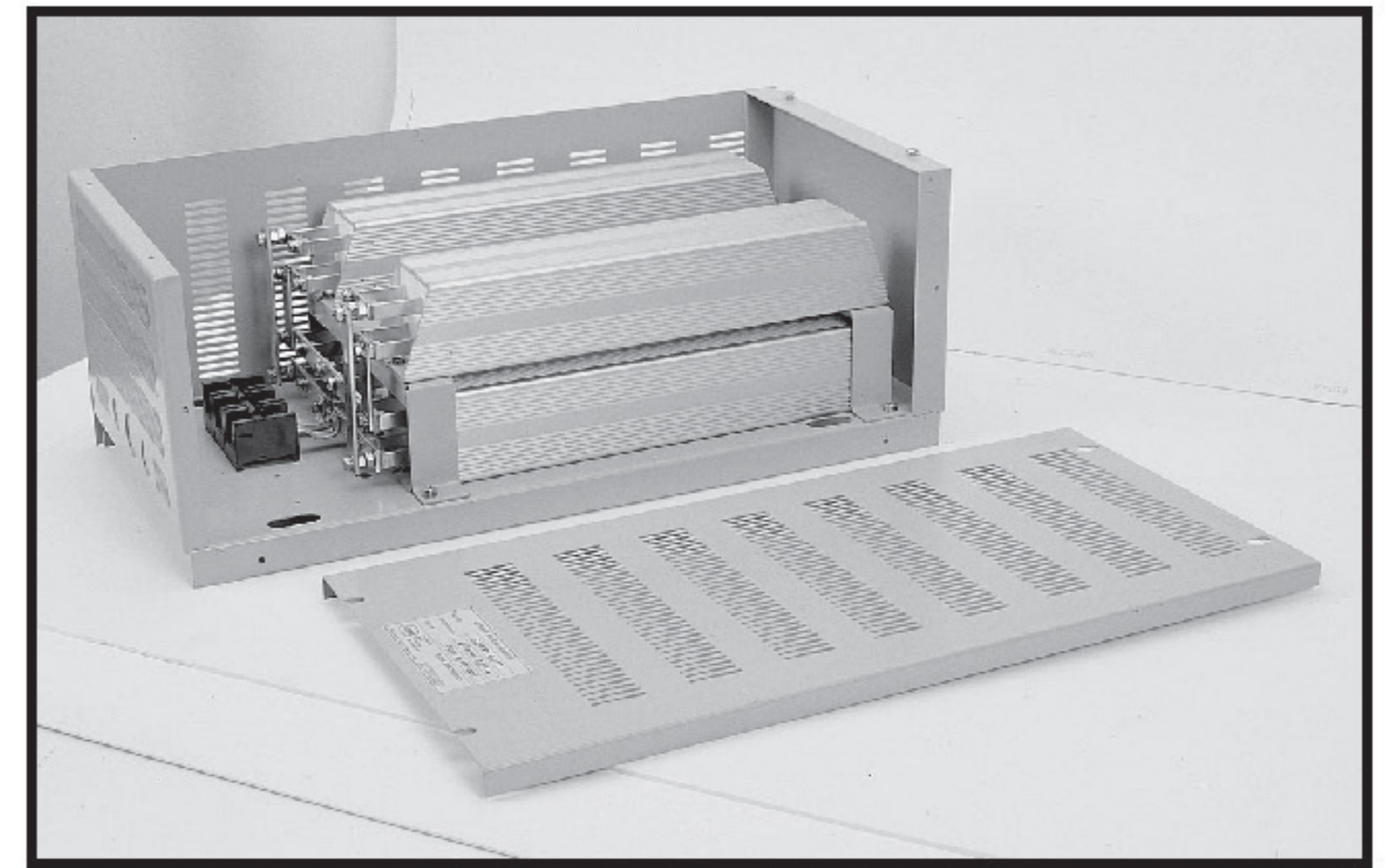


High Power Resistor Assemblies

The HRA series of high power, metal clad, wire wound resistors are designed for use in high power inverters. The basis for these models are sets of IRV resistors surrounded by a metal case, which conforms to international safety specifications. The steel case is powder coated and baked for durability

GENERAL SPECIFICATIONS

| Model | Resistor Type Inside | Power Rating | | Resistance Range[Ω] | | Resistance Tolerance(%) |
|-------------|----------------------|--------------|----------|---------------------|---------------|---|
| | | In Free Air | With Fan | Inductive | Non-Inductive | |
| HRA(V)2400 | 2×IRV1200 | 960W | 1800W | 0.1 ~ 320 | 0.1 ~ 96 | D [±0.5] F [±1.0] G [±2.0] J [±5.0] K [±10] |
| HRA(V)3600 | 3×IRV1200 | 1250W | 2100W | 0.1 ~ 480 | 0.1 ~ 144 | |
| HRA(V)4800 | 4×IRV1200 | 1500W | 2400W | 0.1 ~ 640 | 0.1 ~ 192 | |
| HRA(V)6000 | 5×IRV1200 | 1700W | 2700W | 0.1 ~ 800 | 0.1 ~ 240 | |
| HRA(V)7200 | 6×IRV1200 | 1950W | 3100W | 0.1 ~ 960 | 0.1 ~ 288 | |
| HRA(V)8400 | 7×IRV1200 | 2200W | 3600W | 0.1 ~ 1120 | 0.1 ~ 336 | |
| HRA(V)9600 | 8×IRV1200 | 2600W | 4050W | 0.1 ~ 1280 | 0.1 ~ 384 | |
| HRA(V)10800 | 9×IRV1200 | 2900W | 4500W | 0.1 ~ 1440 | 0.1 ~ 432 | |
| HRA(V)12000 | 10×IRV1200 | 3200W | 5000W | 0.1 ~ 1600 | 0.1 ~ 480 | |



