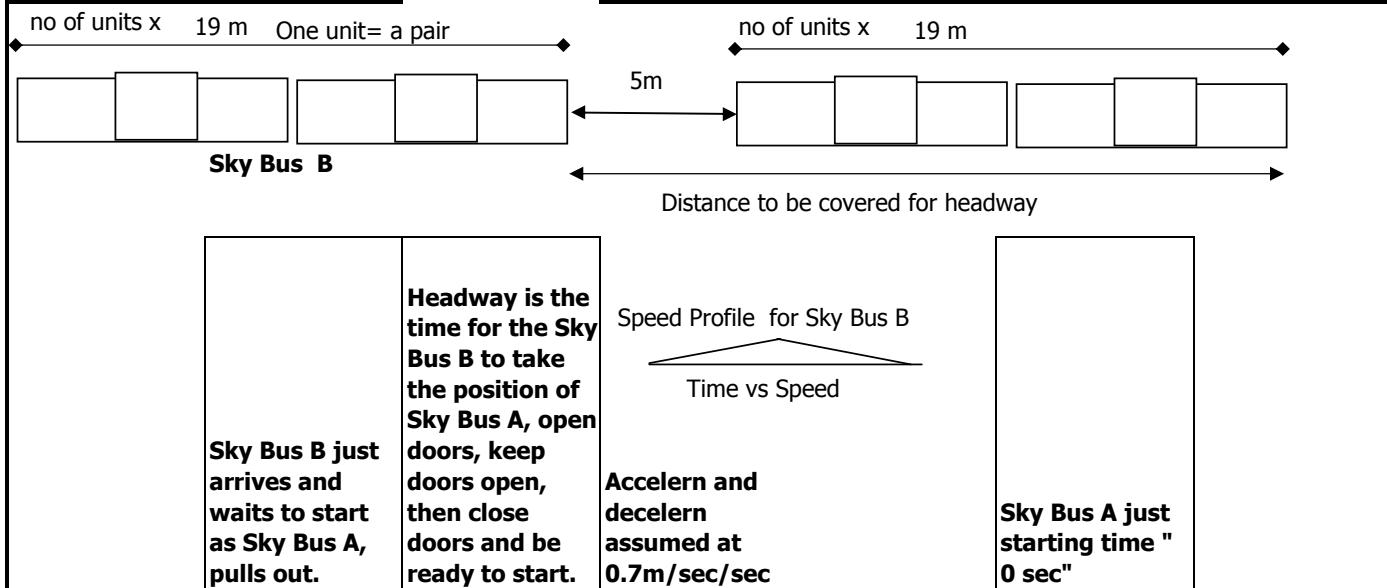


Sky Bus Metro Headways & PPHPD(answer)

417.6

Peak hour passengers per direction per hour	Min headway add 19 sec for doors opening and closing 2 sec each+ 15 sec kept open	Accelerate & decelerate to draw its own length and also cover inter train distance of 5 mt. Time sec	Distance in m to be covered for different lengths of Sky Bus trains	((2x 9mx2.9x8) /twin car unit) Capacity at 8 per/sqm per train unit nos	No of units: each unit consists of a pair of Sky buses total length 19 m	Total train length m
46889	30.71	11.71	24	400	1	19
83056	34.68	15.68	43	800	2	38
114218	37.82	18.82	62	1200	3	57
142173	40.51	21.51	81	1600	4	76



$v=at$
 $s=0.5axt^2$ $2s=axt^2=distance\ 5m+train\ length$
 $t=\sqrt{(train\ length+5)/a}$ to cover s So to cover 2s, time is 2xt
 a= acceleration

Turn round time at traverser:

A Sky Bus unit comes to a stop 5m short of the traverser.
 The traverser has 5m traversing distance assumed to move at 1m/sec
 The time a Sky Bus unit of length " l" takes to cover to cover l+5, assuming an acceleration and deceleration values of 0.7m is same as

Traverser power at 1m/sec/sec
 4.5 accn is required

no of pairs of Sky Bus	Time to go on to Traverser A to B	Add for lateral movement B to C	Time to exit the traverser C to D	Total for transfer for Sky Bus from one track to another A to E	To traverser turn round time add 5 sec to E to A
1	11.71	5	11.71	28.42	33.42
2	15.68	5	15.68	36.35	41.35
3	18.82	5	18.82	42.64	47.64
4	21.51	5	21.51	48.03	53.03

The cycle time for traverser track to get back after servicing a unit is 5 sec more than the turn round



