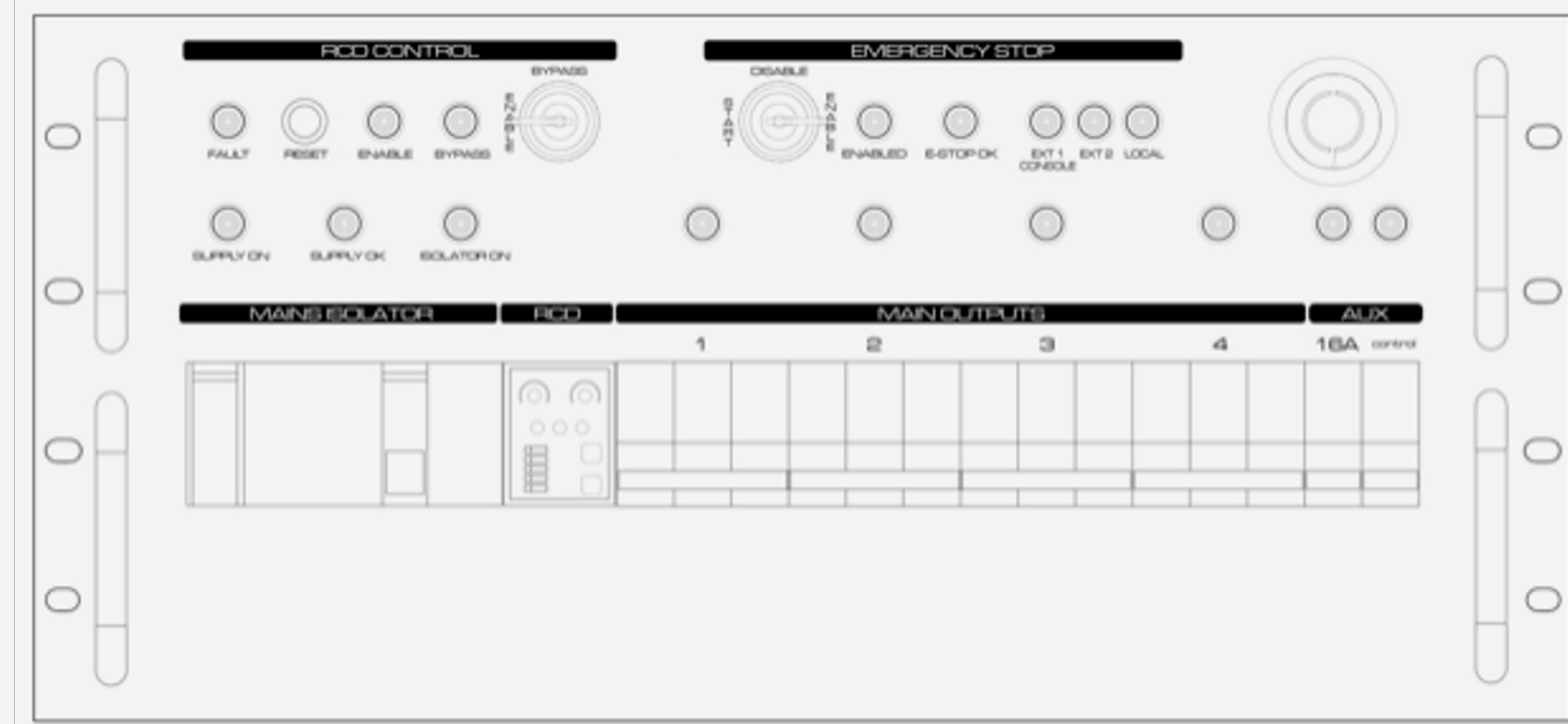
