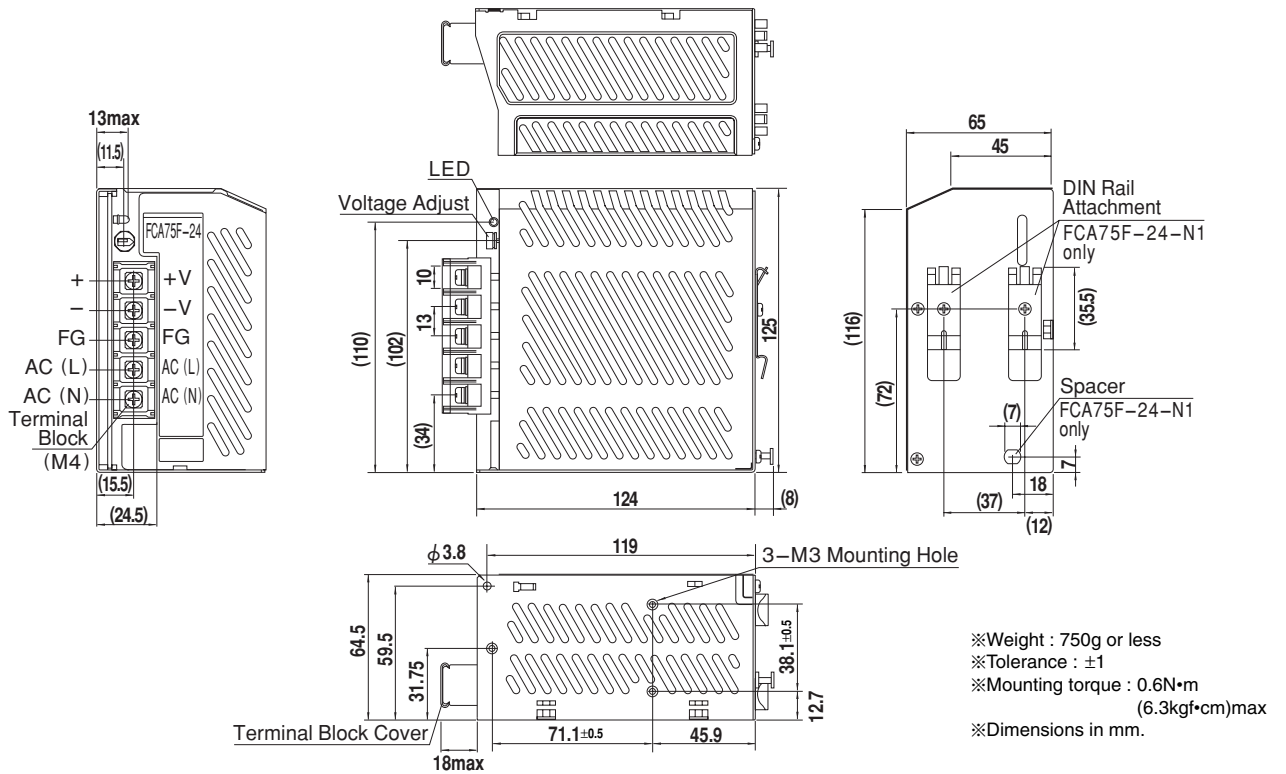
## SPECIFICATIONS

MODEL		FCA75F-24	
INPUT	VOLTAGE[V]	AC187 - 528 1 φ or DC265 - 746	
	CURRENT[A]	ACIN 240V	0.80typ
		ACIN 480V	0.45typ
	FREQUENCY[Hz]	50/60 (47 - 63)	
	EFFICIENCY[%]	ACIN 240V	82typ
		ACIN 480V	78typ
INRUSH CURRENT[A]	ACIN 240V	25typ (At cold start) (At Room Temperature)	
	ACIN 480V	50typ (At cold start) (At Room Temperature)	
LEAKAGE CURRENT[mA]	0.75max (60Hz, According to IEC62368-1)		
OUTPUT	VOLTAGE[V]	24	
	CURRENT[A]	*1 3.1 (Peak 10)	
	LINE REGULATION[mV]	96max	
	LOAD REGULATION[mV]	0 - 3.1A	150max
		0 - 10A	480max
	RIPPLE[mVp-p]	0 to +50°C *2	240max
		-10 - 0°C *2	320max
	RIPPLE NOISE[mVp-p]	0 to +50°C *2	680max
		-10 - 0°C *2	720max
	TEMPERATURE REGULATION[mV]	-10 to +50°C	600max
	DRIFT[mV]	*5	100max
START-UP TIME[ms]	800max (ACIN 240V, Io=100%)		
HOLD-UP TIME[ms]	10typ (ACIN 240V, Io=100%)		
OUTPUT VOLTAGE ADJUSTMENT RANGE[V]	21.6 - 26.4		
PROTECTION CIRCUIT AND OTHERS	OVERCURRENT PROTECTION	Works over 105% of peak current and recovers automatically	
	OVERVOLTAGE PROTECTION	Works at 115 - 140% of rating	
	OPERATING INDICATION	LED (Green)	
ISOLATION	INPUT-OUTPUT	AC3,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (At Room Temperature)	
	INPUT-FG	AC2,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (At Room Temperature)	
