Drive Multi Standard Specifications

200V Class * Types in the parentheses are in the development of the parenthese are in the parenthese ar						development plannir	ng phase; therefore, the specifications may change.			
Туре	Type UDM		2008	2022	2035	2047	(2071)	(2141)	(2259)	Note
Мах. Арр	Max. Applicable Motor kW		1.5	3.7	7.5	11	(15)	(30)	(55)	with 4-pole, 50Hz, 200V standard induction machine
	Rated output	kVA	2.8	7.5	12	16	(24)	(49)	(90)	with 200V output voltage
	Rated current	Α	8.1	21.6	35.4	47.1	(70.7)	(141.4)	(259.3)	
Rated	Overload capacity			150% 60s						
Output	Carrier frequency	kHz			In case of 8kHz, apply 40% less than the rated values					
	Max. output voltage	٧			depending on the voltage of input power source					
	Rated frequency	Hz				50				
	Max. output frequency	Max. output frequency Hz 400							with 8kHz carrier frequency	
	Main power Source	ource 3-phase 200 to 240V, 50/60Hz, or DC270 to 340V								The DC input power source does not comply with UL/CE.
Input	Allowable fluctuation range			Voltage: -15% to +10% Frequency: ±5%						Unbalance between the phases: 2% or less
Power	Rated input current	Α	9.6	20	41	56	77	121	222	Reference values at the time of 200V input
Source	Power facility capacity	kVA	4.3	9	18	25	34	55	100	Reference values subjected to change depending on input impedance
	Max. facility capacity			Line impedance: 5% or less Ampacity: 30,000A, 500KVA, 3-phase						
Braking										
Reactor			AC reactor (Option) AC reactor or DC reactor required (Option)						Reactor is required for higher harmonic current control.	
Protection	n									
Cooling			natural cooling							
Loss		W	78	177	273	351				
Size-L×W	/×D outer dimensions	304×144×218 334×164×218 344×244×268								
Approx. mass kg		kg	5.0	5.1	6.9	11.4				

400V Class * Types in the parentheses are in the development planning phase; therefore, the spe							ng phase; therefore, the specifications may change.			
Type		UDM	4004	4012	4022	4035	(4071)	(4141)	(4259)	Note
Мах. Арр	Max. Applicable Motor kW		1.5	3.7	7.5	15	(30)	(55)	(110)	with 4-pole, 50Hz, 400V standard induction machine
	Rated output	kVA	2.8	8	12	25	(49)	(98)	(180)	with 400V output voltage
	Rated current	Α	4.1	11.8	21.6	35.4	(70.7)	(141.4)	(259.3)	
Rated	Overload capacity			150% 60s						
Output	Carrier frequency	kHz			In case of 8kHz, apply 40% less than the rated values					
	Max. output voltage	V			depending on the voltage of input power source					
	Rated frequency	Hz				50				
	Max. output frequency	Hz			with 8kHz carrier frequency					
	Main power Source		3-phase 380 to 480V, 50/60Hz, or DC510 to 680V							The DC input power source does not comply with UL/CE.
Input	Allowable fluctuation range			Voltage:-15% to +10% Frequency: ±5%						Unbalance between the phases: 2% or less
Power	Rated input current	Α	4.7	10	21	38	73	111	222	Reference values at the time of 400V input
Source	Power facility capacity	kVA	4.3	9	18	34	64	100	200	Reference values subjected to change depending on input impedance
	Max. facility capacity			Line impe						
Braking										
Reactor			AC reactor (Option)					AC reactor or DC reactor required (Option)		Reactor is required for higher harmonic current control.
Protection										
Cooling			natural cooling by mechanical wind cooling							
Loss		W	68	154	299	435				
Size-L×W	/×D outer dimensions	mm	304×14	14×218	334×164×218	344×244×268				
Approx. mass kg			5.0	5.1	6.8	11.5				

