

Control Station and Control Panel: Control Box, DCT1 series

Flameproof and Dust protection by enclosure

Zone 1 & 2 – 21 & 22



Application

The DCT1 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.

Specification

- Body, cover : Marine grade copper-free aluminium alloy with polyester powder coated, RAL 7032 (Grey)
- Lid screws : Stainless steel, SUS 304
- Sealing gasket : Silicone

Option

- Body, cover : Offshore painting (Acrylic polyurethane coating)
- Lid screws : Stainless steel, SUS 316

Technical Data

Hazardous Area	Gas	Dust
Zones	1 & 2	21 & 22
Equipment Group/Category	Ex II 2G	Ex II 2D
Symbol of Protection	Ex db IIB T6/T5 Gb	Ex tb IIIC T85°C/ T100°C Db IP66
Certificate	TÜV CY 18 ATEX 0206140 X	
Conformity to Standards	EN 60079-0:2012+A11:2013, EN 60079-1:2014, EN 60079-31:2014	
Ambient Temperature	-20°C to +55°C	
Index of Protection	IP66	
Entries	NPT or Metric threads	
Mounting	Wall mount	
Rated Voltage	Max. 415V.ac 50/60Hz.	

The enclosure with panel mounted operating devices



Circuit breaker box



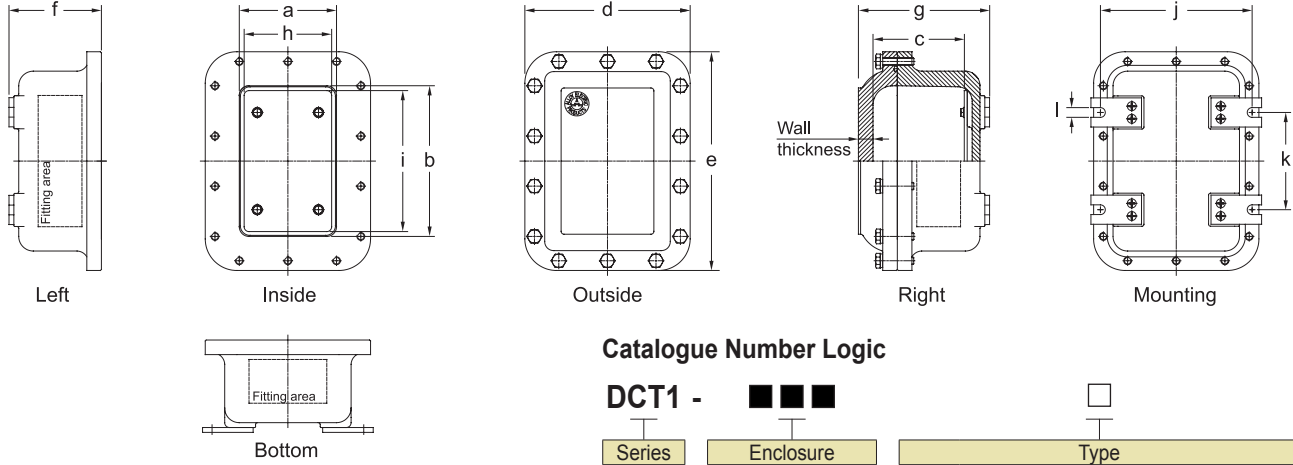
Motor starter Box



Circuit breaker panelboard



Dimension



Catalogue Number Logic

DCT1 - ■■■ □

Series	Enclosure (see catalogue number table)	Type
		<i>none</i> only terminal block or panel mounted
		CB Circuit breaker
		MS Motor starter
		CS Combination motor starter
		PN Panelboard

