

**Chapter No. 33.23**  
**MOULDED CASE CIRCUIT BREAKERS:**

Sr. No.	Code No.	Description	Unit	Quantity	Plain			For Sub-Mountainous Region		
					Rate (In Rs.)	Cost (In Rs.)	Total (In Rs.)	Rate (In Rs.)	Cost (In Rs.)	Total (In Rs.)
1	2	3	4	5	6	7	8	9	10	11
33.23		Supply and erection of Moulded Case Circuit Breaker (Panel mounting Cubicle type) in the existing Cubical Panel (conforms to IEC:60947-II) and relevant PWD general specifications 2010 complete with G.I. Bolts, Nuts & Connection on both sides of MCCB with suitable size of Thimbles etc.								
		<b>MCCB (Fixed Type Thermal and Magnetic Protection Make: L&amp;T (DU/DH), ABB (T-MAX), Schneider (CVS), Seimens(3VT1/3VL)):</b>								
(i)		40-80amp. 415 volts breaking capacity ≥25kA four pole fixed type thermal and magnetic setting MCCB unit								
		Unit :-	1	Each						
I		<b>Materials</b>								
(i)		40-80amp. 415 volts breaking capacity ≥25kA four pole fixed type thermal and magnetic setting MCCB unit		Each	1.00	4404.40	4404.40			
(ii)		G.I. bolt & nut/rag bolt & nut etc. 32amp. to 200amp.		Each	4.00	8.00	32.00			
		Total - I					4436.40			
		Sundries such as carriage of material and other hidden charges etc.@1% on Rs.4436.4					44.36			
		Add contractor's profit @ 10% i.e. on Rs. 4480.76					448.08			
		Add labour cess @ 1% i.e. on Rs. 4928.84					49.29			
							4978.13		4978.13	4978.13
II		<b>Labour</b>								
		<b>Taking output</b>	1	Each						
(i)		Wireman (1st Class)		Day	1/2	164.69	82.35			
		Total - II					82.35			
		Sundries such as uses of tools and other hidden charges etc.@1% on Rs.82.35					0.82			
		Add contractor's profit @ 21.5% i.e. on Rs. 83.17					17.88			
		Add labour cess @ 1% i.e. on Rs. 101.05					1.01			
		Labour for	1	Each			102.06			
		Labour for	1	Each			102.06		102.06	
		Cost for	1	Each					5080.19	
		<b>Add 10% for sub mountainous region</b>								10.21
		Labour for	1	Each						112.27
		Cost for	1	Each						5090.40

Sr. No.	Code No.	Description	Unit	Quantity	Plain			For Sub-Mountainous Region		
					Rate (In Rs.)	Cost (In Rs.)	Total (In Rs.)	Rate (In Rs.)	Cost (In Rs.)	Total (In Rs.)
1	2	3	4	5	6	7	8	9	10	11
(ii)		100amp. 415 volts breaking capacity $\geq 25\text{kA}$ four pole fixed type thermal and magnetic setting MCCB unit								
		Unit :-	1	Each						
<b>I</b>		<b>Materials</b>								
(i)		100amp. 415 volts breaking capacity $\geq 25\text{kA}$ four pole fixed type thermal and magnetic setting MCCB unit		Each	1.00	4732.00	4732.00			
(ii)		G.I. bolt & nut/rag bolt & nut etc. 32amp. to 200amp.		Each	4.00	8.00	32.00			
		Total - I					4764.00			
		Sundries such as carriage of material and other hidden charges etc.@1% on Rs.4764					47.64			
		Add contractor's profit @ 10% i.e. on Rs. 4811.64					481.16			
		Add labour cess @ 1% i.e. on Rs. 5292.8					52.93			
							5345.73			5345.73
<b>II</b>		<b>Labour</b>								
		Taking output	1	Each						
(i)		Wireman (1st Class)		Day	1/2	164.69	82.35			
		Total - II					82.35			
		Sundries such as uses of tools and other hidden charges etc.@1% on Rs.82.35					0.82			
		Add contractor's profit @ 21.5% i.e. on Rs. 83.17					17.88			
		Add labour cess @ 1% i.e. on Rs. 101.05					1.01			
		Labour for	1	Each			102.06			
		Labour for	1	Each			102.06		102.06	
		Cost for	1	Each						
		Add 10% for sub mountainous region								10.21
		Labour for	1	Each						112.27
		Cost for	1	Each						5458.00

