AWDR-240



c yL us
LisTED
E526868

Elcomtech series are designed with metal housing and for single or two phase system with wide range from 180V AC to 550V AC.

The series ofer DC Ok relay contact , built-in constant current limiting circuit and active PFC function(except AWDR60&120) , and operating in wide temperature range.

They are suitable for industrial-related applications such as industrial control, semiconductor fabrication equipment, and factory automation etc.

Features

- single andTwo phase Ultrawidelnput Range 180~550VAc
- Built-in Active pFc circuit
- Built-in Dc oK Relay contact
- protection:short circuit/overload /over Voltage/over Temperature
- Bulit-in constant current Limiting circuit
- High E仵ciency 91% and Lower power Dissipation
- Three years warranty

Model Information

Elcomtech Part number	DC VOLTAGE	RATED CURRENT	RATED POWER	VOLTAGE ADJ. RANGE
AWDR240-24	24V	10A	240W	24 ~ 28V
AWDR240-48	48V	5A	240W	48 ~ 55V

Input

INPUTVOLTAGE RANGE	180 ~ 550vAC or 254 ~ 780vDC
FREQUENCY RANGE	47~63Hz
POWER FACTOR (TYP.)	PF≥0.84/400vAC PF≥0.84/230vAC
EFFICIENCY (TYP.)	91%
AC CURRENT	1A/400vac 2A/230vac
INRUSH CURRENT (max.)	COLD START 50A
LEAKAGE CURRENT	<3.5mA / 530vac

Output

RIPPLE & NOISE (max.)	150mvp-p
VOLTAGETOLERANCE	±2.0%
LINE REGULATION	±0.5%
LOAD REGULATION	±1.0%
SETUP, RISETIME	800ms, 150ms/400vac at full load 1500ms, 150ms/230vac at full load
HOLD UPTIME(TYP.)	18ms/400vac at full load 18ms/230vac at full load

protection

OVER LOAD	105 ~ 130% rated output power. protection type : constant current limiting, unit will shutdown after 3 sec., auto-recovery after 1 minute if the fault condition is removed.
OVERVOLTAGE	29~33v AWDR240-24 56~65v AWDR240-48 protection type : Shutdown o/p voltage, auto-recovery after 1 minute if the fault condition is removed.
OVERTEMPERATURE	90 ℃±5 ℃ (TSW) detect on heatsink of power switch. protection type : Shutdown o/p voltage, recovers automatically after temperature goes down.

Environment

WORKINGTEMP.	-30 ~ +70 ℃ (Refer to "Derating curve")
WORKING HUMIDITY	20 ~ 95% RH non-condensing
STORAGETEMP., HUMIDITY	-40 ~ +85 ℃, 10 ~ 95% RH
COLD START	-40 ℃
TEMP. COEFFICIENT	±0.03%/ ℃ (0 ~ 50 ℃)
VIBRATION	component: 10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X,Y, Z axes; Mounting clip: compliance to lEc60068-2-6.
MTBF	900k hrs min.TelcordiaSR-332 (Bellcore)

Function

DC OK REALY CONTACT RATINGS (max.)	60vdc/0.3A, 30vdc/1A, 30vac/0.5A resistive load

SAFETY & EMC

SAFETY STANDARDS	UL61010-1, UL61010-2-201, BS EN/EN62368-1
WITHSTANDVOLTAGE	I/P-O/P:3KVAC I/P-FG:2KVAC O/P-FG:0.5KVAC O/P-DC OK:0.5KVAC
ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:>100M Ohms / 500VDC / 25℃/ 70% RH
EMC EMISSION	Compliance to BS EN/EN55032, BS EN/EN61000-3-2,-3
EMC IMMUNITY	Compliance to BS EN/EN61000-4-2, 3, 4, 5, 6, 8, 11

Note

1.AII parameters NOT specialIY mentioned at 400VAC input, ratedload and 25℃ of ambient temperature.

2.Ripple&noise are measured at 20MHz of bandwidth bY using a 12,,twisted pair-wire terminated with a 0.1uF & 47uF parallel capacitor.

3.Installation clearances: top with 40mm, bottom with 20mm,left and right with 5mm. Increase the space to 10-15mm when the adjacent device is heat source.

