

Dump 6 pmp	37 min	31 min	27 min	23 min	19 min	15 min	10 min	6 min	2 min	2 min	6 min	10 min	-	-	-	-	-	2.4T / min	6 pmp Dump												
Time 4 pmp	54 min	48 min	42 min	35 min	29 min	22 min	16 min	10 min	3 min	M LW 3min	10 min	16 min	22 min	29 min	35 min	42 min	48 min	1.6T / min	4 pmp Time												
<b>2 eng Max</b>	<b>Nett Perf MCT</b>	FL32 05	FL47 22	FL61 38 07	FL75 53 25	FL91 69 43	FL106 84 61	FL121 100 78	FL137 115 95	FL152 132 112	FL166 148 129	FL181 164 145	FL195 180 162	FL211 197 179	FL225 213 197	FL241 228 213	<b>Nett Perf</b>	<b>Add FL30 for Gross</b>	<b>2 eng Max</b>												
<b>3 eng Max</b>	<ISA+10° +15° +20°	FL213 186 152	FL227 201 168	FL240 216 185	FL254 230 200	FL268 244 216	FL281 258 232	FL294 272 247	FL307 287 263	FL320 302 279	FL333 317 294	FL344 332 310	FL354 345 327	FL363 356 343	FL372 366 356	FL381 374 366	<b>3 Eng LRC</b>	<b>Add FL10 for DDwn</b>	<b>3 eng Max</b>												
<b>Weight</b>	<b>370.0</b>	<b>360.0</b>	<b>350.0</b>	<b>340.0</b>	<b>330.0</b>	<b>320.0</b>	<b>310.0</b>	<b>300.0</b>	<b>290.0</b>	<b>280.0</b>	<b>270.0</b>	<b>260.0</b>	<b>250.0</b>	<b>240.0</b>	<b>230.0</b>	<b>220.0</b>	<b>210.0</b>	<b>200.0</b>	<b>Tonnes</b>												
<b>Flex Temp</b>	<b>35°C</b>	<b>37°C</b>	<b>39°C</b>	<b>42°C</b>	<b>45°C</b>	<b>47°C</b>	<b>51°C</b>	<b>53°C</b>	<b>56°C</b>	<b>58°C</b>	<b>61°C</b>	<b>63°C</b>	<b>65°C</b>	<b>68°C</b>	<b>70°C</b>	<b>72°C</b>	<b>75°C</b>	<b>Flex Temp</b>	<b>No RW Limit</b>												
<b>Flap 10</b>	175/185	172/182	168/179	164/176	160/172	156/169	152/166	147/162	143/159	139/156	136/154	132/152	130/150	130/150	130/150	130/150	130/150	<b>Flap 10</b>	<b>VR/V2</b>												
<b>Flap 20</b>	168/178	165/175	161/172	157/169	153/165	149/162	146/159	141/155	137/152	133/149	130/147	130/145	130/143	130/143	130/143	130/143	130/143	<b>Flap 20</b>	<b>VR/V2</b>												
<b>Climb</b>	349 350	347 295	344 290	341 285	338 280	336 275	333 270	330 264	327 258	324 252	322 247	319 242	316 237	314 233	311 228	308 224	<b>Climb: Normal</b>	<b>Max Gradient</b>													
<b>Vmd</b>	311	307	303	299	295	291	286	282	277	272	267	263	257	253	248	243	<b>Vmd &amp; Max Rate Climb Speed</b>														
<b>4 eng Max</b>	<ISA+10°/bft +15° +20°	FL328 bft 321 303	FL334 bft 330 315	FL341 bft 338 324	FL348 bft 347 333	FL353 bft 353 342	FL361 bft 361 351	FL367 bft 367 359	FL374 bft 374 367	FL382 bft 382 375	FL389 bft 389 382	FL397 bft 397 390	FL405 bft 405 398	FL412 bft 412 406	FL422 bft 422 414	FL431 bft 431 422	FL441 bft 441 432	FL450 bft 450 442	<b>4 eng Max</b>												
<b>4 eng Opt</b>	<b>4 eng Max</b>	<b>Optimum</b>	FL303	FL309	FL315	FL323	FL329	FL337	FL344	FL351	FL359	FL367	FL375	FL384	FL393	FL404	FL414	FL424	<b>4 eng Opt</b>												
