



LONG DURATION SERIES

TEL SERIES

Valve Regulated Lead Acid (VRLA) Battery Series
Designed for Telecom Power Applications



APPLICATIONS

- Customer Premise
- Broadband
- Wireless
- PBX
- Repeaters
- Fixed Wireline

FEATURES & BENEFITS

- Telecordia certified life exceeded 10 years.
- Telecordia tested and qualified to meet all SR-4228 requirements.
- Flame-arresting, one-way pressure-relief vent for safety and long life.
- Thermally welded case-to-cover bond to ensure a leak-proof seal.
- Flame-retardant polypropylene case and cover compliant with UL94 V-0 with an Oxygen Limiting Index of greater than 28.
- Absorbent Glass Mat (AGM) technology for efficient gas recombination 99% plus.
- Complies with UL1778, 924, 1989 and 94 V-0.
- UL-recognized component.
- Can be used in any orientation. Upright, side or end mounting recommended.
- Low-profile terminals with threaded copper alloy inserts for reduced height, reduced maintenance and increased safety.
- Front Access threaded copper alloy inserts on TEL12-105F & TEL12-105FS & TEL12-150F.
- Multicell design for ease of installation and maintenance.
- Not restricted for air transport - Classified as non-hazardous material, complies with IATA/ICAO Special Provision A67.
- Not restricted for surface transport - Classified as non-hazardous material, complies with DOT-CFR Title 49 parts 171-189.
- Not restricted for water transport - Classified as non-hazardous material, complies with IMDG exception 238.

TECHNICAL DATA

Model	#Cells/Voltage	Ampere Hour Capacity to 1.75 Volts per Cell @ 77°F (25°C)														Weight lbs	Weight kg
		Operating Time in Hours															
		1	2	3	4	5	6	7	8	10	12	20	24	72	100		
TEL12-30 (*SLC)	6 Cells / 12 Volts	22.1	25.9	27.6	28.6	29.1	29.5	29.9	30.4	31.1	31.8	33.0	33.2	33.8	34.0	27.3	12.4
TEL12-45 (*SLC)	6 Cells / 12 Volts	31.5	37.0	39.6	41.0	42.3	43.4	44.4	45.5	46.9	47.8	50.0	50.4	51.8	52.0	40.6	18.4
TEL12-70	6 Cells / 12 Volts	46.8	55.0	59.5	62.2	64.3	66.0	67.5	69.1	71.0	72.1	75.0	75.6	77.8	78.0	55.8	25.3
TEL12-80 (*SLC)	6 Cells / 12 Volts	53.8	63.0	67.8	70.0	72.5	75.0	77.0	79.0	81.4	83.0	88.0	88.3	91.0	92.0	66.6	30.2
TEL12-90	6 Cells / 12 Volts	60.0	69.6	75.0	79.0	81.0	83.7	85.8	87.6	90.8	93.5	100.0	101.0	103.5	104.0	74.5	33.8
TEL12-105F/**FS	6 Cells / 12 Volts	66.3	77.6	84.6	89.2	92.5	95.4	98.0	100.0	102.0	104.2	109.0	110.4	118.0	119.0	84.9	38.5
TEL12-125	6 Cells / 12 Volts	87.5	98.0	108.0	113.6	118.0	121.2	123.5	126.0	128.0	130.0	134.8	136.3	144.7	146.0	102.3	46.4
TEL6-180	3 Cells / 6 Volts	120.0	137.0	150.0	156.8	162.0	168.0	172.2	175.5	181.0	186.5	200.0	201.1	207.4	208.0	74.5	33.8

*(SLC) battery includes cable assembly

**TEL12-105 F & FS have similar capacity. F handle length is 0.56 inches (14.3 mm) longer than FS handle.

TEL12-105F/ FS and TEL12-150F Rope handles standard with Front Access. TEL12-90 & TEL6-180 Optional handles p/n HNDL 19176 (\$2.00 ea.) available.

