

Control Station and Control Panel: Control Box, ECT series



A QUALITY PRODUCT

Flameproof Zone 1 & 2 – 21 & 22

Application

The ECT control boxes are designed for use

- in hazardous areas, zone 1, 2 and zone 21, 22.
- installation in petroleum refineries, chemical plants, storage areas where hazardous substances are handled.
- instrument box with circular or rectangular window.
- containing analogue and digital measuring instruments.
- indicating the electrical function performed.

The circuit breakers are suitable for

- short circuit and overcurrent protection of service entrance, feeder, branch circuit, lighting or motor circuit and serve as a disconnecting mean.

The motor starters are suitable for

- single speed, non-reversing starting and stopping of AC squirrel cage induction motors.
- direct-on-line or star-delta starting method.

The circuit breaker panelboards are suitable for

- control of branch circuit distribution such as lighting circuits, receptacles, pumps or motors.

Technical Data

Hazardous Area	Gas	Dust
Zones	1 & 2	21 & 22
Conforming to ATEX	Ex II 2G	Ex II 2D
Symbol of Protection ATEX	Ex db IIB Gb	Ex tb IIIC Db
Symbol of Protection IEC		
T Rating	T6 (Ta 40 °C) T5 (Ta 55 °C)	NA
Surface Temp.	NA	T80°C (Ta 40 °C) T100°C (Ta 55 °C)
Standard	ATEX Directive 2014/34/EU, std. EN 60079-0:2012, EN 60079-1:2014, EN 60079-31:2014 IECEx Scheme, std. IEC 60079-0:2011, IEC 60079-1:2014, IEC 60079-31:2013	
Ambient Temperature	-20 °C to +55 °C	
Index of Protection	IP66	
Entries	NPT or Metric threads	
Mounting	Wall type	

The enclosure with panel mounted operating devices

Circuit breaker box



Motor starter Box



Circuit breaker panelboard

Specification

- Body, cover : Marine grade copper-free aluminium alloy with polyester powder coated, RAL 7032 (Grey)
- Lid screws : Stainless steel
- Sealing gasket : Silicone -40 °C to +175 °C

