



LV Switchgear & Control Center

HEMCC







HiMCC offers simple engineering, quick installation and safety

**Presentation** 

**HiMCC** is a modular motor control and low voltage distribution system featuring a fully withdrawable unit.

Use

 ${f HiMCC}$  uses low voltage motor control centers of up to 1,000V for process control and electrical power distribution.

**HIMCC** can be applied to all arrangements and all types of layouts and location configurations.

**HiMCC** meets the most stringent requirements in term of:

- Personnel and equipment safety
- Easy, fast operation and maintenance
- Easy installation
- Future extensions

# Low Voltage Switchgear & Control Center MCC 1 Ti.

**HIMCC** is designed and manufactured in accordance with our quality assurance program which is based on ISO 9001, ISO 14001 and SHSAS 18001 accreditations.

**Applications** 

Buildings, machinery and processes

#### Commercial

- Shopping malls
- Schools
- Hospitals
- Office buildings

#### Industrial

- MachineryPharmaceuticalAutomotive, Paper & Pulp

#### Utilities

- TelecommunicationsCable providers
- Energy distribution (electricity, gas)

HiMCC, Hyundai's low voltage motor control center, features a withdrawable unit, multi-tier construction, factory assembly and is suitable for LV distribution systems of up to 1,000V AC.





**Major Feature** 









### Technical Data

### **Applicable Standards**

HiMCC complies with the following standards:

• IEC 60947-1: General rules

• IEC 60947-2: Circuit breakers

• IEC 60947-3: Switches

• IEC 60947-4: Contactors

• IEC 60439-1: Low voltage switchgear controlgear assembly

• IEC 61641: Internal arc fault

• IEC 60529: Degree of protection

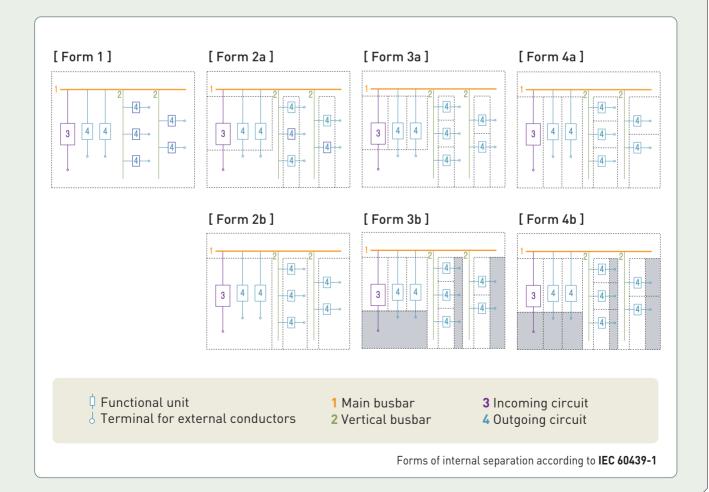


Rated insulation	voltage		up to 1000V			
Rated operation	voltage		up to 690V			
Rated frequency	,		50/60Hz			
		Rated current	up to 5000A			
	Main	Rated short time withstand current	up to 100kA/1sec			
Bus bar		Rated peak withstand current	up to 2	220kA		
(3/4 poles)	Vertical	Rated current	1000A	1200A		
		Rated short time withstand current	65kA/1sec	80kA/1sec		
		Rated peak withstand current	143kA	176kA		
	Dimensions	Height	2300mm			
		Width	1000mm			
		Depth	650mm (front only)/1200mm (back to b			
Mechanical characteristics	Degree of	protection	Normal IP 4X up to IP 54			
	Surface protection	Frame	Galvanized			
		Enclosure	Paint RAL-7032 (Standard)			
		Internal subdivision	Galvanized			
Form degree Form-4b						

### Forms of Internal Separation

In accordance with IEC 60439-1 and depending on customer requirements, the function compartments can be subdivided as per the following diagrams





# Withdrawable Unit Design

A distinction is made between the half module and full withdrawable units (sizes 1, 2, and 3), as shown in following figures.



High density packing with up to 20 feeders per cubicle.

Simple-to-operate withdrawable units prevent operator errors. Withdrawable units offer a large amount of space for individual accessories.









### HiMCC Withdrawable Units Size

The full withdrawable unit of size 1 has a height of one module spacing (200mm) and can be replaced by 2 units of size 1/2 (half module).

The withdrawable units of size 2 and 3 have heights of 2 and 3 module spacing, respectively.

The maximum complement of a cubicle is, for example, 10 full-size withdrawable units of size 1 or 20 miniature withdrawable units of size 1/2.

