

# TOYOTA LITHIUM-ION CHARGERS



FOR BATTERY VOLTAGE 24V-90V

SPECIFICATIONS



Indoor Power Designer Charger

# TOYOTA ENERGY SOLUTIONS

## LITHIUM-ION COMPATIBLE CHARGERS

Maximize the efficiency of your Toyota forklift fleet with a lithium-ion battery and charger combination that's designed and optimized for optimal battery life and performance. Our lithium-ion chargers offer streamlined communication to our lithium-ion batteries for seamless and efficient charging. Reduce energy costs with superior energy management technology and remove the need for battery changing operations. These chargers also feature a modular design, with easy-to-service/replace power modules, and can be expanded by adding power modules as your operation grows. Trust Toyota to support your operational needs. Contact your authorized dealer for more information.

## CHARGER ADVANTAGES

- ▶ **MULTIPLE VOLTAGE AND OUTPUT CURRENT COMBINATIONS** to meet the needs of your specific material handling operation
- ▶ **NEMA 3R OUTDOOR-RATED CABINETS<sup>1</sup>** suitable for harsh outdoor environments
- ▶ **BMS CONTROLLED FOR OPTIMIZED CHARGING**
- ▶ **UL AND CEC CERTIFIED**
- ▶ **MODULAR DESIGN** makes service easy and configurations easily upgradeable
- ▶ **OPTIONS AVAILABLE** for 3-phase 208/240/480/600VAC utilities
- ▶ **AUTO BYPASS** of modules for uninterrupted operation

<sup>1</sup> Available for the 9FBZ 90V platform

# BEST-IN-CLASS 6-YEAR LIMITED WARRANTY



POWER DESIGNERS SINGLE-CABLE CHARGER SPECIFICATIONS

	TOYOTA P/N	DESCRIPTION	OUTPUT CURRENT (AMPS) NOM	VAC POWER (3-PHASE)	MIN BREAKER SIZE (AMPS)	OUTPUT CABLE (LENGTH=12')	CONNECTOR TYPE	UL RATING	
<b>BATTERY VOLTAGE 24V/36V</b>	90905-U0300-71	RVX05 135A 24/36V 480V A320	135A	480	20A	2/0	A320	US and Canada	
	90905-U0303-71	RVX05 180A 24/36V 480V A320	180A	480	20A	2/0	A320		
	90905-U0663-71	RVX05 200A 24/36V 480V A320	200A	480	20A	2/0	A320		
	90905-U0308-71	RVX08 225A 24/36V 480V A320	225A	480	30A	4/0	A320		
	90905-U0664-71	RVX08 245A 24/36V 480V A320	245A	480	30A	4/0	A320		
	90905-U0310-71	RVX08 270A 24/36V 480V A320	270A	480	30A	4/0	A320	REMA 640	US Only
	90905-U0311-71	RVX08 270A 24/36V 480V R640							
	90905-U0313-71	RVX08 315A 24/36V 480V A320	315A	480	30A	4/0	A320		
	90905-U0314-71	RVX08 315A 24/36V 480V R640					REMA 640		
	90905-U0665-71	RVX08 350A 24/36V 480V A320	350A	480	30A	4/0	A320		
	90905-U0666-71	RVX08 350A 24/36V 480V R640					REMA 640		
	90905-U0321-71	RVX12 360A 24/36V 480V A320	360A	480	35A	4/0	A320		
	90905-U0325-71	RVX12 405A 24/36V 480V R640	405A	480	40A	MCM250	REMA 640		
	90905-U0326-71	RVX12 450A 24/36V 480V R640	450A	480	40A	MCM250	REMA 640		
	90905-U0327-71	RVX12 495A 24/36V 480V R640	495A	480	40A	MCM250	REMA 640		
<b>BATTERY VOLTAGE 24V/36V/48V</b>	90905-U0301-71	RVX05 136A 24/36/48V 480V A320	136A	480V	20A	2/0	A320	US and Canada	
	90905-U0302-71	RVX05 170A 24/36/48V 480V A320	170A	480V	20A	2/0	A320		
	90905-U0667-71	RVX08 204A 24/36/48V 480V A320	204A	480V	30A	4/0	A320		
	90905-U0668-71	RVX08 245A 24/36/48V 480V A320	245A	480V	30A	4/0	A320		
	90905-U0312-71	RVX08 272A 24/36/48V 480V A320	272A	480V	30A	4/0	A320	US Only	
	90905-U0316-71	RVX12 272A 24/36/48V 480V R640	272A	480V	40A	4/0	REMA 640		
	90905-U0317-71	RVX12 306A 24/36/48V 480V A320	306A	480V	40A	4/0	A320		
	90905-U0318-71	RVX12 306A 24/36/48V 480V R640					REMA 640		
	90905-U0319-71	RVX12 340A 24/36/48V 480V A320	340A	480V	40A	4/0	A320		
	90905-U0320-71	RVX12 340A 24/36/48V 480V R640					R640		
	90905-U0669-71	RVX12 374A 24/36/48V 480V A320	374A	480V	45A	4/0	A320		
	90905-U0322-71	RVX12 374A 24/36/48V 480V R640					REMA 640		
	90905-U0324-71	RVX12 400A 24/36/48V 480V R640					REMA 640		
<b>BATTERY VOLTAGE 90V</b>	90905-U0334-71	RX16 90V 320A 480VAC	320A	480V	45A	4/0	A320	US Only	

