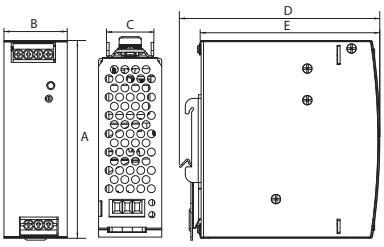
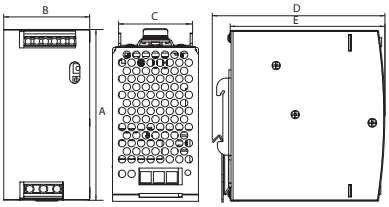
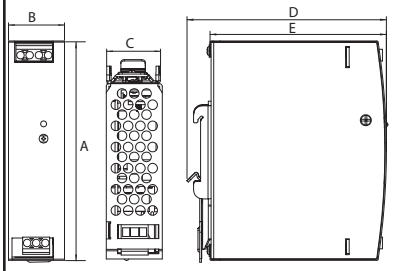
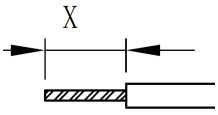
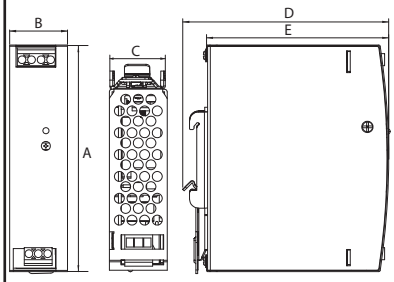
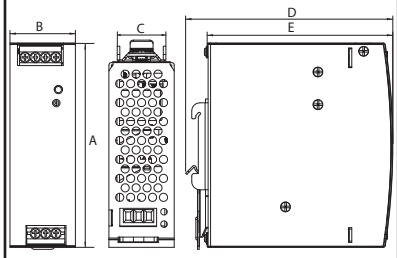
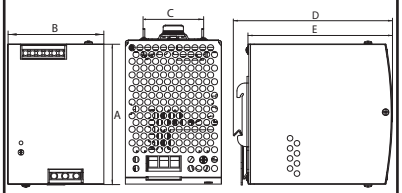
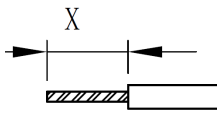
DATASHEET

Din Rail Power Supply

BN	3639203	3639204	3639205
Customer #	TC-YSDW120-12	TC-YSDW240-24	TC-YSDW60-12
Product name	Din Rail Power Supply 12 V/DC 10 A 120 W	Din Rail Power Supply 24 V/DC 10 A 240 W	Din Rail Power Supply 12 V/DC 5 A 60 W
Protection class	I	I	I
Rated input	200 - 500 V/AC 50/60 Hz 1.4 A	220 - 500 V/AC 50/60 Hz 1.4 A	200 - 480 V/AC 50/60 Hz 0.7 A
Frequency range	47 - 63 Hz	47 - 63 Hz	47 - 63 Hz
Standby Power Consumption	2.5 W	6 W	0.8 W
Rated output	12 V/DC 10 A 120 W	24 V/DC 10 A 240 W	12 V/DC 5 A 60 W
Efficiency (Typ.)	89.50 %	91 %	86.50 %
AC current (Typ.)	0.7 A/400 V/AC 1.2 A/230 V/AC	1 A/400 V/AC 2 A/230 V/AC	0.4 A/400 V/AC 0.7 A/230 V/AC
Inrush current (Typ.)	COLD START, 50 A/400 V/AC	COLD START, 50 A/400 V/AC	COLD START, 50 A/400 V/AC
Leakage current	<3.5 mA/530 VAC	<3.5 mA/530 VAC	<2 mA/530 VAC
Power Factor Correction (PFC)	N/A	PF ≥ 0.84	N/A
Ripple & Noise (max .)	120 mVp-p	150 mVp-p	120 mVp-p
Voltage tolerance	±2.0 %	±2.0 %	±2.0 %
Line regulation	±0.5 %	±0.5 %	±0.5 %
Load regulation	±0.5 %	±1.0 %	±0.5 %
Setup, rise time	1200 ms, 70 ms, 50 ms/400 V/AC at full load	800 ms, 150 ms/400 V/AC at full load 1500 ms, 150 ms/230 V/AC at full load	1200 ms, 70 ms, 20 ms/400 V/AC at full load
Hold up time (Typ.)	2000 ms, 70 ms, 10 ms/230 V/AC at full load	18 ms/400 V/AC at full load 18 ms/230 V/AC at full load	2000 ms, 70 ms, 10 ms/230 V/AC at full load
Voltage adjustment range	12 - 15 V/DC	24 - 28 V/DC	12 - 15 V/DC
Output voltage (min.)	12 V/DC	24 V/DC	12 V/DC
Output voltage (max)	15 V/DC	28 V/DC	15 V/DC
Output current (max)	10 A	10 A	5 A
Rated Power	120 W	240 W	60 W
Output power characteristic	N/A	N/A	N/A
DC power good signal	Relay contact rating(max.) : 30 V / 1 A resistive	60 VDC/0.3 A, 30 VDC/1 A, 30 VAC/0.5 A resistive load	Relay contact rating(max.) : 30 V / 1 A resistive
Withstand voltage	I/P-O/P: 3 kVAC I/P-FG: 2 kVAC O/P- FG: 0.5 kVAC, O/P-DC OK:0.5 kVAC	I/P-O/P: 3 kVAC I/P-FG: 2 kVAC O/P- FG: 0.5 kVAC, O/P-DC OK:0.5 kVAC	I/P-O/P: 4.7 kVAC I/P-FG: 2.5 kVAC O/P- FG: 0.5 kVAC, O/P-DC OK:0.5 kVAC
Isolation resistance	I/P-O/P, I/P-FG, O/P-FG: >100M Ohms / 500 VDC / 25 °C / 70 % RH	I/P-O/P, I/P-FG, O/P-FG: >100M Ohms / 500 VDC / 25 °C / 70 % RH	I/P-O/P, I/P-FG, O/P-FG: >100M Ohms / 500 VDC / 25 °C / 70 % RH
DIN rail compatability	TS-35/7.5 or TS-35/15 EN/IEC 60715 (DIN rail)	TS-35/7.5 or TS-35/15 EN/IEC 60715 (DIN rail)	TS-35/7.5 or TS-35/15 EN/IEC 60715 (DIN rail)
Output connection type	Screw DIN terminal	Screw DIN terminal	Screw DIN terminal
