AxN Size 4
AxN 70.140.4

Technical specifications [1]	Symbol	AxN 70.140.4	Units
Power Supply Voltage	V_{in}	150 ~ 500	Vac 3 phase
		0 ~ 800	Vdc
Auxiliary supply voltage	V_{aux}	24V ± 15% / 6A	Vdc
Output frequency	f	0 ~ 1200	Hz
Current output, S1 [2]	I_n	70	Arms
Peak current [2]	I_p	140	Arms
Power Losses total [3]	P_t	870	W
Maximum output voltage	V_{out}	V_{in} x 0.95	Vac
PWM frequency [4]	f_{pwm}	4 / 8 / 16	kHz
Efficiency at nominal power [2]	--	98.1	%
Input form factor (Full load)	--	0.9	Vac 3 phase
Maximum braking current	--	100% of I_p (peak current)	--
Cooling	--	2 PWM fan 80x80x38	--
Flow rate	--	110×2	m^3 / hour
Dimensions (HxDxW)	--	488×249×200	mm

[1] Test performed with full option control card and firmware 1.8.197
[2] V_{in} = 380 Vac, V_{out} = V_{in} x 0.95, T_{amb} = 40°C, Comm.Freq.8kHz
[3] V_{in} = 380 Vac, I_{out} = I_n, T_{amb} = 40°C, Comm.Freq.8kHz, Including input rectifier losses
[4] PWM frequency will automatically decrease at Zero speed, in order to keep Nominal current output

Motor Feedback Options

Main Encoder (500kHz)	Sincos encoder 5 channels (2 absolute analog tracks/2 incremental analog tracks/index)
	Incremental encoder (1 Vpp or Different Line Driver)
	Sensorless algorithm (w/o feedback)
	Endat serial encoder 1.0 to 2.2 (default)
	Resolver
	Hiperface encoder
Secondary Encoder (500kHz)	Incremental digital encoder without commutation tracks (500kHz)
	Endat serial encoder

Programmable Input Signals

2 Differential / 4 single ended analog inputs	± 10V (1mV) / Rin = 10kΩ
8 digital inputs	20-30V / Rin = 6.6kΩ to GND
2 Insulated analog inputs (optional)	± 10V (1mV)
8 Insulated digital inputs (optional)	5mA, 24 Vdc max

Programmable Output Signals

2 analog outputs	0-10V (1mV) FS (30mA)
4 digital outputs	PNP open collector 24V (100mA)
1 watch dog relay	2A/30Vdc, 0.25A/250Vac, NO/NC contacts
2 insulated analog output (optional)	± 10V (1mV) FS (30mA)
2 insulated digital output (optional)	On.off switch, 9-28V/2A

Hardware Configuration

Processor speed: 80 MIPS µC + FPGA / 120 MIPS µC + FPGA Extreme Version (Optional)
Task frequency:
» Current /drive monitoring: 1 MHz
» Position/speed loop: 8 kHz
» PLC fast task: 8 kHz
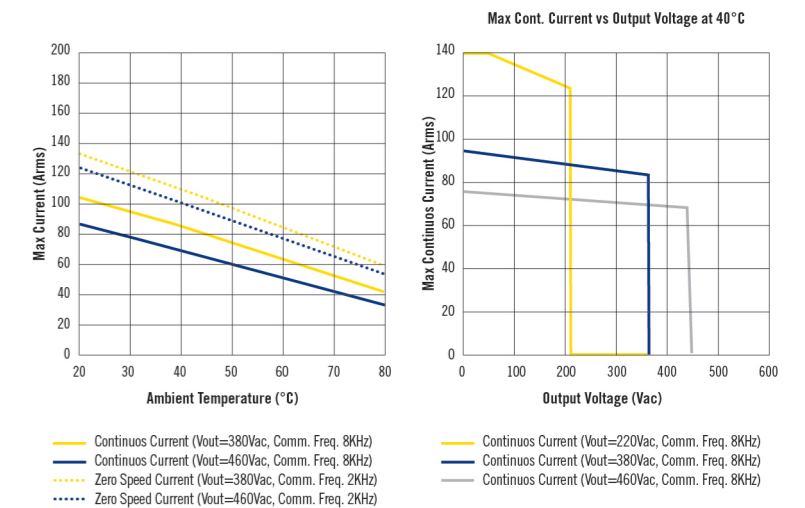» PLC slow task: 15.625 Hz to 1 kHz user-programmable
Position loop mode available
Target position register: 32 or 64 bits
Full digital control Id/Iq, updated 16 kHz

Drive Operational Area of AxN Size 4

AxN 70.140.4

Max Cont. Current vs Output Voltage at 40°C

— Continuos Current (Vout=380Vac, Comm. Freq. 8KHz)
— Continuos Current (Vout=460Vac, Comm. Freq. 8KHz)
— Zero Speed Current (Vout=380Vac, Comm. Freq. 2KHz)
····· Zero Speed Current (Vout=460Vac, Comm. Freq. 2KHz)

— Continuos Current (Vout=220Vac, Comm. Freq. 8KHz)
— Continuos Current (Vout=380Vac, Comm. Freq. 8KHz)
— Continuos Current (Vout=460Vac, Comm. Freq. 8KHz)

Overall Dimensions