

- ✂ 12Vdc up to 3.3A and 16V up to 1A output – Group I
- ✂ 12Vdc up to 1.5A – Group IIB
- ✂ 110Vac to 240Vac input
- ✂ Rectangular output characteristic
- ✂ Small size
- ✂ IECEx certified
- ✂ MSHA compliant



DESCRIPTION

The Power Supply Type AC36W is an intrinsically safe power supply that has a nominal output voltage of 12 volts DC and an output current of up to 3.3A or 16V DC and an output current of up to 1A. The AC36W is an active power supply. The AC36W is suitable for use in Group I and IIB applications. The AC36W power supply may be used to power intrinsically safe apparatus located in zone 0, 1 or 2.

The AC36W power supply can be powered from a nominal 100V or 240V AC power source to suit most applications in underground coalmines. The output of the power supply is galvanic isolated from the mains input and earth.

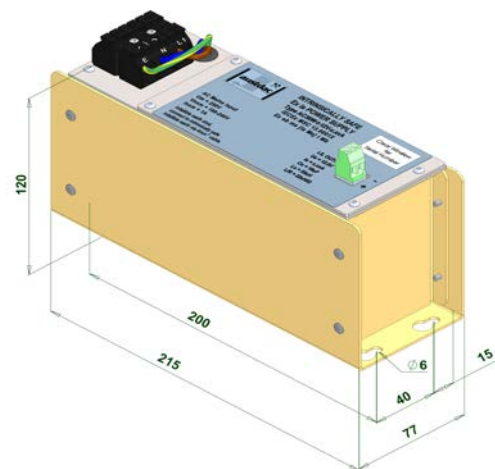
The AC36W is designed to be located in a safe area or within a minimum IP55 enclosure capable of provide mechanical protection to the AC36W.

CERTIFICATION

The Power Supply Type AC36W is IECEx certified for use in Group I and IIB hazardous areas under certificate IECEx MSC 13.0001X.

Marking Ex eb ma [ia Ma] I Mb
 Ex ma [ia Ma] I Mb
 Ex eb ma [ia Ga] IIB Gb T4
 Ex ma [ia Ga] IIB Gb T4

DIMENSIONS



SPECIFICATIONS

POWER SUPPLY

| | |
|-----------------------|--|
| Name | Power supply |
| Type | AC36W |
| Output type | Rectangular (10Ω ±5%) |
| Mains voltage | 100 to 240Vac |
| Mains frequency | 48-62Hz |
| Mains load | 1.0A |
| Terminations | Screw clamp |
| Conductor size | 2.5mm ² max |
| Mains fuse | 2 x 2A 600VAC ceramic 20mm x 5mm HRC 1500A rupturing capacity time lag |
| Operating temperature | 0°C to +40°C |
| Dimensions | 95mm (120mm including terminals) H x 77mm D x 215mm W |
| Mass | 3 kg |
| Enclosure material | Brass and steel |

OUTPUT – Group I

| | |
|----------------------------|--|
| Output voltage and current | 12.6V @ 0.1A – 1.0A 12.6V @ 1.05A – 3.3A 16V @ 0.1A - 0.5A 16V @ 0.55A – 1.0A |
|----------------------------|--|

OUTPUT – Group IIB

| | |
|----------------------------|-------------------|
| Output voltage and current | 12.6V @ 0.1A-1.5A |
|----------------------------|-------------------|

POWER SUPPLY

| | |
|------------------------------------|--|
| Input | Terminal block or integral mains cable |
| Output Voltage | 12.6 or 16.0VDC |
| Output Current (12.6V) – Group I | 0.1 to 3.3A in 0.05A steps |
| Output Current (12.6V) – Group IIB | 0.1 to 1.5A in 0.05A steps |
| Output Current (16V) | 0.1 to 1.0A in 0.05A steps |

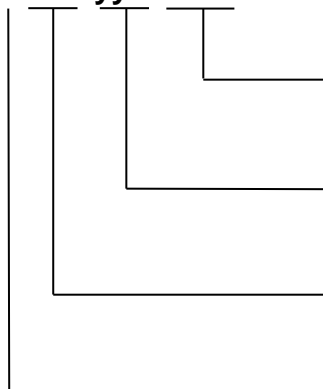
PARAMETERS

| Group | AC36W Model | Um | Uo | Io | Co | Lo | Lo/Ro |
|-----------|----------------------|------|-------|------|--------|------|----------|
| Group I | 12.6V @ 1.05 to 3.3A | 265V | 12.6V | 3.3A | 18uF | 55uH | 22uH/Ohm |
| Group I | 12.6V @ 0.1 to 1.0A | 265V | 12.6V | 1.0A | 22uF | 57uH | 61uH/Ohm |
| Group I | 16V @ 0.55 to 1.0A | 265V | 16.0V | 1.0A | 6uF | 33uH | 29uH/Ohm |
| Group I | 16V @ 0.1 to 0.5A | 265V | 16.0V | 0.5A | 11.5uF | 41uH | 53uH/Ohm |
| Group IIB | 12.6V @ 0.1 to 1.5A | 265V | 12.6V | 1.5A | 6.65uF | 54uH | 41uH/Ohm |

ORDERING DETAILS

| DESCRIPTION | ORDER CODE |
|-------------------------|------------------------|
| POWER SUPPLY TYPE AC36W | PSAC36W-n-xxV-yyA-xxxx |

PSAC36W-n-xxV-yyA-xxxx



Options:

- **GII** – Group IIB – up to 1.5A
- **MSHA** – MSHA compliant

Current Options:

- **12V** Standard values 1.0, 2.0, 2.35, 2.5 and 3.0A (other versions available as special order),
- **16V** Standard values 0.5 and 1.0A (other versions available as special order)

Voltage Options:

- **12V** or **16V**

Termination Options:

- **110 to 240V** Terminal block (W) – Group I & II
- **110 to 240V** Integral cable (C) – Group I only
- **110 to 170V** Terminal block ATEX (blank)



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