

Recommended EMI/EMC Filter NAC-04-472

High voltage pulse noise type : NAP series

Low leakage current type: NAM series \*The EMI/EMC Filter is recommended

to connect with several devices.

- 1) Series name 2) Single output 3) Output wattage 4) Universal input 5) Output voltage
  - (§)Output voltage
    (§)Optional \*1
    C: with Coating
    G: Low leakage current
    J1: VH(J.S.T.)connector type
    R: with Remote ON/OFF
    R2: with Remote ON/OFF

    - S: with Chassis SN: with Chassis & cover

Please refer to Instruction

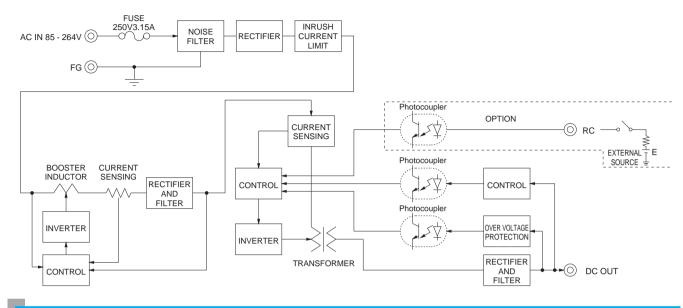
This power supply is manufactured by SMD technology. The stress to P.C.B like twisting or bending causes the defect of the unit, so handle the unit with care.

MODEL	LFP100F-24-Y	LFP100F-36-Y	LFP100F-48-Y
MAX OUTPUT WATTAGE[W] *2	103.2 (206.4)	100.8 (201.6)	100.8 (201.6)
DC OUTPUT *2	24V 4.3A (8.6A)	36V 2.8A (5.6A)	48V 2.1A (4.2A)

	MODEL		LFP100F-24-Y	LFP100F-36-Y	LFP100F-48-Y		
	VOLTAGE[V]		AC85 - 264 1 ¢ (Refer to Instruction N	Manual 1.1 and 3.2) *5			
	CURRENT[A]	ACIN 100V	1.3typ (lo=100%)				
	ACIN 200V		0.7typ (lo=100%)				
	FREQUENCY[Hz]		50 / 60 (47 - 63)				
	EFFICIENCY[%]	ACIN 100V	84.0typ (lo=100%)	84.0typ (Io=100%)	84.0typ (Io=100%)		
INPUT	EFFICIENCI[%]	ACIN 200V	87.0typ (lo=100%)	87.0typ (Io=100%)	87.0typ (Io=100%)		
	POWER FACTOR	ACIN 100V	0.99typ (lo=100%)				
	POWER FACTOR	ACIN 200V	0.95typ (lo=100%)				
	INRUSH CURRENT[A]	ACIN 100V	15typ (Io=100%) (At cold start) (Ta=2	25℃)			
	INKUSH CUKKENT[A]	ACIN 200V	30typ (lo=100%) (At cold start) (Ta=25°C)				
	LEAKAGE CURREN	T[mA]	0.40 / 0.75max (ACIN 100V / 240V 6	60Hz, Io=100%, According to IEC6095	0-1 and DEN-AN)		
	VOLTAGE[V]		24	36	48		
	CURRENT[A]	*2	4.3 (Peak 8.6)	2.8 (Peak 5.6)	2.1 (Peak 4.2)		
	LINE REGULATION[			144max	192max		
	LOAD REGULATION			240max	240max		
	RIPPLE[mVp-p] *3		120max	150max	150max		
	KIPPLE[IIIVP-P] *		160max	200max	200max		
	RIPPLE NOISE[mVp-p]*3		150max	250max	250max		
OUTPUT	KIPPLE NOISE[IIIVP-P]*		180max	300max	300max		
	TEMPERATURE REGULATION(mV)		240max	360max	480max		
	TEMPERATURE REGULATION[IIV]	-10 to +50°C	290max	450max	600max		
			96max	144max	192max		
	START-UP TIME[ms]		350typ (ACIN 100V, Io=100%)				
	HOLD-UP TIME[ms]		20typ (ACIN 100V, Io=100%)				
	OUTPUT VOLTAGE ADJUSTMENT		21.60 to 27.50	32.40 to 39.60	39.60 to 52.80		
	OUTPUT VOLTAGE SET	TING[V]	24.00 to 24.96	36.00 to 37.44	48.00 to 49.92		
	OVERCURRENT PROT		Works over 101% of rating and recov				
			27.60 to 33.60	41.40 to 50.40	55.20 to 67.20		
	OPERATING INDICA	TION	Not provided				
OTHERS	REMOTE SENSING		Not provided				
	REMOTE ON/OFF		Option (Refer to Instruction Manual 6)				
	INPUT-OUTPUT-RC	*6	Tree jess to trimitate jest on surrent Term i jess som timit (trit teem temperature)				
ISOLATION	INPUT-FG		AC2,000V 1minute, Cutoff current = 10mA, DC500V 50M $\Omega$ min (At Room Temperature)				
- ,	OUTPUT:RC-FG	*6	AC500V 1minute, Cutoff current = 25mA, DC500V 50M $\Omega$ min (At Room Temperature)				
	OUTPUT-RC	*6	AC100V 1minute, Cutoff current = 25mA, DC100V 10M $\Omega$ min (At Room Temperature)				
	OPERATING TEMP., HUMID.AND			densing) (Refer to Instruction Manual 3	3.2), 3,000m (10,000feet) max		
ENVIRONMENT	STORAGE TEMP., HUMID. AND	ALTITUDE	-20 to +75°C, 20 - 90%RH (Non condensing), 9,000m (30,000feet) max				
	VIBRATION			period, 60minutes each along X, Y and	∠ axis		
	IMPACT	196.1m/s² (20G), 11ms, once each X, Y and Z axis  DVALS (AT ONIY AC input) UL60950-1, C-UL (CSA60950-1), EN60950-1, EN50178 Complies with DEN-AN					
SAFETY AND	AGENCY APPROVALS (AT ON				N-AN		
NOISE	CONDUCTED NOISE		Complies with FCC-B, VCCI-B, CISP				
REGULATIONS	HARMONIC ATTENU		Complies with IEC61000-3-2 (Class	/			
OTHERS	CASE SIZE/WEIGHT		•	nches] (W×H×D) / 290g max (with ch	assis & cover : 480g max)		
	COOLING METHOD		Convection (Refer to Instruction Manual 3.1 and 3.2) *5				