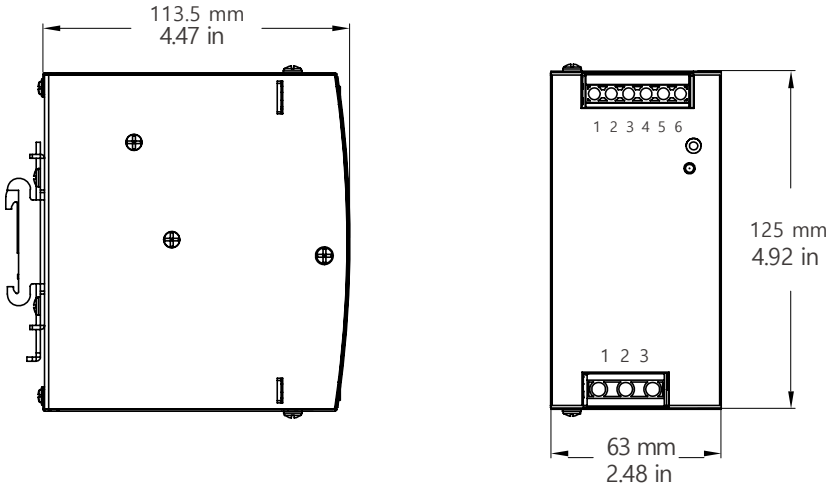
4.The ambient temperature derating of 3.5 ℃/1000m for operating altitude higher than 2000m(6500ft).

5.The power supplY is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives. For guidance on how to perform these EMC tests, please refer to"EMI testing of component power supplies."

Dimensions &weight

Length:	63mm / 2.48in
width:	113.5mm / 4.47in
Height:	125mm / 4.92in
weight:	1kg

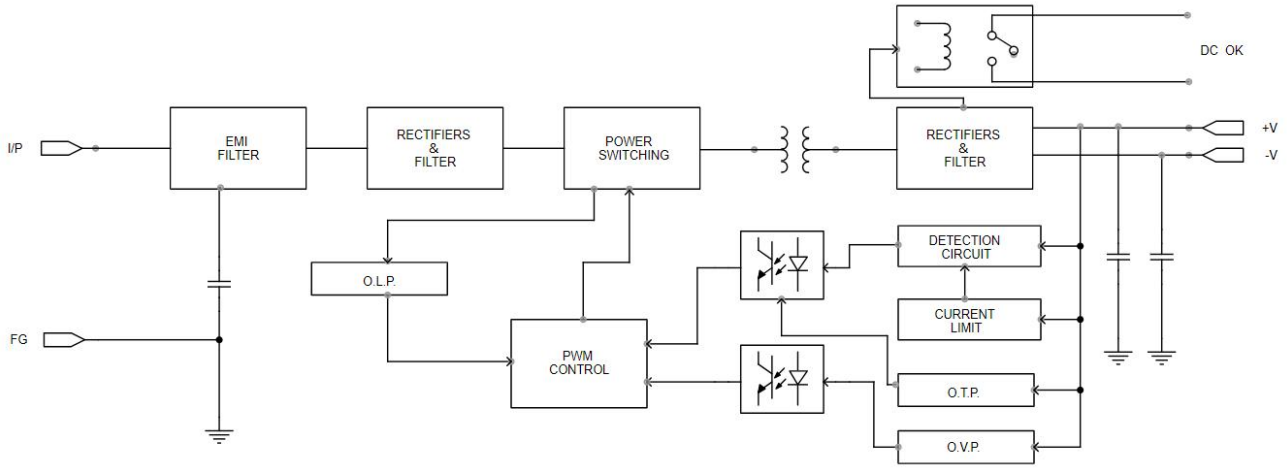
MechanicalSpecification



INPUT	
NO.	Description
1	FG
2	AC/L2
3	AC/L1

OUTPUT	
NO.	Description
1,2	Relay Contact
3,4	DC OUTPUT +V
5,6	DC OUTPUT -V

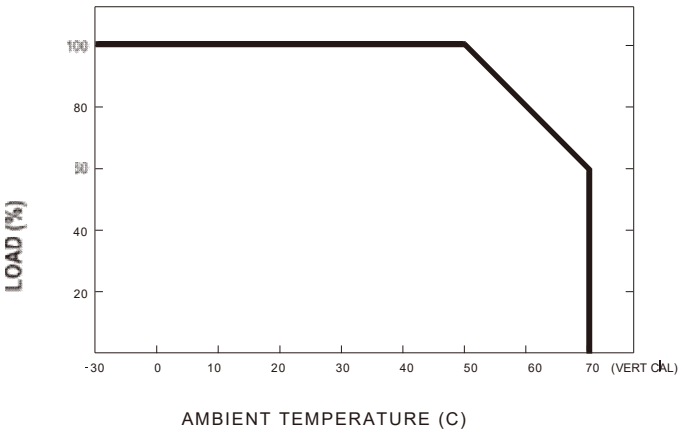
BlocK Diagram



DC OK Relay Contact

Contact Close	PSU turns ON / DC OK.
Contact Open	PSU turns OFF / DC FAIL.
Contact Ratings（max.）	30V/1A resistive load.

Deduction curve and Temperature



Minus output and Input voltage curves

