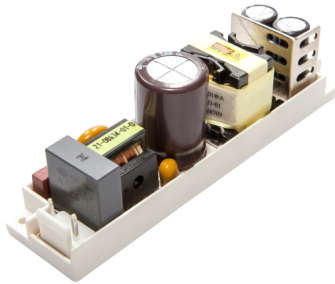


SHFA40 SERIES



40W Open-Frame Power Supply for Medical Equipment

- Wide Operating Voltage 80 to 275 VAC, 47 to 63Hz
- Single Output
- Over Load protection
- Input to Output : 2MOPP
- Size: 1"x4"x1.28"
- High ESD immunity
- Suitable professional healthcare facility
- Ultra low earth leakage current

3 Year Warranty

Approvals:

Single Output

Product Number	Output Voltage	Max. Output Current	Total Regulation	Typ.Efficiency (%)	Ripple & Noise		Max. Output Power	Pno (max.)
					Min. (mVp-p)	Max. (mVp-p)		
SHFA40-S02	5 ~ 6 VDC	4.66 ~ 5.60 A	5%	79	50	60	28W	0.1W
SHFA40-S03	6 ~ 8 VDC	4.00 ~ 5.33 A	5%	80	60	80	32W	0.1W
SHFA40-S04	8 ~ 11 VDC	3.28 ~ 4.50 A	5%	85	80	110	36W	0.1W
SHFA40-S05	11 ~ 13 VDC	3.07 ~ 3.63 A	5%	87.5	110	130	40W	0.1W
SHFA40-S06	13 ~ 16 VDC	2.50 ~ 3.07 A	5%	88	130	160	40W	0.1W
SHFA40-S07	16 ~ 21 VDC	1.90 ~ 2.50 A	5%	88	160	210	40W	0.1W
SHFA40-S08	21 ~ 27 VDC	1.48 ~ 1.90 A	3%	88	210	270	40W	0.1W
SHFA40-S09	27 ~ 33 VDC	1.21 ~ 1.48 A	3%	88	270	330	40W	0.1W
SHFA40-S10	33 ~ 40 VDC	1.00 ~ 1.21 A	3%	88	330	400	40W	0.15W
SHFA40-S11	40 ~ 50 VDC	0.80 ~ 1.00 A	3%	88	400	500	40W	0.15W
SHFA40-S12	50 ~ 59 VDC	0.68 ~ 0.80 A	3%	88	500	590	40W	0.15W

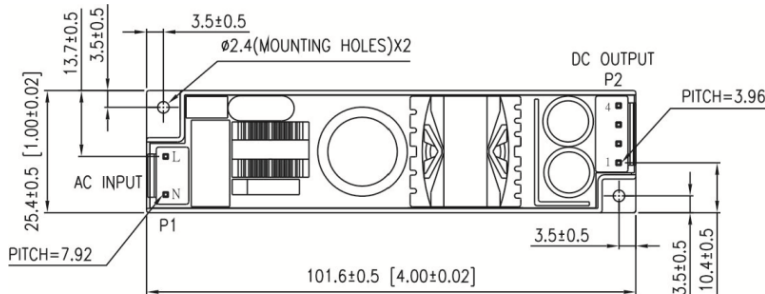
Electrical Characteristics

Parameter	Test Conditions	Min.	Typ.	Max.	Unit
Safety Approvals Input Voltage Range	Safety Approval & Specification in Label	100		240	VAC
Operate Voltage Range	Derate linearly from 100% load at 90VAC to 80% load at 80VAC	80		275	VAC
Input Frequency	Sine wave	47		63	Hz
Output Power Range	See Rating Chart			40	W
Low Line Input Current	Full load, Vin=100VAC			1	A
High Line Input Current	Full load, Vin=240VAC			0.6	A
Low Line Input Inrush Current	Full load, 25°C, Cool start, Vin=100VAC			30	A
High Line Input Inrush Current	Full load, 25°C, Cool start, Vin=240VAC			60	A
Efficiency	Full Load, Vin=230VAC	79		88	%
Line Regulation	Full Load, Vin=100~120VAC or 200~240VAC			1	%
Over Load Protection	Recovers automatically after fault condition is removed	110		150	%
Time of Transient Response	Io=Full Load to Half Load, Vin=110VAC			4	ms
Hold-Up Time	Full Load, Vin=100VAC			12	ms
Start Up Time	Full Load, Vin=100~240VAC			2	s
Ripple & Noise (Peak to Peak)				1	%
Temperature Coefficient	All output			±0.04	%/°C
Dielectric Withstanding Voltage(P-S)	Primary to Secondary, limit current<10mA			4000	VAC
EMC Emission	Compliance to EN55011(CISPR11), EN60601-1-2	B			Class

Environmental

Parameter	Test Conditions	Min.	Typ.	Max.	Unit
Operating Temperature	Derate linearly from 100% load at 40 to 50% load at 70	-10		70	°C
Storage Temperature	10~95% RH	-40		85	°C
Operating Humidity	non-condensing	0		95%	RH
Storage Humidity		0		95%	RH
Electro Static Discharge	Air Discharge, IEC61000-4-2			15	KV
Electro Static Discharge	Contact Discharge, IEC61000-4-2			8	KV
Mean Time Between Failure	Operation Temperature at 25 J, Calculated per MIL-HDBK-217F	200K			h
Operating Altitude (Elevation)	All Condition			3000	m
Vibration	10~500Hz,10min./1cycle, 60min.each along X, Y, Z axes			5	G
Surge Voltage	Line-Neutral			1	KV
Surge Voltage	Line-PE & Neutral-PE			2	KV

Mechanical Diagram and PIN Chart

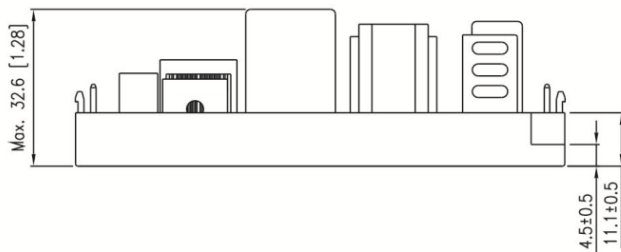


Note:

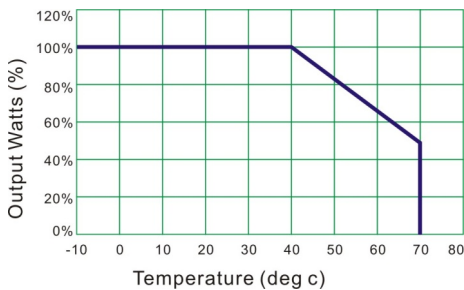
1. Dimensions are shown in mm & inch
2. Weight: approx. 75g
3. Input connector mates with JST housing VHR-3N and JST SVH series crimp terminal.
4. Output connector mates with JST housing VHR-6N and JST SVH series crimp terminal.

PIN CHART

MODEL	PIN	1	2	3	4
SHFA40-SXX		OUT	OUT	RTN	RTN



Output Derating Curve



1. Operating Temperature: -10 to 70°C
2. Derate linearly from 100% load at 40°C to 50% load at 70°C