Cat. No.	Dimension in mm.												Wall Thickness	Volume (dm ³)	Empty Weight (kgs.)
	Inside			Outside				Equip. Plate		Mounting					
	a	b	c	d	e	f	g	h	i	j	k	l			
DCT1 685	100	155	102	170	225	94	134	85	140	160	100	10	15	1.497	4.8
DCT1 886	138	138	130	210	210	114	164	125	125	202	100	10	15	2.352	6.5
DCT1 8126	135	240	127	207	312	114	164	125	230	200	160	12	15	3.958	9.3
DCT1 8187	136	394	167	208	466	154	204	120	380	200	300	12	15	8.653	15.4
DCT1 9157	164	314	160	237	387	148	198	154	295	228	230	12	15	7.954	14.7
DCT1 9207	162	440	171	230	508	158	208	145	420	228	350	12	15	12.116	19.2
DCT1 101610	174	324	217	263	413	202	260	155	300	240	240	12	18	11.767	19.7
DCT1 11218	210	450	177	299	539	162	220	195	435	276	350	12	18	16.284	25.1
DCT1 12127	244	244	162	333	333	147	205	225	225	310	170	12	18	9.339	17.2
DCT1 15156	300	300	122	389	389	107	165	280	280	366	240	12	18	10.697	20.4
DCT1 151510	300	300	222	389	389	207	267	280	280	366	240	12	20	19.398	28.0
DCT1 15198	298	398	172	387	487	157	217	280	380	364	300	12	20	19.928	29.9
DCT1 162810	330	627	225	423	720	202	279	310	610	402	450	12	22	45.689	59.9
DCT1 20208	424	424	182	522	522	160	237	405	405	519	290	15	22	32.012	51.7
DCT1 202410	430	530	220	534	634	194	271	410	510	513	450	15	22	49.278	62.0
† DCT1 20329	423	713	208	532	822	184	262	400	690	510	650	15	23	61.662	77.7
† DCT1 203611	408	813	235	524	929	216	296	380	775	511	680	15	25	76.200	105.8
† DCT1 284411	600	1000	235	743	1143	216	301	565	965	707	800	15	30	138.576	188.9

† 6 Mounting feet.

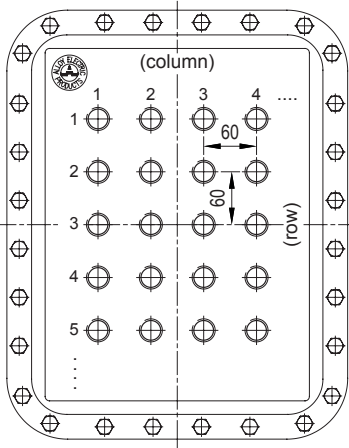
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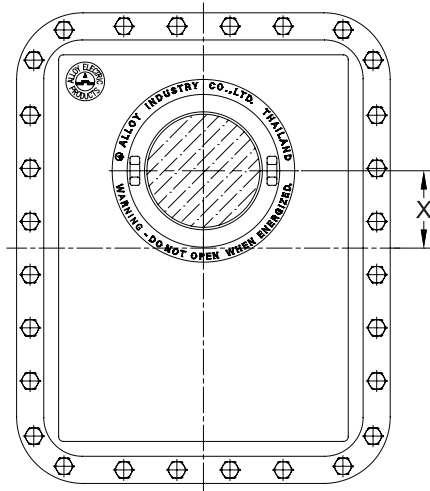
The enclosure with panel mounted operating devices



Cat. No.	Operating devices		Total
	Row	Column	
DCT1 685	1	1	1
DCT1 886	1	2	2
DCT1 8126	3	2	6
DCT1 8187	5	2	10
DCT1 9157	4	2	8
DCT1 9207	6	2	12
DCT1 101610	4	2	8
DCT1 11218	6	3	18
DCT1 12127	3	4	12
DCT1 15156	4	4	16
DCT1 151510	4	4	16
DCT1 15198	5	4	20
DCT1 162810	9	5	45
DCT1 20208	5	6	30
DCT1 202410	7	6	42
DCT1 20329	10	6	60
DCT1 203611	12	6	72
DCT1 284411	14	9	126

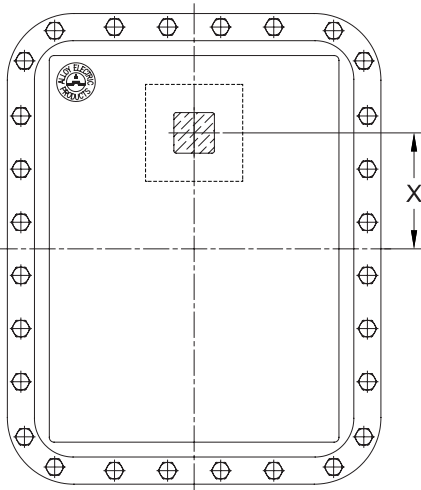
The enclosure with inspection windows

Round type, LGCR series



Cat. No.	X = Maximum center line of Cover to center line of Inspection window (unit : mm.)			
	LGCR1-50-M85	LGCR-113	LGCR-217	LGCR-320
DCT1 685	—	—	—	—
DCT1 886	0 (center)	—	—	—
DCT1 8126	50	—	—	—
DCT1 8187	120	—	—	—
DCT1 9157	90	—	—	—
DCT1 9207	150	—	—	—
DCT1 101610	100	—	—	—
DCT1 11218	150	100	—	—
DCT1 12127	50	0 (center)	—	—
DCT1 15156	80	30	0 (center)	0 (center)
DCT1 151510	80	30	0 (center)	0 (center)
DCT1 15198	120	80	50	0 (center)
DCT1 162810	230	200	170	150
DCT1 20208	140	100	50	50
DCT1 202410	190	150	120	100
DCT1 20329	250	220	200	200
DCT1 203611	300	270	250	250
DCT1 284411	400	350	300	300