## Control & Power Cable Connections

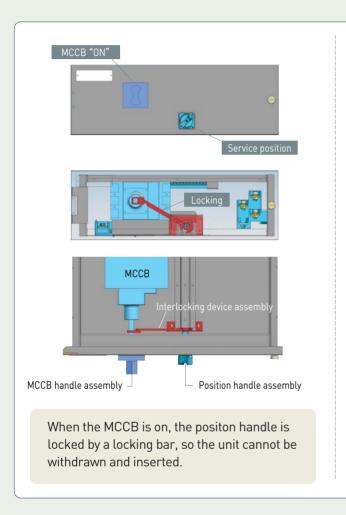
Туре	Module	Capacity	Control part	Power part
	1/2 Module	100AF	1. Manufacturer's cable  1) Cable  - Type: XHHW  - Size: 1.5mm²  - Color: Gray  - Vinyl tube  2) Terminal block	<ol> <li>Manufacturer's cable         <ul> <li>25mm² (SCP/Black)</li> <li>Color U → Red</li> <li>V → White</li> <li>W → Blue</li> </ul> </li> <li>User's cable         <ul> <li>up to 38mm²</li> <li>1 core/phase</li> </ul> </li> </ol>
	- 1M-3M	225AF	2. User's cable - Size: up to 2.5mm²	1. User's cable - up to 95mm² - 2 core/phase
		400AF		1. User's cable - up to 185mm² - 2 core/phase

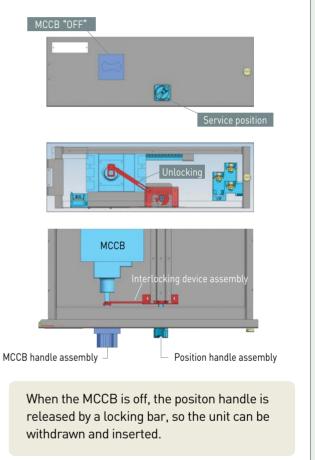
<sup>\*</sup>The terminal block is the manufacturer's standard.

If specifications differ from the standard, advance notice must be given.

# Interlocking Device

When the power is on, the operator is protected by preventing the unit from whithdrawal and insertion.

