

A3.5

MCC (DRAWABLE) CASSETTE

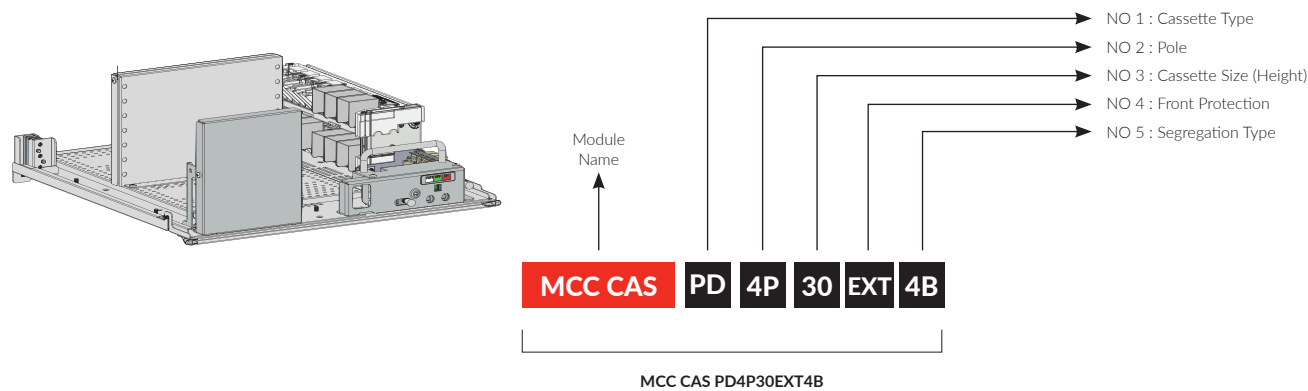
10/2021



PDS

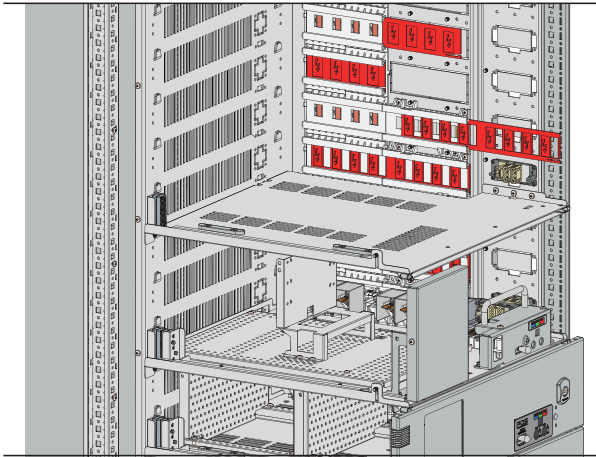
UPGRADE THE POWER

SELECTION CHARACTERISTICS



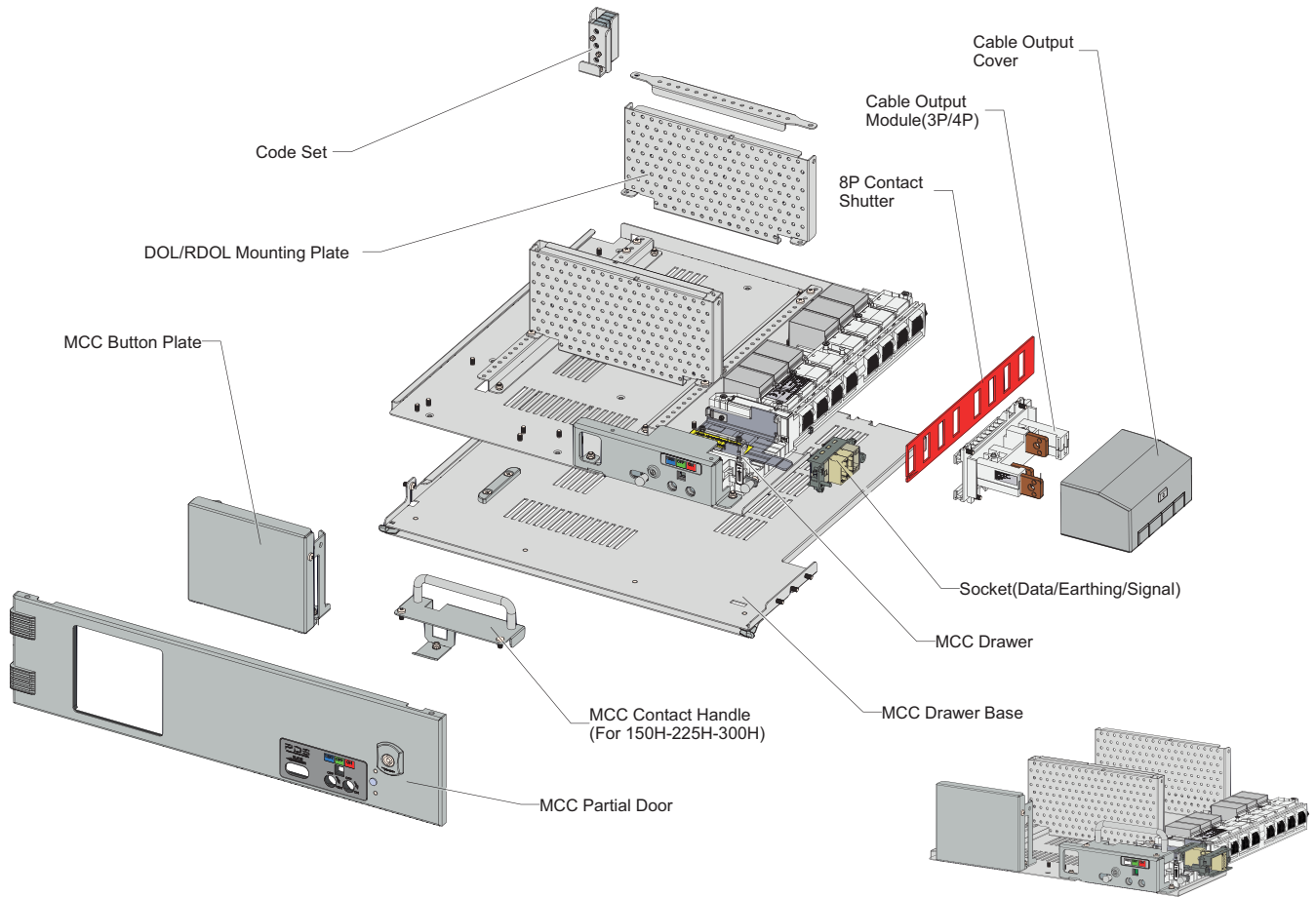
NO 1		NO 2		NO 3		NO 4		NO 5	
Selection Code	Cassette Type	Selection Code	Poles	Selection Code	Cassette Height (H)	Selection Code	Front Protection	Selection Code	Segregation Type
DL	DOL/RDOL	3P	3	07	75	EXT	External	4B	Form 4b
DS	DS	4P	4 (3P+N)	15	150				
PD	PD			22	225				
				30	300				

