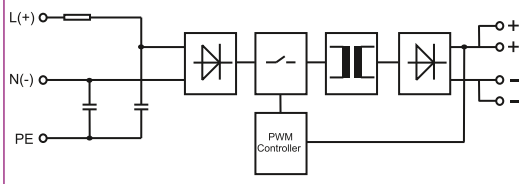
Technical Datasheet

Economical Solution for your Power Requirement

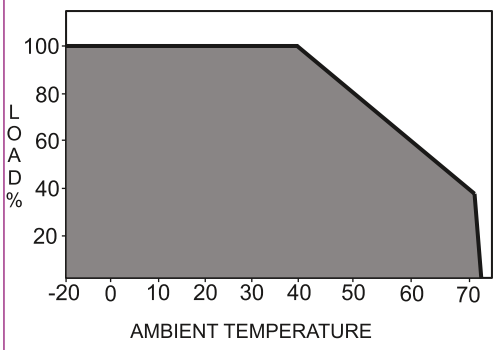
- Suitable for extreme environment
- Universal input range 85-264 Vac
- Universal input range 125-350 Vdc
- High efficiency ≥ 87%
- Wide operating temperature range: -25 to 70°C
- "Power Good" relay output
- DIN rail mounting
- Extremely Compact size
- 3 Years warranty

FLEX-e 9024A

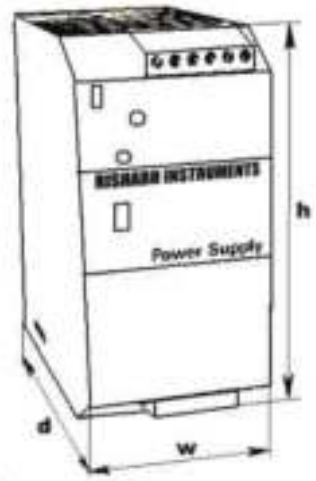
Block diagram:



Temperature derating curve:



Dimensional details:



w x h x d

55 x 110 x 105

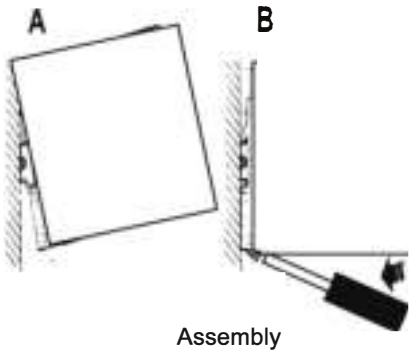
all dimensions are in mm

Technical Specifications:

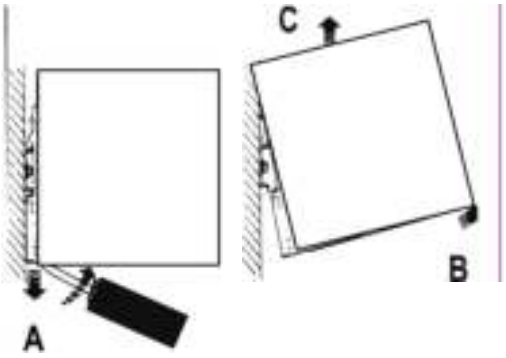
INPUT DATA :	
Nominal input voltage	100 VAC ... 240 VAC
AC input voltage range	85 VAC ... 264 VAC(Derating < 100 VAC: 2.5% / V)
DC input voltage range	125 VDC ... 350 VDC
Inrush current	≤ 36 A typical
AC frequency range	45 Hz ... 65 Hz
Input current	1.1 A (230 VAC) , 2.8 A (115 VAC)
Internal fuse	T4 A
External fuse (recommended)	10A or 10A B curve MCB

