



Typical Heat Pump Outputs

| In-Screed | | Approx Output (W/m ²) | | | |
|-------------------|-----|-----------------------------------|-------|------|--------|
| | | 150mm Pipe Centres | | | |
| Finish | | Tile | Vinyl | Wood | Carpet |
| Flow rate (l/min) | 1 | 75 | 65 | 53 | 49 |
| | 1.5 | 80 | 71 | 61 | 53 |
| | 2 | 87 | 77 | 66 | 56 |
| | 2.5 | 92 | 81 | 68 | 59 |
| | 3 | 95 | 83 | 69 | 59 |

| In-Screed | | Approx Output (W/m ²) | | | |
|-------------------|-----|-----------------------------------|-------|------|--------|
| | | 200mm Pipe Centres | | | |
| Finish | | Tile | Vinyl | Wood | Carpet |
| Flow rate (l/min) | 1 | 64 | 56 | 48 | 41 |
| | 1.5 | 71 | 62 | 53 | 46 |
| | 2 | 75 | 67 | 57 | 50 |
| | 2.5 | 79 | 71 | 60 | 53 |
| | 3 | 81 | 73 | 62 | 54 |

| 16mm Overlay | | Approx Output (W/m ²) | | | |
|-------------------|-----|-----------------------------------|-------|------|--------|
| | | 120mm Pipe Centres | | | |
| Finish | | Tile | Vinyl | Wood | Carpet |
| Flow rate (l/min) | 1 | 76 | 67 | 56 | |
| | 1.5 | 80 | 71 | 60 | |
| | 2 | 84 | 75 | 63 | |
| | 2.5 | 86 | 77 | 65 | |
| | 3 | 88 | 79 | 66 | |

| 20mm Overlay | | Approx Output (W/m ²) | | | |
|-------------------|-----|-----------------------------------|-------|------|--------|
| | | 150mm Pipe Centres | | | |
| Finish | | Tile | Vinyl | Wood | Carpet |
| Flow rate (l/min) | 1 | 54 | 48 | 42 | 39 |
| | 1.5 | 61 | 56 | 49 | 44 |
| | 2 | 66 | 59 | 53 | 48 |
| | 2.5 | 68 | 62 | 54 | 49 |
| | 3 | 72 | 63 | 56 | 50 |

| Alu Plates | | Approx Output (W/m ²) | | | |
|-------------------|-----|-----------------------------------|-------|------|--------|
| | | 150mm Pipe Centres | | | |
| Finish | | Tile | Vinyl | Wood | Carpet |
| Flow rate (l/min) | 1 | 49 | 44 | 38 | 33 |
| | 1.5 | 53 | 47 | 42 | 37 |
| | 2 | 56 | 50 | 44 | 39 |
| | 2.5 | 58 | 51 | 45 | 40 |
| | 3 | 59 | 52 | 46 | 41 |

| Alu Plates | | Approx Output (W/m ²) | | | |
|-------------------|-----|-----------------------------------|-------|------|--------|
| | | 200mm Pipe Centres | | | |
| Finish | | Tile | Vinyl | Wood | Carpet |
| Flow rate (l/min) | 1 | 45 | 41 | 35 | 32 |
| | 1.5 | 48 | 43 | 37 | 34 |
| | 2 | 51 | 45 | 39 | 36 |
| | 2.5 | 52 | 47 | 41 | 37 |
| | 3 | 53 | 48 | 42 | 38 |

| Finish | Resistance |
|------------------|------------------------|
| Tile | 0.02m ² K/W |
| Vinyl | 0.05m ² K/W |
| Wood | 0.1m ² K/W |
| Carpet (1.5 TOG) | 0.15m ² K/W |

Finishes based on the below resistances:

Outputs based on 45c flow with 100m pipe length (75m with 16mm Overlay) and 21croom temperature.

Overlay outputs based on flooring being installed directly over panel as per guidelines within installation guide.

Aluminum plate outputs based on 18mm Ply/chipboard intermediate layer.

Screed outputs based on pipework being installed into 65mm sand/cement screed and onto insulation that has a U-Value of at least 0.2w/m²k