

7

AUTOMATION

Contents

Manufacturer	Page No
--------------	---------

Programmable Relays

Crouzet	7.2
Schneider Electric	7.2
Siemens	7.3

PLCs

Schneider Electric	7.4
Mitsubishi	7.8

HMI Controllers

Schneider Electric	7.10
Mitsubishi	7.11

Inverters

ABB	7.12
Danfoss	7.13
Siemens	7.14
Schneider Electric	7.15
Mitsubishi	7.18

Soft Starts

ABB	7.19
Siemens	7.19
Schneider Electric	7.20

Signal Conditioners

Weidmüller	7.21
------------	------

Sensor Actuator Interface

Weidmüller	7.22
------------	------

Ethernet

Weidmüller	7.23
------------	------

Remote I/O

Weidmüller	7.24
------------	------

Surge Protection

Weidmüller	7.25
------------	------



Millenium3 Smart Series

Compact range with large display.

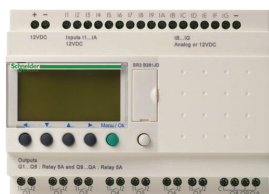
- Highly visible blue LCD with 4 lines of 18 characters and configurable backlighting
- Allow the use of the entire library of specific functions blocs of the software workshop
- Extended temperature range (-20°C to +70°C)
- Analogue inputs 0-10V DC, Potentiometer, NTC, LDR (0-20 mA/PT100 with converters)
- Selective parameter setting: you can choose the parameters that can be adjusted on the front panel

Relay

Inputs	Outputs		Supply Volage	LCD Display & Keyboard	Real-time Clock	Part No.
	Digital	Analogue				
8	-	4	24V AC	Yes	-	88974044
			110-230V AC	No	-	88974024
		4	12V DC	Yes	-	88974043
			24V DC	No	-	88974023
			24V DC	Yes	-	88970045
			24V DC	No	-	88970041
12	-	4	24V DC	Yes	-	88970021
			24V DC	Yes	-	88970042
		8	24V AC	Yes	-	88970054
			110-230V AC	No	-	88970034
			12V DC	Yes	-	88970053
			24V DC	No	-	88970033
8	8	24V DC	Yes	-	88970055	
		24V DC	Yes	-	88970051	
		24V DC	No	-	88970031	
		24V DC	Yes	-	88970052	

Accessories

Description	Part No.
Modbus (Slave)	88970250
Ethernet (Slave)	88970270
M3MOD Modem interface	88970117
STN Modem	88970118
GSM Modem	88970119
Programming software "multilingual" (CD-ROM)	88970100
Alarm Management software (CD-ROM)	88970116
Serial connection cable (millenium 3 to PC)	88970102
USB connection cable (millenium 3 to PC)	88970109
Bluetooth interface	88970104
Memory cartridge (EEPROM)	88970106



Zelio Logic Smart Relays

Compact Smart Relays with Display

Number of I/O	Inputs		Outputs		Clock	Part No.
	Digital	Analogue	Relay	Transistor		
Supply - 24V AC						
12	8	-	4	-	Yes	SR2 B121B
10	12	-	8	-	Yes	SR2 B201B
Supply - 100...240V AC						
10	6	-	4	-	No	SR2 A101FU
12	8	-	4	-	Yes	SR2 B121FU
20	12	-	8	-	No	SR2 A201FU
					Yes	SR2 B201FU
Supply ... 12V DC						
12	8	4	4	-	Yes	SR2 B121JD
20	12	6	8	-	Yes	SR2 B201JD
Supply ... 24V DC						
10	6	-	4	-	No	SR2 A101BD
12	8	4	4	-	Yes	SR2 B121BD
			-	4	Yes	SR2 B122BD
20	12	6	2	8	No	SR2 A201BD
			8	-	Yes	SR2 B201BD
			-	8	Yes	SR2 B201BD
			-	8	Yes	SR2 B202BD

Zelio Soft 2 Software for PC

Description	Application	Part No.
Programming software "Zelio Soft 2", multi-language	For PC, supplied on CD-ROM, compatible with Windows 98, NT, 2000, XP	SR2 SFT01

Connection Accessories

Description	Application	Length (m)	Part No.
Connecting cable	Between the PC (USB connector) and the Zelio Logic smart relay	3	SR2 USB01

Compact "Discovery" Packs

Number of I/O	Description of compact smart relay with display	Part No.
Supply - 100...240V		
12	SR2 B121FU	SR2 PACKFU
20	SR2 B201FU	SR2 PACK2FU
Supply ... 24V		
12	SR2 B121BD	SR2 PACKBD
20	SR2 B201BD	SR2 PACK2BD

Contents: Compact smart relay with display, "Zelio Soft 2" programming software on CD-Rom, Cable SR2 USB01 for connection to PC

LOGO! Programmable Relays

Logo programmable relays are available with relay or transistor outputs, making the range suitable for most applications.

- Flexible options at the press of a key
- 36 different functions can be connected at a click of a button or by means of PC Software.
- User Friendly and simple duplication of the control program by means of an optional program module

Basic Modules with Display

Description	Part No.
LOGO! 24CE 8DI/4DO	6ED1 052-1CC08-0BA0
LOGO! 12/24RCE 8DI/4DO relay	6ED1 052-1MD08-0BA0
LOGO! 24RCE 8DI/4DO relay	6ED1 052-1HB08-0BA0
LOGO! 230RCE 8DI/4DO relay	6ED1 052-1FB08-0BA0

Basic Modules without Display

Description	Part No.
LOGO! 24CEo 8DI/4DO	6ED1 052-2CC08-0BA0
LOGO! 12/24RCEo 8DI/4DO relay	6ED1 052-2MD08-0BA0
LOGO! 24RCEo 8DI/4DO relay	6ED1 052-2HB08-0BA0
LOGO! 230RCEo 8DI/4DO relay	6ED1 052-2FB08-0BA0

Expansion Modules Digital

Description	Part No.
LOGO! DM8 24, 4DI/4DO	6ED1 055-1CB00-0BA2
LOGO! DM8 12/24R, 4DI/4DO relay	6ED1 055-1MB00-0BA2
LOGO! DM8 24R, 4DI/4DO relay	6ED1 055-1HB00-0BA2
LOGO! DM8 230R, 4DI/4DO relay	6ED1 055-1FB00-0BA2
LOGO! DM16 24, 8DI/8DO	6ED1 055-1CB10-0BA2
LOGO! DM16 24R, 8DI/8DO relay	6ED1 055-1NB10-0BA2
LOGO! DM16 230R, 8DI/8DO relay	6ED1 055-1FB10-0BA2

Expansion Modules Analog

Description	Part No.
LOGO! AM2, DC 12...24V, 2AE 0...10V oDir 0/4 ... 20 mA	6ED1 055-1MA00-0BA2
LOGO! AM2 RTD, DC 12...24V, 2AE -50...200°C (Pt100/1000)	6ED1 055-1MD00-0BA2
LOGO! AM2 AQ, 2AA DC 0...10V / 0/4...20 mA	6ED1 055-1MM00-0BA2

Communication Modules

Description	Part No.
LOGO! CSM 12/24, 4 port ethernet switch	6GK7 177-1MA20-0AA0
LOGO! CMR 2020	6GK7 142-7BX00-0AX0

Accessories

Description	Part No.
LOGO! TDE Text Display	6ED1 055-4MH08-0BA0
SITOP LOGO! Power 24V / 1.3 power supply	6EP1 333-165B00-0AY0
SITOP LOGO! Power 24V / 2.5 power supply	6EP1 333-265B00-0AY0
SITOP LOGO! Power 24V / 4 power supply	6EP1 333-365B00-0AY0
SITOP LOGO! Power 12V / 1.9 power supply	6EP1 332-165B00-0AY0
SITOP LOGO! Power 12V / 4.5 power supply	6EP1 332-265B00-0AY0

Software

Description	Part No.
LOGO! Soft Comfort V8 Single Licence	6ED1 058-0BA08-0YA1

LOGO! Starter Kits

Description	Part No.
LOGO! Starter Kit incl. LOGO! 12/24RCE + LOGO! Power 24V 1.3	6ED1 057-3BA01-0AA8
LOGO! Starter Kit incl. LOGO! 230RCE	6ED1 057-3BA03-3AA8
LOGO! TDE Starter Kit incl. LOGO! 12/24RCEo + LOGO! TDE + LOGO! Power 24V 1.3	6ED1 057-3BA11-0AA8

SIEMENS





Modicon M221 Logic Controllers

M221 Logic Controllers⁽¹⁾

Number of I/O	Inputs		Outputs		Integrated Communication Ports ⁽²⁾		Part No.
	Logic	Analogue	Relay	Transistor	Ethernet	Serial	
Supply - 100...240V AC							
16	9	2	7	-	-	1	TM221C16R
					1	1	TM221CE16R
24	14	2	10	-	-	1	TM221C24R
					1	1	TM221CE24R
40	24	2	16	-	-	1	TM221C40R
					1	1	TM221CE40R
Supply ... 24V DC							
16	9	2	-	7	-	1	TM221C16T
					1	1	TM221CE16T
24	14	2	-	10	-	1	TM221C24T
					1	1	TM221CE24T
40	24	2	-	16	-	1	TM221C40T
					1	1	TM221CE40T
16	9	2	-	7	-	1	TM221C16U
					1	1	TM221CE16U
24	14	2	-	10	-	1	TM221C24U
					1	1	TM221CE24U
40	24	2	-	16	-	1	TM221C40U
					1	1	TM221CE40U

Options for Modicon TM221 logic controllers⁽³⁾

Description	Application	Part No.
I/O cartridges	2 analog inputs (12-bit resolution) configurable as: 0...10V voltage 0...20mA4 ... 20mA current Screw terminal version	TMC2AI2
	2 analog outputs (12-bit resolution) 0...10V voltage Screw terminal version	TMC2AQ2V
	2 analog outputs (12-bit resolution) 4...20mA current Screw terminal version	TMC2AQ2C
	2 temperature inputs (12-bit resolution) type K, J, R, S, B, E, T, N, C, PT100, PT1000, NI100, NI1000 Screw terminal version	TMC2TI2
Communication cartridge	1 additional serial link on screw terminal block	TMC2SL1 ⁽⁴⁾
Cartridges for specific application	Hoisting application	TMC2HOIS01
	Packaging application	2 -analog inputs TMC2PACK01
	Conveyor system application	1 serial link TMC2CONV01 ⁽⁴⁾

(1) M221 controllers are supplied with:

- removable screw terminal blocks for connecting the I/O
- a removable screw terminal block for connecting the power supply
- a button cell backup battery (BR2032)
- a cable for connecting the analog inputs

(2) Each M221 logic controller has an embedded USB mini-B programming port.

(3) One cartridge for controllers with 16 and 24 I/O. Two cartridges maximum for controllers with 40 I/O, only one of which can be a communication cartridge.

(4) Just one cartridge per controller.

