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 250 (± 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>1602385</u> or e.g. cut <u>1734894</u> to size

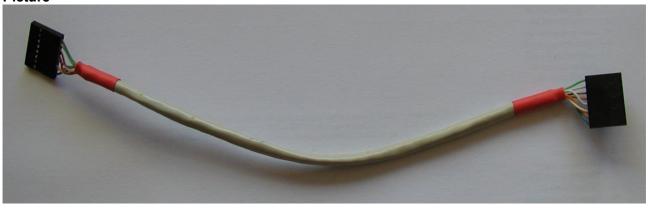
Connectors

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

Name	Position	Color / description	Position	Color / description
LED link	1	Brown-white	1	Brown-white
LED act	2	Brown	2	Brown
Shield	3	Blue-white	3	NOT CONNECTED
RX+	4	Orange-white	4	Orange-white
RX-	5	Orange	5	Orange
TX+	6	Green-white	6	Green-white
TX-	7	Green	7	Green
+3.3V	8	Blue	8	Blue

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

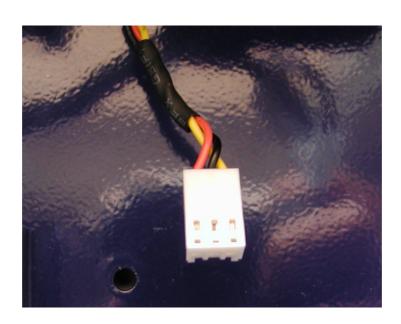
Additional info

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 145 (± 5) mm

Type Max. 0.35 mm² singe wire, stranded

TME E.g. brown: <u>LGY0.35/25-BR</u> (or any other color)

Farnell E.g. brown: <u>2425402</u> (0.22 mm²)

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NTC TME: <u>NTCLE100E3103JB0</u>, Farnell: <u>1187031</u>

Wire TME: <u>LGY0.35/25-BR</u>, Farnell:

Connectors

Side A	X17	Side B	N/A
Housing type	Receptacle 0.1"	Housing type	N/A
TME	MX-6471-021	TME	N/A
Farnell	<u>143126</u>	Farnell	N/A
Pin	Female	Pin	N/A
Pin quantity	2	Pin quantity	0
TME	MX-0850-0114	TME	N/A
Farnell	<u>2063734</u>	Farnell	N/A

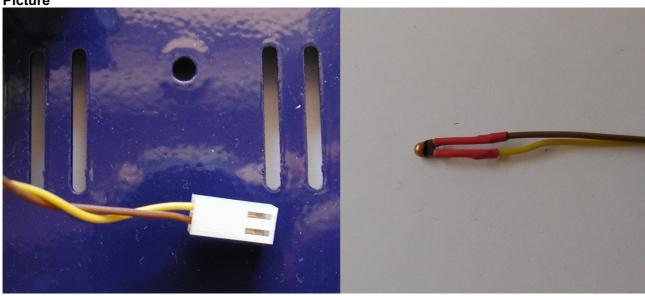
Additional info

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

Wiring

Name	Position	Color / description
MCU_VCC	1	Any color
NTC	2	Any color

Picture



4. AC switch patch cables

Total length $45 (\pm 5) \text{ mm}$

Type 0.75 mm² singe wire, stranded, min. 250 VAC
TME Brown: LGY0.75/25-BR, Blue: LGY0.75/25-BL

Farnell Brown: <u>2528103</u>, Blue: <u>2528092</u>

Connectors

Side AAC outputSide BAC Switch inputPinFemale quick disconnectPinSee side A

Pin quantity	2	Pin quantity	See side A
TME	BM01148	TME	See side A
Farnell	<u>3625424</u>	Farnell	See side A

Additional info

Required for Schurter <u>4304.6090</u> IEC inlet (C14, 6765, 10A)

Wiring1

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

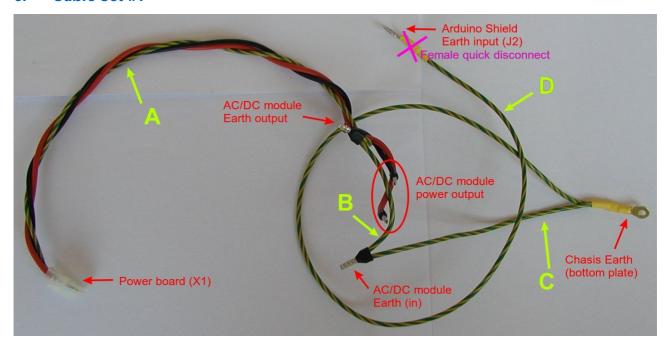
Wiring2

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 0.75 mm² singe wire, stranded, min. 250 VAC TME Red: <u>LGY0.75/25-RD</u>, Black: <u>LGY0.75/25-BK</u>

