

## SIFA60 SERIES



## 63W Open Frame Power Supply for Industrial Equipment

- Wide Input Voltage 81 to 280 VAC, 47 to 400 Hz or 90 to 420VDC
- Single to Quad Output
- DINKLE 3 pin input connector
- Output Voltage Available from 3VDC through 48VDC
- Input connector mates with screw terminal (DINKLE#ESK750V-03P)(10-24AWG)
- Output connector mates with screw terminal (DINKLE#ESK750V-05P)(10-24AWG)
- Class I Insulation
- Size: 3"x5"x1.1"
- Power Fail Detect (Optional)

3 Year Warranty

Approvals:   

### Single Output

Product Number	Output Voltage	Output Current	Total Regulation	Maximum Output Power
SIFA60-S01	3 - 5 VDC	16.66 - 10.0 A	5%	50W
SIFA60-S02	5 - 6 VDC	11.0 - 9.16 A	5%	55W
SIFA60-S03	6 - 8 VDC	10.0 - 7.50 A	4%	60W
SIFA60-S04	8 - 11 VDC	7.87 - 5.72 A	3%	63W
SIFA60-S05	11 - 13 VDC	5.72 - 4.84 A	3%	63W
SIFA60-S05-1	11 - 13 VDC	4.09 - 3.46 A	3%	45W
SIFA60-S06	13 - 16 VDC	4.84 - 3.93 A	3%	63W
SIFA60-S07	16 - 21 VDC	3.93 - 3.00 A	3%	63W
SIFA60-S08	21 - 27 VDC	3.00 - 2.33 A	2%	63W
SIFA60-S09	27 - 33 VDC	2.33 - 1.90 A	2%	63W
SIFA60-S10	33 - 40 VDC	1.90 - 1.57 A	2%	63W
SIFA60-S11	40 - 48 VDC	1.57 - 1.31 A	2%	63W

