



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 45XXA

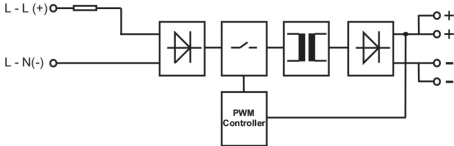
**SUBJECT TO CHANGE WITHOUT NOTICE**

This datasheet superseded all previous versions – please keep for future reference

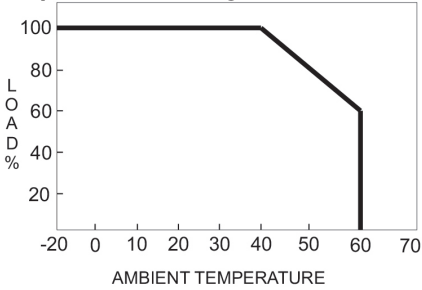
**Product Features:**

- Input: single-phase: 85-264 VAC, 124-370 VDC
- Output: 24 Vdc +/- 3% (1.75A)
- Efficiency greater than 87%
- Strong withstand voltage
- DIN Rail Mountable
- Extremely small size
- 3 Year warranty

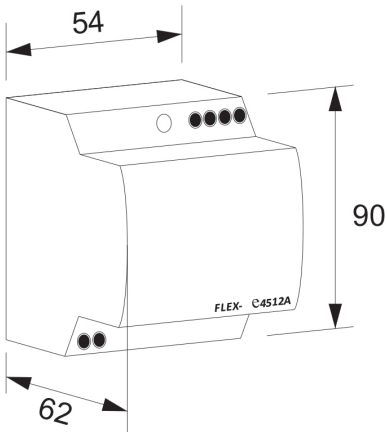
**Block diagram:**



**Temperature derating curve:**



**Input Voltage derating curve:**

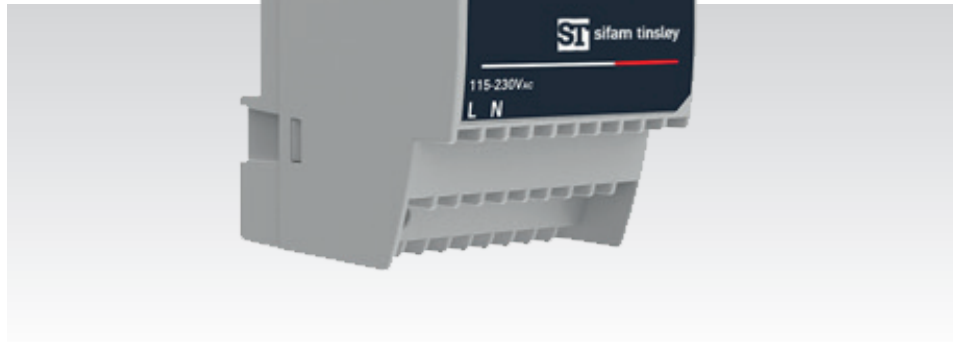


w x h x d

54 x 90 x 62

all dimensions are in mm

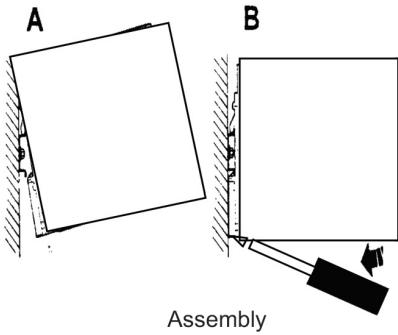
# FLEX-E 45XXA



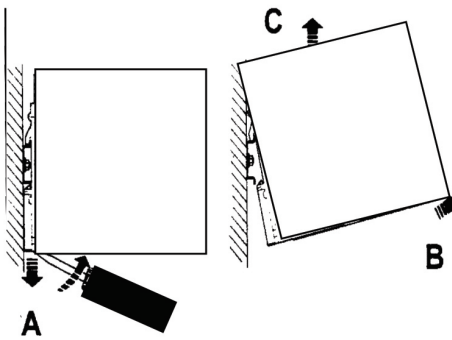
**Technical Specifications:**

<b>INPUT DATA :</b>	
AC input voltage range	90 VAC...264 VAC
DC input voltage range	124 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	0.95 A (115 VAC), 0.55 A (230 VAC)
Internal fuse	T4 A
External fuse (recommended)	10A (MCB curve B)
<b>OUTPUT DATA :</b>	
Nominal output voltage	12 VDC ± 3%
Adjustment range	10 VDC ... 15 VDC
Rated current at 12 VDC	3.75 A @ 50 °C 2.8 A @ 60 °C
Power boost current @ 60 °C	3.75 A ( For ≤ 3 Minutes)
Holdup time	≥ 20 msec (230 VAC)
Line regulation	< ± 1.0 %
Load regulation	< ± 1.0 % (change in load, static 10% ... 90%)
Overload	105 ... 160 % rated output power