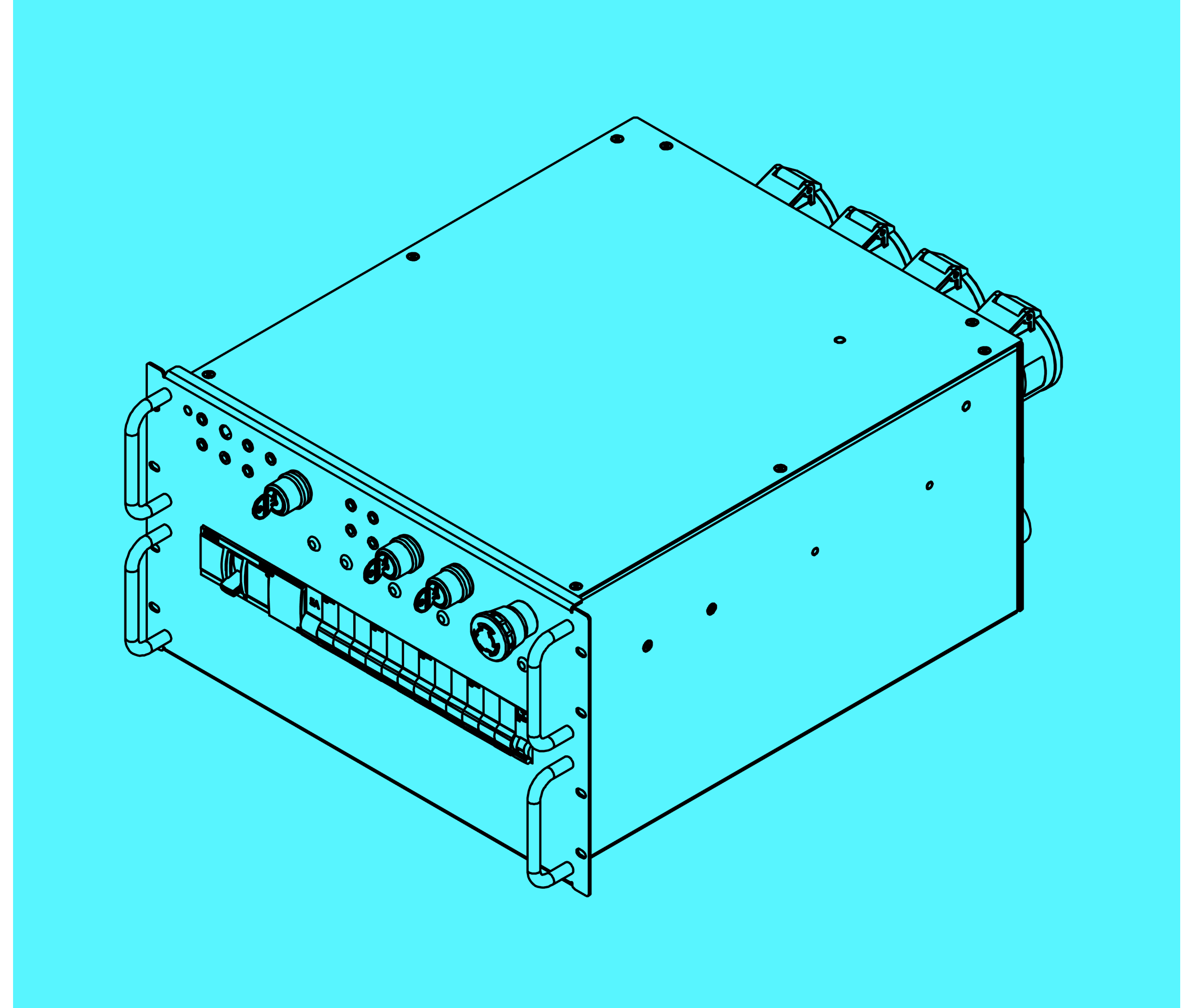
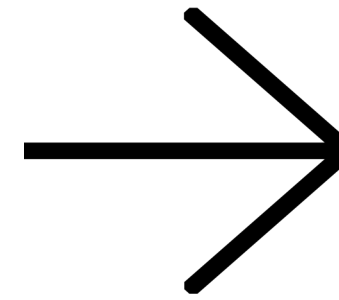
