

ORIENT

(주) 오리엔트 전자

Order Catalogue 2013/2014



FINE SUNTRONIX

For the Switching Mode Power Supply



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For the Switching Model Power Supply

Switching Mode Power Supply



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ORDERING INFORMATION

VSF30-05

Series name

Total output wattage

Output voltage combination

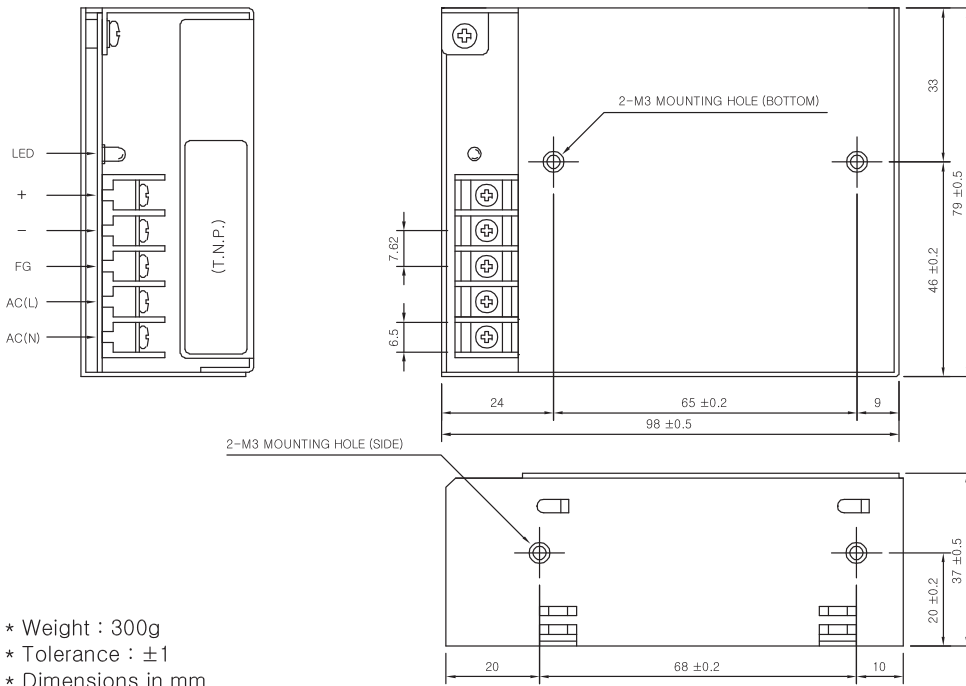
- Inrush current limit
- Over current protection
- Short circuit protection
- Remote control(VSF200~400)
- Remote sensing(VSF150~400)
- 3 years warranty



VSF30-S SPECIFICATIONS

	MODEL	VSF30-05	VSF30-09	VSF30-12	VSF30-15	VSF30-24
INPUT	VOLTAGE, FREQUENCY	AC100-240V (AC85 ~ 264V or DC125 ~ 370V), 50/60Hz (47 ~ 440Hz) Universal Input				
	CURRENT [A]	110V	0.65 (I _o =100%)			
		220V	0.35 (I _o =100%)			
	EFFICIENCY [%]	110V	70 typ	70 typ	70 typ	70 typ
	220V					
	INRUSH CURRENT	20A typ(AC IN 110V, I _o =100%), 40A typ(AC IN 220V, I _o =100%) at cold start.				
OUTPUT	VOLTAGE [V]	5	9	12	15	24
	CURRENT [A]	6	3.3	2.5	2	1.5
	REGULATION, LINE [mV]	25 Max	45 Max	60 Max	75 Max	120 Max
	REGULATION, LOAD [mV]	50 Max	90 Max	120 Max	150 Max	240 Max
	RIPPLE [mVp-p]	50 Max	90 Max	120 Max	150 Max	240 Max
	RIPPLE, NOISE [mVp-p]	100 Max	140 Max	180 Max	190 Max	290 Max
	TEMPERATURE DRIFT 0~+50°C [mV]	75 Max	135 Max	180 Max	255 Max	360 Max
	RISE TIME [ms]	100 Max (AC IN 85V I _o =100%)				
HOLDING TIME [ms]	10 typ (AC IN 85V I _o =100%)					
PROTECTION CIRCUIT	OVER CURRENT PROTECTION	Works at over 110% of rating and recovers automatically				
	OVER VOLTAGE PROTECTION	Works at 110 ~ 140% of rating				
ELECTRICALLY ISOLATED	INPUT-OUTPUT	AC 1,500V 1 minute current 10mA, DC 500V 100MΩ (At room temperature & Humidity)				
	INPUT-CASE, FG	AC 1,500V 1 minute current 10mA, DC 500V 100MΩ (At room temperature & Humidity)				
	OUTPUT-CASE, FG	AC 500V 1 minute current 100mA, DC 500V 100MΩ (At room temperature & Humidity)				
ENVIRONMENT	OPERATING TEMP AND HUMID	-10 ~ +50°C, 30 ~ 90% RH(Non condensing)				
	STORAGE TEMPAND HUMID	-20 ~ +75°C, 20 ~ 90% RH(Non condensing)				
	VIBRATION	10 ~ 55Hz at 2G, 3 minutes period, 30 minutes along X, Y and Z axis				
	IMPACT	10G for 20ms once on each X, Y and Z axis				
SAFETY	SAFETY REGULATION	-				
	LINE CONDUCTED RF VOLTAGE	Complied with EN 55022-A				

