

250 kVA  
400 V - 50 Hz

$I_{B1} = (I_{BA} + I_{Bg} + I_{BC}) \cdot K$   
 $I_{B1} = 363 \times 0.9 = 326 \text{ A (303 A)}$   
 i.e. calculated power of 224.9 kVA (209 kVA)

Main switch panel  
board

$K_c = 0.9$

$I_{BA} = (I_{B11} + I_{B12} + I_{B13} + I_{B14}) \cdot K_{BA}$   
 $I_{BA} = 183 \times 0.8 = 146.4 \text{ A}$   
 (151 x 0.8 = 121 A)

$I_{Bg} = (I_{B23} + I_{B24} + \dots + I_{B210}) \cdot K_{Bg}$   
 $I_{Bg} = 195.8 \times 0.7 = 137.1 \text{ A}$

$I_{BC} = (I_{B311} + \dots + I_{B314}) \cdot K_{BC}$   
 $I_{BC} = 99.2 \times 0.8 = 79.4 \text{ A}$

Distribution  
board A

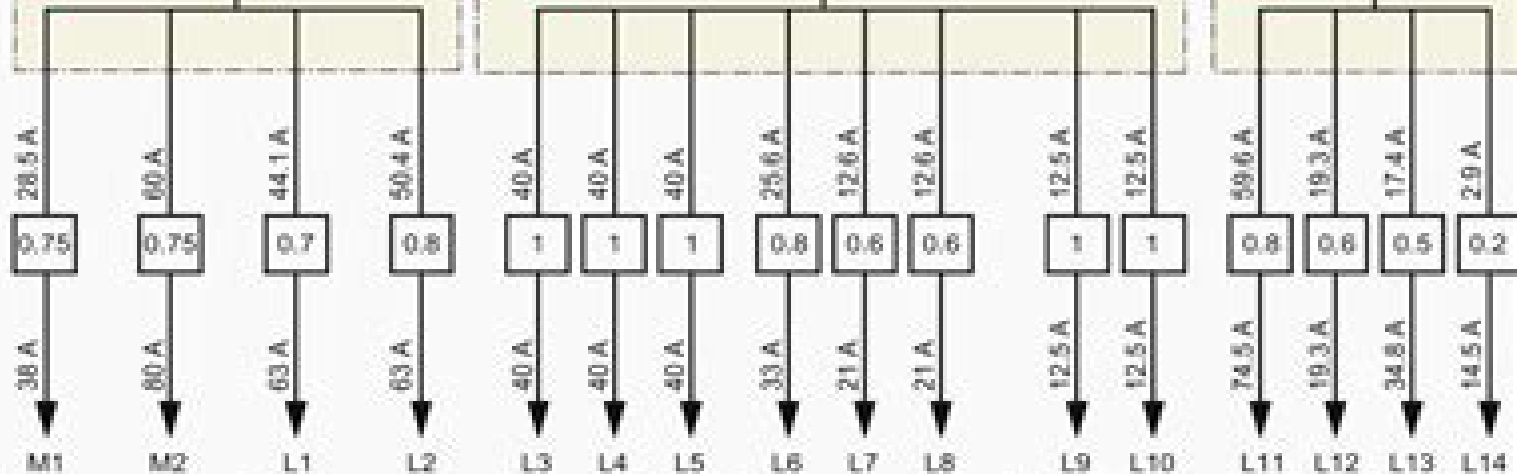
$K_{BA} = 0.8$

Distribution  
board B

$K_{Bg} = 0.7$

Distribution  
board C

$K_{BC} = 0.8$



Loads and receivers

Description	Motors <sup>(1)</sup> on direct supply, air conditioning		Power connectors 2 x 63 A	Heating 3 x 40 A	Sockets 1 x 32 A 2 x 20 A	Lighting 2 x 10 A	Miscellaneous processes			
Power (kW)	24.2	39.8	73.9	82.8	49.7	13.8	36	12	24	8
Power factor PF	0.92	0.72	0.8	1	0.95	0.8	0.7	0.9	1	0.8
Apparent power S (kVA)	26.3	55.3	87	82.8	52.3	17.4	51.4	13.3	24	10

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**Michael Rajnik**

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