



Z8000 Series

Advanced Close Loop Vector Control Inverter



芜湖众辰自动化设备有限公司
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Z8000 Series High Performance Close loop Vector Control

- The carrier frequency is automatically adjusted based on the load features;
- Wide Frequency range, adapt to most applications;
- V/F control, On board PID control; Modbus communication (Optional parts);
- Support for various PG card; Special for kinds of industries, with tension control, spindle servo, support for PM motor ect.
- Power range:
220V 0.4kW~3.7kW
380V 0.75kW~1000kW
690V 11~1000kW

Technical Specification

| Item | Z8000 | |
|--------------------------|--|--|
| Based Function | Control mode | Senseless flux vector control (SFVC) Closed-loop vector control (CLVC) V/F(Voltage/Frequency) control |
| | Maximum frequency | Vector control: 0–320 Hz V/F control: 0–3200Hz |
| | Carrier frequency | 1.0–16.0 kHz The carrier frequency is automatically adjusted based on the load features. |
| | Input frequency resolution | Digital setting: 0.01 Hz ; Analog setting: 0.025% of maximum frequency |
| | Startup torque | G type: 0.5 Hz/150% (SFVC); 0 Hz/180% (CLVC) P type: 0.5 Hz/100% |
| | Speed range | 1:100 (SFVC); 1:1000 (CLVC) |
| | Speed stability accuracy | ± 0.2% (SFVC); ± 0.02% (CLVC) |
| | Torque control accuracy | ± 5% (CLVC) |
| | Overload capacity | G type: 60s for 150% of the rated current, 3s for 180% of the rated current. P type: 60s for 120% of the rated current, 3s for 150% of the rated current. |
| | Torque boost | Auto boost Customized boost 0.1%–30.0% |
| | V/F curve | Line V/F curve; Multi-point V/F curve N-power V/F curve (1.2-power, 1.4-power, 1.6-power, 1.8-power, square) |
| | V/F separation | two types: complete separation; half separation |
| | Ramp mode | Straight-line ramp; S-curve ramp; Four groups of acceleration/deceleration time with the range of 0.0–6500.0s |
| | DC braking | DC braking frequency: 0.00 Hz to maximum frequency: Braking time: 0.0~100.0s Braking action current value: 0.0%~100.0% |
| | JOG control | JOG frequency range: 0.00–50.00 Hz JOG acceleration/deceleration time: 0.0~6500.0s |
| | Onboard multiple preset speeds | It implements up to 16 speeds via the simple PLC function or combination of terminal states |
| | Onboard PID | It realizes process-controlled closed loop control system easily. |
| | Auto voltage regulation (AVR) | It can keep constant output voltage automatically when the mains voltage changes. |
| | Overvoltage/ Overcurrent stall control | The current and voltage are limited automatically during the running process so as to avoid frequent tripping due to overvoltage/over current. |
| | Rapid current limit | It helps to avoid frequent over current faults of the AC drive. |
| Torque limit and control | It can limit the torque automatically and prevent frequent over current tripping during the running process. Torque control can be implemented in the CLVC mode. | |

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PG card

| Model | Description | Suitable inverter |
|--------|---|---------------------------------|
| PG-B1 | ERN1387_SIN&COS input PG card_DB15 | Z8400-5.5kW and above |
| PG-B2 | ABZ_ different input PG card _terminal connector | Z8400-3.7kW and above |
| PG-B3 | Rotating PG card _terminal connector | Z8400-3.7 kW and above |
| PG-B4 | ABZ_OC input PG card_ terminal connector | Z8400-3.7 kW and above |
| PG-B5 | ABZUVW_ different input PG card_DB15 | Z8400-5.5 kW and above |
| PG-B6 | CANLINK communication card | Z8400-3.7 kW and above |
| PG-B8 | CARD0_with PT100_fan output_485 transformer connect | Z8400-3.7 kW and above |
| PG-B9 | Profibus card | Z8400-5.5 kW and above |
| PG-B10 | ABZ_ different input PG card_DB9 | Z8400-5.5 kW and above |
| PG-B11 | Rotating PG card_DB9 | Z8400-5.5 kW and above |
| PG-B12 | 1A input connector_ Plastic Injection Application | Z8400-3.7 kW and above |
| PG-B13 | GPRS expansion card_ with connector_485 or 232 connector are optional | 30kW and below need to external |
| PG-D1 | Double ABZ_OC input PG card_ terminal connector | Z8400D-3.7 kW and above |
| PG-D2 | Double ABZ_ different input PG card _ terminal connector | Z8400D-3.7 kW and above |

