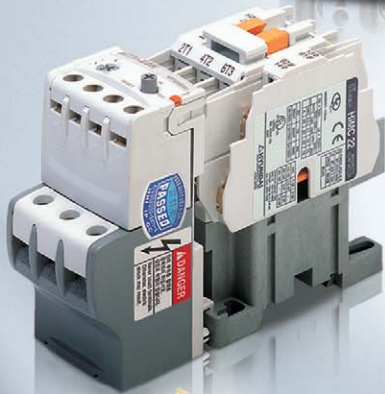




LV & MV Circuit Breaker, Contactor & Overload Relay



LV & MV Circuit Breaker Full Line up



LV & MV Circuit Breaker, Contactor & Overload Relay

Hyundai Circuit Breaker is one of the most reliable and sophisticated products, which realizes the optimum design through electric and kinetic analysis.

| Contents

- 04 _ Molded Case Circuit Breaker
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- 14 _ Air Circuit Breaker
- 16 _ Load Break Switch
- 17 _ Vacuum Contactor
- 18 _ Vacuum Circuit Breaker

Molded Case Circuit Breaker

Optimum design provides easy-to-use customer installation, while offering versatility and high performance to match today's demand for a reliable and cost-effective product, which is easy to maintain.

Qualified Standard & Approval

Standard

- ▶ IEC 60947-2
- ▶ NEMA AB-1
- ▶ KS C8321

Approval

- ▶ ISO 18001, 14001, 9001
- ▶ CE (Community European / TÜV Rheinland)
- ▶ TSE
- ▶ GOST-R
- ▶ CCC
- ▶ KR, LR, ABS, BV, NK, GL



HiBS103



HiBL203NE



HiBS803NE

Frame	Model	Number of pole	Breaking capacity [Icu] (kA rms)			Frame	Model	Number of pole	Breaking capacity [Icu] (kA rms)		
			220/240V	380/415V	600V				220/240V	380/415V	600V
Molded Case Circuit Breaker						3. Electronic type					
1. Fixed thermal type						Switch disconnector					
30	HiBS30 ¹⁾	2, 3	10	7.5/5	2.5	50	HiSD53	3	Same dimension with HiBS53		
	HiBH30 ¹⁾	2, 3	25	14/10	5	100	HiSD103	3	Same dimension with HiBS103		
50	HiBE50 ¹⁾	2, 3, 4	10	7.5/5	2.5	225	HiSD203	3	Same dimension with HiBS203		
	HiBS50 ¹⁾	2, 3, 4	25	14/10	5	400	HiSD403	3	Same dimension with HiBS403		
60	HiBH50 ¹⁾	2, 3, 4	50	30/25	10	600	HiSD603	3	Same dimension with HiBS603		
	HiBE60 ¹⁾	2, 3, 4	10	7.5/5	2.5	800	HiSD803	3	Same dimension with HiBS803		
100	HiBS60 ¹⁾	2, 3, 4	25	14/10	5	400	HiSD403NE	3	Same dimension with HiBS403NE		
	HiBE100 ¹⁾	2, 3, 4	25	14/10	5	600	HiSD603NE	3	Same dimension with HiBS603NE		
225	HiBH100 ¹⁾	2, 3, 4	65	42/36	18	800	HiSD803NE	3	Same dimension with HiBS803NE		
	HiBS225 ¹⁾	2 ²⁾ , 3, 4	35	25/18	7.5	1000	HiSD1003NE	3	Same dimension with HiBS1003NE		
400	HiBH225 ¹⁾	2 ²⁾ , 3, 4	65	42/36	18	1200	HiSD1203NE	3	Same dimension with HiBS1203NE		
	HiBE400 ¹⁾	2 ²⁾ , 3, 4	35	30	18	Mini safety breaker for distribution and lighting protection					
600	HiBS400 ¹⁾	2 ²⁾ , 3, 4	50	42	22	30	HiBC32S ¹⁾	2	1.5	2P1E	
	HiBH400 ¹⁾	2 ²⁾ , 3, 4	85	65	25		HiBC32SC ¹⁾	2	1.5	2P1E with plastic case	
800	HiBL400 ¹⁾	2 ²⁾ , 3, 4	125	100	30	50	HiBC32 ¹⁾	2	1.5	2P2E	
	HiBE600 ¹⁾	2 ²⁾ , 3, 4	50	45	22		100	HiBC32H ¹⁾	2	2.5	2P2E
1000	HiBS600 ¹⁾	2 ²⁾ , 3, 4	100	65	25	50		HiBD30F ¹⁾	2, 3	5	
	HiBH600 ¹⁾	2 ²⁾ , 3, 4	100	85	35		100	HiBD50F ¹⁾	2, 3	5	
1200	HiBL600 ¹⁾	2 ²⁾ , 3, 4	125	100	35	250		HiBD100F ¹⁾	2, 3	10	
	HiBE800 ¹⁾	2 ²⁾ , 3, 4	50	45	22		Mini breaker for american area				
100	HiBS800 ¹⁾	2 ²⁾ , 3, 4	100	65	25	50	HBD50D ¹⁾	1, 2, 3	5	Plug-in type	
	HiBH800 ¹⁾	2 ²⁾ , 3, 4	100	85	35		50	HBD50 ¹⁾	1, 2, 3	5	Lug type
225	HiBL800 ¹⁾	2 ²⁾ , 3, 4	125	100	35	50		HBD50H ¹⁾	1, 2, 3	10	Plug-in type
	HiBE225 ¹⁾	2 ²⁾ , 3, 4	125	85	35						
400	HiBS225 ¹⁾	2 ²⁾ , 3, 4	150	130	65						
	HiBH225 ¹⁾	2 ²⁾ , 3, 4	150	130	65						
600	HiBL225NT	2, 3, 4	125	85	35						
	HiBE250 ¹⁾	2, 3, 4	35	25/18	7.5						
800	HiBS250J ¹⁾	2, 3, 4	50	30/25	10						
	HiBH250J ¹⁾	2, 3, 4	65	42/36	18						

* 1) Ics = 50% Icu

2) 2pole has same dimension with 3pole, but the middle pole is removed.