	OUTPUT-FG	AC500V 1minute, Cutoff current = 100mA, DC500V 50MΩ min (At Room Temperature)	
ENVIRONMENT	OPERATING TEMP., HUMID. AND ALTITUDE	-10 to +70°C, 20 - 90%RH (Non condensing) (Refer to DERATING CURVE), 3,000m (10,000feet) max	
	STORAGE TEMP., HUMID. AND ALTITUDE	-20 to +75°C, 20 - 90%RH (Non condensing), 9,000m (30,000feet) max	
	VIBRATION	*3 10 - 55Hz, 19.6m/s <sup>2</sup> (2G), 3minutes period, 60minutes each along X, Y and Z axis	
	IMPACT	*3 196.1m/s <sup>2</sup> (20G), 11ms, once each X, Y and Z axis	
SAFETY AND NOISE REGULATIONS	AGENCY APPROVALS	UL60950-1, C-UL, EN62368-1	
	CONDUCTED NOISE	Complies with FCC-A, CISPR11-A, EN55011-A	
OTHERS	CASE SIZE/WEIGHT	*4 65 X 125 X 124mm (W X H X D) / 750g max	
	COOLING METHOD	Convection	

\*1 Peak current for 150ms in a 30seconds period is acceptable.  
 \*2 In case of rated input/output(ACIN240-480V/3.1A), either the 20MHz oscilloscope or the ripple noise meter(equivalent to Keisokugiken:RM101) is used.  
 \*3 Option with DIN rail attachment(N1) is only for direction X(Refer to sec4.2 in manual).  
 \*4 Depth of power supply is 132mm with DIN rail attachment.  
 \*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 Please contact us about safety approvals for the model with option.

