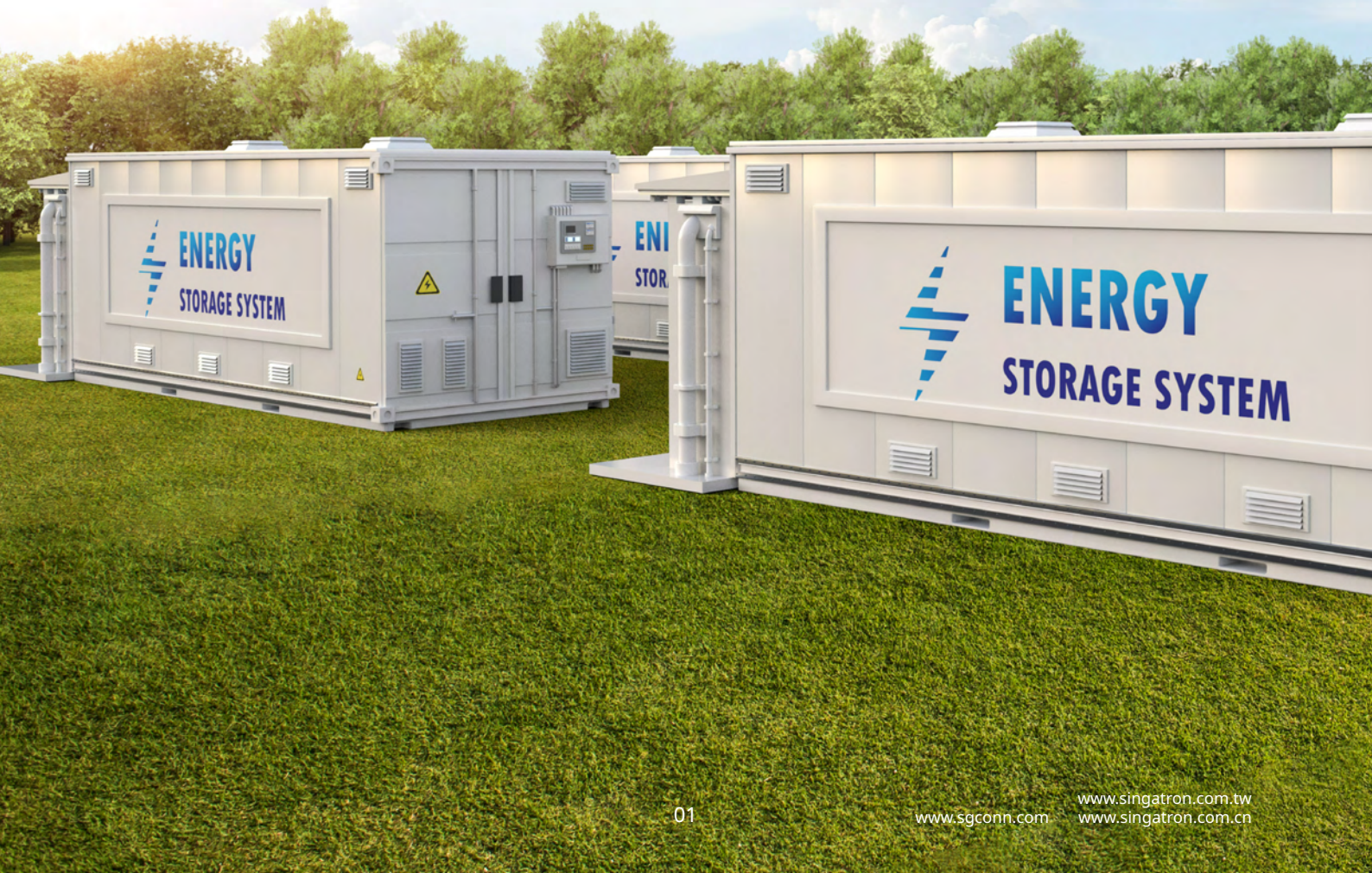


Contents

02	The Singatron Group
06	Single Pin Right Angle Connector
11	Waterproof Stack Connector
14	Manual Service Disconnect
16	AUX. Power
18	TJ Assembly
20	RJ45/USB Connector



The Singatron Group

Singatron Group was first established in Hsinchu, Taiwan in 1976. Since 2000, Singatron established China plants in both Suzhou and Zhongshan to satisfy customers demand in Greater China area. Singatron provides worldwide service network in Taiwan, Mainland China, Japan, S. Korea, Vietnam, Singapore, Malaysia, India, USA, Canada and Europe.



Experience in Connector Manufacturing
47+ years



EST. 1976
Taiwan Headquarters

EST. 2001
Suzhou, China Plant

EST. 2000
Zhongshan China Plant

EST. 2008
Yancheng, China Plant



1976

- o Founded in Taiwan

2001-2002

- o Established China plants in Suzhou and Zhongshan
- o Listed on Taiwan Stock Exchange

2011-2013

- o Established Waterproof BU in Suzhou, China
- o Set-up San Jose, USA office

Become a preferred inter-connectivity solutions provider

VISION

MISSION

Build a healthy and efficient environment to exceed expectations of customers

Singatron Worldwide Service Network

Employees 1300+



2015

- Suzhou, China plant was listed on the National Equities Exchange and Quotations (NEEQ) in 2015.

2018-2020

- Established Automotive BU in Suzhou, China
- In 2020, Suzhou plant was delisted from NEEQ in China

2023

- Set-up Vietnam Office
- Suzhou, China plant was listed on the ChiNext.