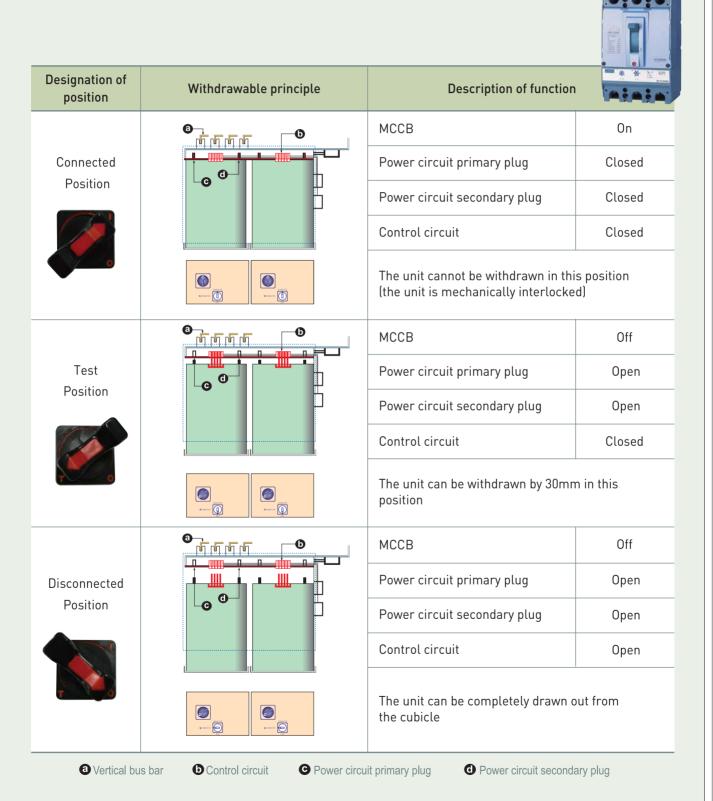






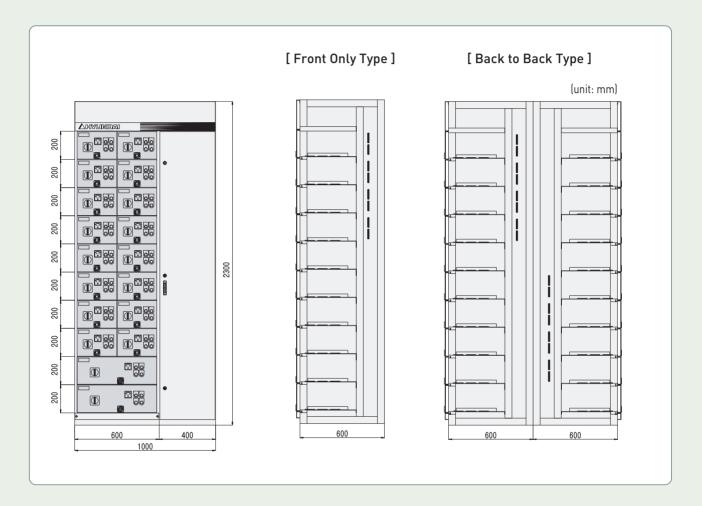


### **Unit Position**



# Panel Arrangement and Dimensions

HiMCC withdrawable 1/2 module & 1 module units.



Space for incoming MCCB

Incoming MCCB	Space for unit (height)	Unit type	
Below 100AF	1 Module (200mm)	Drawout type	
Below 225AF	1 Module (200mm)	Drawout type	
Below 400AF	1.5 Module (300mm)	Drawout type	
Below 400AF with CT	2.0 Module (400mm)	Drawout type	
Below 600AF	4 Module (800mm)	Fixed type	
Below 600AF with CT	4 Module (800mm)	Fixed type	

 $\ensuremath{\mathbb{X}}$  For incoming feeders above 600AF MCCB, please contact us.