SPECIFICATIONS

Operating Temperature Range with temperature compensation	Discharge: -40°F (-40°C) to +160°F (71°C) Charge: -10°F (-23°C) to +140°F (60°C)
Nominal Operating Temperature Range	+74°F (23°C) to +80°F (27°C)
Recommended Maximum Charging Current Limit	C/5 amperes @ 20 Hr rate
Electrolyte	Absorbed 1.300 SG H ₂ SO ₄
Float Charging Voltage	13.5 to 13.8 average per 12V unit (6.75 to 6.90 per 6V unit) @ 77°F (25°C)
Maximum AC Ripple (Charger)	0.5% RMS or 1.5% P-P of float charge voltage recommended for best results.
Self Discharge	Up to 6 months at 77°F (25°C) then a freshening charge is required. Batteries stored at temperatures greater than +77°F (25°C) will require recharge sooner than batteries stored at temperatures less than +77°F (25°C). See C&D Brochure 41-7272, Self-Discharge and Inventory Control for details.
Equalize charge or Freshening Charge at Installation (24 hours maximum)	14.40 to 14.80 VDC average per 12V unit @ 77°F (25°C) (7.20 to 7.40 VDC per 6V unit.)
Terminal: Inserted	Threaded copper alloy insert terminal to accept: 10-32 UNF ¾ inch long screws for (TEL12-30 & TEL12-30SLC) & (TEL12-45 & TEL12-45SLC) 1/4-20 UNC ¾ inch long screws for (TEL12-70, TEL12-80, TEL12-80SLC, TEL12-90, TEL12-105F, TEL12-105FS, TEL12-125 & TEL6-180)
Inserted Copper Alloy Terminal Hardware Initial Torque	30 in.-lbs. (2.8 N-m) (TEL12-30 & TEL12-30SLC) and (TEL12-45 & TEL12-45SLC) 110 in.-lbs. (12.4 N-m) (TEL12-70, TEL12-80, TEL12-80SLC, TEL12-90, TEL12-105F, TEL12-105FS, TEL12-125 & TEL6-180)
Inter-unit connector provided with TEL12-105F/ FS	Part Number - 150-24732
Terminal Protectors:	UL94 V0 Terminal protectors available

DIMENSIONS

Model	Dimensions (Inches / mm)						Battery Termination			
	A	B	C	D	E	F	TEL12-30(SLC)	TEL12-45(SLC)	TEL12-70	TEL12-80(SLC)
TEL12-30 (*SLC)	7.77 (197.4)	7.54 (191.4)	5.19 (131.9)	5.02 (127.6)	6.52 (165.7)	6.80 (172.7)				
TEL12-45 (*SLC)	8.99 (228.3)	8.86 (225.1)	5.48 (139.2)	5.31 (134.8)	7.89 (200.3)	8.07 (205.1)				
TEL12-70	10.26 (260.5)	10.17 (258.4)	6.83 (173.4)	6.65 (168.9)	7.89 (200.3)	8.01 (203.5)				
TEL12-80 (*SLC)	12.04 (305.8)	11.95 (303.5)	6.83 (173.4)	6.65 (168.9)	7.94 (201.6)	8.06 (204.8)				
TEL12-90	13.42 (340.9)	12.75 (323.7)	6.80 (172.7)	6.54 (166.0)	8.40 (213.2)	8.52 (216.4)				
TEL12-105F***	22.51 (571.80)	20.81 (528.5)	4.94 (125.5)	4.83 (122.7)	7.29 (185.2)	9.0 (228.6)				
TEL12-105FS***	21.95 (557.50)	20.81 (528.5)	4.94 (125.5)	4.83 (122.7)	7.29 (185.2)	9.0 (228.6)				
TEL12-125	13.57 (344.7)	12.74 (323.6)	6.80 (172.7)	6.63 (168.4)	10.81 (274.5)	10.93 (277.7)				
TEL6-180	12.63 (320.8)	12.51 (317.8)	6.97 (177.0)	6.83 (173.4)	8.82 (224.0)	8.94 (227.2)				

Note: All dimensions are for reference only. Lug & hardware dimensions not included. Batteries to be mounted with 0.5 in. (1.25 cm) spacing minimum allowing free air ventilation. Contact a C&D Representative for additional dimension information. (*SLC) battery includes cable assembly TEL12-105F & TEL12-105FS are Front Access Batteries.

