

# PRODUCT CATALOG

Shenzhen Coolmay Technology Co., Ltd











V20.74











# CATALOG

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## 1.1. EX3G-FH HMI/PLC All-in-one

Model	EX3G-43FH	EX3G-50FH	EX3G-70FH	EX3G-70KFH	EX3G-100FH
Image					
					
Dimension	134*102*34mm	151*96*36mm	200*146*36mm	226*163*35.6mm	275*194*36mm
Cutout size	120*94mm	143*86mm	192*138mm	217*154mm	262*180mm
Power Consumption	4-6W	5-7W	6-7W	6-7W	6-8W
<b>HMI</b>					
Feature	60K-color resistive touch screen, supports portrait display				
Type	4.3"TFT	5"TFT	7.0"TFT	7.0"TFT	10.1"TFT
Display size	97*56mm	108*65mm	154*87mm	154*87mm	222*125mm
Resolution (pixels)	480*272	800*480	Standard: 800*480 Optional: 1024*600 (Model: EX3G-70HD)	800*480	1024*600
RAM	NOR Flash 8MB		NOR Flash 16MB		
ROM	64MB				
CPU	32bit CPU 408MHz				
Default	Type-C HMI download port			Type-B HMI download port	
Optional COM port	1 RS232 or WIFI		1 RS485 or 1 RS232		
Software	<a href="#">Coolmay mView HMI Programming Software</a>				
<b>PLC</b>					
I/O	Max 12DI/12DO		12DI/12DO or 20DI/18DO or 24DI/20DO	12DI/12DO or 20DI/18DO or 24DI/20DO or 30DI/30DO (max 28MR)	
I/O level	Input: Passive NPN, public terminal isolated Transistor output: Low level NPN, COM connect to negative; Relay output: Normally open dry contact				
DO type	Relay MR or MOS (Relay output: max load 5A/ MOS output: max load 2A)		Relay (MR) or transistor (MT, Y0-Y3 are MOS) or mixed (MRT) (Relay output: max load 5A/ transistor output: max load 500mA)		
High-speed counting	Single phase 6 channel 60KHz, or 2 AB 60KHz + 1 AB 10KHz, or 2 ABZ 60KHz + 1 AB phase 10 KHz				
High-speed pulse	8 channels, Y0-Y3 is 100KHz, Y4-Y7 is 10KHz. High-speed counting + high-speed pulse < 480KHz				
Default programming port	1 TYPE-C, 1 RS232			1 Mini USB, 1 RS232	
Optional COM port	1 Rs485 or 2 Rs485 COM ports (one is changed from the default Rs232 port)		1 Rs485 or 2 Rs485 COM ports (RS485 port on HMI and RS232 on PLC will be unavailable)	1 Rs485 or 2 Rs485 COM ports (one is changed from the default Rs232 port)	
Analog I/O (optional)	Max 4AI/2AO		Max 12AI/8AO		Max 16AI/8AO
AI type (optional)	Thermocouple E/E_/K/K_/S/S_/T/T_/J/J_/ / PT100/ PT1000/ NTC10K/ NTC50K/ NTC100K/ 0~10V/ 0~5V/ 0~20mA/ 4~20mA/ mixed				
AO type (optional)	0~10V /0~5V/ 0~20mA/ 4~20mA/ mixed		0~10V /0~5V/ 0~20mA/ 4~20mA/ mixed/ -5~5V/ -10~10V (2AO for 1 minus voltage)		
Software	Compatible with Mitsubishi GX Developer 8.86 and <a href="#">WORKS 2</a>				
Suggested models: EX3G-43FH/50FH-16MR/24MR/24MT(-4AD2DA-485P/232H) EX3G-70FH/HD-16MR/24MR/38MT/38MRT(-12AD8DA-485P/232H); EX3G-70FH/HD-44MR/44MRT(-8AD6DA-485P/232H) EX3G-70KFH/100FH-16MR/24MR/38MR/44MT/44MRT(-16AD8DA-485P/232H) EX3G-70KFH/100FH-60MT/60MRT(-5AD2DA-485P/232H)					
* If 30DI/30DO for EX3G-100FH, max support 5AI/2AO. If 24DI/20DO, max 16AI/8AO. Detailed info. refer to: " <a href="#">Coolmay CX3G/FX3GC PLC Programming Manual</a> ", " <a href="#">Coolmay TK HMI User Manual</a> "					