NO 1: CASSETTE SIZE

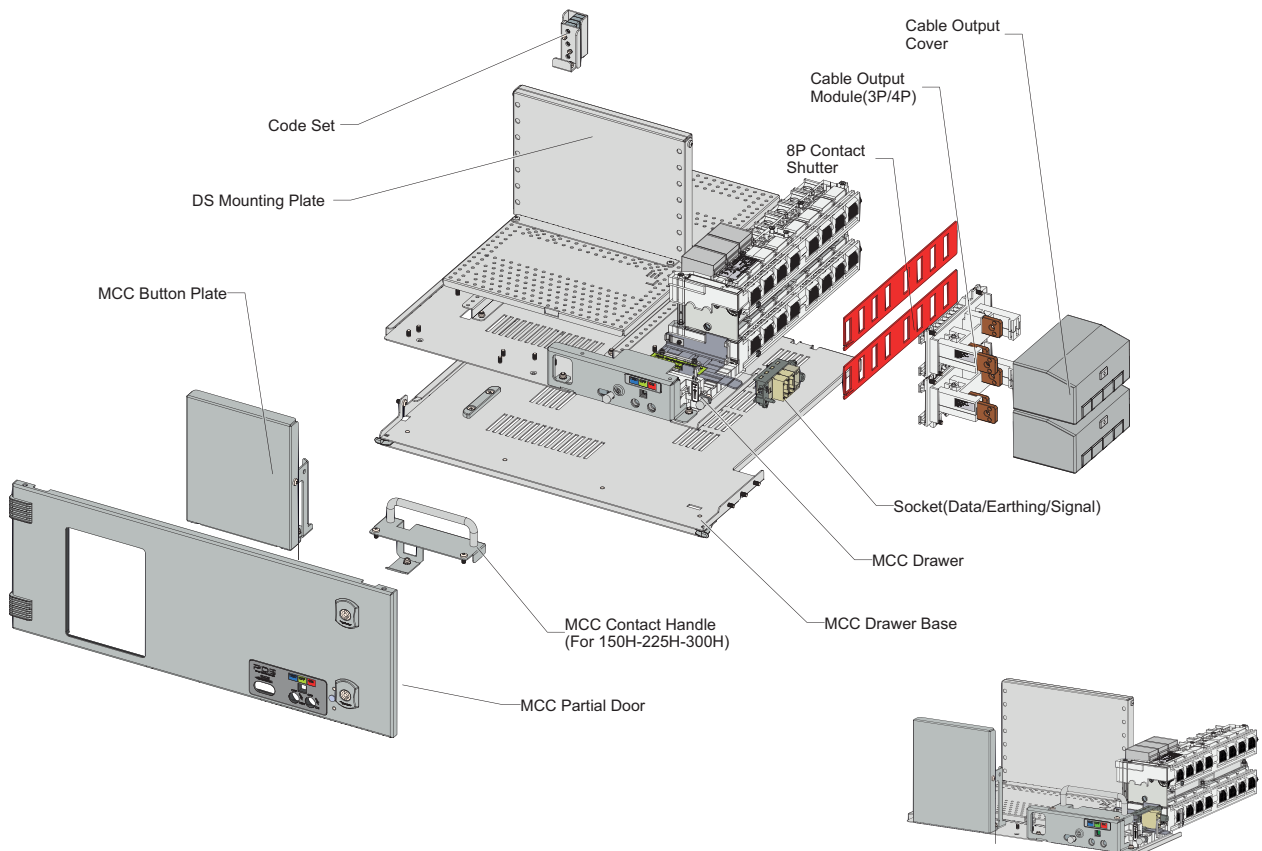


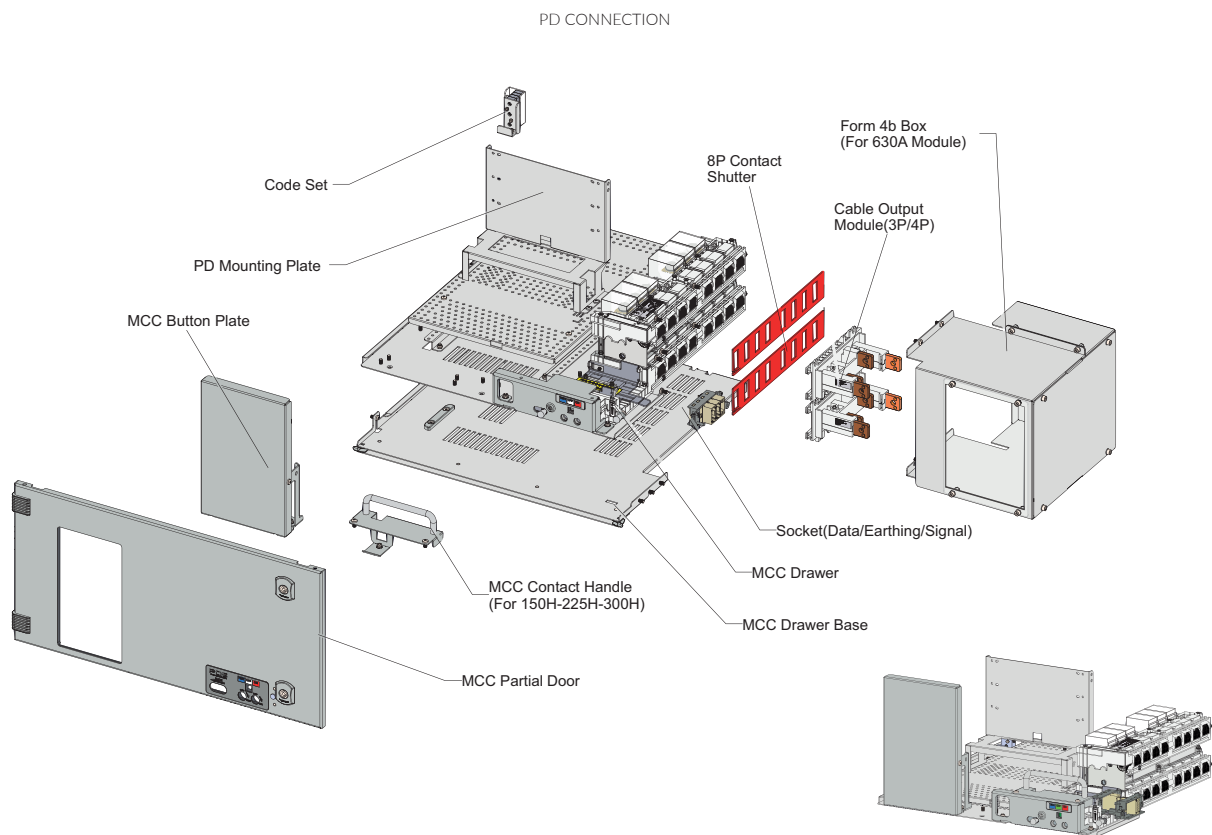
- **MCC (Drawable) Cassette** are providing Arc-Fault free connection.
- Drawer sizes are standard and give certain assembly area which every brand breaker, conductors, etc. can be apply.
- General MCC system provide Form 4b forming as standard safety feature.
- When selecting cassettes, the user must to be consider the pole type of the module and pole type of the cassette have to be compatible.

