

SINCE 1955

DEVICO

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DONG-A PRODUCTS GUIDE

Molded Case Circuit Breakers
Earth Leakage Circuit Breakers
Air Circuit Breakers

Magnetic Contactors / Switches
Thermal Overload Relays
Auto Transfer Switches



DONG-A[®] ELECTRIC DEVICE CO., LTD.

MADE IN KOREA



Dreams

Promoting happiness is the aim of DEVICO technology.
Our state-of-the-art technology cherishes humanism and helps realize dreams.

Imagination

DEVICO's cutting-edge technology is taking the lead in the electric and electronic industrial field.
We dream of a digital world that is prosperous, convenient, and promising.

Service

DEVICO's service aims at a greener and cleaner environment with its goal to harmonize man and nature.
The services provided are future-oriented and environment-friendly.

ELCB & MCCB (Molded Case Circuit Breakers & Earth Leakage Circuit Breakers) Page 3~8



-DBE/DB Series are small and economical breaker which protects from a fire danger and equipment damages caused by overload, short. We choose complete electric type and thermal electric type which is excellent performance characteristic.
-Also, as we standardize its size, has enormous compatibility to be easy attached other types and accessories.
-All Your Requirements Fill with Contentment.

Features

- As same size as MCCB and ELC
- 4p ELCB is also same size as MCCB, can build a Distribution Board easily
- Simplified installation, high breaking capacity, optimized protection
- Easy trip check by using built in trip unit

Breaker for Distribution Board (MCCB & ELCB) Page 9~11



Features

- As same size as Wiring Breaker and Electric Leakage Breaker(30~100AF)
- Simplified and minimize 60% of size compare of ex-product in 3P & 4P
- Easy to build a Distribution Board by being same size of other breakers

MC&MS (Magnetic Contactors & Magnetic Switches) Page 12~14

- Our magnetic contactors are based on accumulated technique long time, and suitably designed to export by acquired international certificate. In addition, simple wiring and inspect give customer satisfaction.
- Using a silver alloy contact and stable movement guarantee long mechanical and electronic life.



Features

- No noise (Electric & Mechanical)
- High durability by increasing reliability and stabilizing of a point of contact
- Minimized power consumption
- Easy detach by using modularized sub-contact
- Installed cover for protect from touch
- AC Controls DC excitation system for voltage dip
- Acquired overseas certificate (CE, VDE, CCC, TUV)

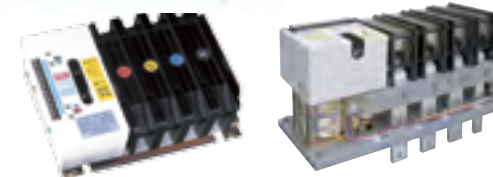
new

AIR CIRCUIT BREAKERS & AUTOMATIC TRANSFER SWITCHES Page 23~26



Features of DACB

- Satisfy with diversity and safety
- Elevated reliability with structure confirming cause of problem by each step



Feature of DATS

- Excellent latching equipment has an ample current flow capability by choosing two-coil method (TS, TN TYPE)
- Standing out in melting over current strength and one-coil method(MS/MSN TYPE)
- It is designed to protect the danger of occurrence of accidents caused by phase difference effectively, especially at single phase-using points.

MCCB 630AF Page 21



Features

- Arc-Extinguish Unit
- Applied SAPO which is our patent (SAPO : Self Arc - Pushing Out Function)
- Easy to make space by minimize 210×275×103(600AF size to 140×257×103(400AF size)
- As same size as MCCB and ELCB and embedded ZCT
- Maximizing control convenience by using accessory cartridge

Home Panel Board Page 11



Feature

- Optimal for house branch circuit.
- Wide range for choice according to the diversification of rated current
- Excellent breaking performance by embedding the solenoid of current-limit structure (6kA at 220V)

MOLDED CASE CIRCUIT BREAKERS(MCCB) ECONOMIC TYPE



Frame Size(AF)			30AF		50AF			60AF			100AF			225AF			400AF			600AF			new 630AF	800AF					
Model			DB32Cb	DB33Cb	DB52Cb	DB53Cb	DB54Cb	DB62Cb	DB63Cb	DB64Cb	DB102Cb	DB103Cb	DB104Cb	DB202Cb	DB203Cb	DB204Cb	DB402C	DB403C	DB404C	DB602C	DB603C	DB604C	DB632C	DB633C	DB634C	DB802C	DB803C	DB804C	
Number of Poles			2	3	2	3	4	2	3	4	2	3	4	2	3	4	2	3	4	2	3	4	2	3	4	2	3	4	
ZCT Built-In					0			0			0			0			0												
Rating	Rated Current	A	(5,10) (Note1) 15, 20, 30		(5,10)15, 20, 30, 40, 50			15, 20, 30, 40, 50, 60			15, 20, 30, 40, 50, 60, 75, 100			125, 150, 175, 200, 225			250, 300, 350, 400			500, 600			500, 600, 630			700, 800			
	Rated Voltage	AC(V)	460		600			600			600			600			600			600			600			600			
		DC(V)	125		250		—	250		—	250		—	250		—	250		—	250		—	250		—	250			
	Rated Insulation Voltage	V	460		690			690			690			690			690			690			690			690			
Ultimate Breaking	AC	600V	—		5			5			7.5			7.5			18			22			22			22			
Capacity(kA)		480/500V	—		7.5			7.5			10			10			22			25			25			25			
KSC 8321(Sym)		460V	(2.5)5		(5)10			10			14			18			30			35			35			35			
ICE60947-2(Icu)		415V	5		10			10			14			18			30			35			35			35			
Ics=0.5Icu		380V	5		14			14			18			18			30			42			42			42			
		220V	(5)10		(10)25			25			25			35			42			50			50			50			
DC	250V		(5)10		5			—	5		—	7.5		—	10		—	10		—	20		—	20		—	20		
	125V		—		10			—	10		—	14		—	15		—	20		—	30		—	30		—	30		
Over Current Trip			Oil Dash Pot		Oil Dash Pot			Oil Dash Pot			Oil Dash Pot			Thermal Magnetic			Thermal Magnetic			Thermal Magnetic			Thermal Magnetic			Thermal Magnetic			
Accessories	Auxiliary switch	AX	—		○			○			○			○			○			○			○			○			
	Alarm switch	AL	—		○			○			○			○			○			○			○			○			
	Shunt trip	SHT	—		○			○			○			○			○			○			○			○			
	Direct rotary handle	DH	—		○			○			○			○			—			—			—			—			
	Terminal shield		—		○			○			○			○			○			—			—			—			
	Insulation barrier		—		○			○			○			○			○			○			○			○			
External Dimensions(mm)	a		50	75	50	75	100	50	75	100	50	75	100	105		140	140		184	210		280	140		184	210		280	
	 b		96		130			130			130			165			257			275			257			275			
	c		60		60			60			60			60			103			103			103			103			
	d		80		80			80			80			82.5			133			149			133			149			
Certificates Obtained			KS, CE		KS, CE			KS, CE			KS, CE			KS	KS, CE		KS	KS(350,400A Except),CE		KS	KS, CE		KS	KS, CE		KS	KS, CE		

MOLDED CASE CIRCUIT BREAKERS(MCCB) STANDARD TYPE



Frame Size(AF)			30AF			50AF			60AF			100AF			225AF			400AF			600AF			new 630AF	800F				
Model			DB32Sb	DB33Sb	DB34Sb	DB52Sb	DB53Sb	DB54Sb	DB62Sb	DB63Sb	DB64Sb	DB102Sb	DB103Sb	DB104Sb	DB202Sb	DB203Sb	DB204Sb	DB402S	DB403S	DB404S	DB602S	DB603S	DB604S	DB632S	DB633S	DB634S	DB802S	DB803S	DB804S
Number of Poles			2	3	4	2	3	4	2	3	4	2	3	4	2	3	4	2	3	4	2	3	4	2	3	4	2	3	4
ZCT Built-In			0			0			0			0			0			0											
Rating	Rated Current	A	5, 10, 15, 20, 30			15, 20, 30, 40, 50			15, 20, 30, 40, 50, 60			15, 20, 30, 40, 50, 60, 75, 100			100, 125, 150, 175, 200, 225			250, 300, 350, 400			500, 600			500, 600, 630			700, 800		
	Rated Voltage	AC(V)	600			600			600			600			600			600			600			600			600		
		DC(V)	250			250			250			250			250			250			250			250			250		
	Rated Insulation Voltage	V	690			690			690			690			690			690			690			690			690		
Ultimate Breaking	AC	600V	5			7.5			7.5			10			10			22			25			25			25		
Capacity(kA)		480/500V	7.5			10			10			14			14			25			45			45			45		
KSC 8321(Sym)		460V	10			14			14			25			25			35			50			50			50		
ICE60947-2(lcu)		415V	10			14			14			25			25			35			50			50			50		
Ics=0.5Icu		380V	14			18			18			25			25			42			65			65			65		
		220V	25			25			25			50			50			50			100			100			100		
DC	250V		5		—	7.5		—	7.5		—	14		—	14		—	20		—	40		—	40		—	40		—
	125V		10		—	14		—	14		—	20		—	20		—	30		—	50		—	50		—	50		—
Over Current Trip			Oil Dash Pot			Oil Dash Pot			Oil Dash Pot			Thermal Magnetic			Thermal Magnetic			Thermal Magnetic			Thermal Magnetic			Thermal Magnetic			Thermal Magnetic		
Accessories	Auxiliary switch	AX	○			○			○			○			○			○			○			○			○		
	Alarm switch	AL	○			○			○			○			○			○			○			○			○		
	Shunt trip	SHT	○			○			○			○			○			○			○			○			○		
	Direct rotary handle	DH	○			○			○			○			○			—			—			—			—		
	Terminal shield		○			○			○			○			○			○			—			—			—		
	Insulation barrier		○			○			○			○			○			○			○			○			○		
External Dimensions(mm)	a		50	75	100	50	75	100	50	75	100	60	90	120	105		140	140		184	210		280	140		184	210		280
	b		130			130			130			155			165			257			275			257			275		
	c		60			60			60			60			60			103			103			103			103		
	d		80			80			80			80			82.5			133			149			133			149		
Certificates Obtained			KS, CE			KS, CE			KS, CE			KS	KS, CE		KS	KS, CE		KS	KS, CE		KS	KS, CE		KS	KS, CE		KS	KS, CE	