M221 Book Logic Controllers⁽¹⁾

Number of Logic I/O	Inputs		Outputs		Embedded Communication Ports ⁽²⁾			Terminal block (mm/in.)	Part No.
	Logic	Analogue	Relay	Transistor	Ethernet	Serial	Serial		
						SL1	SL2		
Supply - 24V AC									
16	8	2	8	-	-	1	1	Screw (3.81/0.15)	TM221M16R
16	8	2	8	-	-	1	1	Spring (3.81/0.15)	TM221M16RG
16	8	2	8	-	1	1	-	Screw (3.81/0.15)	TM221ME16R
16	8	2	8	-	1	1	-	Spring (3.81/0.15)	TM221ME16RG
16	8	2	-	8	-	1	1	Screw (3.81/0.15)	TM221M16T
16	8	2	-	8	-	1	1	Spring (3.81/0.15)	TM221M16TG
16	8	2	-	8	1	1	-	Screw (3.81/0.15)	TM221ME16T
16	8	2	-	8	1	1	-	Spring (3.81/0.15)	TM221 ME16TG
32	16	16	-	16	-	1	1	HE 10 connector	TM221M32TK
					1	1	-		TM221ME32TK

(1) M221 Book controllers are supplied with:

- removable terminal blocks (screw or spring-type depending on controller model) for connecting the I/O
- a removable screw terminal block for connecting the power supply
- a button cell backup battery (BR2032)
- a cable for connecting the analog inputs

(2) Each M221 Book logic controller has an embedded USB mini-B programming port

Modicon M241 Logic Controllers

M241 Logic Controllers⁽¹⁾

Number of Logic I/O	Logic Inputs	Logic Outputs	Integrated Communication Ports ⁽²⁾			Part No.
			Ethernet	CANopen master (screw terminal block)	Serial (RJ45 & screw terminal block)	
Supply - 100...240V AC						
24 inputs/ outputs	14 sink/source 24V inputs, inc. 8 high-speed inputs	10 outputs: with 4 source transistor high-speed outputs & 6 relay outputs	-	-	1+1	TM241C24R
			1	-	1+1	TM241CE24R
			1	1	1+1	TM241CEC24R
40 inputs/ outputs	24 x 24V inputs, inc. 8 high-speed inputs	16 outputs: with 4 source transistor high-speed outputs & 12 relay outputs	-	-	1+1	TM241C40R
			-	-	1+1	TM241CE40R
			-	-	1+1	TM241CE40R
Supply ... 24V DC						
24 inputs/ outputs	14 sink/source 24V inputs, inc. 8 high-speed inputs	10 source transistor outputs inc. 4 high-speed outputs	-	-	1+1	TM241C24T
			1	-	1+1	TM241CE24T
			1	1	1+1	TM241CEC24T
	14 sink/source 24V inputs, inc. 8 high-speed inputs	10 source transistor outputs inc. 4 high-speed outputs	-	-	1+1	TM241C24U
			1	-	1+1	TM241CE24U
			1	1	1+1	TM241CEC24U
40 inputs/ outputs	24 sink/source 24V inputs, inc. 8 high-speed inputs	16 source transistor outputs inc. 4 high-speed outputs	-	-	1+1	TM241C40T
			1	-	1+1	TM241CE40T
			-	-	1+1	TM241C40U
			1	-	1+1	TM241CE40U



Options for Modicon TM241 Logic Controllers

Description	Application	Part No.
I/O cartridges	2 analog inputs (12-bit resolution) configurable as: 0... 10V voltage 0...20mA4 ... 20mA current Connected on screw terminal block	TMC4AI2
	2 analog inputs (16-bit resolution) configurable as: 0... 10V voltage 0...20mA4 ... 20mA current Connected on screw terminal block	TMC4AQ2
	2 inputs (14-bit resolution) configurable for temperature probes: Thermocouple/PT1 00/PT1000/Ni100/Ni 1000 Connected on screw terminal block	TMC4TI2
Cartridges for specific application ⁽³⁾	Hoisting application: 2 analog inputs for a load cell Connected on screw terminal block	TMC4HOIS01
	Packaging application: 2 analog inputs Connected on screw terminal block	TMC4PACK01
SD memory card	Application backup and program transfer Capacity: 256MB	TMASD1

- (1) Modular M241 controllers are supplied with:
 - Removable terminal blocks (screw terminals) for connecting the /JO with thread of 3.81 mm/0.15 in ..
 - A removable terminal block for connecting the power supply with thread of 5.08 mm/0.2 in ..
 - A button cell backup battery (BR2032).
 (2) Each M241 logic controller has an embedded USB mini-8 programming port.
 (3) Use only one Application cartridge (inserted into the left slot of the Modicon M241 controllers).

Communication Modules

Description	Details	Part No.
Communication modules	Multi-port Ethernet interface equipped with four RJ 45 connectors (10/100 Mbps, MDI/ MDIX)	TM4ES4⁽¹⁾
	Slave connection on the Profibus DP bus, equipped with a 9-way SUB-D connector	TM4PDPS1

(1) Can be used as an Ethernet port or as a standalone switch according to controller model and configuration.



Expansion Modules

Modicon TM3 digital I/O modules for M221 & M241 PLCs

Modicon TM3 Digital Input Modules

Number of Logic Inputs	Input Type	Terminal Block for input conn. ⁽¹⁾ Thread (mm/in)	Part No.
8 inputs	Sink/source 24V	Screw (5.08/0.2)	TM3DI8
		Spring (5.08/0.2)	TM3DI8G
8 inputs	120V	Screw (5.08/0.2)	TM3DI8A
		Screw (3.81/0.2)	TM3DI16
16 inputs	Sink/source 24V	Spring (3.81/0.2)	TM3DI16G
		HE 10 connector	TM3DI16K ⁽²⁾
32 inputs	Sink/source 24V	HE 10 connector	TM3DI32K ⁽²⁾

Modicon TM3 Digital Output Modules

Number of Logic Outputs	Output Type	Output Current	Terminal Block for input conn. ⁽¹⁾ Thread (mm/in)	Part No.
8 outputs	Relay	2A	Screw (5.08/0.2)	TM3DQ8R
			Spring (5.08/0.2)	TM3DQ8RG
8 outputs	Transistor, source	0.5A	Screw (5.08/0.2)	TM3DQ8T
			Spring (5.08/0.2)	TM3DQ8TG
8 outputs	Transistor, sink	0.5A	Screw (5.08/0.2)	TM3DQ8U
			Spring (5.08/0.2)	TM3DQ8UG
16 outputs	Relay	2A	Screw (3.81/0.15)	TM3DQ16R
			Spring (3.81/0.15)	TM3DQ16RG
16 outputs	Transistor, source	0.5A	Screw (3.81/0.15)	TM3DQ16T
			Spring (3.81/0.15)	TM3DQ16TG
16 outputs	Transistor, source	0.1A	HE 10 connector	TM3DQ16TK ⁽²⁾
			Screw (3.81/0.15)	TM3DQ16U
16 outputs	Transistor, sink	0.5A	Spring (3.81/0.15)	TM3DQ16UG
			HE 10 connector	TM3DQ16UK ⁽²⁾
32 outputs	Transistor, source	0.1A	HE 10 connector	TM3DQ32TK ⁽²⁾
			Transistor, sink	0.1A

Modicon TM3 Digital Mixed I/O Modules

Number of Logic Outputs	Number & type of Inputs	Number & type of outputs	Terminal Block for input conn. ⁽¹⁾ Thread (mm/in)	Part No.
8 inputs/outputs	4 sink/source 24V inputs	4 relay outputs 2A	Screw (5.08/0.2)	TM3DM8R
			Spring (5.08/0.2)	TM3DM8RG
24 inputs/outputs	16 sink/source 24V inputs	8 relay outputs 2A	Screw (3.81/0.15)	TM3DM24R
			Spring (3.81/0.15)	TM3DM24RG

Separate Parts

Description	Details	Part No.
Mounting kit	For plate or panel mounting of digital I/O modules (Pack of 10)	TMAM2
Set of terminal blocks for connecting the I/O	4 x 10-way & 4 x 11-way removable terminal blocks with screw terminals for TM3D116, TM3DQ16R, TM3DQ16T, TM3DQ16U modules	TMAT2MSET
	4 x 10-way & 4 x 11-way removable terminal blocks with spring terminals for TM3D116G, TM3DQ16RG, TM3DQ16TG, TM3DQ16UG modules	TMAT2MSETG

(1) Removable screw or spring type terminal blocks supplied

(2) Modules compatible with the Telefast Modicon ABE7 pre-wired system

Expansion Modules

Modicon TM3 analog I/O modules for M221 & M241 PLCs

Modicon TM3 Analog Input Modules

Number & Type of Channels	Input range	Output Range	Resolution	Conn. block for the inputs ⁽¹⁾ Pitch (mm/in)	Part No.
2 voltage/current inputs	-10...+10V DC, 0...+10V DC/ 0...20mA, 4...20mA	-	16 bits or 15 bits + sign	Screw (5.08/0.2)	TM3AI2H
				Spring (5.08/0.2)	TM3AI2HG
4 voltage/current inputs	-10...+10V DC, 0...+10V DC/ 0...20mA, 4...20mA	-	12 bits or 11 bits + sign	Screw (3.81/0.15)	TM3AI4
				Spring (3.81/0.15)	TM3AI4G
4 voltage/current or temperature inputs ⁽²⁾	Thermocouples (J,K,R,S,B,T,N,E,C) Temperature probes (RTDs) (Ni100, Ni1000, PT100, PT1000) -10...+ 10V DC, 0...+10V DC / 0...20mA, 4...20mA	-	16 bits or 15 bits + sign	Screw (3.81/0.15)	TM3TI4
				Spring (3.81/0.15)	TM3TI4G
8 voltage/current inputs	-10...+ 10V DC, 0...+10V DC / 0...20mA, 4...20mA	-	12 bits or 11 bits + sign	Screw (3.81/0.15)	TM3AI8
				Spring (3.81/0.15)	TM3AI8G
8 temperature inputs	Thermocouples (J,K,R,S,B,T,N,E,C) NTC & PTC thermistors	-	16 bits or 15 bits + sign	Screw (3.81/0.15)	TM3TI8T
				Spring (3.81/0.15)	TM3TI8TG

Modicon TM3 Analog Output Modules

Number & Type of Channels	Input Range	Output range	Resolution	Conn. block for the inputs ⁽¹⁾ Pitch (mm/in)	Part No.
2 voltage/current outputs	-	-10...+10V DC, 0...+10V DC/ 0...20mA, 4...20mA	12 bits or 11 bits + sign	Screw (5.08/0.2)	TM3AQ2
				Spring (5.08/0.2)	TM3AQ2G
4 voltage/current outputs	-	-10...+10V DC, 0...+10V DC/ 0...20mA, 4...20mA	12 bits or 11 bits + sign	Screw (5.08/0.2)	TM3AQ4
				Spring (5.08/0.2)	TM3AQ4G

Modicon TM3 Analog Mixed I/O Modules

Number & Type of Channels	Input Range	Output range	Resolution	Conn. block for the inputs ⁽¹⁾ Pitch (mm/in)	Part No.
2 temperature or voltage/current outputs ⁽²⁾ & 1 voltage/current output	Thermocouples (J,K,R,S,B,T,N,E,C) Temperature probes (RTDs) (Ni100, Ni1000, PT100, PT1000) -10...+ 10V DC, 0...+10V DC / 0...20mA, 4...20mA	-10...+ 10V DC, 0...+10V DC / 0...20mA, 4...20mA	16 bits or 15 bits + sign (for I) 12 bits or 11 bits+ sign (for O)	Screw (5.08/0.2)	TM3TM3
				Spring (5.08/0.2)	TM3TM3G
4 voltage/current inputs & 2 voltage/current outputs	-10...+ 10V DC, 0...+10V DC / 0...20mA, 4...20mA	-10...+10V DC, 0...+10V DC / 0...20mA, 4...20mA	12 bits or 11 bits+ sign (for I & O)	Spring (3.81/0.15)	TM3AM6
				Screw (3.81/0.15)	TM3AM6G

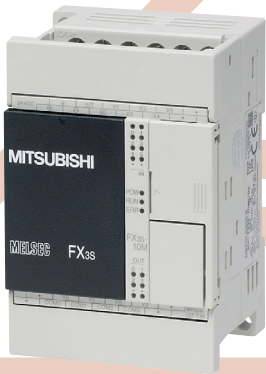
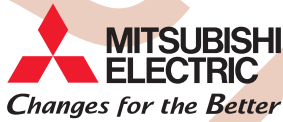
Separate Parts

Description	Details	Part No.
Grounding plate	Support equipped with 10 male Faston connectors for connecting the cable shielding (via 6.35 connectors, not supplied) & the functional grounds (FE)	TM2XMTGB
Shielding connection clamps	Assembly and earthing of the cable shielding. Pack of 25 clamps including 20 for Ø 4.8 (0.189in.) cable & 5 for Ø 7.9 (0.311in.) cable	TM200RSRC EMC
Mounting kit	For mounting the analog I/O modules on a plate or panel (Pack of 10)	TMAM2
Set of I/O terminal blocks	4 terminal blocks with 10 pins and 4 terminal blocks with 11 removable screw terminal pins for TM3AI4, TM3TI4, TM3AI 8, TM3TI 8, TM3AM6 modules	TMAT2MSET
	4 terminal blocks with 10 pins and 4 terminal blocks with 11 removable spring terminal pins for TM3AI4G, TM3TI4G, TM3AI 8G, TM3TI 8G, TM3AM6G modules	TMAT2MSETG

(1) Removable screw terminal blocks supplied with each module.