DOL/RDOL CONNECTION

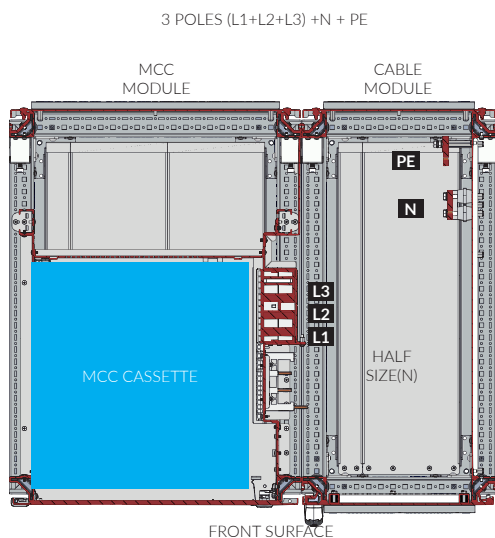


DS CONNECTION

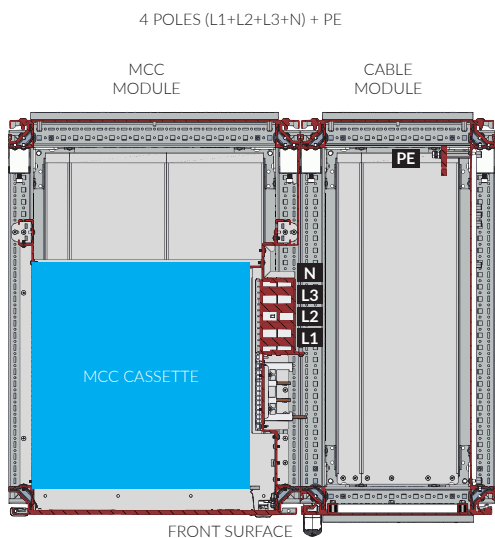




■ NO 2: VERTICAL BUSBAR of DISTRIBUTION IN THE MODULE



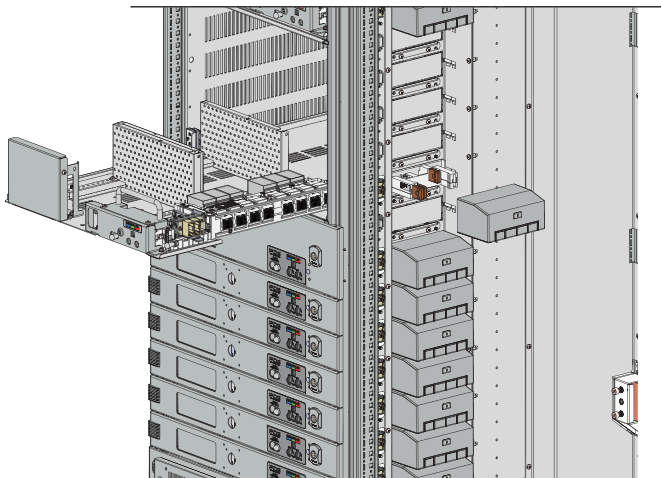
! Note : 3 Phases vertical busbar position (L1+L2+L3)+N is valid in TN-S(1/2), TN-C (PEN)(1/2), TN-C-S(1/2) and TT(1/2) configurations in NO 3. Please see at Earthing System



! Note : 4 Phases vertical busbar position (L1+L2+L3+N) is valid in only TN-S(1/1) and TT(1/1) configurations in NO 3. Please see at Earthing System

AMBIANCE TEMP : 25°C, HEATING TEMP : 30°C,50 Hz A.C.					
Depth(mm)	Neutral Section	Rated Current (In)	Flat Copper Size (mm) x Qty		
			L1/L2/L3	Neutral(N)	PE
600	1/2 N	1100A	60/10x1	50/5x1	25/5x1
600	1/1 N	1100A	60/10x1	60/10x1	50/5x1
800	1/2 N	1100A	60/10x1	50/5x1	25/5x1
800	1/1 N	1100A	60/10x1	60/10x1	50/5x1

- **MCC Main Frame** designed with standart vertical busbar size which is providing 1100A current.
- When loading the MCC module with cassettes, the user must to be consider the total power capacity of vertical power with usage factor.
- PDS comes with pre assembled conductor connections kits in MCC Drawers for vertical busbar to cassette connection.*

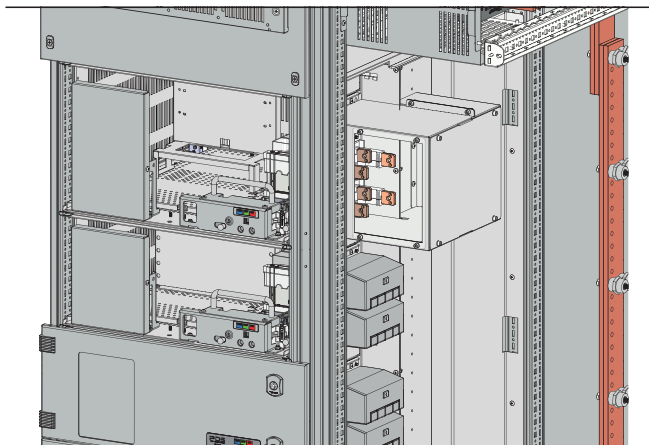


- There are two type of selection : 3 Poles (**L1+L2+L3**) +N+PE or **4 Poles (L1+L2+L3+N)+PE** as the user demand.
- PDS deliveries cable/conductor connection kits of vertical busbar to cassette. For that reason Pole type selection is important to get the correct quantities.
- When selecting cassettes, the user must to be consider the pole type of the module and pole type of the cassette have to be compatible.
- If user selects 4 poles cassette have to be sure that the module earthing configuration comprises **TN-S(1/1) or TT(1/1)**.

For 3 poles selection the user can be choose all type of earthing configurations. Please see at earthing configuration sheets and instructions.

■ NO 3 : SEGREGATION TYPE

Form 4b

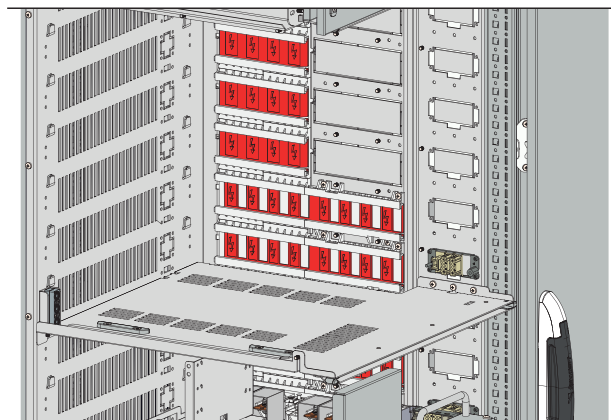
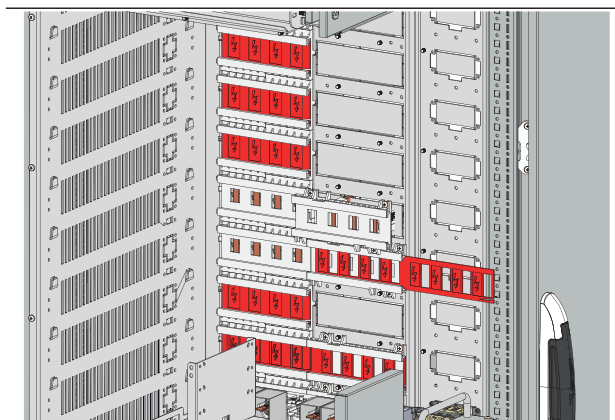


! Selecting cassettes, the user must to be consider the segregation of the module and the cassette have to be compatible.

