

図-4.1(4) 短時間確率降雨強度曲線 熊本ブロックⅡ-A

表-4.1(4) 短時間降雨強度式と降雨強度一覧表 (熊本ブロックⅡ-A)

確率年	降雨強度式	10分	20分	30分	40分	50分	60分	90分	120分	150分	180分
$\frac{1}{2}$	$r_2 = \frac{913}{t^{0.663} + 5.47}$	90.6	71.6	60.8	53.7	48.4	44.4	36.2	31.1	27.5	24.8
$\frac{1}{3}$	$r_3 = \frac{801}{t^{0.604} + 3.91}$	101.0	80.0	68.4	60.7	55.1	50.8	42.0	36.5	32.6	29.7
$\frac{1}{5}$	$r_5 = \frac{713}{t^{0.551} + 2.79}$	112.3	89.1	76.6	68.4	62.4	57.8	48.4	42.5	38.3	35.2
$\frac{1}{7}$	$r_7 = \frac{678}{t^{0.525} + 2.32}$	119.6	95.0	81.9	73.3	67.0	62.2	52.4	46.2	41.8	38.5
$\frac{1}{10}$	$r_{10} = \frac{647}{t^{0.501} + 1.94}$	126.6	100.7	87.0	78.1	71.6	66.6	56.4	50.0	45.4	41.9
$\frac{1}{20}$	$r_{20} = \frac{618}{t^{0.466} + 1.49}$	140.0	111.8	97.0	87.4	80.5	75.1	64.2	57.2	52.3	48.5
$\frac{1}{30}$	$r_{30} = \frac{590}{t^{0.445} + 1.18}$	148.8	118.6	103.1	93.0	85.7	80.1	68.7	61.5	56.3	52.4
$\frac{1}{50}$	$r_{50} = \frac{581}{t^{0.427} + 1.00}$	158.2	126.5	110.2	99.6	92.0	86.1	74.2	66.6	61.2	57.1
$\frac{1}{80}$	$r_{80} = \frac{562}{t^{0.409} + 0.80}$	167.0	133.6	116.6	105.6	97.7	91.6	79.2	71.3	65.6	61.3
$\frac{1}{100}$	$r_{100} = \frac{562}{t^{0.403} + 0.75}$	171.4	137.3	119.9	108.7	100.6	94.3	81.7	73.6	67.9	63.5
$\frac{1}{200}$	$r_{200} = \frac{552}{t^{0.384} + 0.57}$	184.6	148.0	129.5	117.6	109.1	102.5	89.0	80.5	74.4	69.7

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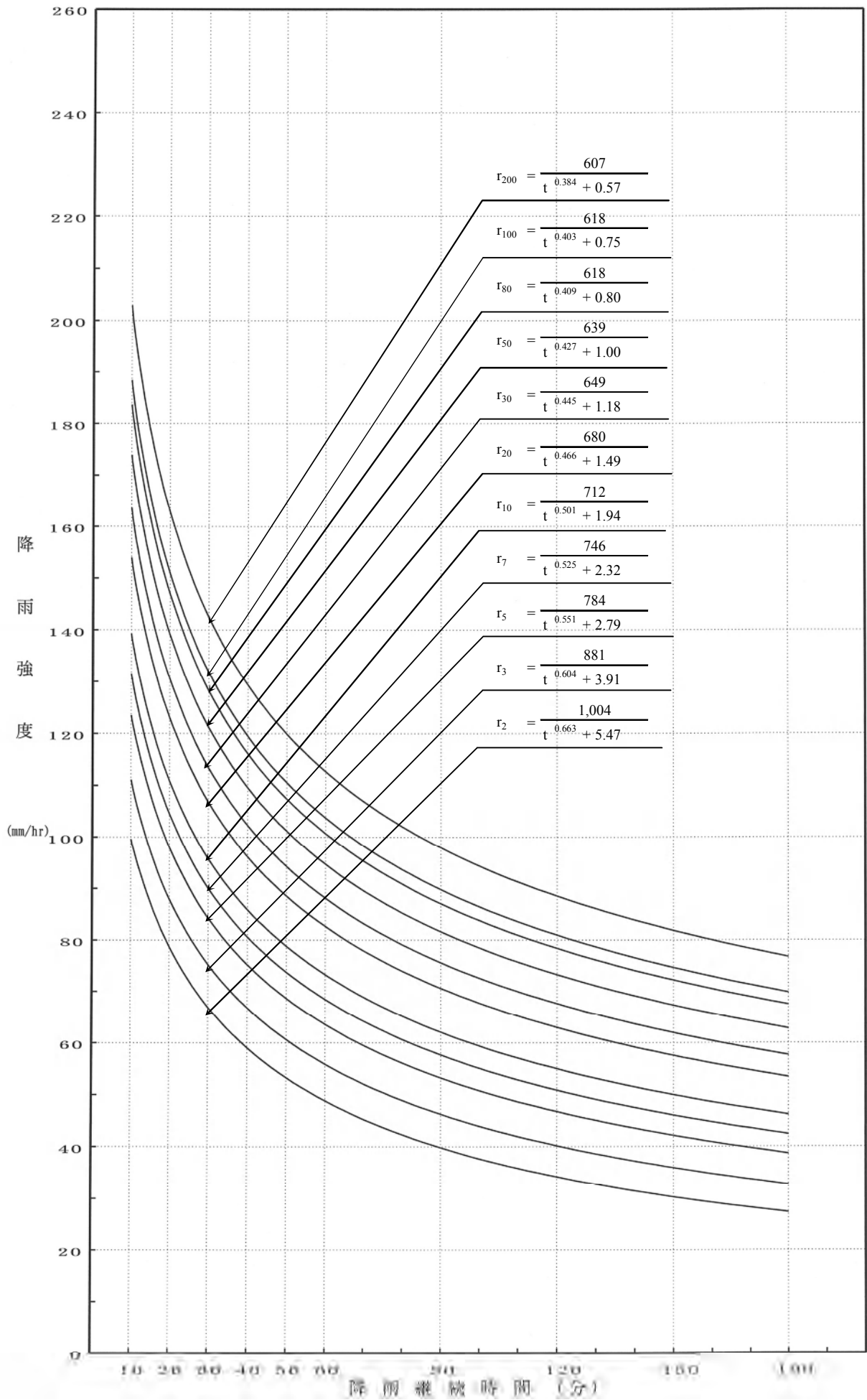


図-4.1(5) 短時間確率降雨強度曲線 熊本ブロックⅡ-B

表-4.1(5) 短時間降雨強度式と降雨強度一覧表 (熊本ブロックⅡ-B)

確率年	降雨強度式	10分	20分	30分	40分	50分	60分	90分	120分	150分	180分
$\frac{1}{2}$	$r_2 = \frac{1,004}{t^{0.663} + 5.47}$	99.7	78.7	66.9	59.0	53.3	48.8	39.8	34.2	30.3	27.3
$\frac{1}{3}$	$r_3 = \frac{881}{t^{0.604} + 3.91}$	111.1	88.0	75.2	66.8	60.6	55.9	46.2	40.2	35.9	32.7
$\frac{1}{5}$	$r_5 = \frac{784}{t^{0.551} + 2.79}$	123.5	98.0	84.3	75.2	68.6	63.6	53.2	46.7	42.1	38.7
$\frac{1}{7}$	$r_7 = \frac{746}{t^{0.525} + 2.32}$	131.6	104.5	90.1	80.6	73.7	68.4	57.7	50.9	46.0	42.4
$\frac{1}{10}$	$r_{10} = \frac{712}{t^{0.501} + 1.94}$	139.3	110.8	95.8	85.9	78.8	73.3	62.1	55.0	50.0	46.2
$\frac{1}{20}$	$r_{20} = \frac{680}{t^{0.466} + 1.49}$	154.0	123.0	106.8	96.2	88.5	82.6	70.6	63.0	57.5	53.4
$\frac{1}{30}$	$r_{30} = \frac{649}{t^{0.445} + 1.18}$	163.6	130.5	113.4	102.3	94.3	88.1	75.6	67.6	61.9	57.6
$\frac{1}{50}$	$r_{50} = \frac{639}{t^{0.427} + 1.00}$	174.0	139.1	121.2	109.6	101.2	94.7	81.6	73.3	67.3	62.7
$\frac{1}{80}$	$r_{80} = \frac{618}{t^{0.409} + 0.80}$	183.7	147.0	128.2	116.1	107.4	100.7	87.1	78.4	72.2	67.4
$\frac{1}{100}$	$r_{100} = \frac{618}{t^{0.403} + 0.75}$	188.5	150.9	131.8	119.5	110.6	103.7	89.8	80.9	74.6	69.8
$\frac{1}{200}$	$r_{200} = \frac{607}{t^{0.384} + 0.57}$	202.9	162.8	142.4	129.3	119.9	112.7	97.9	88.5	81.8	76.7