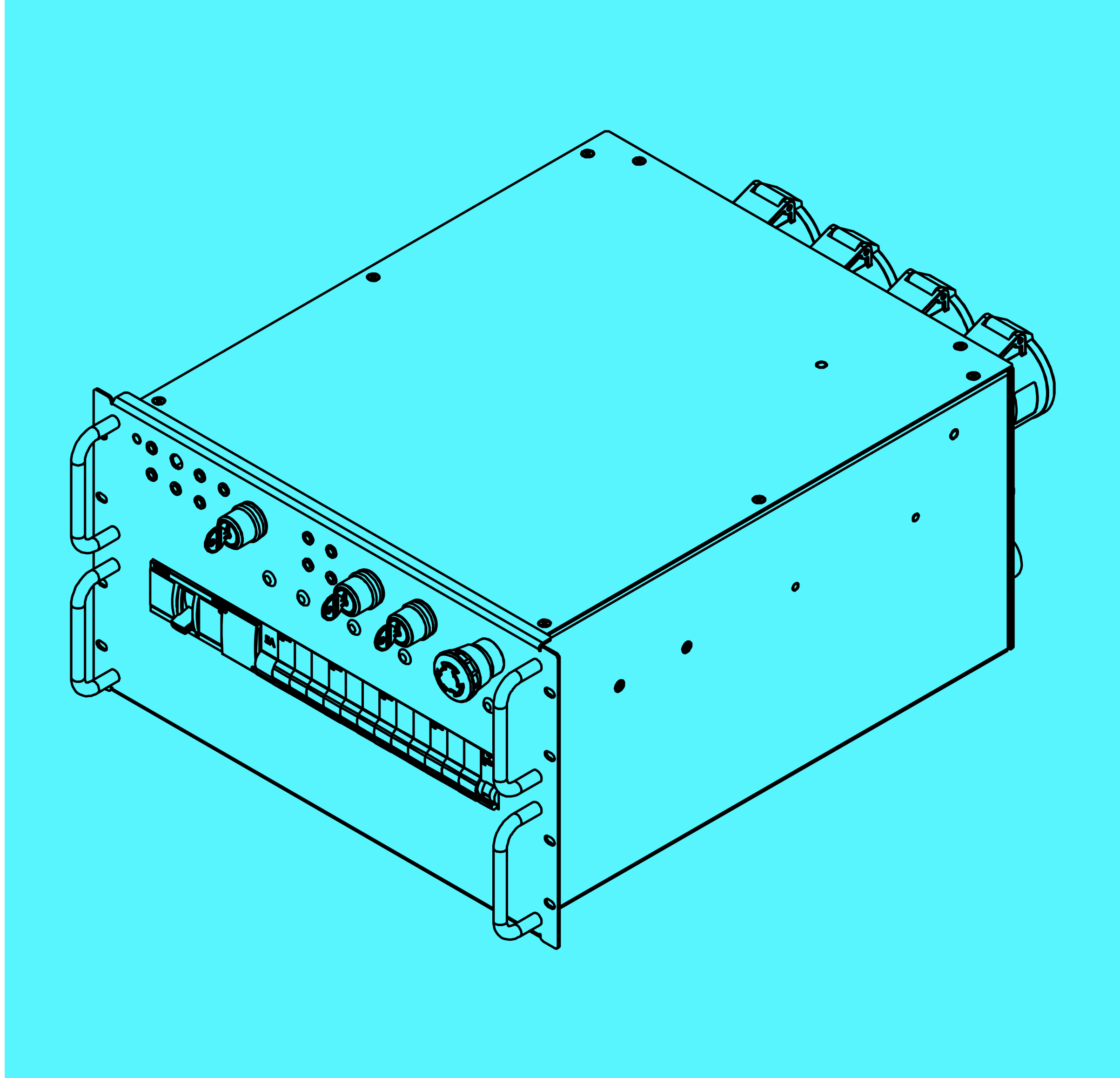