Dissipation power load max	6.2 W
Efficiency	> 87 %
Residual ripple <sup>Note 2</sup>	≤ 150 mVpp
Short circuit protection	Yes
Overload protection	Yes (Hiccup mode)
Overvoltage output protection	Yes (24 VDC Typ.)
Parallel connection	No
Series connection	Yes
Turn on Delay	2 Seconds
Rise time	30 msec

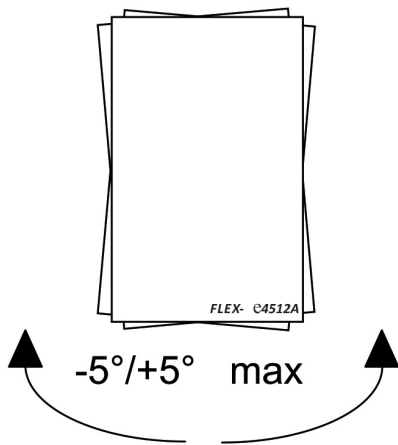
**Installation:**



Assembly



Disassembly

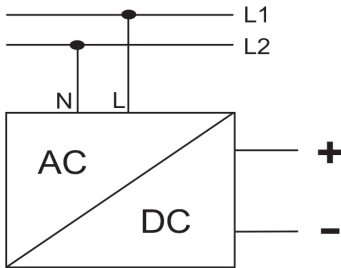
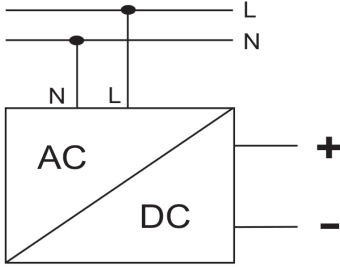


Maximum angle of Assembly

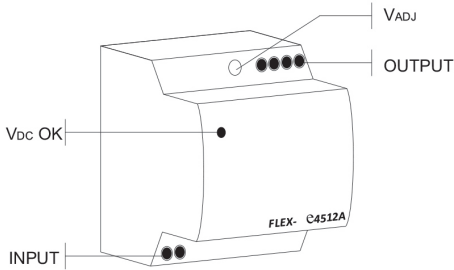
**Technical Specifications:**

<b>GENERAL DATA :</b>	
Isolation voltage input/output	3000V AC
Degree of protection	IP20 (EN/IEC 60529)
Protection class	II
MTBF	4,50,000 Hrs in acc. with IEC 61709 (SN 29500)
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 <sup>2</sup>
<b>CLIMATIC DATA :</b>	
Ambient temperature (operation)	-25 °C ... +60 °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:**



**Technical Specifications:**

<b>STANDARDS :</b>	
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	IEC 61326-1:2012, Table 2. 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 ± 3%	12 VDC ± 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 ≤ 3 Minutes)	3.0 A (For ≤ 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 4512A	RF14-1R0000000000	115 V AC/ 230V AC	12 V DC	3.75 A	45 W
1P FLEX - e 4524A	RF14-1L0000000000		24 V DC	1.75 A	

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