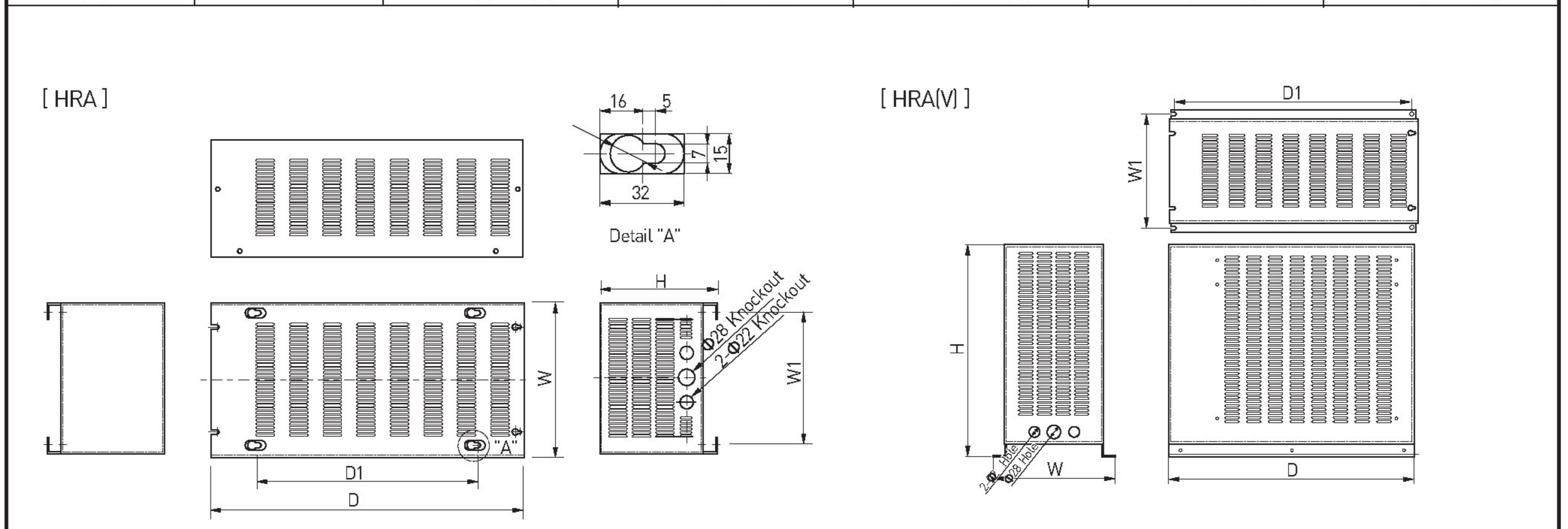
CHARACTERISTICS

Values in [] mean change in Ω after test

| | | |
|---------------------------------|-------------|---|
| Temperature Range | | -55°C to +200°C |
| Insulation Resistance | | 20MΩ minimum |
| Dielectric Withstanding Voltage | | Available options: AC1500V, 2500V, 3500V; maximum. leakage current: 2mA |
| Temp. Coefficient | | ±260ppm/°C maximum |
| Short Time Overload | ±[2%+0.05Ω] | 10×wattage rating-5 sec. |
| Moisture Resistance | ±[3%+0.05Ω] | 40°C, 95% RH, DC100V case to terminal (500hours) |
| Thermal Shock | ±[2%+0.05Ω] | Power rating 30 minutes, -25°C, 15 minutes |

DIMENSIONS [mm]

| Model | Weight [Kg] | Dimensions [mm] | | | | |
|-------------|-------------|-------------------|--------------|-------------------|-------------------|--------------|
| | | W±5 | D±5 | H±3 | W1±2 | D1±2 |
| HRA(V)2400 | 14.1 | 252 / 248(V) | 580 / 500(V) | 110 / 501(V) | 215 / 228(V) | 430 / 482(V) |
| HRA(V)3600 | 16.4 | 252 / 248(V) | 580 / 500(V) | 110 / 501(V) | 215 / 228(V) | 430 / 482(V) |
| HRA(V)4800 | 18.7 | 388[252] / 248(V) | 580 / 500(V) | 110[192] / 501(V) | 356[215] / 228(V) | 430 / 482(V) |
| HRA(V)6000 | 21.0 | 388[252] / 248(V) | 580 / 500(V) | 110[192] / 501(V) | 356[215] / 228(V) | 430 / 482(V) |
| HRA(V)7200 | 23.3 | 388[252] / 248(V) | 580 / 500(V) | 110[192] / 501(V) | 356[215] / 228(V) | 430 / 482(V) |
| HRA(V)8400 | 25.6 | 388 / 248(V) | 580 / 500(V) | 192 / 501(V) | 356 / 228(V) | 430 / 482(V) |
| HRA(V)9600 | 27.9 | 388 / 248(V) | 580 / 500(V) | 192 / 501(V) | 356 / 228(V) | 430 / 482(V) |
| HRA(V)10800 | 30.2 | 388 / 248(V) | 580 / 500(V) | 192 / 501(V) | 356 / 228(V) | 430 / 482(V) |
| HRA(V)12000 | 32.5 | 388 / 248(V) | 580 / 500(V) | 192 / 501(V) | 356 / 228(V) | 430 / 482(V) |



ORDERING PROCEDURE EXAMPLE

These models come with multiple conduit knockouts for easy wiring. The enclosure is well ventilated and meets int'l safety specs.

| | | | | | | |
|----------------|---------------|----------|------------|-------------------|------------------|-----------|
| HRA3000 | V | F | T | N | 100Ω | J |
| ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ |
| Model # | Vertical Type | Fan Type | Thermostat | For Non-inductive | Resistance Value | Tolerance |