MOLDED CASE CIRCUIT BREAKERS(MCCB)
HIGH INTERRUPTING CAPACITY TYPE



Frame Size(AF)		30AF			50AF			100AF			225AF			400AF		
Model		DB32Hb	DB33Hb	DB34Hb	DB52Hb	DB53Hb	DB54Hb	DB102Hb	DB103Hb	DB104Hb	DB202Hb	DB203Hb	DB204Hb	DB402H	DB403H	DB404H
Number of Poles		2	3	4	2	3	4	2	3	4	2	3	4	2	3	4
ZCT Built-In		0			0			0			0			0		
Rating	Rated Current	A			15, 20, 30			15, 20, 30, 40, 50			15, 20, 30, 40, 50, 60, 75, 100			100, 125, 150, 175, 200, 225		
	Rated Voltage	AC(V)			600			600			600			600		
	DC(V)	250			250			250			250			250		
Rated Insulation Voltage		V			690			690			690			690		
Ultimate Breaking		AC			600V			10			18			25		
Capacity(kA)		480/500V			10			14			25			35		
KSC8321(Sym)		460V			14			25			35			50		
ICE60947-2(Icu)		415V			14			25			35			50		
Ics=0.5Icu		380V			18			25			35			65		
		220V			25			50			65			85		
DC	250V	7.5			14			18			18			40		
	125V	14			20			25			25			50		
Over Current Trip		Oil Dash Pot			Thermal Magnetic			Thermal Magnetic			Thermal Magnetic			Thermal Magnetic		
Accessories	Auxiliary switch	AX			○			○			○			○		
	Alarm switch	AL			○			○			○			○		
	Shunt trip	SHT			○			○			○			○		
	Direct rotary handle	DH			○			○			○			-		
	Terminal shield	○			○			○			○			○		
	Insulation barrier	○			○			○			○			○		
	External Dimensions(mm)	a			50			60			105			140		
		b			75			90			120			140		
		c			130			155			155			165		
		d			60			60			60			95		
		80			80			80			82.5			154		
Certificates Obtained		KS, CE			KS, CE			KS, CE			KS			KS		
														KS, CE		

MOLDED CASE CIRCUIT BREAKERS(MCCB)
CURRENT LIMITING TYPE



Frame Size(AF)			new 50AF		new 100AF		new 225AF		400AF		600AF		new 630AF		800AF		
Model			DB53L	DB54L	DB103L	DB104L	DB203L	DB204L	DB403L	DB404L	DB603L	DB604L	DB633L	DB634L	DB802L	DB803L	DB804L
Number of Poles			3	4	3	4	3	4	3	4	3	4	3	4	2	3	4
ZCT Built-In			0		0		0		0								
Rating	Rated Current	A	20, 30, 40, 50		20, 30, 40, 50, 60, 75, 100		125, 150, 175, 200, 225		250, 300, 350, 400		500, 600		500, 600, 630		700, 800		
	Rated Voltage	AC(V)	600		600		600		600		600		600		600		
		DC(V)	250	—	250	—	250	—	250	—	250	—	250	—	250		—
		Rated Insulation Voltage	V	690		690		690		690		690		690		690	
Ultimate Breaking	AC	600V	35		35		35		35		30		30		30		
Capacity(kA)		480/500V	42		42		42		50		65		65		65		
KSC 8321(Sym)		460V	65		65		65		65		85		85		85		
ICE60947-2(Icu)		415V	65		65		65		65		85		85		85		
Ics=0.5Icu		380V	65		65		65		65		100		100		100		
		220V	125		125		125		125		125		125		125		
DC		250V	40	—	40	—	40	—	40	—	40	—	40	—	40		—
		125V	60	—	60	—	60	—	60	—	60	—	60	—	660		—
Over Current Trip			Thermal Magnetic		Thermal Magnetic		Thermal Magnetic		Thermal Magnetic		Thermal Magnetic		Thermal Magnetic		Thermal Magnetic		
Accessories	Auxiliary switch	AX	—		—		—		○		○		○		○		
	Alarm switch	AL	—		—		—		○		○		○		○		
	Shunt trip	SHT	—		—		—		○		○		○		○		
	Direct rotary handle	DH	—		—		—		—		—		—		—		
	Terminal shield		—		—		—		○		—		—		—		
	Insulation barrier		○		○		○		○		○		○		○		
External Dimensions(mm)	a	105	140	105	140	105	140	140	184	210	280	140	184	210		280	
	b	165		165		165		257		275		257		275			
	c	78.9		78.9		78.9		103		103		103		103			
	d	109		109		109		154		149		154		149			
			Safety Certificate			Safety Certificate			Safety Certificate			KS, CE		—		—	

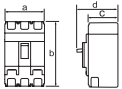
EARTH LEAKAGE CIRCUIT
BREAKERS(ELCB)ECONOMIC TYPE



Frame Size(AF)			30AF		50AF		60AF	100AF			225AF			400AF	
Model			DBE32Cb	DBE33Cb	DBE52Cb	DBE53Cb	DBE54Cb	DBE63Cb	DBE102Cb	DBE103Cb	DBE104Cb	DBE202Cb	DBE203Cb	DBE204Cb	DBE403C
Number of Poles			2P2E	3P3E	2P2E	3P3E	4P3E	3P3E	2P2E	3P3E	4P3E	2P2E	3P3E	4P3E	3P3E
Rating	Protective Function		For Both Overload and Short Circuit Protection		For Both Overload and Short Circuit Protection		For Both Overload and Short Circuit Protection	For Both Overload and Short Circuit Protection			For Both Overload and Short Circuit Protection			For Both Overload and Short Circuit Protection	
	Rated Voltage	AC(V)	220	460	220	460		460	220	460		460		460	
	Rated Impulse Voltage [kV]		6		6		6	6			6			6	
	Rated Current [A]		15, 20, 30		15, 20, 30, 40, 50		60	15, 20, 30,40 50, 60, 75, 100			100, 125, 150, 175, 200, 225			250, 300 350, 400	
	Rated Sensitivity Current [mA]		15, 30		30, 100/200/500		30, 100/200/500	100/200/500			100/200/500			200/500	
	Tripping Time [sec]		Within 0.03 Second	Within 0.1 Second	Within 0.1 Second		Within 0.1 Second	Within 0.1 Second			Within 0.1 Second			Within 0.1 Second	
Ultimate Breaking Capacity Icu AC 460/415V			—	5	10		10	14			18			30	
KSC 4613(Sym) Ics=0.5Icu 240/220V			10	10	25		25	25			35			42	
Over Current Trip			Oil Dash Pot		Oil Dash Pot		Oil Dash Pot	Oil Dash Pot			Thermal Magnetic			Thermal Magnetic	
Accessories	Auxiliary switch	AX	—	○	○		○	○			○			○	
	Alarm switch	AL	—	○	○		○	○			○			○	
	Direct rotary handle	DH	—	○	○		○	○			○			—	
	Termial shield		—	○	○		○	○			○			—	
	Insulation barrier		—	○	○		○	○			○			○	
External Dimensions(mm)		a	50	75	75		100	75	75		100	105		140	140
		b	96		130		130	130			165			345	
		c	60		60		60	60			60			103	
		d	80		80		80	80			82.5			133	
Certificates Obtained			KS, CE		KS, CE		KS, CE	KS, CE			KS, CE			KS(350, 400 Except)	

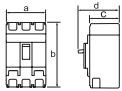
EARTH LEAKAGE CIRCUIT BREAKERS
(ELCB)STANDARD TYPE



Frame Size(AF)			30AF	50AF		60AF	100AF			225AF			400AF	
Model			DBE33Sb	DBE52Sb	DBE53Sb	DBE54Sb	DBE63Sb	DBE102Sb	DBE103Sb	DBE104Sb	DBE202Sb	DBE203Sb	DBE204Sb	DBE403S
Number of Poles			3P3E	2P2E	3P3E	4P3E	3P3E	2P2E	3P3E	4P4E	2P2E	3P3E	4P3E	3P3E
Rating	Protective Function		For Both Overload and Short Circuit Protection	For Both Overload and Short Circuit Protection			For Both Overload and Short Circuit Protection	For Both Overload and Short Circuit Protection			For Both Overload and Short Circuit Protection			For Both Overload and Short Circuit Protection
	Rated Voltage	AC(V)	460	220	460		460	220	460		460			460
	Rated Impulse Voltage	[kV]	6	6			6	6			6			6
	Rated Current	[A]	10, 15, 20, 30	15, 20, 30, 40, 50			60	15, 20, 30, 40 50, 60, 75, 100			100, 125, 150, 175, 200, 225			250, 300 350, 400
	Rated Sensitivity Current	[mA]	30, 100/200/500	30, 100/200/500			30, 100/200/500	100/200/500			100/200/500			200/500
	Tripping Time	[sec]	Within 0.1 Second	Within 0.1 Second			Within 0.1 Second	Within 0.1 Second			Within 0.1 Second			Within 0.1 Second
Ultimate Breaking Capacity Icu AC 460/415V			10	14			14	25			25			35
KSC 4613(Sym) Ics=0.5Icu 240/220V			25	25			25	50			50			50
Over Current Trip			Oil Dash Pot	Oil Dash Pot		Oil Dash Pot	Thermal Magnetic			Thermal Magnetic			Thermal Magnetic	
Accessories	Auxiliary switch	AX	○	○		○	○			○			○	
	Alarm switch	AL	○	○		○	○			○			○	
	Direct rotary handle	DH	○	○		○	○			○			○	
	Termial shield		○	○		○	○			○			—	
	Insulation barrier		○	○		○	○			○			○	
External Dimensions(mm)		a	75	75		100	75	90		120	105		140	140
		b	130	130		130	155			165		345		
		c	60	60		60	60			60		103		
		d	80	80		80	80			82.5		133		
		Certificates Obtained			KS, CE		KS, CE		KS, CE		KS			KS(350, 400 Except)