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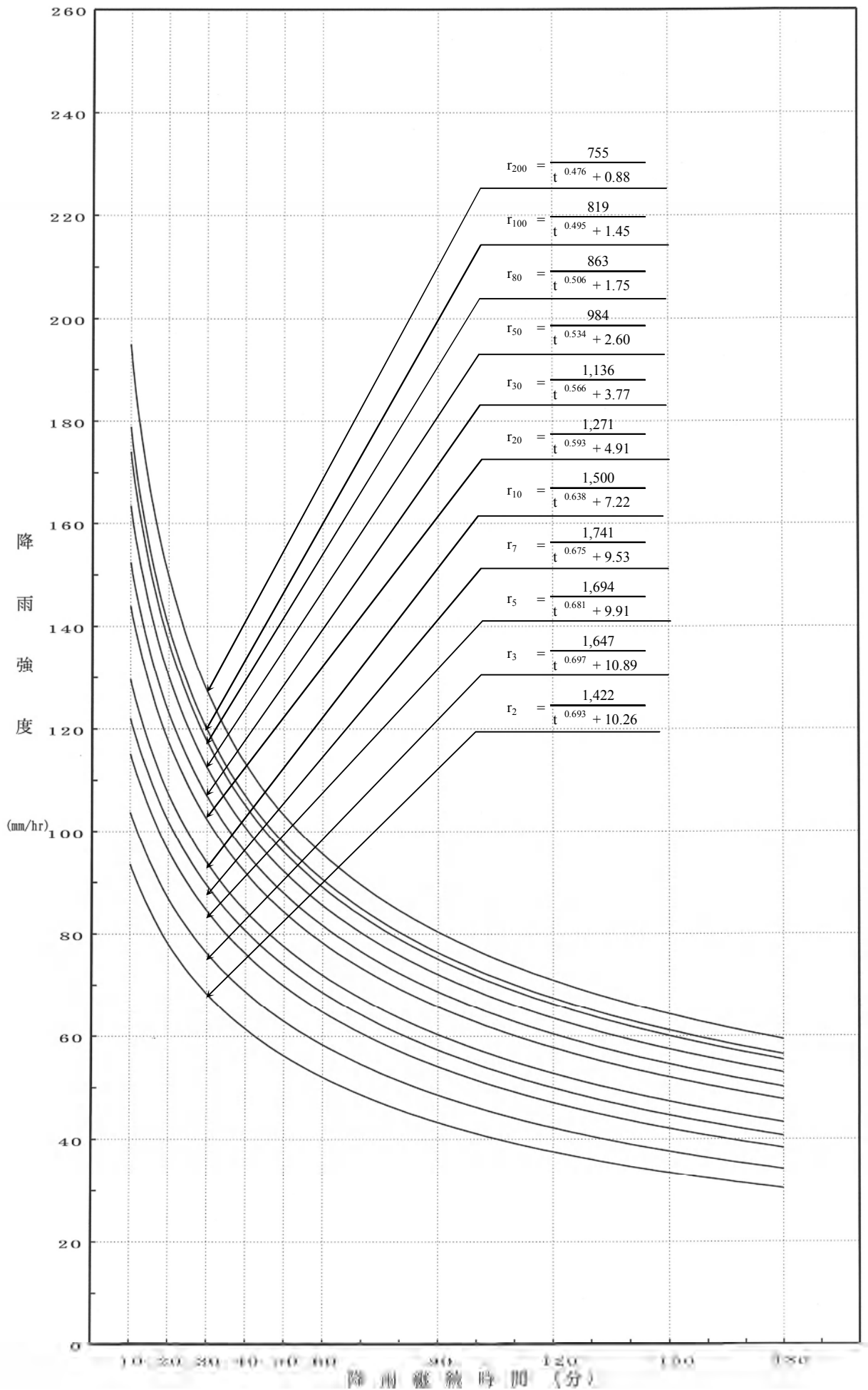


図-4.1(6) 短時間確率降雨強度曲線 阿蘇ブロックⅢ-A

表-4.1(6) 短時間降雨強度式と降雨強度一覧表 (阿蘇ブロックⅢ-A)

確率年	降雨強度式	10分	20分	30分	40分	50分	60分	90分	120分	150分	180分
$\frac{1}{2}$	$r_2 = \frac{1,422}{t^{0.693} + 10.26}$	93.6	78.0	68.3	61.4	56.2	52.0	43.3	37.6	33.5	30.4
$\frac{1}{3}$	$r_3 = \frac{1,647}{t^{0.697} + 10.89}$	103.8	86.9	76.3	68.7	62.9	58.3	48.6	42.2	37.6	34.2
$\frac{1}{5}$	$r_5 = \frac{1,694}{t^{0.681} + 9.91}$	115.2	96.2	84.5	76.2	69.8	64.7	54.1	47.1	42.1	38.3
$\frac{1}{7}$	$r_7 = \frac{1,741}{t^{0.675} + 9.53}$	122.1	101.9	89.5	80.6	73.9	68.6	57.3	50.0	44.7	40.7
$\frac{1}{10}$	$r_{10} = \frac{1,500}{t^{0.638} + 7.22}$	129.7	107.3	93.9	84.5	77.5	71.9	60.3	52.8	47.4	43.2
$\frac{1}{20}$	$r_{20} = \frac{1,271}{t^{0.593} + 4.91}$	144.0	117.5	102.3	91.9	84.3	78.2	65.8	57.8	52.0	47.7
$\frac{1}{30}$	$r_{30} = \frac{1,136}{t^{0.566} + 3.77}$	152.5	123.2	106.9	96.0	87.9	81.6	68.7	60.4	54.6	50.1
$\frac{1}{50}$	$r_{50} = \frac{984}{t^{0.534} + 2.60}$	163.5	130.3	112.5	100.7	92.2	85.5	72.1	63.5	57.5	52.9
$\frac{1}{80}$	$r_{80} = \frac{863}{t^{0.506} + 1.75}$	174.1	136.9	117.6	105.0	96.0	89.1	75.1	66.3	60.1	55.4
$\frac{1}{100}$	$r_{100} = \frac{819}{t^{0.495} + 1.45}$	179.0	139.9	119.8	106.9	97.7	90.6	76.4	67.4	61.1	56.4
$\frac{1}{200}$	$r_{200} = \frac{755}{t^{0.476} + 0.88}$	195.0	149.7	127.4	113.2	103.2	95.6	80.4	70.9	64.3	59.3

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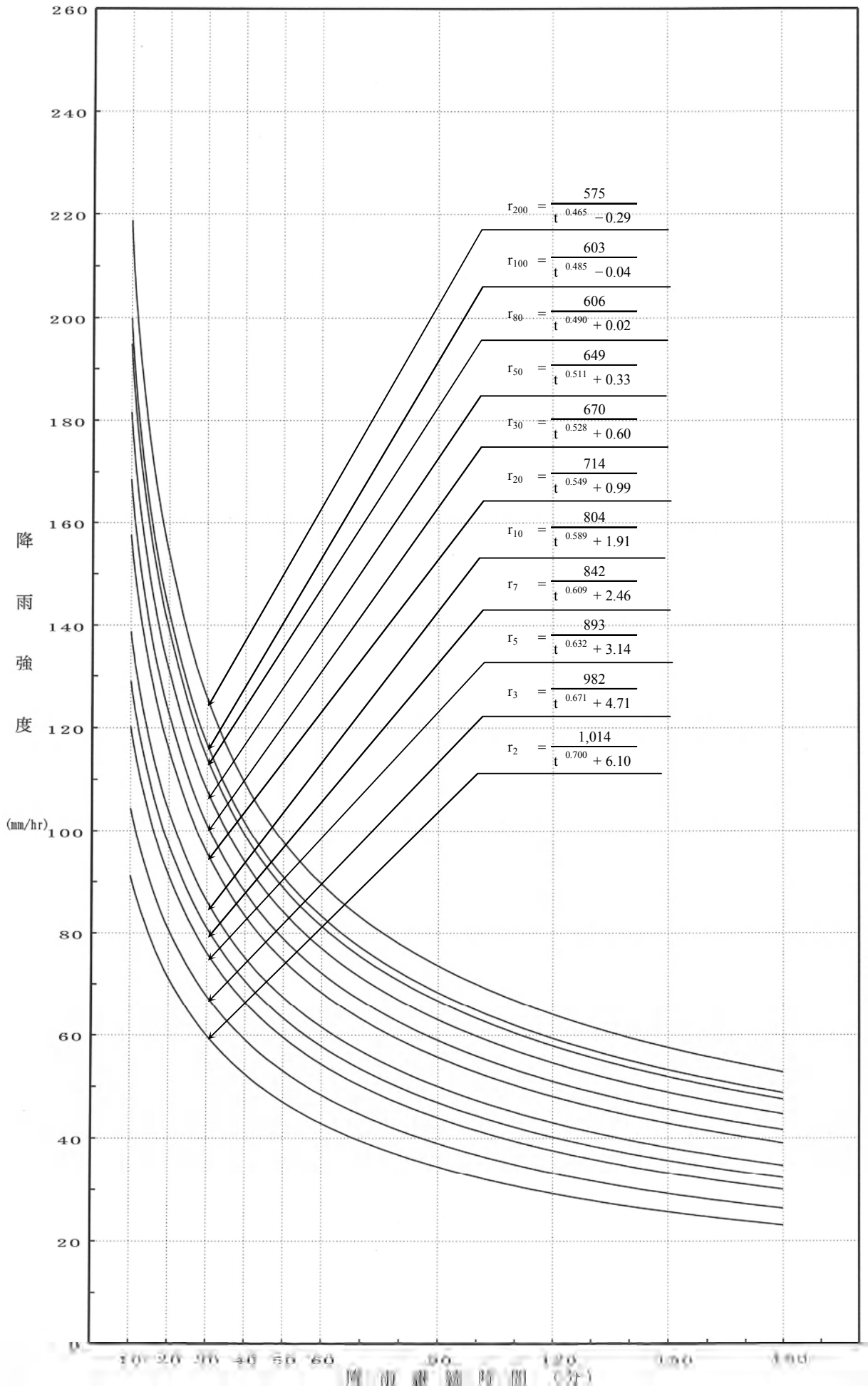


図-4.1(7) 短時間確率降雨強度曲線 八代ブロックⅣ-A

表-4.1(7) 短時間降雨強度式と降雨強度一覧表 (八代ブロックIV-A)