MCCB

MINIATURE

MC

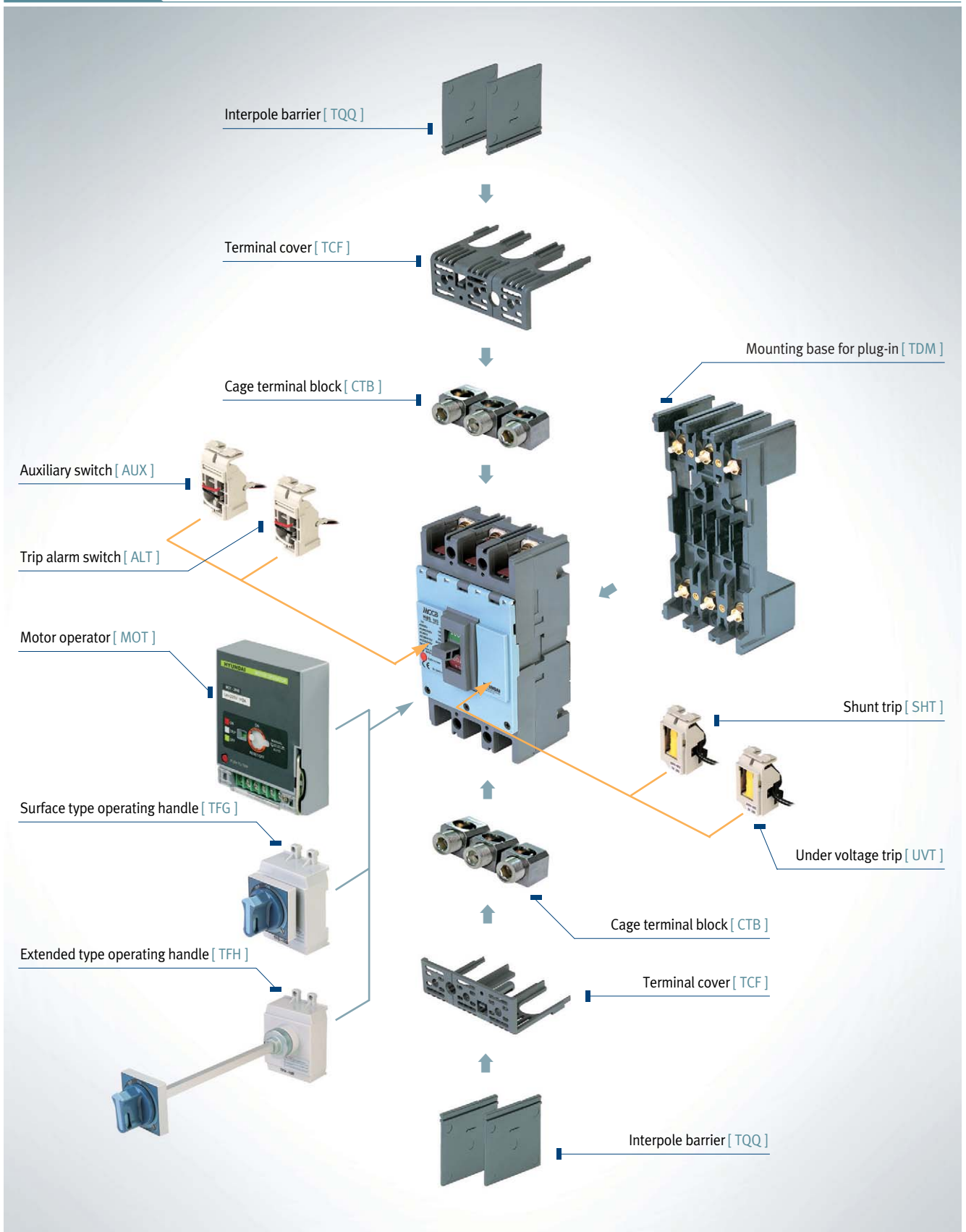
ACB

LBS

VC

VCB

Accessories



※ Above features are accessories for HiBS103. Different accessories shall be applied to different model.

Miniature Series

- ▶ Miniature Circuit Breaker [MCB]
- ▶ Residual Current Circuit Breaker [RCCB]
- ▶ Residual Current Circuit Breaker with Overcurrent Protection [RCBO]
- ▶ Miniature Switch Disconnecter [MSD]

Hyundai Miniature Series are the perfect solution to protect electric overload, short circuit and earth leakage in the household and commercial installations.

With consistent and elegant appearances, the Hyundai Miniature Series provide various selection, easy installation, economic benefit and high reliability based on international standard IEC.

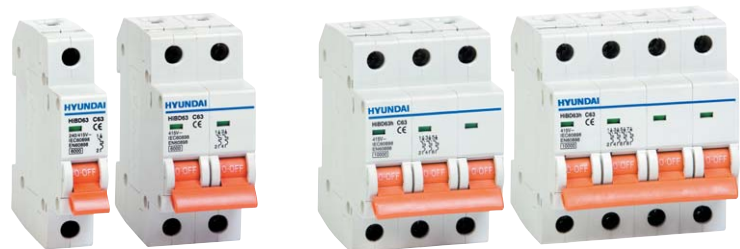
Qualified Standard & Approval

Standard

- ▶ IEC 60898
- ▶ IEC 60947-2
- ▶ IEC 61008
- ▶ IEC 61009
- ▶ IEC 60947-3

Approval

- ▶ ISO 18001, 14001, 9001
- ▶ CE
- ▶ BV
- ▶ GOST-R
- ▶ TSE



HiBD63-N

HiBD63h

Miniature Circuit Breaker

Model	Number of pole (P)	Characteristic I/n	Rated current (A)	Rated voltage (V)	Breaking capacity (A)	Accessory	Protection	Standard
HiBD63-E	1, 2, 3	5 – 10 In (C)	1, 2, 3, 4, 5, 6, 10, 13, 15, 16, 20, 25, 32, 40	AC240/415 ¹⁾	3,000	AUX, ALARM SHUNT, UVT	Overload, Short circuit	IEC 60898 EN 60898
HiBD63-S	1, 2, 3	5 – 10 In (C)	1, 2, 3, 4, 5, 6, 10, 13, 15, 16, 20, 25, 32, 40	AC240/415 ¹⁾	4,500	AUX, ALARM SHUNT, UVT	Overload, Short circuit	IEC 60898 EN 60898
HiBD63-N	1, 2, 3, 4 1+N, 3+N	3 – 5 In (B) 5 – 10 In (C) 10 – 20 In (D)	1, 2, 3, 4, 5, 6, 10, 13, 15, 16, 20, 25, 32, 40, 50, 63	AC240/415 ¹⁾	6,000	AUX, ALARM SHUNT, UVT	Overload, Short circuit	IEC 60898 EN 60898
HiBD63h	1, 2, 3, 4 1+N, 3+N	3 – 5 In (B) 5 – 10 In (C) 10 – 20 In (D)	1, 2, 3, 4, 5, 6, 10, 13, 15, 16, 20, 25, 32, 40, 50, 63	AC240/415 ¹⁾	10,000	AUX, ALARM SHUNT, UVT	Overload, Short circuit	IEC 60898 EN 60898
HiBD125	1, 2, 3, 4 1+N, 3+N	3 – 5 In (B) 5 – 10 In (C) 10 – 20 In (D)	63, 80, 100, 125	AC240/415 ¹⁾	10,000	AUX, ALARM SHUNT, UVT	Overload, Short circuit	IEC 60947-2 EN 60947-2

※ 1) In case of 1pole, MCB will be applicable to AC240V.