EARTH LEAKAGE CIRCUIT BREAKERS (ELCB)
HIGH INTERRUPTING CAPACITY TYPE

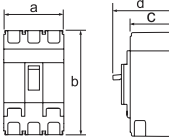


Frame Size(AF)			30AF	50AF			100AF			225AF			400AF	
Model			DBE33Hb	DBE52Hb	DBE53Hb	DBE54Hb	DBE102Hb	DBE103Hb	DBE104Hb	DBE202Hb	DBE203Hb	DBE204Hb	DBE403H	
Number of Poles			3P3E	2P2E	3P3E	4P3E	2P2E	3P3E	4P3E	2P2E	3P3E	4P3E	3P3E	
Rating	Protective Function		For Both Overload and Short Circuit Protection	For Both Overload and Short Circuit Protection			For Both Overload and Short Circuit Protection			For Both Overload and Short Circuit Protection			For Both Overload and Short Circuit Protection	
	Rated Voltage	AC(V)	460	220	460		220	460		460			460	
	Rated Impulse Voltage	[kV]	6	6			6			6			6	
	Rated Current	[A]	15, 20, 30	15, 20, 30, 40, 50			15, 20, 30, 40, 50, 60, 75, 100			100, 125, 150, 175, 200, 225			250, 300 350, 400	
	Rated Sensitivity Current	[mA]	30, 100/200/500	100/200/500			100/200/500			100/200/500			200/500	
	Tripping Time	[sec]	Within 0.1 Second	Within 0.1 Second			Within 0.1 Second			Within 0.1 Second			Within 0.1 Second	
Ultimate Breaking Capacity Icu AC 460/415V			14	25			35			35			50	
KSC 4613(Sym) Ics=0.5Icu 240/220V			25	50			65			65			85	
Over Current Trip			Oil Dash Pot	Thermal Magnetic			Thermal Magnetic			Thermal Magnetic			Thermal Magnetic	
Accessories	Auxiliary switch	AX	○	○			○			○			○	
	Alarm switch	AL	○	○			○			○			○	
	Direct rolary handle	DH	○	○			○			○			—	
	Termial shield		○	○			○			○			—	
	Insulation barrier		○	○			○			○			○	
External Dimensions(mm)			a	75	90		120	90		120	105		140	140
			b	130	155			155			165			345
			c	60	60			60			60			103
			d	80	80			80			82.5			133
Certificates Obtained			KS	KS	KS, CE		KS			KS			KS(350, 400 Except)	



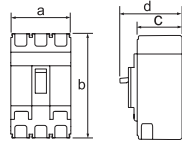
BREAKERS FOR DISTRIBUTION BOARD(MCCB) WIRING BREAKERS



Series		DBH Series			DSB Series															DB-F Series									
Frame Size(AF)		30AF			30AF					30AF			50AF					50AF			30AF		50AF		100AF				
Model		DBH32b	DBH32bL	DBH32C	DSB32b	DSB32s	DSB32h	DSB33b	DSB33s	DSB33h	DSB34b	DSB34s	DSB34h	DSB52b	DSB52s	DSB52h	DSB53b	DSB53s	DSB53h	DSB54b	DSB54s	DSB54h	DB32F	DB33F	DB52F	DB53F	DB102F	DB103F	
Number of Poles & Element		2P2E			2P2E			3P3E			4P3E			2P2E			3P3E			4P3E			2P2E	3P3E	2P2E	3P3E	2P2E	3P3E	
Rating	Rated Current A	15, 20, 30	20, 30	15, 20, 30									15, 20, 30, 40, 50									(5,10), 15, 20, 30			15, 20, 30, 40, 50			60, 75, 100	
	Rated Voltage AC(V)	220			220			460						220			460						460			460		460	
Ultimate Breaking Capacity	AC 460V	—			—			1.5	2.5	5	1.5	2.5	5	—			1.5	2.5	5	1.5	2.5	5	—	(2.5)5	5		5		
220V		2.5			2.5	5	10	2.5	5	10	—			2.5	5	10	2.5	5	10	—			(5)10	10	10		10		
	a	33			35			54			73.5			35			54			73.5			50	75	50	75	50	75	
	b	70		82	80			80			80			80			80			80			96		96		96		
	c	42	38	38	60			60			60			60			60			60			60		60				
	d	56			76			76			76			76			76			76			80		80		80		
Certificates Obtained		KS, CE			KS, CE			KS, CE			KS, CE			KS, CE			KS, CE			KS, CE			KS, CE		KS, CE		KS, CE		

BREAKERS FOR DISTRIBUTION BOARD(ELCB) ELECTRIC LEAKAGE BREAKERS



Series				DEH Series			DSE Series															DBE-F Series											
Frame Size(AF)				30AF			30AF			30AF			30AF			50AF					50AF			30AF		50AF		100AF					
Model				DEH32AL	DEH32Ab	DEH32b	DSE32b	DSE32s	DSE32h	DSE33b	DSE33s	DSE33h	DSE34b	DSE34s	DSE34h	DSE52b	DSE52s	DSE52h	DSE53b	DSE53s	DSE53h	DSE54b	DSE54s	DSE54h	DBE32Fb	DBE33F	DBE52Fb	DBE53F	DBE102Fb	DBE103F			
Number of Poles & Element				2P2E			2P2E			3P3E			4P3E			2P2E			3P3E			4P3E			2P2F	3P3F	2P2F	3P3F	2P2F	3P3F			
Rating	Rated Current A			15, 20, 30			15, 20, 30									15, 20, 30, 40, 50						15, 20, 30		15, 20, 30, 40, 50		60, 75, 100							
	Rated Voltage AC(V)			220			220			460			220			460			220		460		220		460		220		460				
	Rated Sensitivity Current mA			15, 30			15, 30			30, 100/200/500			30, 100/200/500			15, 30			30, 100/200/500			30, 100/200/500			15, 30		15, 30		30				
	Rated Non-Tripping Current mA			7.5, 15			7.5, 15			15, 50/100/250			15, 50/100/250			7.5, 15			15, 50/100/250			15, 50/100/250			7.5, 15		7.5, 15		15				
	Operating Time sec			Within 0.03 Second			Within 0.03 Second			Within 0.1 Second			Within 0.1 Second			Within 0.03 Second			Within 0.1 Second			Within 0.1 Second			Within 0.03 Second	Within 0.1 Second	Within 0.03 Second	Within 0.1 Second	Within 0.03 Second	Within 0.1 Second			
Ultimate Breaking Capacity				AC 460V			—			1.5	2.5	5	1.5	2.5	5	—			1.5	2.5	5	1.5	2.5	5	—	5	—	5	—	5			
				220V			2.5			2.5	5	10	—			—			2.5	5	10	—			—			10	10	10	10	10	10
				a	33		62		35			54			73.5			35			54			73.5			50	75	50	75	50	75	
				b	70		82		80			80			80			80			80			80			96		96		96		
				c	38	42	40.5		60			60			60			60			60			60		60		60		60			
				d	56		56		76			76			76			76			76			76			80		80		80		
Acquisitive standard				KS, CE			KS, CE			KS, CE			KS, CE			KS, CE			KS, CE			KS, CE			KS, CE	KS, CE	KS, CE	KS, CE	KS, CE	KS, CE	KS, CE		

※ Please write "L" behind of the model name when order "Lug" type among the DSB(E) Series

Application

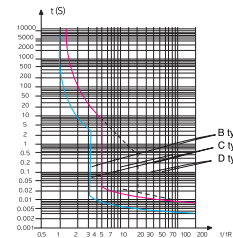
BK6 series mini circuit breaker can be used to the circuit of AC 50Hz, 230V in single pole, 400V in double, three, four poles for protecting overload and short circuit. Meanwhile, they are also used in turning on or off the electric apparatus and lighting circuit under the normal condition.

The product conforms to IEC898.

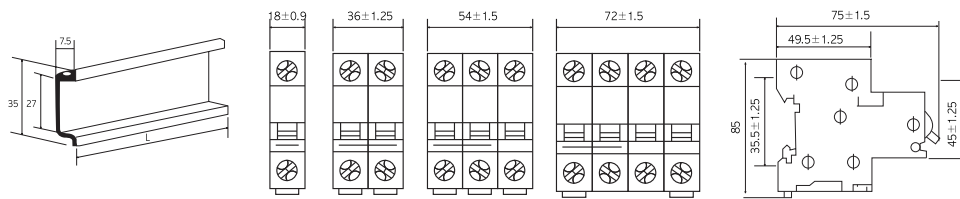
Specifications

Frame Size(AF)	BK61	BK62	BK63	BK64
No. of Pole	1	2	3	4
Rated Voltage	230V/400V			
Electronical Life	4000 times			
Mechanical Life	10000 times			
Rated Current	1, 2, 3, 4, 6, 10, 16, 20, 25, 32, 40, 50, 63A			
Ingress Protection	IP20			
Breaking Capacity	6kA			

Characteristic Curve



Dimensions



06 → HOME PANEL BOARD

new

HOME PANEL BOARD



Feature

- Optimal for house branch circuit.
- Wide range for choice according to the diversification of rated current
- Excellent breaking performance by embedding the solenoid of current-limit structure (6kA at 220V)

Standard Model List

M O D E L			DM50C	DM65C	
Rating KS C 4504	3-Phase Cage Motor	AC3	200-220V	11kW 50A	15kW 65A
			380-440V	22kW 48A	30kW 65A
			500-550V	22kW 38A	37kW 60A
		AC4	200-220V	7.5kW 35A	11kW 50A
			380-440V	15kW 32A	22kW 47A
	Single Phase Motor		110V	-	-
			220V	-	-
	Resistance Load (DC1)	2-Pole Serial	110V	35A	35A
			220V	15A	15A
		3-Pole Serial	110V	50A	65A
220V			40A	50A	
Durability (10,000 Times)		Electrical	200	200	
		Mechanical	1200	1200	
External Operation Handle(Surface Type)			2a2b	2a2b	
Auxiliary Contact	Side-on		DAU2Sb	DAU2Sb	
	Head-on		DAU-2C, DAU-4C	DAU-2C, DAU-4C	
Installation Method			For both screw and rail installations		
External Dimensions(mm) (W×H×D)			79×109×119.5		
Installation Dimensions(mm) (Width×Length)			41~47×92~100		
Applied Model	Contactor		Reversible Type	-	-
	Switch	Standard	-	-	
		Reversible Type	-	-	
		Enclosed Type	-	-	
Thermal Overload Relay		Standard	DTH85(NOTE 1)		
		Independent Type	-		

M O D E L			DM75C	DM85C	DM100C	
Rating KS C 4504	3-Phase Cage Motor	AC3	200-220V	18.5kW 75A	19kW 80A	25kW 100A
			380-440V	37kW 75A	37kW 80A	50kW 100A
		AC4	500-550V	37kW 64A	45kW 75A	55kW 80A
			200-220V	13kW 55A	15kW 65A	19kW 80A
	Single Phase Motor		380-440V	25kW 52A	30kW 62A	37kW 75A
			110V	-	-	-
	Resistance Load (DC1)	2-Pole Serial	220V	-	-	-
			110V	50A	50A	80A
		3-Pole Serial	220V	20A	20A	50A
			110V	70A	80A	100A
Durability (10,000 Times)			220V	55A	60A	80A
			Electrical	200	200	200
		Mechanical	1200	1200	1200	
External Operation Handle(Surface Type)			2a2b	2a2b	2a2b	
Auxiliary Contact	Side-on		DAU2Sb	DAU2Sb	DAU2Sb	
	Head-on		DAU-2C, DAU-4C	DAU-2C, DAU-4C	DAU-2C, DAU-4C	
Installation Method					For both screw and rail installations	
External Dimensions(mm) (W×H×D)			94×140.5×134.4			
Installation Dimensions(mm) (Width×Length)			55~60×130			
Applied Model	Contactor		Reversible Type	-	-	-
	Switch	Standard		-	-	-
		Reversible Type		-	-	-
		Enclosed Type		-	-	-
Thermal Overload Relay		Standard		DTH85 ^(NOTE 1)		
		Independent Type		-		

NOTE 1) DTH85 is singleness type and using for alternation.