Input / output connector pin count	Input: 3 poles Ouput: 4 poles	Input: 3 poles Ouput: 6 poles	Input: 3 poles Ouput: 4 poles
Outputs	1	1	1
Operating orientation	Vertical (input terminals down)	Vertical (input terminals down)	Vertical (input terminals down)
Protection mechanisms	Short circuit, over load, over voltage, over temperature	Short circuit, over load, over voltage, over temperature	Short circuit, over load, over voltage, over temperature

BN	3639203	3639204	3639205
Overload protection behaviour	105 ~ 130% rated output power, constant current limitiing, auto-recovery	105 ~ 130% rated output power, constant current limiting, unit will shut-down after 3 sec., auto-recovery after 1 minute if the fault condition is removed.	Hiccup mode when output voltage <50%, constant current limiting within 50% ~ 100% rated output voltage, auto-recovery
Over voltage protection	Trip point: 14 - 17 V Action: Output shutdown Recovery: After discharge, restart the power supply to recover	Trip point: 29 - 33 V Action: Output shutdown Recovery: After discharge, restart the power supply to recover	Trip point: 16 - 18 V Action: Output shutdown Recovery: After discharge, restart the power supply to recover
Over temperature protection	Action: Output shutdown Recovery: Re-power after temperature goes down	Action: Output shutdown Recovery: Re-power after temperature goes down	Action: Output shutdown Recovery: Re-power after temperature goes down
Over voltage category	N/A	N/A	N/A
Cooling method	Convection	Convection	Convection
Fuse	T4A/L500	F4A/L500	T4A/L500
Max. connected products per circuit breaker	Type C16: 13 pcs Type D16: 16 pcs	Type C16: 6 pcs Type D16: 8 pcs	Type C16: 26 pcs Type D16: 30 pcs
Terminal screw torque	Inputs: 0.5N·m Outputs: 0.4N·m	Inputs: 0.5N·m Outputs: 0.5N·m	Inputs: 0.5N·m Outputs: 0.4N·m
Ingress protection	N/A	N/A	N/A
Operating conditions	-25 to +70 °C	-30 to +70 °C	-30 to +85 °C
Operating humidity	20 - 95 % RH (non-condensing)	20 - 95 % RH (non-condensing)	20 - 95 % RH (non-condensing)
Storage conditions	-40 to +85 °C	-40 to +85 °C	-40 to +85 °C
Storage humidity	10 - 95 % RH (non-condensing)	10 - 95 % RH (non-condensing)	10 - 95 % RH (non-condensing)
Temperature derating	De-rating from 50 - 70 °C	De-rating from 50 - 70 °C	De-rating from 60 - 70°C
Mean time between failures (MTBF)	1300k hrs min.TelcordiaSR-332 (Bellcore)	900k hrs min.TelcordiaSR-332 (Bellcore)	1600k hrs min.TelcordiaSR-332 (Bellcore)
Weight	650 g	1 kg	450 g
Dimensions (W x H x D)	40 x 125 x 113 mm	63 x 125 x 113.5 mm	32 x 125 x 100.5 mm
Dimension_drawing			
Dimension_data	A 125 ± 1 mm B 40 ± 1 mm C 30 mm D 113 ± 1 mm E 108 ± 1 mm	A 125 ± 1 mm B 63 ± 1 mm C 54 mm D 113.5 ± 1mm E 108 ± 1 mm	A 125 ± 1 mm B 32 ± 1 mm C 30 mm D 101 ± 1 mm E 96 ± 1 mm
Wire cross section	DC cable: 26 - 10 AWG AC cable: 30 - 10 AWG	DC cable: 30 - 10 AWG AC cable: 26 - 10 AWG	DC cable: 24 - 12 AWG AC cable: 28 - 10 AWG