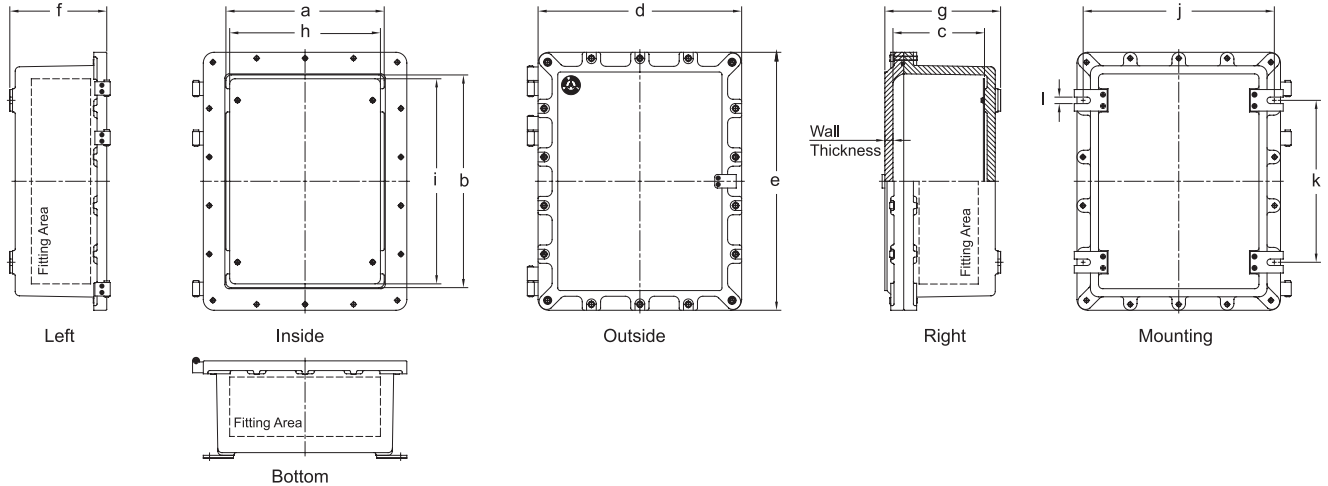


Control Station and Control Panel: Control Box, ECT series



Flameproof
Zone 1 & 2 – 21 & 22

Dimension



Cat. No.	Dimension in mm.												Wall Thickness	Volume (dm ³)	Empty Weight (kgs.)
	Inside			Outside				Equipment Plate		Mounting					
	a	b	c	d	e	f	g	h	i	j	k	l			
ECT 684	96	151	86	160	215	88	113	90	145	130	100	7.5	7	1.25	3.75
ECT 685	97	151	108	160	215	113	138	90	145	130	100	7.5	7	1.58	4.00
ECT 6103	105	210	44	155	264	64	82	97	206	-	-	-	8	0.97	3.82
ECT 885	134	134	103	205	205	101	136	115	115	180	100	10	10	1.85	5.45
ECT 886	134	134	122	205	205	119	154	115	115	180	100	10	10	2.19	5.66
ECT 8114	136	208	80	210	285	84	120	125	205	190	140	12	13	2.26	6.75
ECT 8126	130	235	110	205	310	115	150	115	220	190	160	12	13	3.36	9.25
ECT 8186	130	388	114	207	465	118	155	120	375	185	300	12	13	5.75	13.45
ECT 8187	130	388	164	207	465	168	205	120	375	185	300	12	13	8.27	14.15
ECT 9156	158	308	114	237	387	120	155	150	295	210	230	12	13	5.55	11.00
ECT 9157	158	309	164	237	387	170	205	150	295	210	230	12	13	8.01	13.40
ECT 9206	153	431	119	230	508	121	160	140	420	210	350	12	13	7.85	14.01
ECT 9207	153	431	169	230	508	171	210	140	420	210	350	12	13	11.14	16.80
ECT 101610	170	320	216	246	396	215	260	155	295	235	240	12	15	11.75	15.88
ECT 11217	203	445	164	285	525	173	210	195	435	260	350	12	15	14.81	22.33
ECT 11218	203	445	173	285	525	183	220	195	435	260	350	12	15	15.63	26.10
ECT 12126	240	240	106	315	315	115	150	235	235	295	170	12	15	6.11	13.01
ECT 12127	240	240	146	315	315	155	190	235	235	295	170	12	15	8.41	15.85
ECT 15156	298	298	110	380	380	117	156	280	280	360	240	12	15	9.77	19.55
ECT 151510	298	298	219	380	380	225	264	280	280	360	240	12	15	19.45	26.61
ECT 15197	294	394	163	378	478	173	208	280	380	355	300	12	15	18.88	31.83
ECT 15198	294	394	170	378	478	180	215	280	380	355	300	12	15	19.69	32.01
ECT 162810	318	615	224	401	698	223	270	300	595	380	450	12	15	43.81	35.75
ECT 18188	370	370	178	460	460	178	221	355	355	435	300	12	15	24.37	30.55
ECT 20208	411	411	163	505	505	171	216	395	395	505	290	15	18	27.53	45.05
ECT 202410	422	522	204	505	605	214	261	405	510	505	450	15	18	44.94	51.05
ECT 20329†	418	707	200	510	800	211	255	405	690	510	335	15	20	59.11	73.88
ECT 203611†	407	800	224	520	925	248	291	405	800	515	340	15	25	72.93	107.50
ECT 284411†	586	986	225	710	1110	227	286	580	950	700	400	15	25	130.00	164.74

† 6 Mounting feet.