Drive Multi Common Specifications

Control Characteristics						
Control method (Main circuit) -	Sine wave PWM					
Control method -	IM vector control with encoder; SPM vector control with Smart ABS encoder (Option)					
Speed fluctuation Load %	±0.025(Load 0-100%)					
Power source %	±0.025(Load 0-100%)					
Ambient temperature %	±0.1					
Speed response rad/se	628					
Acceleration/deceleration function -	0.1 to 3276.7sec linear acceleration/deceleration					
Command input -	Analog command 3-input (0 to ±10V, 20k ohm input resistance)					
Monitor output -	Analog monitor 2-output (0 to ±10V)					
Sequencer input -	7 contact signal inputs, RUN input (DC12 to 24V, 2.2 k ohm input resistance)					
Sequencer output -	3 contact signal outputs (DC12 to 24V, 50mA), FR output					
Max. encoder input frequency kHz	300					
Communication function -	GVnet(Various kinds of command, sequencer signal, monitor, failure data etc.)					
Control function (Outerloop function) -	Electric current control, tension control, dancer control, helper control					

Protection

System -	Overheat, BUS over or under voltage, over current, ground fault
Motor -	Overload on the motor, encoder fault, overspeed
Others -	Communication fault

Ambient Conditions

Installation place	-	Prevent the control board from dust, oil mist, floating substance, corrosive/flammable/hazardous gas(Contamination Degree 2)
Temperature	℃	-10 to +50 in operation; -40 to +65 in storage
Humidity	%	5 to 95 (No condensation)
Altitude	m	Max. 1000
Vibration	G	Max. 1 (25Hz)
Impact	G	Max. 2



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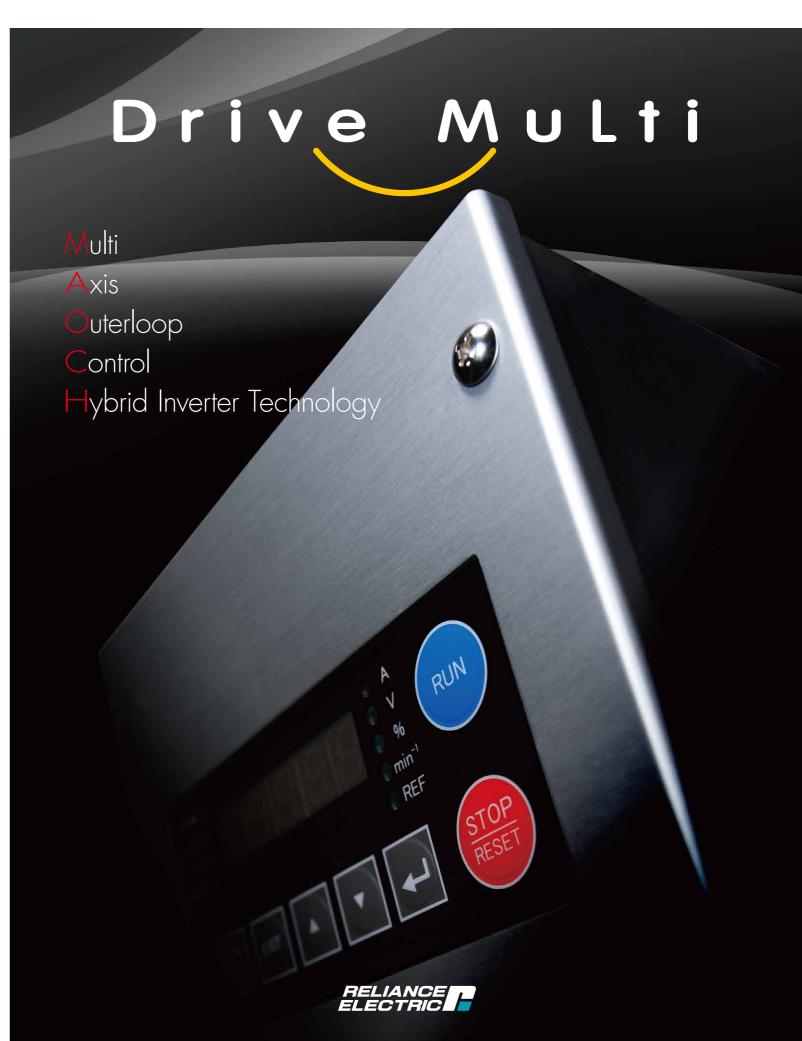
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Integration of vector control inverter and line drive application

Reliance Electric Limited has cultivated vector control inverter. By integrating the performance of the vector control inverter and the advanced line drive application technology, Reliance Electric Limited has made them evolved into a drive unit.