Wire strip length 	DC cable: X = 6.8 mm AC cable: X = 7.8 mm	DC cable: X = 7.8 mm AC cable: X = 7.8 mm	DC cable: X = 6.8 mm AC cable: X = 7.8 mm

BN	3639206	3639207	3639208
Customer #	TC-YSDW60-24	TC-YSDW120-24	TC-YSDW480-24
Product name	Din Rail Power Supply 24 V/DC 2.5 A 60 W	Din Rail Power Supply 24 V/DC 5 A 120 W	Din Rail Power Supply 24 V/DC 20 A 480 W
Protection class	I	I	I
Rated input	200 - 480 V/AC 50/60 Hz 0.7 A	200 - 500 V/AC 50/60 Hz 1.4 A	200 - 500 V/AC 50/60 Hz 4 A
Frequency range	47 - 63 Hz	47 - 63 Hz	47 - 63 Hz
Standby Power Consumption	0.8 W	2.5 W	7 W
Rated output	24 V/DC 2.5 A 60 W	24 V/DC 5 A 120 W	24 V/DC 20 A 480 W
Efficiency (Typ.)	89 %	91 %	93 %
AC current (Typ.)	0.4 A/400 V/AC 0.7 A/230 V/AC	0.7 A/400 V/AC 1.2 A/230 V/AC	1 .6A/400 V/AC 4 A/230 V/AC
Inrush current (Typ.)	COLD START, 50 A/400 V/AC	COLD START, 50 A/400 V/AC	COLD START, 50 A/400 V/AC
Leakage current	<2 mA/530 VAC	<3.5 mA/530 VAC	<3.5 mA/530 VAC
Power Factor Correction (PFC)	N/A	N/A	PF ≥ 0.84
Ripple & Noise (max .)	150 mVp-p	120 mVp-p	100 mVp-p
Voltage tolerance	±2.0 %	±2.0 %	±2.0 %
Line regulation	±0.5 %	±0.5 %	±0.5 %
Load regulation	±0.5 %	±0.5 %	±1.0 %
Setup, rise time	1200 ms, 70 ms, 20 ms/400 V/AC at full load	1200 ms, 70 ms, 50 ms/400 V/AC at full load	800 ms, 150 ms/400 V/AC at full load 2000 ms, 150 ms/230 V/AC at full load
Hold up time (Typ.)	2000 ms, 70 ms, 10 ms/230 V/AC at full load	2000 ms, 70 ms, 10 ms/230 V/AC at full load	18 ms/400 V/AC at full load 16 ms/230 V/AC at full load
Voltage adjustment range	24 - 29 V/DC	24 - 29 V/DC	24 - 28 V/DC
Output voltage (min.)	24 V/DC	24 V/DC	24 V/DC
Output voltage (max)	29 V/DC	29 V/DC	28 V/DC
Output current (max)	2.5 A	5 A	20 A
Rated Power	60 W	120 W	480 W
Output power characteristic	N/A	N/A	N/A
DC power good signal	Relay contact rating(max.) : 30 V / 1A resistive	Relay contact rating(max.) : 30 V / 1A resistive	60 VDC/0.3 A, 30 VDC/1 A, 30 VAC/0.5 A resistive load
Withstand voltage	I/P-O/P: 4.7 kVAC I/P-FG: 2.5 kVAC O/P- FG: 0.5 kVAC, O/P-DC OK:0.5KVAC	I/P-O/P: 3 kVAC I/P-FG: 2 kVAC O/P- FG: 0.5 kVAC, O/P-DC OK:0.5KVAC	I/P-O/P: 3 kVAC I/P-FG: 2 kVAC O/P- FG: 0.5 kVAC, O/P-DC OK:0.5KVAC
Isolation resistance	I/P-O/P, I/P-FG, O/P-FG: >100M Ohms / 500 VDC / 25 °C / 70 % RH	I/P-O/P, I/P-FG, O/P-FG: >100M Ohms / 500 VDC / 25 °C / 70 % RH	I/P-O/P, I/P-FG, O/P-FG: >100M Ohms / 500 VDC / 25 °C / 70 % RH
DIN rail compatability	TS-35/7.5 or TS-35/15 EN/IEC 60715 (DIN rail)	TS-35/7.5 or TS-35/15 EN/IEC 60715 (DIN rail)	TS-35/7.5 or TS-35/15 EN/IEC 60715 (DIN rail)
Output connection type	Screw DIN terminal	Screw DIN terminal	Screw DIN terminal
Input / output connector pin count	Input: 3 poles Ouput: 4 poles	Input: 3 poles Ouput: 4 poles	Input: 3 poles Ouput: 6 poles
Outputs	1	1	1
Operating orientation	Vertical (input terminals down)	Vertical (input terminals down)	Vertical (input terminals down)