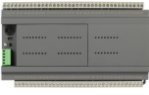

## 1.2. EX3G HMI/PLC All-in-one

Model	EX3G-43HB-24M	EX3G-43(50) KH-24M	EX3G-70KH	EX3G-100HA
Image				
				
Dimension	134*102*32mm	150*93*32mm	226*163*35.6mm	275*194*36mm
Cutout size	120*94mm	143*86mm	218*153mm	261*180mm
Power Consumption	4-6W	4-6W/5-7W	6-7W	6-8W
Features	Support interrupt, linear arc interpolation, PID auto-tuning. 32K program capacity, 32K retentive register			
<b>HMI</b>				
Display	60K colors touch panel	60K colors touch panel; can be portrait display		60K colors touch panel
Type	4.3" TFT	4.3"/5" TFT	7" TFT	10.1" TFT
Display size	97*56mm	97*56/108*65mm	154*87mm	222*133mm
Resolution (pixels)	480*272	43KH: 480*272   50KH: 800*480	70KH:800*480	1024*600
RAM	32MB	64MB		128MB
ROM	128MB			
Operation system	Null	WINCE 5.0		WINCE 7.0
CPU	ARM9 216MHz	ARM9 400MHz		CORTEX A8 720MHz-1GHz
Default	1 download port	1 download port, 1 USB 2.0 port		
Optional COM port	1 RS232 port	1 RS232 port	1 RS485 or 1RS232 port Ethernet port (can not coexist with PLC Ethernet port)	
Audio	Optional			
Software	<a href="#">CoolMayHMI HMI programming software</a>			
<b>PLC</b>				
I/O level	Input: Passive NPN, public terminal isolated Transistor output: Low level NPN, COM connect to negative; Relay output: Normally open dry contact			
I/O	12DI/12DO		12DI/12DO or 20DI/18DO or 24DI/20DO	
DO type	Relay(MR) or MOS(MT) (Relay output: max load 5A/ MOS output: max load 2A)		Relay(MR) or transistor(MT) or mixed(MRT) (Relay output: max load 5A/ transistor output: max load 500mA)	
High-speed counting	Single phase 6 channel 10KHz or 3 AB 10KHz or 2 ABZ+1 AB 10KHz	Single phase 6 channel 60KHz, or 2 AB 60KHz + 1 AB 10KHz, or 2 ABZ 60KHz + 1 AB phase 10 KHz		
High-speed pulse	8 channel 10KHz	8 channels, Y0-Y3 is 100KHz, Y4-Y7 is 10KHz. High-speed counting + high-speed pulse < 480KHz		
Default programming port	1 Mini type B USB port, 1 Rs232 port (also can be used as COM port)		1 Mini type B USB port, 1 Rs232 port (also can be used as COM port)	
Optional	1 Rs485 or 2 Rs485 COM ports (one is changed from the default Rs232 port)		1 Rs485 or 2 Rs485 COM ports (one is changed from the default Rs232 port), CAN (2.0A/B), Ethernet port (can not coexist with HMI Ethernet port), WIFI (will occupy the default Rs232)	
Analog I/O (optional)	Max 4AI/2AO		Max 16AI/8AO	
AI type (optional)	Type E/E_/K/K_/S/S_/T/T_/J/J_ thermocouple/ PT100/ PT1000/ NTC10K/ NTC50K/ NTC100K/ 0~10V/ 0~5V/ 0~20mA/ 4~20mA/ mixed		Type E/E_/K/K_/S/S_/T/T_/J/J_ thermocouple/ PT100/ PT1000/ NTC10K/ NTC50K/ NTC100K/ 0~10V/ 0~5V/ -5V~5V/ -10V~10V/ 0~20mA/ 4~20mA/ mixed	
AO type (optional)	0~10V /0~5V/ 0~20mA/ 4~20mA/ mixed		0~10V /0~5V/ 0~20mA/ 4~20mA/ mixed/ -5~5V/ -10~10V (2DA for 1 minus voltage)	
Software	Compatible with Mitsubishi GX Developer8.86 and <a href="#">WORKS 2</a>			
Suggested models: EX3G-43HB/43KH/50KH/-24MT/24MR(-4AD2DA-485P/232H) / EX3G-70KH-24MR/44MT/MRT(-16AD8DA-485P/232H) EX3G-100HA-24MR/44MT/44MRT(-5AD2DA-485P/232H)				
Detailed info. refer to: <a href="#">EX3G HMI/PLC all in one programming manual</a> <a href="#">EX3G HMI/PLC all in one user manual</a> <a href="#">CoolmayHMI user manual</a>				