- Specification is changed at option, refer to Instruction Manual.
- \*2 Peak loading for 10sec. And Duty 40% max, refer to Instruction Manual 5. In detail.
- ( ) means peak current. There is a possibility that an internal device is damaged when the specification is exceeded.

  \*3 This is the value that measured on measuring board with
- capacitor of 22  $\mu\,F$  at 150mm from output terminal.
- Measured by 20MHz oscilloscope or Ripple-Noise meter (Equivalent to KEISOKU-GIKEN: RM103).
- 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.
- \*5 Derating is required.
- \*6 Applicable when remote control (optional) is added.
- Please contact us about dynamic load and input response
- \*8 Please contact us about another class.
- To meet the specifications. Do not operate over-loaded condition.
- Parallel operation is not possible.
- Derating is required when operated with chassis and cover.
  - Sound noise may be generated by power supply in case of pulse load.



#### **External view**

\* External size of option is different from standard model.

Standard type Chassis and cover type Connector for Remote ON/OFF  $2 - \phi 4.5$ 173±0.5 4-M4 FG Name plate  $3 - \phi 3.5$ (Optional) [6.81] [0.24] Mounting Hole Mounting Hole 36 [1.42] CN4 FG FG-) ) ) ) ) ) CN2 Output(-) Ontbrnt(-) 6.05 62 [2.44] 52±0.5 [2.05] Input(N) Input(N) 45±0.5 1.77] 25±0.5 [0.98] 72 [2.83] Input(L) Output(+) 3.5 Point A Point B [0.16] Voltage adjust 16.5 Mounting Hole 185 [7.28] 145±0.5 [0.65] [0.2] 173±0.5  $\phi 4.5$ [0.24] [6.1] 4.5 [0.18] 15 [0.59] 45 [1.18] 2-M4 20.79] Mounting Hole PCB t=1.6

¾ 4 Mounting holes are existing.

%1 Surface mount device

- \* The back side of P.C.B. of the power supply is assembled some SMDs.
- Be attention not to bump against the attached area by vibration. And do not use press-fitting bush.
- % Point A, Point B are thermometry points. Please refer to Instruction Manual 3.

I/C	) Connector	Mating connector		
CNIA	1-1123724-3	1-1123722-5	Chain	1123721-1
CIVI	1-1123724-3	1-1123722-5	Loose	1318912-1
ONIO	4 4400700 0	1-1123722-8	Chain	1123721-1
CN2 1-1123723-8		1-1123722-8	Loose	1318912-1

(Mfr:Tyco Electronics)

- \* I/O Connector is Mfr. Tyco Electronics
- \* Option:-J1:VH(J.S.T) connector type.

#### <PIN CONNECTION>

CN1		CN2	
Pin No.	Input	Pin No.	Output
1	AC(L)	1 to 4	-V
2		1 10 4	- v
3	AC(N)	F 40 0	/
4		5 to 8	+V
5	FG		

- ※ Keep drawing current per pin below 5A for CN2.
- ※ Tolerance: ±1 [±0.04]
- Weight: 290g max (with chassis & cover: 480g max)
- ※ PCB material : CEM3
- ※ Optional chassis and cover material : Electric galvanizing steel board.
- ※ Dimensions in mm, [ ]=inches
- Mounting torque (Mounting hole of chassis) :1.5N · m (16kgf · cm) max

#### Connector type

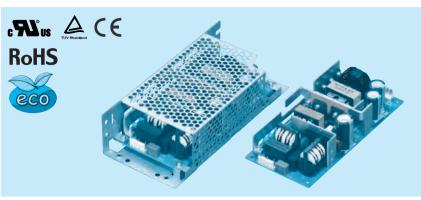
CN4 Option (Mfr:J.S.T)

	. ,
PIN No.	Contents
1	RC(+)
2	RC(-)

Barrier strip type

Model B2B-XH-A Mating Connector (Terminal) XHP-2 BXH-001T-P0.6

or SXH-001T-P0.6



Recommended EMI/EMC Filter NAC-04-472

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

\*The EMI/EMC Filter is recommended to connect with several devices.

