

### MLFB-Ordering data

6SL3210-5BE21-5UV0



Figure similar

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>3 AC</td></tr> <tr> <td>Line voltage</td><td>380 ... 480 V -15 % +10 %</td></tr> <tr> <td>Line frequency</td><td>47 ... 63 Hz</td></tr> </table>                                                                                                                                                                                                                                                                                                                                                                                                     | Number of phases                                                                                                                                                                                 | 3 AC                      | Line voltage                | 380 ... 480 V -15 % +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> <tr> <td>Filter class (integrated)</td><td>Unfiltered</td></tr> </table> | Power factor $\lambda$ | 0.72               | Offset factor $\cos \varphi$ | 0.95               | Efficiency $\eta$ | 0.98                       | Filter class (integrated) | Unfiltered                 |        |                 |          |                  |              |                                                                                                                                                                                                                                                                                                                                                                                                                                        |         |              |                       |                  |           |                               |         |                                |                |      |
| Number of phases                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 3 AC                                                                                                                                                                                             |                           |                             |                           |                                         |                   |                                                                                                                                                                                                                                                                                         |                        |                    |                              |                    |                   |                            |                           |                            |        |                 |          |                  |              |                                                                                                                                                                                                                                                                                                                                                                                                                                        |         |              |                       |                  |           |                               |         |                                |                |      |
| Line voltage                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 380 ... 480 V -15 % +10 %                                                                                                                                                                        |                           |                             |                           |                                         |                   |                                                                                                                                                                                                                                                                                         |                        |                    |                              |                    |                   |                            |                           |                            |        |                 |          |                  |              |                                                                                                                                                                                                                                                                                                                                                                                                                                        |         |              |                       |                  |           |                               |         |                                |                |      |
| Line frequency                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 47 ... 63 Hz                                                                                                                                                                                     |                           |                             |                           |                                         |                   |                                                                                                                                                                                                                                                                                         |                        |                    |                              |                    |                   |                            |                           |                            |        |                 |          |                  |              |                                                                                                                                                                                                                                                                                                                                                                                                                                        |         |              |                       |                  |           |                               |         |                                |                |      |
| Power factor $\lambda$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 0.72                                                                                                                                                                                             |                           |                             |                           |                                         |                   |                                                                                                                                                                                                                                                                                         |                        |                    |                              |                    |                   |                            |                           |                            |        |                 |          |                  |              |                                                                                                                                                                                                                                                                                                                                                                                                                                        |         |              |                       |                  |           |                               |         |                                |                |      |
| Offset factor $\cos \varphi$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 0.95                                                                                                                                                                                             |                           |                             |                           |                                         |                   |                                                                                                                                                                                                                                                                                         |                        |                    |                              |                    |                   |                            |                           |                            |        |                 |          |                  |              |                                                                                                                                                                                                                                                                                                                                                                                                                                        |         |              |                       |                  |           |                               |         |                                |                |      |
| Efficiency $\eta$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 0.98                                                                                                                                                                                             |                           |                             |                           |                                         |                   |                                                                                                                                                                                                                                                                                         |                        |                    |                              |                    |                   |                            |                           |                            |        |                 |          |                  |              |                                                                                                                                                                                                                                                                                                                                                                                                                                        |         |              |                       |                  |           |                               |         |                                |                |      |
| Filter class (integrated)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Unfiltered                                                                                                                                                                                       |                           |                             |                           |                                         |                   |                                                                                                                                                                                                                                                                                         |                        |                    |                              |                    |                   |                            |                           |                            |        |                 |          |                  |              |                                                                                                                                                                                                                                                                                                                                                                                                                                        |         |              |                       |                  |           |                               |         |                                |                |      |
| <b>Output</b> <table> <tr> <td>Number of phases</td><td>3 AC</td></tr> <tr> <td>Rated voltage</td><td>400 V</td></tr> <tr> <td>Rated power (HO)</td><td>1.50 kW / 2.00 hp</td></tr> <tr> <td>Rated power (LO)</td><td>1.50 kW / 2.00 hp</td></tr> <tr> <td>Rated current (HO)</td><td>4.10 A</td></tr> <tr> <td>Rated current (LO)</td><td>4.10 A</td></tr> <tr> <td>Rated current (HO) at 480V</td><td>4.10 A</td></tr> <tr> <td>Rated current (LO) at 480V</td><td>4.10 A</td></tr> <tr> <td>Pulse frequency</td><td>4.00 kHz</td></tr> <tr> <td>Output frequency</td><td>0 ... 550 Hz</td></tr> </table> | Number of phases                                                                                                                                                                                 | 3 AC                      | Rated voltage               | 400 V                     | Rated power (HO)                        | 1.50 kW / 2.00 hp | Rated power (LO)                                                                                                                                                                                                                                                                        | 1.50 kW / 2.00 hp      | Rated current (HO) | 4.10 A                       | Rated current (LO) | 4.10 A            | Rated current (HO) at 480V | 4.10 A                    | Rated current (LO) at 480V | 4.10 A | Pulse frequency | 4.00 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 400 V                                                                                                                                                                                            |                           |                             |                           |                                         |                   |                                                                                                                                                                                                                                                                                         |                        |                    |                              |                    |                   |                            |                           |                            |        |                 |          |                  |              |                                                                                                                                                                                                                                                                                                                                                                                                                                        |         |              |                       |                  |           |                               |         |                                |                |      |
| Rated power (HO)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 1.50 kW / 2.00 hp                                                                                                                                                                                |                           |                             |                           |                                         |                   |                                                                                                                                                                                                                                                                                         |                        |                    |                              |                    |                   |                            |                           |                            |        |                 |          |                  |              |                                                                                                                                                                                                                                                                                                                                                                                                                                        |         |              |                       |                  |           |                               |         |                                |                |      |
| Rated power (LO)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 1.50 kW / 2.00 hp                                                                                                                                                                                |                           |                             |                           |                                         |                   |                                                                                                                                                                                                                                                                                         |                        |                    |                              |                    |                   |                            |                           |                            |        |                 |          |                  |              |                                                                                                                                                                                                                                                                                                                                                                                                                                        |         |              |                       |                  |           |                               |         |                                |                |      |
| Rated current (HO)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 4.10 A                                                                                                                                                                                           |                           |                             |                           |                                         |                   |                                                                                                                                                                                                                                                                                         |                        |                    |                              |                    |                   |                            |                           |                            |        |                 |          |                  |              |                                                                                                                                                                                                                                                                                                                                                                                                                                        |         |              |                       |                  |           |                               |         |                                |                |      |
| Rated current (LO)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 4.10 A                                                                                                                                                                                           |                           |                             |                           |                                         |                   |                                                                                                                                                                                                                                                                                         |                        |                    |                              |                    |                   |                            |                           |                            |        |                 |          |                  |              |                                                                                                                                                                                                                                                                                                                                                                                                                                        |         |              |                       |                  |           |                               |         |                                |                |      |
| Rated current (HO) at 480V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 4.10 A                                                                                                                                                                                           |                           |                             |                           |                                         |                   |                                                                                                                                                                                                                                                                                         |                        |                    |                              |                    |                   |                            |                           |                            |        |                 |          |                  |              |                                                                                                                                                                                                                                                                                                                                                                                                                                        |         |              |                       |                  |           |                               |         |                                |                |      |
| Rated current (LO) at 480V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 4.10 A                                                                                                                                                                                           |                           |                             |                           |                                         |                   |                                                                                                                                                                                                                                                                                         |                        |                    |                              |                    |                   |                            |                           |                            |        |                 |          |                  |              |                                                                                                                                                                                                                                                                                                                                                                                                                                        |         |              |                       |                  |           |                               |         |                                |                |      |
| Pulse frequency                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 4.00 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