Rectangular type, LGCS series



Cat. No.	X = Maximum center line of Cover to center line of Inspection window (unit : mm.)					
	LGCS-142	LGCS-260	LGCS-383	LGCS-430	LGCS-5120	LGCS-6200
DCT1 685	—	—	—	—	—	—
DCT1 886	0 (center)	—	—	—	—	—
DCT1 8126	50	40	—	—	—	—
DCT1 8187	120	120	—	—	—	—
DCT1 9157	80	80	70	—	—	—
DCT1 9207	150	150	120	—	—	—
DCT1 101610	90	90	70	—	—	—
DCT1 11218	150	150	130	—	100	—
DCT1 12127	50	50	30	50	0 (center)	0 (center)
DCT1 15156	80	70	60	70	40	0 (center)
DCT1 151510	80	70	60	70	40	0 (center)
DCT1 15198	120	120	100	130	80	30
DCT1 162810	240	230	210	230	200	140
DCT1 20208	140	120	120	140	100	50
DCT1 202410	190	180	160	200	150	100
DCT1 20329	250	250	250	250	230	170
DCT1 203611	300	300	300	300	280	220
DCT1 284411	400	400	370	400	350	320





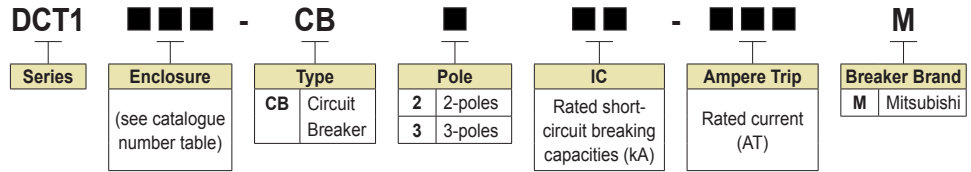
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Catalogue Number Logic



Ordering Requirements

Molded-Case Circuit Breaker "Mitsubishi"					Cat. No.	
Model	Frame Size (AF)	Rated Current (AT)	Pole	Rated short-circuit breaking capacities (kA)		
NF32-SV	32AF	7.5kA. at 230V.	2	3	DCT1 8126-CB27X5-003M	
				4	DCT1 8126-CB27X5-004M	
				6	DCT1 8126-CB27X5-006M	
				10	DCT1 8126-CB27X5-010M	
				16	DCT1 8126-CB27X5-016M	
				20	DCT1 8126-CB27X5-020M	
				25	DCT1 8126-CB27X5-025M	
				32	DCT1 8126-CB27X5-032M	
				63AF	5kA. at 400V.	3
	4	DCT1 8126-CB305-004M				
	6	DCT1 8126-CB305-006M				
	10	DCT1 8126-CB305-010M				
	16	DCT1 8126-CB305-016M				
	20	DCT1 8126-CB305-020M				
	25	DCT1 8126-CB305-025M				
	32	DCT1 8126-CB305-032M				
	NF63-HV	63AF	25kA. at 230V.			
				16	DCT1 8126-CB225-016M	
20				DCT1 8126-CB225-020M		
25				DCT1 8126-CB225-025M		
32				DCT1 8126-CB225-032M		
40				DCT1 8126-CB225-040M		
63AF		10kA. at 400V.	3	50	DCT1 9157-CB225-050M	
				63	DCT1 9157-CB225-063M	
				10	DCT1 8126-CB310-010M	
				16	DCT1 8126-CB310-016M	
				20	DCT1 8126-CB310-020M	
				25	DCT1 8126-CB310-025M	
NF630-SW	630AF	50kA. at 400V.	3	32	DCT1 8126-CB310-032M	
				40	DCT1 8126-CB310-040M	
				50	DCT1 9157-CB310-050M	
				63	DCT1 9157-CB310-063M	