Sr. No.	Code No.	Description	Unit	Quantity	Plain			For Sub-Mountainous Region		
					Rate (In Rs.)	Cost (In Rs.)	Total (In Rs.)	Rate (In Rs.)	Cost (In Rs.)	Total (In Rs.)
1	2	3	4	5	6	7	8	9	10	11
		<b>MCCB (Adjustable Thermal &amp; Magnetic Protection Make: L&amp;T (DH), ABB (T-MAX), Schneider (NSX), Seimens(3VT1/3VL)):</b>								
(iii)		100amp. 415 volts breaking capacity ≥35kA four pole adjustable thermal and magnetic protection MCCB unit								
		Unit :-	1	Each						
<b>I</b>		<b>Materials</b>								
(i)		100amp. 415 volts breaking capacity ≥35kA four pole adjustable thermal and magnetic protection MCCB unit		Each	1.00	6624.80	6624.80			
(ii)		G.I. bolt & nut/rag bolt & nut etc. 32amp. to 200amp.		Each	4.00	8.00	32.00			
		Total - I					6656.80			
		Sundries such as carriage of material and other hidden charges etc.@1% on Rs.6656.8					66.57			
		Add contractor's profit @ 10% i.e. on Rs. 6723.37					672.34			
		Add labour cess @ 1% i.e. on Rs. 7395.71					73.96			
							7469.67		7469.67	7469.67
<b>II</b>		<b>Labour</b>								
		Taking output	1	Each						
(i)		Wireman (1st Class)		Day	1/2	164.69	82.35			
		Total - II					82.35			
		Sundries such as uses of tools and other hidden charges etc.@1% on Rs.82.35					0.82			
		Add contractor's profit @ 21.5% i.e. on Rs. 83.17					17.88			
		Add labour cess @ 1% i.e. on Rs. 101.05					1.01			
		Labour for	1	Each			102.06			
		Labour for	1	Each			102.06		102.06	
		Cost for	1	Each						
		Add 10% for sub mountainous region								10.21
		Labour for	1	Each						112.27
		Cost for	1	Each						7581.94

Sr. No.	Code No.	Description	Unit	Quantity	Plain			For Sub-Mountainous Region		
					Rate (In Rs.)	Cost (In Rs.)	Total (In Rs.)	Rate (In Rs.)	Cost (In Rs.)	Total (In Rs.)
1	2	3	4	5	6	7	8	9	10	11

(iv)		125amp. 415 volts breaking capacity ≥35kA four pole adjustable thermal and magnetic protection MCCB unit								
		Unit :-	1	Each						
I		<b>Materials</b>								
(i)		125amp. 415 volts breaking capacity ≥35kA four pole adjustable thermal and magnetic protection MCCB unit		Each	1.00	7407.40	7407.40			
(ii)		G.I. bolt & nut/rag bolt & nut etc. 32amp. to 200amp.		Each	4.00	8.00	32.00			
		Total - I					7439.40			
		Sundries such as carriage of material and other hidden charges etc.@1% on Rs.7439.4					74.39			
		Add contractor's profit @ 10% i.e. on Rs. 7513.79					751.38			
		Add labour cess @ 1% i.e. on Rs. 8265.17					82.65			
							8347.82		8347.82	8347.82
II		<b>Labour</b>								
		Taking output	1	Each						
(i)		Wireman (1st Class)		Day	1/2	164.69	82.35			
		Total - II					82.35			
		Sundries such as uses of tools and other hidden charges etc.@1% on Rs.82.35					0.82			
		Add contractor's profit @ 21.5% i.e. on Rs. 83.17					17.88			
		Add labour cess @ 1% i.e. on Rs. 101.05					1.01			
		Labour for	1	Each			102.06			
		Labour for	1	Each			102.06		102.06	
		Cost for	1	Each					8449.88	
		<b>Add 10% for sub mountainous region</b>								10.21
		Labour for	1	Each						112.27
		Cost for	1	Each						8460.09

Sr. No.	Code No.	Description	Unit	Quantity	Plain			For Sub-Mountainous Region		
					Rate (In Rs.)	Cost (In Rs.)	Total (In Rs.)	Rate (In Rs.)	Cost (In Rs.)	Total (In Rs.)
1	2	3	4	5	6	7	8	9	10	11

