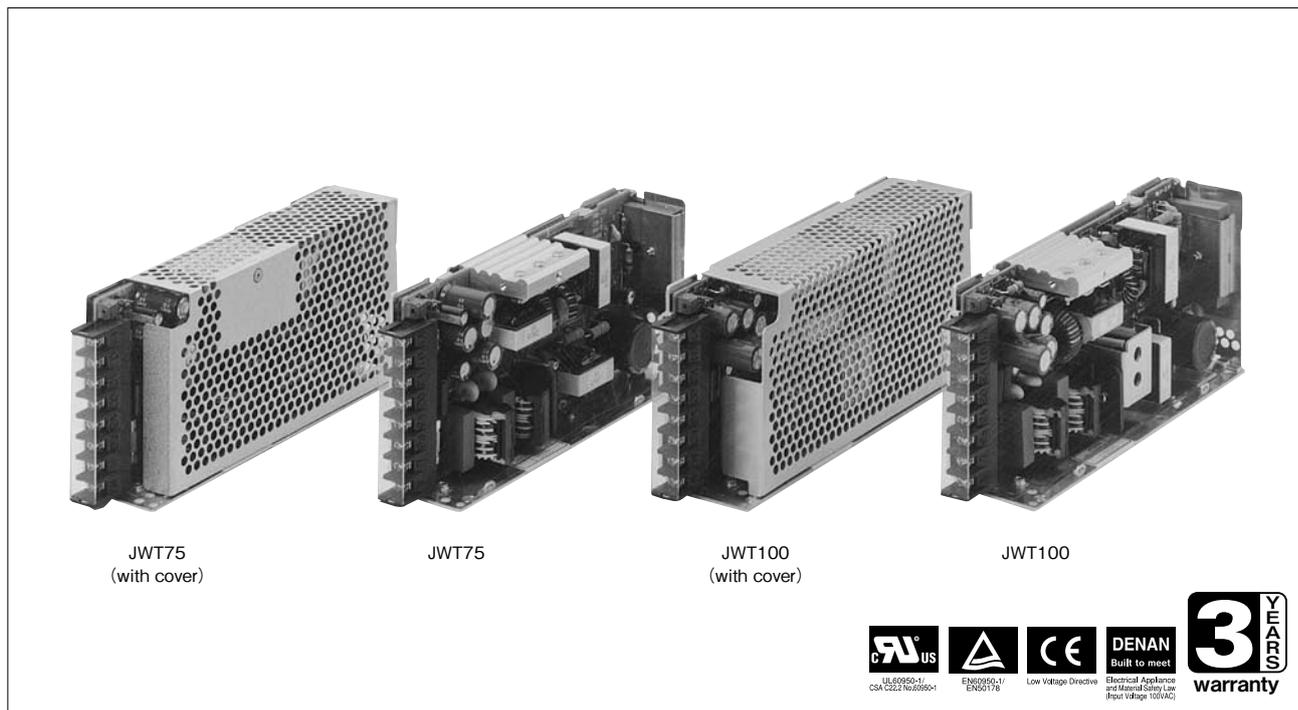


# JWT SERIES

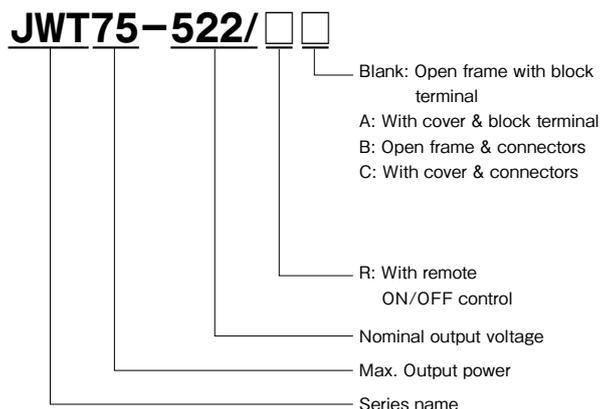
Triple Output 75W, 100W



## Features

- CE marking applicable
- Complies the standard of the harmonics current limiter
- 100V/200V worldwide-applicable input/triple outputs/ Low cost type
- Applicable to a wide range of usage, including in FA industry facilities and chemical analyzers
- Remote On/Off control: Optional

## Model naming method



JWT

## Applications



## Conformity to RoHS Directive

This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

## Product Line up

Output Voltage	75W						100W					
	Output Current / Model		Output Current / Model		Output Current / Model		Output Current / Model		Output Current / Model		Output Current / Model	
+5V	8.0A	JWT75-522	8.0A	JWT75-5FF	8.0A	JWT75-525	13A	JWT100-522	13A	JWT100-5FF	13A	JWT100-525
-5V	-		-		0.5A		-		-		-	
+12V	4.0A	JWT75-522	-	JWT75-5FF	4.0A	JWT75-525	5.5A	JWT100-522	-	JWT100-5FF	5.5A	JWT100-525
-12V	0.5A		-		-		-		1A		-	
+15V	-	JWT75-522	3.2A	JWT75-5FF	-	JWT75-525	-	JWT100-522	4.5A	JWT100-5FF	-	JWT100-525
-15V	-		0.5A		-		-		-		1A	

