EEZ PSU H24005 wire harness

- Ethernet cable
- Cooling fan cable
- AUX temperature sensor cable
- AC switch patch cables
- Cable set #1
- Cable set #2
- Pre-assembled cables
- <u>BOM</u>

1. Ethernet cable

Total length 260 (± 5) mm

Type 4 pairs Ethernet, *stranded* wire

TME <u>HELUKAT100-FTP-FP</u> or e.g. cut <u>CA00600.00C01</u> to size

Farnell <u>1734894</u> or e.g. cut <u>1602385</u> to size

Connectors

Side A	X8	Side B	X18	
Housing type	Receptacle, 0.1"	Housing type	See side A	
TME	NSR-08	TME	See side A	
Farnell	<u>865667</u>	Farnell	See side A	
Pin:	Female	Pin	See side A	
Pin quantity	8	Pin quantity	7	
TME	NDR-T	TME	See side A	
Farnell	1022219	Farnell	See side A	

Wiring

Position	Color / description	Position	Color / description
1	Brown-white	1	Brown-white
2	Brown	2	Brown
3	Blue-white	3	NOT CONNECTED
4	Orange-white	4	Orange-white
5	Orange	5	Orange
6	Green-white	6	Green-white
7	Green	7	Green
8	Blue	8	Blue
	1 2 3 4 5 6 7	1 Brown-white 2 Brown 3 Blue-white 4 Orange-white 5 Orange 6 Green-white 7 Green	1 Brown-white 1 2 Brown 2 3 Blue-white 3 4 Orange-white 4 5 Orange 5 6 Green-white 6 7 Green 7

Picture



2. Cooling fan cable

Total length $100 (\pm 5) \text{ mm}$

Type 3 wire, already mounted on the cooling fan

Fan: TME: <u>MB60251V1-G99</u>

Connectors

Side A	X6	Side B	N/A
Housing type	Receptacle, 0.1"	Housing type	N/A
TME	MX-6471-031	TME	N/A
Farnell	<u>143127</u>	Farnell	N/A
Pin	Female	Pin	N/A
Pin quantity	3	Pin quantity	0
TME	MX-0850-0114	TME	N/A
Farnell	<u>2063734</u>	Farnell	N/A

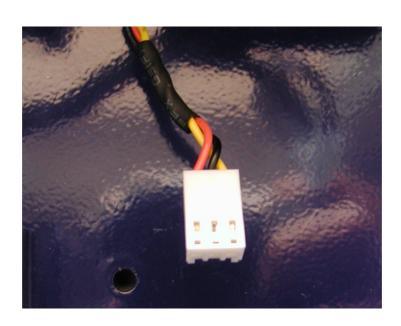
Additional info

Fan is already equipped with cable that has to be cut to size and terminated with connector

Wiring

Name	Position	Color / description
12 Vdc	1	Red
GND	2	Black
Sense	3	Yellow

Picture



3. AUX temperature sensor cable

Total length 120 (± 5) mm

Type 2 wire, already mounted on the temperature sensor

NTC TME: NTCLE100E3103JB0

Wire TME: <u>9921.004100</u>

Connectors

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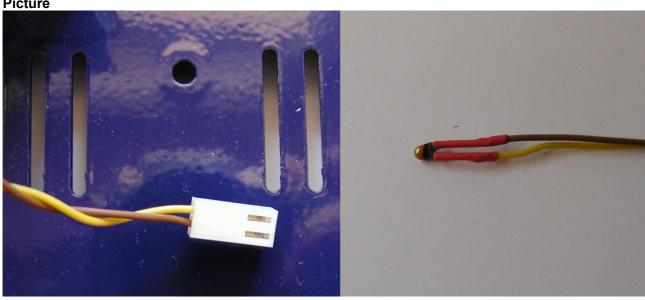
Additional info

The temperature sensor is already equipped with cable that has to be terminated with connector

Wiring

Name	Position	Color / description
MCU_VCC	1	Yellow
NTC	2	Yellow

Picture



4. AC switch patch cables

rotai iength	45 (± 5) mm		
-	4 = 2 ·		

Туре 1.5 mm² singe wire, stranded, min. 300 VAC TME Brown: LGY1.5/10-BR, Blue: LGY1.5/10-BL