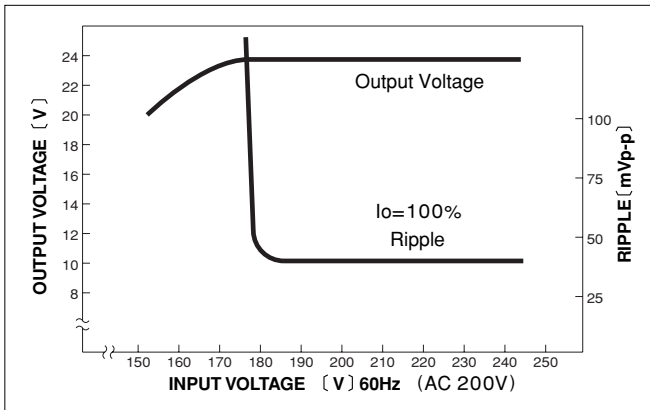
External view

FCA

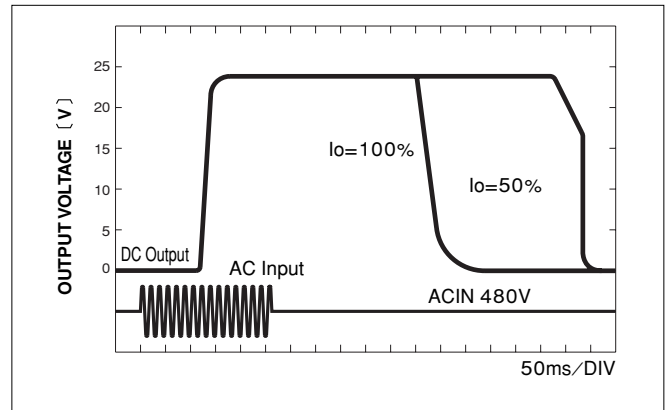


Performance data

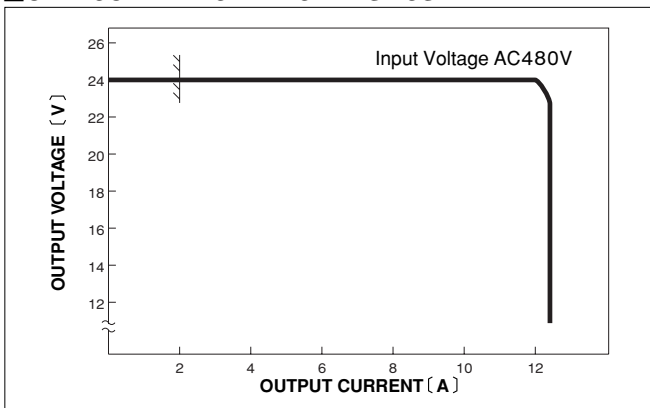
■ STATIC CHARACTERISTICS



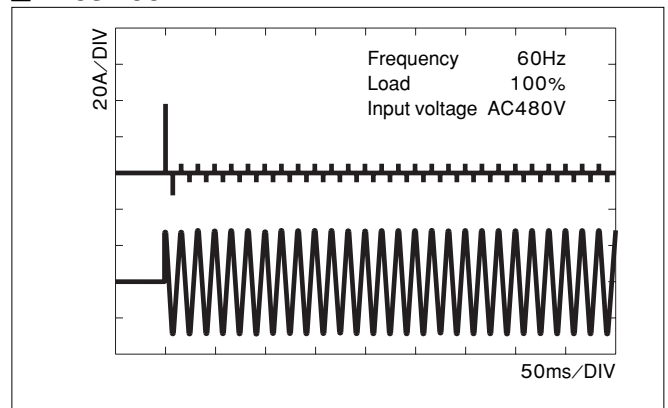
■ RISE TIME & FALL TIME



■ OVERCURRENT CHARACTERISTICS



■ INRUSH CURRENT



# FCA200F

FCA 200 F -24 -□

① ② ③ ④ ⑤

FCA



RoHS



- ① Series name
- ② Output wattage
- ③ Universal input
- ④ Output voltage
- ⑤ Optional \*6  
N1:with DIN rail attachment