Quality & Reliability

- + ISO 9001:2015
- + IATF 16949:2016
- + 6 Sigma



Environmental, Health & Safety

- + ISO 14001:2015
- + ISO 45001:2018
- + IECQ QC080000:2017
- + Sony & ASUS Green Partner
- + RoHS & WEEE
- + Energy Saving & Carbon Reduce

Laboratory Verification



Electrical & Plating

Mechanical



Network Analysis



Oscilloscope



Solderability-Wating Balance Test



Low Lever Contact



Plating Thickness



Solder Dip Test



Insulation Resistance Dielectric Withstanding Voltage Insulation



DC Power Supply, Current Rating and Temperature



Vertical Tensile Strength Testing



X-ray Inspection System



2.5D Optical Microscope Dimension Measurement



Horizontal Optical Microscope



Connector Endurance Testing



International Regulation,
Product Specifications &
Worldwide Safety Requirements



Corporate Social Responsibility

+ RBA 7.0

+ Procurement Specification for Non-conflicted Areas



*We do our best to meet all test requirements 100%
even the worst condition*



Environmental & Green Partner

Sealing & Waterproof



Salt Spray Test Instrument



Hot Air Rapid Drying Oven



Temperature & Humidity
Test Chamber



Steam Aging Equipment



Polishing Machine



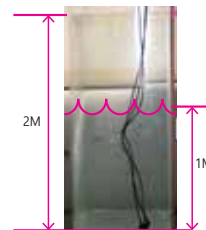
Pure Convection Reflow Oven



Thermal Shock Chamber



Automatic Vacuum Tester
(Positive/ Negative Pressure)



IP67/ IP68 Test





IP65/ IP66 Test

Energy Storage ES CONNECTORS

Single Pin Right Angle

70A/ 100A/ 120A/ 150A/ 200A/ 250A/ 350A



Connector Type	5.7 mm	8.0 mm	10.0 mm
Electrical Characteristics			
Rated Current	70A/ 100A/ 120A	120A/ 150A/ 200A	250A/ 350A
Rated Voltage		1500VDC	
Contact Resistance		≤ 1mΩ	
Insulation Resistance		≥ 5000MΩ	
Dielectrice Voltage		6800V AC	
Mechanical Characteristics			
Mating Cycle		≥ 100 Cycles	
Flammability		UL94-V0	
IP Classification (mated)		IP67/ IPXXD	
IP Classification (Unmated)		IPXXB	
Poke-Yoke		Color and/or. Keyway (up to specific product)	
Environmental Characteristics			
Operating Temperature		-40°C ~ +125°C	
Basic Feature			
Rotation		360° Rotation or multiple angle mating	
Color of Housing		Black/ Red/ Orange	
Standard		TUV and UL4128	 
Application		Energy Storage System	

Energy Storage ES CONNECTORS

5.7mm Right Angle

70A/ 100A/ 120A

Female Connector



P/N : 2ES3XRP-WDXXXXH



**Positive
Electrode**



P/N : 2ES3XRA-WDXXXXH

Male Connector

Female Connector



P/N : 2ES3XRP-WEXXXXXH



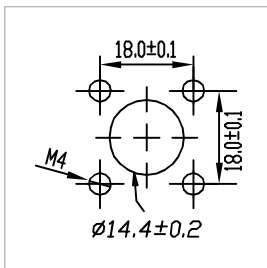
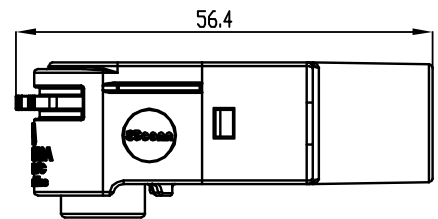
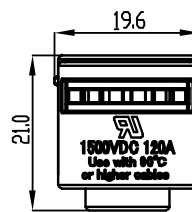
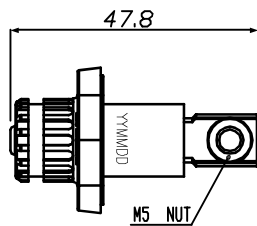
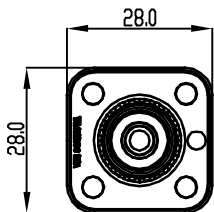
**Negative
Electrode**