### 1.3. MX2N HMI/PLC All-in-one

Model	MX2N-43HB-24M	MX2N-70HB
Image		
		
Dimension	134*102*32mm	212*148*40mm
Cutout size	120*94mm	194*138mm
<b>HMI</b>		
Display	60K colors touch panel	
Display size	97*56mm	154*87mm
Resolution (pixels)	480*272	800*480
RAM	32MB	64MB
ROM	128MB	
Operation system	NULL	
CPU	ARM9 216MHz	ARM9 288MHz
Default COM	1 touch panel download port	
Optional	1 RS485 or 1 RS232 port	
Software	<a href="#">CoolMayHMI Programming Software</a>	
<b>PLC</b>		
I/O	12DI/ 12DO	12DI/ 12DO, 24DI/ 20DO
I/O level	Low level NPN, COM connect to negative	
DO type	Relay (MR) or MOS (MT) (Relay output: max load 5A/ MOS output: max load 2A)	
High-speed counting	Default as single phase 6 channels (X0-X5) 10KHz, or 2 AB(Z) phase 10KHz. Or customized as single phase 6 channels 60KHz, or AB(Z) phase 2 channels 60KHz.	
High-speed pulse	Default as 4 channels (Y0-Y3) 10KHz, Or customized as 2 channels 200KHz and 2 channels 100KHz	
Analog I/O (optional)	4AI/ 2AO	8AI/ 2AO
AI type (optional)	Type E/ K/ J thermocouple/ NTC10K/ NTC50K/ 0-5V/ 0-10V/ 0-20mA (Note: 1. Thermocouples cannot coexist with NTC types./ 2. One thermocouple or NTC will occupy two analog inputs, max 2 thermocouple or NTC inputs.)	Type E/ K/ J thermocouple/ NTC10K/ NTC50K/ 0-5V/ 0-10V/ 0-20mA (Note: 1. Thermocouples cannot coexist with NTC types./ 1. NTC will occupy AD4 and AD6 as common terminals i.e. NTC+, max 6 NTC inputs./ 3. Only 2 E/K/J thermocouples are optional and will occupy AD4~AD7)
AO type (optional)	0-10V/ 0-5V/ 0-20mA/ Mixed	
Weighing function (optional)	NULL	1 channel (Occupies AD0~AD2)
Default	1 RS232 programming port	
Optional	NULL	1 RS485 COM port (changed from default Rs232 port) 1 CAN (used for internal networking with MX2N PLC, cannot coexist with weighing function)
Software	Compatible with Mitsubishi GX8.52 and <a href="#">WORKS 2</a>	
Suggested models: MX2N-43HB-24MR/24MT(-4AD2DA-232H) MX2N-70HB-44MR/44MT(-8AD2DA-485P/232H)		
Details refer to <a href="#">COOLMAY MX2N HMI PLC All-in-one Programming Manual</a> <a href="#">MX2N HMI PLC All-in-one User Manual</a> <a href="#">CoolMayHM User Manual</a>		

