



Figure similar

### MLFB-Ordering data

6SL3210-5BB23-0AV0

Client order no. :

Order no. :

Offer no. :

Remarks :

Item no. :

Consignment no. :

Project :

| Rated data                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | General tech. specifications                                                                                                                                                                     |                           |                             |                           |                                         |                   |                                                                                                                                                                                                                         |                        |                    |                              |                    |                   |                 |          |                  |              |                                                                                                                                                                                                                                                                                                                                                                                                                                        |         |              |                       |                  |           |                               |         |                                |                |      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|-----------------------------|---------------------------|-----------------------------------------|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|--------------------|------------------------------|--------------------|-------------------|-----------------|----------|------------------|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|--------------|-----------------------|------------------|-----------|-------------------------------|---------|--------------------------------|----------------|------|
| <b>Input</b> <table> <tr> <td>Number of phases</td><td>1 AC</td></tr> <tr> <td>Line voltage</td><td>200 ... 240 V -10 % +10 %</td></tr> <tr> <td>Line frequency</td><td>47 ... 63 Hz</td></tr> </table>                                                                                                                                                                                                                                                                             | Number of phases                                                                                                                                                                                 | 1 AC                      | Line voltage                | 200 ... 240 V -10 % +10 % | Line frequency                          | 47 ... 63 Hz      | <table> <tr> <td>Power factor <math>\lambda</math></td><td>0.72</td></tr> <tr> <td>Offset factor <math>\cos \varphi</math></td><td>0.95</td></tr> <tr> <td>Efficiency <math>\eta</math></td><td>0.98</td></tr> </table> | Power factor $\lambda$ | 0.72               | Offset factor $\cos \varphi$ | 0.95               | Efficiency $\eta$ | 0.98            |          |                  |              |                                                                                                                                                                                                                                                                                                                                                                                                                                        |         |              |                       |                  |           |                               |         |                                |                |      |
| Number of phases                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 1 AC                                                                                                                                                                                             |                           |                             |                           |                                         |                   |                                                                                                                                                                                                                         |                        |                    |                              |                    |                   |                 |          |                  |              |                                                                                                                                                                                                                                                                                                                                                                                                                                        |         |              |                       |                  |           |                               |         |                                |                |      |
| Line voltage                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 200 ... 240 V -10 % +10 %                                                                                                                                                                        |                           |                             |                           |                                         |                   |                                                                                                                                                                                                                         |                        |                    |                              |                    |                   |                 |          |                  |              |                                                                                                                                                                                                                                                                                                                                                                                                                                        |         |              |                       |                  |           |                               |         |                                |                |      |
| Line frequency                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 47 ... 63 Hz                                                                                                                                                                                     |                           |                             |                           |                                         |                   |                                                                                                                                                                                                                         |                        |                    |                              |                    |                   |                 |          |                  |              |                                                                                                                                                                                                                                                                                                                                                                                                                                        |         |              |                       |                  |           |                               |         |                                |                |      |
| Power factor $\lambda$                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 0.72                                                                                                                                                                                             |                           |                             |                           |                                         |                   |                                                                                                                                                                                                                         |                        |                    |                              |                    |                   |                 |          |                  |              |                                                                                                                                                                                                                                                                                                                                                                                                                                        |         |              |                       |                  |           |                               |         |                                |                |      |
| Offset factor $\cos \varphi$                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 0.95                                                                                                                                                                                             |                           |                             |                           |                                         |                   |                                                                                                                                                                                                                         |                        |                    |                              |                    |                   |                 |          |                  |              |                                                                                                                                                                                                                                                                                                                                                                                                                                        |         |              |                       |                  |           |                               |         |                                |                |      |
| Efficiency $\eta$                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 0.98                                                                                                                                                                                             |                           |                             |                           |                                         |                   |                                                                                                                                                                                                                         |                        |                    |                              |                    |                   |                 |          |                  |              |                                                                                                                                                                                                                                                                                                                                                                                                                                        |         |              |                       |                  |           |                               |         |                                |                |      |
| <b>Output</b> <table> <tr> <td>Number of phases</td><td>3 AC</td></tr> <tr> <td>Rated voltage</td><td>230 V</td></tr> <tr> <td>Rated power (HO)</td><td>3.00 kW / 4.00 hp</td></tr> <tr> <td>Rated power (LO)</td><td>3.00 kW / 4.00 hp</td></tr> <tr> <td>Rated current (HO)</td><td>13.60 A</td></tr> <tr> <td>Rated current (LO)</td><td>13.60 A</td></tr> <tr> <td>Pulse frequency</td><td>2.00 kHz</td></tr> <tr> <td>Output frequency</td><td>0 ... 550 Hz</td></tr> </table> | Number of phases                                                                                                                                                                                 | 3 AC                      | Rated voltage               | 230 V                     | Rated power (HO)                        | 3.00 kW / 4.00 hp | Rated power (LO)                                                                                                                                                                                                        | 3.00 kW / 4.00 hp      | Rated current (HO) | 13.60 A                      | Rated current (LO) | 13.60 A           | Pulse frequency | 2.00 kHz | Output frequency | 0 ... 550 Hz | <b>Ambient conditions</b> <table> <tr> <td>Cooling</td><td>External fan</td></tr> <tr> <td>Installation altitude</td><td>1000 m (3281 ft)</td></tr> </table> <b>Ambient temperature</b> <table> <tr> <td>Operation</td><td>-10 ... 60 °C (14 ... 140 °F)</td></tr> <tr> <td>Storage</td><td>-40 ... 70 °C (-40 ... 158 °F)</td></tr> </table> <b>Relative humidity</b> <table> <tr> <td>Max. operation</td><td>95 %</td></tr> </table> | Cooling | External fan | Installation altitude | 1000 m (3281 ft) | Operation | -10 ... 60 °C (14 ... 140 °F) | Storage | -40 ... 70 °C (-40 ... 158 °F) | Max. operation | 95 % |
| Number of phases                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 3 AC                                                                                                                                                                                             |                           |                             |                           |                                         |                   |                                                                                                                                                                                                                         |                        |                    |                              |                    |                   |                 |          |                  |              |                                                                                                                                                                                                                                                                                                                                                                                                                                        |         |              |                       |                  |           |                               |         |                                |                |      |
| Rated voltage                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 230 V                                                                                                                                                                                            |                           |                             |                           |                                         |                   |                                                                                                                                                                                                                         |                        |                    |                              |                    |                   |                 |          |                  |              |                                                                                                                                                                                                                                                                                                                                                                                                                                        |         |              |                       |                  |           |                               |         |                                |                |      |
| Rated power (HO)                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 3.00 kW / 4.00 hp                                                                                                                                                                                |                           |                             |                           |                                         |                   |                                                                                                                                                                                                                         |                        |                    |                              |                    |                   |                 |          |                  |              |                                                                                                                                                                                                                                                                                                                                                                                                                                        |         |              |                       |                  |           |                               |         |                                |                |      |
| Rated power (LO)                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 3.00 kW / 4.00 hp                                                                                                                                                                                |                           |                             |                           |                                         |                   |                                                                                                                                                                                                                         |                        |                    |                              |                    |                   |                 |          |                  |              |                                                                                                                                                                                                                                                                                                                                                                                                                                        |         |              |                       |                  |           |                               |         |                                |                |      |