Moving from Array PD-ES v1 to v2





Who is this guide for?

- This guide is for existing owners/users of the Array PD-ES who are buying the new TAIT Kinesys Array PD-ES v2 (available from March 2026)
- It does not replace the User Guide which can be found here www.kinesys.com/resources
- The Array PD-ES v2 is a Power Distribution and Emergency Stop controller for the Elevation range of automation products from TAIT. Further details can be found here www.kinesys.com/product/array_pd-es/
- v2 updates further enhance system safety.
- This guide details the changes that you will need to be aware of.

**Are my old
PD-ES now
redundant?**

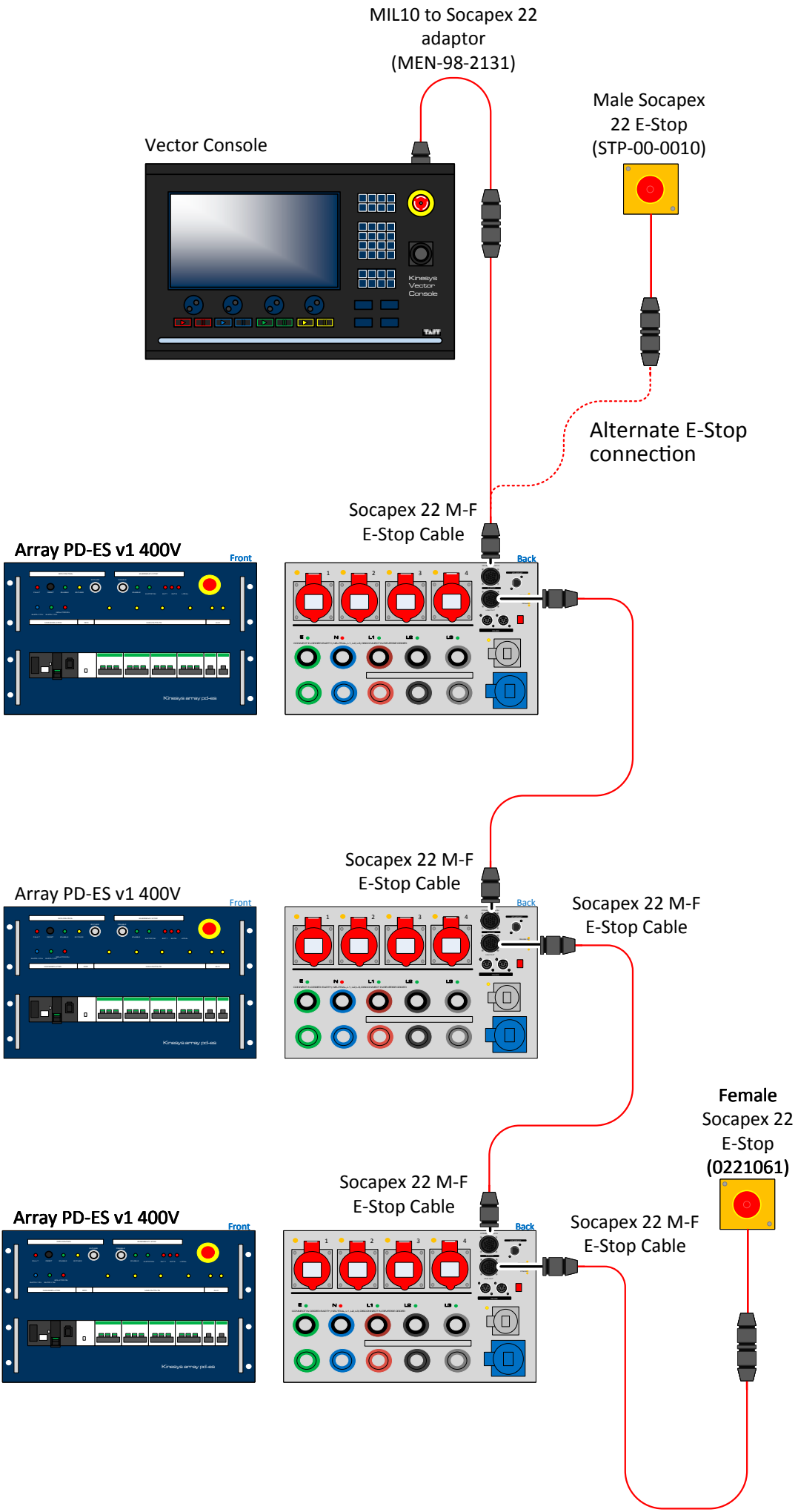
**No! If you already own Array PD-ES
then they can still be used.
Array PD-ES v1 can be used alongside
Array PD-ES v2 in larger systems.**

What has changed in v2?