# JWT75 Specifications

ITEMS/UNITS		MODEL	JWT75-522			JWT75-5FF			JWT75-525		
		CH	1	2	3	1	2	3	1	2	3
Input	Voltage Range (*3)	V	AC85 - 265 or DC120 - 330								
	Frequency (*3)	Hz	47 - 63								
	Power Factor (100/200VAC)(typ)(*2)		0.99 / 0.93								
	Efficiency (typ) (*2)	%	72								
	Current (100/200VAC)(typ)(*2)	A	1.2 / 0.6								
	Inrush Current (100/200VAC)(typ) (*2)(*4)	A	14 / 28, Ta=25°C, cold start								
	Leakage Current (*11)	mA	0.75mA MAX, 0.2mA (typ) at 100VAC / 0.44mA (typ) at 230VAC								
Output	Nominal Voltage	VDC	+5	+12	-12	+5	+15	-15	+5	+12	-5
	Minimum Current (*1)	A	0.8	0		0.8	0		0.8	0	
	Maximum Current	A	8	4	0.5	8	3.2	0.5	8	4	0.5
	Maximum Power	W	40	48	6.0	40	48	7.5	40	48	2.5
	Total Allowable Power	W	75								
	Voltage Setting Accuracy	%	-	±5%		-	±5%		-	±5%	
	Maximum Line Regulation(*6)	mV	20	48		20	60		20	48	20
	Maximum Load Regulation(*7)	mV	40	100	150	40	120	150	40	100	
	Temperature Coefficient		V1,V2: Less than 0.02% / °C, V3: Less than 0.03% / °C								
	Maximum Ripple & Noise (0 to +65°C)(*5)	mVp-p	120	150		120	150		120	150	
	Maximum Ripple & Noise (-10 to 0°C)(*5)	mVp-p	160	180		160	180		160	180	
	Hold-up Time (typ) (*10)	ms	20								
	Function	Voltage Adjustable Range	VDC	5.0 - 5.25	Fixed		5.0 - 5.25	Fixed		5.0 - 5.25	Fixed
Over Current Protection (*8)		A	more than 105%								
Over Voltage Protection (*9)		VDC	5.7 - 7.0	-		5.7 - 7.0	-		5.7 - 7.0	-	
Parallel Operation			-								
Environment	Series Operation		-								
	Operating Temperature (*12)	°C	-10 to +65 (-10 to +50 : 100%, +65 : 50%)								
	Storage Temperature	°C	-30 to +85								
	Operating Humidity	%RH	30 to 90								
	Storage Humidity	%RH	10 to 95								
	Vibration		At no operating, 10 - 55Hz (sweep for 1min) 19.6m/s <sup>2</sup> constant X, Y, Z 1h each.								
	Shock (In package)		Less than 196.1m/s <sup>2</sup>								
	Cooling		Convection cooling								
Isolation	Withstand Voltage		Input - FG: 2kVAC(20mA), Input - Output: 3kVAC (20mA), Output - FG: 500VAC(100mA) for 1min.								
	Isolation Resistance		More than 100MΩ at 25°C and 70%RH Output - FG ... 500VDC								
Standards	Safety Standards (*13)		Approved by UL60950-1, CSA C22.2 No.60950-1, EN60950-1 Designed to meet DENAN								
	PFHC		Designed to meet EN61000-3-2								
	EMI		Designed to meet EN55011 / EN55022-B, FCC-ClassB, VCCI-B.								
Mechanical	Weight (typ)	g	600								
	Size (W x H x D)	mm	42 x 92 x 188 (Refer to outline drawing)								

(\*1) For V2, V3 stability, to keep V1 minimum output current.  
 (\*2) At 100/200VAC, Ta=25°C and maximum output power.  
 (\*3) For cases where conformance to various safety specs (UL, CSA, EN) are required, input voltage range will be 100 - 240VAC (50/60Hz).  
 (\*4) No applicable for the in-rush current to noise filter less than 0.2ms.  
 (\*5) Measure with JEITA RC-9131 probe, bandwidth of scope :100MHz.  
 (\*6) 85 - 265VAC, constant load.  
 (\*7) Minimum load - full load, constant input voltage.  
 (\*8) Constant current limit with automatic recovery.  
 (\*9) OVP circuit will shut down all outputs, manual reset (line recycle).  
 (\*10) At 100/200VAC nominal output voltage and maximum total output power.  
 (\*11) Measured by the each measuring method of UL, CSA, EN and DENAN (at 60Hz), Ta=25°C.  
 (\*10) Ratings - Derating at standard mounting.  
 - Load (%) is percent of maximum output power or maximum output current, whichever is greater.  
 - As for other mountings, refer to derating curve.  
 (\*13) As for DENAN, designed to meet at 100VAC.

● Recommended EMC Filter



RSEL-2002W  
 Please refer to "TDK-Lambda EMC Filters" catalog.

# Outline Drawing

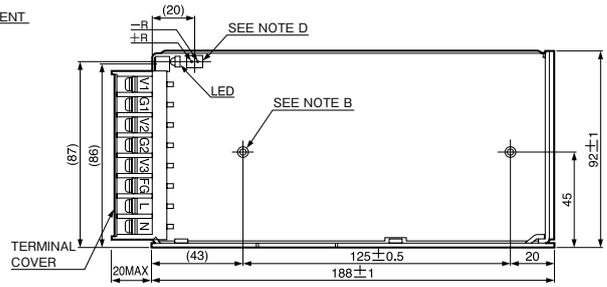
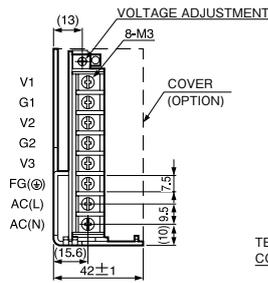
## [JWT75] (Block Terminal Type)

**NOTES**

- A: MODEL NAME, OPTION, INPUT VOLTAGE RANGE, NOMINAL OUTPUT VOLTAGE, MAXIMUM OUTPUT CURRENT AND COUNTRY OF MANUFACTURE ARE SHOWN HERE IN ACCORDANCE WITH THE SPECIFICATIONS.
- B: M4 EMBOSSED, TAPPED AND COUNTERSUNK HOLES (4) FOR CUSTOMER CHASSIS MOUNTING. SCREWS MUST NOT PROTRUDE INTO POWER SUPPLY BY MORE THAN 6m/m.
- C:  $\phi 4.5$  HOLE FOR CUSTOMER CHASSIS MOUNTING. (USE M4 MOUNTING SCREW.)
- D: REMOTE ON/OFF CONTROL CONNECTOR --- OPTION B2B-XH-AM (JST)

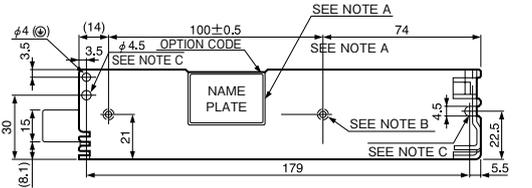
**ACCESSORIES**

- \* COVER FOR BARRIER STRIP TERMINAL
- \* HOUSING: XHP-2 (JST), TERMINAL: BXH-001T-P0.6 (JST) OR SXH-001T-P0.6 (JST) --- OPTION