VSF30-S EXTERNAL VIEW



- * Weight : 300g
- * Tolerance : ±1
- * Dimensions in mm

General Information

Switching Mode Power Supply

DC-DC Converter

Noise Filter

Solid State Relay

AC FAN Motor

Power Module

Discrete Semiconductors

VSF50-S SPECIFICATIONS

	MODEL	VSF50-05	VSF50-09	VSF50-12	VSF50-15	VSF50-24
INPUT	VOLTAGE, FREQUENCY	AC100-120V / 200-240V (AC85 ~ 132V / AC170 ~ 264V or 245 ~ 370V), 50/60Hz (47~ 440Hz) User Selectable				
	CURRENT [A]	110V	1.2 (I _o =100%)			
		220V	0.6 (I _o =100%)			
	EFFICIENCY [%]	110V	70 typ	71 typ	72 typ	75 typ
220V		70 typ	73 typ	74 typ	77 typ	78 typ
INRUSH CURRENT		20A typ(AC IN 110V, I _o =100%), 40A typ(AC IN 220V, I _o =100%) at cold start.				
OUTPUT	VOLTAGE [V]	5	9	12	15	24
	CURRENT [A]	10	5.5	4.2	3.3	2.1
	REGULATION, LINE [mV]	25 Max	45 Max	60 Max	75 Max	120 Max
	REGULATION, LOAD [mV]	50 Max	90 Max	120 Max	150 Max	240 Max
	RIPPLE [mVp-p]	50 Max	90 Max	120 Max	150 Max	240 Max
	RIPPLE, NOISE [mVp-p]	100 Max	140 Max	170 Max	200 Max	290 Max
	TEMPERATURE DRIFT 0~+50°C [mV]	75 Max	135 Max	180 Max	225 Max	360 Max
	RISE TIME [ms]	100 Max (AC IN 85V I _o =100%)				
HOLDING TIME [ms]	10 typ (AC IN 85V I _o =100%)					
PROTECTION CIRCUIT	OVER CURRENT PROTECTION	Works at over 110% of rating and recovers automatically				
	OVER VOLTAGE PROTECTION	Works at 115 ~ 140% of rating				
ELECTRICALLY ISOLATED	INPUT-OUTPUT	AC 1,500V 1 minute current 10mA, DC 500V 100MΩ (At room temperature & Humidity)				
	INPUT-CASE, FG	AC 1,500V 1 minute current 10mA, DC 500V 100MΩ (At room temperature & Humidity)				
	OUTPUT-CASE, FG	AC 500V 1 minute current 100mA, DC 500V 100MΩ (At room temperature & Humidity)				
ENVIRONMENT	OPERATING TEMP AND HUMID	-10 ~ +50°C, 30 ~ 90% RH(Non condensing)				
	STORAGE TEMP AND HUMID	-20 ~ +75°C, 20 ~ 90% RH(Non condensing)				
	VIBRATION	10 ~ 55Hz at 2G, 3 minutes period, 30 minutes along X, Y and Z axis				
	IMPACT	10G for 20ms once on each X, Y and Z axis				
SAFETY	SAFETY REGULATION	-				
	LINE CONDUCTED RF VOLTAGE	Built to meet EN 55022-A				

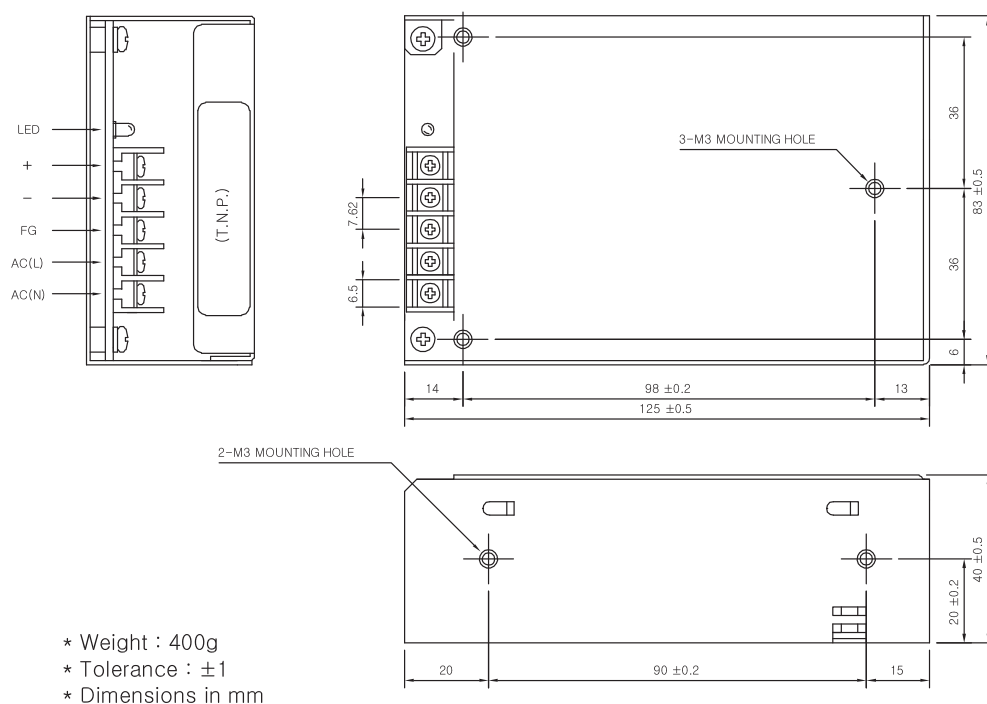
VSF50A-S SPECIFICATIONS

	MODEL	VSF50A-05	VSF50A-09	VSF50A-12	VSF50A-15	VSF50A-24
INPUT	VOLTAGE, FREQUENCY	AC100-120V / 200-240V (AC90 ~ 132V / 180 ~ 264V or DC240 ~ 370V), 50/60Hz (47 ~ 440Hz) User Selectable				
	CURRENT [A]	110V	0.4 (I _o =100%)			
		220V	0.2 (I _o =100%)			
	EFFICIENCY [%]	110V	70 typ	73 typ	74 typ	77 typ
220V		70 typ	73 typ	74 typ	77 typ	78 typ
INRUSH CURRENT		20A typ(AC IN 110V, I _o =100%), 40A typ(AC IN 220V, I _o =100%) at cold start.				
OUTPUT	VOLTAGE [V]	5	9	12	15	24
	CURRENT [A]	10	5.6	4.2	3.3	2.1
	REGULATION, LINE [mV]	25 Max	45 Max	60 Max	75 Max	120 Max
	REGULATION, LOAD [mV]	50 Max	90 Max	120 Max	150 Max	240 Max
	RIPPLE [mVp-p]	50 Max	90 Max	120 Max	150 Max	240 Max
	RIPPLE, NOISE [mVp-p]	100 Max	140 Max	170 Max	200 Max	290 Max
	TEMPERATURE DRIFT 0~+50°C [mV]	75 Max	135 Max	180 Max	225 Max	360 Max
	RISE TIME [ms]	1000 Max (AC IN 110V/220V, I _o =100%)				
HOLDING TIME [ms]	10 typ (AC IN 110V/220V, I _o =100%)					
PROTECTION CIRCUIT	OVER CURRENT PROTECTION	Works at over 110% of rating and recovers automatically				
	OVER VOLTAGE PROTECTION	Works at 115 ~ 140% of rating				
ELECTRICALLY ISOLATED	INPUT-OUTPUT	AC 3,000V 1 minute current 20mA, DC 500V 100MΩ (At room temperature & Humidity)				
	INPUT-CASE, FG	AC 2,000V 1 minute current 20mA, DC 500V 100MΩ (At room temperature & Humidity)				
	OUTPUT-CASE, FG	AC 500V 1 minute current 100mA, DC 500V 100MΩ (At room temperature & Humidity)				
ENVIRONMENT	OPERATING TEMP AND HUMID	-10 ~ +50°C, 20 ~ 90% RH(Non condensing)				
	STORAGE TEMP AND HUMID	-20 ~ +75°C, 20 ~ 90% RH(Non condensing)				
	VIBRATION	10 ~ 55Hz at 1G, 3 minutes period, 30 minutes along X, Y and Z axis				
	IMPACT	10G for 20ms once on each X, Y and Z axis				
SAFETY	SAFETY REGULATION	Complied with UL60950-1, EN60950-1				
	LINE CONDUCTED RF VOLTAGE	Complied with FCC Part15, VCCI-A, CISPR22-A, EN55022-A				