| Rated current (HO)                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 13.60 A                                                                                                                                                                                          |                           |                             |                           |                                         |                   |                                                                                                                                                                                                                         |                        |                    |                              |                    |                   |                 |          |                  |              |                                                                                                                                                                                                                                                                                                                                                                                                                                        |         |              |                       |                  |           |                               |         |                                |                |      |
| Rated current (LO)                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 13.60 A                                                                                                                                                                                          |                           |                             |                           |                                         |                   |                                                                                                                                                                                                                         |                        |                    |                              |                    |                   |                 |          |                  |              |                                                                                                                                                                                                                                                                                                                                                                                                                                        |         |              |                       |                  |           |                               |         |                                |                |      |
| Pulse frequency                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 2.00 kHz                                                                                                                                                                                         |                           |                             |                           |                                         |                   |                                                                                                                                                                                                                         |                        |                    |                              |                    |                   |                 |          |                  |              |                                                                                                                                                                                                                                                                                                                                                                                                                                        |         |              |                       |                  |           |                               |         |                                |                |      |
| Output frequency                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 0 ... 550 Hz                                                                                                                                                                                     |                           |                             |                           |                                         |                   |                                                                                                                                                                                                                         |                        |                    |                              |                    |                   |                 |          |                  |              |                                                                                                                                                                                                                                                                                                                                                                                                                                        |         |              |                       |                  |           |                               |         |                                |                |      |
| Cooling                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | External fan                                                                                                                                                                                     |                           |                             |                           |                                         |                   |                                                                                                                                                                                                                         |                        |                    |                              |                    |                   |                 |          |                  |              |                                                                                                                                                                                                                                                                                                                                                                                                                                        |         |              |                       |                  |           |                               |         |                                |                |      |
| Installation altitude                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 1000 m (3281 ft)                                                                                                                                                                                 |                           |                             |                           |                                         |                   |                                                                                                                                                                                                                         |                        |                    |                              |                    |                   |                 |          |                  |              |                                                                                                                                                                                                                                                                                                                                                                                                                                        |         |              |                       |                  |           |                               |         |                                |                |      |
| Operation                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | -10 ... 60 °C (14 ... 140 °F)                                                                                                                                                                    |                           |                             |                           |                                         |                   |                                                                                                                                                                                                                         |                        |                    |                              |                    |                   |                 |          |                  |              |                                                                                                                                                                                                                                                                                                                                                                                                                                        |         |              |                       |                  |           |                               |         |                                |                |      |
| Storage                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | -40 ... 70 °C (-40 ... 158 °F)                                                                                                                                                                   |                           |                             |                           |                                         |                   |                                                                                                                                                                                                                         |                        |                    |                              |                    |                   |                 |          |                  |              |                                                                                                                                                                                                                                                                                                                                                                                                                                        |         |              |                       |                  |           |                               |         |                                |                |      |
| Max. operation                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 95 %                                                                                                                                                                                             |                           |                             |                           |                                         |                   |                                                                                                                                                                                                                         |                        |                    |                              |                    |                   |                 |          |                  |              |                                                                                                                                                                                                                                                                                                                                                                                                                                        |         |              |                       |                  |           |                               |         |                                |                |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>Communication</b> <table> <tr> <td>Communication</td><td>USS, Modbus RTU</td></tr> </table>                                                                                                   | Communication             | USS, Modbus RTU             |                           |                                         |                   |                                                                                                                                                                                                                         |                        |                    |                              |                    |                   |                 |          |                  |              |                                                                                                                                                                                                                                                                                                                                                                                                                                        |         |              |                       |                  |           |                               |         |                                |                |      |
| Communication                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | USS, Modbus RTU                                                                                                                                                                                  |                           |                             |                           |                                         |                   |                                                                                                                                                                                                                         |                        |                    |                              |                    |                   |                 |          |                  |              |                                                                                                                                                                                                                                                                                                                                                                                                                                        |         |              |                       |                  |           |                               |         |                                |                |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>Standards</b> <table> <tr> <td>Compliance with standards</td><td>CE, cULus, C-Tick (RCM), KC</td></tr> <tr> <td>CE marking</td><td>EN 61800-5-1 /EN 60204-1 and EN 61800-3</td></tr> </table> | Compliance with standards | CE, cULus, C-Tick (RCM), KC | CE marking                | EN 61800-5-1 /EN 60204-1 and EN 61800-3 |                   |                                                                                                                                                                                                                         |                        |                    |                              |                    |                   |                 |          |                  |              |                                                                                                                                                                                                                                                                                                                                                                                                                                        |         |              |                       |                  |           |                               |         |                                |                |      |
| Compliance with standards                                                                                                                                                                                                                                                                                                                                                                                                                                                           | CE, cULus, C-Tick (RCM), KC                                                                                                                                                                      |                           |                             |                           |                                         |                   |                                                                                                                                                                                                                         |                        |                    |                              |                    |                   |                 |          |                  |              |                                                                                                                                                                                                                                                                                                                                                                                                                                        |         |              |                       |                  |           |                               |         |                                |                |      |
| CE marking                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | EN 61800-5-1 /EN 60204-1 and EN 61800-3                                                                                                                                                          |                           |                             |                           |                                         |                   |                                                                                                                                                                                                                         |                        |                    |                              |                    |                   |                 |          |                  |              |                                                                                                                                                                                                                                                                                                                                                                                                                                        |         |              |                       |                  |           |                               |         |                                |                |      |