**OPTIONAL MODELS**

MODEL	COVER	REMOTE ON/OFF CONTROL
JWT75-*		
JWT75-*/A	○	
JWT75-*/B		○
JWT75-*/BB		○
JWT75-*/RC	○	○



unit: mm

## (Connector Type)

**MATERIAL**

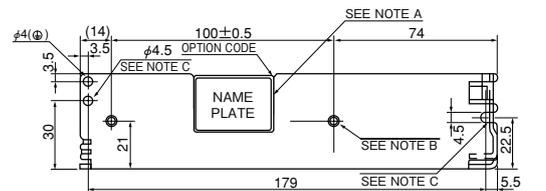
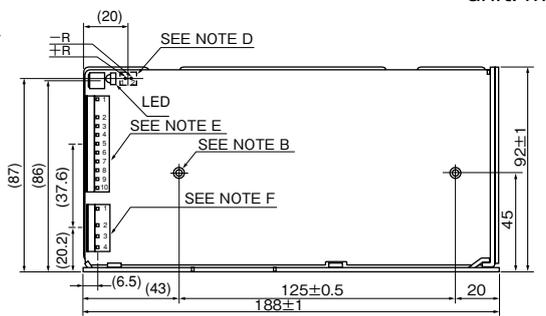
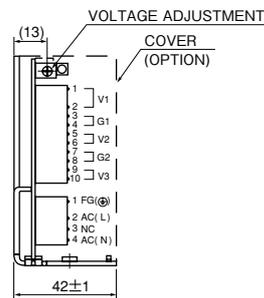
PCB : GLASS COMPOSITE CEM-3 (UL94V-0)

**NOTES**

- A: MODEL NAME, OPTION, INPUT VOLTAGE RANGE, NOMINAL OUTPUT VOLTAGE, MAXIMUM OUTPUT CURRENT AND COUNTRY OF MANUFACTURE ARE SHOWN HERE IN ACCORDANCE WITH THE SPECIFICATIONS.
- B: M4 EMBOSSED, TAPPED AND COUNTERSUNK HOLES (4) FOR CUSTOMER CHASSIS MOUNTING. SCREWS MUST NOT PROTRUDE INTO POWER SUPPLY BY MORE THAN 6m/m.
- C:  $\phi 4.5$  HOLE FOR CUSTOMER CHASSIS MOUNTING. (USE M4 MOUNTING SCREW.)
- D: REMOTE ON/OFF CONTROL CONNECTOR --- OPTION B2B-XH-AM (JST)
- E: CONNECTOR: 5277-10A (MOLEX)
- F: CONNECTOR: 5289-4A (MOLEX)

**ACCESSORIES**

- \* HOUSING: 5196-10 (MOLEX), TERMINAL: 5194PBT(MOLEX)
- \* HOUSING: 5199-04 (MOLEX), TERMINAL: 5194PBT(MOLEX)
- \* HOUSING: XHP-2 (JST), TERMINAL: BXH-001T-P0.6 (JST) OR SXH-001T-P0.6 (JST) --- OPTION



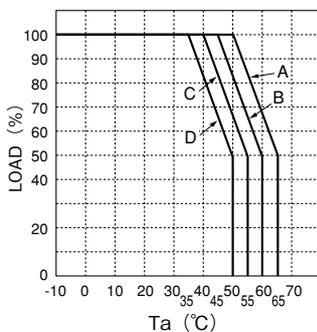
unit: mm

**OPTIONAL MODELS**

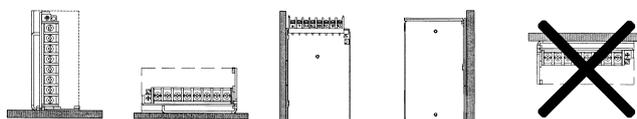
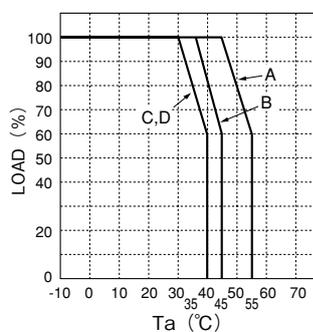
MODEL	COVER	REMOTE ON/OFF CONTROL	CONNECTOR INPUT/OUTPUT
JWT75-*/B			○
JWT75-*/C	○		○
JWT75-*/BB		○	○
JWT75-*/RC	○	○	○

# Output Derating

JWT 75



JWT 75/A



MOUNTING A (STANDARD MOUNTING) MOUNTING B MOUNTING C MOUNTING D PROHIBIT

Recommended standard mounting is method (A). Method (B) and (C) are also possible. Refer to the derating below. Please do not use installation method (E), where the PCB will be on the top side and heat will be trapped inside the unit. Method (D) is possible for JWT75, but prohibit for JWT100. In the following derating curve, the maximum output current is considered to be 100% .