VSFL50-S SPECIFICATIONS

MODEL		VSFL50-05	VSFL50-09	VSFL50-12	VSFL50-15	VSFL50-24
INPUT	VOLTAGE, FREQUENCY	AC100-240V (AC85 ~ 264V or DC125 ~ 370V), 50/60Hz (47 ~ 440Hz) User Selectable				
	CURRENT [A]	110V	1.2 (I _c =100%)			
		220V	0.6 (I _c =100%)			
	EFFICIENCY [%]	110V	70 typ	71 typ	71 typ	75 typ
220V		70 typ	73 typ	73 typ	77 typ	78 typ
INRUSH CURRENT		20A typ(AC IN 110V, I _c =100%), 40A typ(AC IN 220V, I _c =100%) at cold start.				
OUTPUT	VOLTAGE [V]	5	9	12	15	24
	CURRENT [A]	10	5.5	4.2	3.3	2.1
	REGULATION, LINE [mV]	25 Max	45 Max	60 Max	75 Max	120 Max
	REGULATION, LOAD [mV]	50 Max	90 Max	120 Max	150 Max	240 Max
	RIPPLE [mVp-p]	50 Max	90 Max	120 Max	150 Max	240 Max
	RIPPLE, NOISE [mVp-p]	100 Max	140 Max	170 Max	200 Max	290 Max
	TEMPERATURE DRIFT 0~+50°C [mV]	75 Max	135 Max	180 Max	225 Max	360Max
	RISE TIME [ms]	600 Max (AC IN 110V/220V, I _c =100%)				
	HOLDING TIME [ms]	16 typ (AC IN 110V/220V, I _c =100%)				
PROTECTION CIRCUIT	OVER CURRENT PROTECTION	Works at over 110% of rating and recovers automatically				
	OVER VOLTAGE PROTECTION	Works at 115 ~ 140% of rating				
ELECTRICALLY ISOLATED	INPUT-OUTPUT	AC 1,500V 1 minute current 20mA, DC 500V 100MΩ (At room temperature & Humidity)				
	INPUT-CASE, FG	AC 1,500V 1 minute current 20mA, DC 500V 100MΩ (At room temperature & Humidity)				
	OUTPUT-CASE, FG	AC 500V 1 minute current 100mA, DC 500V 100MΩ (At room temperature & Humidity)				
ENVIRONMENT	OPERATING TEMP AND HUMID	-10 ~ +50°C, 30 ~ 90% RH(Non condensing)				
	STORAGE TEMP AND HUMID	-20 ~ +75°C, 20 ~ 90% RH(Non condensing)				
	VIBRATION	10 ~ 55Hz at 2G, 3 minutes period, 30 minutes along X, Y and Z axis				
	IMPACT	10G for 20ms once on each X, Y and Z axis				
SAFETY	SAFETY REGULATION	Built to meet UL60950-1, EN 60950-1				
	LINE CONDUCTED RF VOLTAGE	Built to meet EN 55022-A				