Decentralized control of system is made possible by the control loop provided inside inverter



for line drive application

MAOCH Technology

MAOCH Technology is to implement outerloop control in inverter.

I_{ullet} Characteristics

·Highly-accurate speed control and torque control.

Besides the speed loop, which is the basic function, there are built-in control loops for line drive application, tension control, dancer control, helper control.

2. High Performance

·High performance built-in vector control loop for induction motor and synchronous motor.

3. Usability

Operation is made easier by the HMI with selected functions, which is mounted on the face plate.

- ·Motor parameter tuning function is provided.
- ·AMX network (GV net) is provided as standard, whereas GV3000 in the same product line has it as an option.
- ·Applicable to various field-networks as the communication options have been added*1.
- ·The organization, monitor and trouble shooting are all made easier by the drive terminal software.
- ·Easier access to the control board. Just by opening the face plate, the control board is accessible. Periodical replacement of cooling fan etc. can be implemented easily.
- *1:Application to PROFInet planned for March, 2011. Then, later it will become applicable to other protocols as needed

4. Compact and space-saving

'The bookshelf design has made it more compact by 40% in comparison with GV3000 drive of our company.

'The zero-stacking structure saves space in the controller cabinet.

(Direct fixing: No need to have some extra space to fix the inverter.)





5. Flexible communication

·In DriveMulti are provided USB for drive terminal communication, AMX network (GV-NET) as standard.

6. Applications

Most suitable applications: e.g.

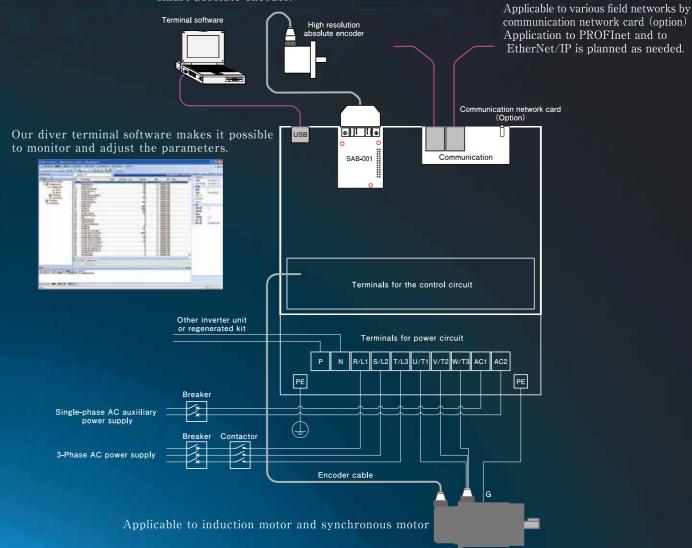
- O Coater, laminater line
- O Printer
- O Web carrier line
- O Metal process line etc.

7. Environment-friendly

•Complied with RoHS (Restriction of Hazardous Substances)
•The drive unit is environment-friendly as it restricts use of the 6 hazardous substances.

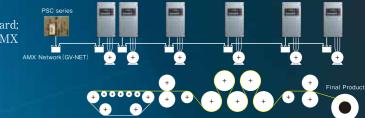
Overview of External Connection

Applicable to high resolution encoder and smart absolute encoder.



System Drive Solution-AMX Network (GV-NET)

AMX Network (GV-NET) is provided as standard; therefore, it can be easily integrated into the AMX Network of the existing system.



System Drive Solution-Communication Option Card PROFInet

Communication network card is available as an option; therefore, it is possible to organize system that uses EtherNet for industrial use.