TEL12-30 (*SLC) SPECIFICATIONS

* TEL12-30 SLC CABLE CONNECTORS ARE RATED FOR ONLY 11 AMPS DISCHARGE

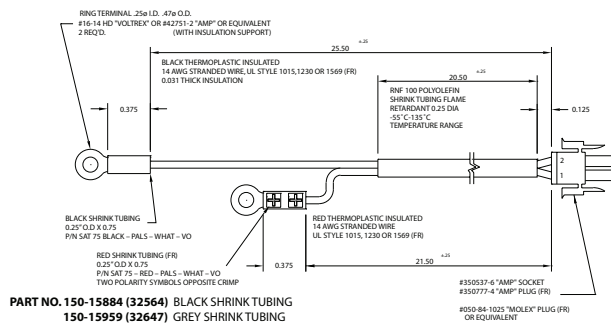
Battery Capacity	Battery Capacity	Maximum Discharge Current	Short Circuit Current	Ohms Impedance 60 Hz (Ω)
30.5 Ah @ 8 hour rate to 1.75 v/c @ 77°F (25°C)	IEC Rating: 29.1 Ah @ 10 hour rate to 1.80 v/c @ 68°F (20°C)	500 Amperes (*SLC-11 Amps)	2150 Amperes @ 0.1 Second	0.0100 Ohms

TEL12-30 & TEL12-30SLC RATINGS

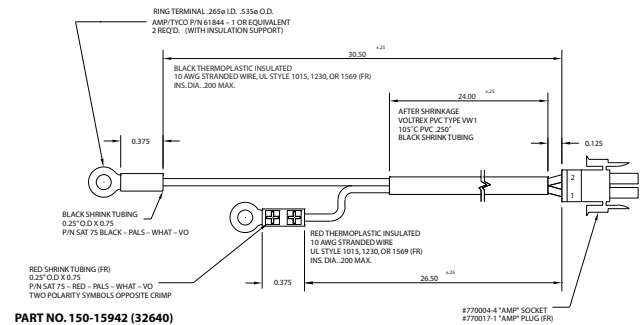
End Point Volts/Cells	Constant Current Discharge Ratings - Amperes @77°F (25°C)													
	Operating Time to End Point Voltage (in hours)													
	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	10.00	12.00	20.00	24.00	72.00	100.00
1.75	22.10	12.95	9.20	7.15	5.82	4.92	4.27	3.80	3.11	2.65	1.65	1.38	0.47	0.34
1.80	21.00	12.40	8.80	6.90	5.62	4.74	4.12	3.68	3.02	2.58	1.61	1.35	0.46	0.33
1.85	19.60	11.60	8.40	6.63	5.40	4.56	3.96	3.53	2.92	2.50	1.55	1.30	0.44	0.32
1.90	18.50	11.05	8.03	6.35	5.22	4.41	3.84	3.41	2.82	2.41	1.50	1.25	0.42	0.31

Note: Batteries to be mounted with 0.5 in. (1.25 cm) spacing minimum allowing free air ventilation. Specifications subject to change without notification. The above ratings do not include connector voltage drops.

TEL12-30SLC Cable



TEL12-45SLC Cable



TEL12-45 (*SLC) SPECIFICATIONS

* TEL12-45 SLC CABLE CONNECTORS ARE RATED FOR ONLY 11 AMPS DISCHARGE

Battery Capacity	Battery Capacity	Maximum Discharge Current	Short Circuit Current	Ohms Impedance 60 Hz (Ω)
46.0 Ah @ 8 hour rate to 1.75 v/c @ 77°F (25°C)	IEC Rating: 44.4 Ah @ 10 hour rate to 1.80 v/c @ 68°F (20°C)	600 Amperes (*SLC-11 Amps)	2500 Amperes @ 0.1 Second	0.0060 Ohms