- ①Series name
- 2) Single output 3) Output wattage 4) Universal input 5) Output voltage
- (§)Output voltage
  (§)Optional \*1
  C: with Coating
  G: Low leakage current
  J1: VH(J.S.T.)connector type
  R: with Remote ON/OFF
  R2: with Remote ON/OFF

  - S: with Chassis
- SN: with Chassis & cover

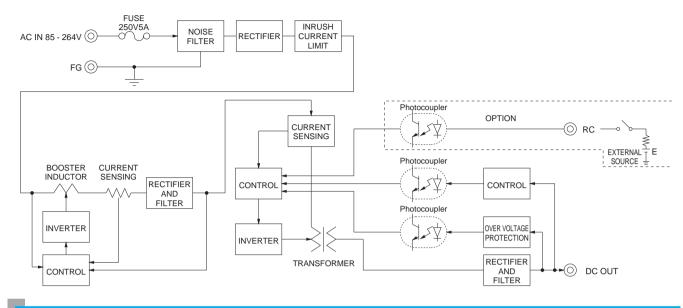
Please refer to Instruction

This power supply is manufactured by SMD technology. The stress to P.C.B like twisting or bending causes the defect of the unit, so handle the unit with care.

MODEL	LFP150F-24-Y	LFP150F-36-Y	LFP150F-48-Y
MAX OUTPUT WATTAGE[W] *2	151.2 (302.4)	151.2 (302.4)	153.6 (307.2)
DC OUTPUT *2	24V 6.3A (12.6A)	36V 4.2A (8.4A)	48V 3.2A (6.4A)

	MODEL		LFP150F-24-Y	LFP150F-36-Y	LFP150F-48-Y			
	VOLTAGE[V]		AC85 - 264 1 φ (Refer to Instruction N	Manual 1.1 and 3.2) *5				
	CUDDENTIAL	ACIN 100V	2.0typ (lo=100%)					
	CURRENT[A] ACIN 200V		1.0typ (lo=100%)					
	FREQUENCY[Hz]		50 / 60 (47 - 63)					
	EFFICIENCY[%]	ACIN 100V	85.5typ (lo=100%)	85.5typ (lo=100%)	85.5typ (Io=100%)			
INPUT	EFFICIENCI[%]	ACIN 200V	88.0typ (lo=100%)	88.0typ (Io=100%)	88.0typ (Io=100%)			
	POWER FACTOR	ACIN 100V	0.99typ (lo=100%)					
	POWER FACTOR	ACIN 200V	0.95typ (lo=100%)					
	INRUSH CURRENT[A]	ACIN 100V	15typ (Io=100%) (At cold start) (Ta=2	25℃)				
	INKOSTI COKKLIVI[A]	ACIN 200V	30typ (lo=100%) (At cold start) (Ta=25℃)					
	LEAKAGE CURREN	T[mA]	0.40 / 0.75max (ACIN 100V / 240V 6	60Hz, Io=100%, According to IEC6095	0-1 and DEN-AN)			
	VOLTAGE[V]		24	36	48			
	CURRENT[A]		6.3 (Peak 12.6)	4.2 (Peak 8.4)	3.2 (Peak 6.4)			
	LINE REGULATION[	mV] *7		144max	192max			
	LOAD REGULATION			240max	240max			
	RIPPLE[mVp-p] *3		120max	150max	150max			
	KIFFEE[IIIVP-P] **		160max	200max	200max			
	RIPPLE NOISE[mVp-p]*3		150max	250max	250max			
OUTPUT	Kii i EE NOISE[iiivp-p]**		180max	300max	300max			
	TEMPERATURE REGULATION[mV]		240max	360max	480max			
			290max	450max	600max			
			96max	144max	192max			
	START-UP TIME[ms]		350typ (ACIN 100V, Io=100%)					
	HOLD-UP TIME[ms]		20typ (ACIN 100V, Io=100%)					
	OUTPUT VOLTAGE ADJUSTMENT		21.60 to 27.50	32.40 to 39.60	39.60 to 52.80			
	OUTPUT VOLTAGE SET		24.00 to 24.96	36.00 to 37.44	48.00 to 49.92			
	OVERCURRENT PROT		Works over 101% of rating and recov					
	OVERVOLTAGE PROTE		27.60 to 33.60	41.40 to 50.40	55.20 to 67.20			
	OPERATING INDICA	TION	Not provided					
OTHERS	REMOTE SENSING		Not provided					
	REMOTE ON/OFF		Option (Refer to Instruction Manual 6)					
	INPUT-OUTPUT-RC	*6	7 to 6,000 7 thin ato, out on our other form, a possible from the formation					
ISOLATION	INPUT-FG		AC2,000V 1minute, Cutoff current = 10mA, DC500V 50M $\Omega$ min (At Room Temperature)					
	OUTPUT-RC-FG	*6	AC500V 1minute, Cutoff current = 25mA, DC500V 50MΩ min (At Room Temperature)					
	OUTPUT-RC	*6	AC100V 1minute, Cutoff current = 25mA, DC100V 10M $\Omega$ min (At Room Temperature)					
	OPERATING TEMP., HUMID. AND STORAGE TEMP., HUMID. AND		3/\					
ENVIRONMENT		ALIIIUDE	-20 to +75°C, 20 - 90%RH (Non condensing), 9,000m (30,000feet) max  10 - 55Hz, 19.6m/s² (2G), 3minutes period, 60minutes each along X, Y and Z axis					
	VIBRATION				Z axis			
CAFETY AND	IMPACT			N-AN				
SAFETY AND NOISE	CONDUCTED NOISE		Complies with FCC-B, VCCI-B, CISP		IN-AIN			
	HARMONIC ATTENU		Complies with FCC-B, VCCI-B, CISP					
KLOULATIONS	CASE SIZE/WEIGHT			A) *8 ) inches] (W×H×D) / 380g max (with (	phonois 8 pover : 610g may)			
OTHERS		-	•		criassis & cover : o rug max)			
	COOLING METHOD		Convection (Refer to Instruction Manual 3.1 and 3.2) *5					

