

# ANDR-75-24 SERIES 75W



Elcomtech's metal case powerfamily designed with slim housing and for full range AC input from 90 VAC to 264VAC.

The series are single phase psu, providing adjustable DC output voltage. They have high efficiency and operate in wide temperature range.

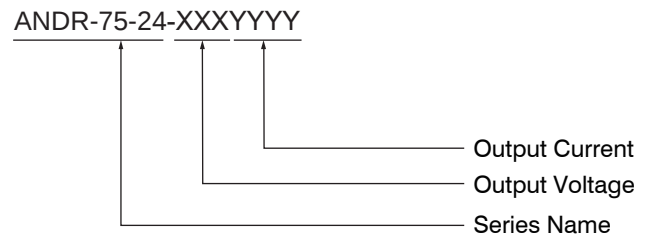
The series can widely used for industrial automation & control systems, varied equipments etc.



## Features

- AC input with 90-264VAC
- No load power consumption < 0.7W
- Isolation Class II
- Protections: Short circuit/Over load/Over voltage
- Cooling by free air convection
- Din rail TS-35/7.5 or 15 mountable
- 100% full load burn-in test
- Three years warranty

## Model Description



## Model Information

| Part number | DC Voltage | Rated Current(max.) | Rated Power | Current Range | Voltage ADJ. Range |
|-------------|------------|---------------------|-------------|---------------|--------------------|
| ANDR-75-24  | 24V        | 3.2A                | 76.8W       | 0-3.2A        | 24.0-28.0V         |

