



sifam tinsley
PRECISION INSTRUMENTATION

POWER SUPPLIES
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DATASHEET

Issue 1

**NEW
PRODUCT**



Multifunction Meters

Transducers & Isolators

Temperature Controllers

Converters & Recorders

Digital Panel Meters

Current Transformers

Analogue Panel Meters

Shunts

Digital Multimeters

Clamp Meters

Insulation Testers

FLEX-E 30XXA

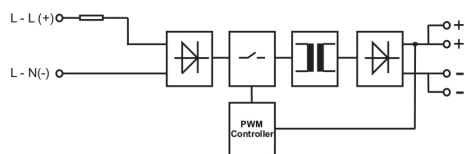
SUBJECT TO CHANGE WITHOUT NOTICE

This datasheet superseded all previous versions – please keep for future reference

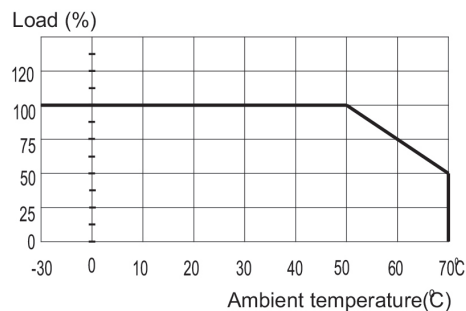
Product Features:

- Input: single-phase: 85-264 VAC, 124-370 VDC
- Output: 24 Vdc +/- 3% (1.5A)
- Efficiency greater than 87%
- Strong withstand voltage
- DIN Rail Mountable
- Extremely small size
- 3 Year warranty

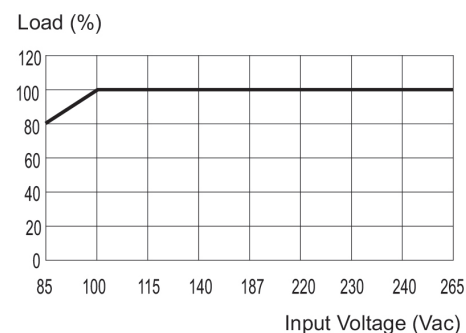
Block diagram:



Temperature derating curve:



Input Voltage derating curve:



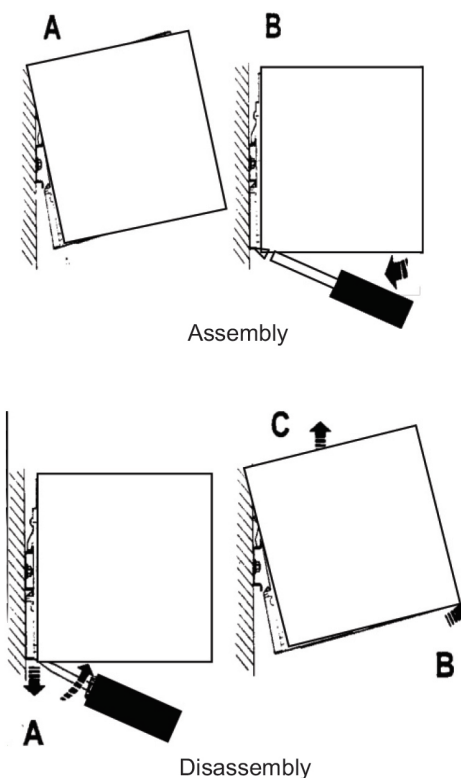
FLEX-E 30XXA



Technical Specifications:

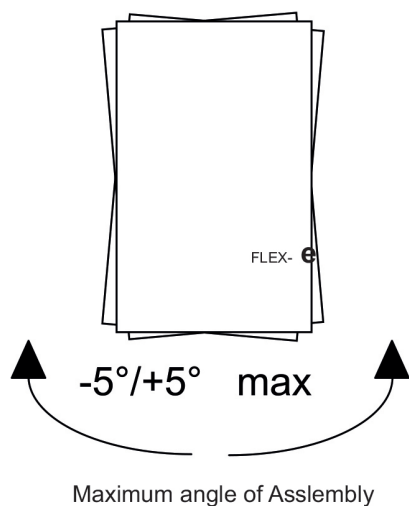
INPUT DATA :	
AC input voltage range	85 VAC...264 VAC (Refer Derating Curve)
DC input voltage range	120 VDC ... 370 VDC
Nominal input voltage	115 VAC / 230 VAC (165 VDC / 325 VDC)
Inrush current	≤ 36 A typical
AC frequency range	45 Hz ... 65 Hz
Input current	0.88 A (115 VAC), 0.48 A (230 VAC)
Internal fuse	T2 A
External fuse (recommended)	10A (MCB curve B)
OUTPUT DATA :	
Nominal output voltage	See Table 1
Adjustment range	See Table 1
Rated current	See Table 1
Power boost current @ 60 °C	See Table 1
Holdup time	≥ 30 msec (230 VAC), 15 msec (115 VAC)
Line regulation	< ± 0.5 %
Load regulation	< ± 0.5 % (change in load, static 10% ... 90%)
Overload	105 ... 160 % rated output power
Dissipation power load max	5.3 W
Efficiency	> 87 %
Residual ripple ^{Note 2}	≤ 150 mVpp
Short circuit protection	Yes
Overload protection	Yes (Hiccup mode)
Overvoltage output protection	Yes (See Table 1)
Parallel connection	No
Series connection	Yes
Turn on Delay	1 Seconds
Rise time	50 msec
Resistance to reverse feed	See Table 1