- Specification is changed at option, refer to Instruction Manual.
- Peak loading for 10sec. And Duty 40% max, refer to Instruction Manual 5. In detail. () means peak current. There is a possibility that an internal
- device is damaged when the specification is exceeded. \*3 This is the value that measured on measuring board with capacitor of 22 µ F at 150mm from output terminal.
- Measured by 20MHz oscilloscope or Ripple-Noise meter (Equivalent to KEISOKU-GIKEN: RM103).
- 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.
- \*5 Derating is required.
- \*6 Applicable when remote control (optional) is added.
- Please contact us about dynamic load and input response.
- Please contact us about another class.
- To meet the specifications. Do not operate over-loaded condition.
- Parallel operation is not possible.
- Derating is required when operated with chassis and cover.
- Sound noise may be generated by power supply in case of pulse load.



#### **External view**

\* External size of option is different from standard model.

Standard type Chassis and cover type 2-φ4.5 176±0.5 4-M4 FG Name plate Point A Point B  $3 - \phi 3.5$ [0.24] Mounting Hole [6.93] Mounting Hole 15 [0.59] 25 [0.98] 40 (A) 42 [1.65] \_ -5|−FG FG-CN3 Output(-) CN3 Output(-) -3 -Input(N) Input(N) 000 75 [2.95] 65±0.5 [2.6] -1-Input(L) Input(L) 3.35] CN<sub>1</sub> 18] Ontbrt(+) = CN2 Output(+) 5 [0.2] Connector for RemoteON/OFF (optional) Voltage adjust Mounting Hole 188 150±0.5 [7.4] [5.91] 176±0.5 [0.2] φ4.5 [0.24] [6.93] 4.5 [0.18] 15 [0.59] 47 .85] 33.5 2-M4 20 Mounting Hole ≅ %1 PCB t=1.6

- \* 4 Mounting holes are existing.
- \* The back side of P.C.B. of the power supply is assembled some
- Be attention not to bump against the attached area by vibration.
- \* Use the spacer of 8mm length or more regarding insulation. And do not use press-fitting bush.
- \* Point A, Point B are thermometry points. Please refer to Instruction Manual 3.

I/C	Connector	Mating connector	Terminal	
CNIA	1-1123724-3	1-1123722-5	Chain	1123721-1
CN1	1-1123724-3	1-1123722-5	Loose	1318912-1
ONIO	1-1123723-6	1-1123722-6	Chain	1123721-1
CN2	1-1123723-6	1-1123722-6	Loose	1318912-1
ONIO	4 4400700 7	1-1123722-7	Chain	1123721-1
CN3	1-1123723-7	1-1123/22-/	Loose	1318912-1

(Mfr:Tyco Electronics)

- ※ I/O Connector is Mfr. Tyco Electronics
- % Option:-J1:VH(J.S.T) connector type.

#### <PIN CONNECTION>

	0	0.11			
CN1		CN2		CN3	
Pin No.	Input	Pin No	Output	Pin No.	Output
1	AC(L)				
2					
3	AC(N)	1 to 6	+V	1 to 7	-V
4					
5	FG				

- \* Keep drawing current per pin below 5A for CN2,CN3.
- % Tolerance : ±1 [±0.04]
- $\ensuremath{\text{\%}}$  Weight : 380g max (with chassis & cover : 610g max)  $\ensuremath{\text{\%}}$  PCB material : CEM3
- ※ Optional chassis and cover material : Electric galvanizing steel board.
- ※ Dimensions in mm, [ ]=inches
- Mounting torque (Mounting hole of chassis) :1.5N · m (16kgf · cm) max

### Connector type

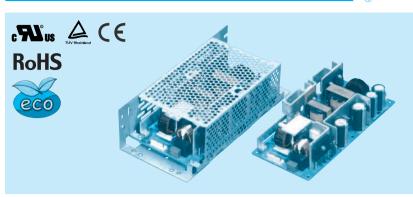
CN4 Option (Mfr:J.S.T)

1 RC(+)	PIN No.
	1
2 RC(-)	2

Barrier strip type

Model B2B-XH-A Mating Connector (Terminal) XHP-2

BXH-001T-P0.6 or SXH-001T-P0.6



Recommended EMI/EMC Filter NAC-06-472

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

1) Series name 2) Single output 3) Output wattage 4) Universal input 5) Output voltage