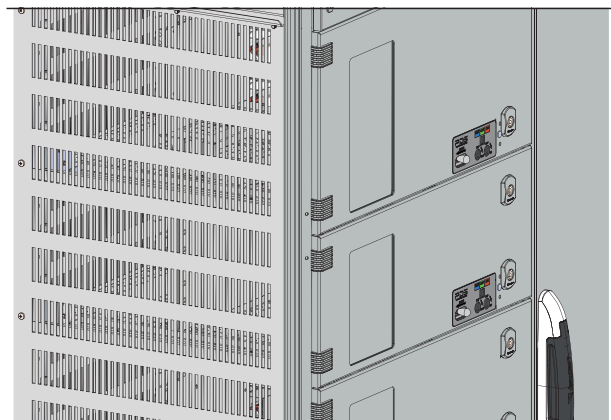
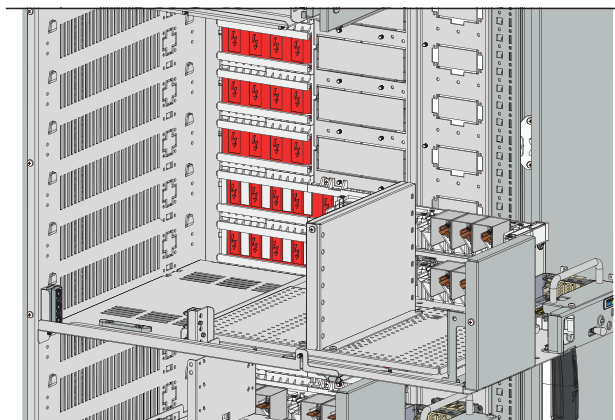
- See the details for assembling cassettes according to Form types in assembling drawings and instructions.

■ NO:4 INSTALLATION OF A MCC CASSETTE

MCC Drawer Connections from Distribution/Cabling



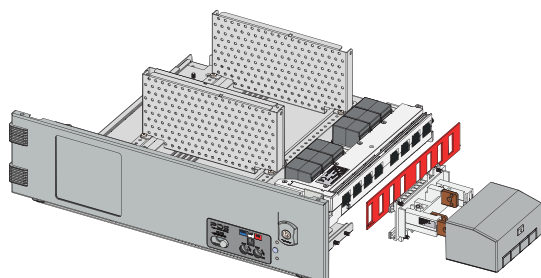
Fixing of an MCC Cassette into Module





1. MCC DRAWER

1.1 DOL/RDOL CONNECTION



- **DOL/RDOL CONNECTION** type has 125A and 315A connection set (One power input-one cable output). One drawer builds with parts which at below section.
- The limit values given in the tables for the DOL/RDOL connection are due to the contactor dimensions.
- 250A and above cutter connections should be used with copper busbar. Therefore, the maximum limit for DOL/RDOL systems set at 110 kW in accordance with the system cable connection.
- Due to contactor sizes, 150H DOL system cannot exceed 90 kW.

Module Current Capacity(A)	NO BRAND			Min. Drawer Height
	DOL System			
	Breaker Model	DOL Contactor	Max. Power (kW)	
125A	-	-	15 kW	75H
	-	-	55 kW	150H
315A	-	-	90 kW	150H
	-	-	110kW	225H

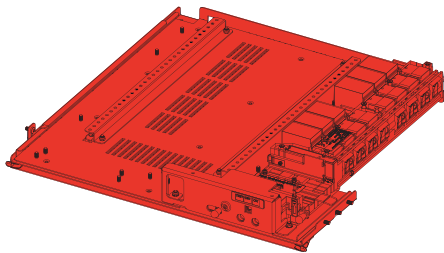
Module Current Capacity(A)	SCHNEIDER			Min. Drawer Height
	DOL System			
	Breaker Model	DOL Contactor	Max. Power (kW)	
125A	GV2P (0,06-15kW)	LC1-D9M7 - LC1-D38M7	15 kW	75H
	GV3P (18,5-30kW) / NSX (16-160A)	LC1-D9M7 - LC1-D150M7	55 kW	150H
315A	NSX (160A)	LC1-F185M7	75 kW	150H
	NSX (250A)	LC1-F265M7	110kW	225H

Module Current Capacity(A)	ABB			Min. Drawer Height
	DOL System			
	Breaker Model	DOL Contactor	Max. Power (kW)	
125A	MS116/MS132/MO132 (0,1-15,5 kW)	AF09 - AF38	15,5 kW	75H
	MS450/MS495/MS497/ XT2S/XT3S (15-55 kW)	AF30 - AF140	55 kW	150H
315A	XT3S(160 - 200 A)	AF140 - AF205	90 kW	150H
	XT4S (250 A)	AF265	110 kW	225H

Module Current Capacity(A)	SIEMENS			Min. Drawer Height
	DOL System			
	Breaker Model	DOL Contactor	Max. Power (kW)	
125A	3RV2011-0DA10/3RV2021-4FA10 (0.16- 18.5 kW)	3RT2015 - 3RT2036 (7 - 50A)	18,5 kW	75H
	3RV2031-4VA10/3RV2041-4MA10 (22 - 45 kW) / 3VA2163/3VA2216 (100-160A)	3RT2036 - 3RT1055 (50 - 150A)	55 kW	150H
315A	3VA2110 - 3VA2220 (100 - 220 A)	3RT1055 - 3RT1056 (150 - 185A)	75 kW	150H
	3VA2325 (250 A)	3RT1064 - 3RT1065 (225 - 265A)	110 kW	225H

- This tables give information about different brand contactor and breaker models selection for assembly. Max Power values are for correct size selection.