確率年	降雨強度式	10分	20分	30分	40分	50分	60分	90分	120分	150分	180分
$\frac{1}{2}$	$r_2 = \frac{1,014}{t^{0.700} + 6.10}$	91.3	71.2	60.0	52.5	47.0	42.8	34.5	29.3	25.7	23.0
$\frac{1}{3}$	$r_3 = \frac{982}{t^{0.671} + 4.71}$	104.5	80.7	67.7	59.2	53.0	48.3	39.0	33.2	29.3	26.3
$\frac{1}{5}$	$r_5 = \frac{893}{t^{0.632} + 3.14}$	120.3	91.3	76.2	66.5	59.6	54.3	43.9	37.6	33.2	30.0
$\frac{1}{7}$	$r_7 = \frac{842}{t^{0.609} + 2.46}$	129.1	97.2	81.0	70.7	63.4	57.8	46.9	40.2	35.7	32.3
$\frac{1}{10}$	$r_{10} = \frac{804}{t^{0.589} + 1.91}$	138.8	103.8	86.2	75.2	67.4	61.6	50.0	43.0	38.2	34.6
$\frac{1}{20}$	$r_{20} = \frac{714}{t^{0.549} + 0.99}$	157.6	115.7	95.7	83.3	74.7	68.3	55.7	48.1	42.9	39.0
$\frac{1}{30}$	$r_{30} = \frac{670}{t^{0.528} + 0.60}$	168.6	122.6	101.1	88.0	78.9	72.1	59.0	51.0	45.6	41.6
$\frac{1}{50}$	$r_{50} = \frac{649}{t^{0.511} + 0.33}$	181.6	131.1	107.9	93.8	84.2	77.0	63.0	54.6	48.9	44.7
$\frac{1}{80}$	$r_{80} = \frac{606}{t^{0.490} + 0.02}$	194.8	139.0	114.0	99.1	88.9	81.3	66.7	57.9	51.9	47.5
$\frac{1}{100}$	$r_{100} = \frac{603}{t^{0.485} - 0.04}$	200.0	142.4	116.8	101.4	91.0	83.2	68.3	59.4	53.3	48.7
$\frac{1}{200}$	$r_{200} = \frac{575}{t^{0.465} - 0.29}$	218.8	153.9	125.8	109.1	97.9	89.5	73.6	64.1	57.6	52.8

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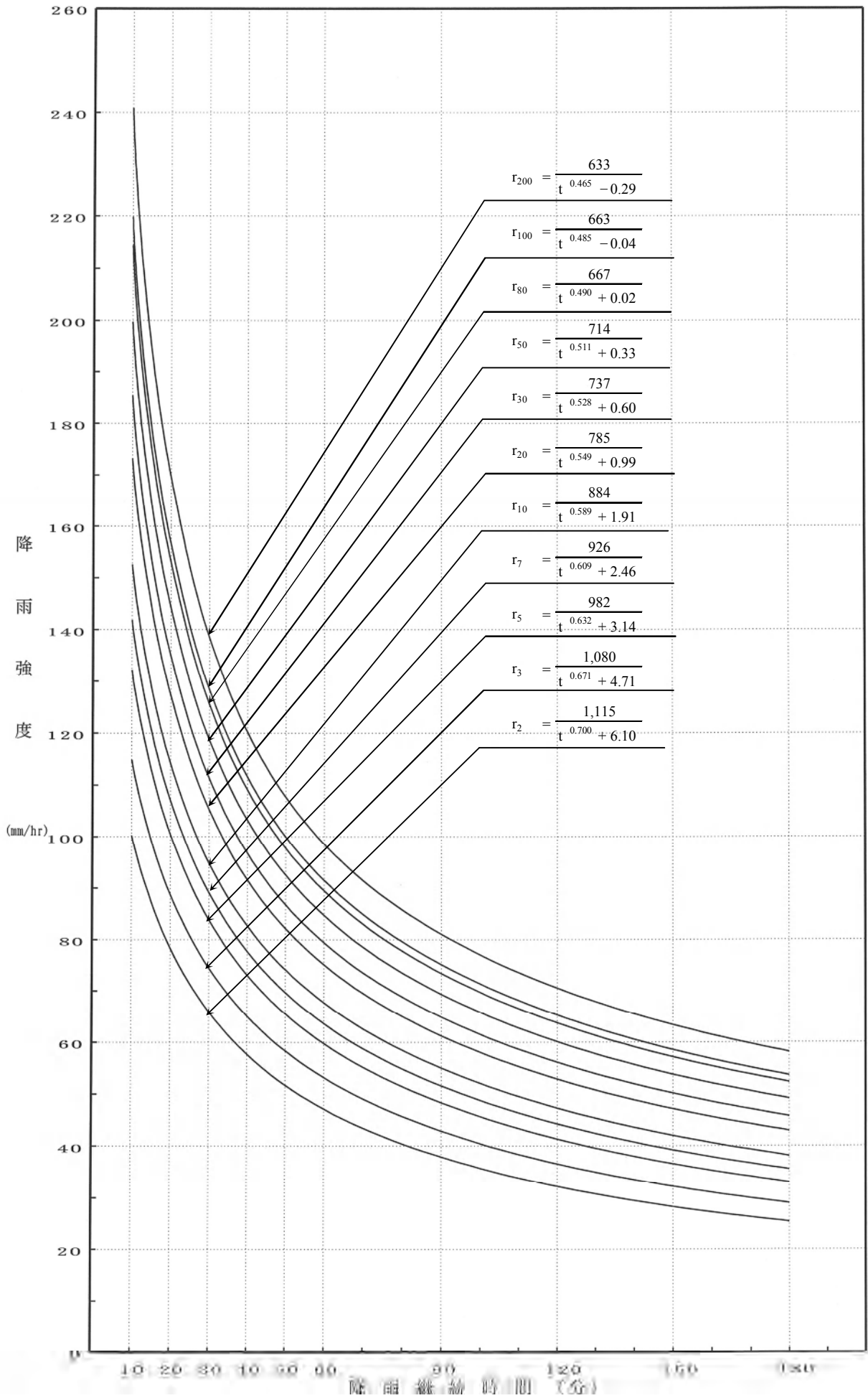


図-4.1(8) 短時間確率降雨強度曲線 八代ブロックⅣ-B

表-4.1(8) 短時間降雨強度式と降雨強度一覧表 (八代ブロックIV-B)

確率年	降雨強度式	10分	20分	30分	40分	50分	60分	90分	120分	150分	180分
$\frac{1}{2}$	$r_2 = \frac{1,115}{t^{0.700} + 6.10}$	100.3	78.3	65.9	57.7	51.7	47.1	37.9	32.2	28.3	25.3
$\frac{1}{3}$	$r_3 = \frac{1,080}{t^{0.671} + 4.71}$	114.9	88.7	74.4	65.1	58.3	53.2	42.9	36.5	32.2	28.9
$\frac{1}{5}$	$r_5 = \frac{982}{t^{0.632} + 3.14}$	132.2	100.4	83.8	73.1	65.5	59.7	48.3	41.4	36.5	33.0
$\frac{1}{7}$	$r_7 = \frac{926}{t^{0.609} + 2.46}$	141.9	106.9	89.1	77.7	69.7	63.6	51.6	44.3	39.2	35.5
$\frac{1}{10}$	$r_{10} = \frac{884}{t^{0.589} + 1.91}$	152.6	114.1	94.8	82.7	74.1	67.7	55.0	47.3	42.0	38.1
$\frac{1}{20}$	$r_{20} = \frac{785}{t^{0.549} + 0.99}$	173.3	127.2	105.2	91.6	82.2	75.1	61.2	52.9	47.2	42.9
$\frac{1}{30}$	$r_{30} = \frac{737}{t^{0.528} + 0.60}$	185.5	134.9	111.3	96.8	86.8	79.4	64.9	56.1	50.2	45.7
$\frac{1}{50}$	$r_{50} = \frac{714}{t^{0.511} + 0.33}$	199.8	144.2	118.7	103.2	92.6	84.7	69.3	60.1	53.8	49.1
$\frac{1}{80}$	$r_{80} = \frac{667}{t^{0.490} + 0.02}$	214.4	153.0	125.5	109.1	97.8	89.5	73.4	63.8	57.2	52.3
$\frac{1}{100}$	$r_{100} = \frac{663}{t^{0.485} - 0.04}$	219.9	156.5	128.4	111.5	100.0	91.5	75.1	65.3	58.6	53.6
$\frac{1}{200}$	$r_{200} = \frac{633}{t^{0.465} - 0.29}$	240.9	169.4	138.4	120.1	107.7	98.6	81.0	70.5	63.4	58.1