(v)		<b>160amp. 415 volts breaking capacity ≥35kA four pole adjustable thermal and magnetic protection MCCB unit</b>								
		Unit :-	1	Each						
I		<b>Materials</b>								
(i)		160amp. 415 volts breaking capacity ≥35kA four pole adjustable thermal and magnetic protection MCCB unit		Each	1.00	9937.20	9937.20			
(ii)		G.I. bolt & nut/rag bolt & nut etc. 32amp. to 200amp.		Each	4.00	8.00	32.00			
		Total - I					9969.20			
		Sundries such as carriage of material and other hidden charges etc.@1% on Rs.9969.2					99.69			
		Add contractor's profit @ 10% i.e. on Rs. 10068.89					1006.89			
		Add labour cess @ 1% i.e. on Rs. 11075.78					110.76			
							11186.54			11186.54
II		<b>Labour</b>								
		Taking output	1	Each						
(i)		Wireman (1st Class)		Day	3/4	164.69	123.52			
		Total - II					123.52			
		Sundries such as uses of tools and other hidden charges etc.@1% on Rs.123.52					1.24			
		Add contractor's profit @ 21.5% i.e. on Rs. 124.76					26.82			
		Add labour cess @ 1% i.e. on Rs. 151.58					1.52			
		Labour for	1	Each			153.10			
		Labour for	1	Each			153.10		153.10	
		Cost for	1	Each						
		<b>Add 10% for sub mountainous region</b>								15.31
		Labour for	1	Each						168.41
		Cost for	1	Each						11354.95

Sr. No.	Code No.	Description	Unit	Quantity	Plain			For Sub-Mountainous Region		
					Rate (In Rs.)	Cost (In Rs.)	Total (In Rs.)	Rate (In Rs.)	Cost (In Rs.)	Total (In Rs.)
1	2	3	4	5	6	7	8	9	10	11

(vi)		200amp. 415 volts breaking capacity $\geq 35\text{kA}$ four pole adjustable thermal and magnetic protection MCCB unit								
		Unit :-	1	Each						
I		<b>Materials</b>								
(i)		200amp. 415 volts breaking capacity $\geq 35\text{kA}$ four pole adjustable thermal and magnetic protection MCCB unit		Each	1.00	11898.25	11898.25			
(ii)		G.I. bolt & nut/rag bolt & nut etc. 32amp. to 200amp.		Each	4.00	8.00	32.00			
		Total - I					11930.25			
		Sundries such as carriage of material and other hidden charges etc.@1% on Rs.11930.25					119.30			
		Add contractor's profit @ 10% i.e. on Rs. 12049.55					1204.96			
		Add labour cess @ 1% i.e. on Rs. 13254.51					132.55			
							13387.06			13387.06
II		<b>Labour</b>								
		Taking output	1	Each						
(i)		Wireman (1st Class)		Day	3/4	164.69	123.52			
		Total - II					123.52			
		Sundries such as uses of tools and other hidden charges etc.@1% on Rs.123.52					1.24			
		Add contractor's profit @ 21.5% i.e. on Rs. 124.76					26.82			
		Add labour cess @ 1% i.e. on Rs. 151.58					1.52			
		Labour for	1	Each			153.10			
		Labour for	1	Each			153.10		153.10	
		Cost for	1	Each						
		<b>Add 10% for sub mountainous region</b>								15.31
		Labour for	1	Each						168.41
		Cost for	1	Each						13555.47

Sr. No.	Code No.	Description	Unit	Quantity	Plain			For Sub-Mountainous Region		
					Rate (In Rs.)	Cost (In Rs.)	Total (In Rs.)	Rate (In Rs.)	Cost (In Rs.)	Total (In Rs.)
1	2	3	4	5	6	7	8	9	10	11

**MCCB (Microprocessor Based Adjustable Thermal and Magnetic Protection Make: L&T (DSINE), ABB (T-MAX), Schneider (NSX), Seimens(3VL)):**