Control Station and Control Panel: Control Box, ECT series

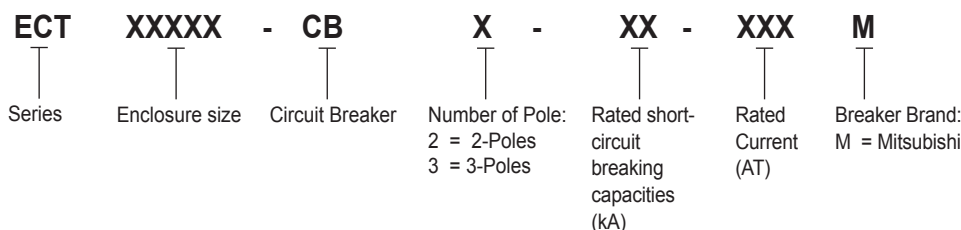


A QUALITY PRODUCT

Flameproof
Zone 1 & 2 – 21 & 22

Catalogue Number

Catalogue Number Logic



D

Molded-Case Circuit Breaker "Mitsubishi"					Cat. No.	Molded-Case Circuit Breaker "Mitsubishi"					Cat. No.
Model	Frame Size (AF)	Rated Current (AT)	Pole	Rated short-circuit breaking capacities (kA)		Model	Frame Size (AF)	Rated Current (AT)	Pole	Rated short-circuit breaking capacities (kA)	
NF32-SV	32	3	2	7.5kA. at 230V.	ECT8126-CB27X5-003M	125	16	2	50kA. at 230V.	ECT9157-CB250-016M	
					ECT8126-CB27X5-004M					ECT9157-CB250-020M	
					ECT8126-CB27X5-006M					ECT9157-CB250-032M	
					ECT8126-CB27X5-010M					ECT9157-CB250-040M	
					ECT8126-CB27X5-016M					ECT9157-CB250-050M	
					ECT8126-CB27X5-020M					ECT9157-CB250-063M	
					ECT8126-CB27X5-025M					ECT9207-CB250-080M	
	ECT8126-CB27X5-032M	ECT9207-CB250-100M									
	63	3	3	5kA. at 400V.	ECT8126-CB305-003M	NF125-SV	16	3	30kA. at 400V.	ECT9157-CB330-016M	
					ECT8126-CB305-004M					ECT9157-CB330-020M	
					ECT8126-CB305-006M					ECT9157-CB330-032M	
					ECT8126-CB305-010M					ECT9157-CB330-040M	
					ECT8126-CB305-016M					ECT9157-CB330-050M	
					ECT9157-CB305-020M					ECT9157-CB330-063M	
ECT9157-CB305-025M					ECT11218-CB330-080M						
ECT9157-CB305-032M	ECT11218-CB330-100M										
NF63-HV	63	10	2	25kA. at 230V.	ECT8126-CB225-010M	NF250-SV	250	150	3	36kA. at 400V.	ECT162810-CB336-150M
					ECT8126-CB225-016M						ECT162810-CB336-175M
					ECT8126-CB225-020M						ECT162810-CB336-200M
					ECT8126-CB225-025M						ECT162810-CB336-225M
					ECT8126-CB225-032M						ECT162810-CB336-250M
					ECT8126-CB225-040M						
					ECT9157-CB225-050M						
	ECT9157-CB225-063M										
	10	3	3	10kA. at 400V.	ECT8126-CB310-010M	NF400-SW	400	250	3	45kA. at 400V.	ECT20329-CB345-250M
					ECT8126-CB310-016M						ECT20329-CB345-300M
					ECT9157-CB310-020M						ECT20329-CB345-350M
					ECT9157-CB310-025M						ECT20329-CB345-400M
					ECT9157-CB310-032M						
					ECT9157-CB310-040M						
ECT9157-CB310-050M											
ECT9157-CB310-063M											
16	3	3	50kA. at 400V.	ECT203611-CB350-500M	NF630-SW	630	500	3	50kA. at 400V.	ECT203611-CB350-600M	
				ECT203611-CB350-600M							
				ECT203611-CB350-630M							

Circuit Breaker Accessories

- Internal accessories of circuit breaker
 - **Alarm switch** (Indicates that the breaker has tripped.)
 - **Auxiliary switch** (Indicates whether the breaker is ON or OFF)
 - **Shunt trip** (Trip the breaker electrically by Mushroom-head push button.)
 - **Undervoltage trip** (Trip the breaker automatically when the voltage drops.)