Brown: <u>1764967</u>, Blue: <u>1764966</u> Farnell

Connectors

Side A	AC output	Side B	AC Switch input
Pin	Female quick discon- nect	Pin	See side A
Pin quantity	1	Pin quantity	See side A
TME	ST-003/05-20T	TME	See side A

Farnell 2060332 Farnell See side A

Additional info

Required for Schurter 4304.6090 IEC inlet (C14, 6765, 10A)

Wiring1

Name	Position	Color / description	Position	Color / description
Line	1	Brown	1	Brown

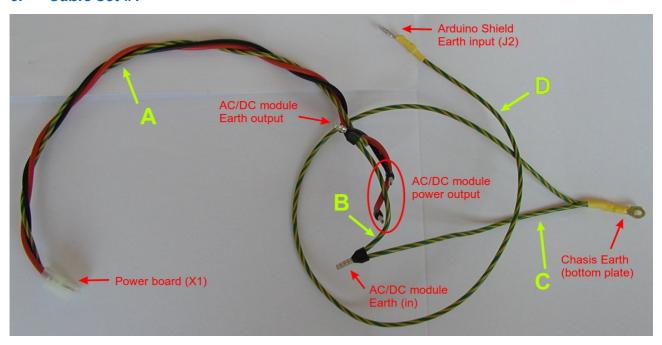
Wiring2

Name	Position	Color / description	Position	Color / description
Neutral	1	Blue	1	Blue

Picture



5. Cable set #1



5.1. Section A: Power board X1 cable

Length $400 (\pm 5) \text{ mm}$

Type 1.5 mm² singe wire, stranded, min. 300 VAC
TME Red: LGY1.5/10-RD, Black: LGY1.5/10-BK
Green-Yellow: LGY1.5/10-YL/GR

Farnell Red: <u>1764971</u>, Black: <u>1764965</u>, Green-Yellow: <u>1764969</u>

Connectors

Side A	Power board X1 (Ch2)	Side B	AC/DC module power output
Housing type	Male, Mini-Fit Jr.	Housing type	Ferrule, single wire
TME	MX-5557-03R2	TME	H1.5/14D/BK
Farnell	<u>9963480</u>	Farnell	<u>9972307</u>
Pin	Female	Quantity	2
Pin quantity	3	Housing type	Ferrule, twin entry
TME	MX-5556-T3L	TME	H1.5/16D2/BK
Farnell	<u>9732675</u>	Farnell	<u>1121754</u>
		Quantity	1

Wiring

Name	Position	Color / description	Position	Color / description
Vin+	1	Red	N/A	Ferrule
Vin-	2	Black	N/A	Ferrule
Earth	3	Green-Yellow	N/A	Ferrule, twin entry

5.2. Section B: AC/DC module Earth

Length $70 (\pm 1) \text{ mm}$

Type 1.5 mm² singe wire, stranded, min. 300 VAC

TME <u>LGY1.5/10-YL/GR</u>

Farnell <u>1764969</u>

Connectors

 Side A
 AC/DC module Earth output
 Side B
 AC/DC module Earth (in)

 Housing type
 Use twin entry ferrule, See B Housing type side, Section A
 Ferrule, twin entry

 TME
 H1.5/16D2/BK

 Farnell
 1121754

Quantity 1

1

5.3. Section C: Chassis Earth

Length: 170 (± 5) mm

Type: 1.5 mm² singe wire, stranded, min. 300 VAC

TME <u>LGY1.5/10-YL/GR</u>

Farnell <u>1764969</u>

Connectors

Side AAC/DC module Earth (in)Side BChassis Earth (bottom plate)Housing typeUse twin entry ferrule, See B ide, Section BHousing type Side, Section BNon-insulated, Ring terminal, 4 mmTME3804/M.05.00.9Farnell-