Standard Model List



M O D E L				DMC9b	DMC12b	DMC18b	DMC22b	DMC32b	DMC40b	DMC48b
Rating KS C 4504	3-Phase Cage Motor	AC3	200-220V	2.2kW 11A	2.7kW 13A	3.7kW 18A	4kW 20A	5.5kW 26A	7.5kW 35A	11kW 48A
			380-440V	2.7kW 7A	4kW 9A	5.5kW 13A	7.5kW 20A	11kW 25A	15kW 32A	15kW 35A
			500-550V	2.7kW 7A	5.5kW 9A	5.5kW 13A	5.5kW 17A	11kW 20A	15kW 25A	15kW 28A
		AC4	200-220V	1.5kW 8A	2.2kW 11A	3.7kW 18A	3.7kW 18A	4.5kW 20A	5.5kW 25A	7.5kW 30A
			380-440V	2.2kW 6A	4kW 9A	4kW 9A	5.5kW 13A	7.5kW 17A	11kW 24A	11kW 28A
	Single Phade Motor	110V	0.4kW 11A	0.5kW 13A	0.75kW 18A	0.9kW 20A	1.2kW 26A	1.7kW 35A	-	
		220V	0.8kW 11A	1kW 13A	1.5kW 18A	1.8kW 20A	-	-	-	
	Resistance Load (DC1)	2-Pole Serial	110V	6A	10A	13A	15A	25A	25A	35A
			220V	3A	7A	8A	12A	12A	12A	15A
		3-Pole Serial	110V	8A	12A	18A	20A	25A	35A	50A
			220V	8A	12A	18A	20A	22A	30A	40A
Continuous Current AC 1(lth)				25A	25A	40A	40A	50A	60A	70A
Durability (10,000 Times)			Electrical	250	250	250	250	200	200	200
			Mechanical	2500	2500	2500	2500	1500	1500	1500
External Operation Handle(Surface Type)				1a1b	1a1b	1a1b	1a1b	2a2b	2a2b	2a2b
Auxiliary Contact	Side-on			DAU2Sb				DAU2Sb		
	Head-on			DAU2Sb, DAU4b				DAU2Sb, DAU4b		
Installation Method				For both screw and rail installations				For both screw and rail installations		
External Dimensions(mm) (W×H×D)				44×80×86.7				68×82×94.4		
Installation Dimensions(mm) (Width×Length)				30~35×48~60 / 35×60				30~35×48~60 / 35×60		
Applied Model	Contactor		DC Operation Type	DMD9b	DMD12b	DMD18b	DMD22b	DMD32b	DMD40b	DMD48b
			Reversible Type	DMC9b-R	DMC12b-R	DMC18b-R	DMC22b-R	DMC32b-R	DMC40b-R	DMC48b-R
	Switch		Open Type	DMS9b	DMS12b	DMS18b	DMS22b	DMS32b	DMS40b	DMS48b
			Reversible Type	DMS9b-R	DMS12b-R	DMS18b-R	DMS22b-R	DMS32b-R	DMS40b-R	DMS48b-R
			Enclosed Type	DMW9b	DMW12b	DMW18b	DMW22b	DMW32b	DMW40b	DMW48b
Thermal Overload Relay			Standard	DTH22b				DTH40		
			Independent Type	DTH22b				DTZ40		



M O D E L				DMC50	DMC65	DMC75	DMC85	DMC100	DMC125	DMC150C	DMC150	DMC180	DMC220	
Rating KS C 4504	3-Phase Cage Motor	AC3	200-220V	11kW 50A	15kW 64A	18.5kW 75A	19kW 80A	25kW 100A	30kW 125A	30kW 125A	37kW 150A	45kW 180A	55kW 230A	
			380-440V	11kW 50A	30kW 65A	37kW 75A	37kW 80A	50kW 100A	60kW 120A	60kW 120A	75kW 150A	90kW 180A	110kW 230A	
			500-550V	11kW 50A	37kW 60A	37kW 64A	45kW 75A	55kW 80A	60kW 90A	60kW 90A	90kW 140A	110kW 180A	132kW 200A	
		AC4	200-220V	11kW 50A	11kW 50A	13kW 55A	15kW 65A	19kW 80A	22kW 93A	22kW 93A	30kW 125A	37kW 150A	45kW 180A	
			380-440V	11kW 50A	22kW 47A	25kW 52A	30kW 62A	37kW 75A	45kW 90A	45kW 90A	55kW 110A	75kW 150A	90kW 180A	
	Single Phade Motor		110V	-	-	-	-	-	-	-	-	-	-	
			220V	-	-	-	-	-	-	-	-	-	-	
	Resistance Load (DC1)	2-Pole Serial		110V	35A	50A	50	80A	80A	100A	100A	100A	150A	150A
				220V	15A	20A	20	50A	50A	100A	100A	100A	150A	150A
		3-Pole Serial		110V	50A	70A	80	100A	100A	150A	150A	150A	180A	220A
				220V	40A	55A	60	80A	80A	15A	15A	150A	180A	220A
Continuous Current AC 1(lth)				80A	110A	135	150A	150A	180A	180A	200A	230A	260A	
Durability (10,000 Times)			Electrical	150	150	150	100	100	100	100	100	100	100	
			Mechanical	1000	1000	1000	500	500	500	500	500	500	500	
External Operation Handle(Surface Type)				2a2b	2a2b	2a2b	2a2b	2a2b	2a2b	2a2b	2a2b	2a2b	2a2b	
Auxiliary Contact	Side-on			DAU2Sb				-			-			
	Head-on			DAU2b, DAU4b				-			-			
Installation Method			For both screw and rail installations					For both screw and rail installations			For both screw and rail installations			
External Dimensions(mm) (W×H×D)				94×120×115.7				100×157.4×146.5			154×170×170			
Installation Dimensions(mm) (Width×Length)				50~60×100 / 60×95				80×100 / 90×125			120×120			
Applied Model	Contactor		DC Operation Type	-	-	-	-	-	-	-	-	-	-	
			Reversible Type	DMC50-R	DMC65-R	DMC75-R	DMC85-R	-	-	-	-	-		
	Switch		Open Type	DMS50	DMS65	DMS75	DMS85	DMS100	DMS125	DMS150C	DMS150	DMS180	DMS220	
			Reversible Type	DMC50-R	DMS65-R	DMS75-R	DMS85-R	-	-	-	-	-	-	
			Enclosed Type	DMS50	DMW65	DMW75	DMW85	-	-	-	-	-	-	
Thermal Overload Relay			Standard	DTH858 ^(NOTE 1)			HRD150 ^(NOTE 2)			HRD180 ^(NOTE 2)			DTH220 ^(NOTE 2)	
			Independent Type	HRD075			-			-			-	

NOTE 1) DTH85 is single type and using for alternation.

NOTE 2)HRD 150, 180, DTH220 standard model is produced as single type.

Model and Rating



Division	Model	DTH22b			DTH40			DTH85			HRD150			HRD180			DTH220		
		Adjustment Range			Adjustment Range			Adjustment Range			Adjustment Range			Adjustment Range			Adjustment Range		
		Minimum	Medium	Maximum	Minimum	Medium	Maximum	Minimum	Medium	Maximum	Minimum	Medium	Maximum	Minimum	Medium	Maximum	Minimum	Medium	Maximum
Rated Current(A)	0.52	0.4	0.52	0.63															
	0.82	0.63	0.82	1															
	1.3	1	1.3	1.6															
	2.1	1.6	2.1	2.5															
	3.3	2.5	3.3	4															
	5	4	5	6	4	5	6												
	6.5	5	6.5	8	5	6.5	8												
	7.5	6	7.5	9	6	7.5	9												
	8.5	7	8.5	10	7	8.5	10	7	8.5	10									
	11	9	11	13	9	11	13	9	11	13									
	15	12	15	18	12	15	18	12	15	18									
	19	16	19	22	16	19	22	16	19	22									
	22				18	22	26	18	22	26									
	30				24	30	36	24	30	36									
	34				28	34	40	28	34	40									
	42				34	42	50	34	42	50	34	42	50						
	55							45	55	65									
	56										45	56	67						
	65							54	65	75									
	67										54	67	80						
	74							63	74	85									
Element Part	2-Element	Standard			Standard			Standard			Standard			Standard			Standard		
	3-Element	Semi-Standard			Semi-Standard			Semi-Standard			Semi-Standard			Semi-Standard			Semi-Standard		
	Auxiliary Contact	1a1b			1a1b			1a1b			1c			1c			1a1b		
	Return Type	For Both Manual/Automatic			For Both Manual/Automatic			For Both Manual/Automatic			For Both Manual			For Both Manual			For Both Manual/Automatic		
	Power Consumption	1.8VA/Pole			2.0VA/Pole			3.5VA/Pole			2.3VA/Pole			2.3VA/Pole			2.3VA/Pole		
External Dimensions(WHD)		43 X 72 X 90.5			54 X 75.5 X 92			70 X 87 X 102.5			124 X 60 X 97			129 X 84 X 97			154 X 114 X 180		
Independent Installation Unit		DZ22b			DZ40			—			—			—			DTH220/3		
Applied Model	3-Element Type	DTH22b/3			DTH40/3			DTH85/3			HRD150/3			HRD180/3			DTK220		
	Phase Failure Protection	DTK22b			DTK40			DTK85			—			—			—		
	Independent Type	DTZ22b			DTZ40			—			—			—					
Possible Combinations for Electronic Contactor		DMC9b,12,12b,18b,22b			DMC32b,40b,48b			DMC50,65,75,85			DMC100,125,150C			DMC150,180			DMC220		
Electronic Contactor Combinations		DMC9b,12,12b,18b,22b			DMC32b,40b,48b			DMC50,65,75,85			DMC100,125,150C			DMC150,180			DMC220		

“Dong-A Electric...”