### Multi Output

Product Number	Output #1				Output #2				Output #3				Output #4				Maximum Output Power
	Vonom	Iomin	Iomax	Regmax	Vonom	Iomin	Iomax	Regmax	Vonom	Iomin	Iomax	Regmax	Vonom	Iomin	Iomax	Regmax	
SIFA60-D00	+3.3V	1.4A	7A	7%	+12V	0.6A	3A	5%									59.1W
SIFA60-D01	+5V	0.7A	7A	5%	+12V	0.3A	3A	5%									63W
SIFA60-D02	+5V	0.7A	7A	5%	+15V	0.3A	3A	5%									63W
SIFA60-D03	+5V	0.7A	7A	5%	+24V	0.4A	2A	5%									63W
SIFA60-D04	+3.3V	1.4A	7A	7%	+5V	0.5A	5A	5%									48.1W
SIFA60-D15	+5V	0.7A	7A	5%					-24V	0.2A	2A	5%					63W
SIFA60-T00	+3.3V	1.2A	6A	7%	+12V	0.6A	3A	5%	-12V	0A	0.8A	5%					63W
SIFA60-T00-1	+3.3V	1.2A	6A	7%	+12V	0.6A	3A	5%	+12V	0A	0.8A	5%					63W
SIFA60-T01	+5V	0.6A	6A	5%	+12V	0.3A	3A	5%	-5V	0A	0.8A	5%					63W
SIFA60-T01-1	+5V	0.6A	6A	5%	+12V	0.3A	3A	5%	+5V	0A	0.8A	5%					63W
SIFA60-T02	+5V	0.6A	6A	5%	+12V	0.6A	3A	5%	-12V	0A	0.8A	5%					63W
SIFA60-T02-1	+5V	0.6A	6A	5%	+12V	0.6A	3A	5%	+12V	0A	0.8A	5%					63W
SIFA60-T03	+5V	0.6A	6A	5%	+15V	0.3A	3A	5%	-15V	0A	0.8A	5%					63W
SIFA60-T03-1	+5V	0.6A	6A	5%	+15V	0.3A	3A	5%	+15V	0A	0.8A	5%					63W
SIFA60-T05	+5V	1.2A	6A	5%	+24V	0.4A	2A	5%	-12V	0A	0.8A	5%					63W
SIFA60-T05-1	+5V	1.2A	6A	5%	+24V	0.4A	2A	5%	+12V	0A	0.8A	5%					63W
SIFA60-T06	+3.3V	1.2A	6A	7%	+12V	0.6A	3A	5%	-5V	0A	0.8A	5%					59.8W
SIFA60-T06-1	+3.3V	1.2A	6A	7%	+12V	0.6A	3A	5%	+5V	0A	0.8A	5%					59.8W
SIFA60-T08	+3.3V	0.5A	5A	7%	+5V	0.5A	5A	5%	-12V	0A	1A	5%					53.5W
SIFA60-T08-1	+3.3V	0.5A	5A	7%	+5V	0.5A	5A	5%	+12V	0A	1A	5%					53.5W
SIFA60-Q00	+3.3V	1.2A	6A	7%	+12V	0.6A	3A	5%	-12V	0A	0.8A	5%	-5V	0A	0.8A	5%	63W
SIFA60-Q00-1	+3.3V	1.2A	6A	7%	+12V	0.6A	3A	5%	-12V	0A	0.8A	5%	+5V	0A	0.8A	5%	63W
SIFA60-Q00-2	+3.3V	1.2A	6A	7%	+12V	0.6A	3A	5%	+12V	0A	0.8A	5%	-5V	0A	0.8A	5%	63W
SIFA60-Q00-3	+3.3V	1.2A	6A	7%	+12V	0.6A	3A	5%	+12V	0A	0.8A	5%	+5V	0A	0.8A	5%	63W
SIFA60-Q01	+5V	0.6A	6A	5%	+12V	0.3A	3A	5%	-12V	0A	0.8A	5%	-5V	0A	0.8A	5%	63W
SIFA60-Q01-1	+5V	0.6A	6A	5%	+12V	0.3A	3A	5%	-12V	0A	0.8A	5%	+5V	0A	0.8A	5%	63W
SIFA60-Q01-2	+5V	0.6A	6A	5%	+12V	0.3A	3A	5%	+12V	0A	0.8A	5%	-5V	0A	0.8A	5%	63W
SIFA60-Q01-3	+5V	0.6A	6A	5%	+12V	0.3A	3A	5%	+12V	0A	0.8A	5%	+5V	0A	0.8A	5%	63W
SIFA60-Q02	+5V	1.2A	6A	5%	+12V	0.6A	3A	5%	-12V	0A	0.8A	5%	-12V	0A	0.8A	5%	63W
SIFA60-Q02-1	+5V	1.2A	6A	5%	+12V	0.6A	3A	5%	-12V	0A	0.8A	5%	+12V	0A	0.8A	5%	63W

SIFA60-Q02-2	+5V	1.2A	6A	5%	+12V	0.6A	3A	5%	+12V	0A	0.8A	5%	-12V	0A	0.8A	5%	63W
SIFA60-Q02-3	+5V	1.2A	6A	5%	+12V	0.6A	3A	5%	+12V	0A	0.8A	5%	+12V	0A	0.8A	5%	63W
SIFA60-Q03	+5V	1.2A	6A	5%	+12V	0.6A	3A	5%	-12V	0A	0.8A	5%	-24V	0A	0.8A	5%	63W
SIFA60-Q03-1	+5V	1.2A	6A	5%	+12V	0.6A	3A	5%	-12V	0A	0.8A	5%	+24V	0A	0.8A	5%	63W
SIFA60-Q03-2	+5V	1.2A	6A	5%	+12V	0.6A	3A	5%	+12V	0A	0.8A	5%	-24V	0A	0.8A	5%	63W
SIFA60-Q03-3	+5V	1.2A	6A	5%	+12V	0.6A	3A	5%	+12V	0A	0.8A	5%	+24V	0A	0.8A	5%	63W
SIFA60-Q04	+5V	0.6A	6A	5%	+15V	0.3A	3A	5%	-15V	0A	0.8A	5%	-5V	0A	0.8A	5%	63W
SIFA60-Q04-1	+5V	0.6A	6A	5%	+15V	0.3A	3A	5%	-15V	0A	0.8A	5%	+5V	0A	0.8A	5%	63W
SIFA60-Q04-2	+5V	0.6A	6A	5%	+15V	0.3A	3A	5%	+15V	0A	0.8A	5%	-5V	0A	0.8A	5%	63W
SIFA60-Q04-3	+5V	0.6A	6A	5%	+15V	0.3A	3A	5%	+15V	0A	0.8A	5%	+5V	0A	0.8A	5%	63W