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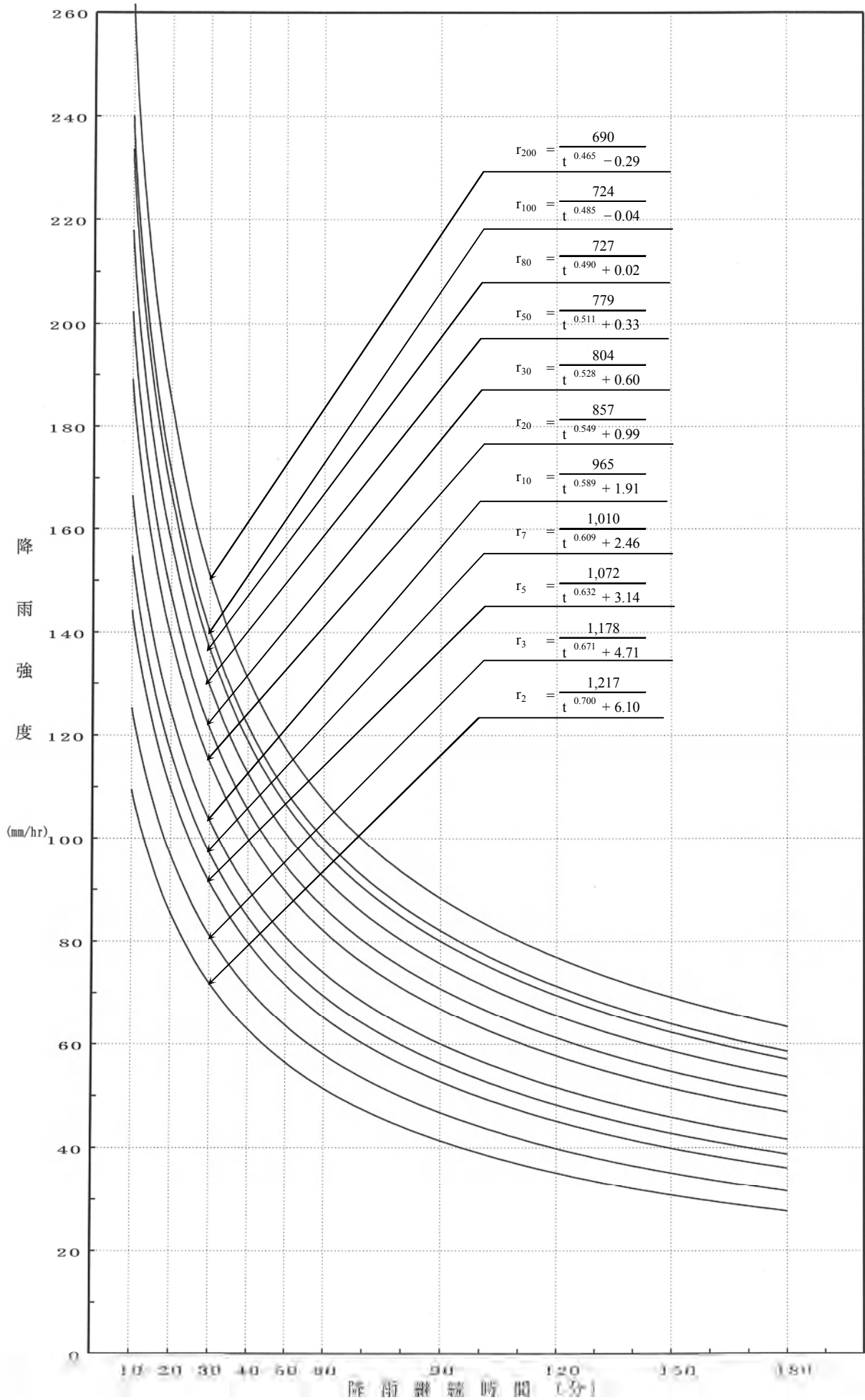


図-4.1(9) 短時間確率降雨強度曲線 八代ブロックⅣ-C

表-4.1(9) 短時間降雨強度式と降雨強度一覧表 (八代ブロックIV-C)

確率年	降雨強度式	10分	20分	30分	40分	50分	60分	90分	120分	150分	180分
$\frac{1}{2}$	$r_2 = \frac{1,217}{t^{0.700} + 6.10}$	109.5	85.5	72.0	63.0	56.4	51.4	41.3	35.1	30.8	27.7
$\frac{1}{3}$	$r_3 = \frac{1,178}{t^{0.671} + 4.71}$	125.3	96.8	81.2	71.0	63.6	58.0	46.8	39.9	35.1	31.6
$\frac{1}{5}$	$r_5 = \frac{1,072}{t^{0.632} + 3.14}$	144.4	109.6	91.5	79.8	71.5	65.2	52.7	45.1	39.9	36.0
$\frac{1}{7}$	$r_7 = \frac{1,010}{t^{0.609} + 2.46}$	154.8	116.6	97.2	84.8	76.0	69.4	56.3	48.3	42.8	38.7
$\frac{1}{10}$	$r_{10} = \frac{965}{t^{0.589} + 1.91}$	166.6	124.5	103.5	90.3	80.9	73.9	60.1	51.6	45.9	41.6
$\frac{1}{20}$	$r_{20} = \frac{857}{t^{0.549} + 0.99}$	189.2	138.9	114.9	100.0	89.7	82.0	66.9	57.7	51.5	46.8
$\frac{1}{30}$	$r_{30} = \frac{804}{t^{0.528} + 0.60}$	202.4	147.2	121.4	105.6	94.7	86.6	70.8	61.3	54.7	49.9
$\frac{1}{50}$	$r_{50} = \frac{779}{t^{0.511} + 0.33}$	218.0	157.3	129.5	112.6	101.0	92.4	75.6	65.6	58.7	53.6
$\frac{1}{80}$	$r_{80} = \frac{727}{t^{0.490} + 0.02}$	233.7	166.7	136.8	118.9	106.6	97.5	80.0	69.5	62.3	57.0
$\frac{1}{100}$	$r_{100} = \frac{724}{t^{0.485} - 0.04}$	240.1	170.9	140.2	121.8	109.2	99.9	82.0	71.3	64.0	58.5
$\frac{1}{200}$	$r_{200} = \frac{690}{t^{0.465} - 0.29}$	262.6	184.6	150.9	131.0	117.4	107.4	88.3	76.9	69.1	63.3

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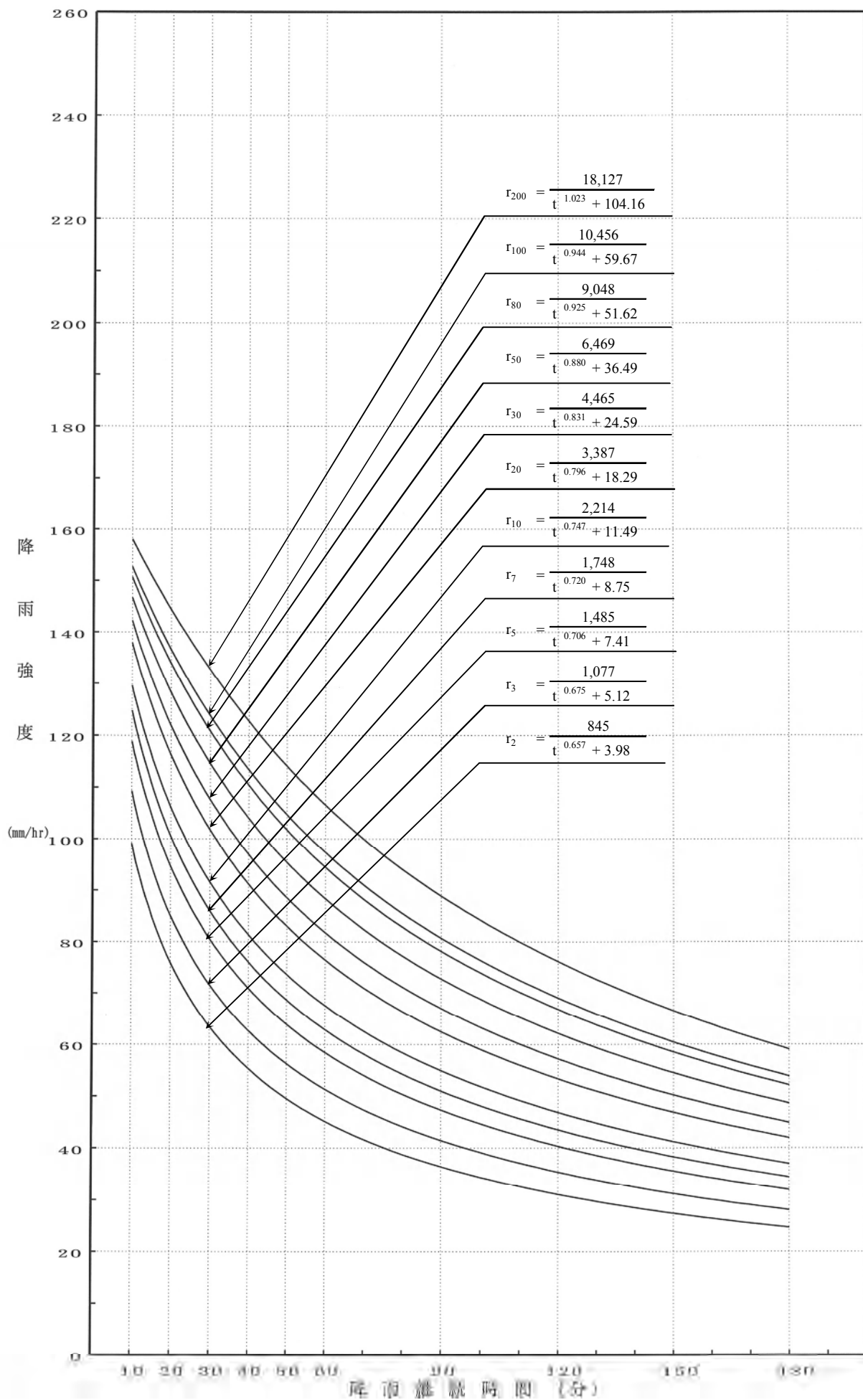


図-4.1(10) 短時間確率降雨強度曲線 球磨ブロックV-A

表-4.1(10) 短時間降雨強度式と降雨強度一覧表 (球磨ブロックV-A)

確率年	降雨強度式	10分	20分	30分	40分	50分	60分	90分	120分	150分	180分
$\frac{1}{2}$	$r_2 = \frac{845}{t^{0.657} + 3.98}$	99.2	75.9	63.4	55.4	49.6	45.2	36.4	31.1	27.4	24.6
$\frac{1}{3}$	$r_3 = \frac{1,077}{t^{0.675} + 5.12}$	109.3	85.0	71.5	62.7	56.3	51.3	41.5	35.4	31.2	28.0
$\frac{1}{5}$	$r_5 = \frac{1,485}{t^{0.706} + 7.41}$	118.9	94.6	80.5	70.9	63.9	58.4	47.3	40.4	35.5	31.9
$\frac{1}{7}$	$r_7 = \frac{1,748}{t^{0.720} + 8.75}$	124.9	100.5	86.0	76.0	68.6	62.8	51.0	43.5	38.3	34.4
$\frac{1}{10}$	$r_{10} = \frac{2,214}{t^{0.747} + 11.49}$	129.7	106.1	91.6	81.3	73.6	67.5	54.9	46.9	41.2	37.0
$\frac{1}{20}$	$r_{20} = \frac{3,387}{t^{0.796} + 18.29}$	138.0	116.2	101.8	91.2	83.0	76.4	62.5	53.4	46.9	42.0
$\frac{1}{30}$	$r_{30} = \frac{4,465}{t^{0.831} + 24.59}$	142.3	121.8	107.7	97.0	88.6	81.7	67.0	57.2	50.2	44.9
$\frac{1}{50}$	$r_{50} = \frac{6,469}{t^{0.880} + 36.49}$	146.8	128.2	114.6	104.0	95.5	88.4	72.7	62.2	54.5	48.6
$\frac{1}{80}$	$r_{80} = \frac{9,048}{t^{0.925} + 51.62}$	150.7	133.9	120.9	110.4	101.8	94.5	78.1	66.8	58.5	52.1
$\frac{1}{100}$	$r_{100} = \frac{10,456}{t^{0.944} + 59.67}$	152.7	136.5	123.8	113.4	104.7	97.4	80.7	69.0	60.4	53.8
$\frac{1}{200}$	$r_{200} = \frac{18,127}{t^{1.023} + 104.16}$	158.0	144.3	132.7	122.7	114.1	106.6	88.9	76.1	66.5	59.0