Challenging with Innovation and Creativity!

We promise to fulfill our role and duty to become the Dong' A Electric Device that develops evermore through participatory and transparent management by customers and all employees and staffs.



External Dimensions and Contact Form

Model	External Dimensions	Contact Form
DTH22b		
DTH40		
DTH85		
HRD150		
HRD180		
DTH220		



Rating



M O D E L			DMC12	DAR(D)4b	DAR(D)6b	DAR(D)8b
Contact Form			4a(1a),3a1b(1b)	4a,3a1b,2a2b,1a3b,4b	6a,5a1b,4a2b,3a3b,2a4b	8a,7a1b,6a2b,5a3b,4a4b
Rated Insulation Voltage(Ui)			690V	690V		
Conductive Current(AC1)			16A	16A		
Alternating Current	Rating By Grade		AC15(11)(Coil Load)	AC15(11)(Coil Load)		AC12(13) (Resistance Load)
	Rated Current(A)	AC110V	6	6		10
		AC220V	3	3		8
		AC440V	1.5	1.5		5
		AC550V	1.2	1.2		5
	Closed Path, Braking Current(A)	AC110V	60	60		66
		AC220V	33	33		33
		AC440V	16.5	16.5		16.5
		AC550V	13.2	13.2		13.2
	Direct Current Rating	Rating By Grade		DC13(11) (Coil Load)	DC13(11) (Coil Load)	
Rated Current(A)		DC24V	3	3		5
		DC48V	1.5	1.5		3
		DC110V	1.1	1.1		2.5
		DC220V	0.55	0.55		1
Closed Path, Braking Current(A)		DC24V	3.7	3.7		—
		DC48V	1.8	1.8		—
		DC110V	1.4	1.4		—
		DC220V	0.7	0.7		—
Number of Poles			4	4	6	6
Operating frequency(Number of operations/hour)			1800	1800		
Durability (10,000 Times)	AC15(11)	AC220V	50	50		
		AC440V	50	50		
	AC12(13)	AC220V	25	25		
		AC440V	25	25		
	DC13(11) DC12(14)	DC12~220V	50	50		



Single Body Type



M O D E L	Electronic Contactor	DMH10	DMH20
Rated Capacity(KW) (AC3,3-Phase Cage Moter)	AC200~220V	2.7	4
	AC380~440V	4	7.5
	AC500~550V	5.5	7.5
Rated Operational Current (A) (AC3,3-Phase Cage Moter)	AC200~220V	13	20
	AC380~440V	9	20
	AC500~550V	9	17
Rated Conductive Current(A) lth (A)		20	25



Type and Rated Capacity



Type	Head-on(Head-on)				Side-on (Side-on)
Model	DAU2b	DAU2C	DAU4b	DAU4C	DAU2Sb
Number of Poles	2	2	4	4	2
Contact Form	2a, 1a1b, 2b	2a, 1a1b, 2b	4a, 3a1b, 2a2b, 1a3b, 4b	4a, 3a1b, 2a2b, 1a3b, 4b	1a1b
Applied Model	DMC9b~85b	DM9C~100C	DMC9b~85b	DM9C~100C	DM9C~48C DM50C~100C DMC9b~85b



Rating and Performance



M O D E L		DMP150	DMP250
Rated Conductive Current lth (A)		300	500
Rated Conductive Current(A) AC110V/220V		150	250
Performance	Electrical	25 million uses	25 million uses
	Mechanical	250 million uses	250 million uses
Standard Coil Votage(V)		110, 220, 380	
Contact Form	Major Contact	1Pole	1Pole
	Auxiliary Contact	2a2b	2a2b
Weight(kg)		1.15	1.15



 Model and Rating

Model	DMC20A	DMC25A	DMC32A	DMC20C	DMC25C	DMC32C
Number of Poles	2	2	2	3	3	3
Rated Conductive Current(A)	30	40	50	30	40	50
Rated Operational Current(A)	AC220V	20	25	30	20	25
		17	21	26	17	21
Ultimate Breaking Capacity(kW)	1 ϕ 110V	0.9	1.2	2.2	0.9	1.2
	1 ϕ 220V	1.8	2.2	5.5	1.8	2.2
	3 ϕ 220V	4	5.5	9.5	4	5.5
Standard Coil Votage(VAC)	24~550(kind of 10)			24~550(kind of 10)–		
Contact Form	2A			3A, 2A1b		
Weight(kg)	0.23			0.25		

15→→ SINGLE-PHASE ONLY MAGNETIC CONTACTORS

new

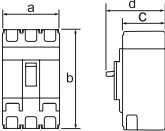
 Rating and Performance

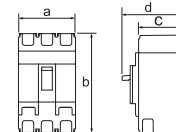
Model	DMC-10P2	DMC-20P2	DMC-25P2	DMC-30P2	DMC-35P2	DMC-40P2
	10A	20A	25A	30A	35A	40A
Number of Poles	2	2	2	2	2	2
Contact Form	2a	2a	2a	2a	2a	2a
Rated Insulation Voltage(V)	AC	690				
	DC	250				
Rated Operational Current(A)	200~220V	10	20	25	30	35
	380~440V	8	17	21	23	26
	500~550V	6	14	17	21	23
Rated Conductive Current(A)	20	30	35	40	45	50
External Dimensions	74×49×62					
Weight(kg)	0.19					

new

 Frame size 1600AF

Model		DB1603Sa		
Number of poles		3		
Rated current In		1000, 1250, 1600		
Rated insulation voltage Ui		690V		
Rated operating voltage Ue		400V		
Icu 400V/50HZ O–CO (KA) Rated ultimate short–circuit breaking capacity		65	85	100
Ics 400V/50HZ O–CO–CO (KA) Rated service short–circuit breaking capacity (Ics =0.75Icu)		50	63.75	75
Rated Insulfion Valtage (V)		690		
Uimp (V)		8000		
Rated impulse withstand voltage				
Dielectric property (V)		3000		
Endurance	Total cycles	3000		
	Electrical endurance	500		
	Mechanical endurance	2500		
Ionization distance (mm)		≤80/0		
Over current trip unit	Thermal magnetic release	O		
Utilization category	Intelligent trip unit	O		
	Main circuit	B		
	Auxiliary circuit	AC–15		
Accessories	Auxiliary switch AX	○		
	Alarm switch AL	○		
	Shunt trip SHT	○		
	Direct rotary handle DH	○		
	Terminal shield	○		
	Insulation barrier	○		
External dimensions (mm)	W (a)	210		
	L (b)	406		
	H (c)	138.5		



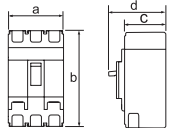


new

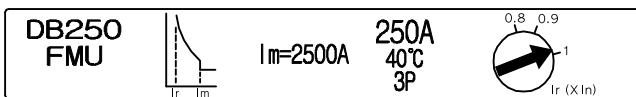
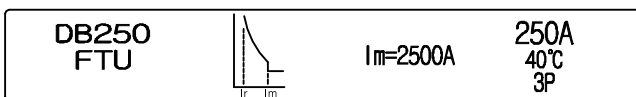


new



Frame Size(AF)			50AF		100F		250AF		630AF		
Model			DB53La	DB54La	DB103La	DB104La	DB203La	DB204La	DB632La	DB633La	DB634La
Number of Poles			3	4	3	4	3	4	2	3	4
ZCT Built-in			-		-		-		-		
Rating	Rated Current	A	15, 20, 30, 40, 50		15, 20, 30, 40, 50, 60, 80, 100		125, 150, 160, 175, 200, 225, 250		400, 500, 600, 630		
	Rated Voltage	AC(V)	600		600		600		600		
		DC(V)	250		250		250		250		
		Rated Insulation Voltage	V	690		690		690		690	
Ultimate Breaking	AC	600V	35		35		35		30		
Capacity(kA)		480/500V	42		42		42		65		
KS C 8321(Sym)		460V	65		65		65		85		
IEC60947-2(Icu)		415V	65		65		65		85		
Ics=0.5Icu		380V	65		65		65		100		
		220V	125		125		125		125		
		DC	250V	40		40		40		40	
125V	60		60		60		60				
Trip Unit(Thermal-Magnetic)											
	Adjustable-thermal, Fixed-magnetic	FMU	○		○		○		○		
	Overload protection(thermal)										
	Current setting(A) Ir	FMU	Adjustable 0.8 to x In								
	Short – circuit protection(magnetic)										
	Current setting(A) Im	FMU	Fixed 10 x In								
Accessories NOTE 1)	Auxiliary switch	AX	○		○		○		○		
	Alam switch	AL	○		○		○		○		
	Shunt trip	SHT	○		○		○		○		
	Direct handle	DH	-		-		-		-		
	Terminal shield		-		-		-		-		
	Insulation barrier		○		○		○		○		
External Dimensions(mm)		a	105	140	105	140	105	140	140	185	
		b	165		165		165		275		
		c	78.5		78.5		78.5		95		
		d	110		110		110		154		
Certificates Obtained			Safety Certificate		Safety Certificate		Safety Certificate		Safety Certificate		