Specification

1.Voltage: 1PH AC 220V \pm 15% 3PH AC 380V \pm 15%

| Model | Rated Output Power (KW) | Rated Input Current(A) | Rated Output Current(A) | Motor Equipped(kW) |
|-------|-------------------------|------------------------|-------------------------|--------------------|
|-------|-------------------------|------------------------|-------------------------|--------------------|

Input Voltage(V): 1PH AC220V \pm 15%

| | | | | |
|-------------|------|-----|-----|------|
| Z8200-0R4G | 0.4 | 5.4 | 2.4 | 0.4 |
| Z8200-0R75G | 0.75 | 7.2 | 4.5 | 0.75 |
| Z8200-1R5G | 1.5 | 10 | 7 | 1.5 |
| Z8200-2R2G | 2.2 | 16 | 10 | 2.2 |
| Z8200-3R7G | 3.7 | 23 | 16 | 3.7 |

Input Voltage(V): 3PH AC380V \pm 15%

| | | | | |
|-----------------|---------|---------|--------|---------|
| Z8400-0R7G | 0.75 | 3.8 | 2.5 | 0.75 |
| Z8400-1R5G | 1.5 | 5 | 3.7 | 1.5 |
| Z8400-2R2G | 2.2 | 5.8 | 5 | 2.2 |
| Z8400-3R7G/5R5P | 3.7/5.5 | 10/15.0 | 9.0/13 | 3.7/5.5 |
| Z8400-5R5G/7R5P | 5.5/7.5 | 15/20 | 13/17 | 5.5/7.5 |
| Z8400-7R5G/11P | 7.5/11 | 20/26 | 17/25 | 7.5/11 |