# Selection of Standard Units

### 380V / 415V Withdrawable Unit Design - **DIRECT**

Power   RW	Full load current (A		current (A)	Breaking	MCC	R tyne								
10	Power (kW)	Full todu	Current (A)		MCC	туре	Magnetic	Thermal	Cable	Unit size				
0.2 0.5 0.43 0.37 0.93 0.85 0.4 1.01 0.91 0.43 1.08 0.98 0.75 1.99 1.71 0.9 2.26 2.05 1.5 3.77 3.42 2.2 5.26 4.82 2.5 5.76 5.28 3.7 8.52 11.1 5 11.1 12.21 5.5 11.2 12.1 16.35 7.5 11.3 31.74 9 19.27 2.355 11 2.355 31.74 11 12.25 692.RS 18 692.RS 18 692.RS 10 692.RS 1		380V	415V	(kA)	380V	415V	contactor	relay	(mm²)					
0.37	0.1	0.25	0.23			GV2-RS 02								
0.4. 1.01 0.91 0.93 0.43 0.98 0.98 0.75 1.89 1.77 0.9 2.26 2.05 1.89 1.77 0.9 2.26 2.05 1.5 0.92 1.5 1.89 1.77 0.9 2.26 2.05 1.5 0.92 1.1 0.92 1.5 1.5 0.92 1.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	0.2	0.5	0.43		GV2-RS 04	GV2-RS 04								
0.42	0.37	0.93	0.85		GV2-RS 05									
1.0	0.4	1.01	0.91		CV2 DC 0/	GV2-RS 05								
1.89	0.43	1.08	0.98		GVZ-R5 U6		11:140.0							
0.9	0.75	1.89	1.71		CV2 DC 07	GV2-RS 06	HIMC 9							
2.2   5.26   4.82   25-100   CV2-RS 10   CV2-RS 10   CV2-RS 10   CV2-RS 10   CV2-RS 10   CV2-RS 11   CV2-RS 14   CV2-RS 14   CV2-RS 14   CV2-RS 14   CV2-RS 14   CV2-RS 14   CV2-RS 16   CV2-RS 16   CV2-RS 16   CV2-RS 16   CV2-RS 17   CV2-RS 18   CV2-RS 20   CV2-RS 23	0.9	2.26	2.05		GVZ-R5 U7	GV2-RS 07								
2.5 5.76 5.28	1.5	3.77	3.42		GV2-RS 08	GV2-RS 08		_	6					
2.5   5.76   5.28   3.7   8.52   11.1   5   11.1   12.21	2.2	5.26	4.82	25 - 100	01/0 50 10	01/0 50 10				1/2M				
11.1   12.21   16.35   17.21   16.35   17.21   16.35   17.21   16.35   17.27   16.35   17.27	2.5	5.76	5.28		GV2-RS 10	GV2-RS 10								
11.1   1.2.21   16.35   12.21   16.35   12.21   16.35   12.27   16.35   12.27   16.35   12.27   16.35   12.27   17.5   16.35   12.27   17.5   16.35   12.27   17.5   16.35   12.27   17.5   16.35   12.27   17.5   16.35   17.4   17.5   17.5   17.5   18.5   31.74   31.74   42   HIBH-103   HIBL-103NT   HIBC 50   HITH 50K   16.4   17.5   16.5   17.5   16.3   17.5   16.3   17.5   16.3   17.5   17	3.7	8.52	11.1		GV2-RS 14	GV2-RS 14	111140 40							
10	5	11.1	12.21			01/0 PC 4/	HiMC 12							
9 19.27 23.55 31.74 6V2-RS 17 6V2-RS 21 HIMC 22 6V2-RS 23 6V2-RS 23 6V2-RS 23 HIMC 50 15 31.74 31.74 42 6V2-RS 23 6V2-RS 23 HIMC 50 16V2-RS 24 HIMC 50 16V2-RS 24 HIMC 50 16V2-RS 23 HIMC 50 16V2-RS 24 HIMC 50 16V2-RS 24 HIMC 50 16V2-RS 24 HIMC 50 16V2-RS 23 HIMC 50 16V2-RS 24 HIMC 50 16V2-RS 24 HIMC 50 16V2-RS 24 HIMC 50 16V2-RS 23 HIMC 50 16V2-RS 24 HIMC 50 16V	5.5	12.21	16.35		GV2-RS 16	GV2-RS 16	HiMC 18							
9 19.27 23.55 31.74 6V2-R5 17 6V2-R5 21 HIMC 22 6V2-R5 23 6V2-R5 23 HIMC 50 10 10 10 11 12 25.55 31.74 31.74 42 6V2-R5 23 6V2-R5 23 HIMC 50 11 10 11 11 12 25 11 10 10 11 11 11 11 11 11 11 11 11 11	7.5	16.35	19.27			GV2-RS 20	11:140.00							
15   31.74   31.74   31.74   6V2-RS 23   6V2-RS 23   HiMC 50     18.5   38.23   35.02   85   HiBL-103NT   HiBL-103NT   HiBC-103NT     100	9	19.27	23.55		GV2-RS 17		HIMC 22							
15   31.74   31.74   42   HiBH-103NT   HiBL-103NT   HiBC 50   HiTH 50K   16   HiBH-103NT   HiBL-103NT   HiBC 50   HiTH 50K   16   HiBH-103NT   HiBC 103NT   HiBC 203NT   HiB	11	23.55	31.74			GV2-RS 22	HiMC 32		10					
18.5   38.23   35.02   85   HiBL-103NT   HiBL-103NT   HiMC 50   HiTH 50K   16   HiTH 50K   1	15	31.74	31.74		GV2-RS 23	GV2-RS 23								
