



- Pre-charge & discharge resistors
- Slim 12mm profile aluminium housed
- Automotive grade
- Power ratings from 100W to 500W
- Resistance ranges from 1Ω to 5KΩ
- Tolerances of 0.5%, 1%, 5% 10%
- High voltage cable for EV, HEV & PHEV vehicles
- Compact design

RoHS  
Compliant ✓

#### Technical Data

Table 1

| Type                      | XV5-100                   | XV5-150  | XV5-200  | XV5-250    | XV5-300  | XV5-400  | XV5-500  |
|---------------------------|---------------------------|----------|----------|------------|----------|----------|----------|
| Power rating <sup>▲</sup> | 100W                      | 150W     | 200W     | 250W       | 300W     | 400W     | 500W     |
| Maximum voltage           | 850V                      | 850V     | 850V     | 1000V      | 1000V    | 1500V    | 1500V    |
| Resistance range          | 1Ω ~ 1KΩ                  | 1Ω ~ 1KΩ | 1Ω ~ 2KΩ | 1Ω ~ 2.5KΩ | 1Ω ~ 3KΩ | 1Ω ~ 4KΩ | 1Ω ~ 5KΩ |
| Resistance tolerance      | ± 0.5%, ± 1%, ± 5%, ± 10% |          |          |            |          |          |          |

▲ Power rating dependent on resistor being fixed to a heat sink with enough mass to ensure resistor surface temperature does not exceed 200°C. Refer to Fig. 1 Surface Temperature Rise for more information.