# JWT100 Specifications

ITEMS/UNITS		MODEL	JWT100-522			JWT100-5FF			JWT100-525		
		CH	1	2	3	1	2	3	1	2	3
Input	Voltage Range (*3)	V	AC85 - 265 or DC120 - 330								
	Frequency (*3)	Hz	47 - 63								
	Power Factor (100/200VAC)(typ)(*2)		0.99 / 0.93								
	Efficiency (typ) (*2)	%	72								
	Current (100/200VAC)(typ)(*2)	A	1.4 / 0.7								
	Inrush Current (100/200VAC)(typ) (*2)(*4)	A	14 / 28, Ta=25°C, Cold Start								
Leakage Current (*11)	mA	0.75mA MAX, 0.2mA (typ) at 100VAC / 0.44mA (typ) at 230VAC									
Output	Nominal Voltage	VDC	+5	+12	-12	+5	+15	-15	+5	+12	-5
	Minimum Current (*1)	A	1.3	0		1.3	0		1.3	0	
	Maximum Current	A	13	5.5	1	13	4.5	1	13	5.5	1
	Maximum Power	W	65	66	12	65	68	15	65	66	5
	Total Allowable Power	W	100								
	Voltage Setting Accuracy	%	-	±5%		-	±5%		-	±5%	
	Maximum Line Regulation(*6)	mV	20	48		20	60		20	48	20
	Maximum Load Regulation(*7)	mV	40	100	150	40	120	150	40	100	
	Temperature Coefficient		V1,V2: Less than 0.02% / °C, V3: Less than 0.03% / °C								
	Maximum Ripple & Noise (0 to +50°C)(*5)	mVp-p	120	150		120	150		120	150	
	Maximum Ripple & Noise (-10 to 0°C)(*5)	mVp-p	160	180		160	180		160	180	
	Hold-up Time (typ) (*10)	ms	20								
	Voltage Adjustable Range	VDC	5.0 - 5.25	Fixed		5.0 - 5.25	Fixed		5.0 - 5.25	Fixed	
Function	Over Current Protection (*8)	A	more than 105%								
	Over Voltage Protection (*9)	VDC	5.7 - 7.0	-		5.7 - 7.0	-		5.7 - 7.0	-	
	Parallel Operation		-								
	Series Operation		-								
Environment	Operating Temperature (*12)	°C	-10 to +65 (-10 to +50 : 100%, +65 : 50%)								
	Storage Temperature	°C	-30 to +85								
	Operating Humidity	%RH	30 to 90								
	Storage Humidity	%RH	10 to 95								
	Vibration		At no operating, 10 - 55Hz (sweep for 1min) 19.6m/s <sup>2</sup> constant X, Y, Z 1hour each.								
	Shock (In package)		Less than 196.1m/s <sup>2</sup>								
	Cooling		Convection cooling								
Isolation	Withstand Voltage		Input - FG: 2kVAC(20mA), Input - Output: 3kVAC (20mA), Output - FG: 500VAC(100mA), for 1min.								
	Isolation Resistance		More than 100MΩ at 25°C and 70%RH Output - FG ... 500VDC								
Standards	Safety Standards (*13)		Approved by UL60950-1, CSA C22.2 No.60950-1, EN60950-1 Designed to meet DENAN								
	PFHC		Designed to meet EN61000-3-2								
	EMI		Designed to meet EN55011 / EN55022-B, FCC-ClassB, VCCI-B.								
Mechanical	Weight (Typ)	g	720								
	Size (W x H x D)	mm	48 x 92 x 203 (Refer to Outline Drawing)								

(\*1) For V2, V3 stability, to keep V1 minimum output current.

(\*2) At 100/200VAC, Ta=25°C and maximum output power.

(\*3) For cases where conformance to various safety specs (UL, CSA, EN) are required, input voltage range will be 100 - 240VAC (50/60Hz).

(\*4) No applicable for the in-rush current to noise filter less than 0.2ms.

(\*5) Measure with JEITA RC-9131 probe, bandwidth of scope: 100MHz.

(\*6) 85 - 265VAC, constant load.

(\*7) Minimum load - full load, constant input voltage.

(\*8) Constant current limit with automatic recovery.

(\*9) OVP circuit will shut down all outputs, manual reset (line recycle).

(\*10) At 100/200VAC nominal output voltage and maximum total output power.

(\*11) Measured by the each measuring method of UL, CSA, EN and DENAN (at 60Hz), Ta=25°C.

(\*12) Ratings - Derating at standard mounting.

- Load (%) is percent of maximum output power or maximum output current, whichever is greater.  
- As for other mountings, refer to derating curve.

(\*13) As for DENAN, designed to meet at 100VAC.

● Recommended EMC Filter



RSEL-2002W

Please refer to "TDK-Lambda EMC Filters" catalog.

# Outline Drawing

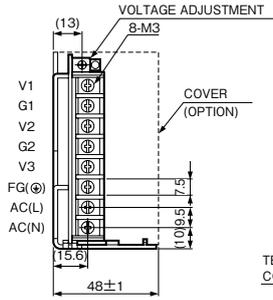
## [JWT100] (Block Terminal Type)

**NOTES**

- A : MODEL NAME, OPTION, INPUT VOLTAGE RANGE, NOMINAL OUTPUT VOLTAGE, MAXIMUM OUTPUT CURRENT AND COUNTRY OF MANUFACTURE ARE SHOWN HERE IN ACCORDANCE WITH THE SPECIFICATIONS.
- B : M4 EMBOSSED, TAPPED AND COUNTERSUNK HOLES (5) FOR CUSTOMER CHASSIS MOUNTING. SCREWS MUST NOT PROTRUDE INTO POWER SUPPLY BY MORE THAN 6m/m.
- C :  $\phi 4.5$  HOLE FOR CUSTOMER CHASSIS MOUNTING. (USE M4 MOUNTING SCREW.)
- D : REMOTE ON/OFF CONTROL CONNECTOR --- OPTION B2B-XH-AM (JST)

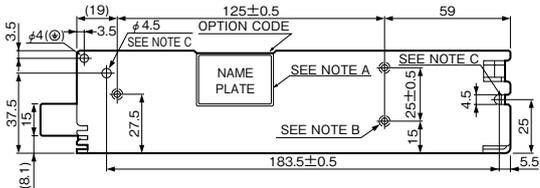
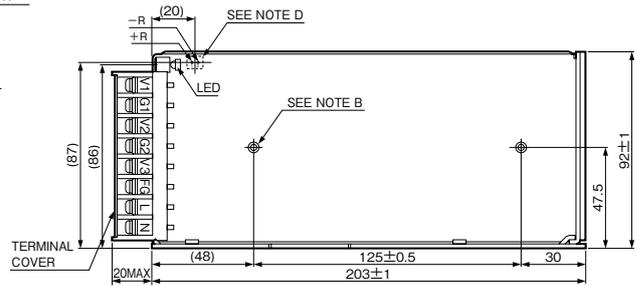
**ACCESSORIES**