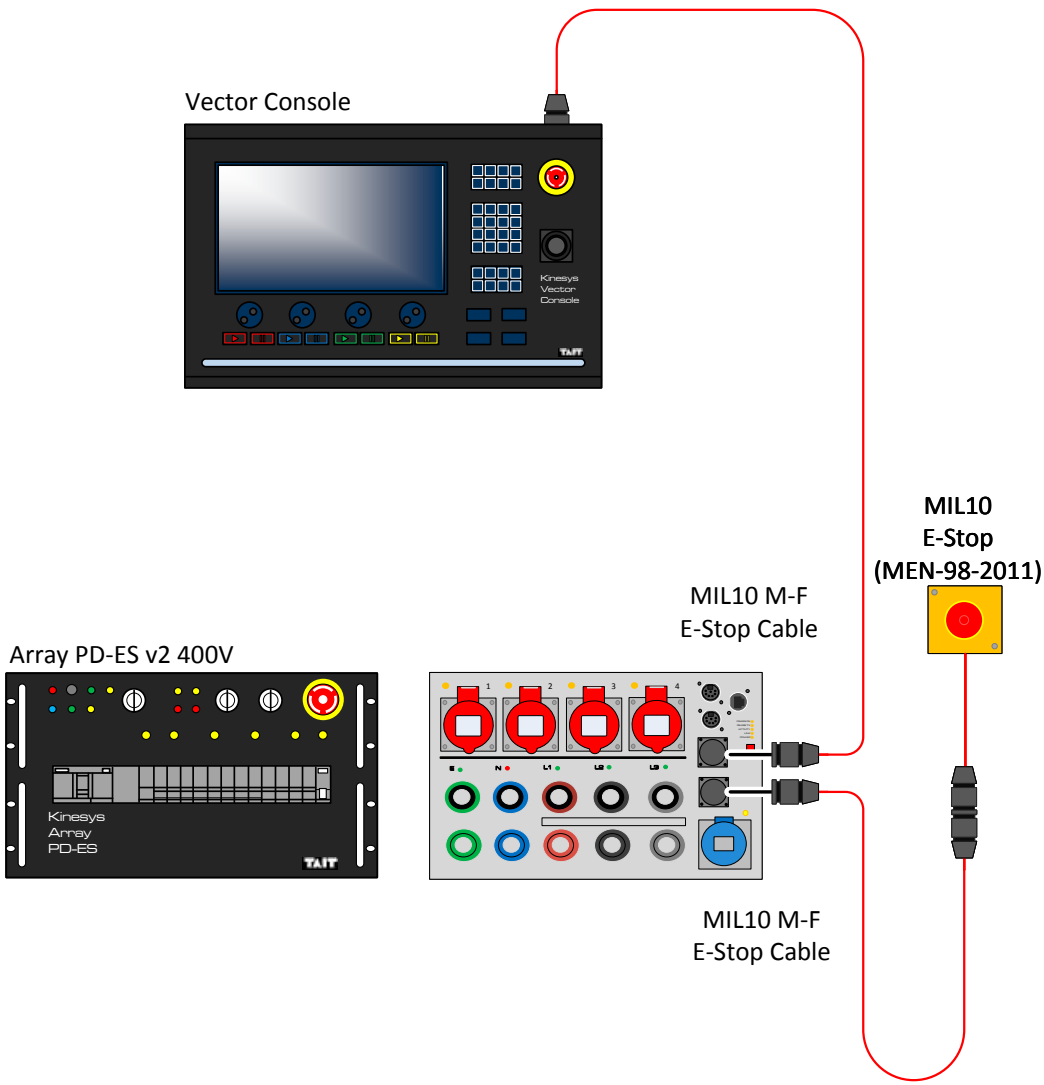
Category	Version 1	Version 2
Safety performance	SIL3 / PLe with single E-Stop SIL1 / PLc when multiple units are daisy-chained	2 estop inputs both rated at SIL3 / Ple
Estop connections	Socapex 22 Female (E-Stop In) Socapex 22 Male (E-Stop Out)	1 x MIL10 Female (E-Stop and HTR*) 1 x MIL10 Female (E-Stop only) *HTR = Hold To Run, button needs pressed to enable the system
Estop operation	Stops the unit it is plugged into and any other daisy-chained units	E-Stops plugged directly into the Array PD-ES v2 will stop only the Elevations plugged into that unit. To stop multiple units the E-Stop should connect via a central Mentor safety controller
Estop LED functionality	ESTOP: Green when E-Stops are released ENABLE: Green when HTR signal OK and key set to Enable	OFF: Unit Powered Down / LED Fault GREEN: Unit ready to allow the movement of axes ORANGE: Movement not possible due to user intervention (e.g. internal/external estop pressed, DMH required) RED: Movement not possible due to an internal fault (e.g. discrepancy error on E-Stop inputs)
UL/ETL Listing	No listing	208V version is ETL listed
RCD type	Programmable Type A	Programmable Type B
Using Multiple E-Stops	Required a Mentor, SIL1	Requires a Mentor and achieves overall system SIL3
Daisy chain of PD-ES	Can be daisy-chained with no additional controllers needed	Use a Kinesys Mentor to link multiple units together in a “star” topology. Maximum number of units will depend on the Mentor chosen
HTR Mode / E STOP Mode Key-Switches	Single keyswtich for Enable / Disable / Start	Now matches the Mentor operating method