MCCB

MINIATURE

MC

ACB

LBS

VC

VCB

Residual Current Circuit Breaker

HiRC63	
Number of pole	2, 4
Residual current characteristics	A/AC
Rated current	25, 32, 40, 63A
Rated residual operating current $I_{\Delta n}$	10, 30, 100, 300, 500mA
Rated voltage	AC240/415V ¹⁾
Protection	Earth leakage
Standard	IEC 61008/EN 61008

※ 1) In case of 2pole, RCCB will be applicable to AC240V.



HiRC63

Residual Current Circuit Breaker with Overcurrent Protection

HiRO40	
Number of pole	1+N
Residual current characteristics	AC
Characteristic I/I_n	3 - 5 I_n (B)
	5 - 10 I_n (C)
	10 - 20 I_n (D)
Rated current	1, 3, 5, 6, 10, 16, 20, 25, 32, 40A
Rated residual operating current $I_{\Delta n}$	10, 30, 100, 300, 500mA
Rated voltage	AC240V
Protection	Earth leakage, Overcurrent
Standard	IEC 61009/EN 61009



HiRO40

Miniature Switch Disconnecter

HiSD125	
Number of pole	1, 2, 3, 4
Rated current	16, 32, 63, 100, 125A
Rated voltage	AC240/415V
Electro-mechanical endurance	10,000times
Function	Isolation
Standard	IEC 60947-3/EN 60947-3



HiSD125

Contactors & Overload Relay

Magnetic Contactor

HYUNDAI Magnetic Contactor employs a modular design, which allows quick and simple mounting of auxiliary contact blocks, timers, mechanical latching blocks, etc. HiMC Contactor provides convenience, economic benefit and high reliability.

With highly advanced design for industrial applications such as motor control centers, the HiMC contactor is appropriate for various control systems. It is also favored by shipyards and power plants whose criteria includes high reliability and performance.

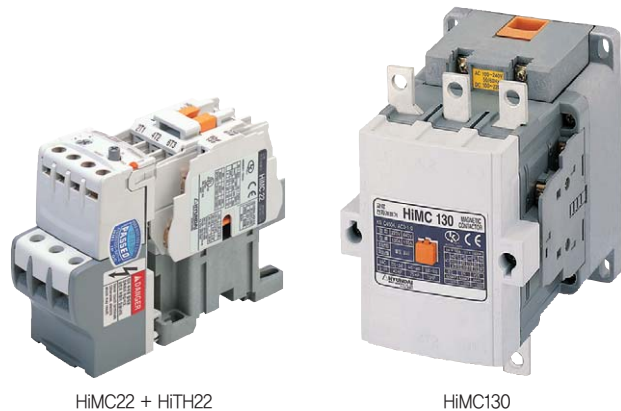
Qualified Standard & Approval

Standard

- ▶ IEC 60947
- ▶ EN 60947
- ▶ UL 508
- ▶ BS 47794, BS 5424, BS 4941
- ▶ VDE 0660
- ▶ DNV
- ▶ KS C4504
- ▶ JISC 8328, JEM 1038

Approval

- ▶ ISO 18001, 14001, 9001
- ▶ UL / C-UL
- ▶ CE (Community European / TÜV Rheinland)
- ▶ TSE
- ▶ GOST-R
- ▶ CCC
- ▶ KR, LR, ABS, BV, NK



