Specification

Project No.		**Model**	**BEH-300SX**
Rev.	**S01**	**Engineer**	

Prepare		**Date**	
Check		**Date**	
Approve		**Date**	

Change reason and content：
Sign：

DONGGUAN PYW ELECTRONICS TECH. CO.,LTD.

■特点：

- Global AC input：180～264Vac
- Protection functions:output overcurrent /overvoltage/ overload /short functions
- Ultra wide working temperature range (-40℃～65℃)
- 100% full load burn-in test
- High efficiency, long life and high reliability

■规格

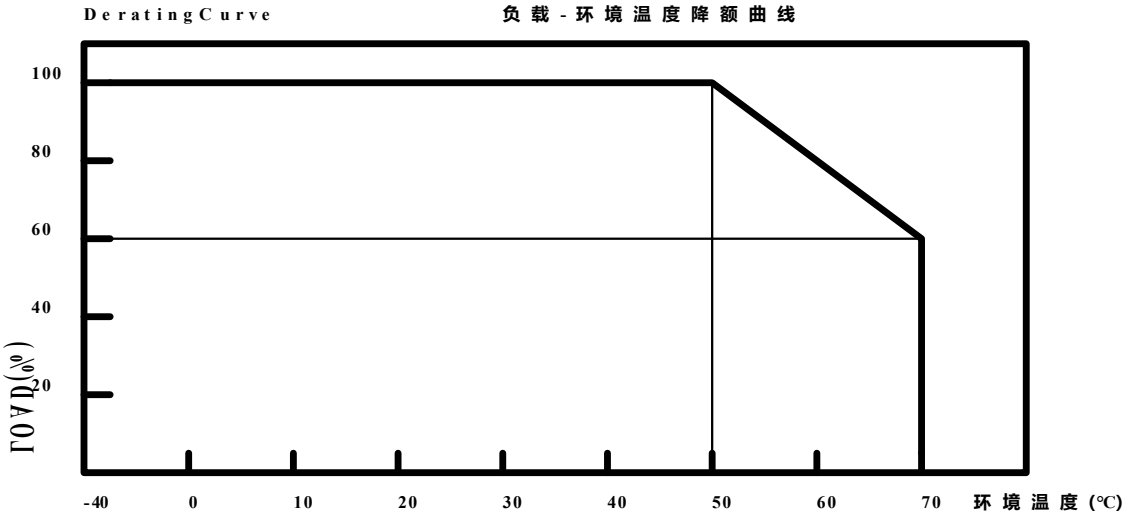
★ Pictures for your reference

Modelnote 注 1			BEH-300S3.8	BEH-300S4.2	BEH-300S4.5	BEH-300S4.6	BEH-300S5
Output	Rated output voltage		3.8V	4.2V	4.5V	4.6V	5V
	Output voltage setting range （Input 220Vac/ LOAD：0A）		3.80-3.90V	4.20-4.30V	4.50-4.60V	4.60-4.70V	5.00-5.10V
	Adjustable output range@25℃		3.3V~5.10V				
	Rated output current		60A				
	Rated output power		300W				
	Ripple note 2 TA the ambient temperature	25 ＜ Ta ≤ 70℃	Peak≤150mV （Test after 15 minutes of work）				
		0 ＜ Ta ≤ 25℃	Peak≤200mV （Test after 15 minutes of work）				
	Voltage accuracy @-40~70℃		±2% （The voltage is measured at the power output port）				
	Source adjustment rate @-40~70℃		±0.5%				
	Load Regulation@-40~70℃		±2%				
	Temperature Coefficient @-40~70℃		±0.03%/℃				
	Start-up time		≤1S (220VAC input, Full load)& ≤2.5S (110VAC input, Full load)				
	Hold-up time		≥10mS (80% load)				
	Overshoot		<10%	<10%	<5%	<5%	<5%
	Dynamic characteristics 0＜Ta≤70℃		6A-60A:<±500mV 30A-60A: <±400mV 6A-30A:<±300mV				
Input	Voltage range		180Vac~264Vac				
	Rated voltage		200Vac~240Vac / 47Hz~63Hz				
	Starting voltage		180VAC				
	Power factor		≥0.93 @ 230Vac；≥0.95@ 120Vac				
	Efficiency (Type) (220VAC 80% load)		89%	89.5%	89.5%	89.5%	90%
	Input current (Max.)		<3.5A				
	Start-up Inrush Current		<80A@220Vac Cold start				
Protection	Output OPP Hiccup mode		247~342W	273~342W	292.5~405W	299~414W	325~450W
	Output OCP		60~90A （Hiccup mode）				
	Output OVP		/				
	SCP		Use a copper wire with a sufficient cross-sectional area and a length of 15cm±5cm directly to short-circuit the output port of the power supply, which can be short-circuit for a long time, and automatically recover after eliminating the short circuit				
	OTP		/				
Work environment	Working Tem. & humidity note 3		-40℃~65℃； 20%~90%RH No condensing （For details, see temperature derating curve)				
	Storage Tem. & humidity		-40℃~85℃； 10%~95%RH No condensing				