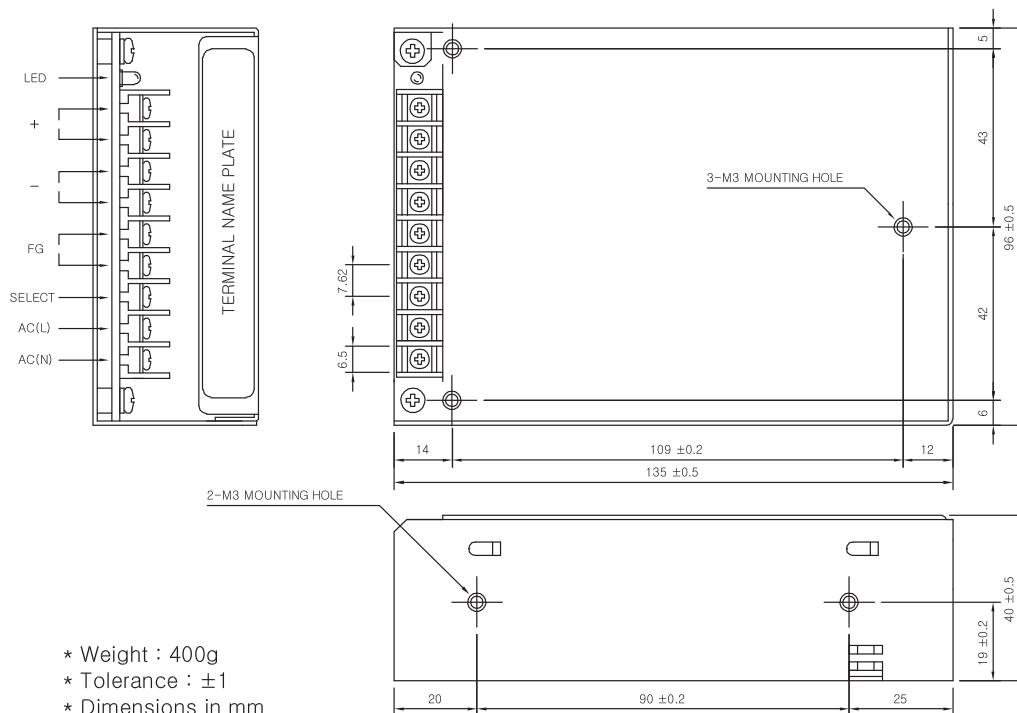
VSF50, 50A, L50-S EXTERNAL VIEW



VSF75-S SPECIFICATIONS

MODEL		VSF75-05	VSF75-09	VSF75-12	VSF75-15	VSF75-24	VSF75-48
INPUT	VOLTAGE, FREQUENCY	AC100-120V / 200-240V (AC90 ~ 132V / 180 ~ 264V or DC240 ~ 370V), 50/60Hz (47 ~ 440Hz) User Selectable					
	CURRENT [A]	110V	1.8 (I _o =100%)				
		220V	1.0 (I _o =100%)				
	EFFICIENCY [%]	110V	70 typ	75 typ	73 typ	73 typ	75 typ
220V							
INRUSH CURRENT		20A typ(AC IN 110V, I _o =100%), 40A typ(AC IN 220V, I _o =100%) at cold start.					
OUTPUT	VOLTAGE [V]	5	9	12	15	24	48
	CURRENT [A]	15	8.3	6.5	5	3.5	1.6
	REGULATION, LINE [mV]	25 Max	45 Max	60 Max	75 Max	120 Max	240 Max
	REGULATION, LOAD [mV]	50 Max	90 Max	120 Max	150 Max	240 Max	480 Max
	RIPPLE [mVp-p]	50 Max	90 Max	120 Max	170 Max	240 Max	480 Max
	RIPPLE, NOISE [mVp-p]	100 Max	140 Max	170 Max	200 Max	290 Max	530 Max
	TEMPERATURE DRIFT 0~+50°C [mV]	75 Max	135 Max	180 Max	225 Max	360 Max	720 Max
	RISE TIME [ms]	600 Max (AC IN 110V/220V I _o =100%)					
	HOLDING TIME [ms]	16 typ (AC IN 110V/220V I _o =100%)					
PROTECTION CIRCUIT	OVER CURRENT PROTECTION	Works at over 110% of rating and recovers automatically					
	OVER VOLTAGE PROTECTION	Works at 115 ~ 140% of rating					
ELECTRICALLY ISOLATED	INPUT-OUTPUT	AC 1,500V 1 minute current 10mA, DC 500V 100MΩ (At room temperature & Humidity)					
	INPUT-CASE, FG	AC 1,500V 1 minute current 10mA, DC 500V 100MΩ (At room temperature & Humidity)					
	OUTPUT-CASE, FG	AC 500V 1 minute current 100mA, DC 500V 100MΩ (At room temperature & Humidity)					
ENVIRONMENT	OPERATING TEMP AND HUMID	-0 ~ +50°C, 20 ~ 90% RH(Non condensing)					
	STORAGE TEMP AND HUMID	-20 ~ +75°C, 20 ~ 90% RH(Non condensing)					
	VIBRATION	10 ~ 55Hz at 1G, 3 minutes period, 30 minutes along X, Y and Z axis					
	IMPACT	10G for 20ms once on each X, Y and Z axis					
SAFETY	SAFETY REGULATION	-					
	LINE CONDUCTED RF VOLTAGE	Complied with FCC Part 15 and EN55022 Class A Limits					