Trip Unit

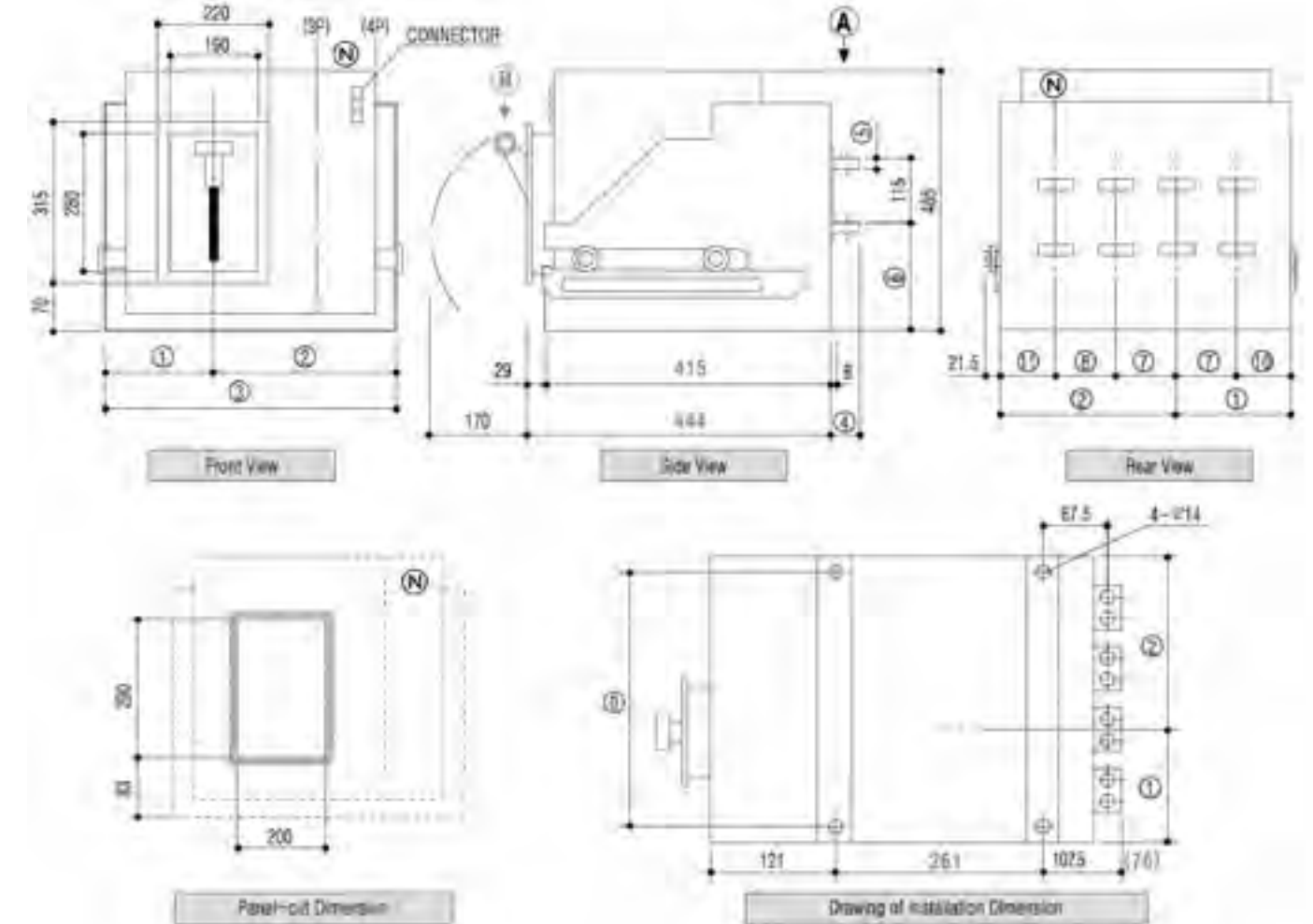
FMU
- DB250 : Adjustable-thermal / Fixed-magnetic

FTU
- DB250 : Fixed-thermal / Fixed-magnetic


External Dimensions and Contact Form

Model	External Dimensions		
DB53La	3P		
DB103La			
DB203La			
DB54La			
DB104La	4P		
DB204La			
DB632La			
DB633La			
DB634La	3P		
DB632La			
DB633La			
DB634La			
DB632La	4P		
DB633La			
DB634La			
DB632La			



- ※Standard : Rack out selective, Insert coil, Trip coil, Auxilary switch(3a3b), Manual lever(exposed)
- ※Optional : OCR, OCGR, Auxilaty switch(4a4b), UVT, OCR output terminal, Counter gauge, I/O compatibility
- ※ R.S.T.N busbar is optional.



TYPE	DCL															
Current capacity (A)	600/800		1000		1250		1600		2000		2500		3200		4000	
number of poles (P)	3	4	3	4	3	4	3	4	3	4	3	4	3	4	3	4
No. ①	169		169		169		191.5		214		236.5		274		319	
No. ②	169	259	169	259	169	259	191.5	281.5	214	304	236.5	341.5	274	379	319	424
No. ③	338	428	338	428	338	427	383	473	428	518	473	578	548	653	638	743
No. ④	43		43		43		43		53		53		53		78	
No. ⑤	16		16		16		16		20		20		20		20	
No. ⑥	205		205		205		205		207		207		207		207	
No. ⑦	90		90		90		105		120		135		160		190	
No. ⑧		90		90		90		97.5		105		120		132.5		147.5
No. ⑨	230	320	230	320	230	320	275	365	320	410	365	470	440	545	530	635
No. ⑩	79		79		79		86.5		94		101.5		114		129	
No. ⑪	79	79	79	79	79	79	86.5	79	94	79	101.5	86.5	114	86.5	129	86.5



TS, TN Type Functions and Features

- 1.Excellent latching equipment.
It is reliably operated by the excellent latching mechanism.Consumes small amount of current.
- 2.Has an ample current flow capability
Temperature rising value is low because the main contact has been specifically designed according to standard process. Terminal is simply wired for easy connection.
3. Two-Coil Method
Adopted two-coil method, which will correspond 2 different power source (A and B) selectively.
For example: A power source is AC220V where as B power source is DC 100V .

Forte

1. Outsanding performance using excellent latching mechanism.
2. Maximizes corresponding current with the minimum operating current.
3. Closing and breaking is superbly done. closing capacity is 12 times more than rated current.
4. Compact and light weight. Suitable for emergency power supply facilities.
5. Suitable to switch from AC to DC or vice versa.

Specification

Rating \ Type		DA 61 – TS, TN		DA 62– TS, TN		DA 64 – TS, TN	
Rated Votage (V)		AC 690 V & DC 125V					
Rated Current (A)		100		200		400	
Connection		FRONT type & BACK type					
Numver of Pole (P)		3	4	3	4	3	4
Weight (kg)	FRONT type	13	14	13	15	18	21
	BACK type	13	14	13	15	18	21
Opening time		0.06 sec					
Charge over time		0.08 sec					
Opening Current	AC 100V / 110V	10		10		16	
	AC 200V / 220V	5		5		8	
	DC 100V / 110V	10		10		16	
Performance	Switching capacity	AC : 3 [10xle Close / 8 xle Open cosØ = 0,35] DC : 1 [1.1xle Close / 1.1 xle Open]					
	Switching frequency	150 times / hour					
Rated shot–time current		5 kA				5 kA	
Short circuit peak value		12.5 kA				25 kA	



MS, MSN Type Functions and Features

1. The unit is designed to eliminate frequent defective works by effectively operating a grounding failure protection device.
2. The grounding effect of A.C. power source improved.
3. The danger of electric shocks arising from the ground fault accident came reduced.
4. It is designed to protect the danger of occurrence of accidents caused by phase difference effectively, especially at single phase–using points.
- 5.Rare occurrence of overcorrect or of arc provides the high effect protecting connecting devices from being damaged.
- 6.Error signals make it available to check with closing and breaking operation.

Forte

1. It has one coil, one operating contact, and one arcing chamber.
2. Specifically designed contact sturcture will stand out in melting over current strength.
3. Requires very small space for occupancy.

Specification

Type		DA 64/66 MS MSN		DA 68 MS MSN		DA 610 MS MSN		DA 612 MS MSN		DA 616 MS MSN		DA 620 MS MSN		DA 625 MS MSN		DA 632 MS MSN		DA 640 MS MSN	
Rating																			
Rated Votage (V)		AC 690V & DC 125V																	
Rated Current (A)		400/600		800		1000		1200		1600		2000		2500		3200		4000	
Connection		BACK type																	
Number of Pole (P)		3	4	3	4	3	4	3	4	3	4	3	4	3	4	3	4	3	4
Weight (kg)		36	41	38	50	44	52	47	57	55	68	63	73	87	105	96	120	170	210
Opening time		≤ 0.09 sec																	
Charge over time		≤ 0.12 sec																	
Opening Current	AC 110V / 110V	10	10	10	12	16	20	20	20	24	24	36	40	60	60	80	80	80	80
	AC 200V / 220V	5	5	5	6	8	10	10	10	12	12	18	20	30	30	40	40	40	40
	DC 100V / 110V	10	10	10	12	16	20	20	20	24	24	36	40	60	60	80	80	80	80
Perofrmance	Switching capacity	AC : 3 [10xle Close / 8 xle Open cosØ = 0.35] DC : 1 [1.1xle Close / 1.1 xle Open]																	
	Switching frequency	150 times / hour										30 time / hour							
Rated Current (A)		400	600	800		1000		1200		1600		2000		2500		3200		4000	
Rated shot–time current		10kA	15kA			22kA			25kA			35kA			50kA				
Short circuit peak value		25kA	37.5kA			50kA			62.5kA			87.5kA			125kA				

DONGA ELECTRIC DEVICE CO.,LTD.