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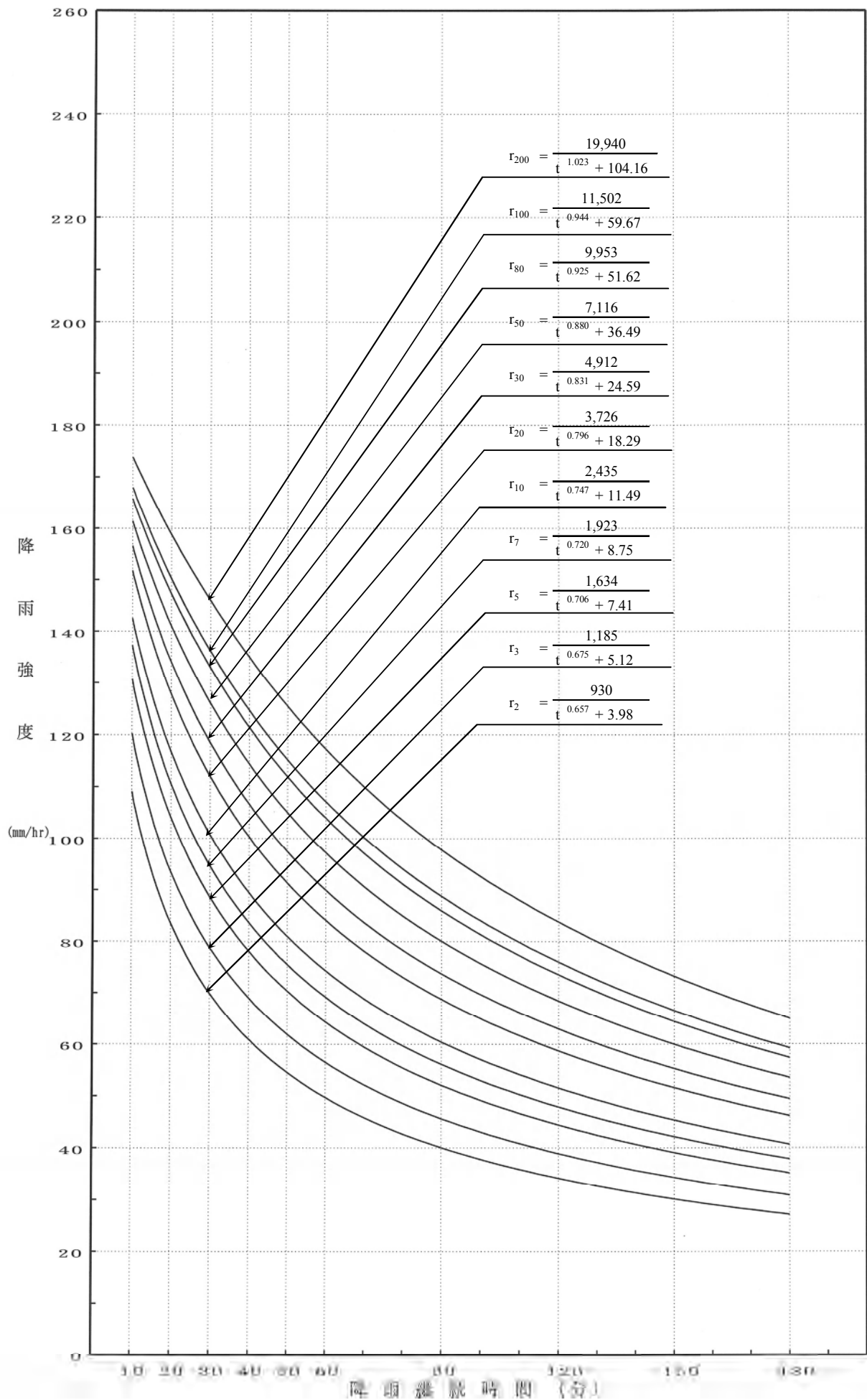


図-4.1(11) 短時間確率降雨強度曲線 球磨ブロックV-B

表-4.1(11) 短時間降雨強度式と降雨強度一覧表 (球磨ブロックV-B)

確率年	降雨強度式	10分	20分	30分	40分	50分	60分	90分	120分	150分	180分
$\frac{1}{2}$	$r_2 = \frac{930}{t^{0.657} + 3.98}$	109.2	83.5	69.8	60.9	54.6	49.7	40.1	34.2	30.1	27.1
$\frac{1}{3}$	$r_3 = \frac{1,185}{t^{0.675} + 5.12}$	120.3	93.5	78.7	69.0	61.9	56.5	45.6	38.9	34.3	30.9
$\frac{1}{5}$	$r_5 = \frac{1,634}{t^{0.706} + 7.41}$	130.8	104.1	88.6	78.1	70.3	64.3	52.1	44.4	39.1	35.1
$\frac{1}{7}$	$r_7 = \frac{1,923}{t^{0.720} + 8.75}$	137.4	110.6	94.6	83.6	75.5	69.1	56.1	47.9	42.1	37.9
$\frac{1}{10}$	$r_{10} = \frac{2,435}{t^{0.747} + 11.49}$	142.6	116.7	100.7	89.5	81.0	74.3	60.4	51.6	45.3	40.7
$\frac{1}{20}$	$r_{20} = \frac{3,726}{t^{0.796} + 18.29}$	151.8	127.8	112.0	100.3	91.3	84.1	68.7	58.7	51.6	46.2
$\frac{1}{30}$	$r_{30} = \frac{4,912}{t^{0.831} + 24.59}$	156.6	134.0	118.4	106.7	97.5	89.9	73.7	63.0	55.2	49.4
$\frac{1}{50}$	$r_{50} = \frac{7,116}{t^{0.880} + 36.49}$	161.4	141.0	126.1	114.4	105.0	97.2	80.0	68.4	59.9	53.5
$\frac{1}{80}$	$r_{80} = \frac{9,953}{t^{0.925} + 51.62}$	165.8	147.2	132.9	121.4	111.9	103.9	85.9	73.5	64.4	57.3
$\frac{1}{100}$	$r_{100} = \frac{11,502}{t^{0.944} + 59.67}$	168.0	150.2	136.2	124.7	115.2	107.1	88.7	75.9	66.5	59.2
$\frac{1}{200}$	$r_{200} = \frac{19,940}{t^{1.023} + 104.16}$	173.8	158.8	146.0	135.0	125.5	117.2	97.8	83.7	73.2	65.0

(mm/hr)