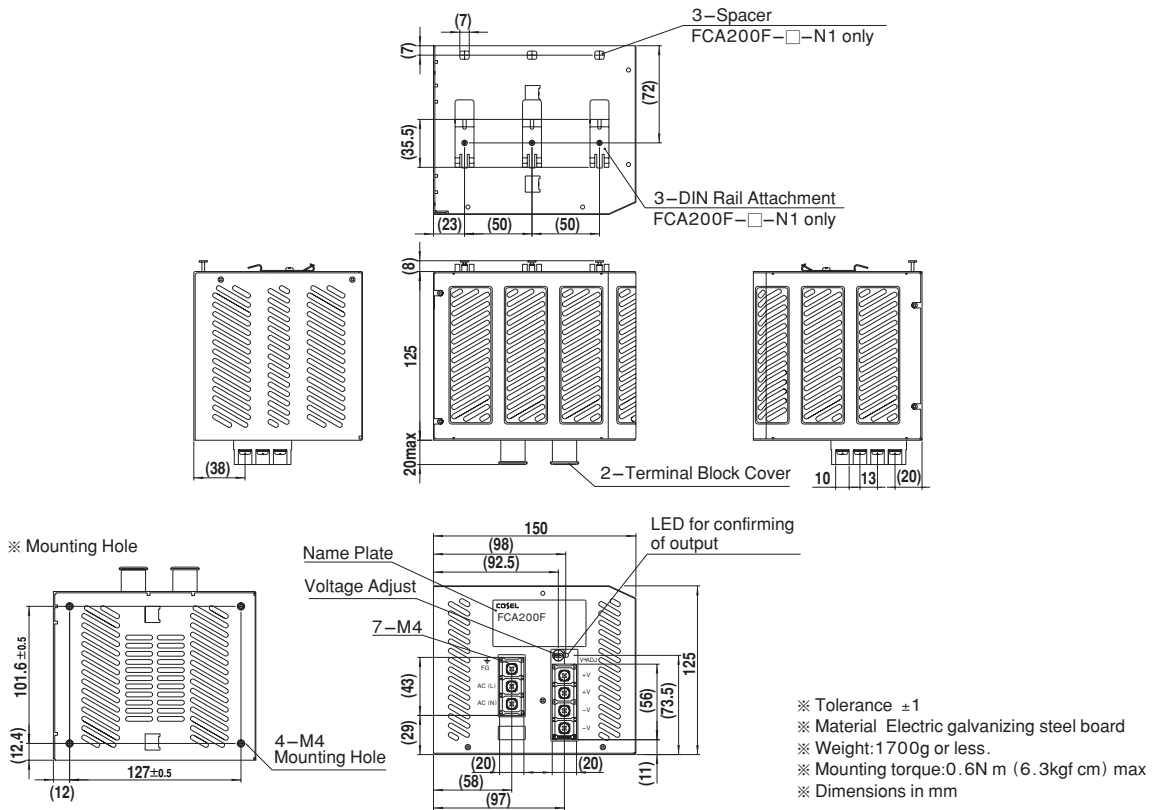
MODEL	FCA200F-24
MAX OUTPUT WATTAGE[W]	200 (Peak 1,008)
DC OUTPUT	24V 8.4 (Peak 42)A

## SPECIFICATIONS

	MODEL	FCA200F-24	
INPUT	VOLTAGE[V]	AC187 - 528 1 φ or DC265 - 530	
	CURRENT[A]	ACIN 240V	1.10typ
		ACIN 480V	0.55typ
	FREQUENCY[Hz]	50/60 (47 - 63)	
	EFFICIENCY[%]	ACIN 240V	81typ
		ACIN 480V	81typ
	POWER FACTOR	ACIN 240V	0.98typ
		ACIN 480V	0.93typ
INRUSH CURRENT[A]	ACIN 240V	25typ (At cold start) (At Room Temperature)	
	ACIN 480V	50typ (At cold start) (At Room Temperature)	
LEAKAGE CURRENT[ma]	1.5max (60Hz, According to IEC62368-1)		
OUTPUT	VOLTAGE[V]	24	
	CURRENT[A]	*1 8.4 (Peak 42)	
	LINE REGULATION[mV]	96max	
	LOAD REGULATION[mV]	0 - 8.4A 150max	
	RIPPLE[mVp-p]	0 to +50C *2	240max
		-10 - 0C *2	320max
	RIPPLE NOISE[mVp-p]	0 to +50C *2	680max
		-10 - 0C *2	720max
	TEMPERATURE REGULATION[mV]	-10 to +50C 600max	
	DRIFT[mV]	*5 100max	
	START-UP TIME[ms]	800max (ACIN 240V, Io=100%)	
	HOLD-UP TIME[ms]	100typ (ACIN 240V, Io=100%)	
OUTPUT VOLTAGE ADJUSTMENT RANGE[V]	21.6 - 26.4		
PROTECTION CIRCUIT AND OTHERS	OVERCURRENT PROTECTION	Works over 105% of peak current and recovers automatically	
	OVERVOLTAGE PROTECTION	Works at 115 - 140% of rating	
	OPERATING INDICATION	LED (Green)	
ISOLATION	INPUT-OUTPUT	AC3,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (At Room Temperature)	
	INPUT-FG	AC2,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (At Room Temperature)	
	OUTPUT-FG	AC500V 1minute, Cutoff current = 100mA, DC500V 50MΩ min (At Room Temperature)	
ENVIRONMENT	OPERATING TEMP.,HUMID.AND ALTIITUDE	-10 to +60°C, 20 - 90%RH (Non condensing) (Refer to DERATING CURVE), 3,000m (10,000feet) max	
	STORAGE TEMP.,HUMID.AND ALTIITUDE	-20 to +75°C, 20 - 90%RH (Non condensing), 9,000m (30,000feet) max	
	VIBRATION	*3 10 - 55Hz, 19.6m/s <sup>2</sup> (2G), 3minutes period, 60minutes each along X, Y and Z axis	
	IMPACT	*3 196.1m/s <sup>2</sup> (20G), 11ms, once each X, Y and Z axis	
SAFETY AND NOISE REGULATIONS	AGENCY APPROVALS	UL60950-1, C-UL, EN62368-1	
	CONDUCTED NOISE	Complies with FCC-A, CISPR11-A, EN55011-A	
OTHERS	CASE SIZE/WEIGHT	*4 150 X 125 X 125mm (W X H X D) / 1,700g max	
	COOLING METHOD	Convection	