## 2.1. CX3G PLC


Model	CX3G-16M	CX3G-24M	CX3G-32M	CX3G-48M	CX3G-34M	CX3G-64M	CX3G-80M
Image							
Dimension	85*90*36mm	130*90*36mm		200*90*36mm		290*90*36mm	
Cutout size	77*99mm	122*99mm		192*99mm		282*99mm	
Installation	Fixed hole installation and DIN-Rail (35mm)						
Features	Support interrupt, linear arc interpolation, PID auto-tuning. 32K program capacity, 32K retentive register						
I/O level	Input: Passive NPN, public terminal isolated Transistor output: NPN Relay output: Normally open dry contact						
Digital I/O	8DI/8DO	12DI/12DO	16DI/16DO	24DI/24DO	18DI/16DO	32DI/32DO	40DI/40DO
DO type	Transistor(MT) or mixed(2T6R)	Relay(MR) or transistor(MT) or mixed(MRT) (Relay output: max load 5A/ transistor output: max load 500mA)					
High speed counting	Single phase 6 channel 60KHz, or 2 AB 60KHz + 1 AB 10KHz, or 2 ABZ 60KHz + 1 AB phase 10 KHz						
High speed pulse	8 channels 10KHz	8 channels, Y0-Y3 is 100KHz, Y4-Y7 is 10KHz					
	High-speed counting + high-speed pulse < 480KHz						
Analog I/O (optional)	Null	6AI/4AO	2AI	8AI/4AO	12AI/8AO	16AI/8AO	4AI/4AO
AI type (optional)	Null	Type E/E_/K/K_/S/S_/T/T_/J/J_ thermocouple / PT100/ PT1000/ NTC10K/ NTC50K/ NTC100K/ 0~10V/ 0~5V/ 0~20mA/ 4~20mA/ -5V~5V/ -10V~10V					
AO type (optional)	Null	0~10V/ 0~5V/ 0~20mA/ 4~20mA -5~5V/ -10~10V (2DA for 1 minus voltage)					
Default	1 Mini type B USB programming port, 1 RS232 programming port (Interface terminal is mouse female port with 8 holes), 2 RS485 COM ports						
Optional	Default 2 RS485 COM ports can be customized as 1 RS485, 1 RS232 COM ports, or 1 RS485 COM port, 1 CAN (2.0A/B), or 1 RS232 COM port, 1 CAN (2.0A/B) CX3G-48M can add Ethernet port.				Default 2 RS485 COM ports can be customized as 1 RS485, 1 RS232 COM ports, CAN (2.0A/B) port is optional		
Software	Compatible with <a href="#">WORKS 2</a>						
<p>Suggested models: CX3G-16MT/MRT(-485/232) CX3G-24MT/MR/MRT(-6AD4DA -485/232) CX3G-32MT/MR/MRT(-2AD -485/232) CX3G-34MT/MR/MRT(-12AD8DA -485/232) CX3G-48MT/MR/MRT(-8AD4DA -485/232) CX3G-64MT/MR/MRT(-16AD8DA -485/232) CX3G-80MT/MR/MRT(-4AD4DA -485/232)</p> <p>Detailed info. refer to <a href="#">COOLMAY CX3G PLC Programming Manual</a> <a href="#">CX3G PLC user manual</a></p>							

## 2.2. FX3GC PLC


Model	FX3GC-16M Communication/analog extension module can be customized	FX3GC-30M-485	FX3GC-32M
Image			
Dimension	90*60*32mm		
Installation	DIN-Rail (35mm ) mounting		
Features	Support interrupt, linear arc interpolation, PID auto-tuning. 32K program capacity, 32K retentive register		
I/O level	Input: Passive NPN, public terminal isolated Transistor Output: NPN   Relay output: NO contact		
Digital I/O	8DI/8DO	16DI/14DO	16DI/16DO
DO Type	Relay(MR)/ Transistor (MT)/ Mixed (MRT) (Relay output: max load 5A/ transistor output: max load 500mA)		
High-speed counting	Single phase 6 channel 60KHz, or 2 AB 60KHz + 1 AB 10KHz, or 2 ABZ 60KHz + 1 AB phase 10 KHz		
High-speed pulse	8 channels, Y0-Y3 is 100KHz, Y4-Y7 is 10KHz High-speed counting + high-speed pulse < 480KHz		
Analog I/O (optional)	6AI/4AO or 8AI/4AO or 8AI/6AO	NULL	
AI type (optional)	Type E/E_/K/K_/S/S_/T/T_/J/J_ thermocouple / PT100/ PT1000/ NTC10K/ NTC50K/ NTC100K/ 0~10V/ 0~5V/ 0-20mA/ 4-20mA -5V~5V/ -10V~10V/ mixed	/	
AO type (optional)	0-10V/ 0-5V/ 0-20mA/ 4-20mA -5~5V/ -10~10V (2DA for 1 minus voltage)	/	
Default	1 Mini type B USB programming port, 1 RS422 programming port for MR models, 1 RS232 programming port for MT models (Interface terminal is 8 holes mouse female port)		
Optional	2 RS485 COM ports, 1 CAN(2.0A/B)	1 RS485 COM port	/
Software	Compatible with Mitsubishi <a href="#">WORKS 2</a> / GX Developer8.86		
Suggested models: FX3GC-16/32MT/MR/MRT      FX3GC-30MT/MR/MRT(-485)			
Analog and COM package of FX3GC-16M: 2 RS485, 1 CAN, 6AD4DA, or 1 RS485, 1 CAN port, 8AD4DA, or 1 RS485, 8AD/6DA, or 2 RS485, 1 CAN			
Detailed info. refer to <a href="#">CX3G FX3GC PLC Programming Manual</a> <a href="#">FX3GC User Manual</a>			