Prequalification Statement

Contents

Brief History

Organization Chart

Administrative Slogan

Administrative policy

Quality Assurance

Certificates

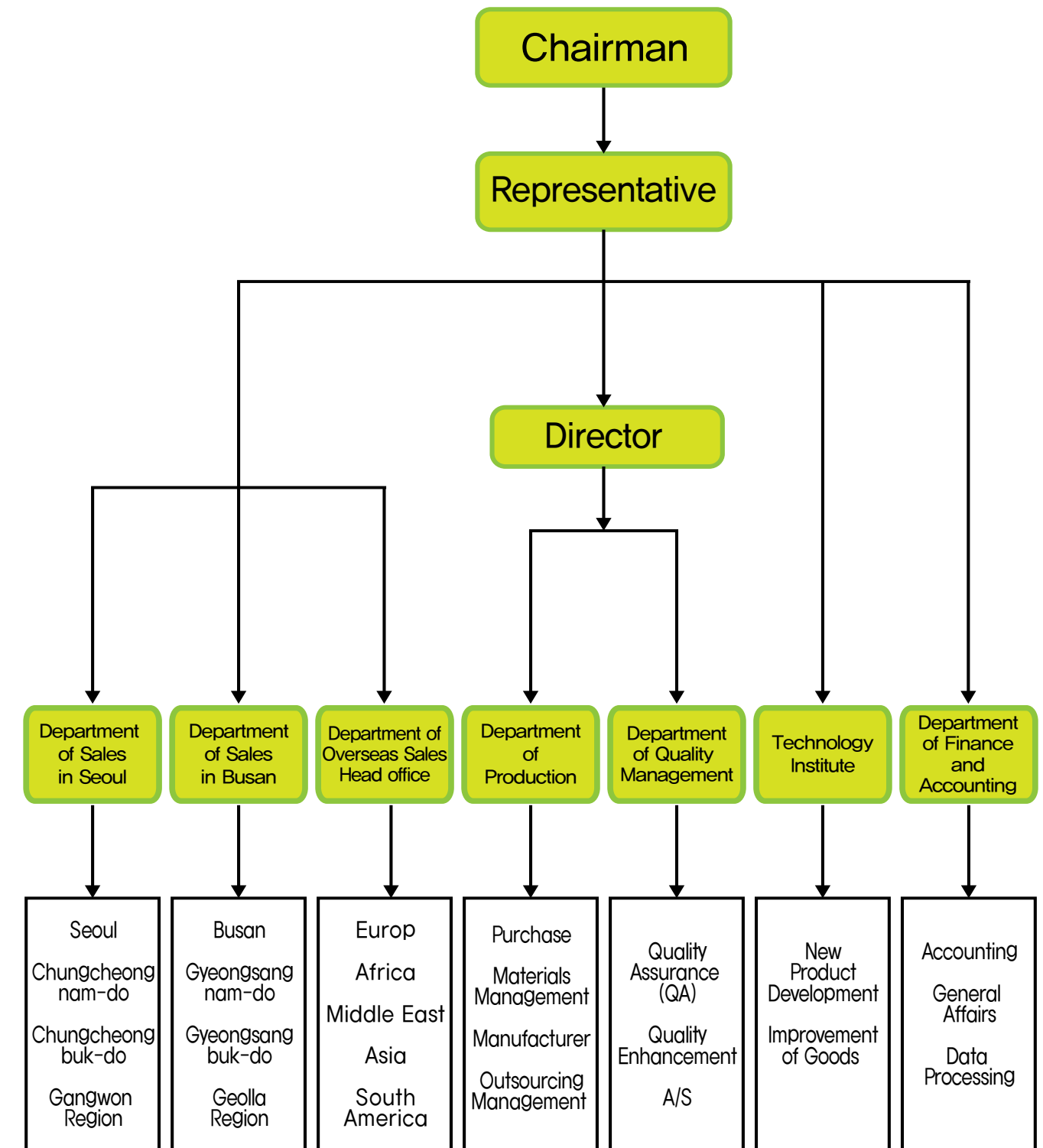
Brief History

Dong-A Electric Device CO., LTD has been consistently doing its best for the last 6 decades .

- 1955.04 Founded Dong-A Chemicals(Yeongju-dong, Jung-gu)
- 1977.12 Incorporated the company as Dong-A Electric Device CO., LTD
- 1984.03 Acquired the license to mark the approval from KR Korea Register of Shipping Association
- 1985.10 Acquired the license to mark KSC 4613/8321
- 1985.10 Acquired the license to mark KS for circuit breaker(KSC 8321)and other 1 kind
- 1987.11 Won a Million-Dollar Export Award
- 1990.01 Acquired the license to mark KS for house-use panel board(KSC 8326)
- 1997.04 Acquired ISO9001 Quality System Certification
- 2000.02 Selected as a Company-for-Export by KOTRA
- 2000.03 Acquired VDE(GERMANY-formal approval)Certification
- 2001.09 Acquired CCC Certification for electromagnetic contactor / switches
- 2002.05 Acquired CE Certification
- 2004.04 Acquired the New Products Certification(NEP)
- 2004.04 Acquired the High-Quality Certification EM(built-in ZCT) mark
- 2004.09 Won a Prime Minister' s Award at the Contest to Promote Safety Management Held by Korea Electrical Safety Corporation
- 2005.07 Won an Award for Excellent Businessman of Small-or-Medium-Sized Enterprise granted by Small and Medium Business Administration of Busan and Ulsan Area
- 2005.08 Recognized as a company-annex research institute by Korea Industrial Technology Association
- 2005.11 Won the Minister of Industry and Resources Award related with long-term national policies
- 2005.11 Designated as INNO-BIZ, an innovative small-or-medium sized enterprise
- 2006.06 Acquired the Good Product Certification for ZCT built-in MCCB by Public Procurement Service
- 2007.05 Acquired the MCCB NEP for built-in ZCT
- 2007.09 Acquired New Product Certification for zero phase current transformer and embedded circuit breakers(225A or less)
- 2008.10 Acquired the additional certifications(MCCB) of Korea Standard
- 2008.11 Acquired K5 A ISO 9001 :2007 / ISO 9001 :2000 Certifications for Quality Management System
- 2009.06 Extended the Good Product mark for ZCT built-in MCCB by Public Procurement Service
- 2009.10 Acquired the approval for all specifications of TUV / CE for circuit breakers / earth leakage breakers
- 2010.08 Acquired the overseas certifications for all the products(CE, TUV)
- 2010.08 Acquired CE Mark of all product (TUV Company in German)
- 2012.07 Changed the notice of certifications for K5 C 4613 and 8321 , according to change of the representative(Before: Kim, Gwansu, Representative Director, After: Lee, Man Woo, Representative Director)
- 2012.07 Changed the standard names for K5 C 4613 and 8321 , according to revision of specification (Before: earth leakage breaker, After: Industrial earth leakage breaker, Before: Circuit breaker, After: Industrial circuit breaker)
- 2013.03 Acquired the license to mark KS C 8326
- 2013.06 Acquired KS Mark (Household Panel Board)
- 2014.02 Established China factory
- 2014.06 Merger and acquisition with seoil
- 2015.07 Won The Excellent Small Businessmen awards Grand Prize by Busan Metropolitan city

Organization Chart

Dong-A Electric Device CO., LTD nimbly copes with the customers' requirements through the optimal organization.



Administrative Slogan

- Dong-A Electric Device CO., LTD will make a return for the customers through quality satisfaction
- Business Philosophy
- Administrative slogan and main policies of Dong-A Electric Device CO., LTD

Quality Management	Sales Expansion	Profit-making
To keep and enhance quality level of the products To activate technical training	To enlarge new market To expand sales volume of new products	To reduce the cost To reduce the expenses To increase productivity

Administrative policy

- Fast innovation
- Customer satisfaction
- People leadership

Quality Assurance

- Dong-A Electric Device CO., LTD put the highest priority on quality.
- Quality Policies
- Better Quality
- Better Technology
- Lower Price
- We produce the best product meeting the expectation and requirements of the customers by sustaining and developing the quality system that aims at better technology, better quality and lower price.

Certificates

1. Business Registration	99.01.26
2. INNO – BIZ	05.11.23
3. Certificate of Donga Laboratory	05.08.19
4. Certificate of Donga Laboratory	04.08.04
5. Certificate of quality management system ISO 9001	97.04.17
6. Certificate of New Excellent Product	06.01.01
7. Certificate of Excellent Product	06.06.29
8. Reward Results & Memberships	
9. Certificate of a patent & certificate of Utility Model by Korean Intellectual Property Office	05.01.24
10. Present condition of The Standard	
– Certificate of KS (MCCB etc.)	85.10.12
– Certificate of KS(ELCB etc.)	96.07.15
– Electrical Appliances Safety Certificate by Korea Electrical Safty Corporation (MCCB / ELCB / MC)	06.04.07
– Type Approval Certificate(ELD / ZCT)	84.03.20
– KR mark by Korea Register of Shipping (MCCB / MC / MS)	00.03.07
– Certificate of VDE(MC / MS)	01.09.12
– Certificate of CCC(MC / MS)	02.07.02
– Certificate of TUV, CE(MC / MS)	05.01.24
– Certificate of CE(MCCB / ELCB)	10.02.02
– Certificate of KS(Home Panel Board)	13.05.15



CERTIFICATE

This is to certify that, Dong-A Electric Device Co., Ltd.
 represented by **MAN-WOO LEE** has been designated
 as a Promising Export Firm by the Small & Medium
 Business Administration, Republic of Korea

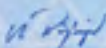
Certificate No : 15 - 58	Certified Date / 2015. 12. 09
Issue Date / 2015. 12. 01	Expiry Date / 2017. 11. 30



JIN-HYUNG KIM *Jinhyung Kim*

Authorized Local Signatory

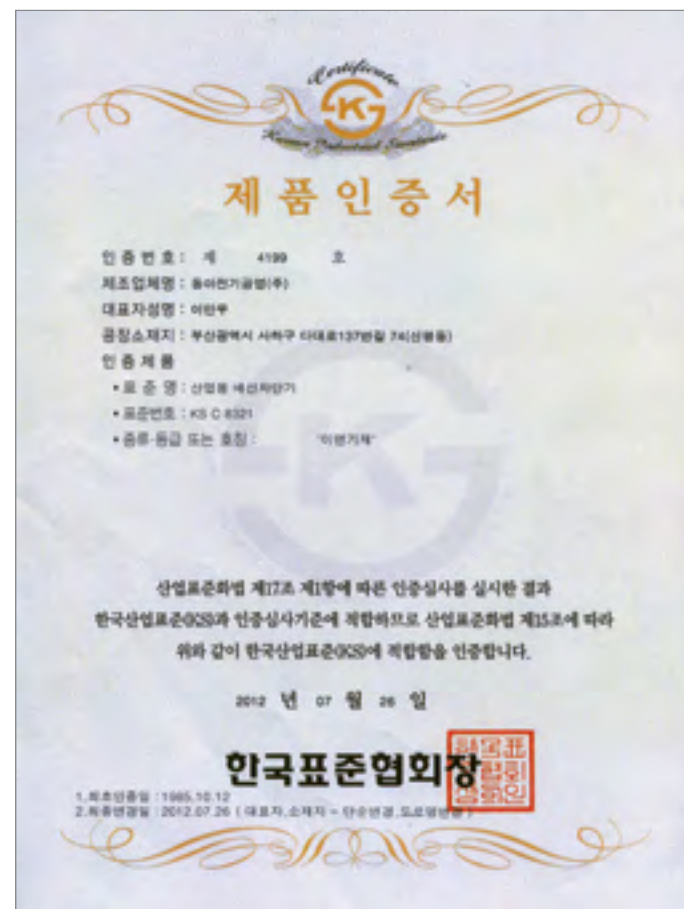
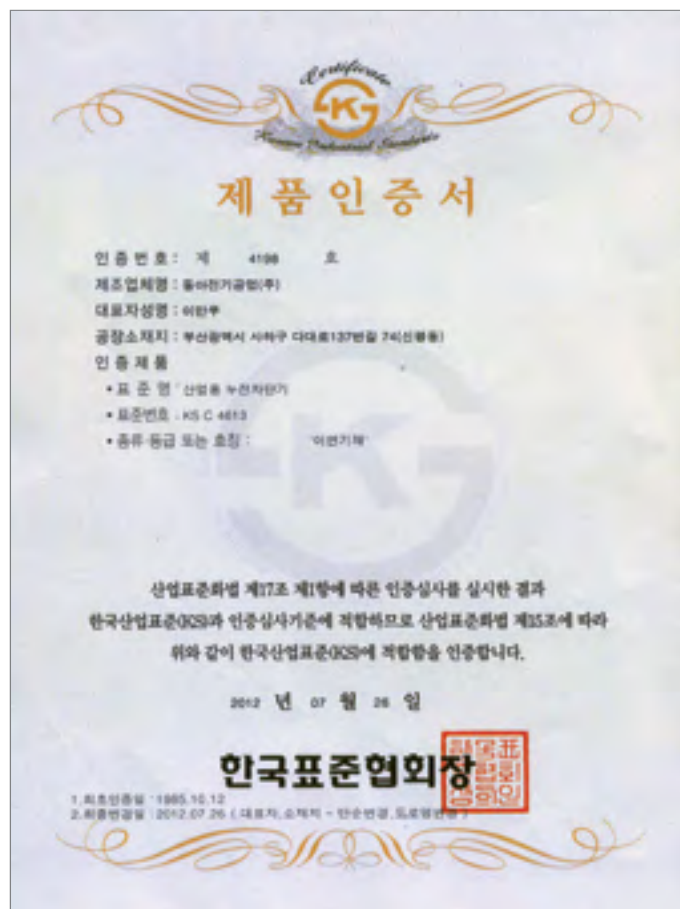
BUSAN - ULSAN Export Center, SMBA