HiMC22 + HiTH22

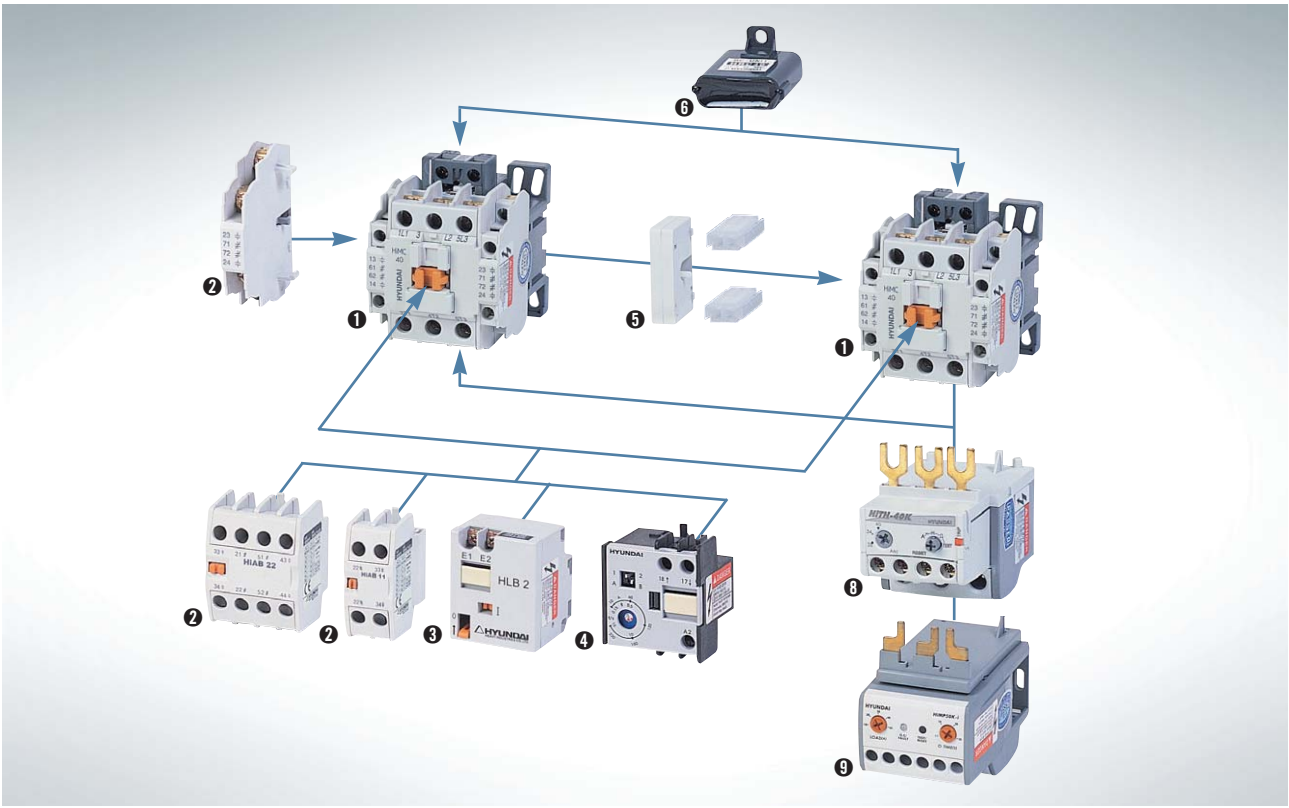
HiMC130

Model	Capacity (AC3, kW/A)					Auxiliary contact	Operation current
	220 - 240V	380 - 440V	500 - 550V	660 - 690V	1,000V		
HiMC9	2.2 / 10	4 / 9	4 / 7	5.5 / 7		1a1b	AC, DC
HiMC12	3.7 / 13	5.5 / 12	7.5 / 12	7.5 / 9		1a1b	AC, DC
HiMC18	4.5 / 18	7.5 / 18	8.5 / 15	7.5 / 9		1a1b	AC, DC
HiMC22	5.5 / 22	11 / 22	15 / 22	15 / 18		1a1b	AC, DC
HiMC32	7.5 / 32	15 / 32	18.5 / 28	18.5 / 22		2a2b	AC, DC
HiMC40	11 / 40	18.5 / 40	22 / 32	22 / 26		2a2b	AC, DC
HiMC50	15 / 50	22 / 50	30 / 45	25 / 31		2a2b ¹⁾	AC, DC
HiMC65	18.5 / 70	30 / 65	37 / 60	37 / 44		2a2b ¹⁾	AC, DC, AC/DC
HiMC80	22 / 80	37 / 80	45 / 64	45 / 52		2a2b ¹⁾	AC, DC, AC/DC
HiMC90	25 / 90	45 / 90	50 / 80	50 / 60		2a2b ¹⁾	AC, DC, AC/DC
HiMC110, HiMC110B ²⁾	30 / 110	55 / 110	60 / 110	55 / 65	65 / 50	2a2b ¹⁾	AC, DC, AC/DC
HiMC130	37 / 130	65 / 130	70 / 120	60 / 70	75 / 54	2a2b ¹⁾	AC, DC, AC/DC
HiMC150, HiMC150B ²⁾	45 / 150	75 / 150	90 / 140	90 / 100	90 / 66	2a2b ¹⁾	AC, DC, AC/DC
HiMC180	55 / 180	90 / 180	110 / 180	110 / 120	110 / 78	2a2b ¹⁾	AC, DC, AC/DC
HiMC220	63 / 220	110 / 220	132 / 200	132 / 150	132 / 96	2a2b ¹⁾	AC, DC, AC/DC
HiMC260, HiMC260B ²⁾	75 / 260	132 / 260	150 / 220	160 / 173	160 / 113	2a2b ¹⁾	AC, DC, AC/DC
HiMC300	90 / 300	160 / 300	160 / 273	200 / 220	200 / 141	2a2b ¹⁾	AC, DC, AC/DC
HiMC400	125 / 400	220 / 400	220 / 350	250 / 300	250 / 178	2a2b ¹⁾	AC, DC, AC/DC
HiMC500	140 / 500	250 / 500	300 / 426	335 / 360	275 / 192	2a2b ¹⁾	AC, DC, AC/DC
HiMC630	190 / 630	330 / 630	330 / 500	400 / 412	300 / 213	2a2b ¹⁾	AC, DC, AC/DC
HiMC800	220 / 800	440 / 800	500 / 720	500 / 630	400 / 284	2a2b ¹⁾	AC, DC, AC/DC

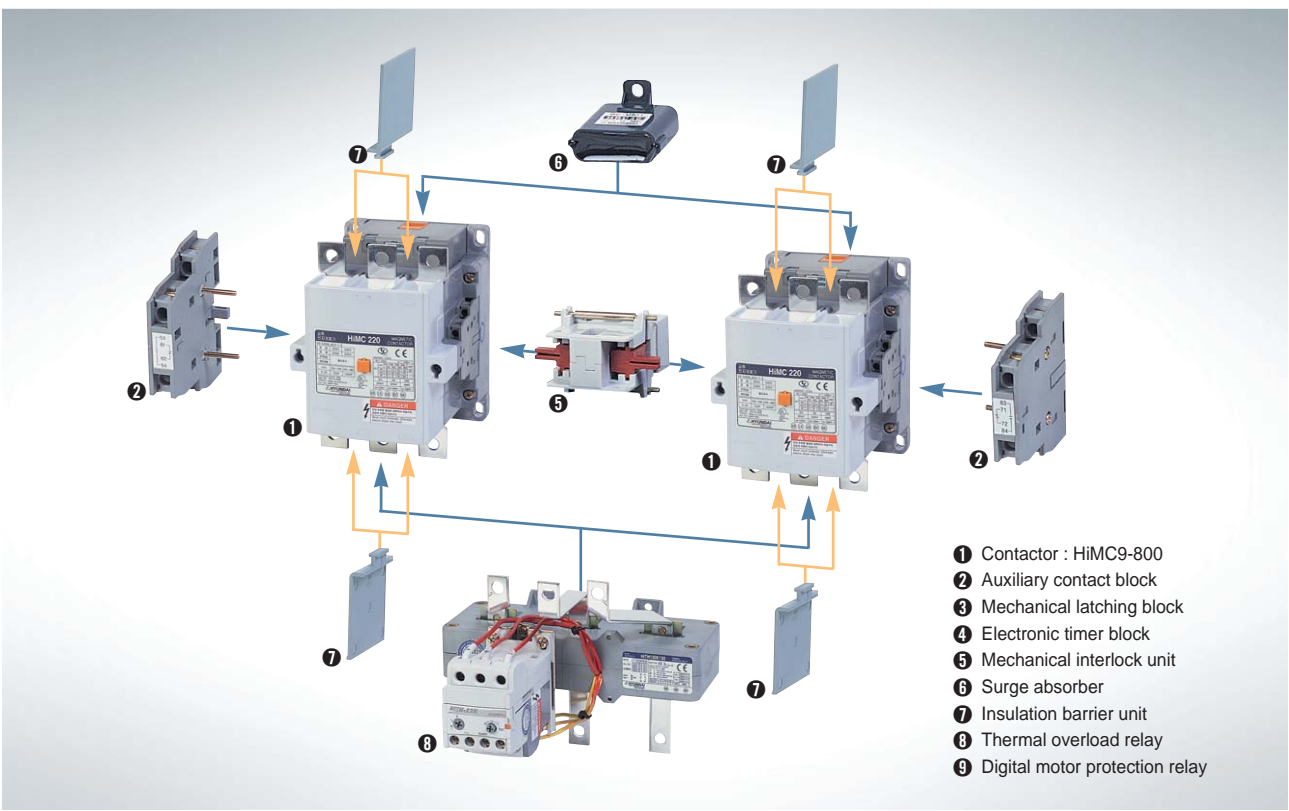
※ 1) The auxiliary contact for DC is 2a1b.

2) HiMC110B, HiMC150B, HiMC260B: Compact type.