Quantity

5.4. Section D: Arduino Shield Earth

Length: $500 (\pm 5) \text{ mm}$

Type: 1.5 mm² singe wire, stranded, min. 300 VAC

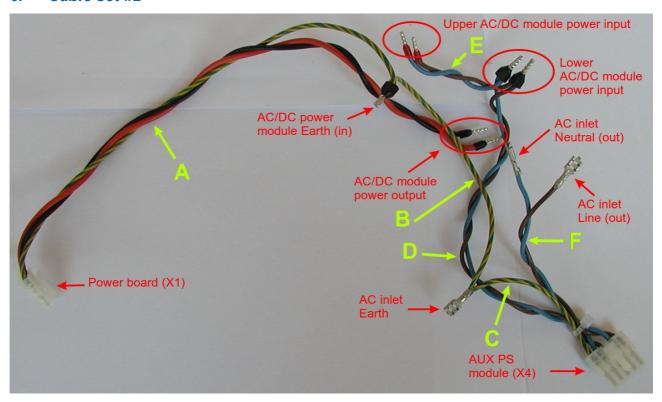
TME <u>LGY1.5/10-YL/GR</u>

Farnell <u>1764969</u>

Connectors

Side A Chassis Earth (bottom plate) Side B Arduino Shield Earth input (J2) Use ring terminal, See B side, Housing type Housing type Non-insulated, Ring terminal, Section C 5 mm 3805/M.05.00.9 TME Farnell Quantity 1

6. Cable set #2



6.1. Section A: Power board X1 cable

Length $330 (\pm 5) \text{ mm}$

Type 1.5 mm² singe wire, stranded, min. 300 VAC TME Red: <u>LGY1.5/10-RD</u>, Black: <u>LGY1.5/10-BK</u>

Green-Yellow: LGY1.5/10-YL/GR

Farnell Red: <u>1764971</u>, Black: <u>1764965</u>, Green-Yellow: <u>1764969</u>

Connectors

Side A	Power board X1 (Ch1)	Side B	AC/DC module power output
Housing type	Male, Mini-Fit Jr.	Housing type	Ferrule, single wire
TME	MX-5557-03R2	TME	H1.5/14D/BK
Farnell	9963480	Farnell	<u>9972307</u>
Pin	Female	Quantity	2
Pin quantity	3	Housing type	Ferrule, twin entry
TME	MX-5556-T3L	TME	H1.5/16D2/BK
Farnell	<u>9732675</u>	Farnell	<u>1121754</u>
		Quantity	1

Wiring:

Name	Position	Color / description	Position	Color / description
Vin+	1	Red	N/A	Ferrule
Vin-	2	Black	N/A	Ferrule
Earth	3	Green-Yellow	N/A	Ferrule, twin entry

6.2. Section B: AC/DC module Earth

Length 150 (± 5) mm

Type 1.5 mm² singe wire, stranded, min. 300 VAC

TME <u>LGY1.5/10-YL/GR</u>

Farnell <u>1764969</u>

Connectors

 Side A
 AC/DC power module Earth (in)
 Side B
 AC inlet Earth

 Housing type
 Use twin entry ferrule, See B side from Section A
 Housing type
 Female quick disconnect

 Quantity
 1

 TME
 ST-003/05-20T

 Farnell
 2060332

6.3. Section C: AUX PS module Earth

Length 150 (± 5) mm

Type 1.5 mm² singe wire, stranded, min. 300 VAC

TME <u>LGY1.5/10-YL/GR</u>

Farnell <u>1764969</u>

Connectors

AUX PS module (X4) Side A AC inlet Earth Side B Housing type Use Female quick disconnect Housing type Male, Mini-Fit Jr. terminal, See B side, Section B **TME** MX-5557-05R2 Farnell 9963502 Pin Female Pin quantity 1 **TME** MX-5556-T3L Farnell 9732675

Wiring:

Name Position Color / description Position Color / description
- - Female quick disconnect 5 Earth

6.4. Section D: Lower AC/DC module power input

Length $200 (\pm 5) \text{ mm}$

Type 1.5 mm² singe wire, stranded, min. 300 VAC TME Brown: <u>LGY1.5/10-BR</u>, Blue: <u>LGY1.5/10-BL</u>

