

LV 7000-3 is a state of art AC drive for use in all applications where robustness, dynamic performance, precision and power are required from 0,75 to 2000 kW at 380 Vac to 690 Vac.



Stand Alone Drives
FR4-FR9



Drive Modules
FR10-FR14

Technical Data		
Mains connection	Input voltage U _{in} Input frequency Connection to mains	380...500 V; 525...690 V; -10%...+10% 45...66 Hz Once per minute or less (normal case)
Motor connection	Output voltage Cont. output current Overloadability Output frequency	0—U _{in} High overloadability : I(H) at max. +50°C ambient temperature (FR10 and up : +40°C) Low overloadability : I(L) at max. +40°C ambient temperature High: 1.5 x IH (1 min/10 min), Low: 1.1 x IL (1 min/10 min) 0...320 Hz
Control characteristics	Control method Control performance Frequency reference Acceleration time Deceleration time Braking torque	Frequency control U/f Open Loop Sensorless Vector Control Closed Loop Vector Control Open loop vector control (5-150% of base speed): -speed control 0.5%, dynamic 0.3%sec -torque lin.<2%, torque rise time ~5 ms Closed loop vector control (entire speed range): -speed control 0.01%, dynamic 0.2%sec, -torque lin.<2%, torque rise time ~2 ms Analogue input -Resolution 0.1% (10-bit), accuracy ±1% Keypad reference -Resolution 0.01 Hz 0...3000 sec 0...3000 sec DC brake: 30% * TN (without brake option), flux braking
Ambient conditions	Ambient operating temperature Storage temperature Relative humidity Altitude Air quality: - chemical vapours - mechanical particles Cooling Unit enclosure class	-10°C (no frost)...+40°C -40°C ...+70°C 0 to 95% RH, non-condensing, non-corrosive, no dripping water 100% load capacity (no derating) up to 1,000 m 1% derating for each 100m above 1000.; max 3000m IEC 721-3-3, unit in operation, class 3C2 IEC 721-3-3, unit in operation, class 3S2 Forced air cooling FR4...FR9: IP21 or IP 54 FR10...FR14: IP00
Control connections	Analogue input voltage Analogue input current Digital inputs Auxiliary voltage Output reference voltage Analogue output Digital outputs Relay outputs	0...+10V, R _i = 200kΩ, (-10V...+10V joystick control) Resolution 0.1%, accuracy ±1% 0(4)...20 mA, R _i = 250Ω differential Resolution 0.1%, accuracy ±1% (6) Positive or negative logic; 18...30VDC +24V, ±15%, max. 250mA +10V, +3%, max. load 10mA 0(4)...20mA; R _L max. 500Ω; Resolution 10 bit; Accuracy ±2% Open collector output, 50mA/48V 2 programmable change-over relay outputs (NO/NC), switching capacity: 24VDC/8A, 250VAC/8A, 125VDC/0.4A
Control	I/O Communication	The standard I/O can easily be extended with I/O expanders and fieldbus boards (up to 3). Flexibility in communication via multiple fieldbuses : Profibus DP, CANopen, Device Net, Modbus/TCP (Ethernet)
Keypad		Alphanumeric display: Multi-Monitoring, Default page, Back-up Function, RS-232 communication for PC connection
Protections		Overvoltage, undervoltage, earth fault, mains supervision, motor phase supervision, overcurrent, unit overtemperature, motor overload, motor stall, motor underload, short-circuit of +24 V and +10 V, reference voltages
EMC Safety	Immunity	Fulfil all EMC immunity requirements EN 50178 (1997), EN 60204-1 (1996), EN 60950 (2000, 3rd edition), IEC 61800-5, CE, UL, CUL, FI, GOST R
Features		<ul style="list-style-type: none"> • Controls induction and permanent magnet motors • All drives in FR4-6 for 380-500V are equipped with a built-in brake chopper and an optional resistor. • Complete range of communications and I/O options • Capability for master/slave configurations • 12 pulse supply possibility for Drive Modules