<b>FL450</b>	1.3g 200.0 +15° 200.0 +20° 192.0	200.0 Step FL40	<b>Air Hong Kong B747-249F JT9D-7Q 2 Packs On</b>														.847/230 1.55 228	<b>FL450</b> ISA -57°C													
<b>FL430</b>	1.3g 221.0 +15° 221.0 +20° 212.0	215.0 Step FL40	<b>Long Range Cruise</b>														.847/241 1.55 240	.847/241 1.48 230	199.0 1.8g Buffet	<b>FL430</b> ISA -57°C											
<b>FL410</b>	1.3g 244.0 +15° 244.0 +20° 235.0	232.0 Step FL40	<b>Mach/IAS EPR 1.3g Buf</b>														.846/252 1.59 ---	.847/252 1.53 247	.847/252 1.47 237	.848/253 1.42 230	.847/244 1.53 222	220.0 1.8g Buffet	<b>FL410</b> ISA -57°C								
<b>FL390</b>	1.3g 269.0 +15° 269.0 +20° 260.0	255.0 Step FL40															.847/264 1.56 265	.847/264 1.51 255	.848/264 1.46 245	.848/264 1.41 238	.847/264 1.37 231	.846/264 1.33 224	.843/263 1.30 218	241.0 1.8g Buffet	<b>FL390</b> ISA -57°C						
<b>FL370</b>	1.3g 296.0 +15° 296.0 +20° 287.0	281.0 Step FL40															.846/277 1.58 280	.847/277 1.53 268	.847/277 1.48 261	.848/277 1.43 254	.847/277 1.39 247	.847/277 1.39 240	.845/276 1.33 233	.843/276 1.29 227	.840/275 1.27 221	.835/273 1.24 215	267.0 1.8g Buffet	<b>FL370</b> ISA -57°C			
<b>FL350</b>	1.3g 326.0 +15° 326.0 +20° 312.0	308.0 Step FL40															.846/290 1.58 ---	.847/290 1.53 283	.847/290 1.49 275	.848/290 1.45 267	.848/290 1.41 262	.847/290 1.37 255	.846/290 1.34 249	.845/289 1.31 243	.842/288 1.29 236	.839/287 1.26 230	.835/286 1.24 224	.829/284 1.21 218	.823/282 1.19 213	293.0 1.8g Buffet	<b>FL350</b> ISA -55°C
<b>FL330</b>	1.3g 358.0 +15° 350.0 +20° 334.0	338.0 Step FL40	.847/303 1.53 294	.847/303 1.49 287	.848/303 1.45 262	.848/303 1.41 275	.847/303 1.38 268	.847/303 1.35 262	.845/303 1.33 256	.844/302 1.30 250	.841/301 1.27 245	.838/300 1.25 239	.834/299 1.23 233	.828/297 1.21 227	.822/294 1.19 222	.815/292 1.17 216	.806/288 1.15 210	324.0 1.8g Buffet	<b>FL330</b> ISA -51°C												
<b>FL310</b>	1.3g 383.0 +15° 373.0 +20° 356.0	.848/317 1.44 292	.848/317 1.42 288	.847/317 1.38 281	.847/317 1.35 275	.846/316 1.33 269	.844/316 1.31 263	.842/315 1.28 258	.839/314 1.26 252	.836/313 1.24 247	.832/311 1.22 242	.827/309 1.20 237	.821/307 1.18 231	.814/304 1.17 225	.806/301 1.15 219	.797/298 1.13 214	.786/294 1.12 209	351.0 1.8g Buffet	<b>FL310</b> ISA -47°C												
<b>FL290</b>	.847/331 1.37 294	.847/331 1.35 287	.846/330 1.33 281	.844/330 1.31 276	.842/329 1.29 271	.840/328 1.27 265	.837/327 1.25 260	.833/326 1.23 254	.829/324 1.21 250	.824/322 1.20 244	.818/320 1.18 240	.812/317 1.16 234	.804/314 1.15 229	.796/311 1.13 223	.786/307 1.12 218	.776/302 1.10 212	.764/297 1.09 208	366.0 1.8g Buffet	<b>FL290</b> ISA -43°C												
