EEZ BB3 wire harness

- Cooling fan cable
- MCU board power cable
- <u>Dual AC/DC power module AC input</u>
- Single AC/DC power module AC input
- Power module DC input
- Power module Protective Earth
- Ethernet patch cable

Cooling fan cable

Total length 300 (± 5) mm

Type 3 wire, already mounted on the cooling fan

Fan: TME: <u>MF80251V3-1000U-G99</u>

Mouser: N/A



Connectors

Connectors				
Side A	X4, X5	Side B	N/A	
Housing type	Receptacle, 0.1"	Housing type	N/A	
TME	MX-22-01-3037	TME	N/A	
Mouser	<u>538-22-01-3037</u>	Mouser	N/A	
Pin	Female	Pin	N/A	
Pin quantity	3	Pin quantity	0	
TME	MX-0850-0114	TME	N/A	
Mouser	<u>538-08-50-0114</u>	Mouser	N/A	

Additional info

Fan is already equipped with cable. Therefore it only has to be terminated with the connector.

Wiring

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

Picture



MCU board power cable

Length 75 or 150 mm assembled or 100 mm custom made

Type Assembled ribbon cable with IDC connectors; 16x28AWG

TME <u>FC16150-S</u>

Mouser N/A

Custom made alternative

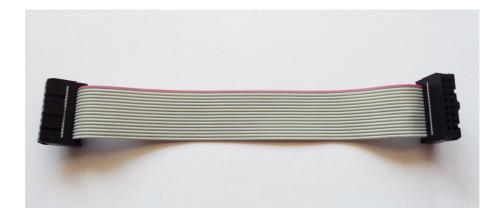
IDC female plug; 16 pin for ribbon cable TME <u>AWP-16</u>

Ribbon cable; 1.27mm; stranded; Cu; TME DS1057-16A282R-30.5

16x28AWG; unshielded; PVC; grey

IDC connector crimping tool TME <u>HT-214</u>

Picture



Pinout

Name	Position	Description
PE	1	Protective Earth
Reserved	2	
+12 V	3	Regulated +12 V output
+12 V	4	Regulated +12 V output
+5 V	5	Regulated +5 V output
+5 V	6	Regulated +5 V output
Gnd	7	
Gnd	8	
Gnd	9	
Reserved	10	(+Vaux)
PWR_SSTART	11	Triac control (soft-start)
PWR_DIRECT	12	Triac control (continuous power)
SSCL	13	I2C clock
SSDA	14	I2C data
NFAULT	15	Fault
+3V3	16	MCU board LDO output

Dual AC/DC power module AC input

Length $230 (\pm 5) \text{ mm} + 250 (\pm 5) \text{ mm}$

Type 0.75 mm² (18 AWG) single wire, stranded, min. 250 VAC

TME Brown: <u>H05VK075BR</u>, Blue: <u>H05VK075BL</u>, Green-Yellow: <u>H05VK075GN/GE</u>

Mouser Brown: <u>602-3055-100-07</u>, Blue: <u>602-3055-100-06</u>, Green-yellow: <u>602-3055-100-28</u>

Connectors

Side A	AUX PS (X1)	Side B	AC/DC module power output
Housing type	Male, Mini-Fit Jr.	Housing type	Ferrule, single wire
TME	MX-39-01-2065	TME	H0.75/14D/GY
Mouser	<u>538-39-01-2065</u>	Mouser	845-FID1806GRM



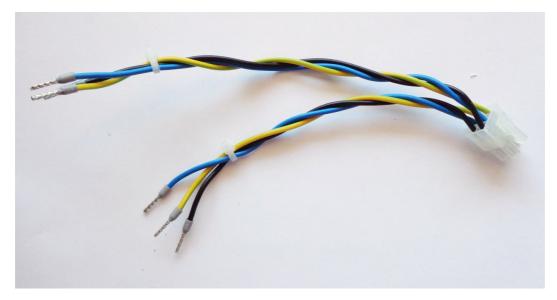


Pin Female Quantity 6

Pin quantity 6

TME <u>MX-5556-T3L</u>
Mouser <u>538-39-00-0078</u>





Single AC/DC power module AC input

Length 250 (± 5) mm

Type 0.75 mm² (18 AWG) single wire, stranded, min. 250 VAC

TME Brown: <u>H05VK075BR</u>, Blue: <u>H05VK075BL</u>, Green-Yellow: <u>H05VK075GN/GE</u>

Mouser Brown: <u>602-3055-100-07</u>, Blue: <u>602-3055-100-06</u>, Green-yellow: <u>602-3055-100-28</u>

Connectors

Side A	AUX PS (X2)	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
Mouser	<u>538-39-01-4030</u>	Mouser	845-FID1806GRM