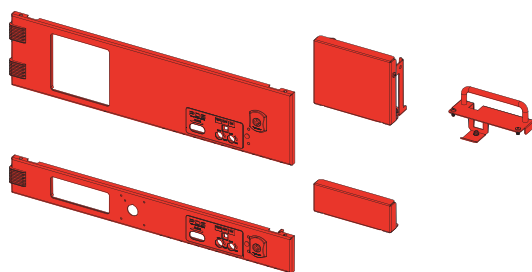
■ 1.1.1 MCC DRAWER BASE



DRAWER CURRENT (A)	REF. NO.	PACKAGE QTY. (pcs)	REQUIRED QTY. (pcs)
125A	1100.100	1 pc.	1
315A	1100.102	1 pc.	1

- Part quantities change by pack specifications.
- System includes parts which are below.
 - Drawer base
 - Drawer
 - Cable Output Module
 - Cable Output Cover
 - Module Contact Blind Shutter

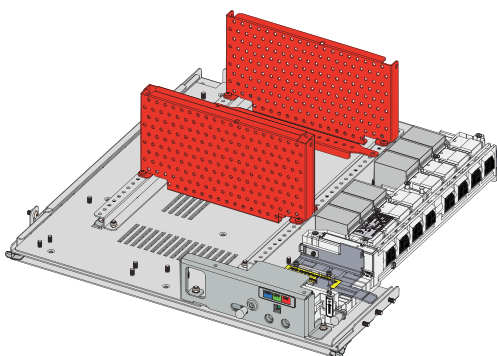
■ 1.1.2 MCC PARTIAL DOOR



HEIGHT (H)	REF. NO.	PACKAGE QTY. (pcs)	REQUIRED QTY. (pcs)
75	1100.307	1 pc.	1
150	1100.315	1 pc.	1
225	1100.322	1 pc.	1
300	1100.330	1 pc.	1
375	1100.337	1 pc.	1
450	1100.345	1 pc.	1
600	1100.360	1 pc.	1

- Height changes effects buttons, signal lights etc. assembly area.
- Part quantities change by pack specifications.
- System includes parts which are below.
 - MCC Partial Door
 - Button Cover
 - Button Cover Support
 - Drawer Contact Handle (For 150H and over)
 - Operation Handle Support (For 75H)

■ 1.1.3 DRAWER MOUNTING PLATE

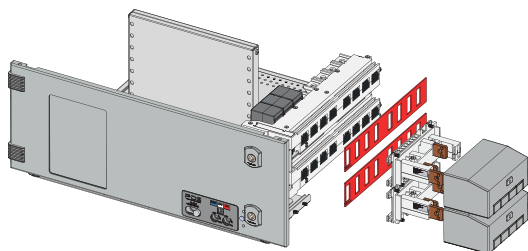


HEIGHT (H)	REF. NO.	PACKAGE QTY. (pcs)	REQUIRED QTY. (pcs)
75	1100.400	1 pc.	1
150	1100.401	1 pc.	1
225	1100.402	1 pc.	1

- Design for DOL-RDOL assembly.
- Package includes parts which are below.
 - 3 pcs. DOL/RDOL Mounting Plate
 - 1 pc. Cable Support Rail
 - Assembly Parts(M5x10 Screw)



1.2 DS (Delta-Star) CONNECTION



- **DS CONNECTION** type has 125A DS and 315A DS connection set (One power input-Two cable output). One drawer builds with parts which at below section.
- The limit values given in the tables for the DS connection are due to the contactor dimensions.
- Because the minimum height of the module for DS connection is 150H, DS drawer cannot be made for 75H.

Module Current Capacity(A)	NO BRAND			Min. Drawer Height
	DSD System			
	Breaker Model	DSD Contactor	Max. Power (kW)	
125A	-	-	55 kW	150H
	-	-	55 kW	225H
315A	-	-	110 kW	150H
	-	-	110 kW	225H
	-	-	110 kW	300H

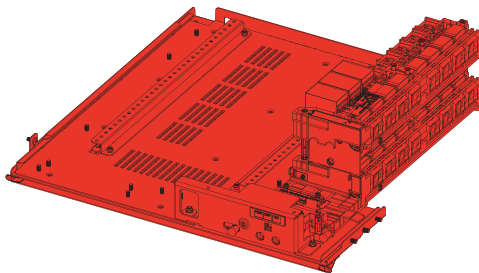
Module Current Capacity(A)	SCHNEIDER			Min. Drawer Height
	DSD System			
	Breaker Model	DSD Contactor	Max. Power (kW)	
125A	GV2P - GV3P (0.06-30kW)/ NSX (160 A)	LC1-D9M7 - LC1-D65M7	55 kW	150H
	-	-	-	225H
315A	-	-	-	150H
	NSX (16-160A)	LC1-D9M7 - LC1-D95M7	75 kW	225H
	NSX (250A)	LC1-D95M7 - LC1-F185M7	110 kW	300H

Module Current Capacity(A)	ABB			Min. Drawer Height
	DSD System			
	Breaker Model	DSD Contactor	Max. Power (kW)	
125A	MS116/MS132/MO132/MS450/MS495/MS497/XT2S/XT3S (0,1-55 kW)	AF09 - AF65	55 kW	150H
	-	-	-	225H
315A	XT3S	AF65 - AF96	75 kW	150H
	XT3S/XT4S (160 - 250A)	AF80 - AF140	110 kW	225H
	-	-	-	300H

Module Current Capacity(A)	SIEMENS			Min. Drawer Height
	DSD System			
	Breaker Model	DSD Contactor	Max. Power (kW)	
125A	3RV2011-0DA10/3RV2031-4JA10 (0,16 - 30 kW)	3RT2015 - 3RT2028 (7 - 38A)	30 kW	150H
	3RV2031-4KA10/3RV2041-4MA10 (33 - 45 kW) / 3VA2110/3VA2216 (100-160A)	3RT2035 - 3RT2038 (40 - 80A)	55kW	225H
315A	-	-	-	150H
	3VA2216 - 3VA2325 (100 - 250 A)	3RT2037 - 3RT2047 (65 - 110A)	90 kW	225H
	3VA2325 (250 A)	3RT2047 - 3RT1056 (110 - 185A)	110 kW	300H

- This tables give information about diffrent brand contactor and breaker models selection for assembly. Max Power values are for correct size selection.

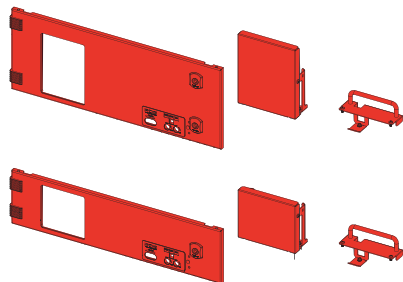
■ 1.2.1 MCC DRAWER BASE



DRAWER CURRENT (A)	REF. NO.	PACKAGE QTY. (pcs)	REQUIRED QTY. (pcs)
125A	1100.106	1 pc.	1
315A	1100.107	1 pc.	1

- Part quantities change by pack specifications.
- System includes parts which are below.
 - Drawer base
 - Drawer
 - Cable Output Module
 - Cable Output Cover
 - Module Contact Blind Shutter

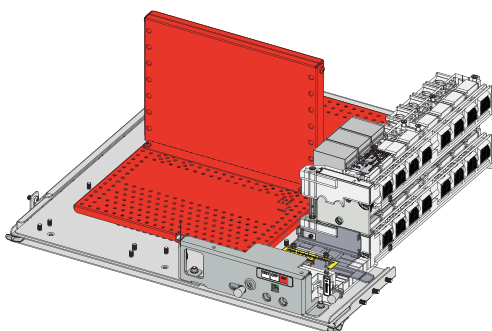
■ 1.2.2 MCC PARTIAL DOOR



HEIGHT (H)	REF. NO.	PACKAGE QTY. (pcs)	REQUIRED QTY. (pcs)
150	1100.315	1 pc.	1
225	1100.322	1 pc.	1
300	1100.330	1 pc.	1
375	1100.337	1 pc.	1
450	1100.345	1 pc.	1
600	1100.360	1 pc.	1