(§)Output voltage
(§)Optional \*\*1
C: with Coating
G: Low leakage current
J1: VH(J.S.T.)connector type
R: with Remote ON/OFF
R2: with Remote ON/OFF

S: with Chassis

SN: with Chassis & cover T: Vertical terminal block

U1: Can be attached the external capacitor unit

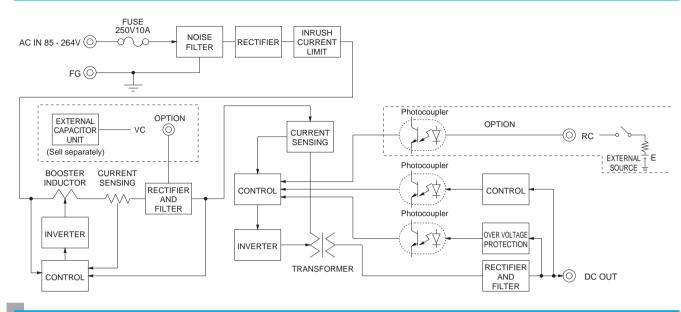
Please refer to Instruction manual 6.

This power supply is manufactured by SMD technology. The stress to P.C.B like twisting or bending causes the defect of the unit, so handle the unit with care.

MODEL		LFP240F-24-Y	LFP240F-30-Y	LFP240F-36-Y	LFP240F-48-Y
MAX OUTPUT WATTAGE[W]	*2	300 (480)	300 (480)	302.4 (482.4)	302.4 (480)
Conv		24V 10A (20A)	30V 8A (16A)	36V 6.7A (13.4A)	48V 5A (10A)
DC OUTPUT *2	Forced air	24V 12.5A (20A)	30V 10A (16A)	36V 8.4A (13.4A)	48V 6.3A (10A)

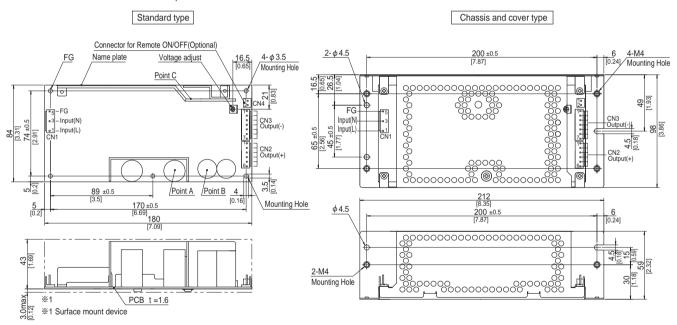
	MODEL		LFP240F-24-Y	LFP240F-30-Y	LFP240F-36-Y	LFP240F-48-Y			
	VOLTAGE[V]		AC85 - 264 1 φ (Refer to In	struction Manual 1.1 and 3.2)	*5				
	CURRENT[A]	ACIN 100V	3.6typ (lo=100%)						
	CORKENT[A]	ACIN 200V	1.8typ (lo=100%)						
	FREQUENCY[Hz]		50 / 60 (47 - 63)						
	EFFICIENCY[%]	ACIN 100V	86.0typ (lo=100%)	86.0typ (lo=100%)	86.0typ (lo=100%)	86.0typ (lo=100%)			
NPUT	EFFICIENCT[%]	ACIN 200V	88.5typ (lo=100%)	88.5typ (lo=100%)	89.0typ (lo=100%)	89.0typ (lo=100%)			
	POWER FACTOR	ACIN 100V							
	POWER FACTOR	ACIN 200V	0.95typ (lo=100%)						
	INRUSH CURRENT[A]	ACIN 100V	5 / 30typ (Io=100%) (Primary inrush current /Secondary inrush current) (More than 3 sec. to re-start)						
	INICOOTI CONNENT[A]	ACIN 200V	30 / 30typ (Io=100%) (Primary inrush current /Secondary inrush current) (More than 3 sec. to re-start)						
	LEAKAGE CURREN	T[mA]	0.40 / 0.75max (ACIN 100\	//240V 60Hz, lo=100%, A	ccording to IEC60950-1 and	d DEN-AN)			
	VOLTAGE[V]		24	30	36	48			
	CURRENT[A]	Convection *2	10 (Peak 20)	8 (Peak 16)	6.7 (Peak 13.4)	5 (Peak 10)			
		Forced air *2	12.5 (Peak 20)	10 (Peak 16)	8.4 (Peak 13.4)	6.3 (Peak 10)			
	LINE REGULATION[			144max	144max	192max			
	LOAD REGULATION			240max	240max	240max			
	RIPPLE[mVp-p] *3		120max	150max	150max	150max			
	KIFFEE[IIIVP-P] **		160max	200max	200max	200max			
UTPUT	RIPPLE NOISE[mVp-p]*3	0 to +50℃	150max	250max	250max	250max			
00.	KIPPLE NOISE[IIIVP-P]*3		180max	300max	300max	300max			
	TEMPERATURE REGULATION[mV]		240max	360max	360max	480max			
	TEMI ENATONE NEGOEATION[IIIV]	-10 to +50°C	290max	450max	450max	600max			
	DRIFT[mV]	*4	96max	144max	144max	192max			
	START-UP TIME[ms]		350typ (ACIN 100V, Io=100%)						
	HOLD-UP TIME[ms] *9		20typ (ACIN 100V, Io=100%)						
	OUTPUT VOLTAGE ADJUSTMENT RANGE[V]		21.60 to 27.50	27.00 to 33.00	32.40 to 39.60	39.60 to 52.80			
	OUTPUT VOLTAGE SETTING[V]		24.00 to 24.96	30.00 to 31.20	36.00 to 37.44	48.00 to 49.92			
	OVERCURRENT PROT								
	OVERVOLTAGE PROTEC		27.60 to 33.60	34.50 to 42.00	41.40 to 50.40	55.20 to 67.20			
IRCUIT AND			Not provided						
THERS	REMOTE SENSING		Not provided						
	REMOTE ON/OFF		Option (Refer to Instruction Manual 6)						
	INPUT-OUTPUT-RC	*6	AC3,000V 1minute, Cutoff current = 10mA, DC500V 50M $\Omega$ min (At Room Temperature)						
OLATION	INPUT-FG	-	AC2,000V 1minute, Cutoff current = 10mA, DC500V 50M $\Omega$ min (At Room Temperature)						
	OUTPUT-RC-FG	*6							
	OUTPUT-RC	*6							
	OPERATING TEMP., HUMID. AND		7 7 7						
NVIRONMENT	STORAGE TEMP., HUMID. AND	ALTITUDE							
	VIBRATION			Bminutes period, 60minutes	each along X, Y and Z axis				
	IMPACT		196.1m/s² (20G), 11ms, once each X, Y and Z axis						
AFETY AND									
OISE	CONDUCTED NOISE			CI-B, CISPR22-B, EN55011-	B, EN55022-B				
LEGULATIONS	HARMONIC ATTENU		Complies with IEC61000-3						
OTHERS	CASE SIZE/WEIGHT			81×7.09 inches] (W×H×D		& cover : 860g max)			
	<b>COOLING METHOD</b>		Convection / Forced air (R	efer to Instruction Manual 3.1	and 3.2) *5				