(2) Each input can be configured independently for temperature or voltage/current.





FX Family

Mitsubishi Electric micro programmable controllers are expanding the boundaries of traditional micro programmable logic controller applications. From the extremely compact FX3S and FX3G Series to the highly advanced FX3U and FX5U Series, Mitsubishi Electric has a perfectly size control solution to satisfy a wide variety of needs. The diverse line up of FX family PLCs can supply reliable performance in a package to fit your system requirements.

FX3S Entry level, compact PLC

Description	Part No.
FX3S Base Unit AC 100-240V; 6 inputs DC 24V; 4 relay outputs	FX3S-10MR-ES
FX3S Base Unit AC 100-240V; 8 inputs DC 24V; 6 relay outputs	FX3S-14MR-ES
FX3S Base Unit AC 100-240V; 12 inputs DC 24V; 8 relay outputs	FX3S-20MR-ES
FX3S Base Unit AC 100-240V; 16 inputs DC 24V; 14 relay outputs	FX3S-30MR-ES

FX3G Mid-range compact PLC

FX3G Base Unit AC 100-240 V; 8 inputs DC 24V; 6 relay outputs	FX3G-14MR-ES
FX3G Base Unit AC 100-240 V; 14 inputs DC 24V; 10 relay outputs	FX3G-24MR-ES
FX3G Base Unit AC 100-240 V; 24 inputs DC 24V; 16 relay outputs	FX3G-40MR-ES
FX3G Base Unit AC 100-240 V; 36 inputs DC 24V; 24 relay outputs	FX3G-60MR-ES

FX3U High-End compact PLC

Base Unit AC 100-240V; 8 inputs DC 24V; 8 relay outputs	FX3U-16MR-ES
Base Unit AC 100-240V; 16 inputs DC 24V; 16 relay outputs	FX3U-32MR-ES
Base Unit AC 100-240V; 24 inputs DC 24V; 24 relay outputs	FX3U-48MR-ES
Base Unit AC 100-240V; 32 inputs DC 24V; 32 relay outputs	FX3U-64MR-ES

FX5U Advanced IQ F Series PLC

FX5U CPU module AC 100-240V; 16 inputs DC 24V; 16 relay outputs, built-in Ethernet, RS485 and analogue I/O	FX5U-32MR-ES
FX5U CPU module AC 100-240V; 32 inputs DC 24V; 32 relay outputs, built-in Ethernet, RS485 and analogue I/O	FX5U-64MR-ES
FX5U CPU module AC 100-240V; 40 inputs DC 24V; 40 relay outputs, built-in Ethernet, RS485 and analogue I/O	FX5U-80MR-ES

L-Series

The modular MELSEC L series is a powerful but compact modular controller with many features built-in to the CPU itself. The rack-free design promotes high system flexibility. By connecting various types of modules, the system can be enhanced according to the application. Up to 40 expansion modules can be added per system configuration.

MELSEC L series

Description	Part No.
L CPU module; 20k Step Memory; 16 Inputs/8 Outputs (source); Ethernet; Data Logger. Includes end plate	L02CPU-P
L CPU module; 60k Step Memory; 16 Inputs/8 Outputs (source); Ethernet; Data Logger. Includes end plate. 9.5nS per step	L06CPU-P

Q Series Modular series

With the MELSEC System Q, Mitsubishi presents its most powerful and compact modular PLC, with multiprocessor technology for present and future challenges.

The small size, the communication capability and the high - performance, Multiprocessing are three important characteristics of the MELSEC System Q. Depending on the selected CPU type up to 4096 local and up to 8192 remote I/O points can be addressed. This controller is particularly suitable for performing medium-to high performance automation tasks.



Universal PLC CPUs

Description	Part No.
Universal Q CPU module, 10k step memory, 120ns per instruction, single processor type, combined 5 slot base and 110-240V AC power supply	Q00JCPU
Universal Q CPU module, 10k step memory, 80ns per instruction, multi processor capability	Q00UCPU
Universal Q CPU module, 15k step memory, 60ns per instruction, multi processor capability	Q01UCPU
Universal Q CPU module, 20k step memory, 40ns per instruction, multi processor capability	Q02UCPU
Universal Q CPU module, 30k step memory, 20ns per instruction, multi processor capability	Q03UDCPU
Universal Q CPU module, 30k step memory, 20ns per instruction, Ethernet enabled	Q03UDECPU

Main Base Unit

CPU base with 5 I/O slots and 1 power supply slot	Q35B
CPU base with 8 I/O slots and 1 power supply slot	Q38B
CPU base with 12 I/O slots and 1 power supply slot	Q312B

Digital Modules

16 point, 24V DC input (4mA), source type, 16 points/common	QX80
32 point, 24V DC input (4mA), source type, 32 points/common	QX81
16 point relay 240V AC/24V DC, 2A contact, 16 points/common	QY10
16 point transistor, 12-24V DC, 0.5A/point, 4A/common, source type, 16 points/common	QY80
32 point transistor, 12-24V DC, 0.1A/point, 2A/common source type, 32 points/common	QY81P

Analogue Modules

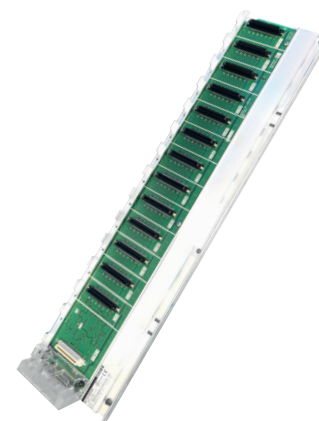
A/D input module, 4 channel, 0 to 16000 -10 to +10V, 0-12000 0 to 20mA	Q64AD
A/D input module, 8 channel, 16 bit, 0 to 16000 -10V to +10V DC	Q68ADV
A/D input module, 8 channel, 16 bit, 0 to 12000 0 to 20mA	Q68ADI

Communication Options

Serial communication module (1 off RS232) and multidrop function (1 off RS485)	QJ71C24N
Serial communication module (2 off RS232 ports)	QJ71C24N-R2
Serial communication module (2 off RS485/422 ports)	QJ71C24N-R4
Serial communication module (2 off RS485/422 ports)	QJ71E71-100

Positioning Modules

Single axis SSCNET III position control module (Qn)	QD75MH1
Two axis SSCNET III position control module (Qn)	QD75MH2
Four axis SSCNET III position control module (Qn)	QD75MH4





HMI Controllers

Improve your productivity with Magelis HM Is from entry-level to large rack PC. And with EcoStruxure™ Operator Terminal Expert (formerly known as Vijeo X0) configuration software you can enable your operators for maximum efficiency and user-friendly features.

Magelis HMISTO

Description	Part No.
Touch Panel Screen 3.4" Monochrome Green/Orange/Red	HMIST0511
Touch Panel Screen 3.4" Monochrome White/Pink/Red	HMIST0512
Touch Panel Screen 3.4" Monochrome Green/Orange/Red with Ethernet	HMIST0531
Touch Panel Screen 3.4" Monochrome Green/Orange/Red for Zelio Logic	HMIST0501

Magelis HMISTU (with 22mm mounting)

Touch Panel Screen 3.5" Colour, Ø 22mm mounting	HMISTU655
Touch Panel Screen 5.7" Colour, Ø 22mm mounting	HMISTU855
HMISTU 3.5" Front Module, No logo (spare)	HMIS65W
HMISTU 5.7" Front Module, No logo (spare)	HMIS85W
HMISTU Rear Module (spare)	HMIS5T

Magelis HMISTO/STU, Cable & Accessories

Power supply connector for HMISTO series	HMIZSPW0
USB type A cable clamp for HMISTO series	HMIZSCLP1
USB type B cable clamp for HMISTO series	HMIZSCLP3
USB type B extension cable	HMIZSUSBB
Gasket for HMISTO series	HMIZS50
Screen protection sheets for HMISTO series	HMIZS60
Screen protection sheets for HMISTU 3.5" series	HMIZS61
Screen protection sheets for HMISTU 5.7" series	HMIZS62
Link cable between-Zelio Logic and HMIST0501	SR2CBL09

HMIGTO - Advanced Panels, Optimised Range

3.5" Colour TFT LCD, 320x240 QVGA, 6 function keys, 64MB Flash memory, full graphical display, built in real-time clock, 2x Serial port, 2x USB port, IP65	HMIGT01300
3.5" Colour TFT LCD, 320x240 QVGA, 6 function keys, 96 Flash memory, full graphical display, built in real-time clock, 1x Serial port, 2x USB port, 1x Ethernet port, IP65	HMIGT01310
5.7" Colour TFT LCD, 320x240 QVGA, 64MB Flash memory, full graphical display, built in real-time clock, 2x Serial port, 2x USB port, IP65	HMIGT02300
5.7" Colour TFT LCD, 320x240 QVGA, SD card slot, 96MB Flash memory, full graphical display, built in real-time clock, 1x Serial port, 2x USB port, 1x Ethernet port, IP65	HMIGT02310
7.0" Wide Colour TFT LCD, 800x480 WVGA, 8 function keys, SD card slot, 96MB Flash memory, full graphical display, built in real-time clock, 2x Serial port, 2x USB port, 1x Ethernet port, IP65	HMIGT03510
7.5" Colour TFT LCD, 640x480 VGA, 96MB Flash memory, SD card slot, full graphical display, built in real-time clock, 2x Serial port, 2x USB port, 1x Ethernet port, IP65	HMIGT04310
10.4" Colour TFT LCD, 640x480 VGA, 96MB Flash memory, SD card slot, full graphical display, built in real-time clock, 2x Serial port, 2x USB port, 1x Ethernet port, IP65	HMIGT05310
12.1" Colour TFT LCD, 800x600 SVGA, 96MB Flash memory, SD card slot, full graphical display, built in real-time clock, 2x Serial port, 2x USB port, 1x Ethernet port, IP65	HMIGT06310

GOT Simple series

Mitsubishi's entry level HMI model of the GOT range. The GOT Simple offers simple, but powerful models with high reliability for easy operation.

GOT Simple series	
Description	Part No.
7" WVGA TFT, 65K colour Graphic Operator terminal, 800x480 pixel touch screen, with Ethernet, RS232 & RS422/485, USB (device) connections, plus SD memory card slot.	GS2107-WTBD
10.4" WVGA TFT, 65K colour Graphic Operator Terminal, 800x480 pixel touch screen, with Ethernet, RS232 & RS422/485, USB (host and device) connections, plus SD memory card slot.	GS2110-WTBD

GOT 2000 series

Mitsubishi Electric has raised the bar for the HMIs with the GOT2000 series, designed to optimise operator control and monitoring of device and line status. With vastly increased performance, advanced functions, seamless connectivity to other automation devices, the GOT2000 series provided a range of models and sizes to meet the need of the broadest spread of applications.