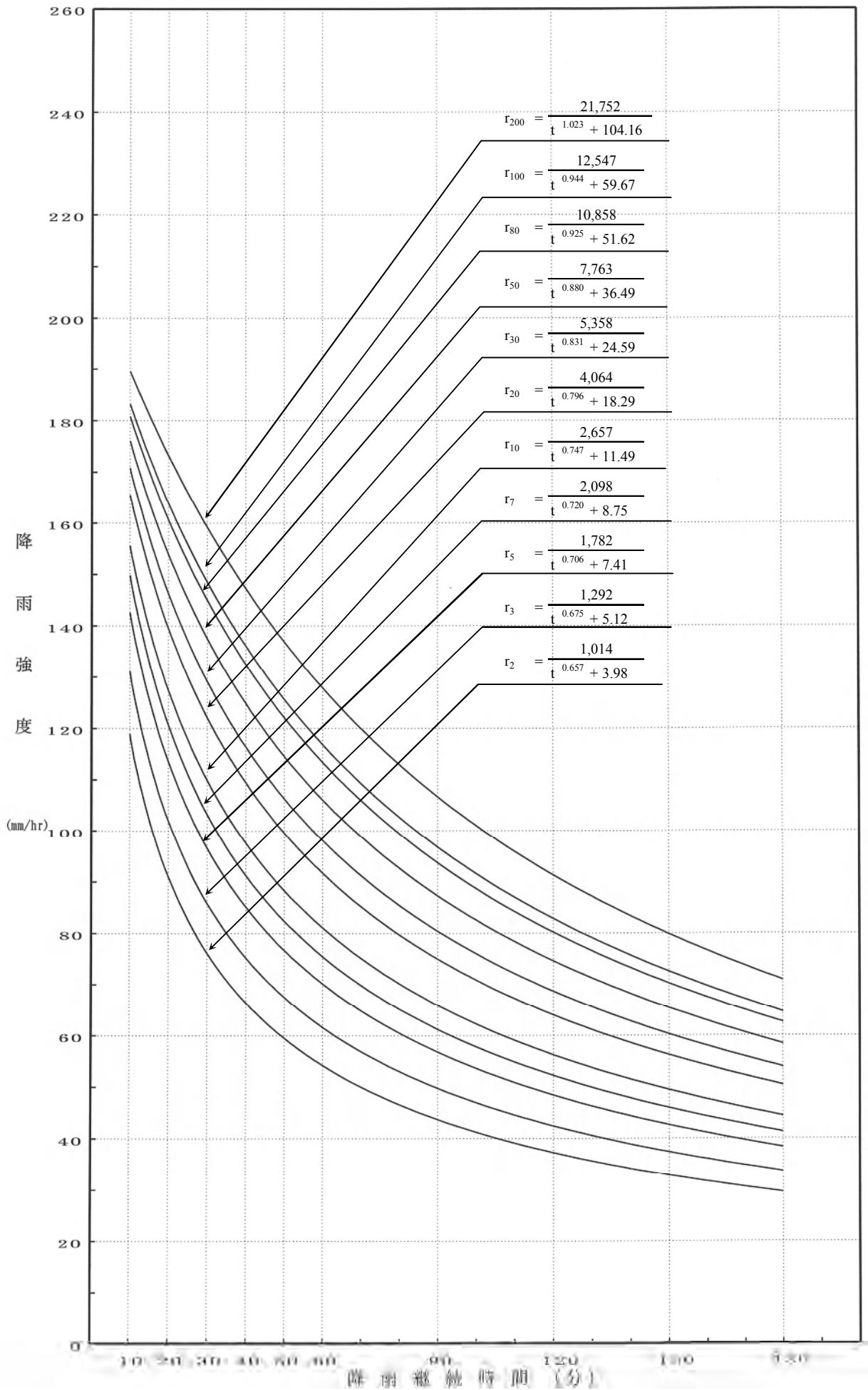


図-4.1(12) 短時間確率降雨強度曲線 球磨ブロックV-C

表-4.1(12) 短時間降雨強度式と降雨強度一覧表 (球磨ブロックV-C)

確率年	降雨強度式	10分	20分	30分	40分	50分	60分	90分	120分	150分	180分
$\frac{1}{2}$	$r_2 = \frac{1,014}{t^{0.657} + 3.98}$	119.0	91.0	76.1	66.4	59.5	54.2	43.7	37.3	32.8	29.6
$\frac{1}{3}$	$r_3 = \frac{1,292}{t^{0.675} + 5.12}$	131.1	101.9	85.8	75.2	67.5	61.6	49.7	42.4	37.4	33.6
$\frac{1}{5}$	$r_5 = \frac{1,782}{t^{0.706} + 7.41}$	142.7	113.5	96.6	85.1	76.7	70.1	56.8	48.5	42.6	38.3
$\frac{1}{7}$	$r_7 = \frac{2,098}{t^{0.720} + 8.75}$	149.9	120.6	103.2	91.3	82.4	75.4	61.2	52.2	46.0	41.3
$\frac{1}{10}$	$r_{10} = \frac{2,657}{t^{0.747} + 11.49}$	155.6	127.4	109.9	97.6	88.3	81.0	65.9	56.3	49.5	44.4
$\frac{1}{20}$	$r_{20} = \frac{4,064}{t^{0.796} + 18.29}$	165.6	139.4	122.1	109.4	99.6	91.7	74.9	64.0	56.2	50.4
$\frac{1}{30}$	$r_{30} = \frac{5,358}{t^{0.831} + 24.59}$	170.8	146.2	129.2	116.4	106.3	98.1	80.4	68.7	60.3	53.9
$\frac{1}{50}$	$r_{50} = \frac{7,763}{t^{0.880} + 36.49}$	176.1	153.9	137.6	124.8	114.6	106.1	87.3	74.6	65.4	58.4
$\frac{1}{80}$	$r_{80} = \frac{10,858}{t^{0.925} + 51.62}$	180.9	160.6	145.0	132.5	122.1	113.4	93.7	80.2	70.2	62.6
$\frac{1}{100}$	$r_{100} = \frac{12,547}{t^{0.944} + 59.67}$	183.3	163.8	148.5	136.1	125.7	116.9	96.8	82.8	72.5	64.6
$\frac{1}{200}$	$r_{200} = \frac{21,752}{t^{1.023} + 104.16}$	189.6	173.2	159.2	147.3	136.9	127.9	106.6	91.3	79.8	70.9

(mm/hr)

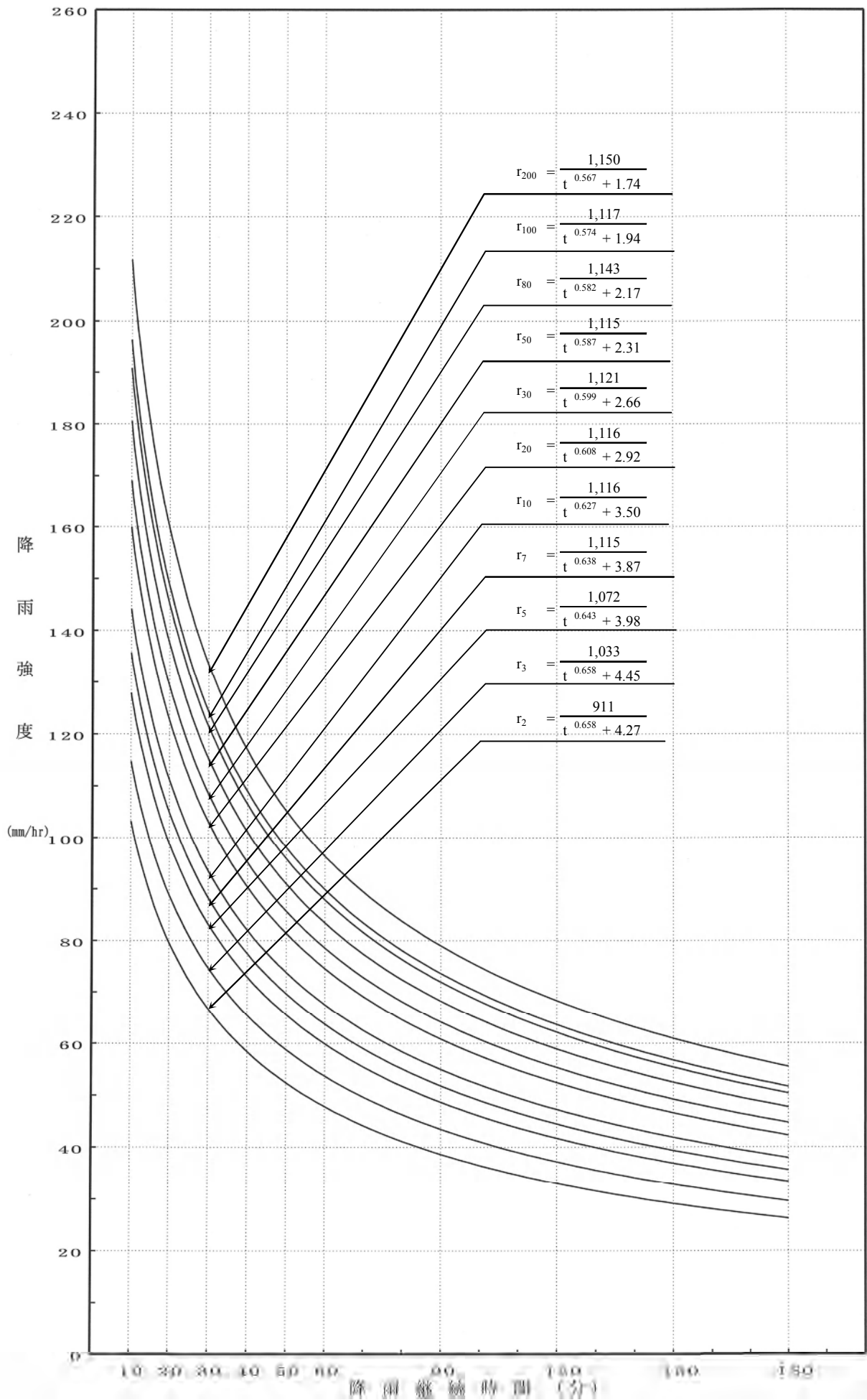


図-4.1(13) 短時間確率降雨強度曲線 天草ブロックVI-A

表-4.1(13) 短時間降雨強度式と降雨強度一覧表 (天草ブロックVI-A)

確率年	降雨強度式	10分	20分	30分	40分	50分	60分	90分	120分	150分	180分
$\frac{1}{2}$	$r_2 = \frac{911}{t^{0.658} + 4.27}$	103.3	79.6	66.8	58.4	52.4	47.8	38.6	33.0	29.1	26.2
$\frac{1}{3}$	$r_3 = \frac{1,033}{t^{0.658} + 4.45}$	114.8	88.8	74.7	65.5	58.8	53.7	43.5	37.2	32.8	29.6
$\frac{1}{5}$	$r_5 = \frac{1,072}{t^{0.643} + 3.98}$	128.0	98.9	83.2	72.9	65.6	59.9	48.7	41.7	36.9	33.3
$\frac{1}{7}$	$r_7 = \frac{1,115}{t^{0.638} + 3.87}$	135.7	104.9	88.3	77.5	69.7	63.7	51.8	44.5	39.4	35.6
$\frac{1}{10}$	$r_{10} = \frac{1,116}{t^{0.627} + 3.50}$	144.3	111.1	93.5	82.0	73.8	67.5	55.0	47.2	41.9	37.9
$\frac{1}{20}$	$r_{20} = \frac{1,116}{t^{0.608} + 2.92}$	160.0	122.6	103.1	90.4	81.4	74.5	60.8	52.4	46.6	42.2
$\frac{1}{30}$	$r_{30} = \frac{1,121}{t^{0.599} + 2.66}$	169.0	129.2	108.5	95.2	85.7	78.5	64.2	55.3	49.2	44.7
$\frac{1}{50}$	$r_{50} = \frac{1,115}{t^{0.587} + 2.31}$	180.6	137.4	115.3	101.1	91.0	83.4	68.2	58.9	52.5	47.7
$\frac{1}{80}$	$r_{80} = \frac{1,143}{t^{0.582} + 2.17}$	190.8	144.9	121.5	106.5	95.9	87.9	71.9	62.1	55.4	50.3
$\frac{1}{100}$	$r_{100} = \frac{1,117}{t^{0.574} + 1.94}$	196.3	148.5	124.3	109.0	98.1	89.9	73.6	63.6	56.7	51.6
$\frac{1}{200}$	$r_{200} = \frac{1,150}{t^{0.567} + 1.74}$	211.8	159.6	133.4	116.9	105.2	96.4	79.0	68.3	60.9	55.5