OUTPUT DATA :	
Nominal output voltage	24 VDC ± 3%
Adjustment range	22 VDC ... 27 VDC
Rated current at 24 VDC	5 A @ 40 °C 4 A @ 50 °C 3 A @ 60 °C
Power boost current @ 60 °C	4.5 A
Startup with capacitive load	≤ 50,000 µF
Holdup time	≥ 20 msec (230 VAC)
Derating	From 60 °C 2.5% per Kelvin
Line regulation	< 0.1 % (change in input voltage ± 10 %)
Load regulation	< 1 % (change in load, static 10% ... 90%)
Dissipation power load max	17 W
Efficiency	≥ 87 % (for 230 VAC and nominal values)
Residual ripple	≤ 120 mVpp (with nominal values)
Short circuit protection	Yes
Overload protection	Yes (Hiccup mode)
Overvoltage output protection	Yes (35 VDC Typ.)
Parallel connection	No
Series connection	Yes
Turn on Delay	1.5 Seconds

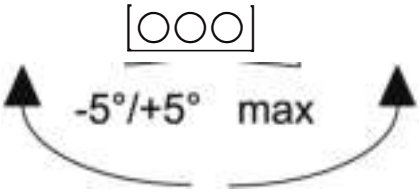
Installation:



Assembly



Disassembly



Maximum angle of Asslembly

Technical Specifications: (cont.)

OUTPUT DATA : (Continued)

Resistance to reverse feed	max. 35 VDC
Power good relay (optional)	Max 30 VDC, 1A (For resistive load EN60947-4-1) Max 60 VAC, 1A Min 5 VDC, 1 mA (Minimum permissive load)

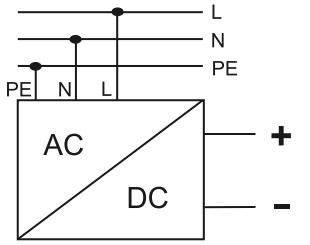
GENERAL DATA :

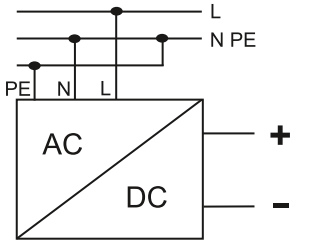
Isolation voltage input/output	3000V AC (type test) 2000V AC (routine test)
Isolation voltage input/PE	1605V AC (type test) 1500V AC (routine test)
Isolation voltage output/PE	500 V DC (routine test)
Degree of protection	IP20 (EN/IEC 60529)
Protection class	I, with PE connected
MTBF	> 5,00,000 h in acc. with IEC 61709 (SN 29500)
Type of housing	Aluminum
Housing material	Aluminum
Dimensions W / H / D	55 mm / 110 mm / 105 mm
Weight	0.5 kg approx.
Connection terminal blocks	Screw type 2.5 mm²

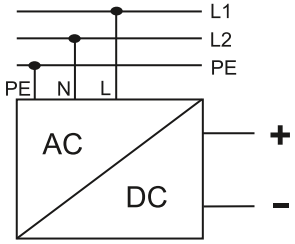
CLIMATIC DATA :

Ambient temperature (operation)	-25 °C ... +70 °C (>60 °C derating)
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)

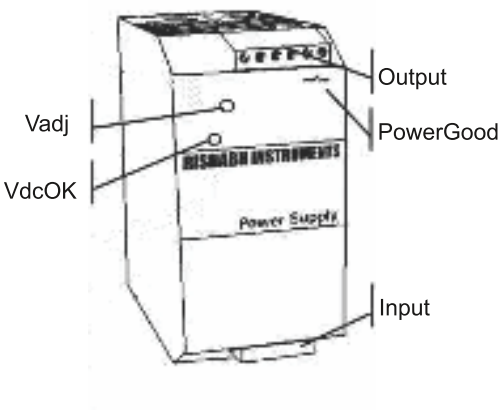
Electrical Connection:







LAYOUT:



Technical Specifications: (cont.)

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

Order Coding

Order Code	Model No	Input Voltage	Output Voltage	Output Current	Power Range
RF13-1V10000000000	Rish Flex e - 9024A	85 ... 264 V AC 125 ... 350 V DC	24 V DC	5 A	90 W

Conformal coating for power supplies is done on request

Sifam Tinsley Instrumentation Ltd
1 Warner Drive, Springwood Industrial Estate,
Braintree, Essex CM7 2YW
Contact No. : +44 (0) 1376 335271
Email: sales@sifamtinsley.com
www.sifamtinsley.co.uk