Installation:

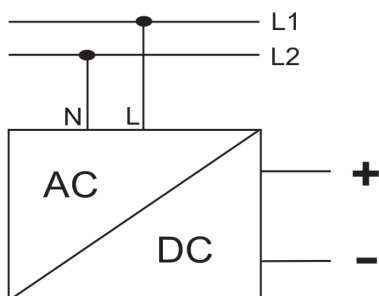
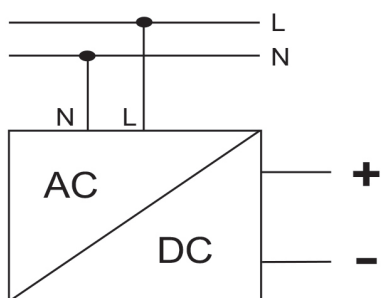


Technical Specifications:

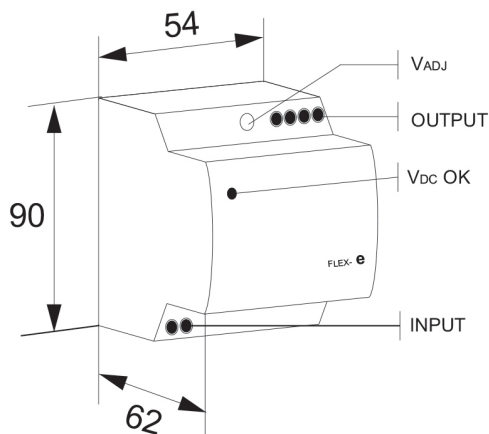
GENERAL DATA :	
Isolation voltage input/output	3000V AC
Degree of protection	IP20 (EN/IEC 60529)
Protection class	II
MTBF	> 5,00,000 Hrs in acc. with IEC 61709 (SN29500)
Type of housing	Plastic enclosure
Housing material	PC Lexan 940
Dimensions W / H / D	54 mm / 90 mm / 62 mm
Weight	0.25 kg approx.
Connection terminal blocks	Screw type 2.5 mm ²
CLIMATIC DATA :	
Ambient temperature (operation)	-30 °C ... +70 °C
Ambient temperature (storage)	-40 °C ... +85 °C
Humidity at 25 °C	95 % (no condensation)
Pollution degree environment	2 (in acc. with EN 50178)
Climatic class	3K3 (in acc. with EN 60721)



Electrical Connection:



Layout & Dimensional Details:



w x h x d

54 x 90 x 62

all dimensions are in mm

Technical Specifications:

STANDARDS :	
Electrical safety:	
Assembling device	IEC/EN 60950 (VDE 0805) EN 50178 (VDE 0160)
Installation according	IEC/EN 60950
Input/output separation	EN 60950-1(SELV) , EN 60204-1(PELV) Double or reinforced insulation
EMC standards immunity	EN 61000-4-2 EN 61000-4-3 EN 61000-4-4 EN 61000-4-5
EMC standards emission	EN 61000-6-4 EN 61000-3-2
Safety of electrical equipment for machines	EN 60204-1

Note:

- 1) All parameters not specifically mentioned are measured at 230VAC input, Rated load and 25°C of ambient temperature.
- 2) Ripple and noise are measured at 20MHz of bandwidth short length lead terminated with a 0.1uF & 47uF parallel capacitor.

Table 1:

Parameter	FLEX - e 3024A	FLEX - e 3012A
Nominal Output Data	24 VDC $\pm$ 3%	12 VDC $\pm$ 3%
Adjustment Range	22 VDC.....27 VDC	10 VDC.....14 VDC
Rated Current	1.5 A @ 50°C 1.125 A @ 60°C 0.75 A @ 70°C"	3.0 A @ 50°C 2.25 A @ 60°C 1.5 A @ 70°C
Power Boost current @ 60°C	1.5 A (For $\leq$ 3 Minutes)	3.0 A (For $\leq$ 3 Minutes)
Output Over Voltage Protection	35 VDC Typ.	24 VDC Typ.
Resistance to reverse feed	Max 35 VDC	Max 16 VDC

Order Code:

Model No	Order Code	Input Voltage	Output Voltage	Output Current	Power Range
1P FLEX - e 3012A	RF14-1S000000000000	115 V AC/ 230V AC	12 V DC	3.0 A	30 W
1P FLEX - e 3024A	RF14-1K000000000000		24 V DC	1.5 A	

Contact



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