- \* COVER FOR BARRIER STRIP TERMINAL
- \* HOUSING: XHP-2 (JST), TERMINAL: BXH-001T-P0.6 (JST) OR SXH-001T-P0.6 (JST) --- OPTION



**OPTIONAL MODELS**

MODEL	COVER	REMOTE ON/OFF CONTROL
JWT100-*		
JWT100-*/A	○	
JWT100-*/R		○
JWT100-*/RA	○	○



unit: mm

## (Connector Type)

**MATERIAL**

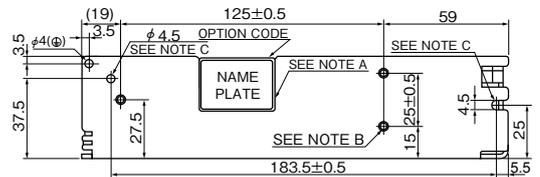
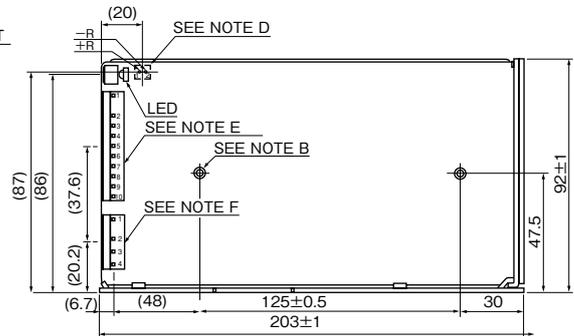
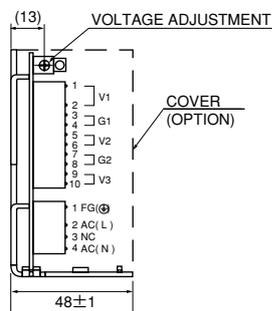
PCB : GLASS COMPOSITE CEM-3 (UL94V-0)

**NOTES**

- A : MODEL NAME, OPTION, INPUT VOLTAGE RANGE, NOMINAL OUTPUT VOLTAGE, MAXIMUM OUTPUT CURRENT AND COUNTRY OF MANUFACTURE ARE SHOWN HERE IN ACCORDANCE WITH THE SPECIFICATIONS.
- B : M4 EMBOSSED, TAPPED AND COUNTERSUNK HOLES (5) FOR CUSTOMER CHASSIS MOUNTING. SCREWS MUST NOT PROTRUDE INTO POWER SUPPLY BY MORE THAN 6m/m.
- C :  $\phi 4.5$  HOLE FOR CUSTOMER CHASSIS MOUNTING. (USE M4 MOUNTING SCREW.)
- D : REMOTE ON/OFF CONTROL CONNECTOR --- OPTION B2B-XH-AM (JST)
- E : CONNECTOR: S277-10A (MOLEX)
- F : CONNECTOR: 5289-4A (MOLEX)

**ACCESSORIES**

- \* HOUSING: 5196-10 (MOLEX), TERMINAL: 5194PBT(MOLEX)
- \* HOUSING: 5199-04 (MOLEX), TERMINAL: 5194PBT(MOLEX)
- \* HOUSING: XHP-2 (JST), TERMINAL: BXH-001T-P0.6 (JST) OR SXH-001T-P0.6 (JST) --- OPTION

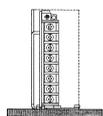
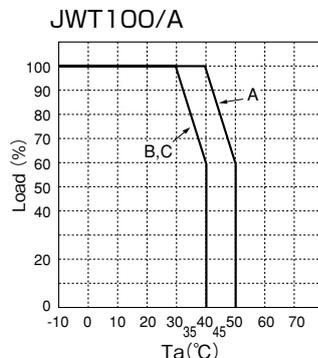
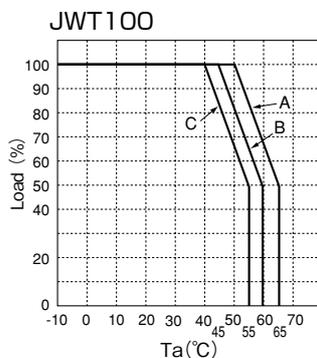


unit: mm

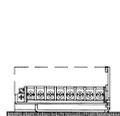
**OPTIONAL MODELS**

MODEL	COVER	REMOTE ON/OFF CONTROL	CONNECTOR INPUT/OUTPUT
JWT100-*/B			○
JWT100-*/C	○		○
JWT100-*/RB		○	○
JWT100-*/RC	○	○	○

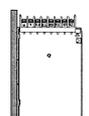
# Output Derating



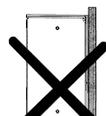
MOUNTING A  
(STANDARD MOUNTING)