VSF75-S EXTERNAL VIEW

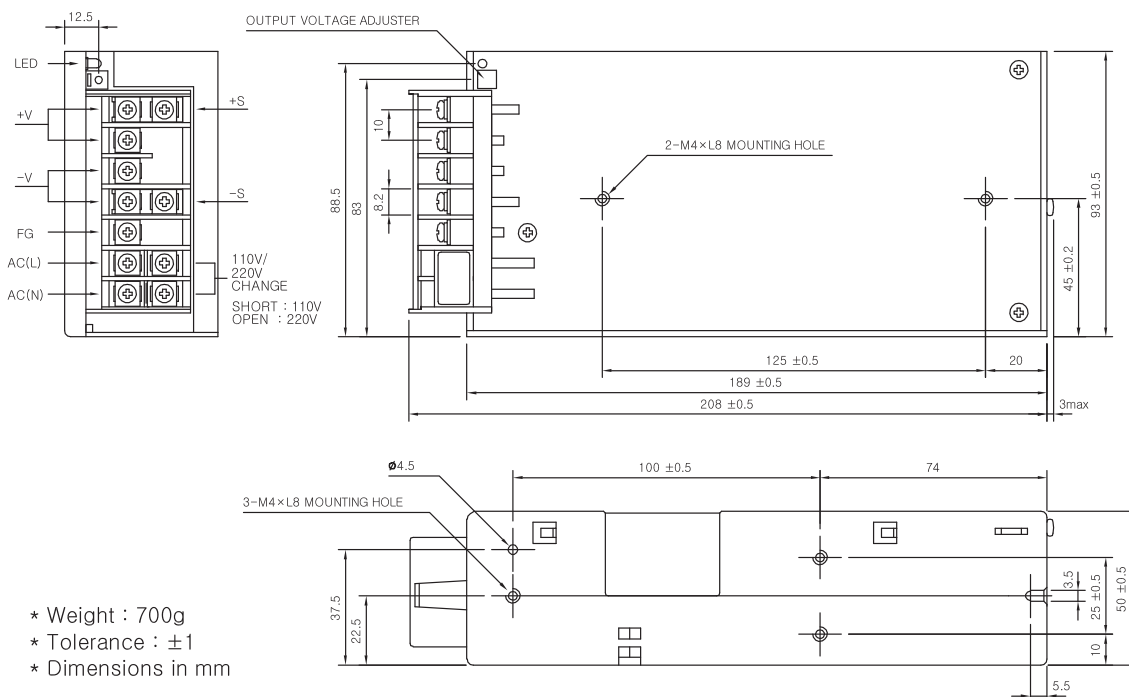




VSF100-S SPECIFICATIONS

MODEL		VSF100-05	VSF100-09	VSF100-12	VSF100-15	VSF100-24
INPUT	VOLTAGE, FREQUENCY	AC100-120V / 200-240V (AC90 ~ 132V / 180 ~ 264V or DC240 ~ 370V), 50/60Hz (47 ~ 440Hz) User Selectable				
	CURRENT [A]	110V	2.5c(I _o =100%)			
		220V	1.4c(I _o =100%)			
	EFFICIENCY [%]	110V	78 typ	78 typ	80 typ	82 typ
220V						
INRUSH CURRENT		20A typ(AC IN 110V, I _o =100%), 40A typ(AC IN 220V, I _o =100%) at cold start.				
OUTPUT	VOLTAGE [V]	5	9	12	15	24
	CURRENT [A]	20	11	8.5	7	4.5
	REGULATION, LINE [mV]	25 Max	45 Max	60 Max	75 Max	120 Max
	REGULATION, LOAD [mV]	50 Max	90 Max	120 Max	150 Max	240 Max
	RIPPLE [mVp-p]	50 Max	90 Max	120 Max	150 Max	240 Max
	RIPPLE, NOISE [mVp-p]	100 Max	140 Max	170 Max	200 Max	290 Max
	TEMPERATURE DRIFT 0~+50°C [mV]	75 Max	135 Max	180 Max	225 Max	360 Max
	RISE TIME [ms]	500 Max (AC IN 110V/220V I _o =100%)				
	HOLDING TIME [ms]	10 typ (AC IN 110V/220V I _o =100%)				
PROTECTION CIRCUIT	OVER CURRENT PROTECTION	Works at over 110% of rating and recovers automatically				
	OVER VOLTAGE PROTECTION	Works at 115 ~ 140% of rating				
ELECTRICALLY ISOLATED	INPUT-OUTPUT	AC 3,000V 1 minute current 20mA, DC 500V 100MΩ (At room temperature & Humidity)				
	INPUT-CASE, FG	AC 2,000V 1 minute current 20mA, DC 500V 100MΩ (At room temperature & Humidity)				
	OUTPUT-CASE, FG	AC 500V 1 minute current 100mA, DC 500V 100MΩ (At room temperature & Humidity)				
ENVIRONMENT	OPERATING TEMP AND HUMID	-10 ~ +50°C, 20 ~ 90% RH(Non condensing)				
	STORAGE TEMP AND HUMID	-20 ~ +75°C, 20 ~ 90% RH(Non condensing)				
	VIBRATION	10 ~ 55Hz at 1G, 3 minutes period, 30 minutes along X, Y and Z axis				
	IMPACT	10G for 20ms once on each X, Y and Z axis				
SAFETY	SAFETY REGULATION	CE	-	CE	CE	CE
	LINE CONDUCTED RF VOLTAGE	Complied with FCC Part 15, VCCI-A, CISPR22-A, EN55022 - A				

VSF100-S EXTERNAL VIEW



- * Weight : 700g
- * Tolerance : ±1
- * Dimensions in mm

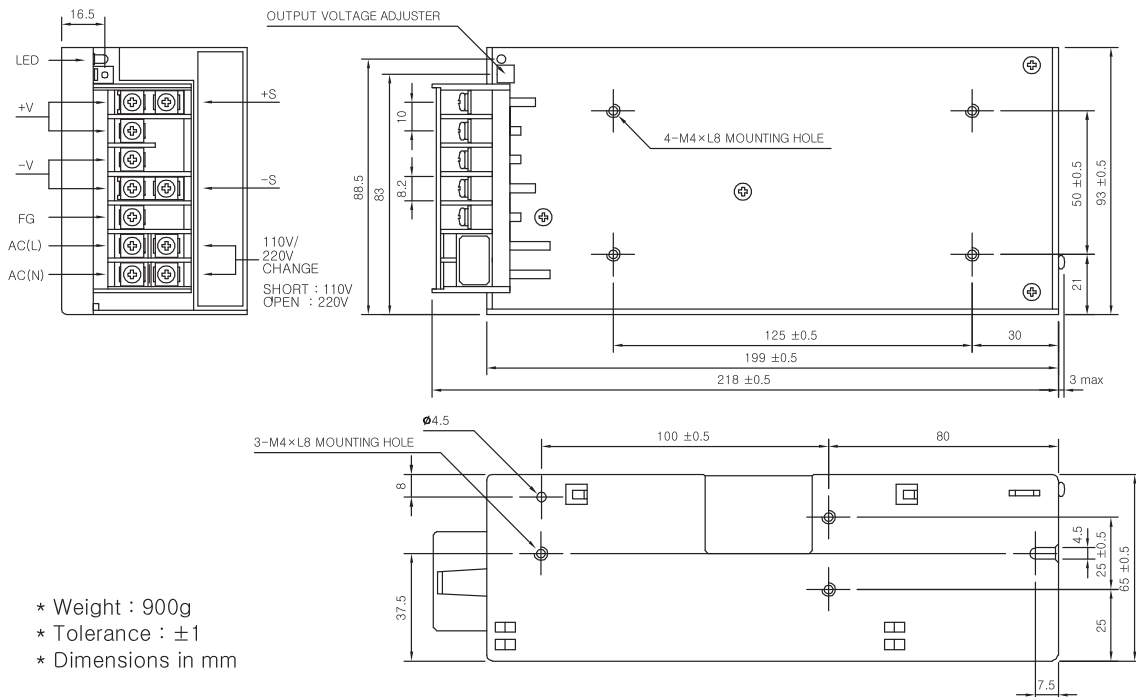
General Information
Switching Mode Power Supply
DC-DC Converter
Noise Filter
Solid State Relay
AC FAN Motor
Power Module
Discrete Semiconductors