6SL3210-5BE21-5UV0



Figure similar

### Mechanical data

|                      |                                       |
|----------------------|---------------------------------------|
| Mounting position    | Wall mounting / side-by-side mounting |
| Degree of protection | IP20 / UL open type                   |
| Size                 | FSA                                   |
| Net weight           | 1.00 kg ( 2.20 lb )                   |
| Width                | 90.0 mm ( 3.54 in )                   |
| Height               | 166.0 mm ( 6.54 in )                  |
| Depth                | 145.5 mm ( 5.73 in )                  |

### 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 |
|--------|---|

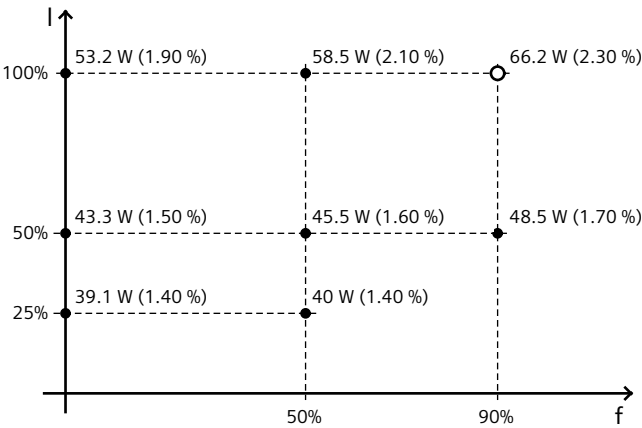
### Connections

#### Max. motor cable length

|            |               |
|------------|---------------|
| Shielded   | 10 m (33 ft)  |
| Unshielded | 50 m (164 ft) |

### Converter losses to IEC61800-9-2\*

|                                                      |         |
|------------------------------------------------------|---------|
| Efficiency class                                     | IE2     |
| Comparison with the reference converter (90% / 100%) | 28.40 % |



The percentage values show the losses in relation to the rated apparent power of the converter.

The diagram shows the losses for the points (as per standard IEC61800-9-2) of the relative torque generating current (I) over the relative motor stator frequency (f). The values are valid for the basic version of the converter without options/components.

\*converted values