(mm/hr)

(2) 長時間確率降雨強度式

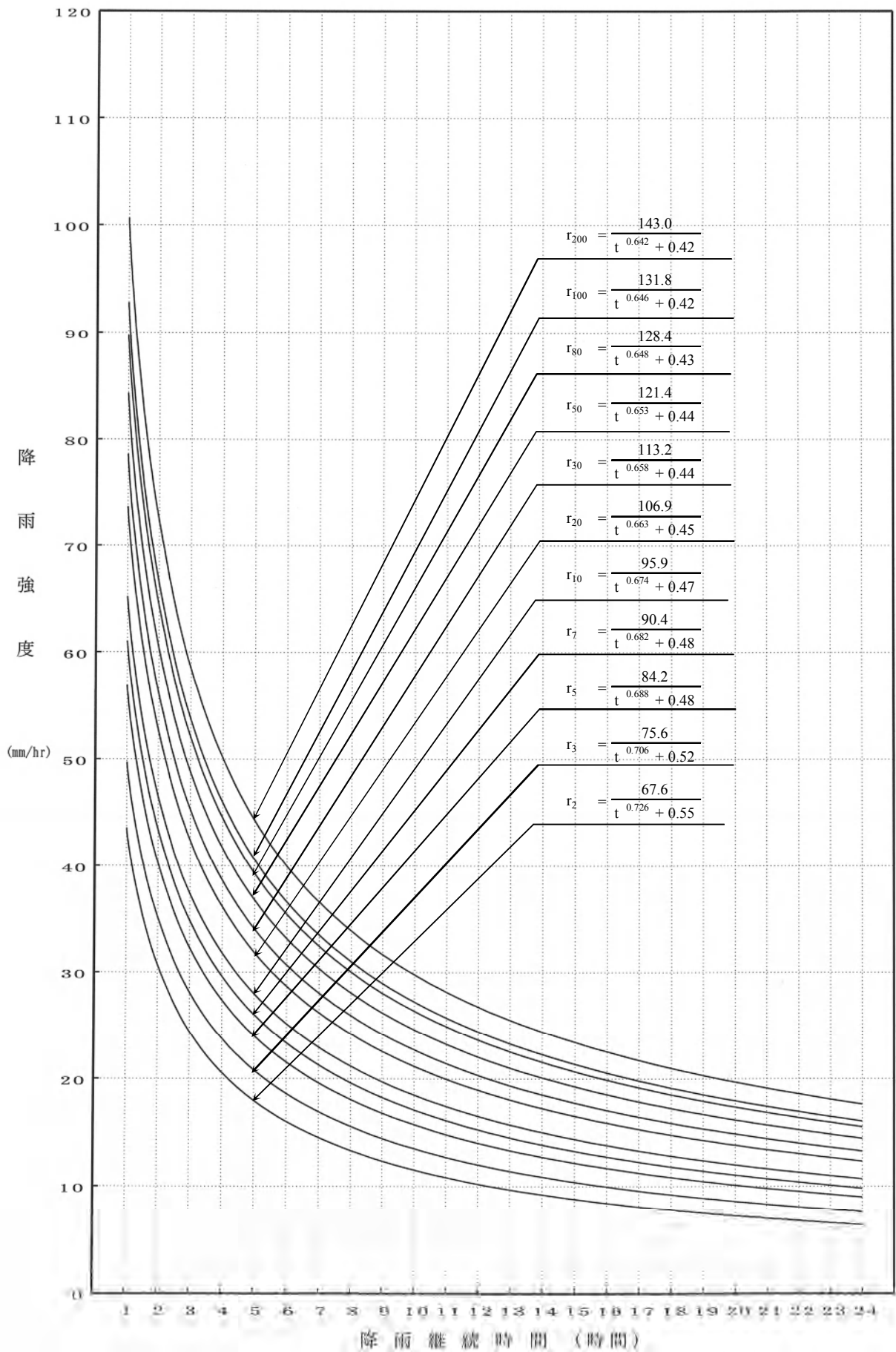


図-4.2(1) 長時間確率降雨強度曲線 城北ブロック I-A

表-4.2(1) 長時間降雨強度式と降雨強度一覧表 (城北ブロック I-A)

確率年	降雨強度式	1時間	2時間	3時間	4時間	5時間	6時間	9時間	12時間	18時間	24時間
$\frac{1}{2}$	$r_2 = \frac{67.6}{t^{0.726} + 0.55}$	43.6	30.7	24.4	20.6	17.9	16.0	12.3	10.2	7.8	6.4
$\frac{1}{3}$	$r_3 = \frac{75.6}{t^{0.706} + 0.52}$	49.7	35.1	28.1	23.8	20.8	18.6	14.4	12.0	9.2	7.6
$\frac{1}{5}$	$r_5 = \frac{84.2}{t^{0.688} + 0.48}$	56.9	40.3	32.3	27.4	24.0	21.5	16.8	14.0	10.8	9.0
$\frac{1}{7}$	$r_7 = \frac{90.4}{t^{0.682} + 0.48}$	61.1	43.4	34.8	29.6	26.0	23.3	18.2	15.3	11.8	9.8
$\frac{1}{10}$	$r_{10} = \frac{95.9}{t^{0.674} + 0.47}$	65.2	46.4	37.4	31.8	28.0	25.1	19.7	16.5	12.8	10.7
$\frac{1}{20}$	$r_{20} = \frac{106.9}{t^{0.663} + 0.45}$	73.7	52.6	42.4	36.2	31.8	28.7	22.5	18.9	14.8	12.3
$\frac{1}{30}$	$r_{30} = \frac{113.2}{t^{0.658} + 0.44}$	78.6	56.1	45.3	38.6	34.1	30.7	24.2	20.3	15.9	13.3
$\frac{1}{50}$	$r_{50} = \frac{121.4}{t^{0.653} + 0.44}$	84.3	60.3	48.8	41.7	36.8	33.2	26.2	22.0	17.2	14.4
$\frac{1}{80}$	$r_{80} = \frac{128.4}{t^{0.648} + 0.43}$	89.8	64.3	52.0	44.5	39.3	35.4	28.0	23.6	18.5	15.5
$\frac{1}{100}$	$r_{100} = \frac{131.8}{t^{0.646} + 0.42}$	92.8	66.4	53.7	45.9	40.6	36.6	28.9	24.4	19.1	16.1
$\frac{1}{200}$	$r_{200} = \frac{143.0}{t^{0.642} + 0.42}$	100.7	72.2	58.5	50.1	44.3	40.0	31.6	26.7	21.0	17.6

(mm/hr)

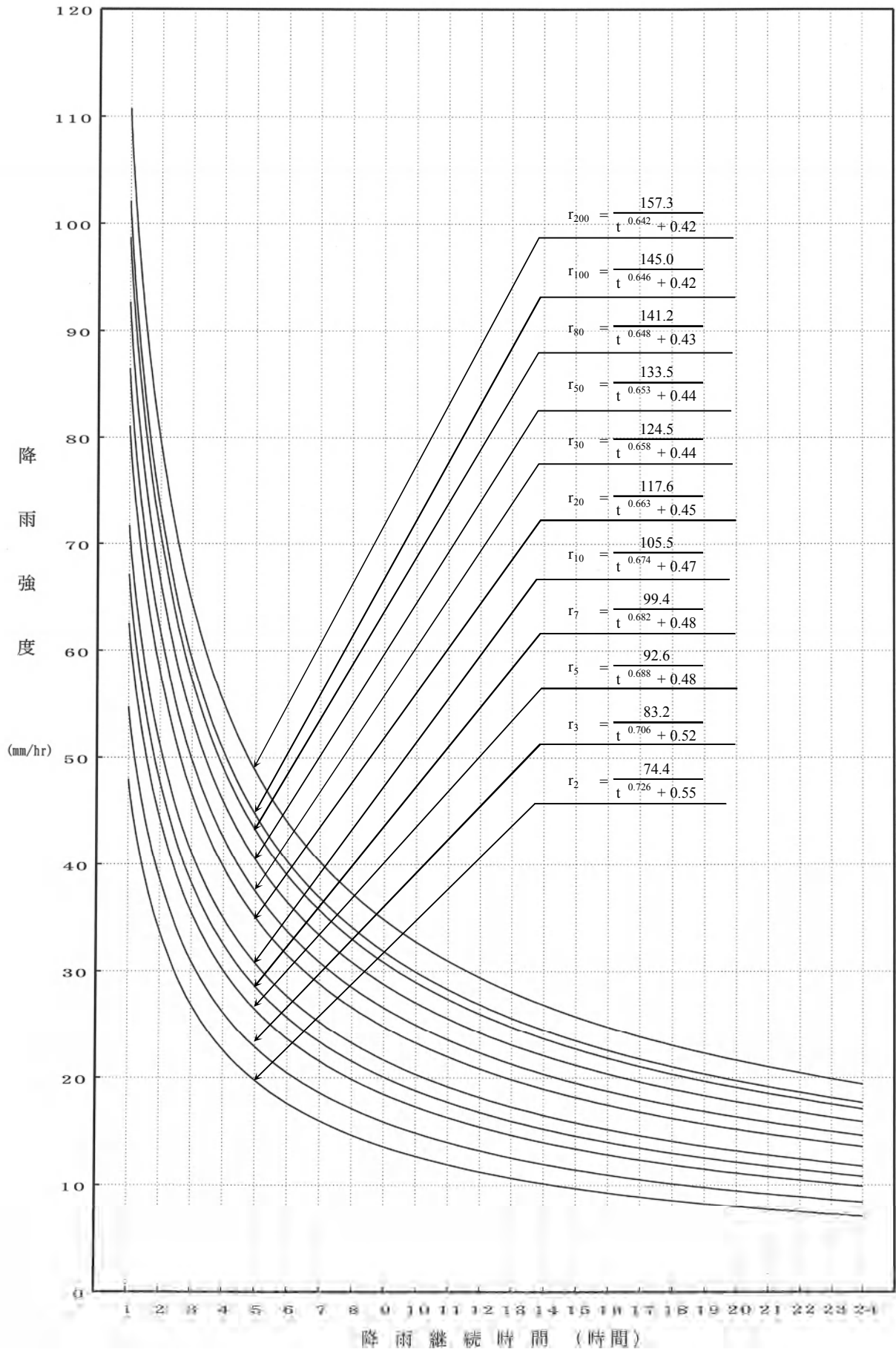


図-4.2(2) 長時間確率降雨強度曲線 城北ブロック I-B

表-4.2(2) 長時間降雨強度式と降雨強度一覧表 (城北ブロック I-B)