Linking Array PD-ES together

Array PD-ES v1
SIL1 configuration

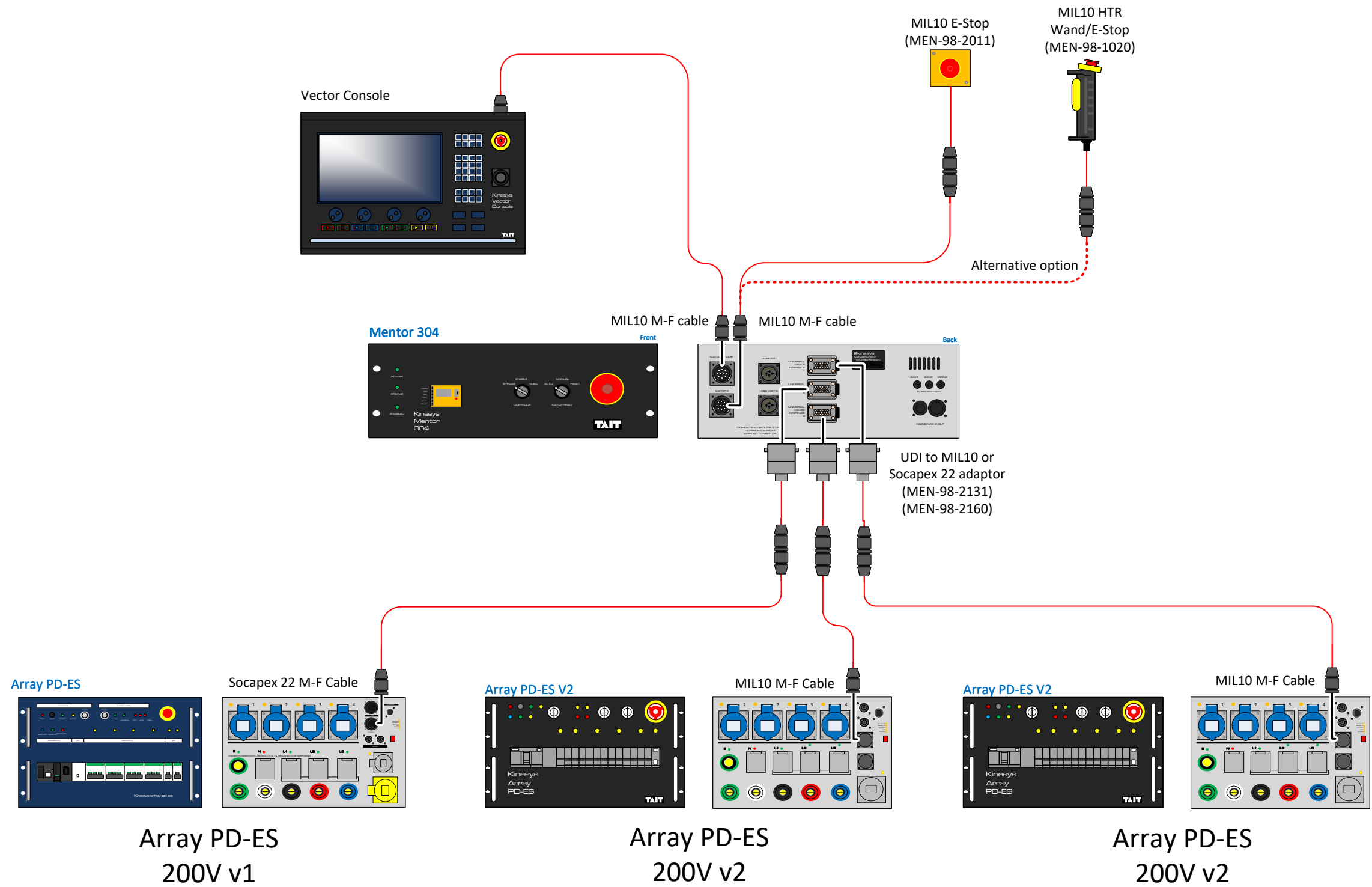


Array PD-ES v2
SIL3 configuration



Linking Array PD-ES together

Hybrid v1 and v2 system
SIL3 configuration



Mentor options

You will need a Mentor as a central E-Stop controller for SIL3 systems with multiple Array PD-ES

Which Mentor model should you choose?

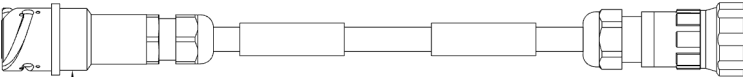
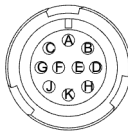
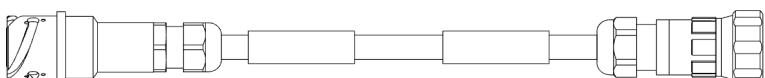
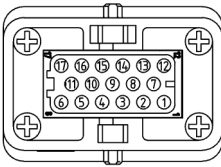
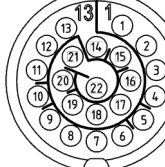
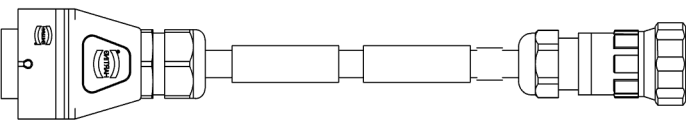
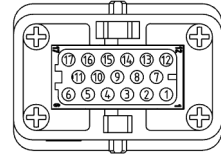
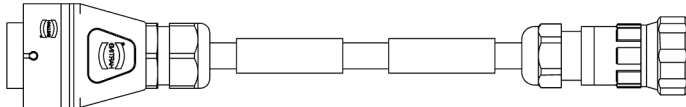
The Mentor model chosen depends on the number of connections required.