Molded-Case Circuit Breaker "Mitsubishi"					Cat. No.				
Model	Frame Size (AF)	Rated Current (AT)	Pole	Rated short-circuit breaking capacities (kA)					
NF125-SV	125AF	50kA. at 230V.	2	16	DCT1 9157-CB250-016M				
				20	DCT1 9157-CB250-020M				
				32	DCT1 9157-CB250-032M				
				40	DCT1 9157-CB250-040M				
				50	DCT1 9157-CB250-050M				
				63	DCT1 9157-CB250-063M				
				80	DCT1 9207-CB250-080M				
				100	DCT1 9207-CB250-100M				
				125	DCT1 9207-CB250-125M				
				NF250-SV	250AF	36kA. at 400V.	3	16	DCT1 9157-CB330-016M
								20	DCT1 9157-CB330-020M
								32	DCT1 9157-CB330-032M
40	DCT1 9157-CB330-040M								
50	DCT1 9157-CB330-050M								
63	DCT1 9157-CB330-063M								
80	DCT1 11218-CB330-080M								
100	DCT1 11218-CB330-100M								
125	DCT1 11218-CB330-125M								
NF400-SW	400AF	45kA. at 400V.	3					150	DCT1 162810-CB336-150M
								175	DCT1 162810-CB336-175M
								200	DCT1 162810-CB336-200M
				225	DCT1 162810-CB336-225M				
				250	DCT1 162810-CB336-250M				
				NF630-SW	630AF	50kA. at 400V.	3	250	DCT1 20329-CB345-250M
300	DCT1 20329-CB345-300M								
350	DCT1 20329-CB345-350M								
400	DCT1 20329-CB345-400M								
500	DCT1 203611-CB350-500M								
NF630-SW	630AF	50kA. at 400V.	3	600	DCT1 203611-CB350-600M				
				630	DCT1 203611-CB350-630M				

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.)

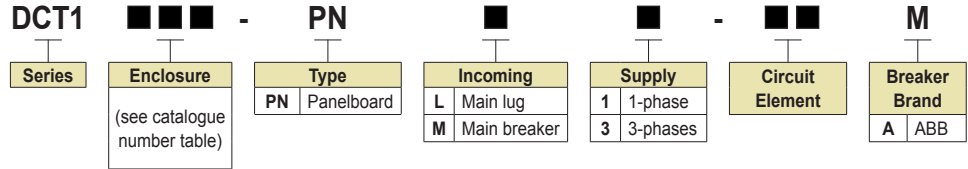


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Ordering Requirements

No. of Circuit	Main	Branch Breaker (MCB)		Cat. No.	
		Poles	Amp.	220V.ac 50Hz.	220/380V.ac 50Hz.
6	100A. max. Main Lug	2	6, 10, 16, 20, or 32	DCT1 20208- PNL1-12A	DCT1 20208- PNL3-12A
		3		-	DCT1 20208- PNL3-18A
8		2		DCT1 20208- PNL1-16A	DCT1 20208- PNL3-16A
		3		-	DCT1 202410- PNL3-24A
10		2		DCT1 202410- PNL1-20A	DCT1 202410- PNL3-20A
		3		-	DCT1 202410- PNL3-30A
14		2		DCT1 20329- PNL1-28A	DCT1 20329- PNL3-28A
		3		-	DCT1 203611- PNL3-42A
18		2		DCT1 20329- PNL1-36A	DCT1 203611- PNL3-36A
		3		-	DCT1 203611- PNL3-54A
20	2	DCT1 203611- PNL1-40A	DCT1 203611- PNL3-40A		
	3	-	DCT1 203611- PNL3-60A		
4	125A. max. Main Breaker	2	6, 10, 16, 20, or 32	DCT1 20208- PNM1-08A	DCT1 20208- PNM3-08A
6		3		-	DCT1 20208- PNM3-12A
		2		DCT1 20208- PNM1-12A	DCT1 20208- PNM3-12A1
8		3		-	DCT1 202410- PNM3-18A
		2		DCT1 202410- PNM1-16A	DCT1 202410- PNM3-16A
12		3		-	DCT1 202410- PNM3-24A
		2		DCT1 20329- PNM1-24A	DCT1 20329- PNM3-24A
14		3		-	DCT1 20329- PNM3-36A
		2		DCT1 20329- PNM1-28A	DCT1 20329- PNM3-28A
16		3		-	DCT1 203611- PNM3-42A
		2		DCT1 203611- PNM1-32A	DCT1 203611- PNM3-32A

A

B

C

D

E

F

G

H