GOT2000 at a glance

Display:	TFT monochrome to TFT with 65536 colours
Resolution:	From 320x128 up to 1024x768
Screen sizes:	From 3.8" to 15"
Network capability:	Ethernet (TCP/IP), CC-Link (IE), MELSECNET/10/H
Interface:	RS232, RS422, RS485, USB

Basic Range	
Description	Part No.
8.4" VGA TFT, 65K colour Graphic Operator terminal, 640x480 pixel touch screen, with Ethernet, RS232 & RS422/485, USB (host & device) connections, plus SD memory card slot.	GT2308-VTBD
10.4" VGA TFT, 65K colour Graphic Operator Terminal, 640x480 pixel touch screen, with Ethernet, RS232 & RS422/485, USB (host & device) connections, plus SD memory card slot.	GT2310-VTBD

Mid Range	
8.4" SVGA TFT, 65K colour Graphic Operator Terminal, 640x480 pixel touch screen, with Ethernet, RS232 & RS422/485, front & rear USB (host & device) connections, plus SD memory card slot.	GT2508-VTBD
10.4" VGA TFT, 65K colour Graphic Operator Terminal, 640x480 pixel touch screen, with Ethernet, RS232 & RS422/485, front & rear USB (host & device) connections, plus SD memory card slot.	GT2510-VTBD

Advance Range	
8.4" VGA TFT, 65K colour Graphic Operator Terminal, 640x480 pixel touch screen, with Ethernet, RS232 & RS422/485, front & rear USB (host & device) connections, plus SD memory card slot.	GT2708-VTBD
10.4" VGA TFT, 65K colour Graphic Operator Terminal, 640x480 pixel touch screen, with Ethernet, RS232 & RS422/485, front & rear USB (host & device) connections, plus SD memory card slot.	GT2710-VTBD





ACS150 Series Micro Drive

ACS150				
Ratings		IP Rating	Frame Size	Part No.
kW	Amps			
1-Phase Supply Voltage 200-240V Unit				
0.37	2.4	20	R0	ACS150-01E-02A4-2
0.75	4.7	20	R1	ACS150-01E-04A7-2
1.1	6.7	20	R1	ACS150-01E-06A7-2
1.5	7.5	20	R2	ACS150-01E-07A5-2
2.2	9.8	20	R2	ACS150-01E-09A8-2
3-Phase Supply Voltage 380-480V Unit				
0.37	1.2	20	R0	ACS150-03E-01A2-4
0.55	1.9	20	R0	ACS150-03E-01A9-4
0.75	2.4	20	R1	ACS150-03E-02A4-4
1.1	3.3	20	R1	ACS150-03E-03A3-4
1.5	4.1	20	R1	ACS150-03E-04A1-4
2.2	5.6	20	R1	ACS150-03E-05A6-4
3	7.3	20	R1	ACS150-03E-07A3-4
4	8.8	20	R1	ACS150-03E-08A8-4

ACS355 Series

Power and voltage range

- 1-phase, 200 to 240V ± 10% 0.37 to 2.2kW (0.5 to 3hp)
- 3-phase, 380 to 480V ± 10% 0.37 to 22kW (0.5 to 30hp)

Options

- Auxiliary I/O modules
 - MTAC pulse encoder interface
 - MREL module for additional relays
 - MPOW for external auxiliary power supply
- Fieldbus connection via optional modules
 - PROFIBUS DP
 - CANopen
 - DeviceNet
 - Modbus
 - Ethernet
 - Profinet
 - EtherCat
 - LonWorks
- FlashDrop tool for fast preconfiguration without powering the drive
- DriveWindow Light PC tool for easy parameter setting and graphical sequence programming
- External EMC filters for category C2 compatibility
- Input chokes for IEC 61000-3-12 compatibility
- IP66 on request

Mains connection

Voltage and power connection

- 1-phase, 200 to 240V ± 10%: 0.37 to 2.2kW (0.5 to 3hp)
- 3-phase, 380 to 480V ± 10%: 0.37 to 22kW (0.5 to 10hp)

Frequency

48 to 63Hz

Motor connection

Voltage

3-phase, from 0 to U_{SUPPLY}

Frequency

0 to 600Hz

Overload capacity

1.5 x I_{2N} for 1min. every 10 minutes at start 1.8 x I_{2N} for 2 seconds

Switching frequency

4 (default) to 16 kHz with 4 kHz steps. Parameter-enabled noise cancellation function

Environmental limits

Ambient temperature

-10 to 40°C (14 to 104°F), no frost allowed 50°C (122°F) with 10% derating

Relative humidity

Lower than 95% (without condensation)



ACS355

ACS355				
Ratings		IP Rating	Frame Size	Part No.
kW	Amps			
1-Phase Supply Voltage 200-240V Unit				
0.37	2.4	20	R0	ACS355-01E-02A4-2
0.75	4.7	20	R1	ACS355-01E-04A7-2
1.1	6.7	20	R1	ACS355-01E-06A7-2
1.5	7.5	20	R2	ACS355-01E-07A5-2
2.2	9.8	20	R2	ACS355-01E-09A8-2
3-Phase Supply Voltage 380-480V Unit				
0.37	1.2	20	R1	ACS355-03E-01A2-4
0.55	1.9	20	R1	ACS355-03E-01A9-4
0.75	2.4	20	R1	ACS355-03E-02A4-4
1.1	3.3	20	R1	ACS355-03E-03A3-4
1.5	4.1	20	R1	ACS355-03E-04A1-4
2.2	5.6	20	R1	ACS355-03E-05A6-4
3.0	7.3	20	R1	ACS355-03E-07A3-4
4.0	8.8	20	R1	ACS355-03E-08A8-4
5.5	12.5	20	R3	ACS355-03E-12A5-4
7.5	15.6	20	R3	ACS355-03E-15A6-4
11	23.1	20	R3	ACS355-03E-23A1-4
15	31	20	R4	ACS355-03E-31A0-4
18.5	38	20	R4	ACS355-03E-38A0-4
22	44	20	R4	ACS355-03E-44A0-4

Control Panel

Description	Part No.
Assistant control panel	ACS-CP-A
Basic keypad	ACS-CP-C

ACS580-1 Series

- 0.55kW to 250kW, (380 - 480V)
- Largest power for wall-mount drive on market
- Coated boards as standard
- Variable-speed cooling fans
- TOV approved safe torque-off (STO) to SIL 3 PL e standard
- IP21 as standard, IP55 as option
- IP55 variant similar footprint to IP21 variant
- Brake chopper standard to R3 frame, option thereafter
- Optional UK cable box for SWA cables
- EMC filter for C3 category according to EN 61800-3 (2004) standard
- Internal fieldbus options
- Optional relay expansion, PTC and 115V/240V Di's

Wall Mounted Units

No-overload Normal Use		Frame Size	Part No.
P _N kW	I _N Amps		
3-Phase Supply Voltage 380-480V (Ratings shown are for 415V)			
0.75	2.6	R0	ACS580-01-02A6-4*
1.1	3.3	R0	ACS580-01-03A3-4*
1.5	4	R0	ACS580-01-04A0-4*
2.2	5.6	R0	ACS580-01-05A6-4*
3	7.2	R1	ACS580-01-07A2-4*
4	9.4	R1	ACS580-01-09A4-4*
5.5	12.6	R1	ACS580-01-12A6-4*
7.5	17	R2	ACS580-01-017A-4*
11	25	R2	ACS580-01-025A-4*
15	32	R3	ACS580-01-032A-4*
18.5	38	R3	ACS580-01-038A-4*
22	45	R3	ACS580-01-045A-4*
30	62	R4	ACS580-01-062A-4*
37	73	R4	ACS580-01-073A-4*
45	88	R5	ACS580-01-088A-4*
55	106	R5	ACS580-01-106A-4*
75	145	R6	ACS580-01-145A-4*
90	189	R7	ACS580-01-169A-4*
110	206	R7	ACS580-01-206A-4*
132	246	R8	ACS580-01-246A-4*
160	293	R8	ACS580-01-293A-4*
200	363	R9	ACS580-01-363A-4*
250	430	R9	ACS580-01-430A-4*

*+ B056 for IP55 version



VLT Series

FC302 with Graphic Display Class 1A/1B Filter - 3 x 380-500V

kW	Ratings		IP Rating	Part No.
	kW	Amps		
0.37	1.3	20	20	131B0033
			55	131B1973
0.55	1.8	20	20	131B0034
			55	131B1974
0.75	2.4	20	20	131B0035
			55	131B1975
1.1	3	20	20	131B0036
			55	131B1976
1.5	4.1	20	20	131B0037
			55	131B1977
2.2	5.6	20	20	131B0038
			55	131B1978
3.0	7.2	20	20	131B0039
			55	131B1979
4.0	10	20	20	131B0040
			55	131B1980
5.5	13	20	20	131B0041
			55	131B1546
7.5	16	20	20	131B0042
			55	131B1547
11	24	20	20	131B1152
			55	131B1168
15	32	20	20	131B1155
			55	131B1167
18.5	37.5	20	20	131B1156
			55	131B1854
22	44	20	20	131B1864
			55	131B1874
30	61	20	20	131B4574
			55	131B4575
37	73	20	20	131B4575
			55	131B4577





SINAMICS V20

Fieldbus: USS/Modbus RTU, Line voltage: 380V ... 480V, ± 10%, 3-phase AC, with 150% overload for 60sec., I/O-interface: 4DI, 2DO, 2AI, 1AO, with inbuilt BOP, protection: IP20/ UL open type.

3AC Inverter with Integrated Line Filter Category C3 - 3 x 380-480V

Rated Power ⁽¹⁾		Rated output current I _{rated}	Frame Size	Dimensions	Part No.
kW	hp	A	FS	(HxWxDmm)	
0.37	0.5	1.3	FSA without fan	150 x 90 x 145.5	6SL3210-5BE13-7CV0
0.55	0.75	1.7			6SL3210-5BE15-5CV0
0.75		2.2			6SL3210-5BE17-5CV0
1.1	1.5	3.1	FSA with one fan	166 x 90 x 145.5	6SL3210-5BE21-1CV0
1.5	2.0	4.1			6SL3210-5BE21-5CV0
2.2	3.0	5.6			6SL3210-5BE22-2CV0
3.0	4.0	7.3	FSB with one fan	160 x 140 x 164.5	6SL3210-5BE23-0CV0
4.0	5.0	8.8			6SL3210-5BE24-0CV0
5.5	7.5	12.5	FSC with one fan	182 x 184 x 169	6SL3210-5BE25-5CV0
7.5	10	16.5			6SL3210-5BE27-5CV0
11.0	15	25	FSD with two fans	206.5 x 240 x 172.5	6SL3210-5BE31-1CV0
15.0	20	31			6SL3210-5BE31-5CV0
22.0	30.0	45 (40)			6SL3210-5BE31-8CV0
30.0	40.0	60 (52)			6SL3210-5BE32-2CV0



SINAMICS G120C

A variable speed drive specifically designed for OEMs who require a cost effective, space saving, design that is simple to operate and has a broad range of functions. Including safe torque off.

Applications

Conveyors, pumps, fans, compressors, mixers & extruders

Technical Data

Line voltages:	380 to 480V +10%, -20%
Digital inputs (DI):	6
Digital outputs (DO):	2
Analogue inputs (AI):	1 (selectable between -10 ... +10V, 0/4 ... 20mA)
Analogue outputs (AO):	1
Failsafe inputs (F-01):	1 (selectable between -10 ... +10V, 0/4 ... 20mA)
Communication interface:	RS485/USS/Modbus RTU: PROFIBUS OP: PROFINET: CANopen

Filtered* Power Modules - 3 x 380V... 480V AC

Rated Power		Frame Size	Communication Interface	Part No.
HO (VT)	H (CT)			
0.55kW / 1.7A	0.37kW / 1.3A	A	USS/MOO Bus RTU	6SL3210-1KE11-8AB1
			Profinet	6SL3210-1KE11-8AF1
0.75kW / 2.2A	0.55kW / 1.7A	A	USS/MOO Bus RTU	6SL3210-1KE12-3AB1
			Profinet	6SL3210-1KE12-3AF1
1.1kW / 3.1A	0.75kW / 2.2A	A	USS/MOO Bus RTU	6SL3210-1KE13-2AB1
			Profinet	6SL3210-1KE13-2AF1
1.5kW / 4.1A	1.1kW / 3.1A	A	USS/MOO Bus RTU	6SL3210-1KE14-3AB1
			Profinet	6SL3210-1KE14-3AF1
2.2kW / 5.6A	1.5kW / 4.1A	A	USS/MOO Bus RTU	6SL3210-1KE15-8AB1
			Profinet	6SL3210-1KE15-8AF1
3.0kW / 7.3A	2.2kW / 5.6A	A	USS/MOO Bus RTU	6SL3210-1KE17-5AB1
			Profinet	6SL3210-1KE17-5AF1
4.0kW / 8.8A	3.0kW / 7.3A	A	USS/MOO Bus RTU	6SL3210-1KE18-8AB1
			Profinet	6SL3210-1KE18-8AF1
5.5kW / 12.5A	4.0kW / 8.8A	B	USS/MOO Bus RTU	6SL3210-1KE21-3AB1
			Profinet	6SL3210-1KE21-3AF1
7.5kW / 16.5A	5.5kW / 12.5A	B	USS/MOO Bus RTU	6SL3210-1KE21-7AB1
			Profinet	6SL3210-1KE21-7AF1
11kW / 25A	7.5kW / 16.5A	C	USS/MOO Bus RTU	6SL3210-1KE22-6AB1
			Profinet	6SL3210-1KE22-6AF1
15kW / 31A	11kW / 25A	C	USS/MOO Bus RTU	6SL3210-1KE23-2AB1
			Profinet	6SL3210-1KE23-2AF1
18.5kW / 37A	15kW / 31A	C	USS/MOO Bus RTU	6SL3210-1KE23-8AB1
			Profinet	6SL3210-1KE23-8AF1

* EMC filtering suitable for 1st environment

OPTIONS

Description	Part No.
Basic Operator Panel 2 (BOP-2)	6SL3255-0AA00-4CA1
Intelligent Operator Panel 2 (IOP)	6SL3255-0AA00-4JA1
IOP/BOP-2 Door Mounting Kit	6SL3256-0AA00-0JA0

Altivar Simple Machine ATV320

IP21

A variable speed drive with Integrated EMC Filter designed for Original Equipment Manufacturers (OEMs) that meets simple and advanced application requirements for 3 phase synchronous and asynchronous motors from 0.18 to 15kW (0.25 to 20Hp).