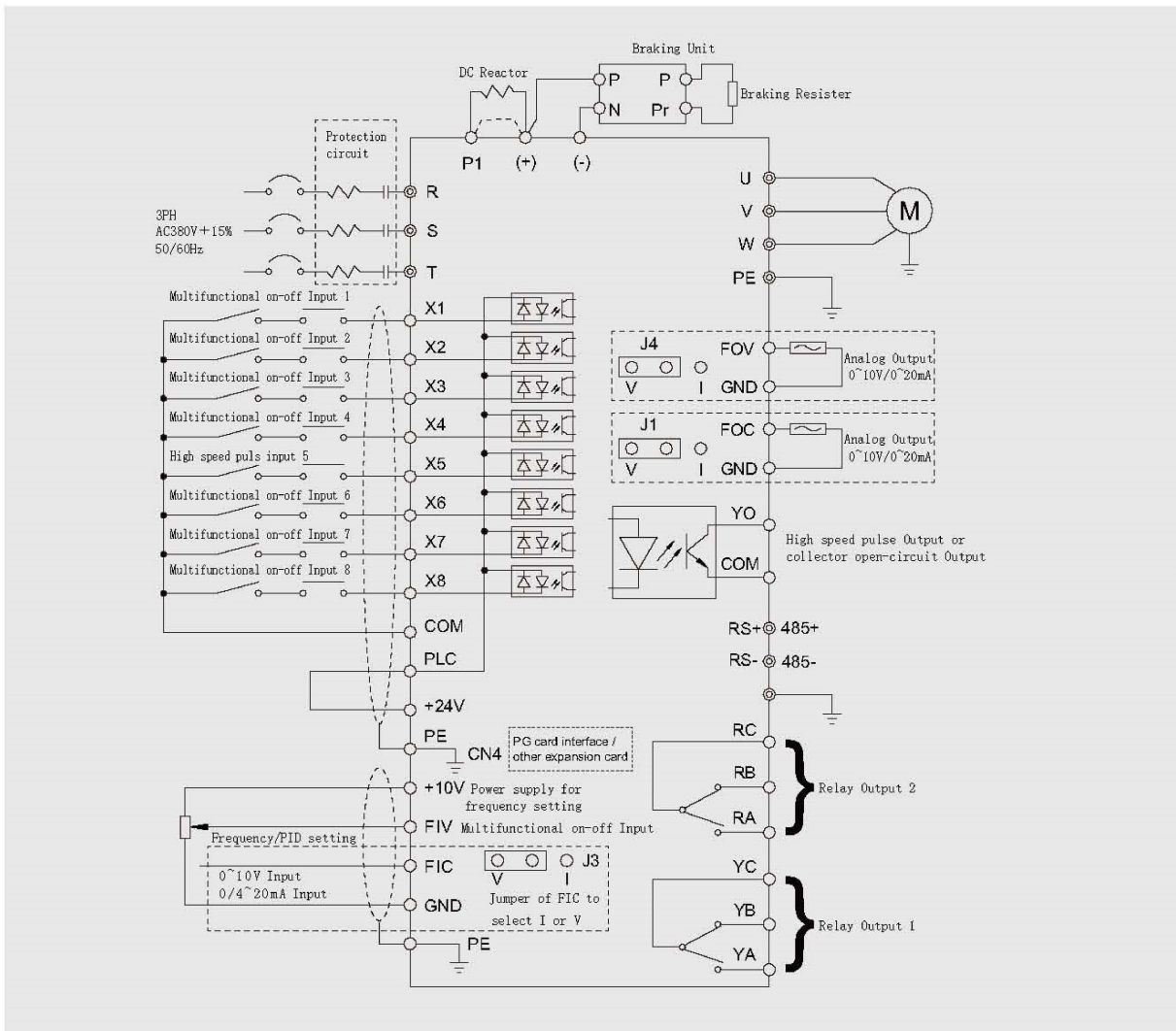
| Model | Rated Output Power (KW) | Rated Input Current(A) | Rated Output Current(A) | Motor Equipped(kW) |
|------------------|-------------------------|------------------------|-------------------------|--------------------|
| Z8400-11G/15P | 11/15.0 | 26/35 | 25/32 | 11/15.0 |
| Z8400-15G/18.5P | 15/18.5 | 35/38 | 32/37 | 15/18.5 |
| Z8400-18.5G/22P | 18.5/22 | 38/46 | 37/45 | 18.5/22 |
| Z8400-22G/30P | 22/30 | 46/62 | 45/60 | 22/30 |
| Z8400-30G/37P | 30/37 | 62/76 | 60/75 | 30/37 |
| Z8400-37G/45P | 37/45 | 76/90 | 75/90 | 37/45 |
| Z8400-45G/55P | 45/55 | 90/105 | 90/110 | 45/55 |
| Z8400-55G | 55 | 105 | 110 | 55 |
| Z8400-75P | 75 | 140 | 150 | 75 |
| Z8400-75G/90P1 | 75/90 | 140/160 | 150/176 | 75/90 |
| Z8400-90G/110P1 | 90/110 | 160/210 | 176/210 | 90/110 |
| Z8400-110G/132P1 | 110/132 | 210/240 | 210/253 | 110/132 |
| Z8400-132G/160P | 132/160 | 240/290 | 253/300 | 132/160 |
| Z8400-160G/185P | 160/185 | 290/330 | 300/340 | 160/185 |
| Z8400-185G/200P | 185/200 | 330/370 | 340/380 | 185/200 |
| Z8400-200G/220P | 200/220 | 370/410 | 380/420 | 200/220 |
| Z8400-220G/250P | 220/250 | 410/460 | 420/470 | 220/250 |
| Z8400-250G/280P | 250/280 | 460/500 | 470/520 | 250/280 |
| Z8400-280G/315P | 280/315 | 500/580 | 520/600 | 280/315 |
| Z8400-315G/350P | 315/350 | 580/620 | 600/640 | 315/350 |
| Z8400-350G/400P | 350/400 | 620/670 | 640/690 | 350/400 |
| Z8400-400G/450P | 400/450 | 670/790 | 690/790 | 400/450 |
| Z8400-450G/500P | 450/500 | 790/835 | 790/860 | 450/500 |
| Z8400-500G/560P | 500/560 | 835/920 | 860/950 | 500/560 |
| Z8400-560G/630P | 560/630 | 920/1050 | 950/1100 | 560/630 |
| Z8400-630G/710P | 630/710 | 1050/1123 | 1100/1280 | 630/710 |
| Z8400-710G/800P | 710/800 | 1126/1460 | 1280/1380 | 710/800 |
| Z8400-800G/900P | 800/900 | 1460/1640 | 1380/1640 | 800/900 |
| Z8400-900G/1000P | 900/1000 | 1640/1800 | 1640/1720 | 900/1000 |
| Z8400-1000G | 1000 | 1800 | 1720 | 1000 |