Mentor series 3 or series 4 can be used (the benefit of series 4 is that it can also be used with Apex systems)

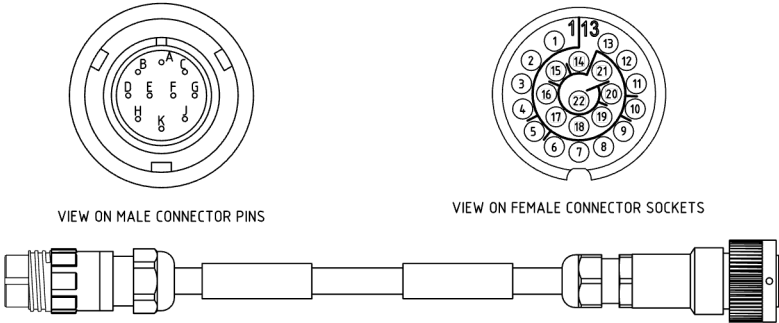
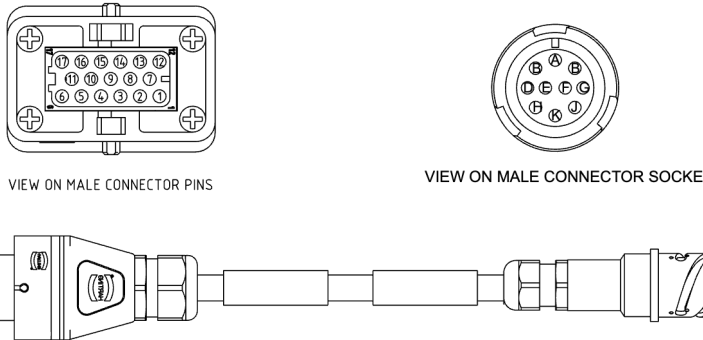


Type	Estop / HTR Inputs	UDI Outputs (connections to Array PD-ES)	Additional Notes	Size
Mentor 303	2 x E-Stop/HTR 2 x E-Stop Only	2	Includes 2 x Ethernet Ports	3U 19" 300mm deep
Mentor 304	1 x E-Stop/HTR 1 x E-Stop Only	3	Includes 2 x DigiHoist E-Stop outputs	3U 19" 300mm deep
Mentor 309	5 x E-Stop/HTR 3 x E-Stop Only	4	Includes 3 x Ethernet Ports	4U 19" 500mm deep
Mentor 401	3 x E-Stop/HTR 3 x E-Stop Only	2	Required for use with Apex systems Includes 9 x Ethernet Ports	4U 19" 600mm deep

E-Stop Connector Adapter Cables

Part number	Connector 1	Connector 2	Function	Diagram
9280111-1	MIL10(F)	Socapex 22 (M)	Converting a MIL10 estop/HTR wand or console output to work with an Array PD-ES v1 Note: HTR is permanently operational and must be used if plugged into an HTR capable input For E-Stop switch only use cable 9280110, below.	 VIEW ON FEMALE CONNECTOR SC  VIEW ON MALE CONNECTOR PINS 
9280110	MIL10(F)	Socapex 22 (M)	Converting a MIL10 estop or console output to work with an Array PD-ES v1. No HTR function.	 VIEW ON FEMALE CONNECTOR SC  VIEW ON MALE CONNECTOR PINS 
9280217	Harting 17 (M)	Socapex 22 (M).	For PD-ES v1 SIL3 HTR (HTR controls E-Stop/power)	 VIEW ON MALE CONNECTOR PINS  VIEW ON MALE CONNECTOR PINS 
9280253	Harting 17 (M)	Socapex 22 (M)	Connect the output of a Mentor to a PD-ES v1	 VIEW ON MALE CONNECTOR PINS  VIEW ON MALE CONNECTOR PINS 

E-Stop Connector Adapter Cables

Part number	Connector 1	Connector 2	Function	Diagram
9280031	MIL10(M)	Socapex 22 (F)	Converting a Socapex 22 estop button or console output to a MIL10 input for a Mentor or Array PD-ES v2. No HTR function.	
MEN-98-2160	Harting 17	MIL10 (M)	Connect the output of a Mentor to a PD-ES v2.	