Compact Variable Speed Drive - 200-240V AC Single Phase

Power (kW)	Description	Part No.
0.18	ATV320 0.18kW 200V 1PH Compact VSD	ATV320U02M2C
0.37	ATV320 0.37kW 200V 1PH Compact VSD	ATV320U04M2C
0.55	ATV320 0.55kW 200V 1PH Compact VSD	ATV320U06M2C
0.75	ATV320 0.75kW 200V 1PH Compact VSD	ATV320U07M2C
1.10	ATV320 1.1kW 200V 1PH Compact VSD	ATV320U11M2C
1.50	ATV320 1.5kW 200V 1PH Compact VSD	ATV320U15M2C
2.20	ATV320 2.2kW 200V 1PH Compact VSD	ATV320U22M2C

Compact Variable Speed Drive - 400-480V AC

Power (kW)	Description	Part No.
0.37	ATV320 0.37kW 400V 3PH Compact VSD	ATV320U04N4C
0.55	ATV320 0.55kW 400V 3PH Compact VSD	ATV320U06N4C
0.75	ATV320 0.75kW 400V 3PH Compact VSD	ATV320U07N4C
1.10	ATV320 1.1kW 400V 3PH Compact VSD	ATV320U11N4C
1.50	ATV320 1.5kW 400V 3PH Compact VSD	ATV320U15N4C
2.20	ATV320 2.2kW 400V 3PH Compact VSD	ATV320U22N4C
3.00	ATV320 3kW 400V 3PH Compact VSD	ATV320U30N4C
4.00	ATV320 4kW 400V 3PH Compact VSD	ATV320U40N4C

Book Variable Speed Drive - 200-240V AC Single Phase

Power (kW)	Description	Part No.
0.18	ATV320 0.18kW 200V 1PH Book VSD	ATV320U02M2B
0.37	ATV320 0.37kW 200V 1PH Book VSD	ATV320U04M2B
0.55	ATV320 0.55kW 200V 1PH Book VSD	ATV320U06M2B
0.75	ATV320 0.75kW 200V 1PH Book VSD	ATV320U07M2B
1.10	ATV320 1.1kW 200V 1PH Book VSD	ATV320U11M2B
1.50	ATV320 1.5kW 200V 1PH Book VSD	ATV320U15M2B
2.20	ATV320 2.2kW 200V 1PH Book VSD	ATV320U22M2B

Book Variable Speed Drive - 400-480V AC

Power (kW)	Description	Part No.
0.37	ATV320 0.37kW 400V 3PH Book VSD	ATV320U04N4B
0.55	ATV320 0.55kW 400V 3PH Book VSD	ATV320U06N4B
0.75	ATV320 0.75kW 400V 3PH Book VSD	ATV320U07N4B
1.10	ATV320 1.1kW 400V 3PH Book VSD	ATV320U11N4B
1.50	ATV320 1.5kW 400V 3PH Book VSD	ATV320U15N4B
2.20	ATV320 2.2kW 400V 3PH Book VSD	ATV320U22N4B
3.00	ATV320 3kW 400V 3PH Book VSD	ATV320U30N4B
4.00	ATV320 4kW 400V 3PH Book VSD	ATV320U40N4B
5.50	ATV320 5.5kW 400V 3PH Book VSD	ATV320U55N4B
7.50	ATV320 7.5kW 400V 3PH Book VSD	ATV320U75N4B
11	ATV320 11kW 400V 3PH Book VSD	ATV320D11N4B
15	ATV320 15kW 400V 3PH Book VSD	ATV320D15N4B



Altivar High Performance Machine ATV340

IP21

A variable speed drive designed for Original Equipment Manufacturers (OEMs) that engineer high performance applications for 3 phase motors with or without sensor from 0.75 to 75kW (1 to 100Hp).

Variable Speed Drive - 400-480V AC

Power (kW)	Description	Part No.
0.75	ATV340 VSD IP21 0.75kW 400V/480V	ATV340U07N4
1.50	ATV340 VSD IP21 1.5kW 400V/480V	ATV340U15N4
2.20	ATV340 VSD IP21 2.2kW 400V/480V	ATV340U22N4
3.00	ATV340 VSD IP21 3kW 400V/480V	ATV340U30N4
4.00	ATV340 VSD IP21 4kW 400V/480V	ATV340U40N4
5.50	ATV340 VSD IP21 5.5kW 400V/480V	ATV340U55N4
7.50	ATV340 VSD IP21 7.5kW 400V/480V	ATV340U75N4
11	ATV340 VSD IP21 11kW 400V/480V	ATV340D11N4
15	ATV340 VSD IP21 15kW 400V/480V	ATV340D15N4
18.50	ATV340 VSD IP21 18.5kW 400V/480V	ATV340D18N4
22	ATV340 VSD IP21 22kW 400V/480V	ATV340D22N4

Variable Speed Drive - 400-480V AC with Embedded Ethernet

Power (kW)	Description	Part No.
0.75	ATV340 VSD IP21 0.75kW 400V/480V ETHERNET	ATV340U07N4E
1.50	ATV340 VSD IP21 1.5kW 400V/480V ETHERNET	ATV340U15N4E
2.20	ATV340 VSD IP21 2.2kW 400V/480V ETHERNET	ATV340U22N4E
3.00	ATV340 VSD IP21 3kW 400V/480V ETHERNET	ATV340U30N4E
4.00	ATV340 VSD IP21 4kW 400V/480V ETHERNET	ATV340U40N4E
5.50	ATV340 VSD IP21 5.5kW 400V/480V ETHERNET	ATV340U55N4E
7.50	ATV340 VSD IP21 7.5kW 400V/480V ETHERNET	ATV340U75N4E
11	ATV340 VSD IP21 11kW 400V/480V ETHERNET	ATV340D11N4E
15	ATV340 VSD IP21 15kW 400V/480V ETHERNET	ATV340D15N4E
18.50	ATV340 VSD IP21 18.5kW 400V/480V ETHERNET	ATV340D18N4E
22	ATV340 VSD IP21 22kW 400V/480V ETHERNET	ATV340D22N4E
30	ATV340 VSD IP21 30kW 400V/480V ETHERNET	ATV340D30N4E
37	ATV340 VSD IP21 37kW 400V/480V ETHERNET	ATV340D37N4E
45	ATV340 VSD IP21 45kW 400V/480V ETHERNET	ATV340D45N4E
55	ATV340 VSD IP21 55kW 400V/480V ETHERNET	ATV340D55N4E
75	ATV340 VSD IP21 75kW 400V/480V ETHERNET	ATV340D75N4E

⁽¹⁾ Overload capability: 150% rated output current for 60s, cycle time 300s

⁽²⁾ FS = Frame Size as FSA, FSB, FSC and FSD

⁽³⁾ Max. shielded motor cable length for frame size FSA 10m and for frame sizes FSB to FSD 25m To reach category C2 or to achieve 25m shielded motor cable length also with frame size FSA, unfiltered inverters with external line filter have to be used.

⁽⁴⁾ P rated (LO) = Rated Power for low overload

⁽⁵⁾ P rated (HO) = Rated Power for high overload

⁽⁶⁾ For IL 400V, the output current IL is based on the duty cycle for low overload (LO)

⁽⁷⁾ For IL 480V

⁽⁸⁾ For IL 400V, the output current IH is based on the duty cycle for high overload (HO)

⁽⁹⁾ For IH 480V

Contact your local sales office for additional products from this range.

Terms of Business applies, a copy of which is available on request. E30E - Although we strive to keep this document as accurate as possible, we cannot be held responsible for any errors and omissions.



Altivar Process ATV600

Variable speed drive with embedded services dedicated to process industry and utilities for 3 phases synchronous, asynchronous and special motors from 0.75kW to 1.5MW.

Altivar 630 IP21 Process Variable Speed Drive - 400-480V AC

Power (kW)	Description	Part No.
0.75	ATV630 VSD IP21 0.75kW 400V/480V	ATV630U07N4
1.50	ATV630 VSD IP21 1.5kW 400V/480V	ATV630U15N4
2.20	ATV630 VSD IP21 2.2kW 400V/480V	ATV630U22N4
3.00	ATV630 VSD IP21 3kW 400V/480V	ATV630U30N4
4.00	ATV630 VSD IP21 4kW 400V/480V	ATV630U40N4
5.50	ATV630 VSD IP21 5.5kW 400V/480V	ATV630U55N4
7.50	ATV630 VSD IP21 7.5kW 400V/480V	ATV630U75N4
11	ATV630 VSD IP21 11kW 400V/480V	ATV630D11N4
15	ATV630 VSD IP21 15kW 400V/480V	ATV630D15N4
18.50	ATV630 VSD IP21 18kW 400V/480V	ATV630D18N4
22	ATV630 VSD IP21 22kW 400V/480V	ATV630D22N4
30	ATV630 VSD IP21 30kW 400V/480V	ATV630D30N4
37.50	ATV630 VSD IP21 37kW 400V/480V	ATV630D37N4
45	ATV630 VSD IP21 45kW 400V/480V	ATV630D45N4
55	ATV630 VSD IP21 55kW 400V/480V	ATV630D55N4
75	ATV630 VSD IP21 75kW 400V/480V	ATV630D75N4
90	ATV630 VSD IP21 90kW 400V/480V	ATV630D90N4

Altivar 650 IP55 Process Variable Speed Drive - 400-480V AC

0.75	ATV650 VSD IP55 0.75kW 400V/480V	ATV650U07N4
1.50	ATV650 VSD IP55 1.5kW 400V/480V	ATV650U15N4
2.20	ATV650 VSD IP55 2.2kW 400V/480V	ATV650U22N4
3.00	ATV650 VSD IP55 3kW 400V/480V	ATV650U30N4
4.00	ATV650 VSD IP55 4kW 400V/480V	ATV650U40N4
5.50	ATV650 VSD IP55 5.5kW 400V/480V	ATV650U55N4
7.50	ATV650 VSD IP55 7.5kW 400V/480V	ATV650U75N4
11	ATV650 VSD IP55 11kW 400V/480V	ATV650D11N4
15	ATV650 VSD IP55 15kW 400V/480V	ATV650D15N4
18.50	ATV650 VSD IP55 18kW 400V/480V	ATV650D18N4
22	ATV650 VSD IP55 22kW 400V/480V	ATV650D22N4
30	ATV650 VSD IP55 30kW 400V/480V	ATV650D30N4
37.50	ATV650 VSD IP55 37kW 400V/480V	ATV650D37N4
45	ATV650 VSD IP55 45kW 400V/480V	ATV650D45N4
55	ATV650 VSD IP55 55kW 400V/480V	ATV650D55N4
75	ATV650 VSD IP55 75kW 400V/480V	ATV650D75N4
90	ATV650 VSD IP55 90kW 400V/480V	ATV650D90N4