- Specification is changed at option, refer to Instruction Manual.
- Peak loading for 10sec. And Duty 40% max, refer to Instruction Manual 5. In detail.
- ( ) means peak current. There is a possibility that an internal device is damaged when the specification is exceeded.
- ${
  m *3}$  This is the value that measured on measuring board with  ${
  m *5}$  Derating is required. capacitor of 22 µ F at 150mm from output terminal.
- Measured by 20MHz oscilloscope or Ripple-Noise meter (Equivalent to KEISOKU-GIKEN: RM103).
- \*4 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 Applicable when remote control (optional) is added.
- \*7 Please contact us about dynamic load and input response.
- \*8 Please contact us about another class.
- \$9 By attaching an external capacitor unit, it is possible to extend the hold-up time.
- To meet the specifications. Do not operate over-loaded condition
- Parallel operation is not possible.
- Derating is required when operated with chassis and cover.
- Sound noise may be generated by power supply in case of pulse load.



#### **External view**

\* External size of option is different from standard model.



- % 5 Mounting holes are existing.
- % The back side of P.C.B. of the power supply is assembled some SMDs.
- Be attention not to bump against the attached area by vibration. \* Use the spacer of 8mm length or more regarding insulation.
- And do not use press-fitting bush.
- \* Point A, Point B, Point C are thermometry points. Please refer to Instruction Manual 3.

I/O Connector		Mating connector	Terminal	
CNIA	1-1123724-3	1-1123722-5	Chain	1123721-1
CIVI	1-1123724-3	1-1123/22-5	Loose	1318912-1
CN2	1-1123723-6	1-1123722-6	Chain	1123721-1
			Loose	1318912-1
ONIO	4 4400700 7	1-1123722-7	Chain 1123	1123721-1
CN3	1-1123723-7	1-1123/22-/	Loose	1318912-1

(Mfr:Tyco Electronics)

- % I/O Connector is Mfr. Tyco Electronics
- ※ Option:-J1:VH(J.S.T) connector type.

### <PIN CONNECTION>

THE CONTROL OF THE CO								
CN1			CN2			CN3		
Pin No.	Input		Pin No.	Output		Pin No.	Output	
1	AC(L)							
2								
3	AC(N)		1 to 6	+V		1 to 7	-V	
4								
5	FG							

- % Keep drawing current per pin below 5A for CN2,CN3.
- % Tolerance : ±1 [±0.04]
- Weight: 540g max (with chassis & cover: 860g max)
  % PCB material: CEM3
- \* Optional chassis and cover material: Electric galvanizing steel board.
- \* Dimensions in mm, [ ]=inches Mounting torque (Mounting hole of chassis) :1.5N · m (16kgf · cm) max

### Connector type

CN4 Option (Mfr:J.S.T)

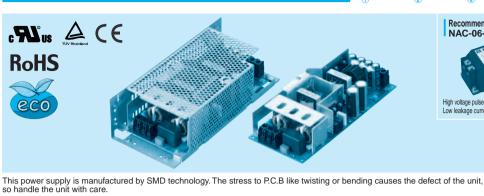
PIN No.	Contents	
1	RC(+)	
2	RC(-)	
		_

Barrier strip type

Model B2B-XH-A Mating Connector (Terminal) XHP-2

BXH-001T-P0.6 or SXH-001T-P0.6 eco

**RoHS** 



Recommended EMI/EMC Filter NAC-06-472

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

1) Series name 2) Single output 3) Output wattage 4) Universal input 5) Output voltage