## 2.3. MX2N PLC

Model	MX2N-24M
Image	
Dimension	130*90*36mm
Cutout size	122*99mm
Installation	Fixed hole installation and DIN-Rail(35mm)
I/O level	Low level NPN, COM connect negative
Digital I/O	12DI/12DO
Output type	Relay (MR)/ MOS(MT)/ Relay and MOS(MRT) (Relay output: max load 5A/ MOS output: max load 2A)
High speed counting	Default as single phase 6 channels (X0-X5) 10KHz, or 2 AB(Z) phase 10KHz. Or customized as single phase 6 channels 60KHz, or AB(Z) phase 2 channels 60KHz.
High speed pulse	4 channels 10KHz (Y0/Y1/Y2/Y3), or customized as 4 channels (Y0/Y1 200KHz, Y2/Y3 100KHz)
Analog I/O (optional)	4AI/ 2AO
Analog input (optional)	NTC10K/ NTC50K/ 0-10V/ 0-5V/ 0-20mA (Note: 1 NTC type will occupy 2 analog input terminals, max 2 NTC inputs can be selected.)
Analog output (optional)	0-10V/ 0-5V/ 0-20mA or mixed
Weighing function (optional)	1 channel
Default	1 RS232 programming port
Optional	1 RS485 or 1 RS232 COM port (Power-up defaults as Mitsubishi programming port protocol) 1 CAN (used for internal networking with MX2N PLC, cannot coexist with weighing function)
Programming software	Compatible with Mitsubishi PLC programming software GX8.52 and <a href="#">WORKS 2</a>
<p>Suggested models: MX2N-24MR/MT/MRT(-4AD2DA-485/232) Detailed info. refer to: <a href="#">MX2N PLC User Manual</a>    <a href="#">MX2N series PLC programming Manual</a></p>	


## 3.1. TK Color Touchscreen HMI

Model		TK6037FH	TK6043FH	TK6050FH	TK6070FH	TK6100FH
Image	Front					
	Rear					
Specs	Dimension	88*88*25mm	134*102*36mm	151*96*36mm	200*146*36mm	275*194*36mm
	Cutout size	72*72mm	120*94mm	143*86mm	192*138mm	262*180mm
	Display size	73*56mm	97*56mm	108*65mm	154*87mm	222*125mm
	Weight(kg)	Approx. 0.3 kg	Approx. 0.33 kg	Approx. 0.33 kg	Approx. 0.54 kg	Approx. 0.7 kg
Display	Display	3.5" TFT	4.3" TFT	5" TFT	7.0" TFT	10.1" TFT
	Resolution (pixels)	320*240	480*272	800*480	Standard: 800*480 Optional: 1024*600 (Model: TK6070HD)	1024*600
	Brightness	300cd/m <sup>2</sup>	400cd/m <sup>2</sup>	300cd/m <sup>2</sup>		
	Contrast ratio	400:1				
	Backlight	LED				
	Backlight time	60,000 hours				
	Display color	65536 colors				
	Touch type	4-wire resistive panel				
Storage	ROM	64MB				
	RAM	NOR Flash 8MB		NOR Flash 16MB		
	CPU	32bit CPU 408MHz				
Interface	Download port	Type-C, RS232, RS485				Type-B, RS232, RS485
	COM port	1 RS232, 1 RS485				
	Optional	NULL	1 WIFI (occupy default RS485 port)			
	Protocol	Support MODBUS, free port and common PLC communication Protocol				
Calendar	Yes					
Input Voltage	12-24VDC±10%<150mA @ 24VDC					
Consumption	42mA/24V	72mA/24V	85mA/24V	107mA/24V	145mA/24V	
Protection Class	IP65 (front panel)					
Temperature	Ambient environment: 0~50°C   Storage environment: -20~70°C					
Humidity	20%~90% RH					
Certification	CE					
Software	<a href="#">CoolMay mView HMI programming software</a> Detailed info. refer to <a href="#">CoolMay TK HMI User Manual</a>					