Altivar 650 IP55 Process Variable Speed Drive - 400-480V AC with Isolator

0.75	ATV650 VSD IP55 0.75kW 400V/480V with isolator	ATV650U07N4E
1.50	ATV650 VSD IP55 1.5kW 400V/480V with isolator	ATV650U15N4E
2.20	ATV650 VSD IP55 2.2kW 400V/480V with isolator	ATV650U22N4E
3.00	ATV650 VSD IP55 3kW 400V/480V with isolator	ATV650U30N4E
4.00	ATV650 VSD IP55 4kW 400V/480V with isolator	ATV650U40N4E
5.50	ATV650 VSD IP55 5.5kW 400V/480V with isolator	ATV650U55N4E
7.50	ATV650 VSD IP55 7.5kW 400V/480V with isolator	ATV650U75N4E
11	ATV650 VSD IP55 11kW 400V/480V with isolator	ATV650D11N4E
15	ATV650 VSD IP55 15kW 400V/480V with isolator	ATV650D15N4E
18.50	ATV650 VSD IP55 18kW 400V/480V with isolator	ATV650D18N4E
22	ATV650 VSD IP55 22kW 400V/480V with isolator	ATV650D22N4E
30	ATV650 VSD IP55 30kW 400V/480V with isolator	ATV650D30N4E
37.50	ATV650 VSD IP55 37kW 400V/480V with isolator	ATV650D37N4E
45	ATV650 VSD IP55 45kW 400V/480V with isolator	ATV650D45N4E
55	ATV650 VSD IP55 55kW 400V/480V with isolator	ATV650D55N4E
75	ATV650 VSD IP55 75kW 400V/480V with isolator	ATV650D75N4E
90	ATV650 VSD IP55 90kW 400V/480V with isolator	ATV650D90N4E

Altivar 650 IP55 Process Variable Speed Drive - 400-480V AC

0.75	ATV650 VSD IP55 0.75kW 400V/480V	ATV650U07N4
1.50	ATV650 VSD IP55 1.5kW 400V/480V	ATV650U15N4
2.20	ATV650 VSD IP55 2.2kW 400V/480V	ATV650U22N4
3.00	ATV650 VSD IP55 3kW 400V/480V	ATV650U30N4
4.00	ATV650 VSD IP55 4kW 400V/480V	ATV650U40N4
5.50	ATV650 VSD IP55 5.5kW 400V/480V	ATV650U55N4
7.50	ATV650 VSD IP55 7.5kW 400V/480V	ATV650U75N4
11	ATV650 VSD IP55 11kW 400V/480V	ATV650D11N4
15	ATV650 VSD IP55 15kW 400V/480V	ATV650D15N4
18.50	ATV650 VSD IP55 18kW 400V/480V	ATV650D18N4
22	ATV650 VSD IP55 22kW 400V/480V	ATV650D22N4
30	ATV650 VSD IP55 30kW 400V/480V	ATV650D30N4
37.50	ATV650 VSD IP55 37kW 400V/480V	ATV650D37N4
45	ATV650 VSD IP55 45kW 400V/480V	ATV650D45N4
55	ATV650 VSD IP55 55kW 400V/480V	ATV650D55N4
75	ATV650 VSD IP55 75kW 400V/480V	ATV650D75N4
90	ATV650 VSD IP55 90kW 400V/480V	ATV650D90N4

Altivar Process ATV900

Variable speed drive with embedded services dedicated to process industry and utilities for 3 phases synchronous, asynchronous and special motors from 0.75kW to 1.5MW.

Altivar 930 IP21 Process Variable Speed Drive - 400-480V AC

Power (kW)	Description	Part No.
0.75	ATV930 VSD IP21 0.75kW 400V/480V	ATV930U07N4
1.50	ATV930 VSD IP21 1.5kW 400V/480V	ATV930U15N4
2.20	ATV930 VSD IP21 2.2kW 400V/480V	ATV930U22N4
3.00	ATV930 VSD IP21 3kW 400V/480V	ATV930U30N4
4.00	ATV930 VSD IP21 4kW 400V/480V	ATV930U40N4
5.50	ATV930 VSD IP21 5.5kW 400V/480V	ATV930U55N4
7.50	ATV930 VSD IP21 7.5kW 400V/480V	ATV930U75N4
11	ATV930 VSD IP21 11kW 400V/480V	ATV930D11N4
15	ATV930 VSD IP21 15kW 400V/480V	ATV930D15N4
18.50	ATV930 VSD IP21 18.5kW 400V/480V	ATV930D18N4
22	ATV930 VSD IP21 22kW 400V/480V	ATV930D22N4
30	ATV930 VSD IP21 30kW 400V/480V	ATV930D30N4
37.50	ATV930 VSD IP21 37kW 400V/480V	ATV930D37N4
45	ATV930 VSD IP21 45kW 400V/480V	ATV930D45N4
55	ATV930 VSD IP21 55kW 400V/480V	ATV930D55N4
75	ATV930 VSD IP21 75kW 400V/480V	ATV930D75N4
90	ATV930 VSD IP21 90kW 400V/480V	ATV930D90N4

Altivar 950 IP55 Process Variable Speed Drive - 400-480V AC

0.75	ATV950 VSD IP55 0.75kW 400V/480V	ATV950U07N4
1.50	ATV950 VSD IP55 1.5kW 400V/480V	ATV950U15N4
2.20	ATV950 VSD IP55 2.2kW 400V/480V	ATV950U22N4
3.00	ATV950 VSD IP55 3kW 400V/480V	ATV950U30N4
4.00	ATV950 VSD IP55 4kW 400V/480V	ATV950U40N4
5.50	ATV950 VSD IP55 5.5kW 400V/480V	ATV950U55N4
7.50	ATV950 VSD IP55 7.5kW 400V/480V	ATV950U75N4
11	ATV950 VSD IP55 11kW 400V/480V	ATV950D11N4
15	ATV950 VSD IP55 15kW 400V/480V	ATV950D15N4
18.50	ATV950 VSD IP55 18.5kW 400V/480V	ATV950D18N4
22	ATV950 VSD IP55 22kW 400V/480V	ATV950D22N4
30	ATV950 VSD IP55 30kW 400V/480V	ATV950D30N4
37.50	ATV950 VSD IP55 37kW 400V/480V	ATV950D37N4
45	ATV950 VSD IP55 45kW 400V/480V	ATV950D45N4
55	ATV950 VSD IP55 55kW 400V/480V	ATV950D55N4
75	ATV950 VSD IP55 75kW 400V/480V	ATV950D75N4
90	ATV950 VSD IP55 90kW 400V/480V	ATV950D90N4

Altivar 950 IP55 Process Variable Speed Drive - 400-480V AC with Isolator

0.75	ATV950 VSD IP55 0.75kW 400V/480V with isolator	ATV950U07N4E
1.50	ATV950 VSD IP55 1.5kW 400V/480V with isolator	ATV950U15N4E
2.20	ATV950 VSD IP55 2.2kW 400V/480V with isolator	ATV950U22N4E
3.00	ATV950 VSD IP55 3kW 400V/480V with isolator	ATV950U30N4E
4.00	ATV950 VSD IP55 4kW 400V/480V with isolator	ATV950U40N4E
5.50	ATV950 VSD IP55 5.5kW 400V/480V with isolator	ATV950U55N4E
7.50	ATV950 VSD IP55 7.5kW 400V/480V with isolator	ATV950U75N4E
11	ATV950 VSD IP55 11kW 400V/480V with isolator	ATV950D11N4E
15	ATV950 VSD IP55 15kW 400V/480V with isolator	ATV950D15N4E
18.50	ATV950 VSD IP55 18.5kW 400V/480V with isolator	ATV950D18N4E
22	ATV950 VSD IP55 22kW 400V/480V with isolator	ATV950D22N4E
30	ATV950 VSD IP55 30kW 400V/480V with isolator	ATV950D30N4E
37.50	ATV950 VSD IP55 37kW 400V/480V with isolator	ATV950D37N4E
45	ATV950 VSD IP55 45kW 400V/480V with isolator	ATV950D45N4E
55	ATV950 VSD IP55 55kW 400V/480V with isolator	ATV950D55N4E
75	ATV950 VSD IP55 75kW 400V/480V with isolator	ATV950D75N4E
90	ATV950 VSD IP55 90kW 400V/480V with isolator	ATV950D90N4E





Electric Frequency Inverters

The great variety of Mitsubishi Electric frequency inverter models makes it easy for the user to choose the optimum inverter for application.

There are four different inverter series:

- FR-D700
- FR-E700
- FR-F800
- FR-A800

The frequency inverters are available with an output range from 0.1kW to 630kW

FR-D700 Ultra-compact Standard Inverter

Description	Part No.
0.1kW Single phase high performance micro inverter, 0.8A	FR-D720S-008SC-EC
0.2kW Single phase high performance micro inverter, 1.4A	FR-D720S-014SC-EC
0.4kW Single phase high performance micro inverter, 2.5A	FR-D720S-025SC-EC
0.75kW Single phase high performance micro inverter, 4.2A	FR-D720S-042SC-EC
1.5kW Single phase high performance micro inverter, 7A	FR-D720S-070SC-EC
2.2kW Single phase high performance micro inverter, 10A	FR-D720S-100SC-EC

FR-E700 Compact Inverter

0.4kW Three phase, high performance, compact inverter, 1.6A	FR-E740-016SC-EC
0.75kW Three phase, high performance, compact inverter, 2.6A	FR-E740-026SC-EC
1.5kW Three phase, high performance, compact inverter, 4A	FR-E740-040SC-EC
2.2kW Three phase, high performance, compact inverter, 6A	FR-E740-060SC-EC
3.7kW Three phase, high performance, compact inverter, 9.5A	FR-E740-095SC-EC
5.5kW Three phase, high performance, compact inverter, 12A	FR-E740-120SC-EC

FR-F800 Energy Saving Inverter

F800 Inverter; Rated Power: 2.2kW; 3x380-500V; In max: 5.2A;(2.2kW; 5.2A); IP20	FR-F840-00052-E2-60
F800 Inverter; Rated Power: 3.7kW; 3x380-500V; In max: 8.3A;(3.7kW; 8.3A); IP20	FR-F840-00083-E2-60
F800 Inverter; Rated Power: 5.5kW; 3x380-500V; In max: 12.6A;(5.5kW; 12.6A); IP20	FR-F840-00126-E2-60
F800 Inverter; Rated Power: 7.5kW; 3x380-500V; In max: 17A;(7.5kW; 17A); IP20	FR-F840-00170-E2-60
F800 Inverter; Rated Power: 11kW; 3x380-500V; In max: 25A; (11kW; 25A); IP20	FR-F840-00250-E2-60
F800 Inverter; Rated Power: 15kW; 3x380-500V; In max: 31A; (15kW; 31A); IP20	FR-F840-00310-E2-60

FR-A800 High End Inverter

FR-A800 Inverter; ND Rated Power: 2.2kW; 3x380-500V; Rated Current: 6A; IP20	FR-A840-00083-E2-60
FR-A800 Inverter; ND Rated Power: 3.7kW; 3x380-500V; Rated Current: 9A; IP20	FR-A840-00126-E2-60
FR-A800 Inverter; ND Rated Power: 5.5kW; 3x380-500V; Rated Current: 12A; IP20	FR-A840-00170-E2-60
FR-A800 Inverter; ND Rated Power: 7.5kW; 3x380-500V; Rated Current: 17A; IP20	FR-A840-00250-E2-60
FR-A800 Inverter; ND Rated Power: 11kW; 3x380-500V; Rated Current: 23A; IP20	FR-A840-00310-E2-60
FR-A800 Inverter; ND Rated Power: 15kW; 3x380-500V; Rated Current: 31A; IP20	FR-A840-00380-E2-60