確率年	降雨強度式	1時間	2時間	3時間	4時間	5時間	6時間	9時間	12時間	18時間	24時間
$\frac{1}{2}$	$r_2 = \frac{74.4}{t^{0.726} + 0.55}$	48.0	33.8	26.9	22.6	19.8	17.6	13.6	11.2	8.5	7.0
$\frac{1}{3}$	$r_3 = \frac{83.2}{t^{0.706} + 0.52}$	54.7	38.7	30.9	26.2	22.9	20.5	15.9	13.2	10.1	8.4
$\frac{1}{5}$	$r_5 = \frac{92.6}{t^{0.688} + 0.48}$	62.6	44.3	35.5	30.1	26.4	23.7	18.5	15.4	11.9	9.9
$\frac{1}{7}$	$r_7 = \frac{99.4}{t^{0.682} + 0.48}$	67.2	47.7	38.3	32.5	28.6	25.7	20.1	16.8	13.0	10.8
$\frac{1}{10}$	$r_{10} = \frac{105.5}{t^{0.674} + 0.47}$	71.8	51.1	41.1	35.0	30.8	27.6	21.7	18.2	14.1	11.7
$\frac{1}{20}$	$r_{20} = \frac{117.6}{t^{0.663} + 0.45}$	81.1	57.8	46.6	39.8	35.0	31.5	24.8	20.8	16.2	13.6
$\frac{1}{30}$	$r_{30} = \frac{124.5}{t^{0.658} + 0.44}$	86.5	61.7	49.8	42.5	37.5	33.7	26.6	22.4	17.4	14.6
$\frac{1}{50}$	$r_{50} = \frac{133.5}{t^{0.653} + 0.44}$	92.7	66.3	53.6	45.8	40.4	36.5	28.8	24.2	19.0	15.9
$\frac{1}{80}$	$r_{80} = \frac{141.2}{t^{0.648} + 0.43}$	98.7	70.7	57.2	48.9	43.2	39.0	30.8	26.0	20.4	17.1
$\frac{1}{100}$	$r_{100} = \frac{145.0}{t^{0.646} + 0.42}$	102.1	73.1	59.1	50.5	44.6	40.3	31.8	26.9	21.0	17.7
$\frac{1}{200}$	$r_{200} = \frac{157.3}{t^{0.642} + 0.42}$	110.8	79.4	64.3	55.1	48.7	43.9	34.8	29.4	23.1	19.4

(mm/hr)



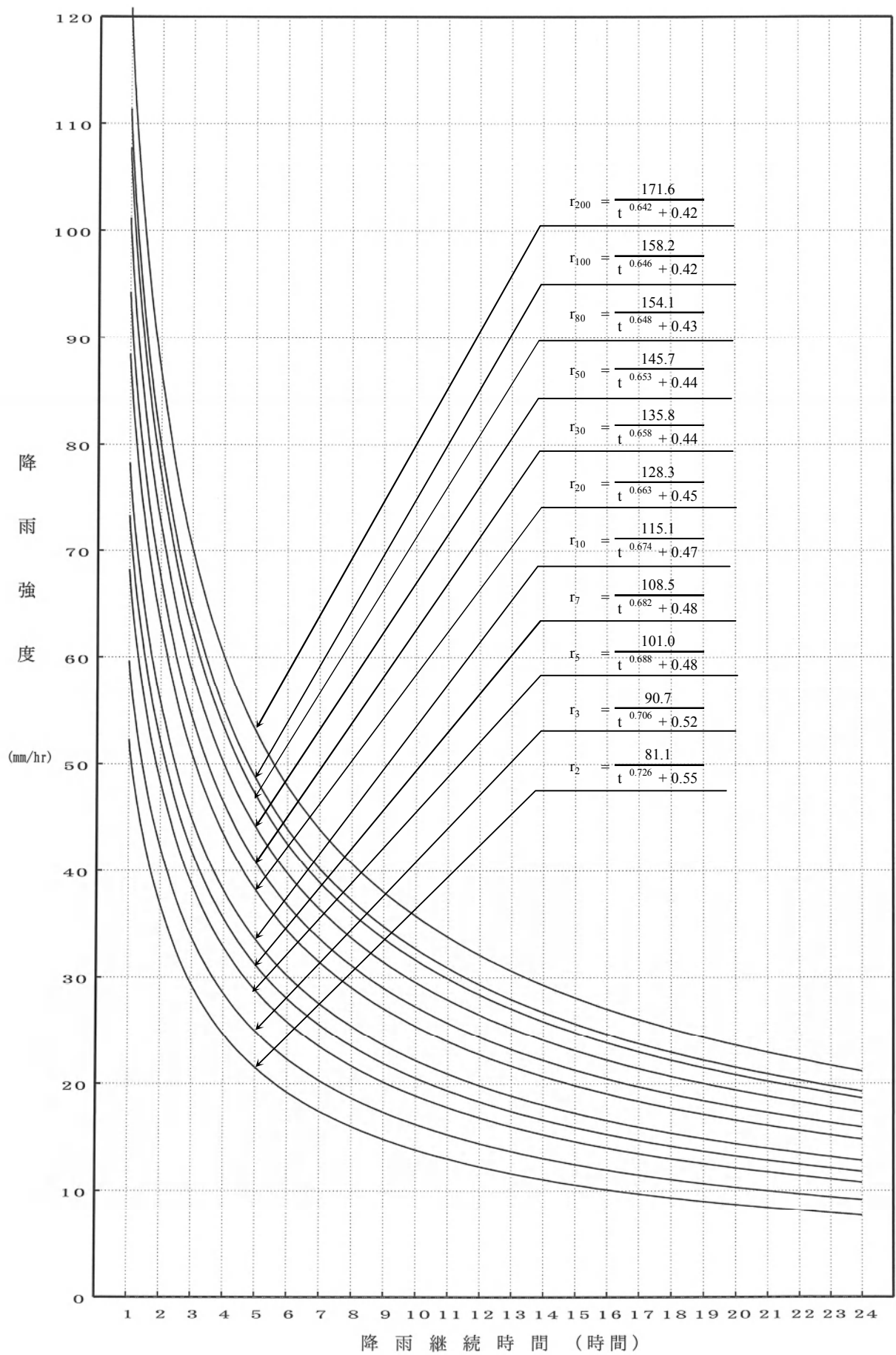


図-4.2(3) 長時間確率降雨強度曲線 城北ブロック I-C

表-4.2(3) 長時間降雨強度式と降雨強度一覧表 (城北ブロック I-C)

確率年	降雨強度式	1時間	2時間	3時間	4時間	5時間	6時間	9時間	12時間	18時間	24時間
$\frac{1}{2}$	$r_2 = \frac{81.1}{t^{0.726} + 0.55}$	52.3	36.8	29.3	24.7	21.5	19.2	14.8	12.2	9.3	7.7
$\frac{1}{3}$	$r_3 = \frac{90.7}{t^{0.706} + 0.52}$	59.7	42.2	33.7	28.5	25.0	22.3	17.3	14.4	11.0	9.1
$\frac{1}{5}$	$r_5 = \frac{101.0}{t^{0.688} + 0.48}$	68.2	48.3	38.7	32.8	28.8	25.8	20.1	16.8	13.0	10.8
$\frac{1}{7}$	$r_7 = \frac{108.5}{t^{0.682} + 0.48}$	73.3	52.1	41.8	35.5	31.2	28.0	21.9	18.3	14.2	11.8
$\frac{1}{10}$	$r_{10} = \frac{115.1}{t^{0.674} + 0.47}$	78.3	55.7	44.8	38.2	33.6	30.2	23.6	19.8	15.4	12.8
$\frac{1}{20}$	$r_{20} = \frac{128.3}{t^{0.663} + 0.45}$	88.5	63.1	50.9	43.4	38.2	34.4	27.1	22.7	17.7	14.8
$\frac{1}{30}$	$r_{30} = \frac{135.8}{t^{0.658} + 0.44}$	94.3	67.3	54.3	46.4	40.9	36.8	29.0	24.4	19.0	15.9
$\frac{1}{50}$	$r_{50} = \frac{145.7}{t^{0.653} + 0.44}$	101.2	72.4	58.5	50.0	44.1	39.8	31.4	26.5	20.7	17.3
$\frac{1}{80}$	$r_{80} = \frac{154.1}{t^{0.648} + 0.43}$	107.8	77.2	62.4	53.4	47.2	42.5	33.6	28.4	22.2	18.6
$\frac{1}{100}$	$r_{100} = \frac{158.2}{t^{0.646} + 0.42}$	111.4	79.7	64.5	55.1	48.7	43.9	34.7	29.3	23.0	19.3
$\frac{1}{200}$	$r_{200} = \frac{171.6}{t^{0.642} + 0.42}$	120.8	86.6	70.2	60.1	53.1	47.9	38.0	32.1	25.2	21.2

(mm/hr)