Farnell Brown: <u>1764967</u>, Blue: <u>1764966</u>

Connectors

Side A	AUX PS module (X4)	Side B	Lower AC/DC module power input
Housing type	See Side B, Section C	Housing type	Ferrule, twin entry
TME	-	TME	H1.5/16D2/BK
Farnell	-	Farnell	1121754

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Pin Female Quantity 2

Pin quantity 2

TME <u>MX-5556-T3L</u> Farnell 9732675

Wiring:

Name	Position	Color / description	Position	Color / description
Line	1	Brown	N/A	Ferrule, twin entry
Neutral	2	Blue	N/A	Ferrule, twin entry

6.5. Section E: Upper AC/DC module power input

Length $70 (\pm 1) \text{ mm}$

Type 1.5 mm² singe wire, stranded, min. 300 VAC TME Brown: <u>LGY1.5/10-BR</u>, Blue: <u>LGY1.5/10-BL</u>

Farnell Brown: <u>1764967</u>, Blue: <u>1764966</u>

Connectors

Side A Lower AC/DC module power in- Side B Upper AC/DC module power input

put

Housing type Use twin entry ferrule, See B Housing type Ferrule, single wire

side, Section D

 TME
 H1.5/14D/BK

 Farnell
 1905292

 Quantity
 2

6.6. Section F: AUX PS module power input

Length $110 (\pm 5) \text{ mm}$

Type 1.5 mm² singe wire, stranded, min. 300 VAC TME Brown: <u>LGY1.5/10-BR</u>, Blue: <u>LGY1.5/10-BL</u>

Farnell Brown: <u>1764967</u>, Blue: <u>1764966</u>

Connectors

Side A AUX PS module (X4) Side B Lower AC/DC module power input

Housing type See Side B, Section C Housing type Female quick disconnect

 TME
 TME
 ST-003/05-20T

 Farnell
 Farnell
 2060332

Pin Female Quantity 2

Pin quantity 2

TME <u>MX-5556-T3L</u> Farnell 9732675

Wiring:

Name	Position	Color / description	Position	Color / description
Line	3	Brown	N/A	Female quick disconnect
Neutral	4	Blue	N/A	Female quick disconnect

7. Pre-assembled cables

7.1. Arduino shield power cable

Length 300 mm

Type Ribbon cable with IDC connectors; 10x28AWG

TME <u>FC10300-0</u>

Farnell N/A

Picture



7.2. Arduino USB cable

Length 300 or 500 mm

Type USB Micro to 5-pin receptacle cable

TME N/A Farnell N/A

AliExpress e.g. <u>High Quality 50CM micro usb 5pin male to 1x 5Pin Female 0.1" USB header</u>

PCB motherboard cable



8. **BOM**

Туре	Name	Total
Receptacle	NSR-08	2
Receptacle	MX-6471-031	1
Receptacle	MX-6471-021	1
Receptacle Mini-Fit Jr.	MX-5557-03R2	2
Receptacle Mini-Fit Jr.	MX-5557-05R2	1
Pin	NDR-T	15
Pin	MX-0850-0114	5
Pin	MX-5556-T3L	11
Female quick disconnect	ST-003/05-20T	7
Ferrule	H1.5/14D/BK	6
Ferrule, twin entry	H1.5/16D2/BK	5
Ring terminal	3804/M.05.00.9	1
Ring terminal	3805/M.05.00.9	1
Cat5e cable	HELUKAT100-FTP-FP	0.26 m
1.5 cm ² cable (Brown)	<u>LGY1.5/10-BR</u>	0.47 m
1.5 cm ² cable (Blue)	LGY1.5/10-BL	0.47 m
1.5 cm ² cable (Red)	LGY1.5/10-RD	0.73 m
1.5 cm ² cable (Black)	<u>LGY1.5/10-BK</u>	0.73 m
1.5 cm ² cable (Yellow-Green)	LGY1.5/10-YL/GR	1.77 m
0.35 cm ² cable	9921.004100	0.24 m
12 Vdc cooling fan	MB60251V1-G99	1
NTC	NTCLE100E3103JB0	1
IDC ribbon cable	FC10300-0	0.3 m
USB Micro cable	Search Aliexpress	0.5 m