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Input Voltage(V): 3PH AC (660V-690V) ±15%

| Model | Power (kW) | Output Current (A) | Outline Dimension (mm) | | | Install Dimension(mm) A*B*Φd | Remark |
|------------------|------------|--------------------|---|-----|-----|--|--------------------------|
| | | | H | W | D | | |
| Z8600-11G/15P | 11 | 16 | 410 | 277 | 189 | 390*262*Φ6.5 | Wall Mounted |
| Z8600-15G/18D5P | 15 | 20 | | | | | |
| Z8600-18GD5/22P | 18.5 | 25 | | | | | |
| Z8600-22G/30P | 22 | 28 | | | | | |
| Z8600-30G/37P | 30 | 35 | | | | | |
| Z8600-37G/45P | 37 | 45 | | | | | |
| Z8600-45G/55P | 45 | 52 | | | | | |
| Z8600-55G/75P | 55 | 63 | 595 | 300 | 236 | 573*200*Φ9 | |
| Z8600-75G/90P1 | 75 | 86 | | | | | |
| Z8600-90G/110P1 | 90 | 98 | | | | | |
| Z8600-110G/132P1 | 110 | 121 | 620 | 380 | 290 | 595*250*Φ9 | |
| Z8600-132G/160P | 132 | 150 | | | | | |
| Z8600-160G/185P | 160 | 175 | 880 | 380 | 358 | 840*250*Φ13 | |
| Z8600-185G/200P | 185 | 198 | | | | | |
| Z8600-200G/220P | 200 | 218 | | | | | |
| Z8600-220G/250P | 220 | 240 | | | | | |
| Z8600-250G/280P | 250 | 270 | | | | | |
| Z8600-280G/315P | 280 | 320 | | | | | |
| Z8600-315G/350P | 315 | 350 | 995 | 630 | 350 | 971*500*Φ11 | |
| Z8600-350G/400P | 350 | 380 | | | | | |
| Z8600-400G/450P | 400 | 430 | | | | | |
| Z8600-450G/500P | 450 | 480 | Wall Mounted: 1040 Cabinet: 1515 | 680 | 400 | Wall Mounted: 1060*520*Φ11 Cabinet: 550*300*Φ13 | Wall Mounted/ Cabinet |
| Z8600-500G/560P | 500 | 540 | | | | | |
| Z8600-560G/630P | 560 | 600 | 1800 | 650 | 920 | 550*800*Φ17 | Cabinet |
| Z8600-630G/710P | 630 | 680 | | | | | |
| Z8600-710G/800P | 710 | 750 | 1800 | 750 | 920 | 650*800*Φ17 | |
| Z8600-800G/900P | 800 | 860 | | | | | |
| Z8600-900G/1000P | 900 | 950 | 1800 | 900 | 920 | 800*800*Φ17 | |
| Z8600-1000G | 1000 | 1080 | | | | | |