## 3.2. MT Color Touchscreen HMI

Model		MT6037H	MT6043H	MT6050H	MT6070H	MT6100HA	MT6150HA	
Image	Front							
	Rear							
Specs	Dimension	88*88*25mm	134*102*32mm	146*88*25mm	212*148*40mm	275*194*36mm	365*290*36mm	
	Cutout size	72*72mm	120*94mm	135*72mm	194*138mm	261*180mm	350*280mm	
	Display size	73*56mm	97*56mm	108*65mm	154*87mm	222*125mm	304*228mm	
	Weight(kg)	Approx. 0.3 kg	Approx. 0.33 kg	Approx. 0.33 kg	Approx. 0.54 kg	Approx. 0.7 kg	Approx. 3.414 kg	
Display	Display	3.5" TFT	4.3" TFT	5" TFT	7" TFT	10.1" TFT	15.0" TFT	
	Resolution (pixels)	320*240	480*272	800*480	800*480	1024*600	1024*768	
	Brightness	300cd/m <sup>2</sup>					450cd/m <sup>2</sup>	
	Contrast ratio	400:1						
	Backlight	LED						
	Backlight time	60,000 h						
	Display color	65536 true colors						
Touch type	4-wire resistive panel							
Storage	ROM	128MB						
	RAM	64MB				128MB		
	CPU	ARM9 core 400MHz				CORTEX A8 720MHz-1GHz		
Operating system	WINCE 5.0					WINCE 7.0		
Interface	USB port	USB 2.0x1 (USB port and can be connected to external USB flash drive, mouse, etc.)						
	Download port	Yes (Mini type B male port cable for program download			Yes (Type B male port cable for program download)			
	Ethernet port	Optional						
	COM port	1 RS232 and 1 RS485						
	Protocol	Support MODBUS, free port and common PLC communication Protocol						
Audio	Optional							
Calendar	Yes							
Input Voltage	Default as DC12~24±10%V							
Consumption	100mA*24V	150mA*24V	150mA*24V	200mA*24V	280mA*24V	500mA*24V		
Protection Class	IP65 (front panel)							
Temperature	Ambient environment: 0~50°C   Storage environment: -20~70°C							
Humidity	20%~90% RH							
Certification	CE							
Software	<a href="#">CoolMay HMI programming software</a> Detailed info. refer to <a href="#">CoolMay HMI user manual</a> , <a href="#">CoolMay HMI programming manual</a>							


## 4. Multi-channel Temperature Control Module

Model	CM-4TMS	CM-4TMR
Image		
Installation	DIN-Rail	
Measuring range	-200.00°C~1350.00°C	
Channels	4 channels	
Input type	Thermal resistance DPT100Ω, JPT100Ω 3 wire Thermocouple K, J, E, T, L, N, U, R, S, B, C, G and PLII (13 types)	
Measurement accuracy	Below (PV±0.5% or ±1°C the larger one) ±1bit	
Control output	SSR: 22VDC ±3V Max.30mA	Relay: 250VAC 3A constantly keep off
Connection method	Pluggable terminals	
Communication protocol	RS485, MODBUS-RTU	
Supply voltage	24VDC (±10%)	
Maximum input current	200mA	
Consumption power	5W (Maximum load)	
Sampling period	100ms	
Withstand voltage	1000VAC 50/60Hz last for 1 min (between the input terminal and the power terminal)	
Withstand Vibration	5 ~ 55Hz(cycle 1min) amplitude 0.75mm. X, Y, Z each direction 2 hours	
Dimension	90.0*64.0*32.5 mm	
Working condition	Ambient temperature: 0°C~50°C   Storage temperature: -20°C~60°C	
Net weight	Approx 135~152g	
Detailed info. refer to: <a href="#">Coolmay CM-4TM User Manual</a>		