Control Station and Control Panel: Control Box, ECT series



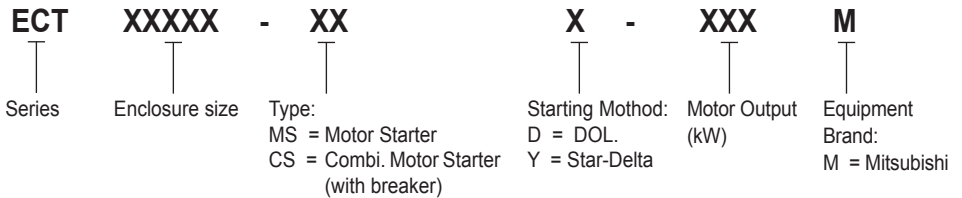
A QUALITY PRODUCT

Flameproof
Zone 1 & 2 – 21 & 22

Catalogue Number



Catalogue Number Logic



3Ph. Motor 380/220V.		Average Full Load (I _{FL})	Cat. No.			
kW.	HP		Motor Starter		Combination Motor Starter	
			Direct-On-Line	Star-Delta	Direct-On-Line	Star-Delta
0.37	0.5	1.2A.	ECT9157-MSD-X37M	-	ECT9207-CSD-X37M	-
0.55	0.75	1.6A.	ECT9157-MSD-X55M	-	ECT9207-CSD-X55M	-
0.75	1	2A.	ECT9157-MSD-X75M	-	ECT9207-CSD-X75M	-
1.1	1.5	2.6A.	ECT9157-MSD-1X1M	-	ECT9207-CSD-1X1M	-
1.5	2	3.5A.	ECT9157-MSD-1X5M	-	ECT9207-CSD-1X5M	-
2.2	3	5A.	ECT9157-MSD-2X2M	-	ECT9207-CSD-2X2M	-
3	4	6.6A.	ECT9157-MSD-3M	ECT15198-MSY-3M	ECT9207-CSD-3M	ECT15198-CSY-3M
3.7	5	8.2A.	ECT9157-MSD-3X7M	ECT15198-MSY-3X7M	ECT9207-CSD-3X7M	ECT15198-CSY-3X7M
4	5.5	8.5A.	ECT9157-MSD-4M	ECT15198-MSY-4M	ECT9207-CSD-4M	ECT15198-CSY-4M
5.5	7.5	11.5A.	ECT9157-MSD-5X5M	ECT15198-MSY-5X5M	ECT11218-CSD-5X5M	ECT15198-CSY-5X5M
7.5	10	15.5A.	ECT9157-MSD-7X5M	ECT15198-MSY-7X5M	ECT11218-CSD-7X5M	ECT15198-CSY-7X5M
11	15	22A.	ECT9207-MSD-11M	ECT15198-MSY-11M	ECT15198-CSD-11M	ECT15198-CSY-11M
15	20	30A.	ECT9207-MSD-15M	ECT15198-MSY-15M	ECT15198-CSD-15M	ECT15198-CSY-15M
18.5	25	37A.	ECT11218-MSD-18X5M	ECT20208-MSY-18X5M	ECT15198-CSD-18X5M	ECT20208-CSY-18X5M
22	30	44A.	ECT11218-MSD-22M	ECT20208-MSY-22M	ECT15198-CSD-22M	ECT20208-CSY-22M
30	40	60A.	ECT15198-MSD-30M	ECT162810-MSY-30M	ECT20208-CSD-30M	ECT162810-CSY-30M
37	50	72A.	ECT15198-MSD-37M	ECT162810-MSY-37M	ECT20208-CSD-37M	ECT162810-CSY-37M
45	60	85A.	ECT15198-MSD-45M	ECT20329-MSY-45M	ECT20208-CSD-45M	ECT20329-CSY-45M
55	75	105A.	ECT202410-MSD-55M	ECT20329-MSY-55M	ECT202410-CSD-55M	ECT203611-CSY-55M
75	100	140A.	ECT202410-MSD-75M	ECT203611-MSY-75M	ECT202410-CSD-75M	ECT203611-CSY-75M
90	125	170A.	ECT20329-MSD-90M	ECT284411-MSY-90M	ECT284411-CSD-90M	<i>consult factory</i>
110	150	205A.	ECT20329-MSD-110M	ECT284411-MSY-110M	ECT284411-CSD-110M	<i>consult factory</i>
132	180	245A.	ECT203611-MSD-132M	ECT284411-MSY-132M	ECT284411-CSD-132M	<i>consult factory</i>