VSF150-S SPECIFICATIONS



MODEL		VSF150-05	VSF150-09	VSF150-12	VSF150-15	VSF150-24	VSF150-48
INPUT	VOLTAGE, FREQUENCY	AC100-120V / 200-240V (AC90 ~ 132V / 180 ~ 264V or DC240 ~ 370V), 50/60Hz (47~ 440Hz) User Selectable					
	CURRENT [A]	110V	3.7 (I _o =100%)				
		220V	2.1 (I _o =100%)				
	EFFICIENCY [%]	110V	78 typ	80 typ	80 typ	83 typ	85 typ
	220V						
INRUSH CURRENT		20A typ(AC IN 110V, I _o =100%), 40A typ(AC IN 220V, I _o =100%) at cold start.					
OUTPUT	VOLTAGE [V]	5	9	12	15	24	48
	CURRENT [A]	30	17	13	10	6.5	3.1
	REGULATION, LINE [mV]	25 Max	45 Max	60 Max	75 Max	120 Max	240 Max
	REGULATION, LOAD [mV]	50 Max	90 Max	120 Max	150 Max	240 Max	480 Max
	RIPPLE [mVp-p]	50 Max	90 Max	120 Max	150 Max	240 Max	480 Max
	RIPPLE, NOISE [mVp-p]	100 Max	140 Max	170 Max	200 Max	290 Max	530 Max
	TEMPERATURE DRIFT -10~+50°C [mV]	75 Max	135 Max	180 Max	225 Max	360 Max	720 Max
	RISE TIME [ms]	500 Max (AC IN 110V / 220V I _o =100%)					
	HOLDING TIME [ms]	16 typ (AC IN 110V/220V, I _o =100%)					
PROTECTION CIRCUIT	OVER CURRENT PROTECTION	Works at over 110% of rating and recovers automatically					
	OVER VOLTAGE PROTECTION	Works at 115 ~ 140% of rating					
ELECTRICALLY ISOLATED	INPUT-OUTPUT	AC 3,000V 1 minute current 20mA, DC 500V 100MΩ (At room temperature & Humidity)					
	INPUT-CASE, FG	AC 2,000V 1 minute current 20mA, DC 500V 100MΩ (At room temperature & Humidity)					
	OUTPUT-CASE, FG	AC 500V 1 minute current 100mA, DC 500V 100MΩ (At room temperature & Humidity)					
ENVIRONMENT	OPERATING TEMP AND HUMID	-10 ~ +50°C, 20 ~ 90% RH(Non condensing)					
	STORAGE TEMP AND HUMID	-20 ~ +75°C, 20 ~ 90% RH(Non condensing)					
	VIBRATION	10 ~ 55Hz at 1G, 3 minutes period, 30 minutes along X, Y and Z axis					
	IMPACT	10G for 20ms once on each X, Y and Z axis					
SAFETY	SAFETY REGULATION	CE	-	CE	CE	CE	-
	LINE CONDUCTED RF VOLTAGE	-					

VSF150-S EXTERNAL VIEW



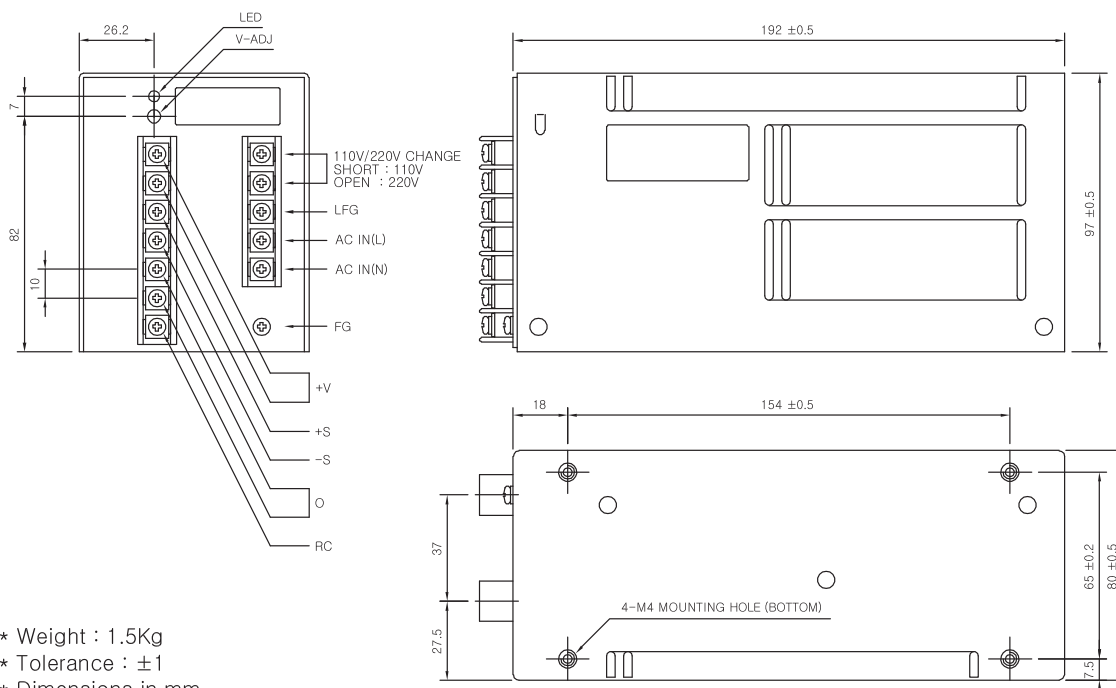
- * Weight : 900g
- * Tolerance : ±1
- * Dimensions in mm

VSF200, 220-S SPECIFICATIONS



MODEL		VSF200-05	VSF220-12	VSF220-13.8	VSF220-15	VSF220-24	VSF220-48
INPUT	VOLTAGE, FREQUENCY	AC100-120V / 200-240V (AC90 ~ 132V / 180 ~ 264V or DC255 ~ 370V), 50/60Hz (47 ~ 440Hz or DC) User Selectable					
	CURRENT [A]	110V	4.4 (I _o =100%)				
		220V	2.2 (I _o =100%)				
	EFFICIENCY [%]	110V	75 typ	75 typ	75 typ	75 typ	77 typ
	220V						
	INRUSH CURRENT	20A typ(AC IN 110V, I _o =100%), 40A typ(AC IN 220V, I _o =100%) at cold start.					
OUTPUT	VOLTAGE [V]	5	12	13.8	15	24	48
	CURRENT [A]	40	18.5	16	15	9.5	4.5
	REGULATION, LINE [mV]	50 Max	60 Max	70 Max	75 Max	120 Max	240 Max
	REGULATION, LOAD [mV]	100 Max	120 Max	140 Max	150 Max	240 Max	480 Max
	RIPPLE [mVp-p]	100 Max	120 Max	140 Max	150 Max	240 Max	480 Max
	RIPPLE, NOISE [mVp-p]	150 Max	170 Max	190 Max	200 Max	290 Max	530 Max
	TEMPERATURE DRIFT 0~+50°C [mV]	150 Max	170 Max	190 Max	200 Max	360 Max	720 Max
	RISE TIME [ms]	600 Max (AC IN 110V/220V I _o =100%)					
	HOLDING TIME [ms]	15 typ (AC IN 110V/220V I _o =100%)					
PROTECTION CIRCUIT	OVER CURRENT PROTECTION	Works at over 110% of rating and recovers automatically					
	OVER VOLTAGE PROTECTION	Works at 110 ~ 150% of rating					
ELECTRICALLY ISOLATED	INPUT-OUTPUT	AC 3,000V 1 minute current 20mA, DC 500V 100MΩ (At room temperature & Humidity)					
	INPUT-CASE, FG	AC 2,000V 1 minute current 20mA, DC 500V 100MΩ (At room temperature & Humidity)					
	OUTPUT-CASE, FG	AC 500V 1 minute current 100mA, DC 500V 100MΩ (At room temperature & Humidity)					
ENVIRONMENT	OPERATING TEMP AND HUMID	-10 ~ +50°C, 20 ~ 90% RH(Non condensing)					
	STORAGE TEMP AND HUMID	-20 ~ +75°C, 20 ~ 90% RH(Non condensing)					
	VIBRATION	10~55Hz at 1G, 3 minutes period, 30 minutes along X, Y and Z axis					
	IMPACT	10G for 20ms once on each X, Y and Z axis					
SAFETY	SAFETY REGULATION	UL,C-UL,CE	UL,C-UL,CE	-	-	UL,C-UL,CE	UL,C-UL,CE
	LINE CONDUCTED RF VOLTAGE	Complied with FCC Part 15, VCCI-A, CISPR22-A, EN55022 - A					