HiMC9 - 50



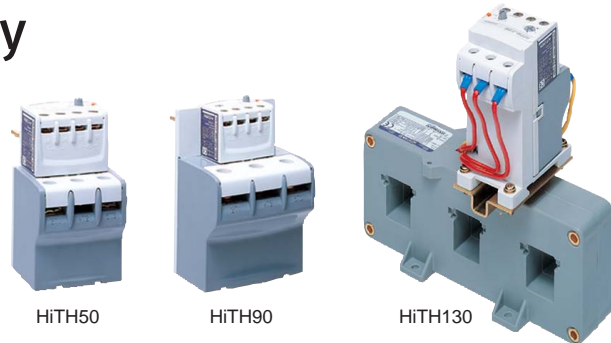
HiMC65 - 800



- 1 Contactor : HiMC9-800
- 2 Auxiliary contact block
- 3 Mechanical latching block
- 4 Electronic timer block
- 5 Mechanical interlock unit
- 6 Surge absorber
- 7 Insulation barrier unit
- 8 Thermal overload relay
- 9 Digital motor protection relay

Contactor & Overload Relay

Thermal Overload Relay



Setting range	HiTH22	HiTH40	HiTH50	HiTH90	HiTH130	HiTH220	HiTH300	HiTH500	HiTH800
0.12 – 0.18A									
0.18 – 0.26A									
0.25 – 0.35A									
0.34 – 0.5A									
0.5 – 0.7A									
0.6 – 0.9A									
0.8 – 1.2A									
1.1 – 1.6A									
1.5 – 2.1A									
2 – 3A									
2.8 – 4.2A									
3 – 5A									
4 – 6A									
5.6 – 8A									
7 – 10A									
9 – 13A									
12 – 18A									
16 – 22A									
18 – 26A									
24 – 32A									
28 – 40A									
36 – 50A									
45 – 65A									
60 – 80A									
48 – 80A									
78 – 130A									
108 – 180A									
132 – 220A									
180 – 300A									
240 – 400A									
300 – 500A									
378 – 630A									
480 – 800A									
Applied contactor	HiMC9 HiMC12 HiMC18 HiMC22	HiMC30 HiMC40	HiMC50	HiMC65 HiMC80 HiMC90 HiMC110B	HiMC110 HiMC130 HiMC150B	HiMC150 HiMC180 HiMC220 HiMC260B	HiMC260 HiMC300	HiMC400 HiMC500	HiMC630 HiMC800

CT operated type

Separate Mounting Unit

Model	For use with overload relay	Mounting
HiTHMB22	HiTH22	DIN rail, Screw
HiTHMB40	HiTH40	
HiTHMB50	HiTH50	
HiTHMB90	HiTH90	



Separate mounting unit (HiTHMB)

MCCB

MINIATURE

MC

ACB

LBS

VC

VCB

Digital Motor Protection Relay



Standard type

Deluxe type

Standard Type

Model	Function					Wiring of main circuit			Allowable current partition
	Over current	Phase failure	Phase unbalance	Restriction	Reverse phase	Pin	Screw	Tunnel	
HiMP22K I HiMP40K I HiMP50K I	Inverse	●	●	●		●	●	●	HiMP22: 0.3 – 1.5A, 1 – 5A, 4.4 – 22A HiMP40: 8 – 40A HiMP50: 10 – 50A
HiMP150K I HiMP300K I	Inverse	●	●	●				●	HiMP150: 30 – 150A HiMP300: 60 – 300A
HiMP22K N HiMP40K N HiMP50K N	Inverse/ Reverse	●	●	●	●	●	●	●	HiMP22: 0.3 – 1.5A, 1 – 5A, 4.4 – 22A HiMP40: 8 – 40A HiMP50: 10 – 50A
HiMP150K N HiMP300K N	Inverse/ Reverse	●	●	●	●			●	HiMP150: 30 – 150A HiMP300: 60 – 300A

Deluxe Type

Model	Function								Wiring of main circuit		Allowable current partition
	Over current	Under current	Phase failure	Phase unbalance	Restriction	Reverse phase	Short circuit	Leakage current	Screw	Tunnel	
HiMP60K S	●	●	●	●	●	●			●	●	0.5 – 6A, 5 – 60A
HiMP60K I	●	●	●	●	●	●	●		●	●	
HiMP60K Z	●	●	●	●	●	●		●	●	●	

Control Relay

Model	Auxiliary contact	Operation current
HMX22	2a2b	AC
HMX31	3a1b	
HMX40	4a	
HMT22	2a2b	DC
HMT31	3a1b	
HMT40	4a	



HMT & HMX

Contactor & Overload Relay



Capacitor Switching Contactor

Model (AC operation)	Rating of 3-phase capacitor 50-60Hz (at ambient temperature 55 °C)						Composed devices			Dimension	
	Max. power						Contactor	Capacitor switching unit		External size	
	AC-6b							(AC operation)	Auxiliary		
	200V kVAR	230V 240V kVAR	400V 415V kVAR	440V kVAR	500V 550V kVAR	690V kVAR	Model		NO (53-54)	NC (51-52)	
HiMK9 21	5	5	9.7	9.7	14	14	HiMC9		HiAD50 10	1	44 x 166 x 123
HiMK9 12								HiAD50 01	1		
HiMK12 21	6.7	6.7	12.5	12.5	18	18	HiMC12	HiAD50 10	1		
HiMK12 12								HiAD50 01	1		
HiMK18 21	8.5	8.5	16.7	16.7	24	24	HiMC18	HiAD50 10	1		
HiMK18 12								HiAD50 01	1		
HiMK22 21	10	10	18	18	26	26	HiMC22	HiAD50 10	1		
HiMK22 12								HiAD50 01	1		
HiMK32 32	14	16	27.5	30	34	45	HiMC32	HiAD50 10	1	63 x 166 x 123	
HiMK32 23								HiAD50 01	1		
HiMK40 32	20	20	30	33.3	48	48	HiMC40	HiAD50 10	1		
HiMK40 23								HiAD50 01	1		
HiMK50 32	21	24	40	45	50	65	HiMC50	HiAD50 10	1	70 x 178 x 136	
HiMK50 23								HiAD50 01	1		

Auxiliary Contact Block

Model	Contact	Mounting	Application	
HiAB22	2NO + 2NC	Top side	HiMC9 - 50	
HiAB13	1NO + 3NC	Top side		
HiAB31	3NO + 1NC	Top side		
HiAB04	0NO + 4NC	Top side		
HiAB40	4NO + 0NC	Top side		
HiAB11	1NO + 1NC	Top side		
HiAB02	0NO + 2NC	Top side		
HiAB20	2NO + 0NC	Top side		
HiAL11 ¹⁾	1NO + 1NC	Left side		HiMC9 - 22
HiAC22	2NO + 2NC	Top side		HMX HMT
HiAC13	1NO + 3NC	Top side		
HiAC31	3NO + 1NC	Top side		
HiAC40	4NO + 0NC	Top side		
HiAC11	1NO + 1NC	Top side		
HiAC02	0NO + 2NC	Top side		
HiAC20	2NO + 0NC	Top side		
HiAL5	1NO + 1NC	Left side	HiMC65, 80, 90, 110B - 150B	
HiAR6	1NO + 1NC	Right side		
HiAL7	1NO + 1NC	Left side	HiMC150 - 800	
HiAR8	1NO + 1NC	Right side		

※ 1) The side mounting auxiliary contact block shall not be used with the top mounting auxiliary contact block at the same time.