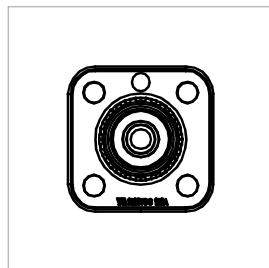
P/N : 2ES3XRA-WDXXXXH

Male Connector

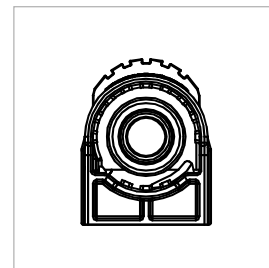
Physical Dimension



Panel Cut Out



Pin Define



Pin Define

Energy Storage ES CONNECTORS

8.0mm Right Angle

120A/ 150A/ 200A



Female Connector

P/N : ES3XRP-WEXXXH

+
Positive Electrode

P/N : 2ES3XRP-WEE001H

Flange Female Connector



Female Connector

P/N : 2ES3XRP-WEXXXH

-
Negative Electrode

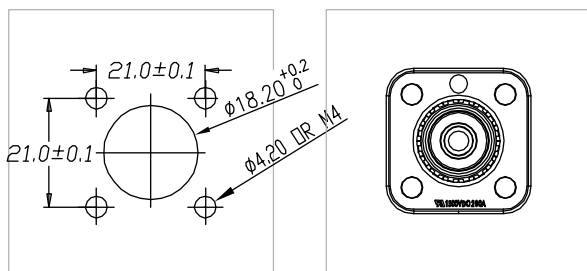
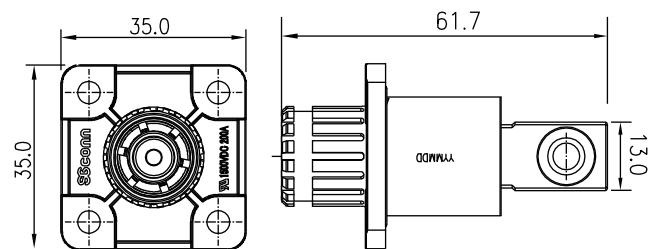
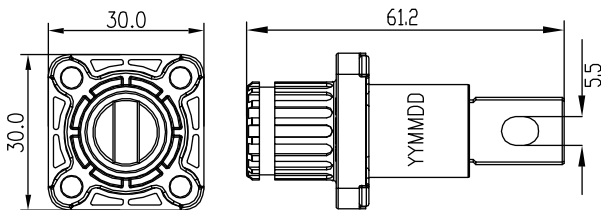
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Flange Female Connector

①

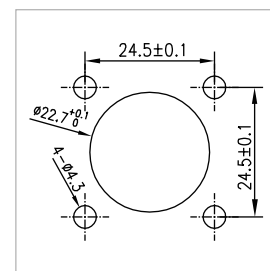
②

Physical Dimension



Panel Cut Out

Pin Define

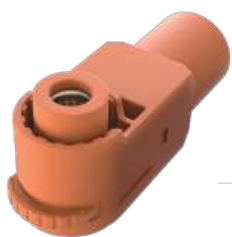


Panel Cut Out

Energy Storage ES CONNECTORS

8.0mm Right Angle

120A/ 150A/ 200A



**Male
Connector**

P/N : 2ES3XRA-WEXXXXH

+
*Positive
Electrode*

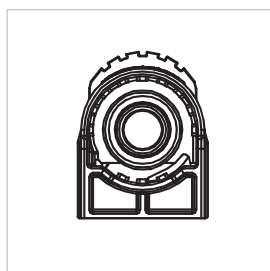
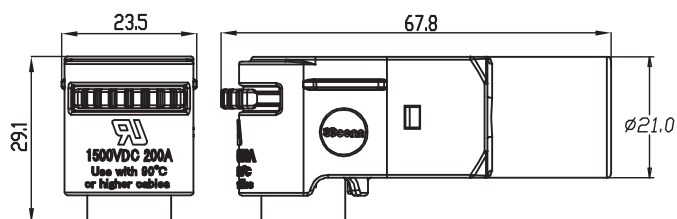


**Male
Connector**

P/N : 2ES3XRA-WEXXXXH

-
*Negative
Electrode*

Physical Dimension



Pin Define

Energy Storage ES CONNECTORS

10.0mm Right Angle

250A/ 350A

Female Connector



P/N : 2ES3XRP-WFXXXXH



+
*Positive
Electrode*



P/N : 2ES3XRA-WFXXXXH

Male Connector

Female Connector



P/N : 2ES3XRP-WFXXXXH

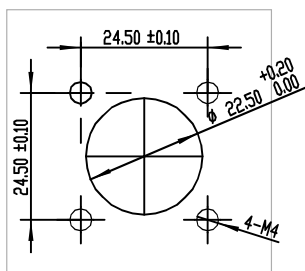
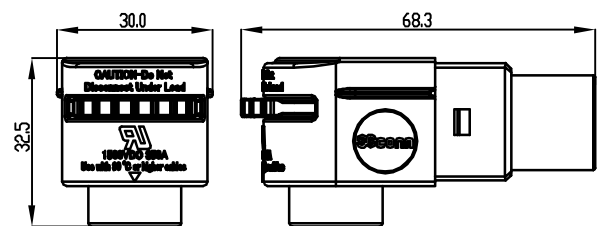
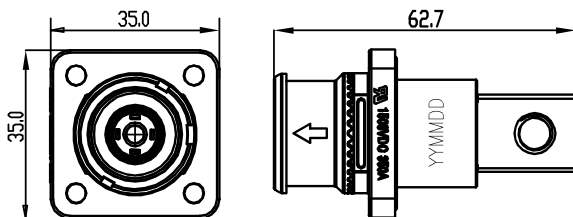
-
*Negative
Electrode*



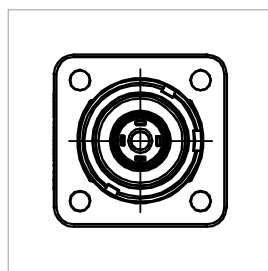
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Male Connector

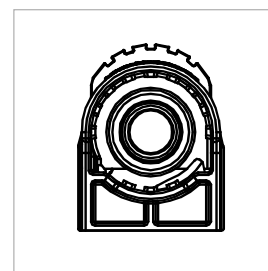
Physical Dimension



Panel Cut Out



Pin Define



Pin Define

Energy Storage ES CONNECTORS

Waterproof Stack Connector

Main Power 70A/90A/100A/120A
Second Power 35A
Signal Power 3A



Female Connector

P/N : 2ES3BRP-WBXXXXH

3+12 pins



Male Connector

P/N : 2ES3BNA-WBXXXXH



Female Connector

P/N : 2ES3BRP-WDG000H

5+12 pins



Male Connector

P/N : 2ES3BNA-WDG000H

Connector Type

3+12 pins

5+12 pins

Electrical Characteristics

Rated Current	70A/90A	100A/120A
Rated Voltage	600V	1000V
Insulation Resistance	1000MΩ	1000MΩ
Dielectric Voltage	3000V AC	4250V AC