## Specification

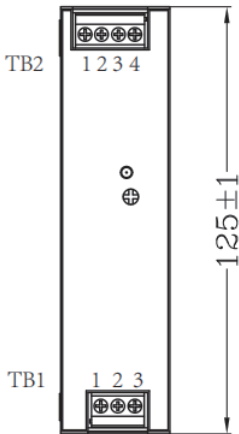
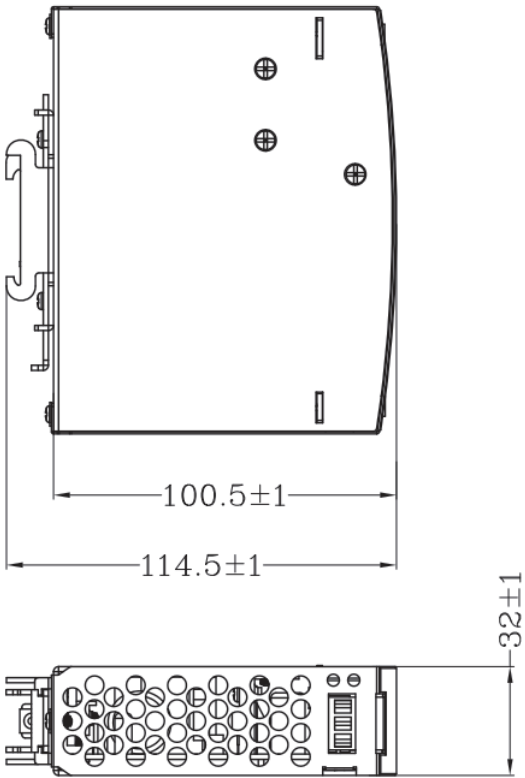
|                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                  |                        |                                                  |  |
|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|------------------------|--------------------------------------------------|--|
| Model                          | Safety Model No.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | ANDR-75-24                                                                                                       |                        |                                                  |  |
| Output                         | DC Voltage                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 24V                                                                                                              |                        |                                                  |  |
|                                | Rated Current                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 3.2A                                                                                                             |                        |                                                  |  |
|                                | Rated Power                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 76.8W                                                                                                            |                        |                                                  |  |
|                                | Ripple & Noise(max.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 120mVp-p                                                                                                         |                        |                                                  |  |
|                                | Voltage Tolerance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | ±2.0%                                                                                                            |                        |                                                  |  |
|                                | Line Regulation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ±0.5%                                                                                                            |                        |                                                  |  |
|                                | Load Regulation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ±1.0%                                                                                                            |                        |                                                  |  |
|                                | Voltage ADJ. Range                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 24~28V                                                                                                           |                        |                                                  |  |
|                                | Setup,Rise,Hold up Time                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 1.2s,60ms,55ms/230VAC(at full load)2.0s,60ms,10ms/115VAC(at full load)                                           |                        |                                                  |  |
| Input                          | Rated Voltage Range                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 100-240VAC                                                                                                       |                        |                                                  |  |
|                                | AC Voltage Range                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 90-264VAC/127-370VDC                                                                                             |                        |                                                  |  |
|                                | Frequency Range                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 47-63Hz                                                                                                          |                        |                                                  |  |
|                                | AC Current                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 1.45A/115VAC0.9A/230VAC                                                                                          |                        |                                                  |  |
|                                | Inrush Current                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Cold Start 110A/200us at 230VAC 50HzCold Start 40A/200us at 115VAC 50Hz                                          |                        |                                                  |  |
|                                | Efficiency                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 88%                                                                                                              |                        |                                                  |  |
| Protection                     | Over Load                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 105 ~ 130% rated output power<br>Shut down o/p voltage, recovers automatically after fault condition is removed. |                        |                                                  |  |
|                                | Reverse Over Voltage                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 24.5 ~ 25.5V<br>Shut down o/p voltage, re-power to recover.                                                      |                        |                                                  |  |
|                                | Short Circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Hiccup mode, recovers automatically after fault condition is removed.                                            |                        |                                                  |  |
|                                | Internal Fuse At L Pin                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | F5 A /250V                                                                                                       |                        |                                                  |  |
|                                | Over Voltage                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 29 ~ 33V<br>Shut down o/p voltage, recovers automatically after fault condition is removed.                      |                        |                                                  |  |
|                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                  |                        |                                                  |  |
| Ambient                        | Working TEMP.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | -30 ~ +70 C (Please refer to "Derating Curve"section)                                                            |                        |                                                  |  |
|                                | Start-up tested temp.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | -30 C (full load max.)                                                                                           |                        |                                                  |  |
|                                | Working Humidity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 20 ~ 95%RH Non-condensing                                                                                        |                        |                                                  |  |
|                                | Storage TEMP. Humidity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | -40 ~ +85 C ,10 ~ 95%RH Non-condensing                                                                           |                        |                                                  |  |
|                                | TEMP. Coefficient                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | ±0.03%/(0 ~ 60 C ) on load output                                                                                |                        |                                                  |  |
|                                | Vibration                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Component: 10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes; Mounting: Compliance to IEC60068-2-6    |                        |                                                  |  |
|                                | Operating Altitude                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 2000 meters                                                                                                      |                        |                                                  |  |
|                                | Over Voltage Category                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | II; altitude up to 2000 meters                                                                                   |                        |                                                  |  |
| Function                       | DC OK Relay Contact Ratings                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 60VDC/0.3A, 30VDC/1A, 30VAC/0.5A resistive load(max.)                                                            |                        |                                                  |  |
| Safety                         | Safety Standards                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | UL508, BS/EN62368-1                                                                                              |                        |                                                  |  |
|                                | Withstand Voltage                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | I/P-O/P:3KVAC I/P-FG:2KVAC O/P-FG:0.5KVAC                                                                        |                        |                                                  |  |
|                                | Isolation Resistance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | I/P-O/P:100M Ohms / 500VDC / 25 C / 70% RH                                                                       |                        |                                                  |  |
| EMC                            | EMC Emission                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Parameter                                                                                                        | Standard               | Test Level                                       |  |
|                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Conducted                                                                                                        | BS EN/EN55032(CISPR32) | CLASS B                                          |  |
|                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Radiated                                                                                                         | BS EN/EN55032(CISPR32) | CLASS B                                          |  |
|                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Harmonic Current                                                                                                 | EN61000-3-2            | CLASS A                                          |  |
|                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Voltage flicker                                                                                                  | EN61000-3-3            | .....                                            |  |
|                                | EMC Immunity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | BS EN/EN55035, BS EN/EN61000-6-2, BS EN/EN61204-3                                                                |                        |                                                  |  |
|                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Parameter                                                                                                        | Standard               | Test Level                                       |  |
|                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ESD                                                                                                              | EN61000-4-2            | Level 3, 8KV air,Level 2, 4KV contact criteria A |  |
|                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Radiated Susceptibility                                                                                          | EN61000-4-3            | Level 3, criteria A                              |  |
|                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | EFT/Burest                                                                                                       | EN61000-4-4            | Level 3, criteria A                              |  |
|                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Surge                                                                                                            | EN61000-4-5            | Level 4, 2KV/L-N, criteria A                     |  |
|                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Conducted                                                                                                        | EN61000-4-6            | Level 3, criteria A                              |  |
|                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Magnetic Field                                                                                                   | EN61000-4-8            | Level 4, criteria A                              |  |
| Voltage Dips and interruptions | EN61000-4-11                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | >95% dip 0.5 periods, 30% dip 25 periods, >95% interruptions 250 periods                                         |                        |                                                  |  |
| Others                         | Packing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 500g/pcs; 31.5 x 30 x 30 cm; 20pcs/carton                                                                        |                        |                                                  |  |
|                                | Dimension (LxWxH)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 125 x 32 x 100.5 mm                                                                                              |                        |                                                  |  |
|                                | MTBF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 298.3Khrs min. MIL-HDBK-217F(25 C )                                                                              |                        |                                                  |  |
|                                | Housing material                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Aluminium / steel                                                                                                |                        |                                                  |  |
| Note                           | 1.Derating may be needed under low input voltage .Please check the derating curve for more details.<br>2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uF and 47uF parallel capacitor.<br>3.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".<br>4. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25 C of ambient temperature.<br>5.The ambient temperature derating of 3.5 C /1000m with fanless models and of 5 C /1000m with fan models for operating altitude higher than 2000m(6500ft). |                                                                                                                  |                        |                                                  |  |