MOUNTING B



MOUNTING C



PROHIBIT

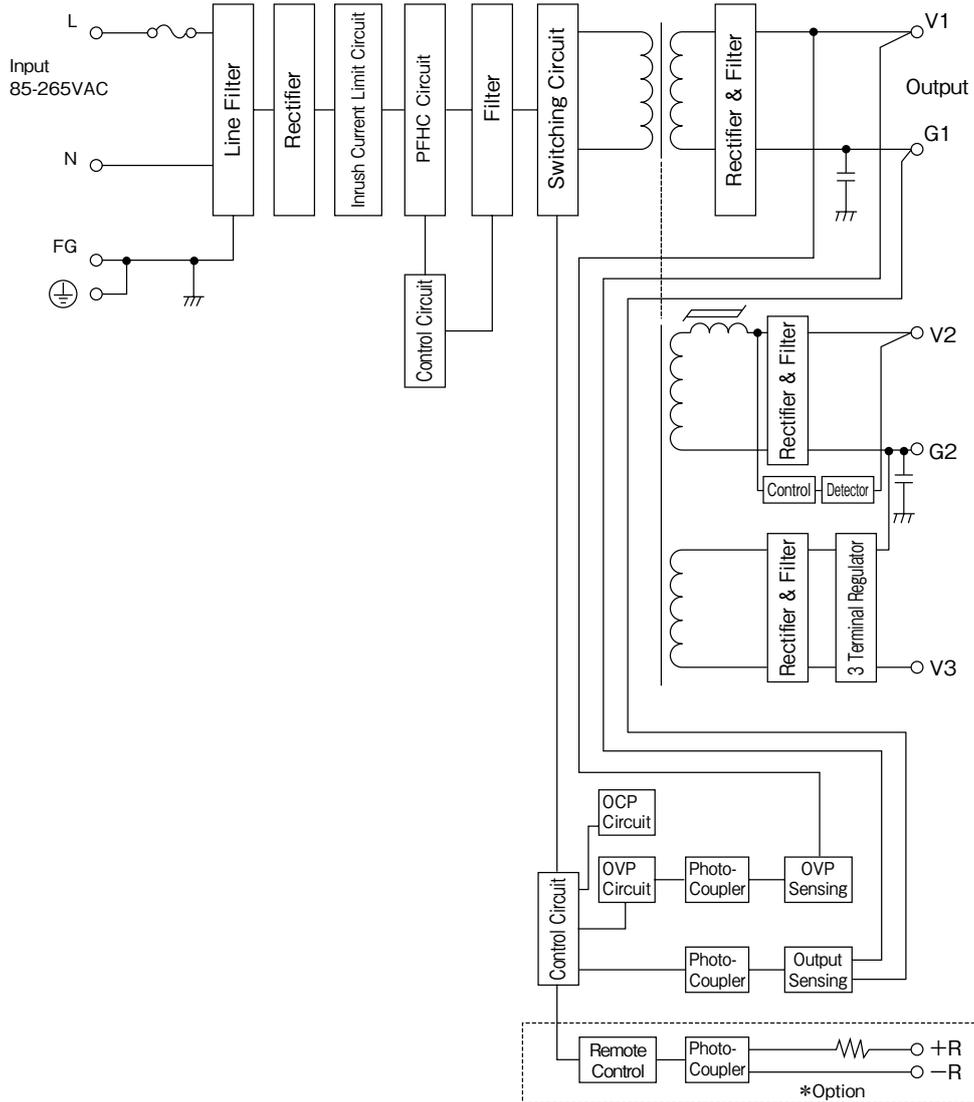


PROHIBIT

Recommended standard mounting is method (A). Method (B) and (C) are also possible. Refer to the derating below. Please do not use installation method (E), where the PCB will be on the top side and heat will be trapped inside the unit. Method (D) is possible for JWT75, but prohibit for JWT100. In the following derating curve, the maximum output current is considered to be 100% .

# Block Diagram

## 【JWT75, JWT100】



JWT

- Circuit mode and switching frequency  
 Switching circuit : Single - ended forward topology 140kHz (Fixed)  
 PFHC Circuit : Active filter 90kHz (Fixed)
- Fuse rating JWT75, JWT100 : 3.15A

# JWT Series Instruction Manual

## BEFORE USING THE POWER SUPPLY UNIT

Pay attention to all warnings and cautions before using the unit. Incorrect usage could lead to an electric shock, damage to the unit or a fire hazard.

**WARNING and CAUTION**

- Do not modify.
- Do not touch the internal components, they may have high voltage or high temperature. You may get electric shock or burned.
- When the unit is operating, keep your hands and face away from it, you may get injured by an accident.
- This power supply is primarily designed and manufactured to be used and enclosed in other equipment. Stick the WARN-

ING label for users on the system equipment and describe the notice in the instruction manual.

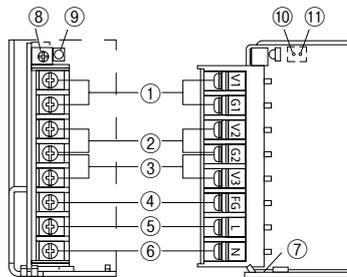
- Never operate the unit under over current or shorted conditions for 30 seconds or more which could result in damage or insulation failure. There is no possibility for fire or burning.
- Confirm connections to input/output terminals are correct as indicated in the instruction manual.

**Note: CE MARKING**

CE Marking, when applied to a product covered by this handbook, indicates compliance with the low voltage directive (73/23/EEC) as modified by the CE Marking Directive (93/68/EEC) which complies with EN60950

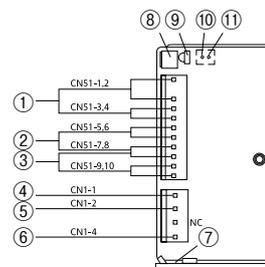
## 1. Terminal Explanation

**JWT75, JWT100 (Block terminal type)**



- ① CH1
  - Block terminal type -
  - V1 : CH1 + Output terminal
  - G1 : CH1 - Output terminal
  - Connector type - ( 7A max. / pin )
  - CN51-1,2 : CH1 + Output pin
  - CN51-3,4 : CH1 - Output pin
- ② CH2
  - Block terminal type -
  - V2 : CH2 + Output terminal
  - G2 : CH2, CH3 Common Ground
  - Connector type - ( 7A max. / pin )
  - CN51-5,6 : CH2 + Output pin
  - CN51-7,8 : CH2, CH3 Common Ground
- ③ CH3
  - Block terminal type -
  - G2 : CH2, CH3 Common Ground
  - V3 : CH3 - Output terminal
  - Connector type -
  - CN51-7, 8 : CH2, CH3 Common Ground
  - CN51-9, 10 : CH3 - Output pin
- ④ Frame Ground
  - Block terminal type -
  - FG
  - Connector type -
  - CN1 - 1

**JWT75, JWT100 (Connector Type)**



- ⑤ Input terminal Live line ( Fuse in line )
  - Block terminal type -
  - L
  - Connector type -
  - CN1 - 2
- ⑥ Input terminal Neutral line
  - Block terminal type -
  - N
  - Connector type -
  - CN1 - 4
- ⑦ Safety earth : ⊕
- ⑧ Output voltage of CH1 adjustment trimmer
- ⑨ Output monitoring indicator ( Green LED )
- ⑩ Remote ON/OFF control ( Option ) : + R
- ⑪ Remote ON/OFF control ( Option ) : - R

**\* Connector (JST) for Remote ON/OFF control**

Connector	Housing	Terminal Pin
B2B - XH - AM	XHP - 2	BXH - 001T - P0.6 or SXH - 001T - P0.6

**\* Input & Output connector (MOLEX)**

	JWT75/JWT100		
	Connector	Housing	Terminal Pin
Input	5289 - 4A	5199 - 04	5194
Output	5277 - 10A	5196 - 10	5194

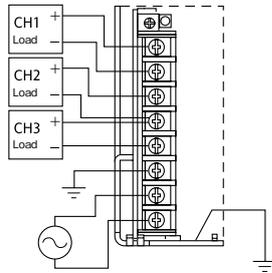
## 2. Terminal Connecting Method

- Input must be off when making connections.
- Connect FG terminal to ground terminal of the equipment.
- Output current of each connector pin must be less than 7A. (For connector type)
- The output load line and input line shall be separated

and twisted to improve noise sensitivity.