Mechanical Characteristics

Mating Cycle	≤ 3000 Cycles	≤ 500 Cycles
Flammability	UL94-V0	UL94-V0
IP Classification(mated)	IP67	IP67
Poke-Yoke	Poke-Yoke mating	-

Environmental Characteristics

Operating Temperature	-40°C ~ +125°C
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Application

Energy Storage System

Energy Storage ES CONNECTORS

Waterproof Stack Connector

70A/90A



3+12 pins



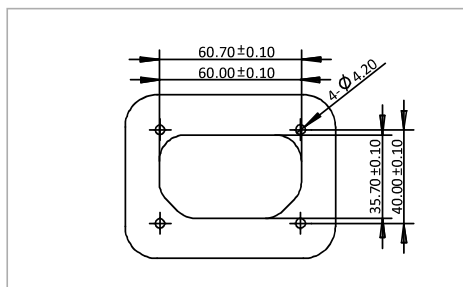
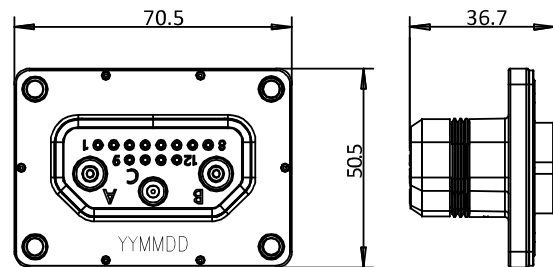
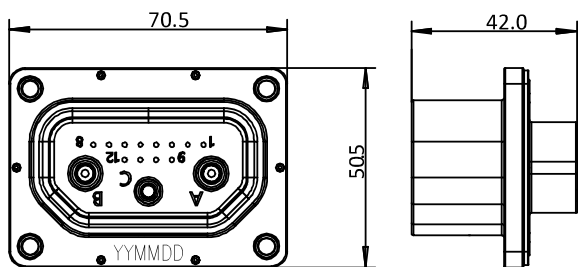
**Female
Connector**

P/N : 2ES3BRP-WBXXXXH

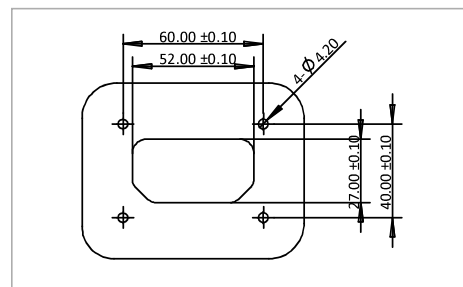
**Male
Connector**

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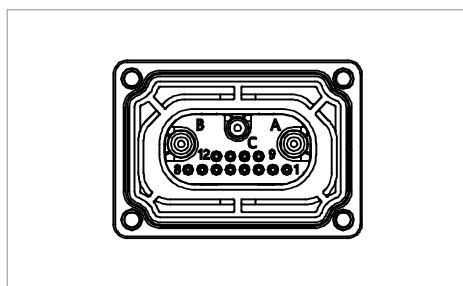
Physical Dimension



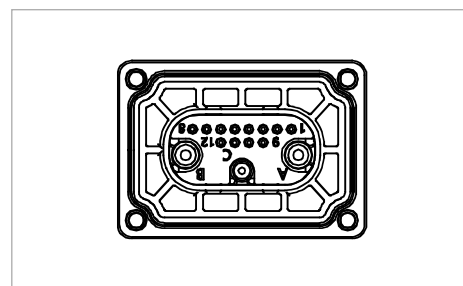
Panel Cut Out



Panel Cut Out



Pin Define



Pin Define

Energy Storage ES CONNECTORS

Waterproof Stack Connector

100A/120A



5+12 pins



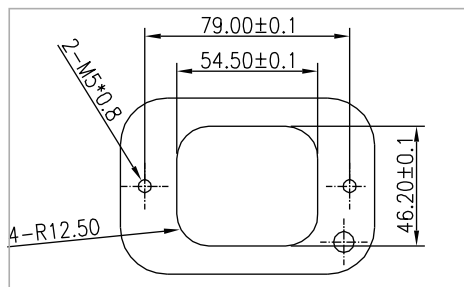
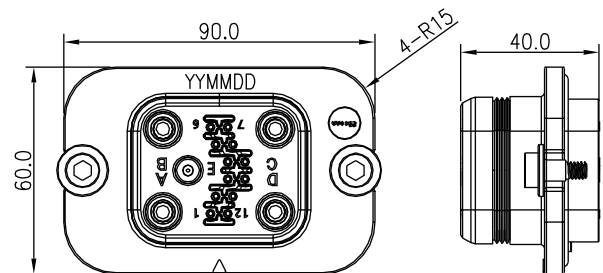
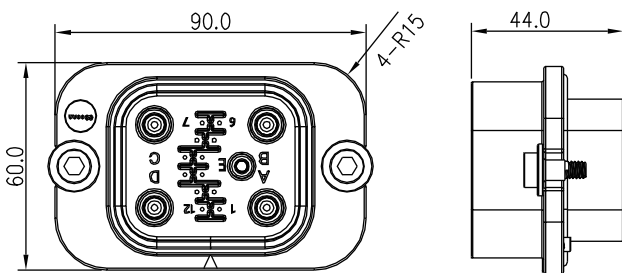
**Female
Connector**