MCCB

MINIATURE

MC

ACB

LBS

VC

VCB

Electronic Timer

Model	Control voltage	Delay time
HOKZE1	AC / DC90 – 240V	0.15 – 220sec
HOKZE2	AC / DC24 – 60V	0.15 – 220sec



HOKZE

Mechanical Latching Block

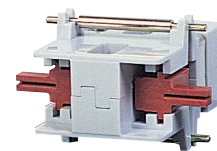
Model	Control voltage
HLB2	AC24, 48, 110, 220, 440V / DC24, 48, 110, 220V



HLB2

Mechanical Interlock Unit

Model	Applied contactors
HiTL40	HiMC9 – 40
HiTL50	HiMC50
HiTL130	HiMC65 – 130, 150B
HiTL220	HiMC150 – 220, 260B
HiTL300	HiMC260 – 300
HiTL800	HiMC400 – 800



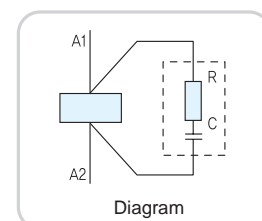
HiTL220

Surge Absorber

Model	Control voltage	Application
HRC40	AC28 – 48V	HMX HiMC9 – 40
HRC40	AC110 – 220V	
HRC40	AC240 – 380V	
HRC90	AC28 – 48V	HiMC50 – 110B
HRC90	AC110 – 220V	
HRC90	AC240 – 380V	
HRC300	AC28 – 48V	HiMC110 – 300
HRC300	AC110 – 220V	
HRC300	AC240 – 380V	
HOKYZX38	DC	HMT, HiMC9 – 50



HRC



Air Circuit Breaker

Designed for both industrial and marine application, HYUNDAI Air Circuit Breakers have innovated structure, various protection, and reliable performance.

Qualified Standard & Approval

Standard

- ▶ IEC 60947-2
- ▶ EN 60947-2
- ▶ AS 3972-2
- ▶ NEMA PUB NO. SG3
- ▶ ANSI C37.13
- ▶ GOST-R 50030.2-99 9
- ▶ GOST-R 50030.1-2000

Approval

- ▶ ISO 18001, 14001, 9001
- ▶ GOST-R
- ▶ CCC
- ▶ KR, GL, LR, ABS, BV, NK
- ▶ CE (Community European / TÜV Rheinland)
- ▶ KERI



HiAS Type

HiAS Type

Model	HiAS06	HiAS08	HiAS10	HiAS12	HiAS16	HiAS20	HiAS25	HiAS32	
Rated current (A)	630	800	1,000	1,250	1,600	2,000	2,500	3,200	
Number of pole	3, 4								
Utilization category	B								
Rated insulation voltage (Ui) (V)	AC1,000								
Rated operation voltage (Ue) (V)	AC690								
Rated breaking capacity (kA sym) [Icu] with Inst. Icu=100% Ics	AC690V	42	42	42	42	42	50	50	50
	AC500V	50	50	50	50	50	65	65	65
	AC415V below	50	50	50	50	50	65	65	65
Rated making capacity (kA peak) [Icm] with Inst. Icu=100% Ics	AC690V	88.2	88.2	88.2	88.2	88.2	105	105	105
	AC500V	110	110	110	110	110	143	143	143
	AC415V below	110	110	110	110	110	143	143	143
Rated impulse withstand voltage (Uimp) (kV)	8								
Rated short-time withstand current [Icw] (rms)	1 sec	42	42	42	42	42	50	50	50
Rated latching current (kV)		42	42	42	42	42	50	50	50
Total breaking time (sec)		0.03							
Closing operating time	Charging time (sec) max.	10							
	Closing time (sec) max.	0.04							
Weight (kg)	3pole, Fixed type	43	43	43	49	49	60	63	65
	3pole, Draw-out type	65	65	65	72	72	87	92	96
	4pole, Fixed type	51	51	51	58	58	69	76	83
	4pole, Draw-out type	76	76	76	85	85	100	110	120
Dimensions (mm) (3pole, Draw-out type)	Height	459							
	Width	320				410			
	Depth	461.2							

