

Note: Coolmay 3G series plc is compatible with Mitsubishi FX3G and FX3U instructions; if you need to use FX3U instructions, you should change the type of plc to FX3U and write it, and finally download it with FX3G type.

Mnemonic	FNC No.	Function	FX3G	FX3U/FX3UC
CJ	0	Conditional Jump	★	★
CALL	1	Call Subroutine	★	★
SRET	2	Subroutine Return	★	★
IRET	3	Interrupt Return	★	★
EI	4	Enable Interrupt	★	★
DI	5	Disable Interrupt	★	★
FEND	6	Main Routine Program End	★	★
WDT	7	Watchdog Timer Refresh	★	★
FOR	8	Start a FOR/NEXT Loop	★	★
NEXT	9	End a FOR/NEXT Loop	★	★
CMP	10	Compare	★	★
ZCP	11	Zone Compare	★	★
MOV	12	Move	★	★
SMOV	13	Shift Move	★	★
CML	14	Compliment	★	★
BMOV	15	Block Mov	★	★
FMOV	16	Fill Mov	★	★
XCH	17	Exchange	★	★
BCD	18	Conversion to Binary Coded Decimal	★	★
BIN	19	Conversion to Binary	★	★
ADD	20	BIN Addition	★	★
SUB	21	BIN Subtraction	★	★
MUL	22	BIN Multiplication	★	★
DIV	23	BIN Division	★	★
INC	24	BIN Increase 1	★	★
DEC	25	BIN Decrease 1	★	★
WAND	26	Word AND	★	★
WOR	27	Word OR	★	★
WXOR	28	Word Exclusive OR	★	★
NEG	29	Negation	★	★
ROR	30	Rotation Right	★	★
ROL	31	Rotation Left	★	★
RCR	32	Rotation right With Carry	★	★
RCL	33	Rotation Left with Carry	★	★
SFTR	34	Bit Shift Right	★	★
SFTL	35	Bit Shift Left	★	★
WSFR	36	Word Shift Righ	★	★
WSFL	37	Word Shift lef	★	★
SFWR	38	Shift Write [FIFO/FILO Control]	★	★
SFRD	39	Shift Read [FIFO Control]	★	★
ZRST	40	Zone Reset	★	★

DECO	41	Decode	★	★
ENCO	42	Encode	★	★
SUM	43	Sum of Active Bits	★	★
BON	44	Check Specified Bit Status	★	★
MEAN	45	Mean	★	★
ANS	46	Timed Annunciator Set	★	★
ANR	47	Annunciator Reset	★	★
SQR	48	BIN Square Root	★	★
FLT	49	BIN integer → Binary Conversion to Floating Point	★	★
REF	50	Refresh	★	★
REFF	51	Input Refresh with Filter Adjust	★	★
MTR	52	Input Matrix	★	★
HSCS	53	High speed counter set	★	★
HSCR	54	High speed counter reset	★	★
HSZ	55	High Speed Counter Zone Compare	★	★
SPD	56	Speed Detection	★	★
PLSY	57	Pulse Y Output	★	★
PWM	58	Pulse Width Modulation	★	★
PLSR	59	Acceleration/Deceleration Setup pulse	★	★
IST	60	Initial stat	★	★
SER	61	Search a Data Stack	★	★
ABSD	62	Absolute Drum Sequencer	★	★
INCD	63	Incremental Drum Sequencer	★	★
TTMR	64	Teaching timer	★	★
STMR	65	Special timer	★	★
ALT	66	Alternate State	★	★
RAMP	67	Ramp Variable Value	★	★
ROTC	68	Rotary Table Control		★
SORT	69	数据排列		★
TKY	70	Ten Key Input		★
HKY	71	Hexadecimal Input		★
DSW	72	Digital switch (thumbwheel input)	★	★
SEGD	73	Seven Segment Decoder		★
SEGL	74	Seven Segment With Latch	★	★
ARWS	75	Arrow Switch		★
ASC	76	ASCII code data input		★
PR	77	Print (ASCII Code)		★
FROM	78	Read From a Special Function Block	★	★
TO	79	Write To a Special Function Block	★	★
RS	80	Serial Communication	★	★
PRUN	81	Parallel Run (Octal Mode)	★	★
ASCI	82	HEX→ASCII Conversion	★	★
HEX	83	ASCII→HEX Conversion	★	★
CCD	84	Check Code	★	★
VRRD	85	Volume Read	★	
VRSC	86	Volume Scale	★	
R(S2)	87	Serial Communication 2	★	★