P/N : 2ES3BRP-WDXXXXH

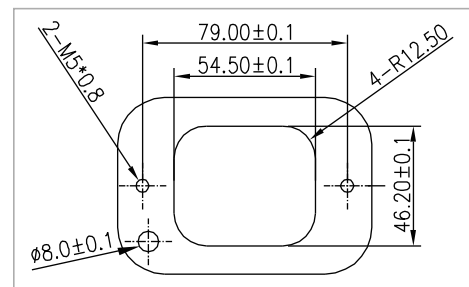
**Male
Connector**

P/N : 2ES3BNA-WDXXXXH

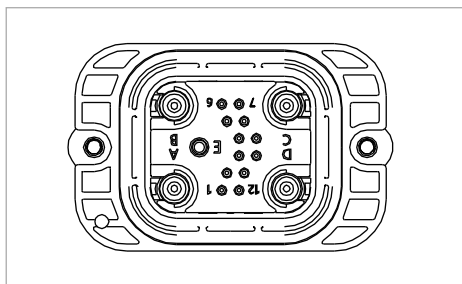
Physical Dimension



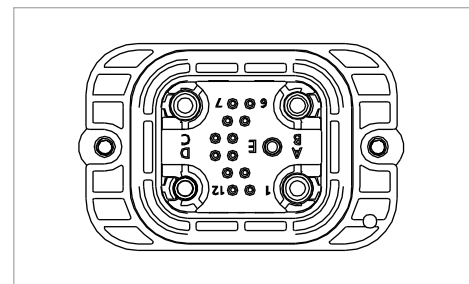
Panel Cut Out



Panel Cut Out



Pin Define



Pin Define

Energy Storage ES CONNECTORS

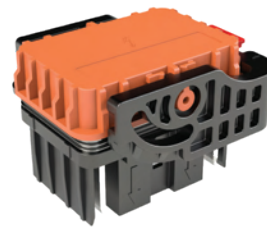
Manual Service Disconnect

350A



Female
Connector

P/N : 2ES3ORP-WFXXXXH



Male
Connector

P/N : 2ES3ORP-WFXXXXH

Connector Type

Manual Service Disconnect

Electrical Characteristics

Rated Current	350A
Rated Voltage	1500V DC
Dielectric Withstand Voltage	6800V AC
Insulation Resistance	≥ 5000MΩ

Fuse Spec	Fuse Source
400A/ 350A/ 315A/ 250A	Bussmann
200A/ 160A/ 125A	Sinofuse
100A/ 80A	Cfriend
Fuse Rated Voltage	690/750V

Mechanical Characteristics

Mating Cycle	≤ 500 Cycles
Flammability	UL94-V0
IP Classification(mated)	IP67

Environmental Characteristics

Operating Temperature	-40°C ~ +70°C
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Application

Energy Storage System

Energy Storage ES CONNECTORS

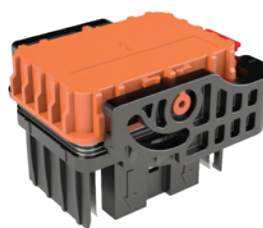
Manual Service Disconnect

350A



Female Connector

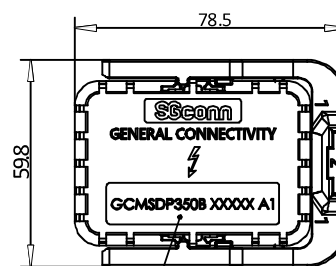
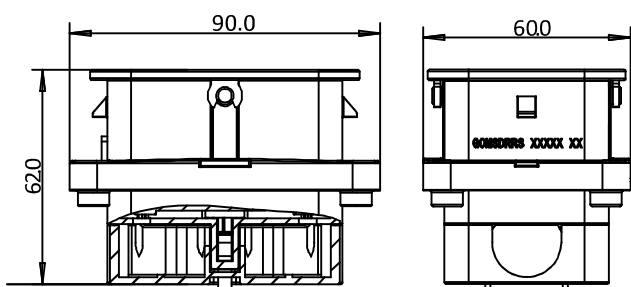
P/N : 2ES3ORP-WFXXXXH