## 5. 485/232 to Network Module

Model	CM-WIFI	CM-GPRS	CX-GPRS-G (supports GPS location)	CX-WIFI-2NET	CX-4G
Image					
Installation	Standard guide rail installation and can be installed on NS35/7.5 or NS32 guide slot				
Dimension	90*60*32mm			65*90*36mm	
Wiring	Power and RS232/485 applies pluggable terminals				
Frequency range	2.412GHz ~ 2.484GHz	850/ 900/ 1800/ 1900MHz GSM	850/ 900/ 1800/ 1900MHz GSM	2.412 GHz~2.484 GHz	5 modes 12 channels
Network standards	802.11 b/g/n	GSM/ GPRS/ EDGE	GSM/ GPRS/ EDGE	802.11 b/g/n	TDD-LTE/ FDD-LTE WCDMA/ TD-SCDMA/ GSM/ GPRS/ EDGE
Data interface	RS232, RS485 300bps~460800bps	RS232, RS485 2400bps~921600bps	RS232, RS485 2400bps~921600bps	RS232, RS485 300bps~460800bps Ethernet: 100Mbps	RS232, RS485 300~230400bps
Network type	STA/ AP/ STA + AP	GSM/ GPRS/ EDGE	GSM/ GPRS/ EDGE	Station/ AP mode	TDD-LTE/ FDD-LTE WCDMA/ TD-SCDMA GSM/ GPRS/ EDGE
Network protocol	IPv4, TCP/ UDP/ HTTP	TCP/ UDP/ DNS/ HTTP	TCP/ UDP/ DNS/ HTTP	TCP/ UDP/ ARP/ ICMP/ DHCP/ DNS/ HTTP	TCP/ UDP/ DNS/ HTTP
User configuration	Web page/ Serial port AT command	Serial port/ network/ message AT instruction (configuration software is offered)	Serial port/ network/ message AT instruction (configuration software is offered)	Web server/ AT instruction	Serial port/ network/ message AT instruction (configuration software is offered)
Transmit power	300~460800bps	2400~921600bps		300~460800bps	300~230400bps
Manuals	<a href="#">CM-WIFI user manual</a> <a href="#">CM-GPRS user manual</a> <a href="#">CM-WIFI-2NET user manual</a> <a href="#">CX-4G user manual</a>				
Software	Visual serial port CM-VCOM CM-GPRS module setting software CM-NET module setting software CX-4G module setting software				





## 6. Radio Frequency Module

Model	CM-RFM
Image	
Frequency Range	430~450Mhz
Installation	Standard rail mounting for mounting on NS35/7.5 or NS35 guide slot
Dimension	90*60*32mm
Modulation way	GFSK
Serial port speed	1200, 2400, 4800, 9600, 19200, 38400, 115200bps
Channel spacing	150kHz
Transmission rate	1~100Kbps
Transmission power	Max 20dBm (100mw), 9 level adjustable power
Receiver sensitivity	-114dBm (@10Kbps, dev=25kHz, BER<0.1%)
Cache space	Dual 256 bytes
Transmission distance	1~2 kilometers @10kbps, 20dBm, open space
Wiring	Power 3.50 Pluggable terminals and RS485 applies 3.81 Pluggable terminals
Manuals	<a href="#">CM-RFM user manual</a>

## 7. Fiber to CAN/ RS485/ RS232 Module




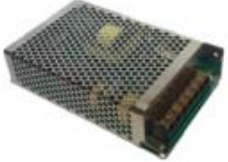
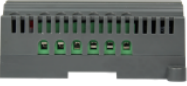


Model		Fiber to CAN/RS485/RS232 Module
Image	Front	
	Back	
Maximum fiber length		80 Kilometers
Baud rate		0~1 Mbps
Optical ports		ST, SC or FC interface single fiber or dual fiber
Net weight		100g
Dimension		106mm (L) * 65mm (W) * 35mm (H)
Cutout size		98 mm * 57 mm
Working environment temperature		-40°C ~ +85°C
Humidity		≤ 95% RH
Installation		Din-Rail, wall hanging, plane fixed
Refer info.: <a href="#">Fiber to CAN, RS485, RS232 User Manual</a>		

## 8. CM-OP Offline Programming Module


Model		CM-OP Offline programming module
Image	Front	 
	Side, Rear	 
Installation	35mm standard rail mounting, handheld equipment	
Connection method	MICRO USB&RS485/RS232	
Protocol	Mitsubishi programming port protocol	
Power supply	Built-in 2000mAH lithium battery	
Charging voltage	5V	
Maximum input current	50mA	
Static power	<0.5W	
Net Weight	50g	
Dimension	90*64*33mm	
Working temperature	-20°C~85°C	
Programming software	Compatible with Mitsubishi PLC programming software GX8.52 and <a href="#">WORKS 2</a>	
Refer info: <a href="#">CM-OP Offline programming module user manual</a>		






## 9. Power Supply

Model		CX6024-12-5	CX2024	CM6024	CM15024
Image	Front				
	Back				
Installation	Standard guide rail installation and can be installed on NS35/7.5 or NS35 guide slot				Screw fixation, vertically or paralleled installation
Dimension	85*90*36mm	65*90*36mm	90*60*32mm	159*97*38mm	
Connection mode	7.62 barrier terminal			5P-7.62 barrier terminal	7P-9.5 barrier terminal
Input voltage	88~264VAC or 125~373VDC				
Input frequency	47~63HZ				
Output voltage	DC24V/ DC12V/ DC5V	DC24V			
Output current	1A	0.8A	2.5A	6.5A	
Impulse current	30A/ 230VAC				60A/ 230VAC
Output accuracy	±1%				
Output efficiency	86%	85%	86%	89%	
No-load consumption	<0.5W				
Defensive function	Short circuit/ over voltage/ overload protection				
Manuals	<a href="#">Coolmay power supply user manual</a>				