18.5   38.23   35.02   85				42	HiBH-103									
100	18.5	38 23	38 23	38.23 35.02 85 HiBL-103NT HiBL-103	38.23 35.02	38.23 35.02	38.23 35.02	85		HiBL-103NT	HiMC 50	HiTH 50K		
18	10.0		30.52		HiBX-103NT									
1			5.47 41.64	42			HiMC 65	HiTH 90K	16	1M				
100	22	22 45.47				HiBL-103NT								
100	22						HiBX-103NT	-	7111117011					
Second   S		30 41.28	8 56.1						25					
100	30					HiBL-103NT	HiMC 80	HiTH 90K						
100		01.20					HiBX-103NT							
100			4.72 68.45				HiMC 90		35	-				
100	37	74 72				HiBL-203NT		HiTH 90K						
45 93.12 83.25 85 HiBL-203NT HiBL-203NT HiMC 130 HiTH 130K 50  100 HiBX-203NT HiBL-203NT	· ·	,4.72				HiBX-203NT								
100						THEXT ESSITT			50					
100	45	93.12	93.12 83.25			HiBL-203NT	HiMC 130	HiTH 130K						
112.54   101.75   100   112.54   101.75   100   112.54   101.75   100   112.54   112.54	40	75.12				HiRX-203NT	111110 100							
112.54   101.75   85										2M				
100	55	112 5/	101 75			HiBL-203NT	HiMC 150	UITU 220K	50					
148.96		112.54	101.73			HiBX-203NT		HITH ZZUK						
148.96   136.39   85						THEX ZOOTT								
90 178.75 163.67	75	1/0 0/	124 20			HiBL-203NT	HiMC 180	HiTH 220K	35×2					
90 178.75 163.67 85 HiBL-403NE HiBS-403NE HiMC 220 HiTH 220K 35×2  100 HiBX-403NE HiBS-403NE  42 HiBS-403NE HiBL-403NE HiBS-403NE HiBS-403NE HiBS-403NE HiBC 220 HiTH 220K 35×2  100 HiBX-403NE HiBS-403NE		140.70	130.37			HiBX-203NT	111110 100							
90 178.75 163.67 85 HiBL-403NE HiBL-403NE HiMC 220 HiTH 220K 35×2  100 HiBS-403NE HiBS-403NE  42 HiBS-403NE HiBS-403NE  95 188.68 172.76 85 HiBL-403NE HiBS-403NE 100 HiBX-403NE HiBX-403NE 110 218.47 200.04 85 HiBL-403NE HiBS-403NE 110 HiBS-403NE HiBS-403NE														
100 HiBX-403NE HiBS-403NE  42 HiBS-403NE HiBS-403NE  42 HiBS-403NE  HiBL-403NE  HiBL-403NE  HiBL-403NE  HiBC 220 HiTH 220K  35×2  100 HiBX-403NE  HiBS-403NE  110 218.47 200.04  85 HiBL-403NE HiBS-403NE  110 HiBX-403NE HiBL-403NE  110 HiBX-403NE HiBL-403NE  110 HiBX-403NE HiBX-403NE  110 HiBX-403NE  11	90 170 75	163.67				HiMC 220	U;TU 220K 35 ∨ 2	35×2						
95		170.73		111110 220	HITH ZZUK	00/12								
95	95 188 48													
100 HiBX-403NE HiBX-403NE  42 HiBS-403NE HiBS-403NE HiBC-403NE		100 / 0 170 7/				HiMC 220	HiTH 220K	35×2						
110   218.47   200.04   85   HiBS-403NE   HiBS-403NE   HiBC 260   HiTH 300K   35×2   100   HiBS-403NE   HiBS-403NE   HiBS-403NE   HiBS-403NE   125   248.26   227.32   85   HiBL-403NE   HiBL-403NE   HiBL-403NE   HiBC 300   HiTH 300K   50×2   125   126   127.32   127.32   127.32   128.32   128.32   129.32	/3	100.00	1/2./0					TITTI ZZUK						
110 218.47 200.04 85 HiBL-403NE HiBL-403NE HiMC 260 HiTH 300K 35×2  100 HiBX-403NE HiBX-403NE 42 HiBS-403NE HiBS-403NE 125 248.26 227.32 85 HiBL-403NE HiBL-403NE HiMC 300 HiTH 300K 50×2										3M				
100 HiBX-403NE HiBX-403NE HIBX-403NE  42 HiBS-403NE HiBS-403NE  125 248.26 227.32 85 HiBL-403NE HiBL-403NE HiMC 300 HiTH 300K 50×2	110	210 /7	200.07				HiMC 240	LI:TIL 2001/	35×2					
125 248.26 227.32 42 HiBS-403NE HiBS-403NE HiMC 300 HiTH 300K 50×2	110	218.47	210.47			HIMC 260	HiTH 300K	33 X Z						
125 248.26 227.32 85 HiBL-403NE HiBL-403NE HiMC 300 HiTH 300K 50×2										_				
THI COUNTY	125	248.26 227.32	248.26 227.32				HIMC 300	HITH SOOK	50 × 2					
							111110 300	HIHIOUK	00/12					