TEL12-45 & TEL12-45SLC RATINGS

End Point Volts/Cells	Constant Current Discharge Ratings - Amperes @77°F(25°C)													
	Operating Time to End Point Voltage (in hours)													
	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	10.00	12.00	20.00	24.00	72.00	100.00
1.75	31.50	18.50	13.20	10.25	8.45	7.23	6.34	5.69	4.69	3.98	2.50	2.10	0.72	0.52
1.80	30.00	18.00	13.00	10.00	8.23	7.08	6.19	5.53	4.57	3.88	2.45	2.06	0.71	0.51
1.85	28.00	17.40	12.70	9.88	8.05	6.90	6.00	5.35	4.43	3.75	2.33	1.97	0.69	0.50
1.90	26.20	16.50	12.17	9.50	7.83	6.70	5.86	5.20	4.27	3.60	2.23	1.88	0.66	0.49

Note: Batteries to be mounted with 0.5 in. (1.25 cm) spacing minimum allowing free air ventilation. Specifications subject to change without notification. The above ratings do not include connector voltage drops.

TEL12-70 SPECIFICATIONS

Battery Capacity	Battery Capacity	Maximum Discharge Current	Short Circuit Current	Ohms Impedance 60 Hz (Ω)
69 Ah @ 8 hour rate to 1.75 v/c @ 77°F (25°C)	IEC Rating: 67.2 Ah @ 10 hour rate to 1.80 v/c @ 68°F (20°C)	800 Amperes	3100 Amperes @ 0.1 Second	0.0050 Ohms

TEL12-70 RATINGS

End Point Volts/Cells	Constant Current Discharge Ratings - Amperes @77°F(25°C)													
	Operating Time to End Point Voltage (in hours)													
	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	10.00	12.00	20.00	24.00	72.00	100.00
1.75	46.80	27.50	19.83	15.55	12.86	11.00	9.64	8.64	7.10	6.01	3.75	3.15	1.08	0.78
1.80	44.50	26.80	19.20	14.95	12.30	10.58	9.29	8.38	6.92	5.86	3.66	3.08	1.06	0.77
1.85	41.80	25.50	18.30	14.25	11.90	10.20	9.00	8.05	6.60	5.59	3.53	2.98	1.03	0.75
1.90	39.50	24.20	17.30	13.63	11.30	9.70	8.57	7.73	6.40	5.42	3.43	2.88	0.98	0.71

Note: Batteries to be mounted with 0.5 in. (1.25 cm) spacing minimum allowing free air ventilation. Specifications subject to change without notification. The above ratings do not include connector voltage drops.

TEL12-80 (*SLC) SPECIFICATIONS

* TEL12-80 SLC CABLE CONNECTORS ARE RATED FOR ONLY 30 AMPS DISCHARGE

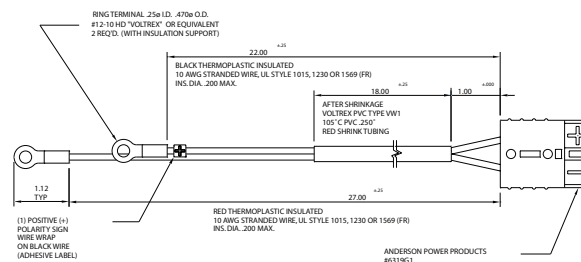
Battery Capacity	Battery Capacity	Maximum Discharge Current	Short Circuit Current	Ohms Impedance 60 Hz (Ω)
79 Ah @ 8 hour rate to 1.75 v/c @ 77°F (25°C)	IEC Rating: 77.5 Ah @ 10 hour rate to 1.80 v/c @ 68°F (20°C)	800 Amperes (*SLC-30 Amps)	3300 Amperes @ 0.1 Second	0.0040 Ohms

