

Inputs and Outputs

Q. How many analog inputs are on a 690+?

A. The 690+ has four analog inputs: two configurable to receive $\pm 10\text{VDC}$, 0-20V, 0-20mA, or 4-20mA and two configurable receive $\pm 10\text{VDC}$, 0-20V. All analog inputs have 10-bit resolution (plus sign bit). The inputs are scanned approximately every 10 milli-seconds.

Note: The resolution for the analog input can be increased to 12 bit by adding a systems expansion PCB.

Q. How many analog outputs are on a 690+?

A. The 690+ has three configurable analog outputs: two to output $\pm 10\text{VDC}$, and one to output 0-10V, 0-20mA, 4-20mA. The outputs are scanned approximately every 10 milli-seconds. The analog outputs have 10-bit resolution (plus sign bit).

Q. How many digital inputs are on a 690+?

A. The 690+ has eight digital inputs, seven configurable, all rated at +24VDC, 100mA. The inputs are sampled approximately every 10 milli-seconds.

Q. How many digital outputs are on a 690+?

A. The 690+ has three volt free digital output contacts. They are configurable and rated at 3A @ 230Vac.

Note: A system expansion PCB provides the drive with five extra digital in/outputs.

Specifications

Q. What are the reference power supplies available to terminal connections on the 690+?

A. The 690+ has $\pm 10\text{VDC}$ and +24 VDC supplies available to terminal connections.

Q. What is the current overload rating for the 690+ drive?

A. The 690+ has an overload rating of 150% for 60 seconds and 180% for 1 second.

Q. What are the minimum and maximum 3-phase input voltage ratings?

A. The 690+ voltage rating is 220-240VAC ($\pm 10\%$) single or three phase or 380-460VAC ($\pm 10\%$) three phase.

Q. What is the output rating?

A. The output rating is 0-480Hz.

Q. What is the operating temperature for the 690+?

A. The 690+ temperature rating is 0°C to 45°C (32°F-113°F).

Note: The drive has to be derated linearly 1% per degree centigrade from 45°C (113°F) up to a maximum of 50°C (122°F).

Q. What is the maximum operating altitude for the 690+?

A. The maximum drive operating altitude is 5000m (16400 ft).

Note: The drive has to be derated linearly 1% per 100 meters above 1000m.

Q. What standards do the 690+ meet?

A. The 690+ meets the CE, UL, c-UL, ECN50081-1, and ECN50082-2 standards.

If you have questions, please call the Product Support Group at (704) 588-3246.



690+ Rating Tables

220-240 (±10%) VAC Supplies – Single Phase

Part Number	Constant Torque Ratings		Frame Size
	Hp	Output Current (A)	
690+0001/230	1	2.5	B
690+0002/230	2	4.5	B
690+0003/230	3	5.5	B
690+0005/230	5	9.5	B

380-460 (±10%) VAC Supplies – Three Phase

Part Number	Constant Torque Ratings		Quadratic (Fan) Torque Ratings		Frame Size
	Hp	Output Current (A)	Hp	Output Current (A)	
690+0001/460/1BN	1	2.5	-	-	B
690+0002/460/1BN	2	4.5	-	-	B
690+0003/460/1BN	3	5.5	-	-	B
690+0005/460/1BN	5	9.5	-	-	B
690+0007/460/1BN	7.5	12	10	16	C
690+0010/460/1BN	10	16	15	23	C
690+0015/460/1BN	15	23	20	31	C
690+0020/460/1BN	20	31	25	38	D
690+0025/460/1BN	25	38	30	45	D
690+0030/460/1BN	30	45	40	59	D
690+0040/460/1BN	40	59	50	73	E
690+0050/460/1BN	50	73	60	87	E
690+0060/460/1BN	60	87	75	105	E
690+0075/460/1BN	75	105	100	145	F
690+0100/460/1BN	100	145	125	165	F

Note: The part numbers listed above are for ordering a standard configuration drive.

Change the last three values in the part number to select a special drive hardware configuration.

Enclosure:: **C**- Chassis (IP20 only) **1**- NEMA 1 (IP20 and falling dirt protection (UL Type 1))

Brake Module:: **N**-NONE **B**-INSTALLED

Option Card:: **N**-NONE **S**-System board installed

Example: 690+0005/460/1BS is for a 690+, 5Hp, 460VAC, with a Nema 1 cover, w/Brake, and systems expansion PCB.

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