MCCB

MINIATURE

MC

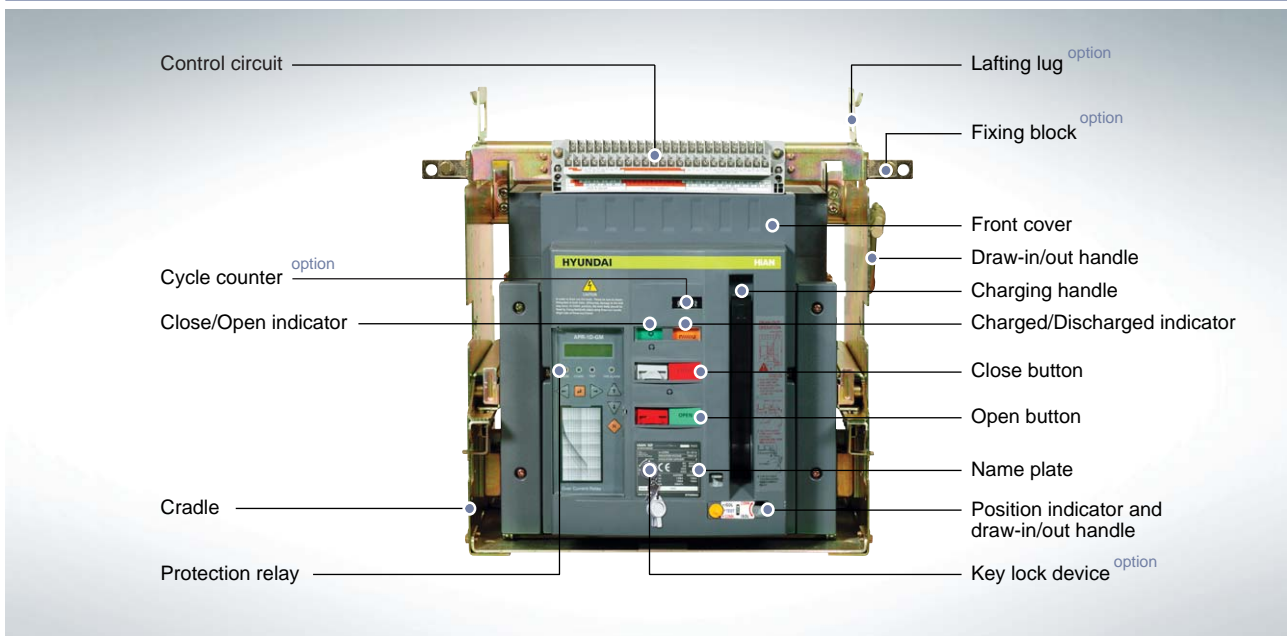
ACB

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VC

VCB

Front View of HiAN and HiAH Type



HiAN and HiAH Type

Model	HiAN06	HiAN08	HiAN10	HiAN12	HiAN16	HiAN20	HiAN25	HiAN32	HiAN40	HiAN50	HiAN63	HiAH32	
Rated current (A)	630	800	1,000	1,250	1,600	2,000	2,500	3,200	4,000	5,000	6,300	3,200	
Number of pole	3, 4												
Utilization category	B												
Rated insulation voltage (Ui) (V)	AC1,000												
Rated operation voltage (Ue) (V)	AC690												
Rated breaking capacity (kA sym) [Icu] with Inst. Icu=100% Ics	AC690V	50	50	50	50	50	65	65	65	85	100	100	100
	AC500V	70	70	70	70	70	70	85	85	100	120	120	130
	AC415V below	70	70	70	70	70	85	85	85	100	120	120	130
Rated making capacity (kA peak) [Icm] with Inst. Icu=100% Ics	AC690V	105	105	105	105	105	143	143	143	187	220	220	220
	AC500V	154	154	154	154	154	154	187	187	220	291	291	286
	AC415V below	154	154	154	154	154	187	187	187	220	291	291	286
Rated impulse withstand voltage (Uimp) (kV)	8												
Rated short-time withstand current [Icw] (rms)	1 sec	65	65	65	65	65	70	85	85	75	100	100	65
Rated latching current (kV)		65	65	65	65	65	70	85	85	75	100	100	65
Total breaking time (sec)		0.03						0.04					
Closing operating time	Charging time (sec) max.	10											
	Closing time (sec) max.	0.04						0.06					
Weight (kg)	3pole, Fixed type	43	43	43	49	49	60	63	65				
	3pole, Draw-out type	65	65	65	72	72	87	92	96	115	210	230	110
	4pole, Fixed type	51	51	51	58	58	69	76	83				
	4pole, Draw-out type	76	76	76	85	85	100	110	120	135	230	250	130
Dimensions (mm) (3pole, Draw-out type)	Height	490						478					
	Width	320				410				480	984	480	
	Depth	461.2						481					

Load Break Switch

Hyundai HiLB type Load Break Switch has excellent features to switch on-off medium voltage system with safety concerned. The reliable switch performance is ensured, and the main blade gets minimized damage. Furthermore, hydraulic type manual operating device can run the geared method mechanism to secure the accurate operation, and the operating device can be installed at customer convenience.

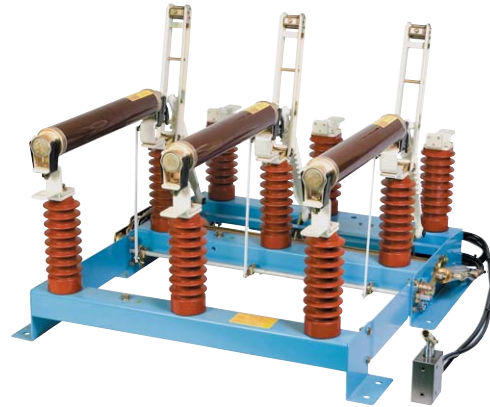
Qualified Standard & Approval

Standard

- ▶ IEC 60256-1
- ▶ IEC 62271-105
- ▶ IEC 60282-1
- ▶ KSC 4615
- ▶ IEC 62271-102 (ES)

Approval

- ▶ ISO 18001, 14001, 9001
- ▶ CE



Model		HiLB06-SM	HiLB06-SE	HiLB06-FM	HiLB06-FE	HiLB06-EM	HiLB06-EE	HiLB06-AM	HiLB06-AE
Rated voltage (kV)		24							
Rated current (A)		630							
Switch class (IEC)		E1, M1							
Number of pole		3							
Rated frequency (Hz)		50/60							
Rated short-time current-resistant		20kA/1sec							
Rated short-circuit making current (peak)		52							
Commercial frequency voltage-resistant	Inter-earth	50kV, 1min							
	Inter-polarity	60kV, 1min							
Electroencephalo impulse voltage-resistant	Inter-earth	125kVp							
	Inter-polarity	145kVp							
Current break times	Load current	630A	10times						
		31.5A	20times						
	Loop current	630A	10times						
	Cable charging current	16A	10times						
		4.8A	10times						
Line charging current	1.5A	10times							
No load break times		1,000times							
Rated transition current (A)				500				500	
Fuse rating (Attach type) (A)				6.3 – 63				6.3 – 63	
Rated control current (A)			2		2		2		2
Manual operation cable length (m)		1.5							
Weight (kg)		49	53	66	70	67	71	83	88
Applied standard		IEC 60265-1, IEC 62271-105, IEC 60282-1, KSC 4615, IEC 62271-102(ES)							
Features	Operation	Manual	Motor	Manual	Motor	Manual	Motor	Manual	Motor
	Fuse holder			●	●			●	●
	Earthing switch					●	●	●	●

Vacuum Contactor

HYUNDAI Vacuum Contactors are designed and manufactured for frequent switchings, especially taking into account safety and quality assurance. They are suitable for switching and controlling squirrel cage and slipring motors, medium voltage loads and resistance furnaces, and capacitors and transformers.



Qualified Standard & Approval

Standard

- ▶ IEC 60470
- ▶ NEMA ICS3

Approval

- ▶ ISO 18001, 14001, 9001
- ▶ KR, GL, LR, NK

Type		Fixed type						Draw-out type					
		F Without fuse holder		A With single fuse holder		J With double fuse holder ¹⁾		B Without fuse holder		D With single fuse holder		H With double fuse holder ¹⁾	
Operating method	Continuously energized	32C□	34C□	62C□	64C□	82C□	84C□	32C□	34C□	62C□	64C□	82C□	84C□
	Latched	32L□	34L□	62L□	64L□	82L□	84L□	32L□	34L□	62L□	64L□	82L□	84L□
Rated insulation voltage (kV)		3.6		7.2		12		3.6		7.2		12	
Rated operation voltage (kV)		3.3		6.6		11		3.3		6.6		11	
Rated frequency (Hz)		50/60											
Rated current (A)		200	400	200	400	200	400	200	400	200	400	200	400
Withstand voltage	Impulse (kV)	45		60		75		45		60		75	
	Power frequency (1min, kV)	16		20		28		16		20		28	
Control dielectric strength (min, kV)		2		2		2		2		2		2	
Utilization category		AC3				AC4		AC3				AC4	
Breaking capacity		4kA (O-3min-CO-3min-CO)											
Short-time current (kA)	1 sec	6.3		6.3		6.3		6.3		6.3		6.3	
	30 sec	3		3		3		3		3		3	
Mechanical life time	Continuously energized (1,000 times)	1,000		1,000		1,000		1,000		1,000		1,000	
	Latched (1,000 times)	250		250		250		250		250		250	
Electrical lifetime (1,000 times)		300											
Control voltage (V)		AC110/220, DC110/220											
Auxiliary contact		2a2b ²⁾											
Applicable load capacity	Motor (kW)	750	1,500	1,500	3,000	3,000	6,000	750	1,500	1,500	3,000	3,000	6,000
	Transformer (kVA)	1,000	2,000	2,000	4,000	4,000	8,000	1,000	2,000	2,000	4,000	4,000	8,000
	Condensor (kVAR)	750	1,200	1,500	2,000	3,000	4,000	750	1,200	1,500	2,000	3,000	4,000
Weight without fuse(kg)		F 21		F 22		F 61		B 38 ³⁾		B 41 ³⁾		B 80 ³⁾	
		A 30		A 32		A 68		D 40 ³⁾		D 43 ³⁾		D 83 ³⁾	
		J 33		J 35				H 43 ³⁾		H 46 ³⁾			

1) Double fuse holder is not applicable to 12kV.