Protection mechanisms	Short circuit, over load, over voltage, over temperature	Short circuit, over load, over voltage, over temperature	Short circuit, over load, over voltage, over temperature
Overload protection behaviour	Hiccup mode when output voltage <50 %, constant current limiting within 50 % ~ 100% rated output voltage, auto-recovery	105 ~ 130% rated output power, constant current limitiing, auto-recovery	105 ~ 130% rated output power, constant current limiting, unit will shut-down after 3 sec., auto-recovery after 1 minute if the fault condition is removed.
Over voltage protection	Trip point: 31 - 37 V Action: Output shutdown Recovery: After discharge, restart the power supply to recover	Trip point: 29 - 33 V Action: Output shutdown Recovery: After discharge, restart the power supply to recover	Trip point: 29 - 33 V Action: Output shutdown Recovery: After discharge, restart the power supply to recover
Over temperature protection	Action: Output shutdown Recovery: Re-power after temperature goes down	Action: Output shutdown Recovery: Re-power after temperature goes down	Action: Output shutdown Recovery: Re-power after temperature goes down

BN	3639206	3639207	3639208
Over voltage category	N/A	N/A	N/A
Cooling method	Convection	Convection	Convection
Fuse	T4A/L500	T4A/L500	F6.3A/L250
Max. connected products per circuit breaker	Type C16: 26 pcs Type D16: 30 pcs	Type C16: 14 pcs Type D16: 18 pcs	Type C16: 6 pcs Type D16: 8 pcs
Terminal screw torque	Inputs: 0.5N·m Outputs: 0.4N·m	Inputs: 0.5N·m Outputs: 0.4N·m	Inputs: 0.5N·m Outputs: 0.5N·m
Ingress protection	N/A	N/A	N/A
Operating conditions	-30 to +85 °C	-25 to +70 °C	-30 to +70 °C
Operating humidity	20 - 95 % RH (non-condensing)	20 - 95 % RH (non-condensing)	20 - 95 % RH (non-condensing)
Storage conditions	-40 to +85 °C	-40 to +85 °C	-40 to +85 °C
Storage humidity	10 - 95 % RH (non-condensing)	10 - 95 % RH (non-condensing)	10 - 95 % RH (non-condensing)
Temperature derating	De-rating from 60 - 85 °C	De-rating from 60 - 70 °C	De-rating from 50 - 70 °C
Mean time between failures (MTBF)	1600k hrs min.TelcordiaSR-332 (Bellcore)	1300k hrs min.TelcordiaSR-332 (Bellcore)	700k hrs min.TelcordiaSR-332 (Bellcore)
Weight	450 g	650 g	1.7 Kg
Dimensions (W x H x D)	32 x 125 x 100.5 mm	40 x 125 x 113 mm	85.5 x 125 x 128.5 mm
Dimension_drawing			
Dimension_data	A 125 ± 1 mm B 32 ± 1 mm C 30 mm D 101 ± 1 mm E 96 ± 1 mm	A 125 ± 1 mm B 40 ± 1 mm C 30 mm D 113 ± 1 mm E 108 ± 1 mm	A 125 ± 1 mm B 85.5 ± 1 mm C 54 mm D 129 ± 1 mm E 123 ± 1 mm
Wire cross section	DC cable: 24 - 12 AWG AC cable: 28 - 10 AWG	DC cable: 26 - 10 AWG AC cable: 30 - 10 AWG	DC cable: 26 - 10 AWG AC cable: 30 - 10 AWG
Wire strip length 	DC cable: X = 6.8 mm AC cable: X = 7.8 mm	DC cable: X = 6.8 mm AC cable: X = 7.8 mm	DC cable: X = 7.8 mm AC cable: X = 7.8 mm

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