	Vibration		10 ~ 500Hz, 2G 10min./1cycle, period for60min. each along X,Y, Z axes
	To attack		20G/11mS pulse ,3 times at each X,Y,Z axes
	Altitude		5000m
Safety & EMC	Safety standards		Design meets EN62368 /GB4943 and other safety standards
	Leakage current		P-S≤0.25mA P-PE≤3.5mA
	Insulation strength		Primary-Secondary：3.0KVac/10mA/ 1min Primary-PE：1.5KVac/10mA/ 1min Secondary-PE：500Vac/10mA/ 1min
	Insulation impedance		Primary-Secondary: ≥50M ohms@500Vdc Primary-PE: ≥50M ohms@500Vdc Secondary-PE: ≥50M ohms@500Vdc
	谐波 Harmaonic current		EN61000-3-2 CLASS D
	EMI	CE	/
		RE	/
	EMS	CS	EN61000-4-6 Level3 criterionB
		RS	EN61000-4-3 Leve3 criterionB
		工频骚扰	EN61000-4-8 Level3 criterionB
		ESD	EN61000-4-2 Level4 criterionB
		EFT	EN61000-4-4 Level4 criterionB
		Surge	EN61000-4-5 Level4 criterionB
		DIPS	EN61000-4-11 criterionC
Other	Dimensions (L*W*H)		208mm×60mm×30mm
	Connection		Inputt : 3-bit 95 terminal block Output:4-bit 95 terminal block
	Cooling way		Natural cooling
Reliability	MTBF		100,000Hrs AT 25℃, MIL-217 Method 2 Components Stress Method
	Life span		2 years@50℃ FULL Load and Units Continuously Working
Notes	Note 1: Unless otherwise specified, all parameters are tested after 15min in the oven at room temperature. Note 2: For details, see the derating curve, positioning diagram, and installation mode description. Note 3: Ripple noise is connected using 12# twisted pair, and at 20MHz bandwidth, 0.1uF and 10uF capacitors in parallel.		

Derating Curve:

■ **1.** Load current-ambient temperature derating curve: (To ensure reliable operation of the power supply, please use 80% of the rated load, combined with the derating curve)



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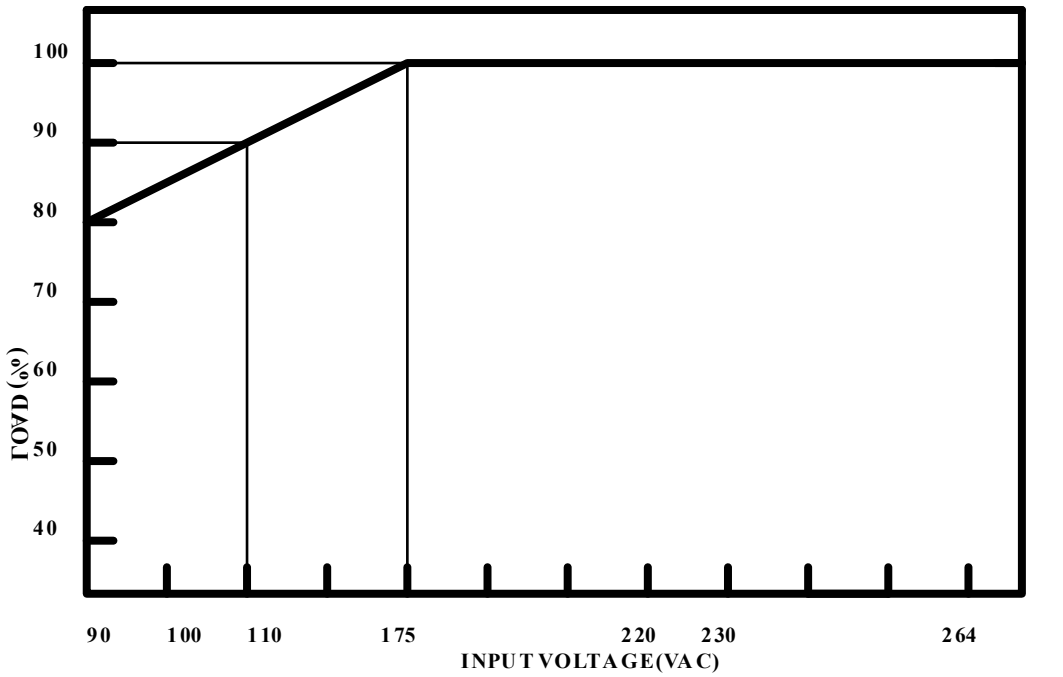
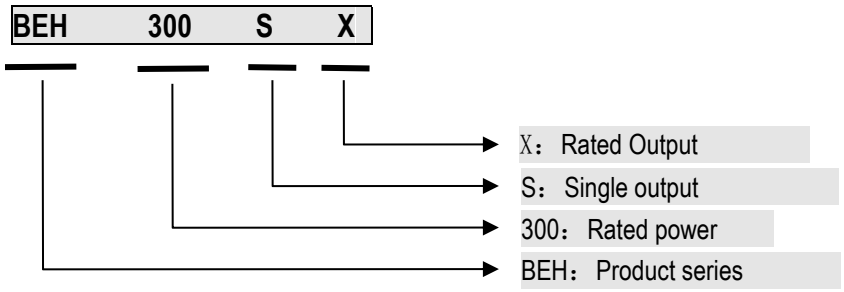
2. Load current-input voltage derating curve:

