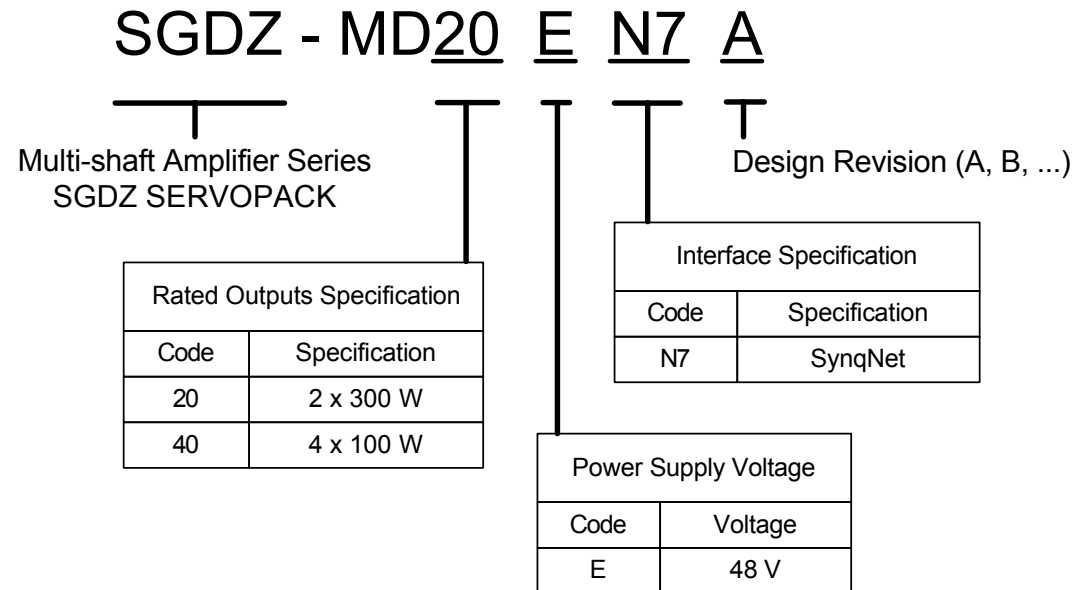


# Sigma II/Mini SGDZ SERIES SynqNet Amplifier



## Model Designation



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Preliminary Data Sheet



# SGDZ SynqNet™ Multi-Axis Amplifier

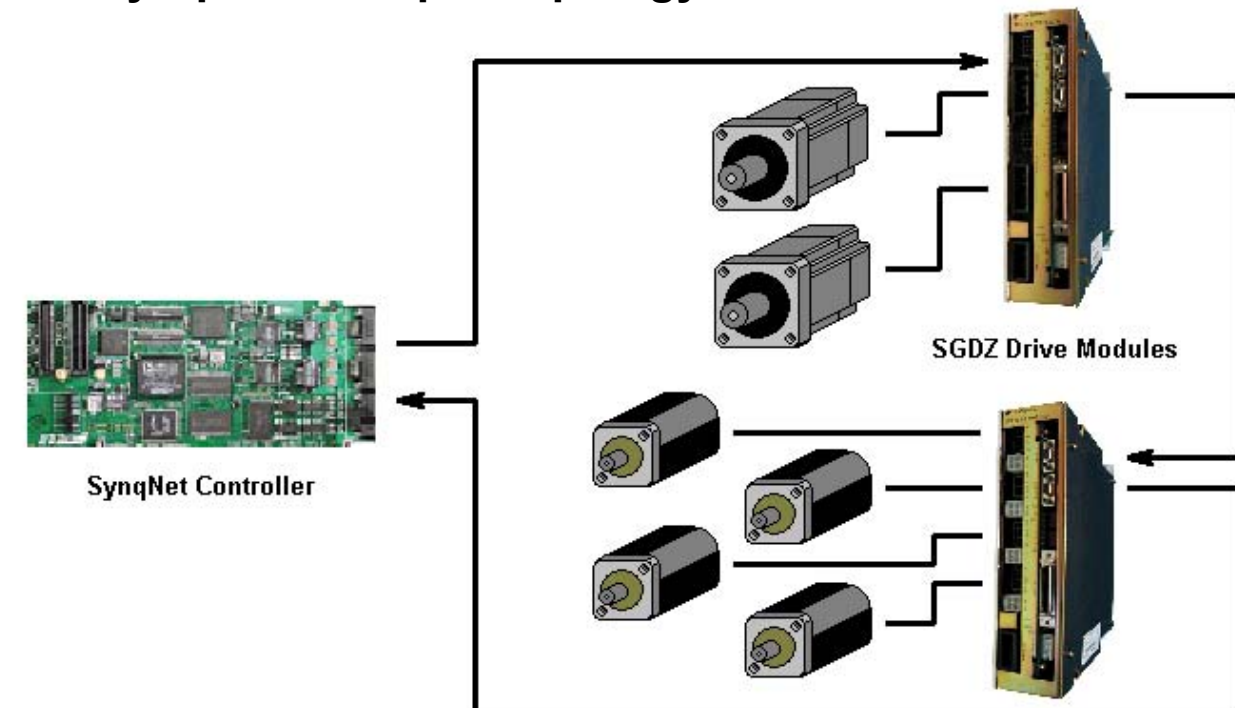
Model MDxxEN7A Specification

## Key Features

- **Ease of Use** *Automatic network configuration, remote drive setup and remote diagnostics simplify system configuration*
- **Performance** *64 kHz PWM frequency and up to 17-bit encoder feedback support enable high performance system implementation*
- **Flexible** *Wide range of 48 VDC motor capacities and up to 32 coordinated axes support allow flexible system integration*
- **Compact** *Multi-axis capability in a small compact form factor*
- **Reliable** *High MTBF improves overall system up-time*