- Height changes effects buttons, signal lights etc. assembly area.
- Part quantities change by pack specifications.
- System includes parts which are below.
 - MCC Partial Door
 - Button Cover
 - Button Cover Support
 - Drawer Contact Handle (For 150H and over)

■ 1.2.3 DRAWER MOUNTING PLATE

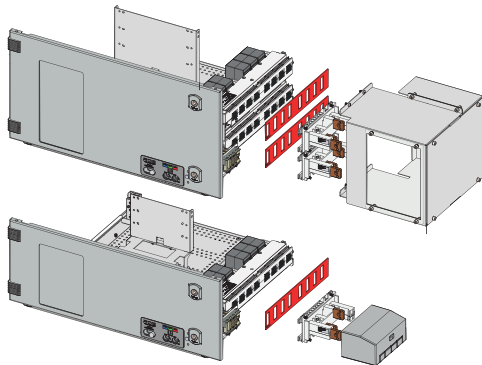


HEIGHT (H)	REF. NO.	PACKAGE QTY. (pcs)	REQUIRED QTY. (pcs)
150	1100.420	1 pc.	1
225	1100.421	1 pc.	1
300	1100.422	1 pc.	1

- Design for Delta-Star assembly.
- Package includes parts which are below.
 - 2 pcs. DS Mounting Plate
 - 1 pc. Drawer Base Support Plate
 - Assembly Parts(M5x10 Screw)



■ 1.3 PD (Power Distribution) CONNECTION



- **PD CONNECTION** type has 125A,315A connection set(One power input-One cable output) and 315A DS connection set(Two power input-Two cable output). One drawer builds with parts which at below section.
- The limit values given in the tables for the PD connection are due to the breaker dimensions.
- Because the minimum height of the module for DS connection is 150H, PD drawer cannot be made for 75H.

Module Current Capacity(A)	NO BRAND		Min. Drawer Height
	Breaker Model (3P)	Breaker Model (4P)	
125A	-	-	150H
	-	-	225H
315A	-	-	150H
	-	-	225H
630A	-	-	300H

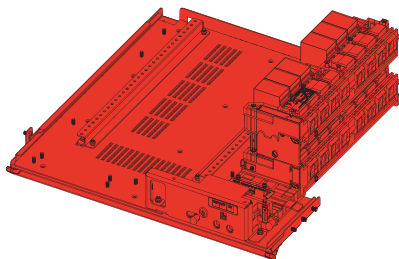
Module Current Capacity(A)	SCHNEIDER		Min. Drawer Height
	Breaker Model (3P)	Breaker Model (4P)	
125A	NSX (16-125A)	-	150H
	-	NSX (16-125A)	225H
315A	NSX (160-200A)	-	150H
	NSX (250A)	NSX (160 - 250A)	225H
630A	NSX (400-630A)	NSX (400 - 630A)	300H

Module Current Capacity(A)	ABB		Min. Drawer Height
	Breaker Model (3P)	Breaker Model (4P)	
125A	XT1N (32-125 A)	-	150H
	-	XT1N (32 - 125A)	225H
315A	XT1N - XT3N (160 - 200 A)	-	150H
	XT3N (250A)	XT1N - XT3N (160 - 250A)	225H
630A	T5N (400-630A)	T5N (400-630A)	300H

Module Current Capacity(A)	SIEMENS		Min. Drawer Height
	Breaker Model (3P)	Breaker Model (4P)	
125A	3VA1196-3VA1112-3VA2110	-	150H
	-	3VA1196-3VA1112-3VA2110	225H
315A	3VA2116-3VA2225 (200A)	-	150H
	3VA2225 (250A)	3VA2116-3VA2225	225H
630A	3VA2340-3VA2463	3VA2340-3VA2463	300H

- This tables give information about diffrent brand contactor and breaker models selection for assembly. Max Power values are for correct size selection.

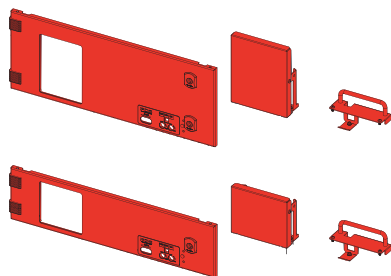
■ 1.3.1 MCC DRAWER BASE



DRAWER CURRENT (A)	POLE	REF. NO.	PACKAGE QTY. (pcs)	REQUIRED QTY. (pcs)
125A	3P	1100.100	1 pc.	1
125A	4P	1100.101	1 pc.	1
315A	3P	1100.102	1 pc.	1
315A	4P	1100.103	1 pc.	1
630A	3P	1100.104	1 pc.	1
630A	4P	1100.105	1 pc.	1

- Part quantities change by pack specifications.
- System includes parts which are below.
 - Drawer base
 - Drawer
 - Cable Output Module
 - Cable Output Cover (For 125A-315A Modules)
 - Module Contact Blind Shutter

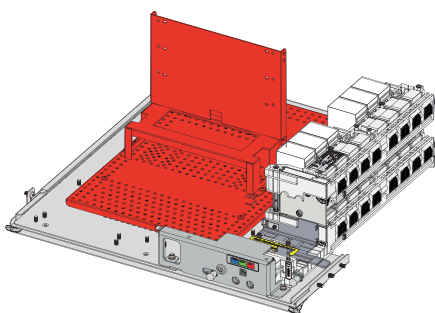
■ 1.3.2 MCC PARTIAL DOOR



HEIGHT (H)	REF. NO.	PACKAGE QTY. (pcs)	REQUIRED QTY. (pcs)
150	1100.315	1 pc.	1
225	1100.322	1 pc.	1
300	1100.330	1 pc.	1
375	1100.337	1 pc.	1
450	1100.345	1 pc.	1
600	1100.360	1 pc.	1

- Height changes effects buttons, signal lights etc. assembly area.
- Part quantities change by pack specifications.
- System includes parts which are below.
 - MCC Partial Door
 - Button Cover
 - Button Cover Support
 - Drawer Contact Handle (For 150H and over)

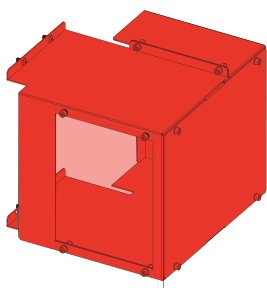
■ 1.3.3 DRAWER MOUNTING PLATE



HEIGHT (H)	REF. NO.	PACKAGE QTY. (pcs)	REQUIRED QTY. (pcs)
150	1100.440	1 pc.	1
225	1100.441	1 pc.	1
300	1100.442	1 pc.	1

- Design for Power Distribution assembly.
- Package includes parts which are below.
 - 1 pc. PD Mounting Plate
 - 1 pc. PD Breaker Support (For 225H) and (300H)
 - 1 pc. Drawer Base Support Plate
 - Assembly Parts(M5x10 Screw)

■ 1.3.4 DRAWER FORM 4b BOX



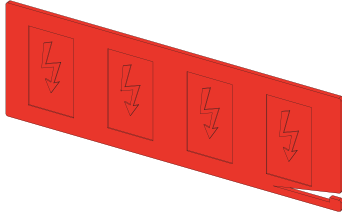
HEIGHT (H)	REF. NO.	PACKAGE QTY. (pcs)	REQUIRED QTY. (pcs)
225	1100.450	1 pc.	1

- This part **must** be selected for 630A Drawer.