VSF200, 220-S EXTERNAL VIEW

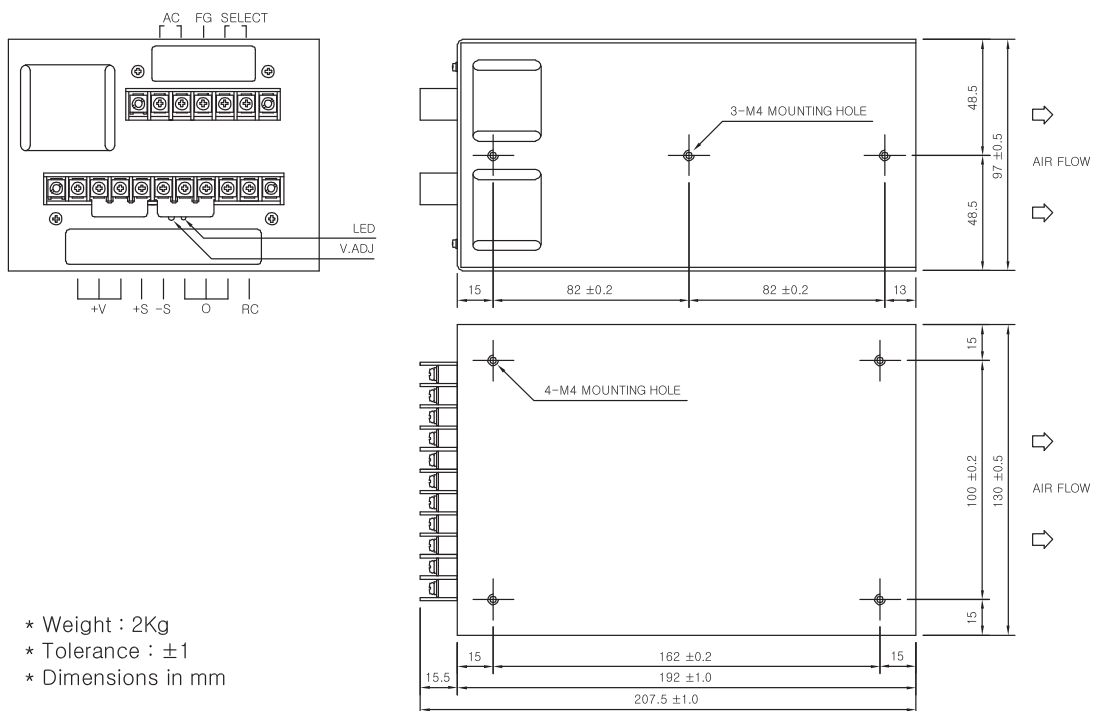


- * Weight : 1.5Kg
- * Tolerance : ±1
- * Dimensions in mm

VSF300-S SPECIFICATIONS

MODEL		VSF300-05	VSF300-09	VSF300-12	VSF300-15	VSF300-24	VSF300-48
INPUT	VOLTAGE, FREQUENCY	AC100-120V / 200-240V (AC90 ~ 132V / 180 ~ 264V or DC255 ~ 370V), 50/60Hz (47 ~ 440Hz) User Selectable					
	CURRENT [A]	110V	5.5 (I _o =100%)				
		220V	3.5 (I _o =100%)				
	EFFICIENCY [%]	110V	73 typ	78 typ	78 typ	78 typ	81 typ
	220V						
INRUSH CURRENT		30A typ(AC IN 110V, I _o =100%), 60A typ(AC IN 220V, I _o =100%)					
OUTPUT	VOLTAGE [V]	5	9	12	15	24	48
	CURRENT [A]	60	30	25	20	13	6.5
	REGULATION, LINE [mV]	25 Max	45 Max	60 Max	75 Max	120 Max	240 Max
	REGULATION, LOAD [mV]	50 Max	90 Max	120 Max	150 Max	240 Max	480 Max
	RIPPLE [mVp-p]	50 Max	90 Max	120 Max	150 Max	240 Max	480 Max
	RIPPLE, NOISE [mVp-p]	100 Max	150 Max	170 Max	200 Max	290 Max	530 Max
	TEMPERATURE DRIFT 0~+50°C [mV]	50 Max	90 Max	120 Max	150 Max	360 Max	480 Max
	RISE TIME [ms]	500 Max (AC IN 110V/220V I _o =100%)					
	HOLDING TIME [ms]	20 typ (AC IN 110V/220V I _o =100%)					
PROTECTION CIRCUIT	OVER CURRENT PROTECTION	Works at over 110% of rating and recovers automatically					
	OVER VOLTAGE PROTECTION	Works at 110 ~ 140% of rating					
ELECTRICALLY ISOLATED	INPUT-OUTPUT	AC 1,500V 1 minute current 20mA, DC 500V 100MΩ (At room temperature & Humidity)					
	INPUT-CASE, FG	AC 1,500V 1 minute current 20mA, DC 500V 100MΩ (At room temperature & Humidity)					
	OUTPUT-CASE, FG	AC 500V 1 minute current 100mA, DC 500V 100MΩ (At room temperature & Humidity)					
ENVIRONMENT	OPERATING TEMP AND HUMID	-10 ~ +50°C, 20 ~ 90% RH(Non condensing)					
	STORAGE TEMP AND HUMID	-20 ~ +75°C, 20 ~ 90% RH(Non condensing)					
	VIBRATION	10 ~ 55Hz at 1G, 3 minutes period, 30 minutes along X, Y and Z axis					
	IMPACT	10G for 20ms once on each X, Y and Z axis					
SAFETY	SAFETY REGULATION	Complied with UL60950-1, EN60950-1					
	LINE CONDUCTED RF VOLTAGE	Complied with FCC Part 15, VCCI-A, CISPR2-A, EN55022 - A					