 $<sup>\</sup>mbox{\ensuremath{\mbox{\textbf{ж}}}}$  For power ratings over 132kW, Y- $\Delta$ , and reactor starters, please contact us.

# Selection of Standard Units

### 440V / 460V Withdrawable Unit Design - DIRECT

Power (kW)				Breaking MCCB type capacity		Magnetic	Thermal	Cable	Tion of	
Power (KW)	440V	460V	(kA)	440V	460V	contactor	relay	(mm²)	Unit siz	
0.1	0.22	0.21		GV2-RS 02	GV2-RS 02					
0.2	0.43	0.42		GV2-RS 04	GV2-RS 02					
0.37	0.8	0.77		GV2-RS 05						
0.4	0.87	0.83		GV2-RS 05	GV2-RS 05					
0.43	0.93	0.89	25 -100	GV2-RS 05		HiMC 9	_		1/2	
0.75	1.63	1.56		GV2-RS 07	GV2-RS 06	1111107				
0.9	1.95	1.87		GV2-RS 07	GV2-RS 07					
1.5	3.26	3.11		GV2-RS 08	GV2-RS 08					
2.2	4.54 4.97	4.34 4.75		GV2-RS 10 GV2-RS 10	GV2-RS 10			5.5		
2.5	4.77	4.75	42	0VZ-N3 10	GV2-RS 14					
3.7	7.36	7.04	85	GV2-RS 14	HiBL-103NT					
0.,	7.00	7.0.	100	012 1.0 11	HiBX-103NT	1				
			42		GV2-RS 14	HiMC 12	_			
5	9.58	9.17	85	GV2-RS 14	HiBL-103NT		(HiTH 22K)		1/2	
ŭ	7.00	7,	100		HiBX-103NT		(			
			42	GV2-RS 16	GV2-RS 16	HiMC 18				
5.5	10.54	10.08	85	HiBL-103NT	HiBL-103NT					
			100	HiBX-103NT	HiBX-103NT					
			42		GV2-RS 16				1	
7.5	14.12	13.5	85	HiBL-103NT	HiBL-103NT					
			100	HiBX-103NT	HiBX-103NT	HiMC 22				
			42	LI:DI 102NIT	HiBL-103NT					
9	16.64	15.92	85	HiBL-103NT						
			100	HiBX-103NT	HiBX-103NT					
11	20.34	19.45	42 85	HiBL-103NT	HiBL-103NT	HiMC 32				
11	20.34	17.43	100	HiBX-103NT	HiBX-103NT	- 1111410 32				
			42	HiBL-103NT	HiBL-103NT		HiTH 50K	14		
15	27.41	26.22	85							
			100 42	HiBX-103NT	HiBX-103NT	HiMC 50				
18.5	33.02	31.58	85	HiBL-103NT	HiBL-103NT					
			100	HiBX-103NT	HiBX-103NT					
00	00.05	07.57	42	HiBL-103NT	HiBL-103NT		5	14		
22	39.27	37.56	85 100	HiBX-103NT	HiBX-103NT	HiMC 65				
			42	HiBL-103NT	HiBL-103NT	HiTH 90K	HiTH 90K			
30	52.93	50.63	85			HiMC 80		22		
			100 42	HiBX-103NT	HiBX-103NT					
37	64.53	61.72	85	HiBL-103NT	HiBL-103NT	HiMC 90	HiTH 90K	38		
			100	HiBX-103NT	HiBX-103NT					
45	80.42	76.92	42	HiBL-203NT	HiBL-203NT	HiMC 130	LUTIL 100K	F0		
45	00.42	70.72	85 100	HiBX-203NT	HiBX-203NT	- TIIMC 130	130 HiTH 130K	30K 50		
			42						2	
55	97.2	92.97	85	HiBL-203NT	HiBL-203NT	HiMC 150	HiMC 150 50 HiTH 220K HiMC 180 38×2	50	2	
			100	HiBX-203NT	HiBX-203NT					
			42	HiBL-203NT	HiBL-203NT	HiMC 180				
75	128.64	123.05	85					38×2		
			100	HiBX-203NT	HiBX-203NT					
00	15/07	1/7//	42	HiBS-403NE	HiBS-403NE					
90	154.37	147.66	85	HiBL-403NE	HiBL-403NE	HiMC 220	HiMC 220	38×2		
			100	HiBX-403NE	HiBX-403NE		HiTH 220K		-	
95	142 05	155.94	42	HiBS-403NE	HiBS-403NE	11:140.000		00.00		
70	162.95	155.86	85	HiBL-403NE	HiBL-403NE	HiMC 220	HiMC 220	38×2		
			100	HiBX-403NE	HiBX-403NE				3	
110	188.68	180.47	42	HiBS-403NE	HiBS-403NE	HIMC 240		202		
110	100.00	100.47	85	HiBL-403NE	HiBL-403NE	HiMC 260		$38 \times 2$		
			100	HiBX-403NE	HiBX-403NE		HiTH 300K		-	
125	21 /. /.1	205.08	42 85	HiBS-403NE HiBL-403NE	HiBS-403NE HiBL-403NE	H:MC 200		E0.42		
144	120   214.41	214.41	L LUJ.U0	. Xh	DIDLE-4U3INE	DIDL-4U3IVE	HiMC 300		50×2	1

 $<sup>\</sup>ensuremath{\text{\#}}$  For power ratings over 132kW, Y-  $\!\Delta$  , and reactor starters, please contact us.

### $380 \text{V} \, / \, 415 \text{V} \, / \, 440 \text{V} \, / \, 460 \text{V}$ Withdrawable Unit Design -**MCCB ONLY**

Power Breaking capacity			Magnetic	Thermal	Cable	Unit size			
(kW)	(kA)	380V	415V	440V	460V	contactor	relay	(mm²)	Offic Size
	25 - 100		GV2-I	RS **				5.5	
МССВ	42	HiBH-103	LUDI 100NT	LUIDI 100NIT	LUIDI 100NIT				1/2M
100AF	85	HiBL-103NT	HiBL-103NT HiBL-103NT	HiBL-103NT			22	1/214	
	100	HiBX-103NT	HiBX-103NT	HiBX-103NT	HiBX-103NT				
	42	HiBH-203	HiBL-203NT	HiBL-203NT	HiBL-203NT				
MCCB 225AF	85	HiBL-203NT	HIBL-203NT	HIBL-203INI HIBL-	HIBL-203INI	_	_	38×2	1M
	100	HiBX-203NT	HiBX-203NT HiBX-203NT	HiBX-203NT					
	42	HiBS-403NE	HiBS-403NE	HiBS-403NE	HiBS-403NE				
MCCB 400AF	85	HiBL-403NE	HiBL-403NE	HiBL-403NE	HiBL-403NE			50×2	1.5M
	100	HiBX-403NE	HiBX-403NE	HiBX-403NE	HiBX-403NE				