Basic PSR Soft Starters

Basic PSR Series

Ratings		24V AC/DC	110-230V
kW (400V)	A	Part No.	Part No.
1.5	3	PSR3-600-11	PSR3-600-70
3	6	PSR6-600-11	PSR6-600-70
4	9	PSR9-600-11	PSR9-600-70
5.5	12	PSR12-600-11	PSR12-600-70
7.5	16	PSR16-600-11	PSR16-600-70
11	25	PSR25-600-11	PSR25-600-70
15	30	PSR30-600-11	PSR30-600-70
18.5	37	PSR37-600-11	PSR37-600-70
22	45	PSR45-600-11	PSR45-600-70
30	60	PSR60-600-11	PSR60-600-70
37	72	PSR72-600-11	PSR72-600-70
45	85	PSR85-600-11	PSR85-600-70
55	105	PSR105-600-11	PSR105-600-70

Accessories

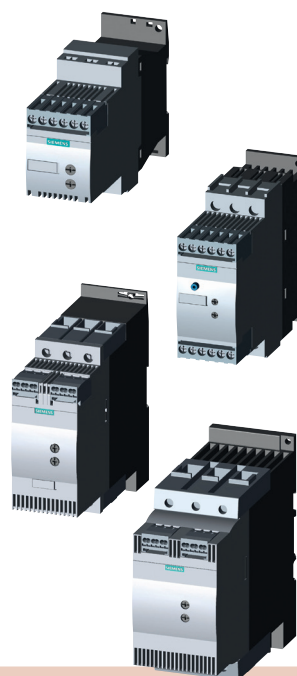
Description	Part No.
Connection kit PSR3 - 16 and MS116	1SFA896211R1001
Connection kit PSR37 - 45 and MS450	1SFA896213R1001
Connection kit PSR60 - 105 and MS495	1SAM501903R1001
Fan for PSR3 to PSR45	1SFA896311R1001
Fan for PSR60 to PSR105	1SFA896313R1001



Sirius RW30 Soft Starters

For Easy Start-Up Conditions & High Switching Frequencies

Size	Rated operating voltage	Ambient temperature 40°C			Part Number AC/DC 24V	Part Number AC/DC 110...230V
		Rated operating current in (A)	Rated power of three-phase motors with rated operating voltage			
			230V (kW)	400V (kW)		
S00	200 ... 480V	3.6	0.75	1.5	3RW3013-1BB04	3RW3013-1BB14
		6.5	1.5	3	3RW3014-1BB04	3RW3014-1BB14
		9	2.2	4	3RW3016-1BB04	3RW3016-1BB14
		12.5	3	5.5	3RW3017-1BB04	3RW3017-1BB14
		17.6	4	7.5	3RW3018-1BB04	3RW3018-1BB14
S0	Screw-type terminals	25	5.5	11	3RW3026-1BB04	3RW3026-1BB14
		32	7.5	15	3RW3027-1BB04	3RW3027-1BB14
		38	11	18.5	3RW3028-1BB04	3RW3028-1BB14
S2		45	11	22	3RW3036-1BB04	3RW3036-1BB14
		63	18.5	30	3RW3037-1BB04	3RW3037-1BB14
S3		72	22	37	3RW3038-1BB04	3RW3038-1BB14
		80	22	45	3RW3046-1BB04	3RW3046-1BB14
		106	30	55	3RW3047-1BB04	3RW3047-1BB14



Sirius RW40 Soft Starters

Soft Starters for 3-Phase Motors

(with current limiting & integrated overload relay)

Size	Rated operating voltage	Ambient temperature 40°C			Part Number AC/DC 24V	Part Number AC/DC 110...230V
		Rated operating current in (A)	Rated power of three-phase motors with rated operating voltage			
			230V (kW)	400V (kW)		
S0	200 ... 480V	12.5	3	5.5	3RW4024-1BB04	3RW4024-1BB14
		25	5.5	11	3RW4026-1BB04	3RW4026-1BB14
		32	7.5	15	3RW4027-1BB04	3RW4027-1BB14
		38	11	18.5	3RW4028-1BB04	3RW4028-1BB14
S2	Screw-type terminals	45	11	22	3RW4036-1BB04	3RW4036-1BB14
		63	18.5	30	3RW4037-1BB04	3RW4037-1BB14
		72	22	37	3RW4038-1BB04	3RW4038-1BB14
S3		80	22	45	3RW4046-1BB04	3RW4046-1BB14
		106	30	55	3RW4047-1BB04	3RW4047-1BB14
S6		134	37	75	3RW4055-1BB14	3RW4055-1BB14
		162	45	90	3RW4056-1BB14	3RW4056-1BB14
S12		230	75	132	3RW4073-1BB14	3RW4073-1BB14





Altistart 01 – Electronic Soft Starter 110V to 480V

k3Amp ... 85Amp.

Soft Start 110V-480V

Ratings		Part No.
kW (400V)	A	
1.1	3	ATS01N103FT
2.2	6	ATS01N106FT
4	9	ATS01N109FT
5.5	12	ATS01N112FT
7.5	25	ATS01N125FT

Soft Start/Stop 200V...240V

Ratings		Part No.
kW	A	
1.1	6	ATS01N206LU
2.2	9	ATS01N209LU
4	12	ATS01N212LU
5.5	22	ATS01N222LU
7.5	32	ATS01N232LU

Soft Start/Stop 380V...415V

Ratings		Part No.
kW	A	
2.2	6	ATS01N206QN
4	9	ATS01N209QN
5.5	12	ATS01N212QN
11	22	ATS01N222QN
15	32	ATS01N232QN

Soft Start/Stop 440V...480V

Ratings		Part No.
kW	A	
2.2/3.0	6	ATS01N206RT
4.0/5.0	9	ATS01N209RT
5.5/7.5	12	ATS01N212RT
10.0/15.0	22	ATS01N222RT
18.5/20.0	32	ATS01N232RT

Soft Start/Stop 200V...690V

Ratings		Part No.
kW	A	
30	32	ATS01N230LY
37	44	ATS01N244LY
55	72	ATS01N272LY
75	85	ATS01N285LY

Altistart 22 – Medium Level

Full 3 phase softstarter with built in bypass.

Fully adjustable motor overload protection, acceleration, deceleration, current limit etc. In-built modus comms port.

Soft Start/Stop 230-440V

Ratings		Part No.
kW (400V)	A	
7.5	17	ATS22D17Q
15	32	ATS22D32Q
22	47	ATS22D47Q
30	62	ATS22D62Q
37	75	ATS22D75Q

Altistart 48 – High Level

Full 3 phase softstarter with torque control.

Fully adjustable motor overload protection, acceleration, deceleration, current limit etc. In-built modus comms port.

Soft Start/Stop 230-440V

Ratings		Part No.
kW (400V)	A	
7.5	17	ATS48D17Q
11	22	ATS48D22Q
15	32	ATS48D32Q
18.5	38	ATS48D38Q
22	47	ATS48D47Q
30	62	ATS48D62Q
37	75	ATS48D75Q

Signal Conditioners

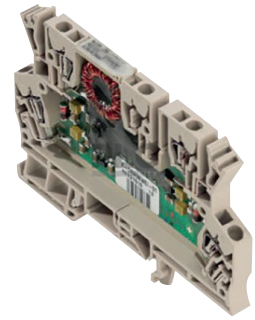
- Just 6mm wide
- Tension clamp connection technology

MCZ Series					
Input Type	Input	Output	Supply Voltage	Description	Part No.
DC Signal	0(4)...20mA	0(4)...20mA	I/P Loop powered	MCZ CCC	8411190000
PT100/2/3	0...200°C	4...20mA	O/P Loop powered	MCZ PT100/3	8473010000
Accessories					
End plate for MCZ series				AP MCZ 1.5	8389030000

ACT20M Series					
Input Type	Input	Output	Supply Voltage	Description	Part No.
DC signal	0..20mA, 4...20mA	0..20mA, 4...20mA	24V	ACT20M-CI-CO-S	1175980000
DC signal	0..20mA, 4...20mA, 0...10V, 0...5V	0..20mA, 4...20mA, 0...10V, 0...5V	24V	ACT20M-AI-AO-E-S	1176010000
DC signal	0..20mA, 4...20mA, 0...10V, 0...5V	2 x 0..20mA, 4...20mA, 0...10V, 0...5V	24V	ACT20M-AI-2AO-S	1176020000
DC signal	4...20mA	4...20mA	O/P Loop powered	ACT20M-CI-CO-OLP-S	1176040000
DC signal	0..20mA, 4...20mA	0..20mA, 4...20mA	I/P Loop powered	ACT20M-CI-CO-ILP-S	1176070000
Thermocouple	Type J, K	0..20mA, 4...20mA, 0...10V, 0...5V	24V	ACT20M-TCI-AO-S	1375480000
PT100/2/3/4	PT100 /2/3/4	0..20mA, 4...20mA, 0...10V, 0...5V	24V	ACT20M-RTI-AO-S	1375510000

ACT20P Series					
Input Type	Input	Output	Supply Voltage	Description	Part No.
DC Signal	2 x 0..20mA 4...20mA	2 x 0..20mA 4...20mA	24V	ACT20P-2CI-2CO-12	7760054117
DC Signal	+20mV...+300V +0.1mA...+100mA	0...+10V 0...+20mA	24...230V DC 24...230V AC	ACT20P – Pro DCDC II	1481970000
Universal	PT100, PT1000, PT200, N120, Thermocouple, Pot +300V, +5A	4...20mA	O/P Loop powered	ACT20P-UI-AO-DO-LP-S	1453210000
RTD	PT100 / 2-/3-/4-wire -200...+850°C	-20...+20 mA ± 10mA 0(4)...20mA 0...5V 0(1)...5V 0(2)...10V -5...+5V -10...+10V	24...230V DC ±15% 24...230V AC ±15%	ACT20P-PRO-RTCI-AO-DO-S	2448100000
Universal	Thermocouple, RTD, Resistance, voltage & current	2 CO contacts, normal / inverse adjustment	9...60V DC	ACT20P-UI-2RCO-DC-S	7940045760
Thermocouple	Type K,J,T,E,N,R,S,B	0..20mA 4...20mA 0...10V	24V	WAS5 PRO Thermo	8560720000

Weidmüller 



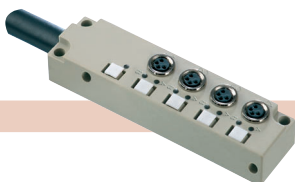
AUTOMATION

SIGNAL CONDITIONERS

Sensor Actuator Interface



AUTOMATION



SENSOR ACTUATOR INTERFACE

Sensor Actuator Interface

M8 Leads

Type			Part No.
M8 lead with	Straight socket	3 Pole, PVC, 1.5m	1927240150
		4 Pole, PVC, 1.5m	1927260150
	90° socket	3 Pole, PVC, 1.5m	1927320150
		4 Pole, PVC, 1.5m	1927340150
	Straight plug	4 Pole, PUR, 1.5m	1824590150
		90° plug	4 Pole, PUR, 1.5m

M8 Distribution Boxes

Type			Part No.
M8	4-Way	3 Pole	1828720000
		4 Pole	1849680000
	8-Way	3 Pole	1828680000
		4 Pole	1828620000

M8 Connecting Cables

Type			Part No.
M8	Straight socket	90° socket	3 Pole, PUR, 1.5m
		4 Pole, PUR, 1.5m	1824580150
	Straight socket	3 Pole, PUR, 1.5m	1857660150
		4 Pole, PUR, 1.5m	1824570150
	90° plug	4 Pole, PUR, 1.5m	1880470150
		3 Pole, PUR, 1.5m	1857670150
8-Way distribution box	4 Pole, PUR, 1.5m	1857680150	
			1828620000

Panel Mount Plugs

Type			Part No.
Panel mount	Plug	3 Pole	1861280000
		4 Pole	1861290000
	Socket	3 Pole	1856130000
		4 Pole	1856140000

M12 Leads

Type			Part No.
M12 lead with	Straight socket	4 Pole, PUR, 1.5m	9457730150
		5 Pole, PUR, 1.5m	9457910150
	90° socket	4 Pole, PUR, 1.5m	9457740150
		5 Pole, PUR, 1.5m	9457690150
	Straight plug	4 Pole, PUR, 1.5m	9456100150
		5 Pole, PUR, 1.5m	9457610150
	90° plug	4 Pole, PUR, 1.5m	1906260150
		5 Pole, PUR, 1.5m	9457670150