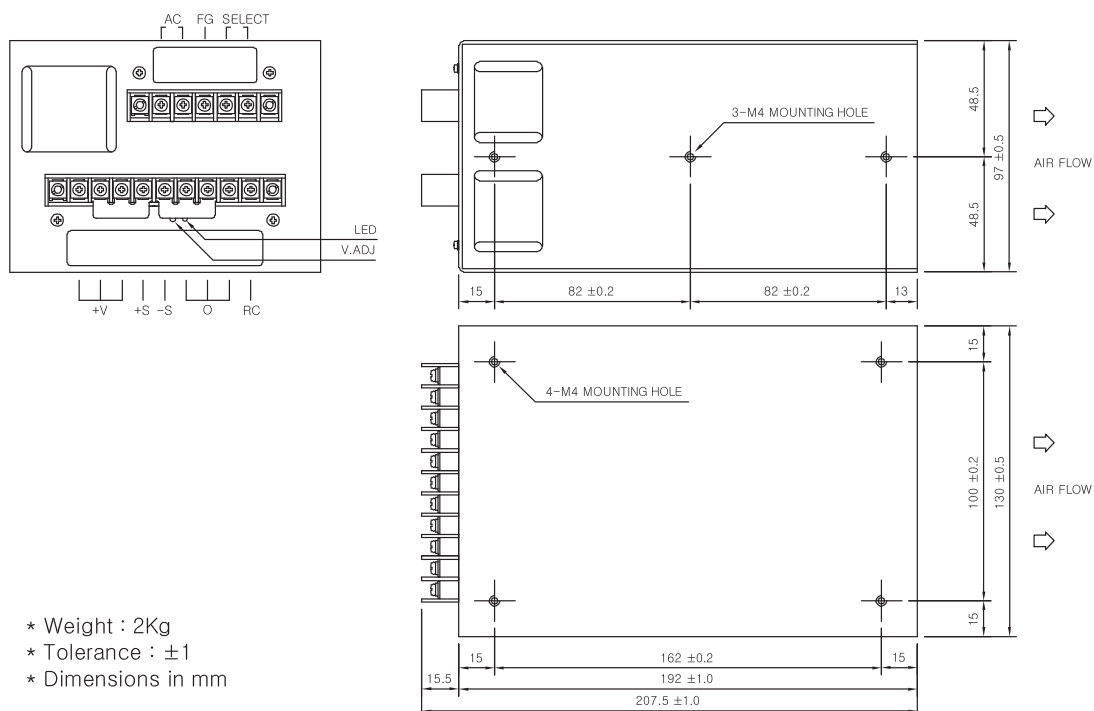
VSF300-S EXTERNAL VIEW



VSF400-S SPECIFICATIONS

MODEL		VSF400-05	VSF400-12	VSF400-15	VSF400-24	VSF400-48
INPUT	VOLTAGE, FREQUENCY	AC100-120V / 200-240V (AC90 ~ 132V / 180 ~ 264V or DC255 ~ 370V), 50/60Hz (47 ~ 440Hz) User Selectable				
	CURRENT [A]	110V	8.2 (I _o =100%)			
		220V	4.6 (I _o =100%)			
	EFFICIENCY [%]	110V	76 typ	81 typ	81 typ	81 typ
220V						
INRUSH CURRENT		20A typ(AC IN 110V, I _o =100%), 40A typ(AC IN 220V, I _o =100%)				
OUTPUT	VOLTAGE [V]	5	12	15	24	48
	CURRENT [A]	70	32	26.4	16	8
	REGULATION, LINE [mV]	25 Max	60 Max	75 Max	120 Max	240 Max
	REGULATION, LOAD [mV]	50 Max	120 Max	150 Max	240 Max	480 Max
	RIPPLE [mVp-p]	50 Max	120 Max	150 Max	240 Max	480 Max
	RIPPLE, NOISE [mVp-p]	100 Max	170 Max	200 Max	290 Max	530 Max
	TEMPERATURE DRIFT 0~+50°C [mV]	100 Max	120 Max	225 Max	240 Max	480 Max
	RISE TIME [ms]	500 Max (AC IN 85V I _o =100%)				
	HOLDING TIME [ms]	20 typ (AC IN 85V I _o =100%)				
PROTECTION CIRCUIT	OVER CURRENT PROTECTION	Works at over 110% of rating and recovers automatically				
	OVER VOLTAGE PROTECTION	Works at 115 ~ 145% of rating				
ELECTRICALLY ISOLATED	INPUT-OUTPUT	AC 3,000V 1 minute current 20mA, DC 500V 100MΩ (At room temperature & Humidity)				
	INPUT-CASE, FG	AC 2,000V 1 minute current 20mA, DC 500V 100MΩ (At room temperature & Humidity)				
	OUTPUT-CASE, FG	AC 500V 1 minute current 100mA, DC 500V 100MΩ (At room temperature & Humidity)				
ENVIRONMENT	OPERATING TEMP AND HUMID	-10 ~ +50°C, 20 ~ 90% RH(Non condensing)				
	STORAGE TEMP AND HUMID	-20 ~ +75°C, 20 ~ 90% RH(Non condensing)				
	VIBRATION	10 ~ 55Hz at 1G, 3 minutes period, 30 minutes along X, Y and Z axis				
	IMPACT	10G for 20ms once on each X, Y and Z axis				
SAFETY	SAFETY REGULATION	Complied with UL60950-1, EN60950-1				
	LINE CONDUCTED RF VOLTAGE	Complied with FCC Part 15, VCCI-A, CISPR2-A, EN55022 - A				

VSF400-S EXTERNAL VIEW



- * Weight : 2Kg
- * Tolerance : ±1
- * Dimensions in mm