 $<sup>\</sup>mbox{\em \%}$  For power ratings over 132kW, Y-  $\Delta$  , and reactor starters, please contact us.

# Test Reports



Power Apparatus Testing & Evaluation Division

DF-E-21/13/02

KOREA ELECTROTECHNOLOGY RESEARCH INSTITUTE
NaeSon 2-dong 665, Ulwang-si, dyeonggi-do, korea, 437-698
Tel: +82-31-420-6114, Fax: +82-31-420-6029, wew,kerl,re,kr
KERI Laboratories are accredited by KOLAS (Korea Laboratory Accree



# Low Voltage Switchgear



#### Overview

HiMCC is a sheet metal system enclosure suitable for low voltage switchgear installations in commercial buildings, industrial plants and electric power generating stations.

The low voltage switchgear equipment has been evaluated in a comprehensive analysis and tested for maintainability and life expectancy.

Hyundai's in-depth knowledge of protection technology has led to the development of a comprehensive range of distribution equipment that is compact and economical.

#### **Features**

The low voltage switchgear system has proven its worth throughout the world.

It is a safe investment for the future due to its continuous development.

The high flexibility of the low voltage switchgear system can be equipped as required with standardized components and can be perfectly adapted to any application.

The various application both in electrical and mechanical design permits the optimal selection of structural design, interior arrangement, and degree of protection, according to the operating and environmental conditions.

The design and materials used for the low voltage switchgear system largely prevent the occurrence of electric arc or allows arc quenching within a short time.

Type test certificates are available. In this test, we proved the accidental arcs were limited to the places of occurrence.

The low voltage switchgear system offers the user many alternative solutions and notable advantages that convention of installations cannot provide.