TEL12-80 & TEL12-80SLC RATINGS

End Point Volts/Cells	Constant Current Discharge Ratings - Amperes @77°F (25°C)													
	Operating Time to End Point Voltage (in hours)													
	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	10.00	12.00	20.00	24.00	72.00	100.00
1.75	53.80	31.50	22.60	17.50	14.50	12.50	11.00	9.88	8.14	6.92	4.40	3.68	1.26	0.92
1.80	51.10	29.80	21.60	16.95	14.00	12.15	10.69	9.56	7.85	6.70	4.28	3.59	1.24	0.90
1.85	47.00	27.50	20.30	16.13	13.40	11.58	10.26	9.13	7.50	6.35	4.11	3.45	1.19	0.87
1.90	43.00	25.40	18.50	15.00	12.50	10.80	9.50	8.50	6.95	5.93	3.88	3.29	1.14	0.83

Note: Batteries to be mounted with 0.5 in. (1.25 cm) spacing minimum allowing free air ventilation. Specifications subject to change without notification. The above ratings do not include connector voltage drops.

TEL12-80SLC Cable



PART NO. 150-15942 (32640)

TEL12-90 SPECIFICATIONS

Battery Capacity	Battery Capacity	Maximum Discharge Current	Short Circuit Current	Ohms Impedance 60 Hz (Ω)
88 Ah @ 8 hour rate to 1.75 v/c @ 77°F (25°C)	IEC Rating: 85.5Ah @ 10 hour rate to 1.80 v/c @ 68°F (20°C)	800 Amperes	3600 Amperes @ 0.1 Second	0.0035 Ohms

TEL12-90 RATINGS

End Point Volts/Cells	Constant Current Discharge Ratings - Amperes @77°F (25°C)													
	Operating Time to End Point Voltage (in hours)													
	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	10.00	12.00	20.00	24.00	72.00	100.00
1.75	60.00	34.80	25.00	19.75	16.20	13.95	12.26	10.95	9.08	7.79	5.00	4.21	1.44	1.04
1.80	57.00	33.00	24.00	19.00	15.60	13.42	11.86	10.56	8.80	7.58	4.89	4.13	1.42	1.03
1.85	53.30	31.40	22.80	18.00	15.00	12.77	11.30	10.10	8.44	7.23	4.67	3.96	1.37	0.99
1.90	49.50	29.85	21.67	17.13	14.20	12.13	10.64	9.50	7.90	6.73	4.34	3.69	1.26	0.92

Note: Batteries to be mounted with 0.5 in. (1.25 cm) spacing minimum allowing free air ventilation. Specifications subject to change without notification. The above ratings do not include connector voltage drops.

TEL12-105F/FS SPECIFICATIONS

Battery Capacity	Battery Capacity	Maximum Discharge Current	Short Circuit Current	Ohms Impedance 60 Hz (Ω)
100 Ah @ 8 hour rate to 1.75 v/c @ 77°F (25°C)	IEC Rating: 98.1 Ah @ 10 hour rate to 1.80 v/c @ 68°F (20°C)	800 Amperes	4000 Amperes @ 0.1 Second	0.0034 Ohms

TEL12-105F/FS RATINGS

End Point Volts/Cells	Constant Current Discharge Ratings - Amperes @77°F (25°C)													
	Operating Time to End Point Voltage (in hours)													
	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	10.00	12.00	20.00	24.00	72.00	100.00
1.75	66.30	38.80	28.20	22.30	18.50	15.90	14.00	12.48	10.20	8.68	5.45	4.60	1.64	1.19
1.80	64.70	38.10	27.80	21.90	18.20	15.65	13.77	12.30	10.00	8.54	5.36	4.53	1.60	1.16
1.85	61.30	36.60	26.80	21.20	17.60	15.20	13.30	11.88	9.75	8.26	5.18	4.37	1.54	1.12
1.90	55.10	33.30	24.50	19.40	16.20	13.90	12.20	10.91	9.00	7.67	4.80	4.04	1.42	1.03

Note: Batteries to be mounted with 0.3 in. (0.75 cm) spacing minimum allowing free air ventilation. Specifications subject to change without notification. The above ratings do not include connector voltage drops.