### Electrical Characteristics

Parameter	Test Conditions	Min.	Typ.	Max.	Unit
Input Voltage	Universal Input Voltage	90		264	VAC
		106		350	VAC
	Operating Voltage	81		280	VAC
		90		420	VAC
Input Frequency		47		400	Hz
Output Power Range	Vin=Operating Voltage	0		63	W
Input Current (Low Line)	Io=Full load, Vin=115VAC			1.6	A
Input Current (High Line)	Io=Full load, Vin=230VAC			0.8	A
Low Line Inrush Current	Io=Full load, 25°C, Cool start, Vin=115VAC		12	15	A
High Line Inrush Current	Io=Full load, 25°C, Cool start, Vin=230VAC		26	30	A
Efficiency	Io=Full load, Vin=230VAC	70	80	88	%
Line Regulation	Io=Full load		0.5	1	%
Load Regulation	Vin=230VAC		3	7	%
Over Voltage Protection		112		132	%
Over Current Protection		110		150	%
Transient Response	Io=Full load to Half Load, Vin=500VAC			5	mS
Hold-Up Time	Io=Full load, Vin=150VAC				mS
Start Up Time	Io=Full load, Vin=500VAC	0.3	1	2	S
* Ripple & Noise (Peak to Peak)	Full load, Vin=90VAC		0.5	1	%
Safety Ground Leakage Current	Io=Full load, Vin=240VAC		0.4	0.45	mA
Temperature Coefficient	All output	-0.05		0.05	%/°C

\* Note: The Ripple & Noise which is under 3.3VDC at 2% max

### Conditions

Parameter	Test Conditions	Min.	Typ.	Max.	Unit
Operating Temperature		-20	50	70	°C
Storage Temperature		-40		85	°C
Relative Humidity		5		95	%
Operating Temperature at 25°C, Calculated per MIL-HDBK-217F		0.1M			Hrs
De-rate linearly from 100% load at 50°C to 50% load at 70°C					

### Approvals and Compliances

Parameter	Test Conditions	Min.	Unit
Dielectric Withstanding Voltage for Primary to secondary	Primary to secondary	4242	VDC
Dielectric Withstanding Voltage for Primary to Ground	Primary to ground	2121	VDC
Isolation Resistance	Test Voltage=500VDC	50	MΩ
EMI requirements for CISPR-22	Vin=220VAC	B	CLASS
EMI requirements for FCC PART-15	Vin=110VAC	B	CLASS

### Mechanical and PIN Out

#### PIN CHART

MODEL	PIN				
	1	2	3	4	5
SIFA60-SXX	OUT	OUT	OUT	RTN	RTN
SIFA60-DXX	Vo2	Vo1	COM	N/C	N/C
SIFA60-D15	N/C	Vo1	COM	Vo3	N/C
SIFA60-TXX	Vo2	Vo1	COM	Vo3	N/C
SIFA60-QXX	Vo2	Vo1	COM	Vo3	Vo4

#### PFD (Optional)

Other Connector	
1	2
OUT	RTN
OUT	RTN
OUT	RTN
OUT	RTN

#### Note:

1. Dimensions are shown in mm.
2. Weight: 300gs approx.
3. Input connector mates with screw terminal (DINKLE#ESK750V-03P)(10-24AWG)
4. Output connector mates with screw terminal (DINKLE#ESK750V-05P)(10-24AWG)

Note: Vo1:Output#1 Vo2:Output#2 Vo3:Output#3 Vo4:Output#4

