

ACCU ELECTRIC MOTORS INC

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- ✓ 24 hour rush turnaround / technical support service
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Servicing USA and Canada

Motor Connector and Plug specifications

fig 1

MSMA 30W ~ 750W, MQMA 100W ~ 400W

• Plug specification

• Motor

AMP plug 172167-1
Pin 170360-1
Included in connected equipment.
(Not included in MINAS series)
Cap 172159-1
Socket 170362-1
or 170366-1

• 2500P/r incremental encoder

AMP plug 172171-1
Pin 170359-1
Included in connected equipment.
(Not included in MINAS series)
Cap 172163-1
Socket 170361-1
or 170365-1

• 17-bit absolute encoder

AMP plug 172169-1
Pin 170359-1
Included in connected equipment.
(Not included in MINAS series)
Cap 172161-1
Socket 170361-1
or 170365-1

• Brake (option)

AMP plug 172165-1
Pin 170360-1
Included in connected equipment.
(Not included in MINAS series)
Cap 172157-1
Socket 170362-1
or 170366-1

• Connector specification

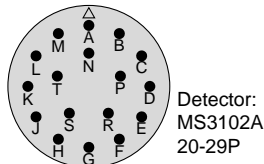
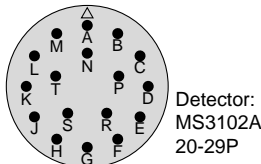
| Application | Pin No. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
|-----------------------------|---------|-------|-----------|----|-----------|------------------|-----------|-----|----|----|----|----|------------------|-----|----|----|
| Motor | | U | V | W | E | | | | | | | | | | | |
| 2500P/r incremental encoder | | A | \bar{A} | B | \bar{B} | Z | \bar{Z} | NC | NC | NC | NC | RX | $\bar{R}\bar{X}$ | +5V | 0V | FG |
| 17-bit absolute encoder | | BAT+ | BAT- | FG | PS | $\bar{P}\bar{S}$ | NC | +5V | 0V | NC | | | | | | |
| Brake | | Brake | | | | | | | | | | | | | | |

NC: No connection - leave the pin open

fig 2

MSMA 1kW ~ 5kW, MDMA 750W ~ 7.5kW, MFMA 400W ~ 4.5kW, MHMA 500W ~ 7.5kW, MGMA 300W ~ 6kW

• Encoder connector specification (Common to MSMA, MDMA, MFMA, MHMA, MGMA)



• 2500P/r incremental encoder specification

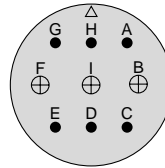
| Pin No. | Description |
|---------|------------------|
| A | A |
| B | \bar{A} |
| C | B |
| D | \bar{B} |
| E | Z |
| F | \bar{Z} |
| G | 0V |
| H | +5V |
| J | Frame GND |
| K | NC |
| L | NC |
| M | NC |
| N | NC |
| P | RX |
| R | $\bar{R}\bar{X}$ |
| S | NC |
| T | NC |

• 17-bit encoder specification

| Pin No. | Description |
|---------|------------------|
| A | NC |
| B | NC |
| C | NC |
| D | NC |
| E | NC |
| F | NC |
| G | 0V |
| H | +5V |
| J | Frame GND |
| K | SD |
| L | $\bar{S}\bar{D}$ |
| M | NC |
| N | NC |
| P | NC |
| R | NC |
| S | BAT-* |
| T | BAT+* |

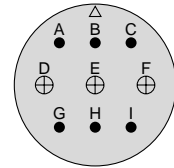
* Leave pins S and T unconnected when the encoder is incremental.

• Motor brake connector specification



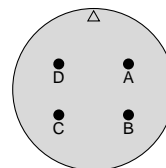
Motor(w/brake; w/o brake)
JL04V-2E20-18PE-B(JAE)
or equivalent

| Pin No. | Description |
|---------|------------------------|
| G | w/Brake (w/o brake) NC |
| H | w/Brake (w/o brake) NC |
| A | NC |
| F | U phase |
| I | V phase |
| B | W phase |
| E | E-GND |
| D | E-GND |
| C | NC |



Motor(w/brake; w/o brake)
JL04V-2E24-11PE-B(JAE)
or equivalent

| Pin No. | Description |
|---------|------------------------|
| A | w/Brake (w/o brake) NC |
| B | w/Brake (w/o brake) NC |
| C | NC |
| D | U phase |
| E | V phase |
| F | W phase |
| G | E-GND |
| H | E-GND |
| I | NC |



- 1) Motor(w/o brake)
JL04V-2E20-4PE-B(JAE) or equivalent
JL04V-2E22-22PE-B(JAE) or equivalent
JL04V-2E32-17PE-B(JAE) or equivalent
- 2) Brake(MDMA 7.5kW, MHMA 7.5kW, MGMA 6kW):
MS3102A14S-2P(JAE) or equivalent

| Pin No. | 1) Motor | 2) Brake |
|---------|----------|----------|
| A | U phase | Brake |
| B | V phase | Brake |
| C | W phase | NC |
| D | E-GND | NC |

• Connector pins and compatible models

| Motor (kW) | MSMA | | MDMA | | MFMA | | MHMA | | MGMA | | MDMA, MHMA, MGMA |
|------------|-----------|-----------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------------|
| | 1.0 ~ 2.5 | 3.0 ~ 5.0 | 0.75 ~ 2.5 | 3.0 ~ 5.0 | 0.4 ~ 1.5 | 2.5 ~ 4.5 | 0.5 ~ 1.5 | 2.0 ~ 5.0 | 0.3 ~ 0.9 | 1.2 ~ 4.5 | |
| Yes | 20-18P | 24-11P | 20-18P | 24-11P | 20-18P | 24-11P | 20-18P | 24-11P | 20-18P | 24-11P | 32-17P-14-2P |
| No | 20-4P | 22-22P | 20-4P | 22-22P | 20-18P | 24-11P | 20-4P | 22-22P | 20-4P | 22-22P | 32-17P |

*The specified dimensions are subject to change. To refer to these dimensions for design purpose, contact us for determined dimensions.