PID	88	PID Control Loop	★	★
ZPUSH	102	Batch Store of Index Register		★
ZPOP	103	Batch POP of Index Register		★
ECMP	110	Binary Floating Point Compare	★	★
EZCP	111	Binary Floating Point Zone Compare		★
EMOV	112	Binary Floating Point Move	★	★
ESTR	116	Binary Floating Point to Character String Conversion		★
EEVAL	117	Character String to Binary Floating Point Conversion		★
EBCD	118	Binary Floating Point to Scientific Notation Conversion		★
EBIN	119	Scientific Notation to Binary Floating Point Conversion		★
EADD	120	Binary Floating Point Addition	★	★
ESUB	121	Binary Floating Point Subtraction	★	★
EMUL	122	Binary Floating Point Multiplication	★	★
EDIV	123	Binary Floating Point Division	★	★
EXP	124	Binary Floating Point Exponent		★
LOGE	125	Binary Floating Point Natural Logarithm		★
LOG10	126	Binary Floating Point Common		★
ESQR	127	Binary Floating Point Square Root	★	★
ENEG	128	Binary Floating Point Negation		★
INT	129	Binary Floating Point to Integer	★	★
SIN	130	Binary Floating Point Sine		★
COS	131	Binary Floating Point Cosine		★
TAN	132	Binary Floating Point Tangent		★
ASIN	133	Binary Floating Point Arc Sine		★
ACOS	134	Binary Floating Point Arc Cosine		★
ATAN	135	Binary Floating Point Arc Tangent		★
RAD	136	Binary Floating Point Degree to Radian Conversion		★
DEG	137	Binary Floating Point Radian to degree Conversion		★
WSUM	140	Sum of Word Data		★
WTOB	141	Byte unit data separation		★
BTOW	142	Byte unit of data combination		★
UNI	143	4-bit combination of 16-bit data		★
DIS	144	4-bit separation of 16-bit data		★
SWAP	147	Byte Swap		★
SORT2	149	Sort Tabulated Data 2		★
DSZR	150	DOG Search Zero Return	★	★
DVIT	151	Interrupt Positioning		★
TBL	152	Batch Data Positioning Mode	★	★
ABS	155	Read Absolute Current Value	★	★
ZRN	156	Zero Return	★	★
PLSV	157	Variable Speed Pulse Output	★	★
DRVI	158	Drive to Increment	★	★

DRVA	159	Drive to Absolute	★	★
TCMP	160	RTC Data Compare	★	★
TZCP	161	RTC Data Zone Compare	★	★
TADD	162	RTC Data Addition	★	★
TSUB	163	RTC Data Subtraction	★	★
HTOS	164	[H,M,S] second conversion of data		★
STOH	165	[H,M,S] conversion of seconds data		★
TRD	166	Read RTC data	★	★
TWR	167	Write RTC data	★	★
HOUR	169	Hour Meter	★	★
GRY	170	Decimal to Gray Code Conversion	★	★
GBIN	171	Gray Code to Decimal Conversion	★	★
RD3A	176	Read form Dedicated Analog Block	★	★
WR3A	177	Write to Dedicated Analog Block	★	★
COMRD	182	Read Device Comment Data		★
RND	184	Random Number Generation		★
DUTY	186	Read Device Comment Data		★
CRC	188	Cyclic Redundancy Check		★
HCMOV	189	High Speed Counter Move		★
BK+	192	Block Data Addition		★
BK-	193	Block Data Subtraction		★
BKCOMP=	194	Block compare (S1)=(S2)		★
BKCOMP>	195	Block compare (S1)>(S2)		★
BKCOMP<	196	Block compare (S1)<(S2)		★
BKCOMP<>	197	Block compare (S1)≠(S2)		★
BKCOMP<=	198	Block compare (S1)≦(S2)		★
BKCOMP>=	199	Block compare (S1)≧(S2)		★
STR	200	BIN to Character String Conversion		★
VAL	201	Character String to BIN Conversion		★
\$+	202	Link Character Strings		★
LEN	203	Character String Length Detection		★
RIGH	204	Extracting Character String Data From the Right		★
LEFT	205	Extracting Character String Data from		★
MIDR	206	Random Selection of Character Strings		★
MIDW	207	Random Replacement of Character		★
INSTR	208	Character string search		★
\$MOV	209	Character String Transfer		★
FDEL	210	Deleting Data from Tables		★
FINS	211	Inserting Data to Tables		★
POP	212	Shift Last Data Read [FILO Control]		★
SFR	213	n bits of 16-bit data right shift (with		★
SFL	214	n bits of 16-bit data left shift (with		★
LIMIT	256	Limit Control		★
BAND	257	Dead Band Control		★
ZONE	258	Zone control		★
SCL	259	Scaling (Coordinate by Point Data)		★
DABIN	260	Decimal ASCII to BIN Conversion		★

BINDA	261	BIN to Decimal ASCII Conversion		★
SCL2	269	Scaling 2 (Coordinate by X/Y Data)		★
ADPRW	276	MODBUS read and write	★	★
HSCT	280	High speed counter table compare		★