### Overload capability

#### Low Overload (LO)

110 % rated output current for 60 s, cycle time 300 s

#### High Overload (HO)

150 % rated output current for 60 s, cycle time 300 s

MLFB-Ordering data

6SL3210-5BB23-0AV0



Figure similar

### Mechanical data

|                      |                                                               |
|----------------------|---------------------------------------------------------------|
| Mounting position    | Through-hole mounting / wall mounting / side-by-side mounting |
| Degree of protection | IP20                                                          |
| Size                 | FSC                                                           |
| Net weight           | 2.50 kg ( 5.51 lb )                                           |
| Width                | 184.0 mm ( 7.24 in )                                          |
| Height               | 182.0 mm ( 7.17 in )                                          |
| Depth                | 169.0 mm ( 6.65 in )                                          |

### Connections

#### Max. motor cable length

|            |               |
|------------|---------------|
| Shielded   | 25 m (82 ft)  |
| Unshielded | 50 m (164 ft) |

### Inputs / outputs

#### Standard digital inputs

|        |   |
|--------|---|
| Number | 4 |
|--------|---|

#### Digital outputs

|                                    |   |
|------------------------------------|---|
| Number as relay changeover contact | 1 |
|------------------------------------|---|

|                      |   |
|----------------------|---|
| Number as transistor | 1 |
|----------------------|---|

#### Analog inputs

|        |                                             |
|--------|---------------------------------------------|
| Number | 2 (Can be used as additional digital input) |
|--------|---------------------------------------------|

#### Analog outputs

|        |   |
|--------|---|
| Number | 1 |
|--------|---|