2) In case of fixed type without fuse holder, 3a3b is standard.

3) The weight of draw-out type is based on F1 cradle.

Vacuum Circuit Breaker

HYUNDAI Vacuum Circuit Breaker achieves the superior reputation with its extended life expectancy, easy maintenance, and excellent performance for industrial facilities, power plants, and marine vessels.

Qualified Standard & Approval

Standard

- ▶ IEC 62271-100, 60056
- ▶ ESB 150
- ▶ ANSI C37
- ▶ KSC 4611
- ▶ GOST-R 52565-06

Approval

- ▶ ISO 18001, 14001, 9001
- ▶ KR, GL



HVF type



HVG type

IEC 62271-100

Type	Rated voltage (kV)	Withstand voltage (kV) Power-frequency/ Impulse	Rated breaking current(kA)	Applied standard	Model ¹⁾	Rated current (A) ¹⁾						
						400	630	1,250	2,000	2,500	3,150	4,000
HVF	4.76	19 / 60	50	ANSI	HVF137□			●				●
			25	IEC	HVF114□		●	●				
	7.2	20 / 60	31.5	IEC	HVF115□		●	●	●			
			40	IEC	HVF116□		●	●	●	●	●	
			50	IEC	HVF117□		●	●	●	●	●	●
			25	IEC	HVF214□		●	●	●			
	12	28 / 75	31.5	IEC	HVF215□		●	●	●			
			40	IEC	HVF216□		●	●	●	●	●	
			50	IEC	HVF217□		●	●	●	●	●	●
			25	IEC	HVF224□ ²⁾		●	●				
			31.5	IEC	HVF225□ ²⁾		●	●	●			
			40	IEC	HVF226□ ²⁾		●	●	●	●	●	
	15	36 / 95	40	ANSI	HVF336□			●	●			
	17.5	38 / 95	25	IEC	HVF314□		●	●				
			31.5	IEC	HVF315□		●	●	●			
			40	IEC	HVF316□		●	●	●	●	●	
	24 / 25.8	50 / 125 (65 / 125) ²⁾	12.5	IEC	HVF611□ ²⁾		●	●				
25			IEC	HVF614□ ²⁾		●	●	●				
36	70 / 170	25	IEC	HVF714□			●	●				
36 / 40.5	95 / 190	31.5	IEC	HVF725□ ²⁾			●	●	●	●		
HVG	7.2	20 / 60	8	IEC	HVG109□	●						
			12.5	IEC	HVG101□		●					
			20	IEC	HVG113□		●	●				
			25	IEC	HVG114□		●	●				

※ 1) Model number in the square "□" shall be listed as below for the rated current according to applied standard.

- IEC standard: ① 630A ② 1,250A ④ 2,000A ⑥ 2,500A ⑦ 3,150A ⑧ 4,000A ⑨ 400A

- ANSI standard: ① 600A ② 1,200A ④ 2,000A ⑥ 2,500A ⑦ 3,000A ⑧ 4,000A

2) HVF224□, 225□, 226□, 611□, 614□, 725□ are applicable to GOST-R standard.

MCCB

MINIATURE

MC

ACB

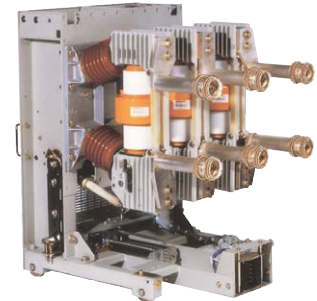
LBS

VC

VCB



HV type



HAF type

IEC 60056

Type	Rated voltage (kV)	Withstand voltage (kV) Power-frequency/ Impulse	Rated breaking current (kA)	Applied standard	Model ¹⁾	Rated current (A) ¹⁾					
						400	630	1,250	2,000	2,500	3,150
HVF	7.2	20 / 60	25	IEC	HVF104□		●	●	●		
			31.5	IEC	HVF105□		●	●	●		
			40	IEC	HVF106□			●	●		●
	12	28 / 75	25	IEC	HVF204□		●	●	●		
			31.5	IEC	HVF205□		●	●	●	●	
			40	IEC	HVF206□			●	●		●
	24	50 / 125	50	IEC	HVF207□			●	●		●
			12.5	IEC	HVF601□		●	●			
			25	IEC	HVF604□		●	●	●		
	38	80 / 150	31.5	IEC	HVF605□			●	●	●	
			40	IEC	HVF606□			●	●		●
			31.5	ANSI	HVF705□			●	●	●	●
HAF	4.76	19 / 60	40	ANSI	HVF706□			●	●	●	●
			50	ANSI	HAF107□-3			●	●		●
	7.2	20 / 60	25	IEC	HAF104□-4		●	●	●		
			31.5	IEC	HAF105□-4		●	●	●	●	
			40	IEC / ESB	HAF116□-3			●	●	●	●
	12	28 / 75	50	IEC	HAF117□-3			●		●	●
			25	IEC	HAF154□-4		●	●	●		
			31.5	IEC	HAF175□-4		●	●	●	●	
	15	36 / 95	40	IEC	HAF176□-3			●	●	●	●
			50	IEC	HAF177□-3			●		●	●
			25	IEC	HAF234□-4		●	●	●		
	24 (25.8)	50 / 125	31.5	IEC	HAF235□-4		●	●	●	●	
40			IEC / ANSI	HAF236□-3			●	●	●	●	
12.5			IEC	HAF611□-4		●	●				
HVG	7.2	20 / 60	16	IEC	HAF612□-4		●	●			
			20	IEC	HAF613□-4		●	●	●		
			25	IEC / ESB	HAF614□-4		●	●	●	●	
HVG	7.2	20 / 60	20	IEC	HVG103□		●	●			
			25	IEC	HVG104□		●	●			

※ 1) Model number in the square "□" shall be listed as below for the rated current according to applied standard.

- IEC standard: ① 630A ② 1,250A ④ 2,000A ⑥ 2,500A ⑦ 3,150A ⑧ 4,000A ⑨ 400A

- ANSI standard: ① 600A ② 1,200A ④ 2,000A ⑥ 2,500A ⑦ 3,000A ⑧ 4,000A

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