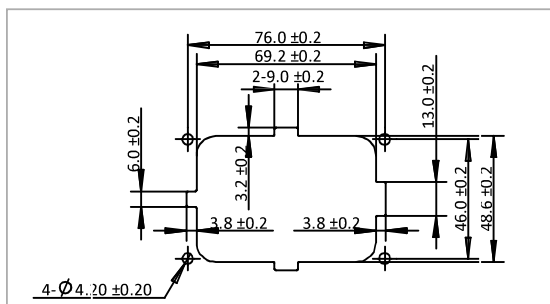
Male Connector

P/N : 2ES3ORP-WFXXXXH

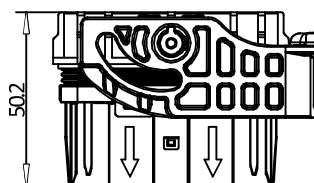
Physical Dimension



LASER MARKING AREA



Panel Cut Out



LEVER IN LOCKED POSITION

Energy Storage ES CONNECTORS

AUX. Power

30A/ 40A/ 50A/ 70A



Female Connector

P/N : 2ES3ORP-WAXXXXH

2 pins



Male Connector

P/N : 2ES3ORP-WAXXXXH

Connector Type	AUX. Power
Electrical Characteristics Rated Current Rated Voltage Insulation Resistance Dielectric Voltage HVIL	30A/ 40A/ 50A/ 70A 1000VDC AC ≥ 5000MΩ 3500VAC Optional
Mechanical Characteristics Mating Cycle Flammability IP Classification(mated) IP Classification(Unmated) Applicable Cable Size	≤ 100 Cycles UL94-V0 IP6K9K/ IPXXD IPXXB 2.5/4/6/10mm ²
Environmental Characteristics Operating Temperature	-40°C ~ +125°C
Basic Feature POS Plug Type CPA Keyway Shielding	2/ +2 HVIL Straight √ √ Optional
Application	Battery Pack, PDU, PTC, Compressor, Charging System, Power Steering

Energy Storage ES CONNECTORS

AUX. Power

30A/ 40A/ 50A/ 70A



2 pins



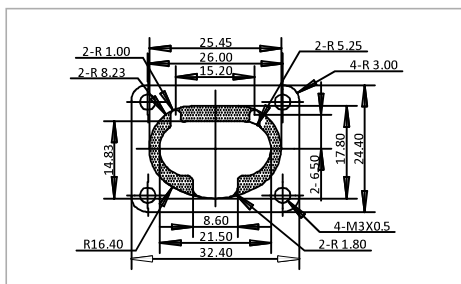
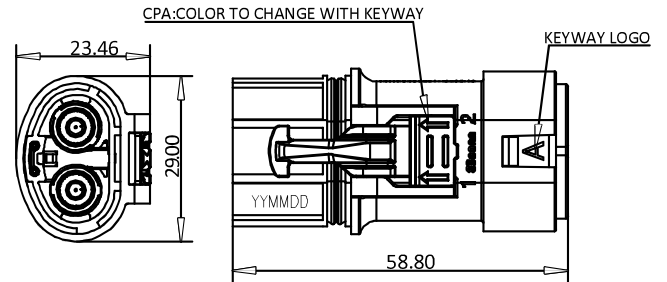
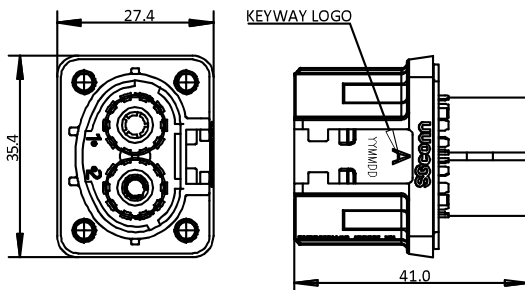
**Female
Connector**

P/N : 2ES3ORP-WAXXXH

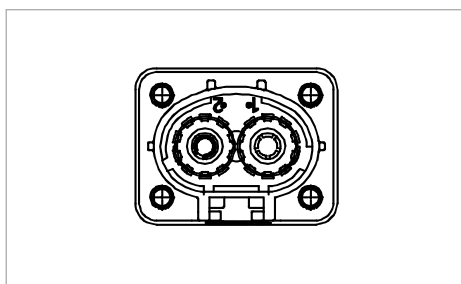
**Male
Connector**

P/N : 2ES3ORP-WAXXXH

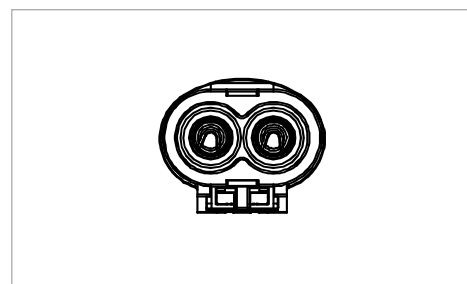
Physical Dimension



Panel Cut Out



Pin Define



Pin Define

Energy Storage ES CONNECTORS

TJ Assembly

3A+1A



**Female
Connector**

P/N: 2TJ3032-WX0001H



**Male
Connector**

P/N: 2TJ3033-WX0001H

Connector Type	TJ Assembly Connector
Electrical Characteristics	
Rated Current	3A+1A
Rated Voltage	250V
Mechanical Characteristics	
IP Classification(mated)	IPX7
Environmental Characteristics	
Operating Temperature	-40°C ~ +105°C
Application	Energy Storage System