M12 Distribution Boxes

Type			Part No.	
M12	Fixed cable	4-Way	4 Pole, 3m	
			5 Pole, 3m	
		8-Way	4 Pole, 3m	
			5 Pole, 3m	
	Hood version	4-Way	4 Pole	
			5 Pole	
		8-Way	4 Pole	
			5 Pole	
			8-Way NPN-PNP sensors fixed cable version	1814990000

M12 Connecting Cables

Type			Part No.
M12	Straight plug	90° socket	4 Pole, PUR, 1.5m
		5 Pole, PUR, 1.5m	9457270150
	Straight socket	4 Pole, PUR, 1.5m	9457190000
		5 Pole, PUR, 1.5m	9457340150
	90° socket	4 Pole, PUR, 1.5m	1906310150
		90° plug	5 Pole, PUR, 1.5m

Ethernet

ValueLine Unmanaged Ethernet Switches

Type	Description	Part No.
IE-SW-BL05-5TX	Unmanaged switch 5 x RJ45	1240840000
IE-SW-BL08-8TX	Unmanaged switch 8 x RJ45	1240900000
IE-SW-BL08-6TX-2SC	Unmanaged switch 6 x RJ45 / 2 x SC Fibre	1240910000
IE-SW-VL16-16TX	Unmanaged switch 16 x RJ45	1241000000

ValueLine Managed Ethernet Switches

Type	Description	Part No.
IE-SW-VL05M-5TX	Managed switch 5 x RJ45	1504280000
IE-SW-VL08MT-8TX	Managed switch 8 x RJ45	1240940000
IE-SW-VL08MT-6TX-2SC	Managed switch 6 x RJ45 / 2 x SC Fibre	1344770000

ValueLine Media Converter

Type	Description	Part No.
IE-MC-VL-1TX-1SC	Media converter 1 x RJ45 / 1 x SC Fibre	1241400000

WLAN AP/Bridge/Client

Type	Description	Part No.
IE-WL-BL-AP-CL-EU	Wireless access point/bridge/client, 1 x RJ45	2536600000
IE-WL-VL-AP-BR-CL-EU	Wireless access point/bridge/client, 1 x RJ45, Digital inputs, alarm contact	2536680000

Industrial Security Router

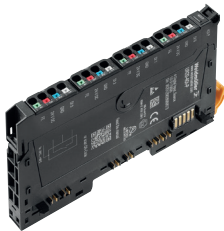
Type	Description	Part No.
IE-SR-2GT-LTE/4G-EU	Security/NAT/VPN/U-link Router, with integrated LTE / 4G modem, EU model, Gigabit Ethernet, 2x 10/100/1000BaseT(X), auto negotiation, Full-/half-duplex mode	2535930000
IE-SR-6GT-LAN	Security/NAT/VPN/U-link Router, Gigabit Ethernet, 6x 10/100/1000BaseT(X), auto negotiation, Full-/half-duplex mode	2535940000
IE-SR-6GT-LTE/4G-EU	Security/NAT/VPN/U-link Router, with integrated LTE / 4G modem, EU model, Gigabit Ethernet, 6x 10/100/1000BaseT(X), auto negotiation, Full-/half-duplex mode	2535960000

Weidmüller 

AUTOMATION



ETHERNET



u-remote IP20

FieldBus Couplers

Type	Description	Part No.
UR20-FBC-PB-DP	Field bus coupler, PROFIBUS DP-V1	1334870000
UR20-FBC-PN-IRT	Field bus coupler, PROFINET IRT	1334880000
UR20-FBC-EIP	Field bus coupler, EtherNet/IP	1334920000
UR20-FBC-EC	Field bus coupler, EtherCAT	1334910000
UR20-FBC-MOD	Field bus coupler, Modbus TCP	1334930000

Digital Input Modules

UR20-4DI-P	Digital input module, 4 channels	1315170000
UR20-8DI-P-2W	Digital input module, 8 channels, 2-wire	1315180000
UR20-8DI-P-3W	Digital input module, 8 channels, 3-wire	1394400000
UR20-16DI-P	Digital input module, 16 channels	1315200000
UR20-16DI-P-PLC-INT	Digital input module, 16 channels, PLC interface	1315210000
UR20-2DI-P-TS	Digital input module, 2 channel, 1uS timestamp resolution	1460140000
UR20-4DI-P-TS	Digital input module, 4 channel, 1uS timestamp resolution	1460150000
UR20-8DI-P-3W-HD	Digital input module, 8 channels, 3-wire, High density	1315190000

Digital Output Modules

UR20-4DO-P	Digital output module, 4 channels	1315220000
UR20-4DO-P-2A	Digital output module, 4 channels, 2A	1315230000
UR20-8DO-P	Digital output module, 8 channels	1315240000
UR20-16DO-P	Digital output module, 16 channels	1315250000
UR20-16DO-P-PLC-INT	Digital output module, 16 channels, PLC interface	1315270000
UR20-4RO-SSR-255	Digital output module, 4 channels, SSR	1315540000
UR20-4RO-CO-255	Digital output module, 4 channels, relay	1315550000
UR20-4DO-PN-2A	Digital output module, 4 channels, 2A per channel, positive or negative switching	1394420000

Digital Output Pulse Width Modulation

UR20-2PWM-0.5A	Digital output module, PWM, 2 channels, 0.5A	1315600000
UR20-2PWM-2A	Digital output module, PWM, 2 channels, 2A	1315610000

Analogue Input Modules

UR20-4AI-UI-16	Analogue input module, 4 channels, 16 bits	1315620000
UR20-4AI-UI-12	Analogue input module, 4 channels, 12 bits	1394390000
UR20-8AI-I-PLC-INT	Analogue input module, 8 channels, 16 bits, PLC interface	1315670000
UR20-4AI-TC-DIAG	Analogue input module, 4 channels, thermocouple	1315710000
UR20-4AI-RTD-DIAG	Analogue input module, 4 channels, RTD	1315700000
UR20-4AI-UI-16-DIAG	Analogue input module, 4 channels, 16 bits, channel diagnostics	1315690000
UR20-4AI-UI-16-HD	Analogue input module, 4 channels, 16 bits, high density connection	1506920000
UR20-4AI-UI-16-DIAG-HD	Analogue input module, 4 channels, 16 bits, high density connection, channel diagnostics	1506910000
UR20-8AI-I-16-HD	Analogue input module, 8 channels, 16 bits, high density connection	1315650000
UR20-8AI-I-16-DIAG-HD	Analogue input module, 8 channels, 16 bits, high density connection, channel diagnostics	1315720000

Analogue Output Modules

UR20-4AO-UI-16	Analogue output module, 4 channels, 16 bits	1315680000
UR20-4AO-UI-16-DIAG	Analogue output module, 4 channels, 16 bits, channel diagnostics	1315730000
UR20-4AO-UI-16-HD	Analogue output module, 4 channels, 16 bits, high density connection	1510690000
UR20-4AO-UI-16-DIAG-HD	Analogue output module, 4 channels, 16 bits, high density connection, channel diagnostics	1506930000

Power Supply Feed-In Modules

UR20-PF-I	Power supply module, input current path	1334710000
UR20-PF-O	Power supply module, output current path	1334740000

SIL Safety Modules

UR20-PF-0-1DI-SIL	Safety module, 1 digital input	1335030000
UR20-PF-0-2DI-SIL	Safety module, 2 digital inputs	1335050000
UR20-PF-0-2DI-DELAY-SIL	Safety module, 2 digital inputs, delayed	1335040000

Counter Modules

UR20-1CNT-100-1DO	Counter module, 100kHz, 1 counter	1315570000
UR20-2CNT-100	Counter module, 100kHz, 2 counter	1315590000

Distribution Modules

UR20-16AUX-I	Potential distribution module, 16 channels, input current path, 24V DC	1334770000
UR20-16AUX-O	Potential distribution module, 16 channels, output current path, 24V DC	1334780000
UR20-16AUX-FE	Potential distribution module, 16 channels, functional earth	1334790000
UR20-16AUX-GND-I	Grounding distribution module, 16 channels, input current path	1334800000
UR20-16AUX-GND-O	Grounding distribution module, 16 channels, output current path	1334810000

Accessories

UR20-ES	Empty slot module	1315770000
UR20-EBK-ACC	Termination kit	1346610000
UR20-SM-ACC	Swivel marker	1339920000

Lightning & Surge Protection (SPD)

Type 1 - LPL I/II/III/IV

Description	Version	Rated Voltage Uc	Discharge Capacity I _{max}	Protection Level	Signalling Contact	Part No.
VPU I 4 LCF 280V/25kA	4-pole	280V	25kA	1600V		1351730000
VPU I 4 R LCF 280V/25kA	4-pole	280V	25kA	1600V	1 CO	1351720000
VPU I 2 LCF 280V/25kA	2-pole	280V	25kA	1600V		1351640000
VPU I 2 R LCF 280V/25kA	2-pole	280V	25kA	1600V	1 CO	1351620000
VPU I 1+1 LCF 280V/25kA	2-pole	280V	25kA	1600V		1351750000
VPU I 1+1R LCF 280V/25kA	2-pole	280V	25kA	1600V	1 CO	1351740000
VPU I 0 LCF 280V/25kA	Spare arrester					1351540000
VPU I 0 N-PE 260V/100kA	Spare arrester					1351940000

Type 1 - LPL III/IV

Description	Version	Rated Voltage Uc	Discharge Capacity I _{max}	Protection Level	Signalling Contact	Part No.
VPU I 4 280V/12.5kA	4-pole	280V	12.5kA	1400V		1352180000
VPU I 4 R 280V/12.5kA	4-pole	280V	12.5kA	1400V	1 CO	1352190000
VPU I 3+1 LCF 280V/12.5kA	4-pole	280V	12.5kA	1400V		1352020000
VPU I 3+1R LCF 280V/12.5kA	4-pole	280V	12.5kA	1400V	1 CO	1352030000
VPU I 2 280V/12.5kA	2-pole	280V	12.5kA	1400V		1352150000
VPU I 2 R 280V/12.5kA	2-pole	280V	12.5kA	1400V	1 CO	1352170000
VPU I 1+1 280V/12.5kA	2-pole	280V	12.5kA	1400V		1352250000
VPU I 1+1R 280V/12.5kA	2-pole	280V	12.5kA	1400V	1 CO	1352270000
VPU I 0 280V/12.5kA	Spare arrester					1352120000
VPU I 0 N-PE 260V/50kA	Spare arrester					1351930000

Type 2

Description	Version	Rated Voltage Uc	Discharge Capacity I _{max}	Protection Level	Signalling Contact	Part No.
VPU II 4 280V/40kA	4-pole	280V	40kA	1550V		1352680000
VPU II 4 R 280V/40kA	4-pole	280V	40kA	1550V	1 CO	1352690000
VPU II 3+1 280V/40kA	4-pole	280V	40kA	1550V		1352650000
VPU II 3+1 R 280V/40kA	4-pole	280V	40kA	1550V	1 CO	1352670000
VPU II 3 280V/40kA	3-pole	280V	40kA	1550V		1352700000
VPU II 3 R 280V/40kA	3-pole	280V	40kA	1550V	1 CO	1352720000
VPU II 2 280V/40kA	2-pole	280V	40kA	1550V		1352600000
VPU II 2 R 280V/40kA	2-pole	280V	40kA	1550V	1 CO	1352620000
VPU II 0 280V/40kA	Spare arrester					1352570000
VPU II 0 N-PE 440V/40kA	Spare arrester					1351180000

Type 3

Description	Version	Rated Voltage Uc	Discharge Capacity I _{max}	Protection Level	Signalling Contact	Part No.
PU III R 230V/6kV	1-pole	230V	3kA	1800V	1 CO	1351650000
PU III R 24V/4kV	1-pole	24V	2kA	890V	1 CO	1351580000

Weidmüller 