C E R T I F I C A T E		 TÜV
of Conformity Low Voltage Directive 73/23/EEC as last amended by EEC Directive 93/68/EEC		
Registration No.:	AN 50014631 0001	
Report No.:	13000722 001	
Holder:	Dong-A Electric Device Co., Ltd. 38, Sinpyeong-dong, Saha-gu Busan 604-030 Rep. of Korea	
Product:	Thermionic Overrelays (Thermal Overload Relay)	
Identification:	Type designation : HED 622 series Current setting : 0.5-0.6-0.7, 1-1.2-1.4, 1.7-2.2-2.7, 3.4-3.5-4, 4-5-6, 8-9-9.7-9, 10-12-14, 15-16-18, 18-17-20 2A Ampere Trip class : 10A : Rated tripping voltage : < 80V Serial No. : N/A : (prototype)	
This certificate of conformity is based on an evaluation of a sample of the above mentioned product. Technical Report and documentation are at the License Holder's disposal. This is to certify that the tested sample is in conformity with all contents of Annex I of Council Directive 73/23/EEC, in its latest amended version, referred to as the Low Voltage Directive. This certificate does not imply assessment of the series production of the product and does not permit the use of a TÜV Rheinland mark of conformity. The holder of the certificate is authorized to use this certificate in connection with the EC declaration of conformity according to Annex II of the Directive.		
Cologne _____ 22.07.2001 _____		Certification Body  Dipl.-Ing. U. Röllger
		
TÜV Rheinland Product Safety GmbH - Am Grauen Stein - D-51105 Köln		


 The CE marking may be used if all relevant and effective EC Directives are complied with.
 

												
C E R T I F I C A T E												
of Conformity Low Voltage Directive 73/23/EEC as last amended by EEC Directive 93/68/EEC												
Registration No.:	AN 50014617 0001											
Report No.:	13000721 001											
Holder:	Dong-A Electric Device Co., Ltd. 38, Sinsyong-dong, Saha-gu Busan 604-030 Rep. of Korea											
Product:	Subler (Magnetic Contactor)											
Identification:	<table border="0"> <tr> <td>Type designation</td> <td>: DMC 12 50x140</td> </tr> <tr> <td>Main circuit</td> <td>: AC-3, 200-230V, 11A, 50/60Hz</td> </tr> <tr> <td></td> <td>: AC-3, 240-440V, 6A, 50/60Hz</td> </tr> <tr> <td>Coil circuit</td> <td>: 24V, 48V, 110V, 230V, 240V, 380V, 400V, 415V, 660V a.c. 50/60Hz</td> </tr> <tr> <td>Serial No.</td> <td>: a.s. 99000721001</td> </tr> </table>		Type designation	: DMC 12 50x140	Main circuit	: AC-3, 200-230V, 11A, 50/60Hz		: AC-3, 240-440V, 6A, 50/60Hz	Coil circuit	: 24V, 48V, 110V, 230V, 240V, 380V, 400V, 415V, 660V a.c. 50/60Hz	Serial No.	: a.s. 99000721001
Type designation	: DMC 12 50x140											
Main circuit	: AC-3, 200-230V, 11A, 50/60Hz											
	: AC-3, 240-440V, 6A, 50/60Hz											
Coil circuit	: 24V, 48V, 110V, 230V, 240V, 380V, 400V, 415V, 660V a.c. 50/60Hz											
Serial No.	: a.s. 99000721001											
This certificate of conformity is based on an evaluation of a sample of the above mentioned product. Technical Report and documentation are at the License Holder's disposal. This is to certify that the tested sample is in conformity with all revision of Annex I of Council Directive 73/23/EEC, in its latest amended version, referred to as the Low Voltage Directive. This certificate does not imply assessment of the series-production of the product and does not permit the use of a TUV Registered mark of conformity. The holder of the certificate is authorized to use this certificate in connection with the EC declaration of conformity according to Annex III of the Directive.												
Cologne, 02.07.2002		Certification Body  Dipl.-Ing. U. Rüdiger										
												
TÜV Rheinland Product Safety GmbH - Am Grauen Stein - D-51105 Köln												
CE The CE marking may be used if all relevant and effective EC Directives are complied with. CE												

	C E R T I F I C A T E	 TÜVRheinland
	of Conformity Low Voltage Directive 2006/95/EC	
Registration No.:	AN 50174866 0001	
Report No.:	13603135 001	
Holder:	Dong-A Electric Device Co., Ltd. 3B, Sinyeong-dong, Saha-gu Busan 604-030 Rep. of Korea	
Product:	Circuit Breaker Moulded Case Circuit Breaker	
Identification:	Type Designation: + GDBN(C) (GDBN/C) ($n = 1E, C, B \text{ or } D; m = 2, 3 \text{ or } 4;$ $p = K, L, S \text{ or } H; a = b \text{ or } 00A001$) for details refer to the test report Serial No.: (s-nr./spontaneous)	
This certificate of conformity is based on an evaluation of a sample of the above mentioned product. Technical Report and documentation are at the License Holder's disposal. This is to certify that the tested sample is in conformity with all revision of Annex I of Council Directive 2006/95/EC, in its latest amended version, referred to as the Low Voltage Directive. This certificate does not imply assessment of the series production of the product and does not permit the use of a TÜV Rheinland mark of conformity. The holder of the certificate is authorized to use this certificate in connection with the EC declaration of conformity according to Annex II of the Directive.		
		Certification Body  <u>Dipl.-Ing. B. Löffler</u>
Date <u>02.02.2010</u>	TÜV Rheinland LGA Products GmbH - Talleystraße 2 - 90431 Nürnberg	
CE	The CE marking may be used if all relevant and effective EC Directives are complied with.	CE



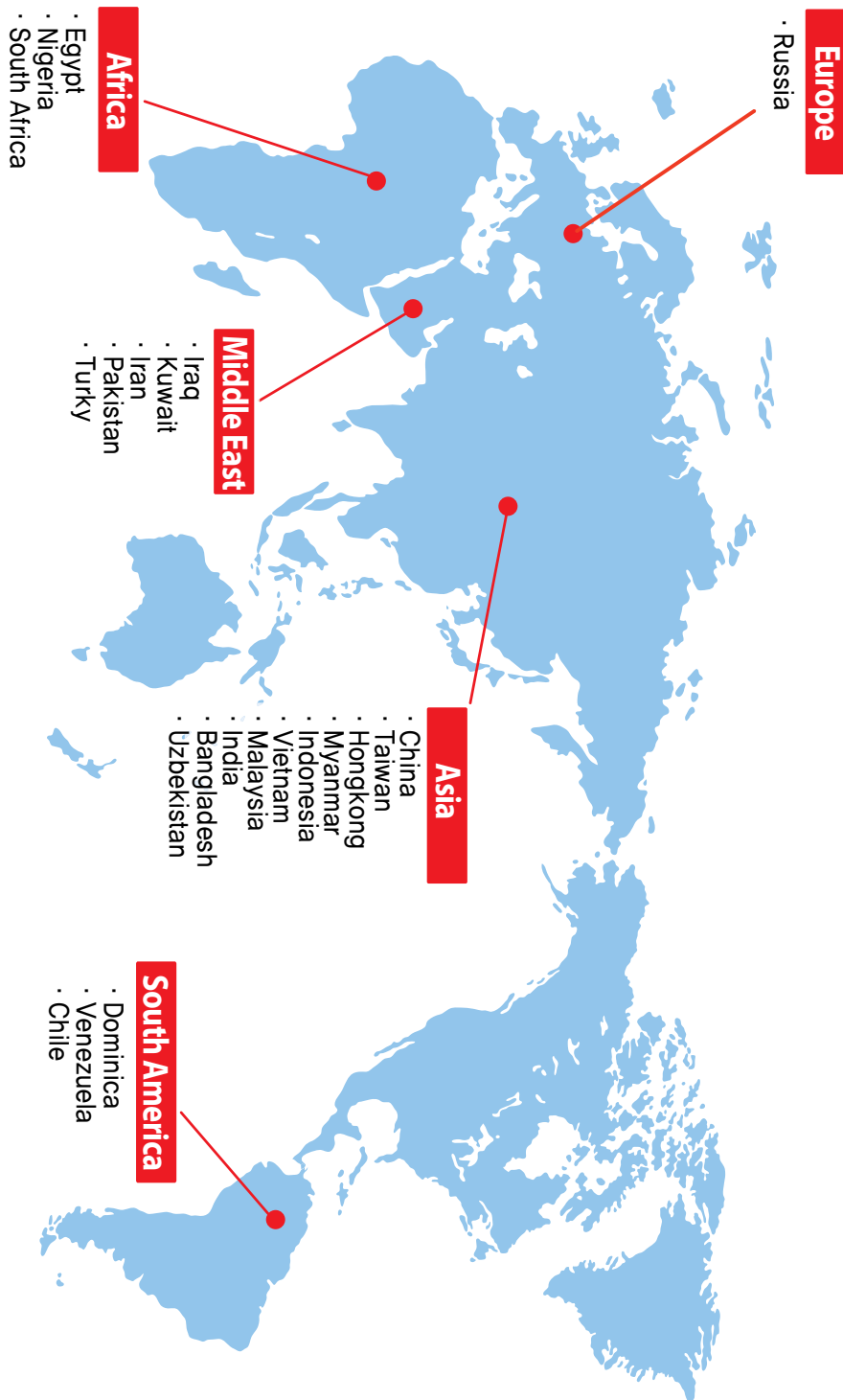
Major Account Customers

Government



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