Pin Female Quantity 3

Pin quantity 3

TME <u>MX-5556-T3L</u>
Mouser <u>538-39-00-0078</u>





Power module DC input

Length 350 (± 5) mm

Type 0.75 mm² (18 AWG) single wire, stranded, min. 250 VAC

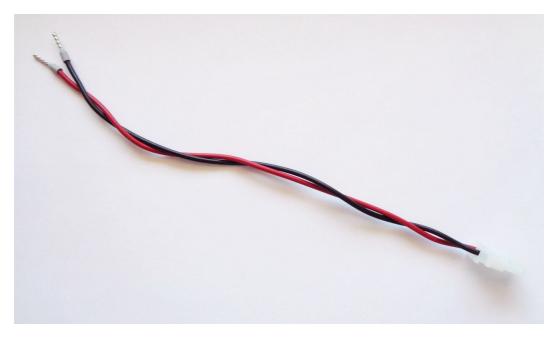
TME Red: <u>H05VK075RT</u>, Black: <u>H05VK075SW</u>

Mouser Red: <u>602-3055-100-03</u>, Black: <u>602-3055-100-02</u>

Connectors

Side A	Power module (X1)	Side B	AC/DC module power output
Housing type	Male, Mini-Fit Jr.	Housing type	Ferrule, single wire
TME	MX-39-01-3022	TME	H0.75/14D/GY
Mouser	538-39-01-3022	Mouser	<u>845-FID1806GRM</u>

Pin	Female	Quantity	2
Pin quantity	2		
TME	MX-5556-T3L		
Mouser	<u>538-39-00-0078</u>		



Power module Protective Earth

Length: Single: 300 (± 5) mm

Dual: 230 + 270 (± 5) mm

Type: 0.75 mm² (18 AWG) single wire, stranded, min. 250 VAC

TME Green-Yellow: <u>H05VK075GN/GE</u>
Mouser Green-yellow: <u>602-3055-100-28</u>

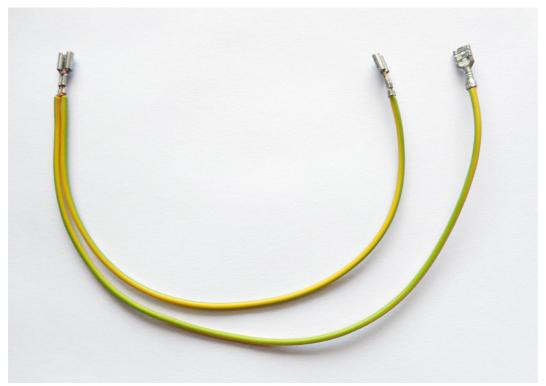
Connectors

Side A	AUX-PS J2, J3 or J4	Side B	Power module PE input (J1)
Housing type	Female quick disconnect	Housing type	Female quick disconnect
TME	ST-004/2 or BM01148	TME	ST-004/2 or BM01148
Mouser	<u>571-60196-3</u>	Mouser	<u>571-60196-3</u>
	0.		









Ethernet patch cable

Length 300 mm

Type RJ45 male to 90-degree female panel mount Ethernet extension cable
Alibaba e.g. https://www.alibaba.com/product-detail/90-degree-right-angle-RJ45-

Male_60817134790.html or search for 90 degree right angle RJ45 Male to 90-De-

gree Female Screw Panel Mount Ethernet LAN Network Extension Cable

TME N/A Mouser N/A



BOMThe following BOM includes items for connecting three power modules.

Туре	Part (Mouser)	Part (TME)	Total	
3-pin 0.1" receptacle	538-22-01-3037	MX-22-01-3037	1	
6-pin receptacle Mini-Fit Jr.	538-39-01-2065	MX-39-01-2065	1	
3-pin receptacle Mini-Fit Jr.	<u>538-39-01-4030</u>	MX-5557-03R2	1	
2-pin receptacle Mini-Fit Jr.	538-39-01-3022	MX-39-01-3022	3	
0.1" pin	<u>538-08-50-0114</u>	MX-0850-0114	3	
Mini-Fit Jr. pin	538-39-00-0078	MX-5556-T3L	15	

Female quick disconnect	<u>571-60196-3</u>	<u>ST-004/2</u> or <u>BM01148</u>	6	
0.75 cm ² ferrule	845-FID1806GRM	H0.75/14D/GY	15	
0.75 cm ² cable (Brown)	602-3055-100-07	H05VK075BR	0.73 m	
0.75 cm ² cable (Blue)	602-3055-100-06	H05VK075BL	0.73 m	
0.75 cm ² cable (Red)	602-3055-100-03	H05VK075RT	1.05 m	
0.75 cm ² cable (Black)	602-3055-100-02	<u>H05VK075SW</u>	1.05 m	
0.75 cm ² cable (Yellow- Green)	602-3055-100-28	H05VK075GN/GE	1.49 m	
12 Vdc cooling fan	N/A	MF80251V3-1000U- G99	1	
IDC ribbon cable	N/A	FC16150-S	0.15 m	
Polyamide cable tie; L: 100 mm; W: 2.5 mm	N/A	BMB1025	6	
Ethernet patch cable	N/A	N/A	0.3 m	