- Remote ON/OFF control lines shall be twisted or use shielded wire.
- Use the output connector specified in outline drawing. Also, use recommended crimping tool.

JWT75, JWT100



Safety Earth :

For safety, Connect ⊕ mounting holes on bottom of chassis to ground terminal of the equipment. Screw must be used M4. on the bottom of chassis.

### 3. Explanation of Functions and Precautions

#### 1 Input Voltage Range

Input voltage range is single phase 85-265VAC (47-63Hz) or 120-330VDC. Input voltage which is out of specification may cause unit damage.

#### 2 Output Voltage Range

V.ADJ trimmer on the front panel side can adjust the output voltage of CH1 within the range. To turn the trimmer clockwise, the output voltage will be increase. Output voltage range is within 5-5.25V. Note over voltage protection (OVP) function may trigger if the output voltage is increased excessively.

#### 3 Inrush Current

This series has used Power Thermistor to protect the circuit from Inrush Current. Please carefully select input switch and fuse in cases of the high temperature and re-input the power.

#### 4 WATTBOX

This series designed as a WATTBOX. You are flexibly adjust output power of each channel within the limit of the maximum total output power in specification.

$$W_{TOTAL} \geq W_{CH1} + W_{CH2} + W_{CH3}$$

WCH1 : Less than maximum CH1 output power.

WCH2 : Less than maximum CH2 output power.

WCH3 : Less than maximum CH3 output power.

#### 5 Minimum Output Current

The output voltage of all channel is stabilized when minimum output current of CH1 is more than 10% of maximum output current.

#### 6 Over Voltage Protection (OVP)

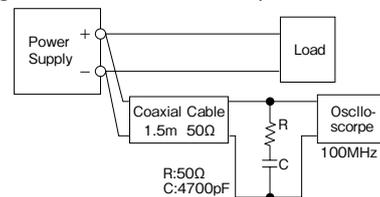
The OVP function (inverter shut down method, manual reset type) built into CH1 output only. When OVP of CH1 channel triggers, the all outputs will be shut down. The input shall be removed for a few minutes, and then re-input for recovery of the output to recover. OVP setting shall be fixed and not to be adjusted externally.

#### 7 Over Current Protection (OCP)

Constant current limiting, automatic recovery. OCP function operates when the output current exceeds 105 % of maximum output current on specification. The output will be automatically recovered when the overload condition is canceled. Never operate the unit under over current or shorted conditions over 30 seconds which could result in damage.

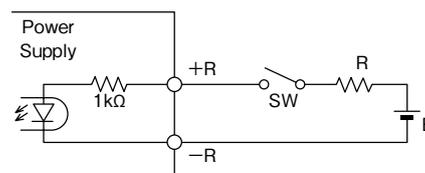
#### 8 Output Ripple & Noise

The standard specification for maximum ripple value is measured according to measurement circuit specified by JEITA-RC9131. When load lines are longer, ripple will becomes larger. In this case, electrolytic capacitor, film capacitor, etc. might be necessary to use across the load terminal. The output ripple cannot be measure accurately if the probe ground lead of oscilloscope is too long.



#### 9 Remote ON/OFF Control (Optional Spec.)

Remote ON/OFF control function is available as option with model name followed by /R. Using this function allows the user to turn the all outputs on and off without having to turn the AC input on and off. It is controlled by the voltage applied to +R and -R. This circuit is in the Secondary (output) side of the power supply unit. Do not connect in the Primary (input) side. And this circuit is isolated from the output by a photocoupler.



The control mode is shown below.

+ R & - R terminal condition	Output Condition
SW ON (Higher than 4.5V)	ON
SW OFF (Lower than 0.8V)	OFF

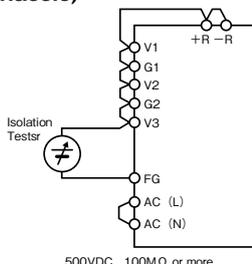
External voltage level: E	External resistance: R
4.5 - 12.5VDC	No required
12.5 - 24.5VDC	1.5k Ω

# 4. Isolation Test / Withstand Voltage

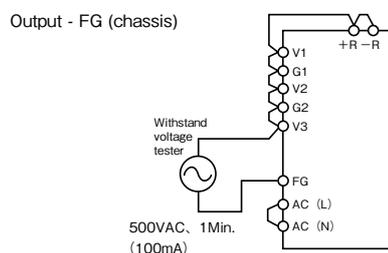
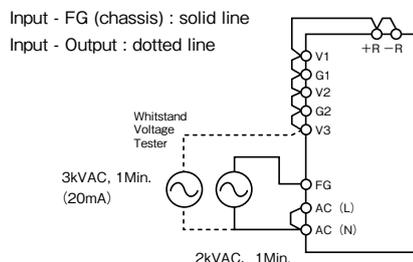
## 1 Isolation Test

Isolation resistance between output and FG (chassis) shall be more than 100MΩ at 500VDC. For safety operation, voltage setting of DC isolation tester must be done before the test. Ensure that it is fully discharged after the test.

### Output - FG (chassis)



(Output - FG (chassis): 100mA). The applied voltage must be gradually increased from zero to the testing value and then gradually decreased for shut down. When timer is used, the power supply may be damaged by high impulse voltage at timer switch on and off. Connect input and output as follows.