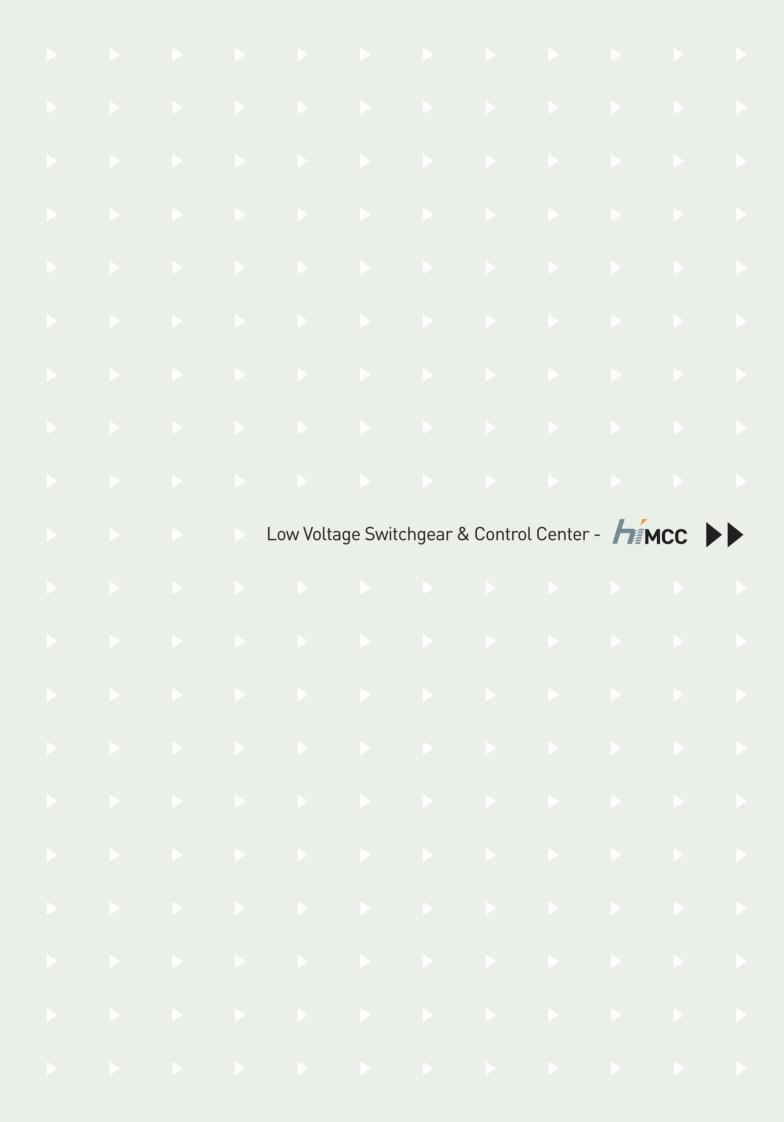
### Construction

- The switchger is comprised of indoor units, offering completely isolated breaker and instrument compartments
- The removable circuit breaker power element is equipped with disconnecting contacts and interlocking contacts for withdrawal
- A lifting device for the power circuit breakers can be provided



#### **Technical Data**

			9"
	Rated freq	uency	50/60Hz
	Rated	Rated insulation voltage	up to 1000V
Electrical	voltage	Rated operating voltage	up to 690V
data		Rated current	up to 5000A
	Rated	Rated short time withstand current	up to 1000kA/1sec
	current	Rated peak withstand current	up to 220kA
	Dimensions	Height	2300mm
		Width	600/700/800/1000/1200mm
		Depth	650/800/1200/1500mm
Mechanical characteristics	Degree of	protection	Normal IP 4X, up to IP 54
0.10.000		Frame	Galvanized
	Surface protection	Enclosure	Paint RAL-7032 (standard)
	F	Internal subdivision	Galvanized
Form degree			Form-4b





#### www.hyundai-elec.com



Riyadh

#### **ELECTRO ELECTRIC SYSTEMS**

**Head Office** 1, Jeonha-dong, Dong-gu, Ulsan, Korea

Tel: 82-52-202-8101~8 Fax: 82-52-202-8100

Seoul 140-2, Gye-dong, Jongno-gu, Seoul, Korea

(Sales & Marketing) Tel: 82-2-746-7899, 7825, 4590 Fax: 82-2-746-7441

Atlanta 6100 Atlantic Blvd. Suite 201, Norcross, GA30097, U.S.A.

Tel: 1-678-823-7842 Fax: 1-678-823-7553

New Jersey 300 Sylvan Avenue, Englewood Cliffs, NJ, 07632, U.S.A.

Tel: 1-201-816-0286, 8028 Fax: 1-201-816-4083

**London** 2nd Floor, The Triangle, 5-17 Hammersmith Grove, London, W6 0LG, UK

Tel: 44-20-8741-0501 Fax: 44-20-8741-5620

**Tokyo** 8th Fl., Yurakucho Denki Bldg.1-7-1, Yuraku-Cho, Chiyoda-Ku, Tokyo, 100-0006, Japan

Tel: 81-3-3212-2076, 3215-7159 Fax: 81-3-3211-2093

 Osaka
 I-Room 5th Fl. Nagahori-Plaza Bldg. 2-4-8, Minami Senba, Chuo-Ku, Osaka, 542-0081, Japan Tel: 81-6-6261-5766, 5767
 Fax: 81-6-6261-5818

2nd Floor, The Plaza, P.O Box 21840, Riyadh 11485, Saudi Arabia

Tel: 966-1-462-2331 Fax: 966-1-464-4696 **Dubai** 205, Building 4, Emaar Square, Sheikh Zayed Road, Pobox 252458, Dubai, UAE

Tel: 971-4-425-7995 Fax: 971-4-425-7996

**Kuwait** Floor 15, Al Sour Tower, Al Sour Street, Al-Qiblah, Kuwait

Tel: 965-2291-5354 Fax: 965-2291-5355

Moscow World Trade Center, Ent. 3, #1902, Krasnopresnenskaya Nab. 12, Moscow, 123610, Russia

Tel: 7-495-258-1381 Fax: 7-495-258-1382

Madrid Paseo De La Castellana 216, planta 0, 28046 Madrid, Spain

Tel: 34-91-732-0454, 733-6069 Fax: 34-91-733-2389

Sofia 1271, Sofia 41, Rojen Blvd., Bulgaria

Tel: 359-2-803-3200, 3220 Fax: 359-2-803-3203

Montgomery 201 Folmar Parkway, Montgomery, AL 36105, U.S.A.

Tel: 1-334-230-9921 Fax: 1-334-240-6869

Yangzhong No.9 Xiandai Road, Xinba Scientific and Technologic Zone, Yangzhong, Jiangsu, P.R.C. Zip: 212212, China

Tel: 86-511-8842-0666, 0212 Fax: 86-511-8842-0668, 0231