(vii)		250amp. 415 volts breaking capacity ≥50kA four pole microprocessor based adjustable thermal and magnetic protection MCCB unit										
		Unit :-	1	Each								
<b>I</b>		<b>Materials</b>										
(i)		250amp. 415 volts breaking capacity ≥50kA four pole microprocessor based adjustable thermal and magnetic protection MCCB unit										
				Each	1.00	24934.00	24934.00					
(ii)		G.I. bolt & nut/rag bolt & nut etc. 250amp. to 400amp.		Each	4.00	12.00	48.00					
		Total - I					24982.00					
		Sundries such as carriage of material and other hidden charges etc.@1% on Rs.24982					249.82					
		Add contractor's profit @ 10% i.e. on Rs. 25231.82					2523.18					
		Add labour cess @ 1% i.e. on Rs. 27755					277.55					
							28032.55	28032.55			28032.55	
<b>II</b>		<b>Labour</b>										
		Taking output	1	Each								
(i)		Wireman (1st Class)		Day	3/4	164.69	123.52					
		Total - II					123.52					
		Sundries such as uses of tools and other hidden charges etc.@1% on Rs.123.52					1.24					
		Add contractor's profit @ 21.5% i.e. on Rs. 124.76					26.82					
		Add labour cess @ 1% i.e. on Rs. 151.58					1.52					
		Labour for	1	Each			153.10					
		Labour for	1	Each			153.10	153.10	153.10			
		Cost for	1	Each				28185.65				
		Add 10% for sub mountainous region									15.31	
		Labour for	1	Each							168.41	
		Cost for	1	Each							28200.96	

Sr. No.	Code No.	Description	Unit	Quantity	Plain			For Sub-Mountainous Region		
					Rate (In Rs.)	Cost (In Rs.)	Total (In Rs.)	Rate (In Rs.)	Cost (In Rs.)	Total (In Rs.)
1	2	3	4	5	6	7	8	9	10	11

(viii)		315amp. 415 volts breaking capacity ≥50kA four pole microprocessor based adjustable thermal and magnetic protection MCCB unit								
		Unit :-	1	Each						
I		<b>Materials</b>								
(i)		315amp. 415 volts breaking capacity ≥50kA four pole microprocessor based adjustable thermal and magnetic protection MCCB unit		Each	1.00	25025.00	25025.00			
(ii)		G.I. bolt & nut/rag bolt & nut etc. 250amp. to 400amp.		Each	4.00	12.00	48.00			
		Total - I					25073.00			
		Sundries such as carriage of material and other hidden charges etc.@1% on Rs.25073					250.73			
		Add contractor's profit @ 10% i.e. on Rs. 25323.73					2532.37			
		Add labour cess @ 1% i.e. on Rs. 27856.1					278.56			
							28134.66	28134.66		28134.66
II		<b>Labour</b>								
		Taking output	1	Each						
(i)		Wireman (1st Class)		Day	1	164.69	164.69			
		Total - II					164.69			
		Sundries such as uses of tools and other hidden charges etc.@1% on Rs.164.69					1.65			
		Add contractor's profit @ 21.5% i.e. on Rs. 166.34					35.76			
		Add labour cess @ 1% i.e. on Rs. 202.1					2.02			
		Labour for	1	Each			204.12			
		Labour for	1	Each			204.12	204.12		
		Cost for	1	Each				28338.78		
		Add 10% for sub mountainous region								20.41
		Labour for	1	Each						224.53
		Cost for	1	Each						28359.19



Sr. No.	Code No.	Description	Unit	Quantity	Plain			For Sub-Mountainous Region		
					Rate (In Rs.)	Cost (In Rs.)	Total (In Rs.)	Rate (In Rs.)	Cost (In Rs.)	Total (In Rs.)
1	2	3	4	5	6	7	8	9	10	11

(ix)		400amp. 415 volts breaking capacity ≥50kA four pole microprocessor based adjustable thermal and magnetic protection MCCB unit								
		Unit :-	1	Each						
I		<b>Materials</b>								
(i)		400amp. 415 volts breaking capacity ≥50kA four pole microprocessor based adjustable thermal and magnetic protection MCCB unit								
				Each	1.00	25775.80	25775.80			
(ii)		G.I. bolt & nut/rag bolt & nut etc. 250amp. to 400amp.		Each	4.00	12.00	48.00			
		Total - I					25823.80			
		Sundries such as carriage of material and other hidden charges etc.@1% on Rs.25823.8					258.24			
		Add contractor's profit @ 10% i.e. on Rs. 26082.04					2608.20			
		Add labour cess @ 1% i.e. on Rs. 28690.24					286.90			
							28977.14	<b>28977.14</b>		<b>28977.14</b>
II		<b>Labour</b>								
		Taking output	1	Each						
(i)		Wireman (1st Class)		Day	1	164.69	164.69			
		Total - II					164.69			
		Sundries such as uses of tools and other hidden charges etc.@1% on Rs.164.69					1.65			
		Add contractor's profit @ 21.5% i.e. on Rs. 166.34					35.76			
		Add labour cess @ 1% i.e. on Rs. 202.1					2.02			
		Labour for	1	Each			<b>204.12</b>			
		Labour for	1	Each			204.12	<b>204.12</b>	204.12	
		Cost for	1	Each				<b>29181.26</b>		
		<b>Add 10% for sub mountainous region</b>								20.41
		Labour for	1	Each						<b>224.53</b>
		Cost for	1	Each						<b>29201.67</b>

