

Code of practice for energy efficiency standard for building services and equipment

AMENDMENT NO. 1

December 2018

1. Page 4

Replace the 5th organisation, “Land Transport Transport”, with “Land Transport Authority”.

2. Page 20, 6.2.1

Replace “0.75 to 185 kW” with “0.75 to 375 kW”.

3. Page 21, Table 6A

Replace Table 6A and its Notes with the following:

Table 6A – General purpose motors – Minimum nominal efficiency

Power (kW)	Minimum nominal full-load efficiency (%)		
	2-pole	4-pole	6-pole
	IE3 ^a		
0.75	80.7	82.5	78.9
1.1	82.7	84.1	81.0
1.5	84.2	85.3	82.5
2.2	85.9	86.7	84.3
3	87.1	87.7	85.6
4	88.1	88.6	86.8
5.5	89.2	89.6	88.0
7.5	90.1	90.4	89.1
11	91.2	91.4	90.3
15	91.9	92.1	91.2
18.5	92.4	92.6	91.7
22	92.7	93.0	92.2
30	93.3	93.6	92.9
37	93.7	93.9	93.3
45	94.0	94.2	93.7
55	94.3	94.6	94.1
75	94.7	95.0	94.6
90	95.0	95.2	94.9
110	95.2	95.4	95.1
132	95.4	95.6	95.4
160	95.6	95.8	95.6
200 up to 375 kW	95.8	96.0	95.8
	^a IE3 is an efficiency class of single-speed, three-phase induction motors according to IEC 60034-30-1		

Singapore Standard SS 530 : 2014
Amendment No.1

For intermediate vales of rated motor output between 0.75 kW and 200 kW, the efficiency shall be determined by using formula shown in Table 6B and rounded to the nearest tenth, i.e. xx.x%.

For motors not shown in Table 6A, the nominal limits of respective efficiency classes in IEC 60034-30-1 shall be referred.

4. Page 22, Table 6B

Replace Table 6B with the following:

Table 6B – Formula for determining motor minimum efficiency

Efficiency class	Number of poles	Formula
IE3	2	$\eta_n = 0.3569 [\log_{10}(P_n/1 \text{ kW})]^3 - 3.3076 [\log_{10}(P_n/1 \text{ kW})]^2 + 11.6108[\log_{10}(P_n / 1 \text{ kW})] + 82.2503$
IE3	4	$\eta_n = 0.0773 [\log_{10}(P_n/1 \text{ kW})]^3 - 1.8951 [\log_{10}(P_n / 1 \text{ kW})]^2 + 9.2984[\log_{10}(P_n / 1 \text{ kW})] + 83.7025$
IE3	6	$\eta_n = 0.1252 [\log_{10}(P_n/1 \text{ kW})]^3 - 2.613 [\log_{10}(P_n/1 \text{ kW})]^2 + 11.9963 [\log_{10}(P_n / 1 \text{ kW})] + 80.4769$
where η_n is the minimum motor efficiency (%) for motor with power output rating P_n in kW		