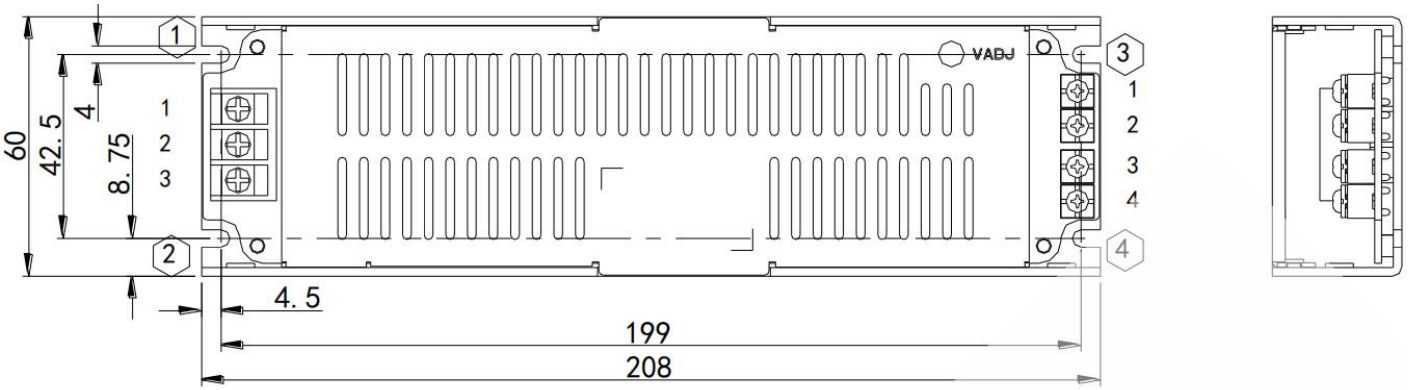
Ouput Derating VS Input Voltage **Ta=25℃**



■ Specification code description：



■ **Location map：** **Unit: mm / Contour tolerance ±1.0**



■ Product installation and instruction：

1. Refer to the mechanical to select the appropriate installation. If necessary， the diameter of the kelly wire is no less than AWG #1.
2. Make the electrical connection is correct, to avoid damage to the SPS or equipment : Input & Output, Ac & DC, Positive & negative, Input Voltage Range.
3. Do not touch circuit board to avoid electric shock when SPS is working. Do not touch to avoid heat in three minutes after working. Do not touch the soldering side.
4. Let it work at ventilated conditions to improve reliability. Do not make it ON/OFF too quickly . Any condition is out of the rated range, please contact FAE for suggestion.
5. If the SPS works abnormally, do not open to repair except professional, contact FAE for support.

■ Packaging, transportation, storage：

1. **Package**:Unless customer's special demand, Product name, model, manufacturer logo in the box; Date of production can be traced back.
2. **Transport:** Product packaging is suitable for road, railway, air shipping and sea shipping, etc. Be to civilized handling, waterproof, anti-fall, and to avoid severe impact.
3. **Storage**: Do not disassemble or take off the packing box when the product is not in use. Keep 20cm away from ground, and 50cm away from Wall, heat source and air inlet. The storage temperature and relative humidity shall be in accordance with the specifications， and Avoid strong mechanical vibration, shock and strong magnetic field. If the storage period is more than two years, it should be tested again before use.

■ Reference standard：

1. **GB4943/EN60950/ EN62368**：Safety of Information Technology Equipment.
2. **GB2324**：Basic environmental testing procedures for electric and electronic products.
3. **EN55022/ EN55024**：Information technology equipment – Radio disturbance characteristics - Limits and methods of measurement
4. **IEC61000-4**：Electromagnetic compatibility (EMC) test and measurement techniques.
5. **IEC 61000-6-1 :** Standard and measurement of electromagnetic immunity for residential, commercial and light industrial environments.
6. **IEC 61000-6-2** ： Standard and measurement of electromagnetic immunity for products used in industrial environment.
7. **GB 17625.1-1998**： The limits for the harmonic current from low-voltage electrical and electronic equipment (equipment input current≤16A per phase).
8. **GB/T 17626**： Electromagnetic compatibility testing and measurement techniques.
9. **GB/T14714**：General specification for switching power supply of micro computer system equipment.
10. **GB/T9254-2008:** Radio disturbance limits and methods of measurement for information technology equipment.
11. DONGGUAN PYW ELECTRONICS TECH. CO.,LTD. Enterprise standard.

■ Statement

Class A statement

Warning

In a residential environment, running this device may cause radio interference.