Motor voltage 380-500 Vac, 50/60 Hz, 3~

TYPE	MOTOR SHAFT POWER AND CURRENT				SIZE FR	DIMENSIONS/WEIGHT W x H x D [mm]/[kgj]
	High overload (2) P [kW] I(H)		Low overload (1) P [kW] I(L)			
LV7000-3-00035A2H1SSSA1A2	0,75	2,2	1,1	3,3	FR4	128x292x190
LV7000-3-00045A2H1SSSA1A2	1,1	3,3	1,5	4,3	FR4	128x292x190/5
LV7000-3-00055A2H1SSSA1A2	1,5	4,3	2,2	5,6	FR4	128x292x190/5
LV7000-3-00075A2H1SSSA1A2	2,2	5,6	3	7,6	FR4	128x292x190/5
LV7000-3-00095A2H1SSSA1A2	3	7,6	4	9	FR4	128x292x190/5
LV7000-3-00125A2H1SSSA1A2	4	9	5,5	12	FR4	128x292x190/5
LV7000-3-00165A2H1SSSA1A2	5,5	12	7,5	16	FR5	144x391x214/8,1
LV7000-3-00225A2H1SSSA1A2	7,5	16	11	23	FR5	144x391x214/8,1
LV7000-3-00315A2H1SSSA1A2	11	23	15	31	FR5	144x391x214/8,1
LV7000-3-00385A2H1SSSA1A2	15	31	18,5	38	FR6	195x519x237/18,5
LV7000-3-00455A2H1SSSA1A2	18,5	38	22	46	FR6	195x519x237/18,5
LV7000-3-00615A2H1SSSA1A2	22	46	30	61	FR6	195x519x237/18,5
LV7000-3-00725A2H0SSSA1A2	30	61	37	72	FR7	237x591x257/35
LV7000-3-00875A2H0SSSA1A2	37	72	45	87	FR7	237x591x257/35
LV7000-3-01055A2H0SSSA1A2	45	87	55	105	FR7	237x591x257/35
LV7000-3-01405A2H0SSSA1A2	55	105	75	140	FR8	291x758x344/58
LV7000-3-01685A2H0SSSA1A2	75	140	90	170	FR8	291x758x344/58
LV7000-3-02055A2H0SSSA1A2	90	170	110	205	FR8	291x758x344/58
LV7000-3-02615A2H0SSFA1A2	110	205	132	261	FR9	480x1150x362/146
LV7000-3-03005A2H0SSFA1A2	132	245	160	300	FR9	480x1150x362/146
LV7000-3-03855A0N0SSAA1A2	160	300	200	385	FR10	500x1165x506/207
LV7000-3-04605A0N0SSAA1A2	200	385	250	460	FR10	500x1165x506/238
LV7000-3-05205A0N0SSAA1A2	250	460	250	520	FR10	500x1165x506/238
LV7000-3-05905A0N0SSAA1A2	250	520	315	590	FR11	709x1206x503/378
LV7000-3-06505A0N0SSAA1A2	315	590	355	650	FR11	709x1206x503/378
LV7000-3-07305A0N0SSAA1A2	355	650	400	730	FR11	709x1206x503/378
LV7000-3-08205A0N0SSAA1A2	400	730	450	820	FR12	2x(500x1165x506)/414
LV7000-3-09205A0N0SSAA1A2	450	820	500	920	FR12	2x(500x1165x506)/476
LV7000-3-10305A0N0SSAA1A2	500	920	560	1030	FR12	2x(500x1165x506)/476
LV7000-3-11505A0N0SSFA1A2	560	1030	630	1150	FR13	2x(239x1030x372)+(708x1032x553)/700
LV7000-3-13005A0N0SSFA1A2	630	1150	710	1300	FR13	3x(239x1030x372)+(708x1032x553)/852
LV7000-3-14505A0N0SSFA1A2	710	1300	800	1450	FR13	3x(239x1030x372)+(708x1032x553)/852
LV7000-3-17705A0N0SSFA1A2	900	1600	1000	1770	FR14	4x(239x1030x372)+2x(708x1032x553)/995
LV7000-3-21505A0N0SSFA1A2	1100	1940	1200	2150	FR14	4x(239x1030x372)+2x(708x1032x553)/1010