## 10. Amplification Module

Model	CM-MOS	CM-SSR	CM-REY
	Transistor amplification module	Solid state amplification module	Intermediate amplifier module
Image			
Installation	Standard guide rail installation and can be installed on NS35/7.5 or NS32 guide slot		
Dimension	89.5*79*32.5mm		
Connection mode	5.08 pluggable terminal		
Input voltage	DC24V		
Input type	NPN		
Working voltage	DC12~30V	AC100~250V	DC/AC0~250V
Output current	5A	5A	15A
Max. Output current	10A	10A	16A
Output method	MOS	Zero-crossing trigger	Relay tip
Output points	6I/6O		
Output type	NPN		
Protection method	optoelectronic isolation, FWD protection	optoelectronic isolation, RC absorption circuit	Relay-isolated, 400V piezoresistor
Manuals	<a href="#">Coolmay Amplifier User Manual</a>		

## 11. Inverter / Variable Frequency Drive (VFD)

Model	CM520-0.75/1.5KW	CM540-0.75/1.5/4.0KW	CM540-5.5/7.5/11KW
Image			
Dimension L*W*Hmm	86*114*143	118*156*185	247*160*176
Weight	0.9kg	2.0kg	3.7kg
<b>Basic Function</b>			
Maximum frequency	Vector control: 0~600Hz		Vector control: 0~600Hz   V/F control: 0~3200Hz
Carrier frequency	0.8kHz~12kHz. The carrier frequency automatically adjusted based on the load features.		
Input frequency resolution	Digital setting: 0.01Hz Analog setting: Maximum frequency x0.025%		
Control mode	Open-loop vector control (SVC), Closed-loop vector control (FVC), VF control.		
Startup torque	G type: 0.25Hz/150% (SVC), 0Hz/180%(FVC), P type: 0.5Hz/100%		
Speed range	1:200(SVC), 1:1000(FVC)		
Speed stability accuracy	±0.5%(SVC), ±0.02%(FVC)		
Torque control precision	±5% (SVC) (above 10Hz), ±3%(FVC)		
Overload capacity	G type: 150% rated current 60s. 180% rated current 3s. P type: 120% rated current 60s. 150% rated current 3s.		
Torque boost	Automatic torque boost. Manual torque boost 0.1%~30.0%		
V/F curve	Five modes: Straight-line, Multi-points, Square V/F, V/F separation, V/F Semi-separation		
V/F Separation	Two modes: complete separation, semi-separation		
Ramp mode	Straight-line ramp and S-curve ramp. Four kinds of acceleration/deceleration time with the range of 0.0~6500.0s		
DC injection braking	DC braking frequency: 0.00Hz~maximum, braking time: 0.0s~36.0s. Braking action current value: 0.0%~100.0%		
Jog control	Jog frequency: 0.00Hz~50.00Hz Jog acceleration and deceleration time: 0.0s~6500.0s		
Simple PLC, multistage speed operation	It implements up to 16 speeds via the simple PLC function or combination of DI terminal states.		
Built-in PID	It can keep constant output voltage automatically when the mains voltage changes.		
Automatic voltage regulation (AVR)	Automatically maintain a constant output voltage when grid voltage changes.		
Over voltage/Over current loss of speed control	Automatic limit of the current and voltage during the operation, prevent frequent over current and over voltage		
Rapid current limit	Minimizing over-current fault and protect the normal operation of converter.		
Torque limit and control	"Excavator" characteristics, automatic limit of the torque during the operation, to prevent frequent over-current trip. Closed-loop vector mode torque control can be achieved.		
<p>Other models: CM540-15/ 18.5/ 22KW, CM540-30/ 37KW            CM540-45/ 55/ 75KW, CM540-90/ 110KW            CM540-132/ 160/ 185KW, CM540-200/ 220/ 250/ 280KW            CM540-315/ 350KW.</p> <p>The above models are all iron shells. For detailed dimensions, please contact us            Detail info refer to:  <a href="#">Coolmay CM520 VFD user manual</a>   <a href="#">Coolmay CM540-Inverter user manual</a></p>			