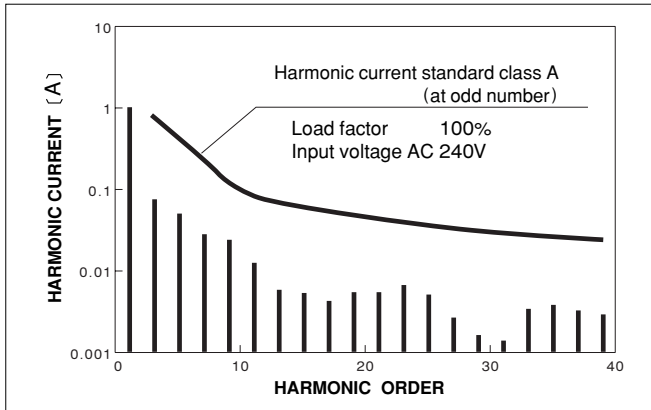
\*1 Peak current for 50ms in a 30seconds period is acceptable.  
 \*2 In case of rated input/output(ACIN240-480V/8.4A), either the 20MHz oscilloscope or the ripple noise meter(equivalent to Keisokugiken:RM101) is used.  
 \*3 Option with DIN rail attachment(N1) is only for direction X(Refer to sec4.2 in manual).  
 \*4 Depth of power supply is 133mm with DIN rail attachment.  
 \*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 Please contact us about safety approvals for the model with option.

## External view

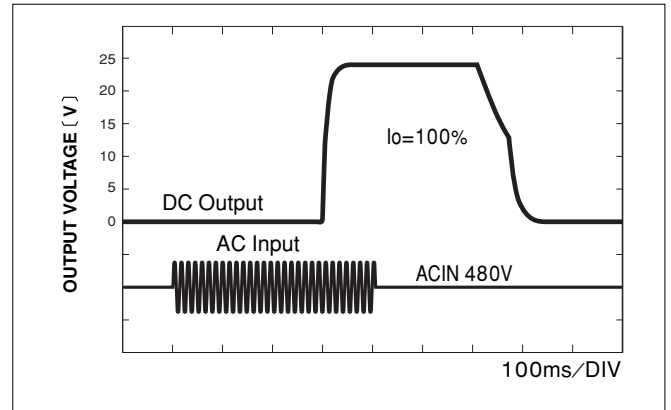


## Performance data

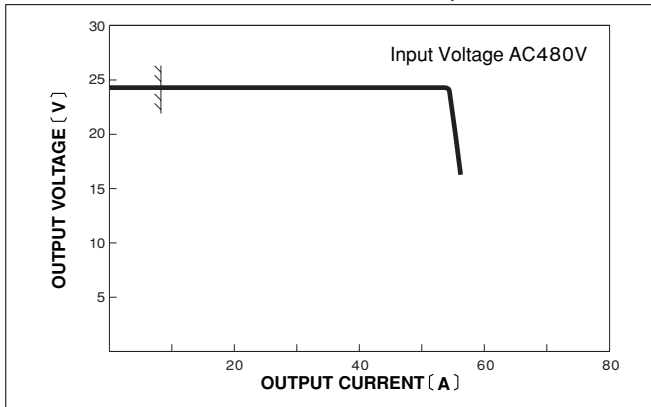
### INPUT HARMONIC CURRENT (FCA200F-24)



### RISE TIME & FALL TIME (FCA200F-24)



### OVERCURRENT CHARACTERISTICS (FCA200F-24)



### INRUSH CURRENT (FCA200F-24)