Motor voltage 525-690 Vac, 50/60 Hz, 3~

TYPE	MOTOR SHAFT POWER AND CURRENT				SIZE FR	DIMENSIONS/WEIGHT W x H x D [mm]/[kgj]
	High overload (2) P [kW] I(H)		Low overload (1) P [kW] I(L)			
LV7000-3-00046A2L0SSSA1A2	2,2	3,2	3	4,5	FR6	195x519x237/18,5
LV7000-3-00056A2L0SSSA1A2	3	4,5	4	5,5	FR6	195x519x237/18,5
LV7000-3-00076A2L0SSSA1A2	4	5,5	5,5	7,5	FR6	195x519x237/18,5
LV7000-3-00106A2L0SSSA1A2	5,5	7,5	7,5	10	FR6	195x519x237/18,5
LV7000-3-00136A2L0SSSA1A2	7,5	10	11	13,5	FR6	195x519x237/18,5
LV7000-3-00186A2L0SSSA1A2	11	13,5	15	18	FR6	195x519x237/18,5
LV7000-3-00226A2L0SSSA1A2	15	18	18,5	22	FR6	195x519x237/18,5
LV7000-3-00276A2L0SSSA1A2	18,5	22	22	27	FR6	195x519x237/18,5
LV7000-3-00346A2L0SSSA1A2	22	27	30	34	FR6	195x519x237/18,5
LV7000-3-00416A2L0SSSA1A2	30	34	37	41	FR7	237x591x257/35
LV7000-3-00526A2L0SSSA1A2	37	41	45	52	FR7	237x591x257/35
LV7000-3-00626A2L0SSSA1A2	45	52	55	62	FR8	291x758x344/58
LV7000-3-00806A2L0SSSA1A2	55	62	75	80	FR8	291x758x344/58
LV7000-3-01006A2L0SSSA1A2	75	80	90	100	FR8	291x758x344/58
LV7000-3-01256A2L0SSFA1A2	90	100	110	125	FR9	480x1150x362/146
LV7000-3-01446A2L0SSFA1A2	110	125	132	144	FR9	480x1150x362/146
LV7000-3-01706A2L0SSFA1A2	132	144	160	170	FR9	480x1150x362/146
LV7000-3-02086A2L0SSFA1A2	160	170	200	208	FR9	480x1150x362/146
LV7000-3-02616A0N0SSAA1A2	200	208	250	261	FR10	500x1165x506/176
LV7000-3-03256A0N0SSAA1A2	250	261	315	325	FR10	500x1165x506/207
LV7000-3-03856A0N0SSAA1A2	315	325	355	385	FR10	500x1165x506/207
LV7000-3-04166A0N0SSAA1A2	315	325	400	416	FR10	500x1165x506/207
LV7000-3-04606A0N0SSAA1A2	355	385	450	460	FR11	709x1206x503/325
LV7000-3-05026A0N0SSAA1A2	450	460	500	502	FR11	709x1206x503/325
LV7000-3-05906A0N0SSAA1A2	500	502	560	590	FR11	709x1206x503/378
LV7000-3-06506A0N0SSAA1A2	560	590	630	650	FR12	2x(500x1165x506)/414
LV7000-3-07506A0N0SSAA1A2	630	650	710	750	FR12	2x(500x1165x506)/414
LV7000-3-08206A0N0SSAA1A2	710	750	800	820	FR12	2x(500x1165x506)/414
LV7000-3-09206A0N0SSFA1A2	800	820	900	920	FR13	2x(239x1030x372)+(708x1032x553)/670
LV7000-3-10306A0N0SSFA1A2	900	920	1000	1030	FR13	2x(239x1030x372)+(708x1032x553)/670
LV7000-3-11806A0N0SSFA1A2	1000	1030	1150	1180	FR13	2x(239x1030x372)+(708x1032x553)/700
LV7000-3-15006A0N0SSFA1A2	1300	1300	1500	1500	FR14	3x(239x1030x372)+2x(708x1032x553)/925
LV7000-3-19006A0N0SSFA1A2	1500	1500	1800	1900	FR14	4x(239x1030x372)+2x(708x1032x553)/995
LV7000-3-22506A0N0SSFA1A2	1800	1900	2000	2250	FR14	4x(239x1030x372)+2x(708x1032x553)/1010

(1) Low overload = 110% overloadability, 1 min/10 min
(2) High overload = 150% overloadability, 1 min/10 min