# ANDR-75-24 SERIES

## 75W

### Drawing & Label

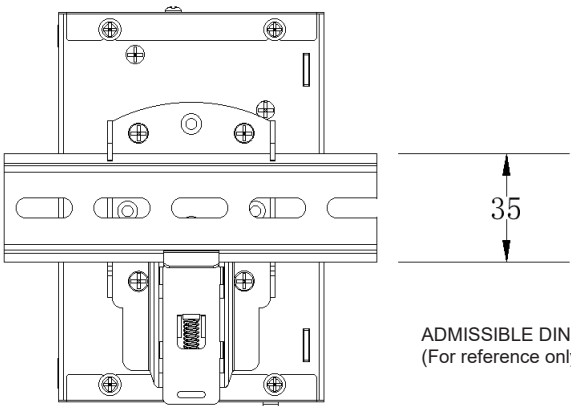
(Unit: mm , tolerance:  $\pm 1\text{mm}$ )



| Terminal Pin No Assignmnet (TB2) |              |
|----------------------------------|--------------|
| Pin No.                          | Assignment   |
| 1,2                              | DC OUTPUT -V |
| 3,4                              | DC OUTPUT +V |

| Terminal Pin No Assignmnet (TB1) |             |
|----------------------------------|-------------|
| Pin No.                          | Assignment  |
| 1                                | FG          |
| 2                                | AC/N or DC- |
| 3                                | AC/L or DC+ |

### Installation Instruction

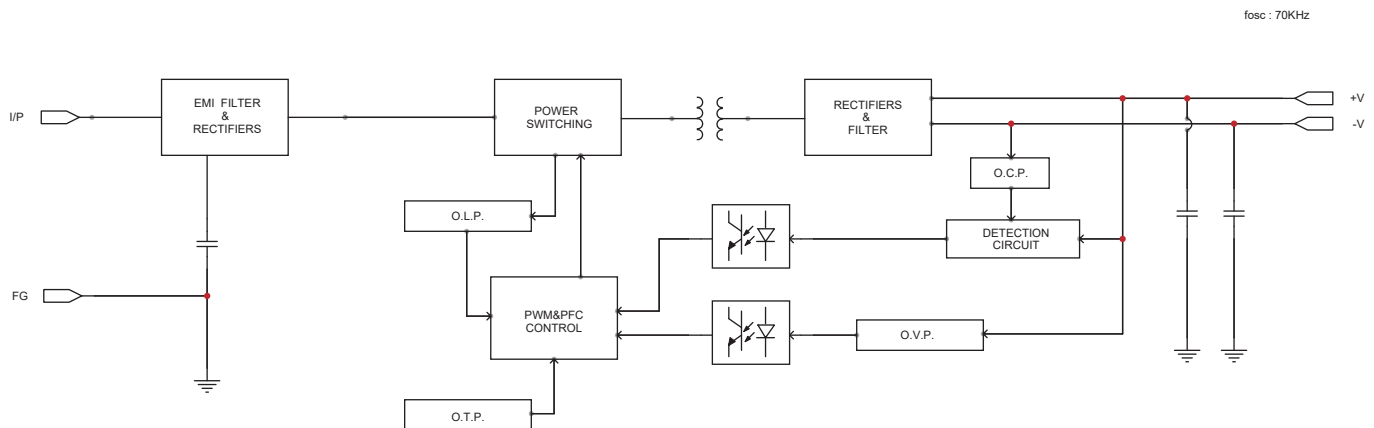


ADMISSIBLE DIN-RAIL: TS35/7.5 OR TS35/15  
(For reference only. Not included with unit.)

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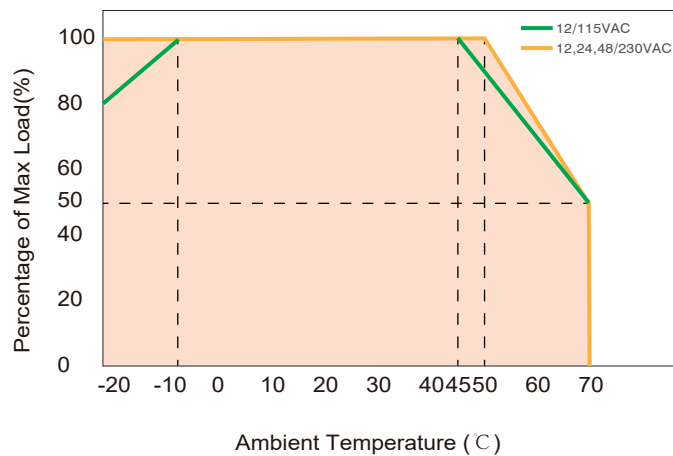
## 75W

### Block Diagram



### Engineering Data

#### Derating Curve



#### Static Characteristics