2. BUSBAR MODULE COVER

2.1 MODULE BLIND SHUTTER

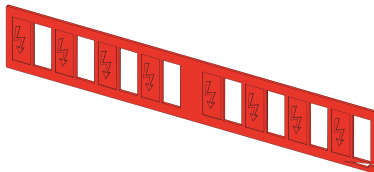


REF. NO.	PACKAGE QTY. (pcs)	REQUIRED QTY. (pcs)
1100.464	10 pcs.	10

- Blind shutter prevents physical contact with the energized contact points.
- Quantity of blind shutter changes with drawer height.
- The quantity of the blind shutter are below at table for each Drawer.

	HEIGHT(H)	POLE	MODULE CURRENT(A)	REQUIRED QTY.(pcs.)
DOL/RDOL	75	-	125A/315A	-
	150	-	125A/315A	1
	225	-	125A/315A	2
	300	-	125A/315A	3
	375	-	125A/315A	4
	450	-	125A/315A	5
	600	-	125A/315A	7
DS	150	-	125A/315A	-
	225	-	125A/315A	1
	300	-	125A/315A	2
	375	-	125A/315A	3
	450	-	125A/315A	4
	600	-	125A/315A	6
PD	150	3	125A/315A	1
	225	4	125A/315A	2
	300	3/4	630A	2
	375	3/4	630A	3
	450	3/4	630A	4
	600	3/4	630A	6

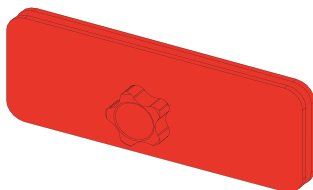
2.2 MODULE CONTACT BLIND SHUTTER



REF. NO.	PACKAGE QTY. (pcs)	REQUIRED QTY. (pcs)
1100.465	5 pcs.	5

- **This part come with Drawers. You can order here as a spare part.**
- Contact Blind Shutter prevent contact with busbar module and cable module.

2.3 BUSBAR COVER



REF. NO.	PACKAGE QTY. (pcs)	REQUIRED QTY. (pcs)
1100.463	1 pc.	1

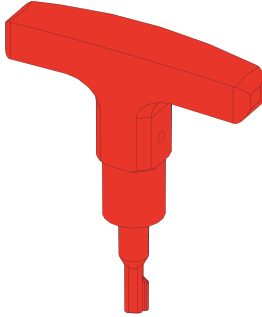
- Busbar cover is designed to replace the shutter or add a new drawer to the MCC system, ensuring safety by blocking busbar contact while changing the shutter.



■ 3. OPERATING AND SAFETY EQUIPMENTS

■ 3.1 OPERATING HANDLES

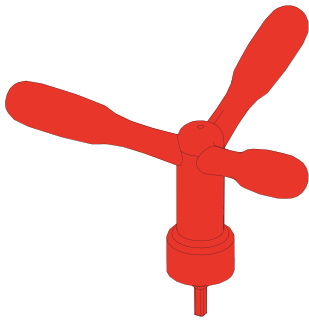
■ 3.1.1 T TYPE OPERATING HANDLE



REF. NO.	PACKAGE QTY. (pcs)	REQUIRED QTY. (pcs)
1100.461	1 pc.	1

- For operating 125A and 315A DOL/RDOL,PD drawer models.

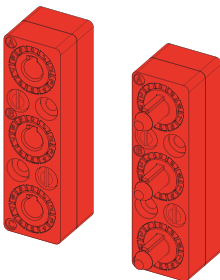
■ 3.1.2 HEAVY MODULE OPERATING HANDLE



REF. NO.	PACKAGE QTY. (pcs)	REQUIRED QTY. (pcs)
1100.462	1 pc.	1

- For operating 125A DS, 315A DS A-and 630A PD drawer models.

■ 3.2 CODE SET



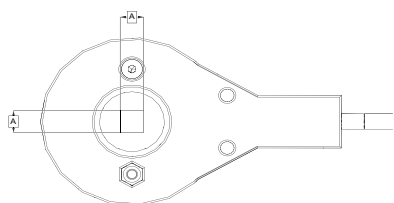
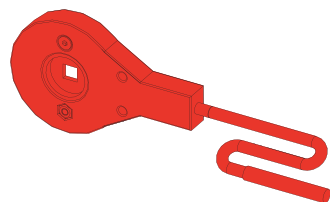
REF. NO.	PACKAGE QTY. (pcs)	REQUIRED QTY. (pcs)
1100.460	1 pc.	1

- Code set secures each drawer position and blocks wrong placement for drawers with 1000 different combination.



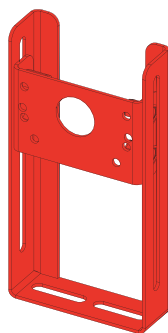
■ 3.3 EASY LOCK SYSTEM

■ 3.3.1 EASY LOCK



DIMENSION (A)	REF. NO.	PACKAGE QTY. (pcs)	REQUIRED QTY. (pcs)
5	1100.480	1 pc.	1
6	1100.481	1 pc.	1
8	1100.482	1 pc.	1
10	1100.483	1 pc.	1
12	1100.484	1 pc.	1

■ 3.3.2 EASY LOCK HOLDER



HEIGHT (H)	REF. NO.	PACKAGE QTY. (pcs)	REQUIRED QTY. (pcs)
75	1100.490	1 pc.	1
150	1100.491	1 pc.	1
225+	1100.492	1 pc.	1

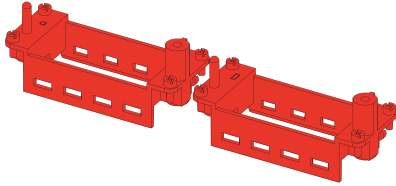
● Easy Lock Holder must be selected with Easy Lock.



4. SOCKET CONNECTIONS

4.1 MODULAR SOCKET

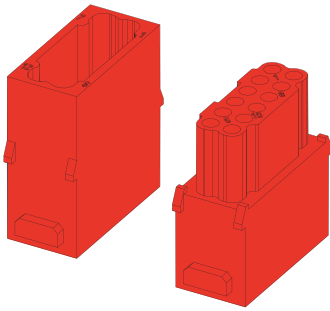
4.1.1 MODULAR SOCKET FRAME



REF. NO.	PACKAGE QTY. (set)	REQUIRED QTY. (set)
1100.501	1 set	1

- Modular Socket could customize to your connection quantity and connection type. One frame handles 4 single module sockets.
- 1 Set includes **1 pc. A-D Modular Socket Frame, 1 pc. a-d Modular Socket Frame.**

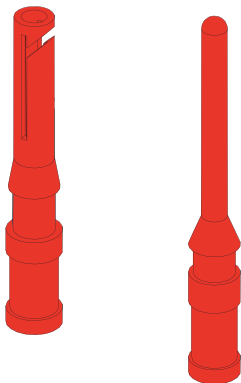
4.1.2 SOCKET MODULE (12 CONTACT)



REF. NO.	PACKAGE QTY. (set)	REQUIRED QTY. (set)
1100.502	1 set	1

- 1 Set includes **1 pc. Female Socket (12 contact), 1 pc. Male Socket (12 Contact)**
- Each socket module have 12 contact point. This package have male socket (for mcc frame) and female socket (for drawer).