Energy Storage ES CONNECTORS

TJ Assembly

3A+1A



Female Connector

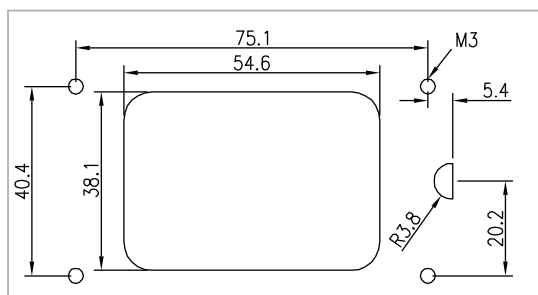
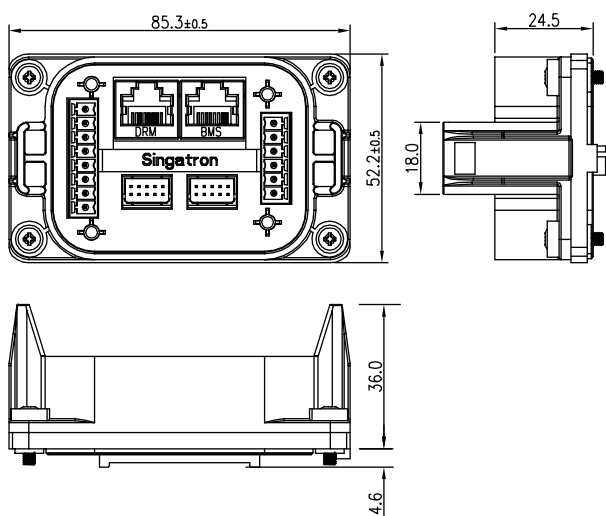
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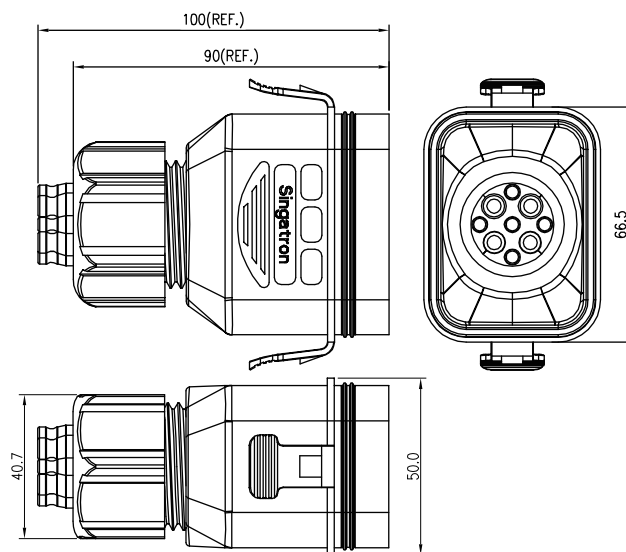
Male Connector

P/N: 2TJ3033-WX0001H

Physical Dimension



Panel Cut Out



Energy Storage ES CONNECTORS

RJ 45/ USB Connector



RJ 45



USB-A Middle Size



USB-A Large Size

Connector Type	RJ45	USB2.0 Type-A
Electrical Characteristics		
Rated Current	1.5A	1A
Rated Voltage	125V	30V
Speed	N/A	480 Mbps
Contact Resistance	≤ 10mΩ	≤ 30mΩ
Insulation Resistance	≥ 100Ω at DC300V	≥ 100Ω at DC300V
Breakdown Voltage	≥AC 500V/minute	≥AC 500V/minute
Mechanical Characteristics		
IP Classification (mated)	IP67	IP67
Durability	≥500 cycles	≥500 cycles
Environmental Characteristics		
Operating Temperature	-20°C ~ +80°C	-20°C ~ +80°C
Corrosion	48 hours salt spray contact	48 hours salt spray contact
Application	Energy Storage System	

Energy Storage ES CONNECTORS

RJ 45 Connector

CAT-5e/ CAT-6/ CAT-6a



RJ 45 Jack

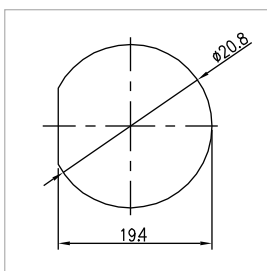
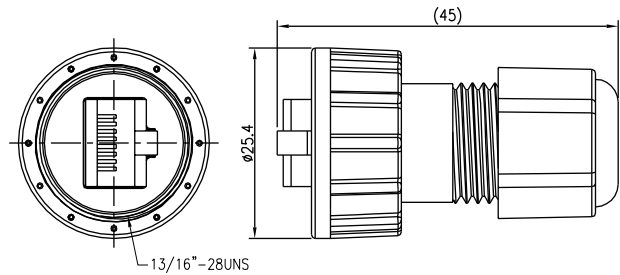
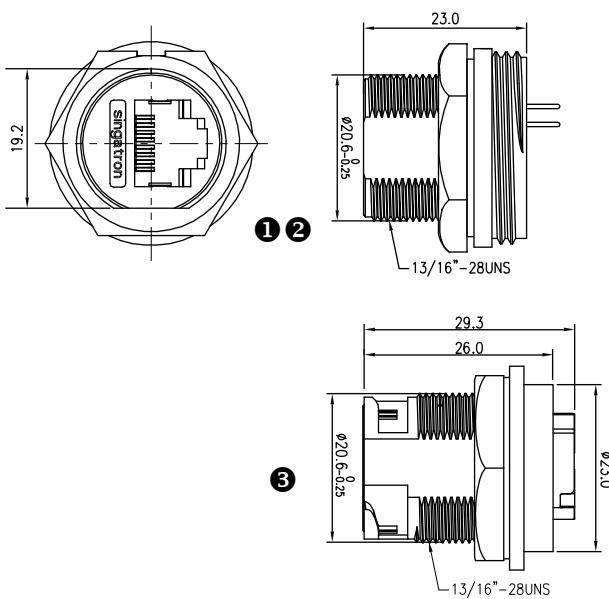
- ❶ CAT 5e: 2TJ3003
- ❷ CAT 6: 2TJ3008
- ❸ CAT 6a: 2TJ3020



