

**Table A-1: IDF equation for Al Ain (Regions 2 and W2)**

Return Period	IDF Equation	R <sup>2</sup> value
100	$y = 737.18x^{-0.665}$	R <sup>2</sup> = 0.96
50	$y = 632.86x^{-0.665}$	R <sup>2</sup> = 0.98
25	$y = 512.94x^{-0.665}$	R <sup>2</sup> = 0.94
10	$y = 368.92x^{-0.665}$	R <sup>2</sup> = 0.97
5	$y = 258.03x^{-0.665}$	R <sup>2</sup> = 0.92
2	$y = 166.3x^{-0.667}$	R <sup>2</sup> = 0.90

## A4.2 Modified rational equation

When determining the total amount of runoff volume, the rational equation can be modified as follows:

$$R_V = CPA$$

Equation A4.2: Modified rational equation for runoff volume

Where:

RV = total volume of runoff (m<sup>3</sup>)

C = runoff coefficient refer to Table 3.6 and Table 3-7 (DMAT Drainage design manual).

P = precipitation depth (m) (precipitation depth from Figure A-1)