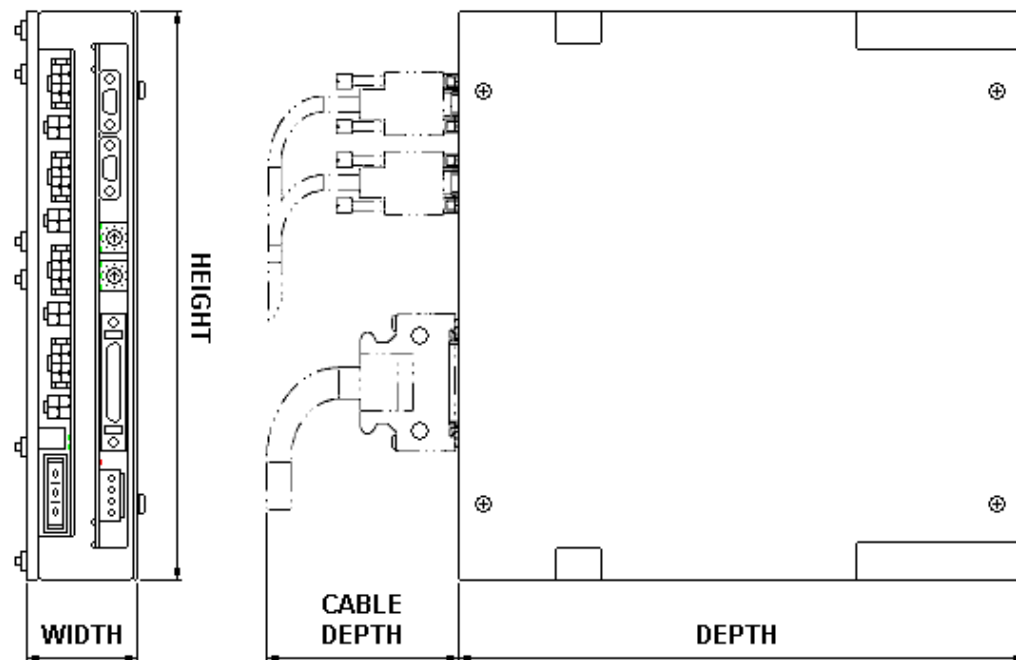


## SGDZ SynqNet Example Topology

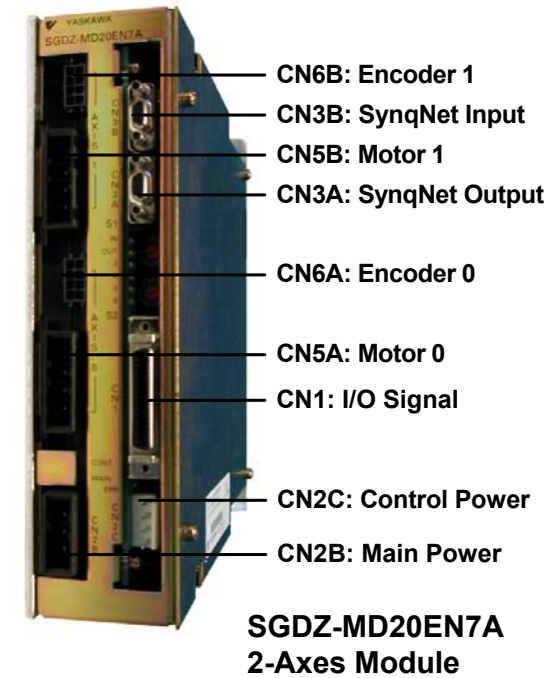


### SGDZ-MDxxEN7A Specifications

SERVOPACK Model SGDZ-		MD20EN7A	MD40EN7A	
Basic Specifications	Number of Axes	2	4	
	Motors	SGMMJ ( $\Sigma$ Mini)	-	10, 20, 30 W @ 24 V DC
		SGMAJ ( $\Sigma$ II)	200, 300 W @ 48 V DC	50, 100 W @ 48 V DC
	Maximum Current (per motor)	17 Amps	8 Amps	
	Encoder Feedback	Serial: 13-bit incremental or 16-bit, 17-bit absolute		
	Input Power Supply	Main Circuit	+48 V DC $\pm$ 5%	
		Control Circuit	+24 V DC $\pm$ 5%	
	Control Mode	Torque control		
	Operating Conditions	Temperature	Ambient: 0 to +45 °C; Storage: -20 to +85 °C	
		Humidity	90% RH or less (with no condensation)	
Vibration Resistance		9.8 m/s <sup>2</sup> or less		
Shock Resistance		58.8 m/s <sup>2</sup> or less		
Others	Configuration	Base-mounted		
	Standards	UL/cUL EN standard (EMC and low voltage instruction)		
	Dimensions	Width	45 mm (1.77 in.)	
		Height	180 mm (7.09 in.)	
		Depth	180 mm (7.09 in.)	
Cable Depth		75 mm (2.95 in.) or greater		