(§) Output voltage
(§) Optional \*1
C: with Coating
G: Low leakage current
J: EP (Tyco Electronics) connector type

J1 : VH (J.S.T.) connector type R : with Remote ON/OFF R2: with Remote ON/OFF

S: with Chassis SN: with Chassis & cover

SNF: with Chassis & cover & fan (Only 24V) T1: Holizontal terminal block

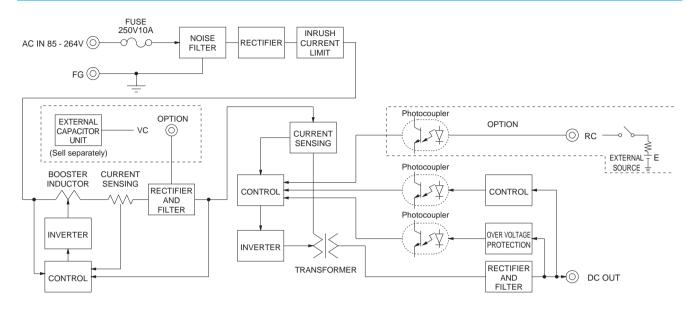
U1: Can be attached the external capacitor unit

Please refer to Instruction manual 6.

MODEL		LFP300F-24-TY	LFP300F-30-TY	LFP300F-36-TY	LFP300F-48-TY
MAX OUTPUT WATTAGE[W] *2		360 (600)	360 (600)	360 (604.8)	360 (604.8)
DC CUITDUT	Convection	24V 12.5A (25A)	30V 10A (20A)	36V 8.4A (16.8A)	48V 6.3A (12.6A)
DC OUTPUT *2 F	orced air	24V 15A (25A)	30V 12A (20A)	36V 10A (16.8A)	48V 7.5A (12.6A)

	MODEL		LFP300F-24-TY	LFP300F-30-TY	LFP300F-36-TY	LFP300F-48-TY			
	VOLTAGE[V]		AC85 - 264 1 ¢ (Refer to Instruction Manual 1.1 and 3.2) *5						
INPUT	CUDDENTIAL	ACIN 100V	4.3typ (lo=100%)						
	CURRENT[A]	ACIN 200V	2.2typ (lo=100%)						
	FREQUENCY[Hz]		50 / 60 (47 - 63)						
	EEEIGIENGVI9/1	ACIN 100V	85.0typ (lo=100%)	85.5typ (lo=100%)	85.5typ (lo=100%)	85.5typ (lo=100%)			
	EFFICIENCY[%]	ACIN 200V	88.0typ (lo=100%)	88.0typ (lo=100%)	88.0typ (lo=100%)	88.0typ (lo=100%)			
	DOWED FACTOR	ACIN 100V	0.99typ (lo=100%)						
	POWER FACTOR	ACIN 200V							
	INDUCUI OUDDENITAL	ACIN 100V	15 / 30typ (lo=100%) (Primary inrush current /Secondary inrush current) (More than 3 sec. to re-start)						
	INRUSH CURRENT[A]	ACIN 200V	30 / 30typ (lo=100%) (Primary inrush current /Secondary inrush current) (More than 3 sec. to re-start)						
	LEAKAGE CURRENT[mA]		0.45 / 0.75max (ACIN 100V / 240V 60Hz, lo=100%, According to IEC60950-1 and DEN-AN)						
	VOLTAGE[V]		24	30	36	48			
		10111 (001)	12.5 (Peak 22) Convection	10 (Peak 18) Convection	8.4 (Peak 14.6) Convection	6.3 (Peak 11) Convection			
	CUDDENTIAL	ACIN 100V*2	15 (Peak 22) Forced air	12 (Peak 18) Forced air	10 (Peak 14.6) Forced air	7.5 (Peak 11) Forced air			
	CURRENT[A]	4.01M 000M	12.5 (Peak 25) Convection	10 (Peak 20) Convection	8.4 (Peak 16.8) Convection	6.3 (Peak 12.6) Convection			
		ACIN 200V*2	15 (Peak 25) Forced air	12 (Peak 20) Forced air	10 (Peak 16.8) Forced air	7.5 (Peak 12.6) Forced air			
	LINE REGULATION[	mV] *7	96max	144max	144max	192max			
	LOAD REGULATION	[mV] *7	150max	240max	240max	240max			
		0 to +40°C	120max	150max	150max	150max			
OUTPUT	RIPPLE[mVp-p] *3	-10 - 0℃	160max	200max	200max	200max			
JUIPUI	RIPPLE NOISE[mVp-p]*3	0 to +40°C	150max	250max	250max	250max			
	KIPPLE NOISE[mvp-p]*3	-10 - 0℃	180max	300max	300max	300max			
	TEMPERATURE REGULATION[mV]		240max	360max	360max	480max			
	TEMPERATURE REGULATION[IIIV]	-10 to +40°C	290max	450max	450max	600max			
			96max	144max	144max	192max			
	START-UP TIME[ms]		350typ (ACIN 100V, Io=100%)						
	HOLD-UP TIME[ms] *9								
	OUTPUT VOLTAGE ADJUSTMENT	RANGE[V]	21.60 to 27.50	27.00 to 33.00	32.40 to 39.60	39.60 to 52.80			
	OUTPUT VOLTAGE SETTING[V]		24.00 to 24.96	30.00 to 31.20	36.00 to 37.44	48.00 to 49.92			
	OVERCURRENT PROT	ECTION	Works over 101% of rating	and recovers automatically		_			
PROTECTION			27.60 to 33.60	34.50 to 42.00	41.40 to 50.40	55.20 to 67.20			
	OPERATING INDICA	TION	Not provided						
OTHERS		REMOTE SENSING		Not provided					
	REMOTE ON/OFF		Option (Refer to Instruction Manual 6)						
	INPUT-OUTPUT-RC	*6							
ISOLATION	INPUT-FG		AC2,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (At Room Temperature)						
	OUTPUT-RC-FG		AC500V 1minute, Cutoff current = 25mA, DC500V 50M $\Omega$ min (At Room Temperature)						
	OUTPUT-RC	*6							
	OPERATING TEMP., HUMID. AND								
NVIRONMENT	STORAGE TEMP., HUMID. AND	ALTITUDE							
	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 X, Y and Z axis						
SAFETY AND	AGENCY APPROVALS (AT ON								
NOISE	CONDUCTED NOISE		Complies with FCC-B, VCCI-B, CISPR22-B, EN55011-B, EN55022-B						
REGULATIONS HARMONIC ATTENUATO			Complies with IEC61000-3-2 (Class A) *8						
OTHERS	CASE SIZE/WEIGHT		95×52.5×222mm [3.74×2.07×8.74 inches] (W×H×D) (without terminal block) / 810g max (with chassis & cover : 1,270g max)						
	COOLING METHOD		Convection / Forced air (Refer to Instruction Manual 3.1 and 3.2) *5						

