



FRENIC-Multi LM1



**High Performance Compact
Inverter for Lift Applications**



Your Best Choice for Modernizations!

- New default setting parameters
- Full static auto tuning
- Excellent open loop performance (200% torque above 0.5 Hz)
- Cooling FAN function improved
- Rescue Operation with UPS
- Available in 3 ph 400 V (0.4 to 15 kW) & 200 V (0.1 to 15 kW)
- Low Maintenance: Long-Life Design (Extended to 10 Years)
- DC braking at the start

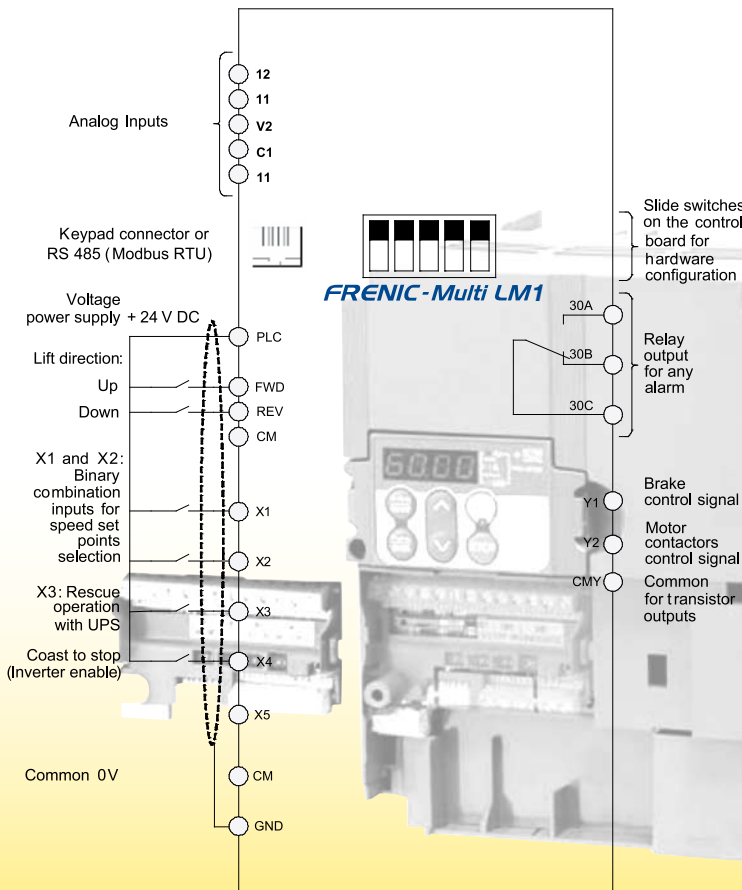


Standard Specifications 3ph 400 V series

Items		Specifications									
Type (FRN__E1E/S-4LM1)		0.4	0.75	1.5	2.2	4.0	5.5	7.5	11	15	
Nominal applied motor [kW]		0.4	0.75	1.5	2.2	4.0	5.5	7.5	11	15	
Output ratings	Rated capacity [kVA]	1.1	1.9	2.8	4.1	6.8	9.9	13	18	22	
	Rated voltage [V]	Three-phase 380 to 480V (With AVR)									
	Rated current [A] (*1)	1.5	2.5	3.7	5.5	9.0	13	18	24	30	
	Overload capability	150% of rated current for 1min or 200% of rated current for 0.5s									
	Rated frequency	50, 60 Hz									
Input ratings	Main power supply	Three-phase 380 to 480V 50/60Hz									
	Voltage/frequency variations	Voltage: +10 to -15% (Voltage unbalance: 2% or less), Frequency: +5 to -5%									
	Rated current [A]	With DCR	0.85	1.6	3.0	4.4	7.3	10.6	14.4	21.1	28.8
		Without DCR	1.7	3.1	5.9	8.2	13.0	17.3	23.2	33.0	43.8
Required power supply capacity [kVA]	0.6	1.1	2.0	2.9	4.9	7.4	10	15	20		
Braking	Braking torque [%]	100		70		40		20			
	DC braking	Starting frequency: 0.1 to 60.0Hz, Braking time: 0.0 to 30.0s, Braking level: 0 to 100%									
	Transistor for braking resistor	Built-in									
Applicable safety standards		UL508C, C22.2No.14, EN50178: 1997									
Enclosure		IP20 (IEC60529) / UL open type (UL50)									
Cooling method		Natural cooling				Fan cooling					
Mass [kg]		1.1	1.2	1.7	1.7	2.3	3.4	3.6	6.1	7.1	
EMC filter built-in (E1E) (*2)											
EMC standard compliance	Emission	Category C2 (EN 61800-3: 2004)					Category C3 (EN 61800-3: 2004)				
	Immunity	2nd Env. (EN 61800-3: 2004)									
Mass (kg)		1.5	1.6	2.5	2.5	3.0	4.8	5.0	8.1	9.1	

(*1) Rated current for Ta = 50°C, Fc = 8 kHz, ED = 40%
 (*2) Available only in 4.0 kW (400 V)

Control Diagram (Example)



Advanced Functions Dedicated to Lift Applications

- Brake control function
- Main contactors control function
- Powerful and easy rescue operation function (UPS)
- Overload stop function
- Automatic control of cooling fan: silent operation and energy saving
- Full setting of S-curves: 6 independent points can be adjusted
- Input / Output phase lost protection
- Ground fault protection
- Auto-reset operation
- Soft-start operation
- Motor control adjustment function
- Torque boost gain and compensation response times can be adjusted independently in both normal and UPS operation
- PC Loader tool (Loader Software free of charge)
- Multifunction keypad with 6 languages is optional