Control Station and Control Panel: Control Box, ECT series

ALLOY

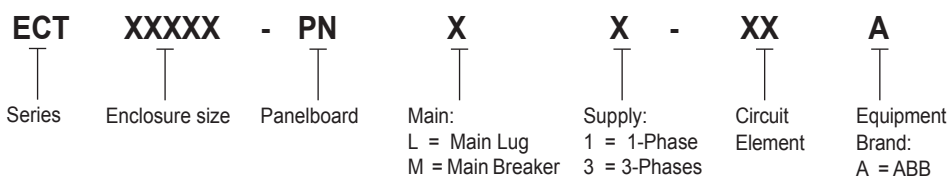


A QUALITY PRODUCT

**Flameproof
Zone 1 & 2 – 21 & 22**

Catalogue Number

Catalogue Number Logic



D

No. of Circuit	Main	Branch Breaker (MCB)		Cat. No.	
		Poles	Amp.	220V.AC. 50Hz.	380/220V.AC. 50Hz.
6	100A. max. Main Lug	2	6, 10, 16, 20, or 32	ECT20208- PNL1-12A	ECT20208- PNL3-12A
		3		-	ECT20208- PNL3-18A
8		2	ECT20208- PNL1-16A	ECT20208- PNL3-16A	
		3	-	ECT202410- PNL3-24A	
10		2	ECT202410- PNL1-20A	ECT202410- PNL3-20A	
		3	-	ECT202410- PNL3-30A	
14		2	ECT202410- PNL1-28A	ECT202410- PNL3-28A	
		3	-	ECT20329- PNL3-42A	
18		2	ECT20329- PNL1-36A	ECT20329- PNL3-36A	
		3	-	ECT203611- PNL3-54A	
20		2	ECT20329- PNL1-40A	ECT20329- PNL3-40A	
		3	-	ECT203611- PNL3-60A	
24		2	ECT203611- PNL1-48A	ECT203611- PNL3-48A	
		3	-	-	
4	125A. max. Main Breaker	2	6, 10, 16, 20, or 32	ECT20208- PNM1-08A	ECT20208- PNM3-08A
		3		-	ECT20208- PNM3-12A
6		2	ECT20208- PNM1-12A	ECT202410- PNM3-12A	
		3	-	ECT202410- PNM3-18A	
8		2	ECT202410- PNM1-16A	ECT202410- PNM3-16A	
		3	-	ECT202410- PNM3-24A	
12		2	ECT202410- PNM1-24A	ECT20329- PNM3-24A	
		3	-	ECT20329- PNM3-36A	
14		2	ECT20329- PNM1-28A	ECT20329- PNM3-28A	
		3	-	ECT20329- PNM3-42A	
18		2	ECT20329- PNM1-36A	ECT203611- PNM3-36A	
		3	-	-	
22		2	ECT203611- PNM1-44A	ECT203611- PNM3-44A	
		3	-	-	