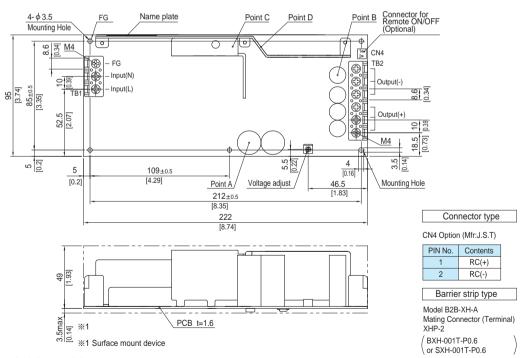
- Specification is changed at option, refer to Instruction Manual.
- \*2 Peak loading for 10sec. And Duty 40% max, refer to Instruction Manual 5. In detail.
- ( ) means peak current. There is a possibility that an internal device is damaged when the specification is exceeded. held constant at the \*3 This is the value that measured on measuring board with \*5 Derating is required.
- capacitor of 22  $\mu\,F$  at 150mm from output terminal.
- Measured by 20MHz oscilloscope or Ripple-Noise meter (Equivalent to KEISOKU-GIKEN: RM103).
- 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 Applicable when remote control (optional) is added.
- Please contact us about dynamic load and input response.
- \*8 Please contact us about another class.
- By attaching an external capacitor unit, it is possible to extend the hold-up time.
- To meet the specifications. Do not operate over-loaded condition.
- Parallel operation is not possible.
- Derating is required when operated with chassis and cover.
- Sound noise may be generated by power supply in case of pulse load.



#### **External view**

\* External size of option is different from standard model.

### Standard type



- $\ensuremath{\ensuremath{\%}}$  The back side of P.C.B. of the power supply is assembled some SMDs.
- Be attention not to bump against the attached area by vibration.
- \* Use the spacer of 8mm length or more regarding insulation. And do not use press-fitting bush.
- Point A, Point B, Point C, Point D are thermometry points. Please refer to Instruction Manual 3.
- % Keep drawing current per pin below 20A for TB2.

- ※ Tolerance: ±1 [±0.04]
- Weight: 810g max (with chassis & cover: 1,270g max)
  PCB material: CEM3
- ※ Dimensions in mm, [ ]=inches
- \* Screw tightening torque: M4 1.6N · m (16.9kgf · cm) max

# **Mouser Electronics**

**Authorized Distributor** 

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# Cosel:

LFP300F-36-RTY LFP300F-36-T1Y LFP300F-48-STY LFP300F-30-RTY LFP300F-36-J1Y LFP300F-30-STY LFP300F-30-RZTY LFP300F-24-J1Y LFP300F-30-GTY LFP300F-36-GTY LFP300F-36-JY LFP300F-30-JY LFP300F-48-J1Y LFP300F-48-T1Y LFP300F-24-CTY LFP300F-24-T1Y LFP300F-24-RTY LFP300F-36-RZTY LFP300F-24-STY LFP300F-24-SNTY LFP300F-24-SNTY LFP300F-30-J1Y LFP300F-30-CTY LFP300F-36-TY LFP300F-36-STY LFP300F-30-SNTY LFP300F-48-RTY LFP300F-48-RZTY LFP300F-48-CTY LFP300F-48-SNTY LFP300F-24-RZTY LFP300F-24-GTY LFP300F-30-TY LFP300F-24-JY LFP300F-36-SNTY LFP300F-36-SNTY LFP300F-36-SNTY LFP300F-48-GTY