### SGDZ-MDxxEN7A Connector Information



CN2B		P/N: AMP 1-178293-2
1	+48 V	
2	GND	
3	FG	

CN2C		P/N: JST B4PS-VH
1	+24 V	
2	+24 V	
3	GND	
4	GND	

CN5x (MD20)		P/N: AMP 1-178294-2
1	U_3	
2	V_3	
3	W_3	
4	FG	

CN5x (MD40)		P/N: Molex 39-30-1040
1	U_3	
2	V_3	
3	W_3	
4	FG	

CN6x		P/N: Molex 43045-0822
1	PG5V	
2	NC	
3	PS	
4	FG	
5	GND	
6	NC	
7	PS'	
8	FG	

CN1		P/N: Hirose DX20-40S	
1	+24V_IN	21	NODE_ALARM_C
2	NODE_DISABLE	22	NODE_ALARM_E
3	HOME_0	23	OPTO_OUT_0C
4	OPTO_I0	24	OPTO_OUT_0E
5	P-OT_0	25	OPTO_OUT_1C
6	N-OT_0	26	OPTO_OUT_1E
7	HOME_1	27	OPTO_OUT_2C
8	OPTO_I1	28	OPTO_OUT_2E
9	P-OT_1	29	OPTO_OUT_3C
10	N-OT_1	30	OPTO_OUT_3E
11	HOME_2	31	RS422GND
12	OPTO_I2	32	TX0_00+
13	P-OT_2	33	TX0_00-
14	N-OT_2	34	TX1_00+
15	HOME_3	35	TX1_00-
16	OPTO_I3	36	RX2_00+
17	P-OT_3	37	RX2_00-
18	N-OT_3	38	RX3_00+
19	NC	39	RX3_00-
20	NC	40	RS422GND

CN3A		P/N: Molex 83611-9006	
1	CONN_RD1+	6	CONN_RD1-
2	RD1_COMM	7	RD1_COMM
3	EARTHGND_OUT	8	TD1_COMM
4	TD1_COMM	9	CONN_TD1-
5	CONN_TD1+		

CN3B		P/N: Molex 83611-9006	
1	CONN_TD0+	6	CONN_TD0-
2	TD0_COMM	7	TD0_COMM
3	EARTHGND_IN	8	RD0_COMM
4	RD0_COMM	9	CONN_RD0-
5	CONN_RD0+		