E-Stop / DMH Wand Options

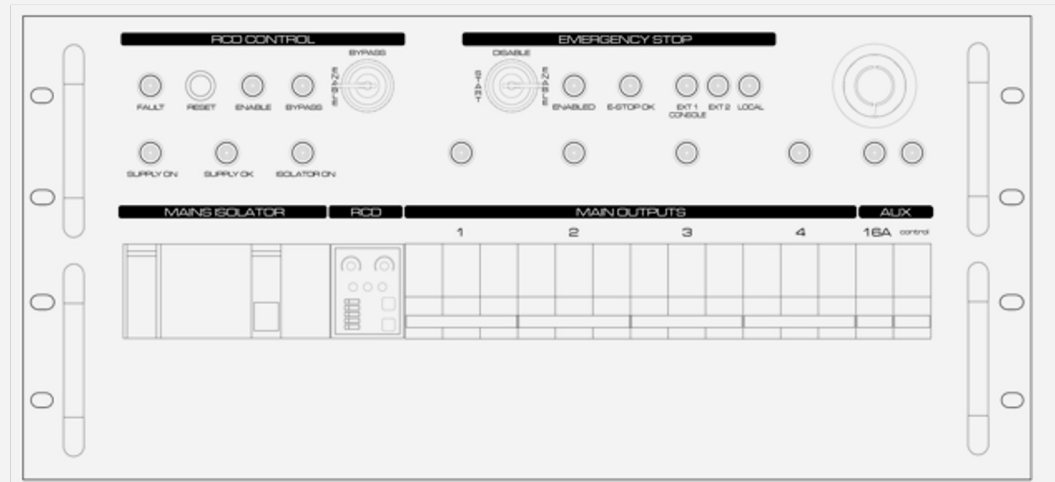
Description	Connector	Part number		Image
E-Stop Button	Socapex 22 (M) Connects to an Array PD-ES v1	STP-00-0010	1m	
		STP-00-0011	2m	
		STP-00-0020	5m	
		STP-00-0021	30m	
		STP-00-0022	20m	
		STP-00-0024	40m	
	Socapex 22 (F) Connects to the E-Stop Out connector on an Array PD-ES v1	0221061	1m	

Description	Connector	Part number		Image
E-Stop Button	MIL 10 (M) Connects to an Array PD-ES v2 or Mentor	MEN-98-2011-01	1m	
		MEN-98-2011-02	2m	
		MEN-98-2011-05	5m	
HTR & E-Stop Wand	MIL 10 (M) Connects to an Array PD-ES v2 or Mentor	MEN-98-1020-01	1m	
		MEN-98-1020	5m	
HTR Wand	MIL 10 (M) Connects to an Array PD-ES v2 or Mentor	MEN-98-1030-01	1m	
		MEN-98-1030	5m	
HTR foot pedal	MIL 10 (M) Connects to an Array PD-ES v2 or Mentor	MEN-98-1040		

Array PD-ES v2 variants

Assembly Number	Output Voltage	Colour scheme	Output Connectors	Aux 1 Connector
ELE-13-0013	400VAC (3PH + N + GND)	EU	400V 5 pin 32A Red/Black Ceeform	13A (UK)
ELE-13-0018	400VAC (3PH + N + GND)	EU	400V 5 pin 32A Red/Black Ceeform	Schuko
ELE-13-0019	400VAC (3PH + N + GND)	EU	400V 5 pin 32A Red/Black Ceeform	230V 3 Pin 16A Blue Ceeform
ELE-13-0020	400VAC (3PH + N + GND)	AUS	400V 5 pin 32A Red/Black Ceeform	230V 3 Pin 16A Blue Ceeform
ELE-13-0023	208VAC (3PH + N + GND)	US	200/208V 5 pin 32A Blue Ceeform	Edison
ELE-13-0024	208VAC (3PH + N + GND)	US	200/208V 5 pin 32A Blue Ceeform	True1
ELE-13-0025	400VAC (3PH + N + GND)	US	400V 5 pin 32A Red/Black Ceeform	230V 3 Pin 16A Blue Ceeform
ELE-13-0026	208VAC (3PH + N + GND)	US	200/208V 5 pin 32A Blue Ceeform	Edison
ELE-13-0027	200VAC (3PH + GND)	US	200/208V 4 pin 32A Blue Ceeform	Not Fitted
ELE-13-0028	208VAC (3PH + N + GND)	US	200/208V 5 pin 32A Blue Ceeform	Edison
ELE-13-0030	208VAC (3PH + N + GND)	US	200/208V 5 pin 32A Blue Ceeform	True1
ELE-13-0040	208VAC (3PH + N + GND)	EU	200/208V 5 pin 32A Blue Ceeform	True1

TAIT



Moving from Array PD-ES v1 to v2

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