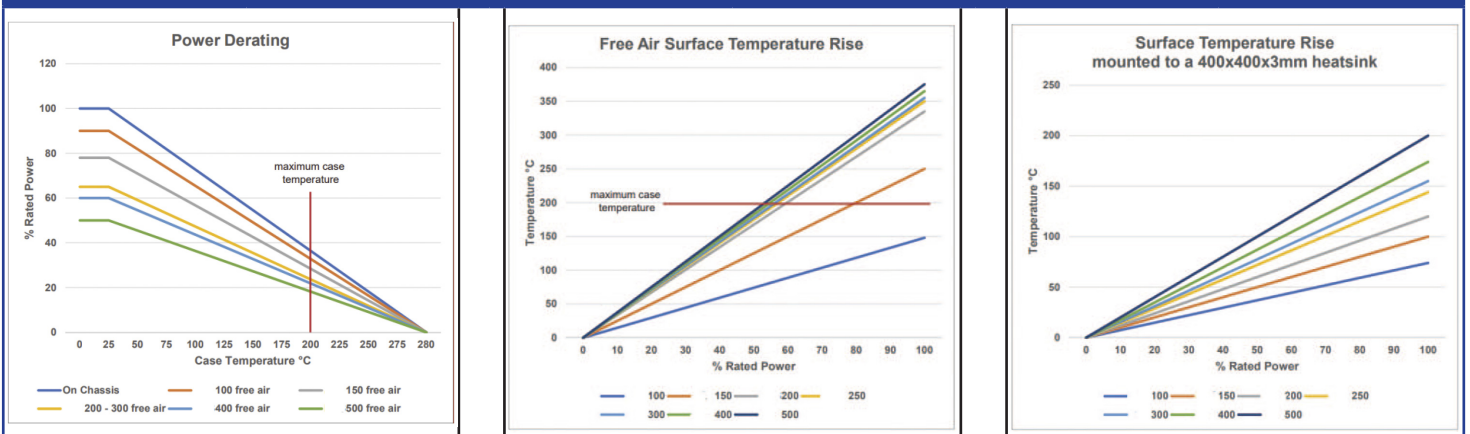
#### Performance Data

Table 2

|                              |                                                                                                         |
|------------------------------|---------------------------------------------------------------------------------------------------------|
| Design voltage               | $\sqrt{(P \times R)}$                                                                                   |
| Operating temperature range  | -55°C ~ +200°C                                                                                          |
| TCR                          | 1Ω: 1300ppm/°C   1.1Ω to 5Ω: 500ppm/°C   5.1Ω to 5KΩ: 260ppm/°C                                         |
| Dielectric withstand voltage | 2500VAC                                                                                                 |
| Insulation resistance        | 20MΩ minimum                                                                                            |
| Short time overload          | ± 1% +0.05Ω / 5 times rated power for 5 seconds                                                         |
| Load life                    | ± 5% +0.05Ω / 90 minutes rated power, 30 minutes off, 500hrs                                            |
| Thermal shock                | ± 2% +0.05Ω / 30 minutes rated power, 15 minutes - 25°C                                                 |
| Moisture resistance          | ± 2% +0.05Ω / 40°C, 95% RH, 100VDC case to terminal, 500hrs                                             |
| Moisture load life           | ± 2% +0.05Ω / 40°C, 95% RH, 90 minutes 10% rated load, 30 minutes off, 500hrs                           |
| Vibration                    | ± 1% +0.05Ω / 10Hz - 55Hz - 10Hz (1 minute) 2 hours each direction                                      |
| Terminations                 | Wire length 200mm ± 10mm. High voltage cable, Cu-R4XLPO-HV-3.0mm <sup>2</sup> (-40°C ~ +150°C / 3000hr) |

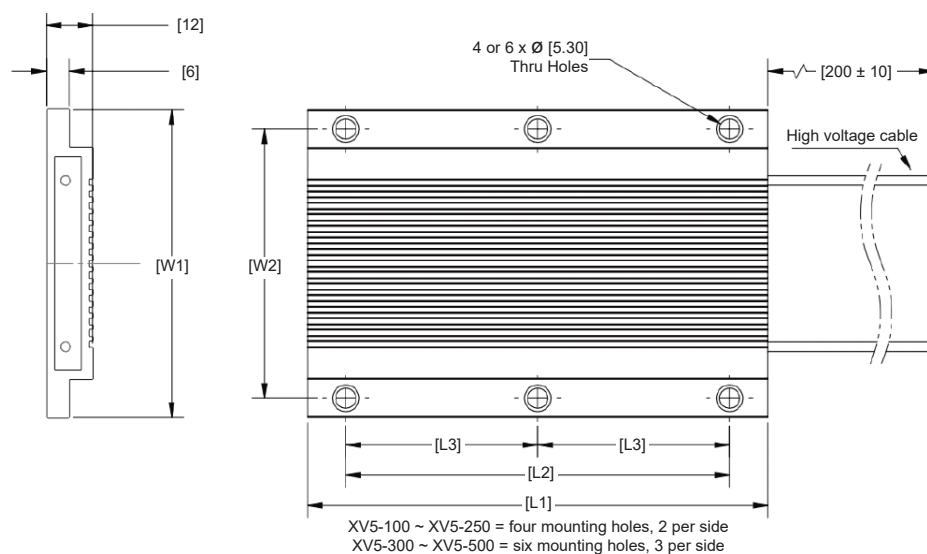
#### Performance graphs

Fig. 1



Dimensions (mm)

Fig. 2



Dimensions (mm)

Table 3

| Type    | L1 ± 1 | L2 ± 1 | L3 ± 1 | W ± 1 | W2 ± 1 | Weight (approx.) |
|---------|--------|--------|--------|-------|--------|------------------|
| XV5-100 | 90     | 70     | 35     | 80    | 70     | 180g             |
| XV5-150 | 120    | 100    | 50     | 80    | 70     | 240g             |
| XV5-200 | 150    | 130    | 65     | 80    | 70     | 280g             |
| XV5-250 | 180    | 160    | 80     | 80    | 70     | 330g             |
| XV5-300 | 210    | 190    | 95     | 80    | 70     | 380g             |
| XV5-400 | 270    | 250    | 125    | 80    | 70     | 486g             |
| XV5-500 | 330    | 310    | 155    | 80    | 70     | 610g             |

### Example Ordering Code