4.1.3 SOCKET MODULE CRIMP CONTACTS

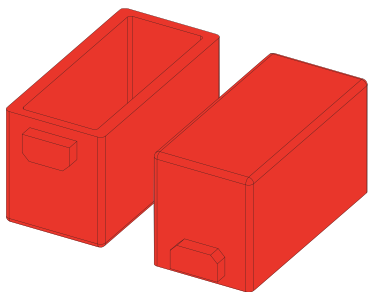


REF. NO.	PACKAGE QTY. (pcs)	REQUIRED QTY. (pcs)
1100.503	24 pcs.	Optional
1100.504	100 pcs.	Optional

- **Male and female crimp quantities are equal in packages.**
(Example: 24 pcs. (24 female/24 male crimp))
- Male and female crimps should order with socket modules (12 contact). Crimps for 2,5mm cables.



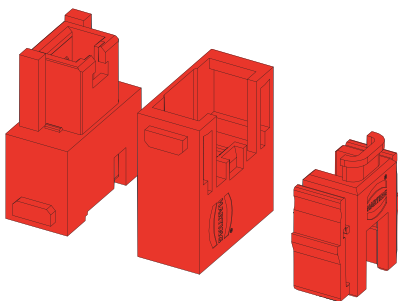
■ 4.1.4 SOCKET DUMMY MODULE



REF. NO.	PACKAGE QTY. (pcs)	REQUIRED QTY. (pcs)
1100.505	2 pcs.	Optional
1100.506	12 pcs.	Optional

- For unused sections at modular socket frame.
- Package includes **2 pcs. Dummy Socket (12 pcs. package is for multiple selection.)**

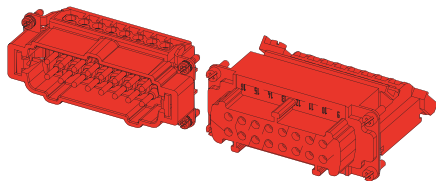
■ 4.1.5 RJ45 MODULE



REF. NO.	PACKAGE QTY. (set)	REQUIRED QTY. (set)
1100.507	1 set	1

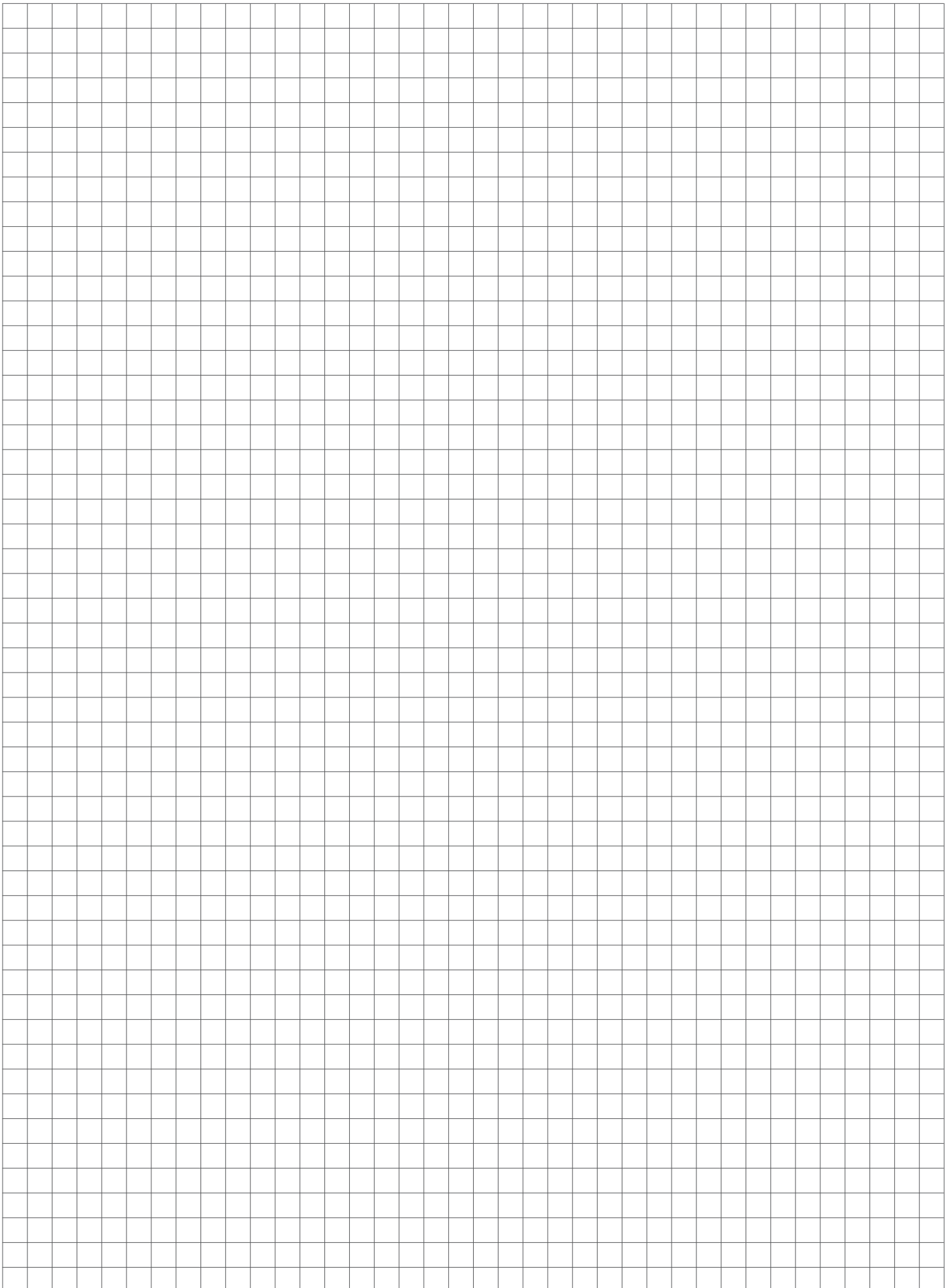
- For data connection at modular socket frame.
- Package includes **1 pc. RJ45 Male Connector, 1 pc. RJ45 Female Connector, 1 pc. RJ45 Female adapter**

■ 4.2 TERMINAL TYPE SOCKET SET



REF. NO.	PACKAGE QTY. (set)	REQUIRED QTY. (set)
1100.520	1 set	1

- Fixed 16 contact point cable connection without crimps.
- 1 Set includes **1 pc. Male Socket, 1 pc. Terminal Female Socket**





PDS
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