Sr. No.	Code No.	Description	Unit	Quantity	Plain			For Sub-Mountainous Region		
					Rate (In Rs.)	Cost (In Rs.)	Total (In Rs.)	Rate (In Rs.)	Cost (In Rs.)	Total (In Rs.)
1	2	3	4	5	6	7	8	9	10	11
(x)		500amp. 415 volts breaking capacity ≥50kA four pole microprocessor based adjustable thermal and magnetic protection unit								
		Unit :-	1	Each						
I		<b>Materials</b>								
(i)		500amp. 415 volts breaking capacity ≥50kA four pole microprocessor based adjustable thermal and magnetic protection unit		Each	1.00	28028.00	28028.00			
(ii)		G.I. bolt & nut/rag bolt & nut etc. 630amp. to 1000amp.		Each	4.00	20.00	80.00			
		Total - I					28108.00			
		Sundries such as carriage of material and other hidden charges etc.@1% on Rs.28108					281.08			
		Add contractor's profit @ 10% i.e. on Rs. 28389.08					2838.91			
		Add labour cess @ 1% i.e. on Rs. 31227.99					312.28			
							31540.27			31540.27
II		<b>Labour</b>								
		Taking output	1	Each						
(i)		Wireman (1st Class)		Day	1	164.69	164.69			
		Total - II					164.69			
		Sundries such as uses of tools and other hidden charges etc.@1% on Rs.164.69					1.65			
		Add contractor's profit @ 21.5% i.e. on Rs. 166.34					35.76			
		Add labour cess @ 1% i.e. on Rs. 202.1					2.02			
		Labour for	1	Each			204.12			
		Labour for	1	Each			204.12		204.12	
		Cost for	1	Each						
							31744.39			
		<b>Add 10% for sub mountainous region</b>								20.41
		Labour for	1	Each						224.53
		Cost for	1	Each						31764.80

Sr. No.	Code No.	Description	Unit	Quantity	Plain			For Sub-Mountainous Region		
					Rate (In Rs.)	Cost (In Rs.)	Total (In Rs.)	Rate (In Rs.)	Cost (In Rs.)	Total (In Rs.)
1	2	3	4	5	6	7	8	9	10	11

(xi)		<b>630amp. 415 volts breaking capacity ≥50kA four pole microprocessor based adjustable thermal and magnetic protection MCCB unit</b>								
		Unit :-	1	Each						
<b>I</b>		<b>Materials</b>								
(i)		630amp. 415 volts breaking capacity ≥50kA four pole microprocessor based adjustable thermal and magnetic protection MCCB unit								
				Each	1.00	28028.00	28028.00			
(ii)		G.I. bolt & nut/rag bolt & nut etc. 630amp. to 1000amp.		Each	4.00	20.00	80.00			
		Total - I					28108.00			
		Sundries such as carriage of material and other hidden charges etc.@1% on Rs.28108					281.08			
		Add contractor's profit @ 10% i.e. on Rs. 28389.08					2838.91			
		Add labour cess @ 1% i.e. on Rs. 31227.99					312.28			
							31540.27	<b>31540.27</b>		<b>31540.27</b>
<b>II</b>		<b>Labour</b>								
		Taking output	1	Each						
(i)		Wireman (1st Class)		Day	1	164.69	164.69			
		Total - II					164.69			
		Sundries such as uses of tools and other hidden charges etc.@1% on Rs.164.69					1.65			
		Add contractor's profit @ 21.5% i.e. on Rs. 166.34					35.76			
		Add labour cess @ 1% i.e. on Rs. 202.1					2.02			
		Labour for	1	Each			<b>204.12</b>			
		Labour for	1	Each			204.12	<b>204.12</b>	204.12	
		Cost for	1	Each				<b>31744.39</b>		
		<b>Add 10% for sub mountainous region</b>								20.41
		Labour for	1	Each						<b>224.53</b>
		Cost for	1	Each						<b>31764.80</b>

Sr. No.	Code No.	Description	Unit	Quantity	Plain			For Sub-Mountainous Region		
					Rate (In Rs.)	Cost (In Rs.)	Total (In Rs.)	Rate (In Rs.)	Cost (In Rs.)	Total (In Rs.)
1	2	3	4	5	6	7	8	9	10	11