



- X-Plus AS4 is a new model of RTA flagship high-power stepping motor drive with STEP&DIR, Analog Input (± 10 Volt) and Modbus RTU RS-485 interface.
- Embedded Auto-Sync and Auto-Feed functions with absolute encoder, featuring a closed loop positioning and motor performance optimization.

ABSOLUTE ENCODER MANAGEMENT

The X-PLUS AS4 drive supports high-precision positioning with battery-less absolute encoders, enabling advanced motion control



AUTO-FEED

AUTO-FEED is a closed loop function with:

- Very simple tuning
- Lower power consumption and heating



MODBUS RTU MAIN FUNCTIONS

- Homing, Position and Velocity mode
- Registers for diagnostics



HIGHLIGHTS

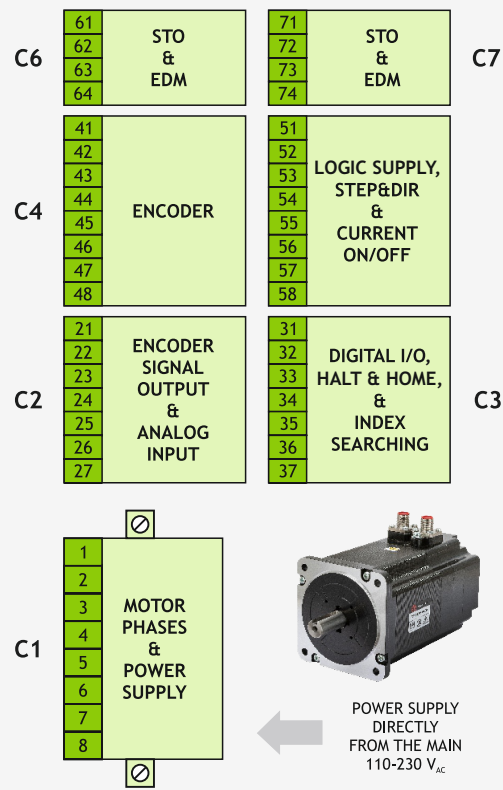
- 3 Current Control modes available: Open Loop, Auto-Sync and Auto-Feed.
- Configuration settings, diagnostics and setup via RTA STUDIO for Windows®.
- INPUT and OUTPUT configurable.
- Integrated system for back EMF energy dissipation with optional external resistor.
- Safe Torque Off (STO) function - **SIL3-Ple** Error Detection Monitor (EDM) output



ONE OF THE MOST COMPACT DRIVES WITH POWER INPUT DIRECTLY FROM THE MAIN AC SUPPLY (110 - 230 VAC)

Series	Model	V _{AC} range	I _{nom.}	I _{boost}	Dimensions
		(Volt)	(Amp)	(Amp)	(mm)
X-PLUS	AS4	110 to 230 +/- 15%	4.8	6.0	169x129x46

POWER AND LOGIC CONNECTIONS



MOTOR FEATURES

MODEL	RM 3T1M	RM 3T2M	RM 3T3M
BASIC STEP ANGLE	1.8 ± 0.09°	1.8 ± 0.09°	1.8 ± 0.09°
BIPOLAR CURRENT (A)	4	4	4
RESISTANCE (Ohm)	0.56	0.83	1
INDUCTANCE (mH)	3.7	6.4	7.9
BIPOLAR HOLDING TORQUE (Ncm)	360	700	920
ROTOR INERTIA (Kgm ² x 10 ⁻⁷)	1480	3000	4500
THEORETICAL ACCELERATION (rad x sec. ⁻²)	24300	23330	20500
BACK E.M.F. (V/Krpm)	90	175	241
MASS (Kg)	1.95	3.1	4.2
INTERNATIONAL STANDARDS	UL, CSA, CE, RoHS		
INSULATION VOLTAGE (V)	250 V _{AC} (350 V _{DC})		
PROTECTION DEGREE - INSULATION CLASS	IP 54 - CLASS F		
LEADS CODE	V		

ENCODER FEATURES

ENCODER MOTOR	RM 3TxM-00HT
RESOLUTION	DRIVE RELATED
MULTI-TURN RESOLUTION	2 ¹⁶
CURRENT CONSUMPTION (mA)	60
HIGH LEVEL OUTPUT (Volt)	5 (TIP) - 4.75 (MIN)
LOW LEVEL OUTPUT (Volt)	0.25 (TIP) - 0.6 (MAX)
OUTPUT SIGNAL	BiSS-C/SSI
POWER SUPPLY VOLTAGE (Volt)	5 V _{DC} ± 10%

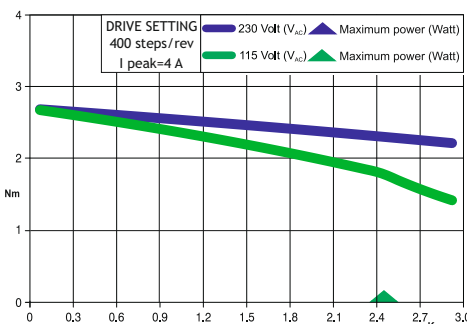
ENCODER CONNECTOR PIN-OUT

DESCRIPTION	X-PLUS AS4 C4 CON. PINS	M12 MOTOR PINS	RTA CABLE LEADS COLOR
CLOCK +	47	1	BLUE
CLOCK -	46	2	BROWN
DATA +	45	3	GREEN
DATA -	44	4	PURPLE
GND	48	5	BLACK
RESET	42	6	WHITE
NC	43	7	ORANGE
+ 5 VDC	41	8	RED

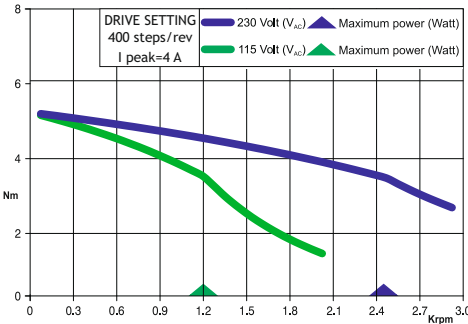
TORQUE/SPEED CURVES



RM 3T1M-00HT



RM 3T2M-00HT



RM 3T3M-00HT