TEL12-125 SPECIFICATIONS

Battery Capacity	Battery Capacity	Maximum Discharge Current	Short Circuit Current	Ohms Impedance 60 Hz (Ω)
127 Ah @ 8 hour rate to 1.75 v/c @ 77°F (25°C)	IEC Rating: 123 Ah @ 10 hour rate to 1.80 v/c @ 68°F (20°C)	800 Amperes	5000 Amperes @ 0.1 Second	0.0023 Ohms

TEL12-125 RATINGS

End Point Volts/Cells	Constant Current Discharge Ratings - Amperes @77°F (25°C)													
	Operating Time to End Point Voltage (in hours)													
	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	10.00	12.00	20.00	24.00	72.00	100.00
1.75	87.50	49.00	36.00	28.40	23.60	20.20	17.64	15.75	12.80	10.83	6.74	5.68	2.01	1.46
1.80	82.50	47.25	34.67	27.50	22.70	19.50	17.00	15.19	12.40	10.58	6.60	5.58	1.97	1.43
1.85	77.00	44.00	32.50	26.25	21.80	18.67	16.29	14.50	11.90	10.08	6.39	5.40	1.92	1.40
1.90	71.00	41.50	30.67	24.30	20.20	17.20	15.10	13.40	11.03	9.42	6.00	5.08	1.82	1.32

Note: Batteries to be mounted with 0.5 in. (1.25 cm) spacing minimum allowing free air ventilation. Specifications subject to change without notification. The above ratings do not include connector voltage drops.

TEL6-180 SPECIFICATIONS

Battery Capacity	Battery Capacity	Maximum Discharge Current	Short Circuit Current	Ohms Impedance 60 Hz (Ω)
176 Ah @ 8 hour rate to 1.75 v/c @ 77°F (25°C)	IEC Rating: 171 Ah @ 10 hour rate to 1.80 v/c @ 68°F (20°C)	800 Amperes	4350 Amperes @ 0.1 Second	0.0012 Ohms

TEL6-180 RATINGS

End Point Volts/Cells	Constant Current Discharge Ratings - Amperes @77°F (25°C)													
	Operating Time to End Point Voltage (in hours)													
	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	10.00	12.00	20.00	24.00	72.00	100.00
1.75	120.00	68.50	50.00	39.20	32.40	28.00	24.60	21.94	18.10	15.54	10.00	8.42	2.88	2.08
1.80	113.00	66.00	48.00	38.00	31.36	27.00	23.70	21.20	17.60	15.08	9.70	8.17	2.80	2.03
1.85	106.00	62.00	45.50	36.00	30.00	25.80	22.70	20.30	16.90	14.50	9.30	7.83	2.73	1.98
1.90	94.00	57.25	42.00	33.50	27.90	24.00	21.10	19.00	15.80	13.70	8.90	7.56	2.65	1.92

Note: Batteries to be mounted with 0.5 in. (1.25 cm) spacing minimum allowing free air ventilation. Specifications subject to change without notification. The above ratings do not include connector voltage drops.

Part Number	CLEI Number	CPR Number
TEL 12-30	PWCYALS1AA	560308
TEL 12-30/SLC	SLPQ0DU8AA	983219
TEL 12-30/CCD	PBMB800FRA	211778
TEL 12-45	PWCYALU1AA	560310
TEL 12-45SLC	PWCYALV1AA	560311
TEL 12-70	PWCYALW1AA	560312
TEL 12-80	PWCYAMM1AA	127524
TEL 12-80SLC	PWCYAMN1AA	127525
TEL 12-90	PWCYALX1AA	560313
TEL 12-105FS	PWCYAUFBA	136703
TEL 12-125	PWCYALY1AA	560314
TEL 6-180	PWCYALZ1AA	560315



1400 Union Meeting Road
P.O. Box 3053 • Blue Bell, PA19422-0858
(215) 619-2700 • Fax (215) 619-7899 • (800) 543-8630
customersvc@cdtechno.com
www.cdtechno.com

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