Green-Yellow: LGY0.75/25-YL/GR

Farnell Red: <u>2528175</u>, Black: <u>2528082</u>, Green-Yellow: <u>2528140</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	H0.75/14D/GY
Farnell	9963480	Farnell	<u>841195</u>
Pin	Female	Quantity	2
Pin quantity	3	Housing type	Ferrule, twin entry
TME	MX-5556-T3L	TME	H0.75/15D2/GY
Farnell	<u>9732675</u>	Farnell	<u>1121751</u>
		Quantity	1

Wiring

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

5.2. Section B: AC/DC module Earth

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

Type 0.75 mm² singe wire, stranded, min. 250 VAC

1

TME <u>LGY0.75/25-YL/GR</u>

Farnell <u>2528140</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
 H0.75/15D2/GY

 Farnell
 1121751

Quantity

5.3. Section C: Chassis Earth

Length: 170 (± 5) mm

Type: 0.75 mm² singe wire, stranded, min. 250 VAC

TME <u>LGY0.75/25-YL/GR</u>

Farnell <u>2528140</u>

Connectors

Side AAC/DC module Earth (in)Side BChassis Earth (bottom plate)Housing typeUse twin entry ferrule, side, Section BSee BHousing typeNon-insulated, Ring terminal, 3 mmTMEBM 91103Farnell7356528Quantity1

5.4. Section D: Arduino Shield Earth

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

Type: 0.75 mm² singe wire, stranded, min. 250 VAC

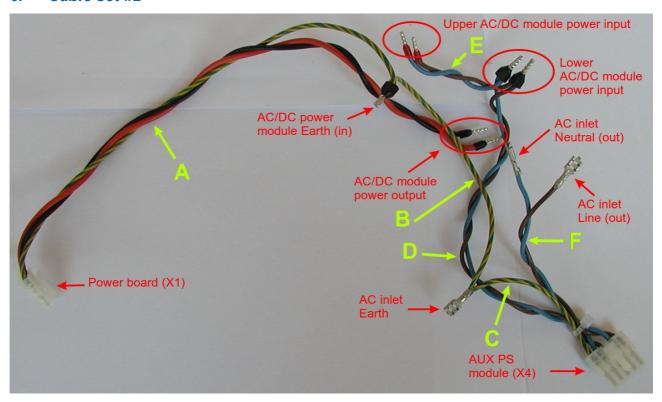
TME <u>LGY0.75/25-YL/GR</u>

Farnell <u>2528140</u>

Connectors

Side AChassis Earth (bottom plate)Side BArduino Shield Earth input (J2)Housing typeUse ring terminal, See B side, Housing type
Section CFemale quick disconnectTME1FarnellBM01148
Quantity3625424

6. Cable set #2



6.1. Section A: Power board X1 cable

Length 330 (± 5) mm

Type 0.75 mm² singe wire, stranded, min. 250 VAC TME Red: <u>LGY0.75/25-RD</u>, Black: <u>LGY0.75/25-BK</u>

Green-Yellow: LGY0.75/25-YL/GR

Farnell Red: <u>2528175</u>, Black: <u>2528082</u>, Green-Yellow: <u>2528140</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	H0.75/14D/GY
Farnell	<u>9963480</u>	Farnell	<u>841195</u>
Pin	Female	Quantity	2
Pin quantity	3	Housing type	Ferrule, twin entry
TME	MX-5556-T3L	TME	H0.75/15D2/GY
Farnell	<u>9732675</u>	Farnell	<u>1121751</u>
		Quantity	1

Wiring:

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

6.2. Section B: AC/DC module Earth

Length 150 (± 5) mm

Type 0.75 mm² singe wire, stranded, min. 250 VAC

TME <u>LGY0.75/25-YL/GR</u>

Farnell <u>2528140</u>

Connectors

Side A	AC/DC power module Earth (in)	Side B	AC inlet Earth
Housing type	Use twin entry ferrule, See E side from Section A	B Housing type	Female quick disconnect
		Quantity	1
		TME	BM01148
		Farnell	3625424

6.3. Section C: AUX PS module Earth

Length 150 (± 5) mm

Type 0.75 mm² singe wire, stranded, min. 250 VAC

TME <u>LGY0.75/25-YL/GR</u>

Farnell <u>2528140</u>

Connectors

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

Wiring:

Name	Position	Color / description	Position	Color / description
-	-	Female quick disconnect	1	Earth

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

Length 200 (± 5) mm

Type 0.75 mm² singe wire, stranded, min. 250 VAC TME Brown: <u>LGY0.75/25-BR</u>, Blue: <u>LGY0.75/25-BL</u>

Farnell Brown: <u>2528103</u>, Blue: <u>2528092</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	H0.75/15D2/GY
Farnell	-	Farnell	<u>1121751</u>

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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
Neutral	4	Blue	N/A	Ferrule, twin entry
Line	5	Brown	N/A	Ferrule, twin entry

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

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

Type 0.75 mm² singe wire, stranded, min. 250 VAC TME Brown: <u>LGY0.75/25-BR</u>, Blue: <u>LGY0.75/25-BL</u>

Farnell Brown: 2528103, Blue: 2528092

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 <u>H0.75/14D/GY</u>

Farnell <u>1121751</u>

Quantity 2

6.6. Section F: AUX PS module power input

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

Type 0.75 mm² singe wire, stranded, min. 250 VAC TME Brown: <u>LGY0.75/25-BR</u>, Blue: <u>LGY0.75/25-BL</u>

Farnell Brown: <u>2528103</u>, Blue: <u>2528092</u>

Connectors

Side AAUX PS module (X4)Side BLower AC/DC module power inputHousing typeSee Side B, Section CHousing typeFemale quick disconnect

 TME
 TME
 BM01148

 Farnell
 Farnell
 3625424

Pin Female Quantity 2

Pin quantity 2

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

Wiring:

Name	Position	Color / description	Position	Color / description
Neutral	2	Blue	N/A	Female quick disconnect
Line	3	Brown	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



Pinout:

Name	Position	Description
Gnd	1	Ground
Gnd	2	Ground
PWR_DIRECT	3	Triac control (continuous power)
PWR_SSTART	4	Triac control (soft-start)
FAN_SENSE	5	Tachometer output
FAN_PWM	6	Fan PWM speed control
DOUT2	7	Power relay control
+5V	8	+5 V for Arduino Shield
Gnd	9	Ground
+5V	10	+5 V for Arduino Shield

7.2. Arduino USB cable

Length 300 or 500 mm

Type USB Micro to 5-pin receptacle cable

EEZ PSU H24005 Wire harness

TME N/A Farnell N/A

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



Pinout:

Name	Position	Color	Description
VCC	1	Red	+5 Vdc
D-	2	White	Data -
D+	3	Green	Data +
GND	4	Black	Ground
Shield	5	Black	Shield

8. **BOM**

Туре	Part (Farnell)	Part (TME)	Total
Receptacle	<u>865667</u>	NSR-08	2
Receptacle	<u>143127</u>	MX-6471-031	1
Receptacle	<u>143126</u>	MX-6471-021	1
Receptacle Mini-Fit Jr.	<u>9963480</u>	MX-5557-03R2	2
Receptacle Mini-Fit Jr.	<u>9963502</u>	MX-5557-05R2	1
Pin	<u>1022219</u>	NDR-T	15
Pin	2063734	MX-0850-0114	5
Pin	<u>9732675</u>	MX-5556-T3L	11
Female quick disconnect	<u>3625424</u>	BM01148	6
Ferrule	<u>841195</u>	H0.75/14D/GY	6
Ferrule, twin entry	<u>1121751</u>	H0.75/15D2/GY	5
Ring terminal	<u>7356528</u>	BM 91103	1
Cat5e cable	<u>1602385</u>	HELUKAT100-FTP-FP	0.25 m
0.75 cm ² cable (Brown)	<u>2528103</u>	LGY0.75/25-BR	0.47 m
0.75 cm ² cable (Blue)	<u>2528092</u>	LGY0.75/25-BL	0.47 m
0.75 cm ² cable (Red)	<u>2528175</u>	LGY0.75/25-RD	0.73 m
0.75 cm ² cable (Black)	<u>2528082</u>	LGY0.75/25-BK	0.73 m
0.75 cm ² cable (Yellow-Green)	<u>2528140</u>	LGY0.75/25-YL/GR	1.77 m
0.35 cm ² cable	<u>2425402</u>	LGY0.35/25-BR	0.29 m
12 Vdc cooling fan	_	MB60251V1-G99	1
NTC	<u>1187031</u>	NTCLE100E3103JB0	1
IDC ribbon cable	-	FC10300-0	0.3 m
USB Micro cable	Search Aliexpres	<u> </u>	0.5 m