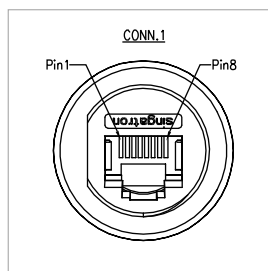
RJ45 Plug

- CAT 5e: 2TJ3000/ 2TJ3001/ 2TJ3002
- CAT 6: 2TJ3009
- CAT 6a: 2TJ3021

Physical Dimension



Panel Cut Out



Pin Define

Energy Storage ES CONNECTORS

USB2.0 Type-A

Middle Size



USB-A Jack

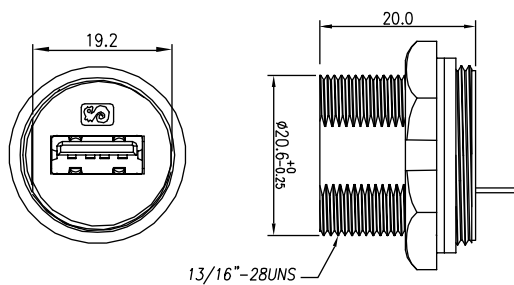
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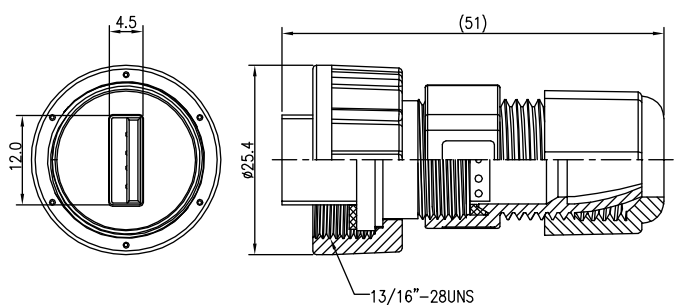
USB-A Plug

P/N: 2UP3000-W051XX

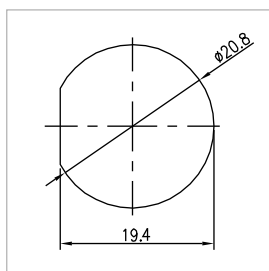
Physical Dimension



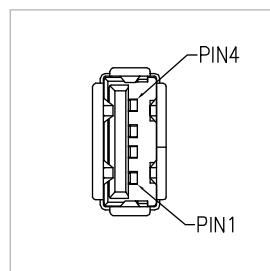
13/16"–28UNS



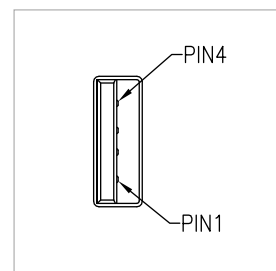
13/16"–28UNS



Panel Cut Out



Pin Define



Pin Define

Energy Storage ES CONNECTORS

USB2.0 Type-A

Large Size



USB-A Jack

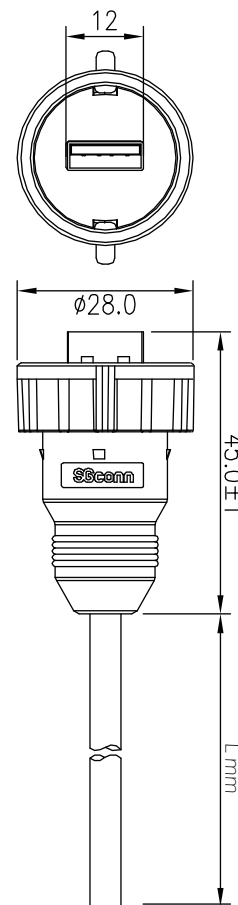
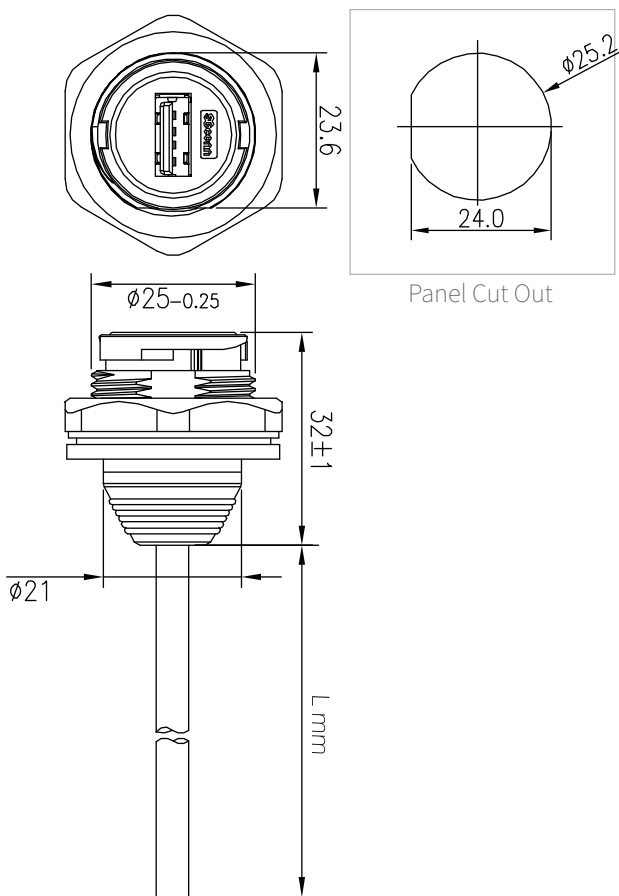
P/N: 2UB3012-W051XX



USB-A Plug

P/N: 2UP3014-W051XX

Physical Dimension



Energy Storage ES CONNECTORS

Cable Gland



Screw Thread M20*1.5

①
②
P/N: 2CT3100-W003XXH

Specifications

Mechanical Characteristics

IP Classification (mated)

IP67/ IP68

Environmental Characteristics

Operating Temperature

-40°C ~ +100°C

Application

Energy Storage System

Physical Dimension