## 2 Withstand Voltage

This series is designed to withstand 3.0kVAC between input and output, 2.0kVAC between input and FG (chassis) and 500VAC between output and the FG (chassis) each for 1 minute. When testing withstand voltage, set current limit of the withstand voltage test equipment to 20mA

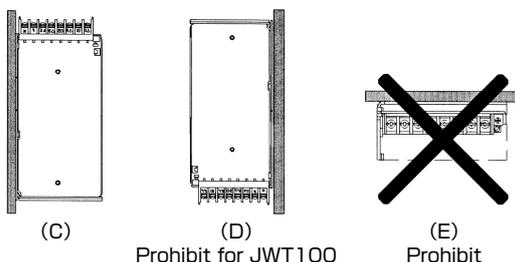
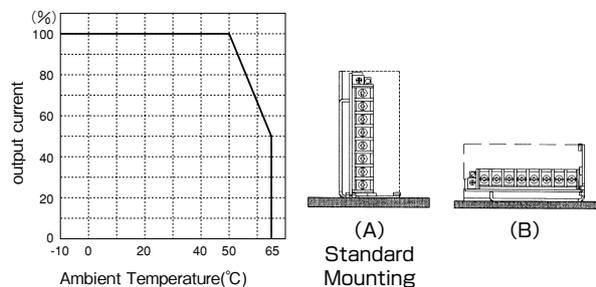
# 5. Mounting Directions



## 1 Output Derating according to the Mounting Directions

Recommended standard mounting is method (A). Method (B) and (C) are also possible. Refer to the derating below. Please do not use installation method (E), where the PCB will be on the top side and heat will be trapped inside the unit. Method (D) is possible for JWT75, but prohibit for JWT100. In the following derating curve, the maximum output current is considered to be 100%.

### Output Derating Open frame



### Open Frame (Without cover)

Model	JWT75				JWT100			
	A	B	C	D	A	B	C	D
Amb. Temp.								
-10 to +35°C	100	100	100	100	100	100	100	-
40°C	100	100	100	83	100	100	100	-
45°C	100	100	83	67	100	100	83	-
50°C	100	83	67	50	100	83	67	-
55°C	83	67	50	-	83	67	50	-
60°C	67	50	-	-	67	50	-	-
65°C	50	-	-	-	50	-	-	-

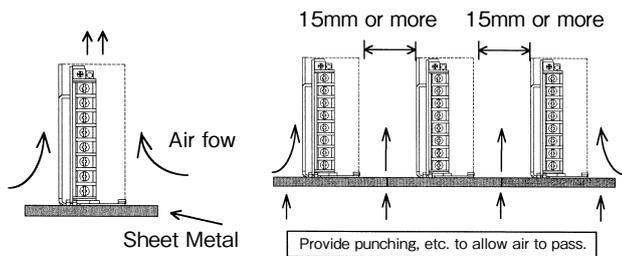
### With Cover

Model	JWT75				JWT100			
	A	B	C	D	A	B	C	D
Amb. Temp.								
-10 to +35°C	100	100	100	100	100	100	100	-
35°C	100	100	80	83	100	80	80	-
40°C	100	80	60	60	100	60	60	-
45°C	100	60	-	-	80	-	-	-
50°C	80	-	-	-	60	-	-	-
55°C	60	-	-	-	-	-	-	-

## 2 Mounting Method

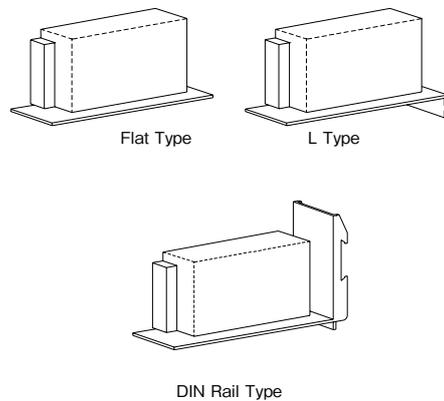
- (1) This is a convection cooling type power supply. In the consideration for the heat radiation and safety. Please take a distance more than 15mm between the power supply and the peripheral parts. When lining up multiple units, please make sure to place them 15mm or more apart from each other.
- (2) The maximum allowable penetration of mounting screws is 6mm.
- (3) Recommended torque for mounting screw.

M4 screw : 1.27 N · m (13.0 kgf · cm)



## 3 Optional sheet metal parts for mounting

Optional sheet metal mounting parts are available to meet following mounting methods. Contact to DL sales representatives.



## 4. Wiring Method

- The output load line and input line shall be separated and twisted to improve noise sensitivity.
- Use all lines as thick and short as possible to make lower impedance.
- Noise can be eliminated by attaching a capacitor to the

- load terminals.
- For safety and EMI considerations, connect FG terminal of JWT series to mounting set ground terminal.
- The recommended torque for the terminal piece:  
JWT75, JWT100 (M3 Screws) : 0.49 N · m (5.0 kgf · cm)

## 5. External Fuse Rating

Refer to the following fuse rating when selecting the external fuses that are to be used on input line. Surge current flows when line turns on. Use slow-blow fuse or time-lug type fuse. Do not use fast-blow fuse. Fuse rating is specified by in-rush current value at line turn-on. Do not select

the fuse according to input current (rms.) values under the actual load condition.

JWT75, JWT100 : 3.15A

## 6. Before concluding that the unit is at fault...

Before concluding that the unit is at fault, make the following checks.

- Check if the rated input voltage is connected.
- Check if the wiring of input and output is correct.
- Check if the wire material is not too thin.
- Check if the output voltage control (V.ADJ) is properly adjusted.
- If you use function of the Remote ON/OFF control, check if the Remote ON/OFF control connector is not

- opened.
- Check if the output current and output wattage dose not exceed specification.
- Check if the output current of CH1 is more than 10% of maximum output current.
- Audible noise can be heard during dynamic-load operation.
- Audible noise can be heard when input voltage waveform is not sinusoidal wave.

## 7. Notes

1) Over voltage Category II.

2) Radio Interference Suppression Test is not performed.