<b>FL280</b>	.846/337 1.34 292	.845/337 1.32 285	.843/336 1.30 279	.841/336 1.28 274	.839/335 1.26 269	.836/334 1.24 264	.832/332 1.22 258	.828/330 1.21 253	.823/328 1.19 248	.817/326 1.17 243	.810/323 1.16 238	.803/320 1.14 233	.795/317 1.13 228	.786/313 1.12 223	.776/309 1.10 217	.765/304 1.09 212	.752/299 1.08 207	.739/293 1.06 203	<b>FL280</b> ISA -41°C												
<b>FL270</b>	.844/344 1.30 289	.842/343 1.28 283	.840/342 1.27 277	.837/341 1.25 273	.834/340 1.23 267	.830/338 1.22 262	.826/337 1.20 257	.821/335 1.19 252	.815/332 1.17 247	.809/330 1.16 242	.802/326 1.14 237	.794/323 1.13 232	.785/319 1.11 227	.775/315 1.10 222	.765/310 1.09 217	.753/305 1.08 211	.740/300 1.07 207	.727/294 1.06 203	<b>FL270</b> ISA -39°C												
<b>FL250</b>	.837/356 1.25 285	.834/354 1.23 279	.831/353 1.22 274	.827/351 1.20 270	.822/349 1.19 265	.817/347 1.17 260	.812/345 1.16 255	.805/342 1.15 250	.798/339 1.14 245	.791/335 1.12 240	.782/332 1.11 235	.773/328 1.10 230	.763/323 1.09 226	.753/318 1.08 221	.741/313 1.07 216	.729/308 1.06 210	.715/302 1.05 206	Copyright HPKD	<b>FL250</b> ISA -35°C												
<b>FL150</b>	.750/386 1.08 272	.749/385 1.07 267	.741/381 1.07 263	.733/377 1.06 259	.725/372 1.05 255	.716/368 1.05 250	.707/363 1.04 246	.697/358 1.03 242	.687/352 1.03 238	.676/347 1.02 234	.665/341 1.02 231	.654/335 1.01 226	.642/328 1.01 221	.629/322 1.01 217	.617/315 1.00 213	.603/308 1.00 209	.589/300 1.00 204	Example of Flex TO Temps 090712	<b>FL150</b> ISA -15°C												
<b>Weight</b>	<b>370.0</b>	<b>360.0</b>	<b>350.0</b>	<b>340.0</b>	<b>330.0</b>	<b>320.0</b>	<b>310.0</b>	<b>300.0</b>	<b>290.0</b>	<b>280.0</b>	<b>270.0</b>	<b>260.0</b>	<b>250.0</b>	<b>240.0</b>	<b>230.0</b>	<b>220.0</b>	<b>210.0</b>	<b>200.0</b>	<b>Tonnes</b>												
<b>Vref</b>	185/-	182/-	178/-	176/-	172/-	169/(163)	166/(159)	163/(156)	160/(153)	157/150	154/146	150/143	147/140	143/137	140/134	136/130	133/127	129/124	<b>Flap 25/30</b>												
<b>Auto Brake</b>	Distance from touch-down in zero wind at Flap 25 Vref + 5	<b>Brake Setting</b>	<b>MINimum Wet or Dry</b>	3000m	2900m	2850m	2700m	2550m	2450m	2300m	2200m	2100m	2000m	1900m	1800m	<b>MIN wet/dry</b>	<b>Auto Brake</b>														
			<b>MEDium Wet or Dry</b>	2150m	2050m	2000m	1900m	1850m	1750m	1650m	1600m	1500m	1450m	1400m	1300m	<b>MED wet/dry</b>															
			<b>MAXimum WET r/w</b>	1950m	1900m	1850m	1750m	1700m	1600m	1500m	1450m	1400m	1300m	1250m	1200m	<b>MAX WET</b>															
			<b>MAXimum DRY r/w</b>	1500m	1450m	1400m	1350m	1300m	1250m	1150m	1100m	1050m	1000m	950m	900m	<b>MAX DRY</b>															
<b>Descent</b>	<b>Normal</b> (Gradient 315 ft/nmile)	<b>Econ</b> (Gradient 300ft/nmile)		<i>Still Air</i>		305 280	300 275	295 266	285 260	285 260	280 256	270 251	260 246	250 243	245 240	<b>Descent</b>															