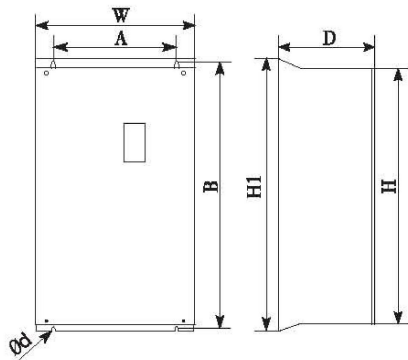
Typical Wiring diagram



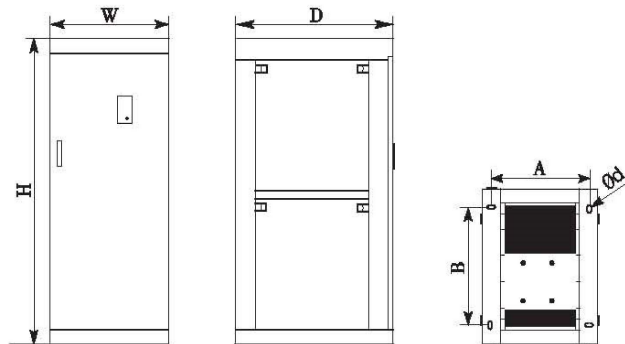
Dimension

Unit:mm

1. Wall Mounted Install



2. Cabinet Install



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| Model | Outline Dimension(mm) | | | | Install Dimension (mm)A*B*Φd | Unit: mm | |
|------------------|------------------------|--------------------------|--------------------------|-------|---|-------------------------------|--------------|
| | W | H | H1 | D | | Install Method | Remark |
| Z8200-3R7G | 120 | 225 | — | 143 | 105*208*Φ5 | Wall Mounted | Plastic |
| Z8400-3R7G/5R5P | 120 | 225 | — | 143 | 105*208*Φ5 | | Semi-plastic |
| Z8400-5R5G/7R5P | 185 | 260 | — | 170 | 168*248*Φ6.5 | | Semi-plastic |
| Z8400-7R5G/11P | | | | | | | Plastic |
| Z8400-11G/15P | 210 | 330 | — | 190 | 195*310*Φ6.5 | | Semi-plastic |
| Z8400-15G/18.5P | | | | | | | |
| Z8400-18.5G/22P | | | | | | | |
| Z8400-22G/30P | 277 | 410 | — | 189 | 262*390*Φ6.5 | | |
| Z8400-30G/37P | | | | | | | |
| Z8400-37G/45P | 300 | 430 | 455 | 212 | 200*433*Φ9 | | |
| Z8400-45G/55P | 300 | 535 | 560 | 236 | 200*538*Φ9 | | |
| Z8400-55G | | | | | | | |
| Z8400-75P | | | | | | | |
| Z8400-75G/90P1 | 338 | 546 | 576 | 256.5 | 270*560*Φ9 | | |
| Z8400-90G/110P1 | 338 | 550 | 580 | 300 | 270*564*Φ9 | | |
| Z8400-110G/132P1 | | | | | | | |
| Z8400-132G/160P | 420 | Wall:730 Cabinet:1130 | Wall:790 Cabinet:1165 | 330 | Wall:300*765*Ø11 Cabinet:250*350*Ø12 | Wall Mounted /Cabinet Install | |
| Z8400-160G/185P | | | | | | | |
| Z8400-185G/200P | 530 | Wall:800 Cabinet:1300 | Wall:860 Cabinet:1335 | 335 | Wall:400*835*Ø11 Cabinet:250*450*Ø12 | | |
| Z8400-200G/220P | | | | | | | |
| Z8400-220G/250P | | | | | | | |
| Z8400-250G/280P | 700 | Wall:880 Cabinet:1380 | Wall:940 Cabinet:1415 | 350 | Wall:600*915*Ø11 Cabinet:250*620*Ø12 | | |
| Z8400-280G/315P | | | | | | | |
| Z8400-315G/350P | | | | | | | |
| Z8400-350G/400P | 600 | 1600 | — | 800 | 550*700*Φ13 | | |
| Z8400-400G/450P | | | | | | | |
| Z8400-450G/500P | | | | | | | |
| Z8400-500G/560P | 650 | 1600 | — | 800 | 600*700*Φ13 | | |
| Z8400-560G/630P | | | | | | | |
| Z8400-630G/710P | | | | | | | |
| Z8400-710G/800P | 700 | 2200 | — | 1000 | 650*900*Φ13 | | |
| Z8400-800G/900P | | | | | | | |
| Z8400-900G/1000P | | | | | | | |
| Z8400-1000G | | | | | | | |



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