- ▶ Chargers include CEC certification (required by some states, such as CA and OR)
- ▶ Chargers can be wall mounted and include wall mounted brackets
- ▶ Toyota Lithium Charger models include a 6-year warranty which covers parts, labor, and travel charges. See warranty page for details.

# POWER DESIGNERS SINGLE-CABLE CHARGER SPECIFICATIONS

## STANDARD ACCESSORY KITS

TOYOTA P/N	CHARGER STAND AND ACCESSORY KITS	INCLUDES
90905-U0170-71	RX05	Stand, Pogo, Pogo Extension Arm, Anchors
90905-U0125-71	RX08	
90905-U0126-71	RX12	
90905-U0127-71	RX16	

## CABINET SPECIFICATIONS

CABINET SIZE	DIMENSIONS (IN)
5	12.5 x 8.5 x 20.25
8	18.5 x 9.5 x 21
12	26.5 x 9.5 x 21
16	22 x 10 x 48

## OPTIONAL ACCESSORIES

<b>Airborne Particle Environment - Snap On Exterior Filter</b>	Snap on Filter for use at paper companies, corrugated box plants, drywall manufacturing, or anywhere an operator needs to wear a respirator. (exterior filter requires cleaning every 30-90 days)
<b>Freezer and Corrosive Environments - Snap On Exterior Filter and Extra Conformal Coating</b>	Recommended for equipment freezer applications, chargers used near freezers, cross dock applications, ports, meat/fish processing, and humid environments.



Indoor Single-Cable Power Designer Charger

POWER DESIGNER DUAL-CABLE SPECIFICATIONS

	TOYOTA PART NUMBER	DESCRIPTION	OUTPUT CURRENT (AMPS) NOM	VAC POWER (3-PHASE)	MIN BREAKER SIZE (AMPS)	OUTPUT CABLE (LENGTH=12')	CONNECTOR TYPE	UL RATING
<b>BATTERY VOLTAGE 24V/36V</b>	90906-U0233-71	RVX12 24/36V 405A 480V	405A	480V	40A	2-4/0	Dual A320	US & Canada
	90906-U0234-71	RVX12 24/36V 450A 480V	450A	480V	40A	2-4/0	Dual A320	US & Canada
	90906-U0235-71	RVX12 24/36V 490A 480V	490A	480V	40A	2-4/0	Dual A320	US & Canada
	90906-U0236-71	RVX12 24/36V 540A 480V	540A	480V	45A	2-4/0	Dual A320	US only
<b>BATTERY VOLTAGE 24V/36V/48V</b>	90906-U0237-71	RVX12 24/36/48V 340A 480V	340A	480V	45A	2-4/0	Dual A320	US only
	90906-U0238-71	RVX12 24/36/48V 374A 480V	374A	480V	45A	2-4/0	Dual A320	US only
	90906-U0239-71	RVX12 24/36/48V 408A 480V	408A	480V	45A	2-4/0	Dual A320	US only
	90906-U0240-71	RVX24 24/36/48V 442A 480V	442A	480V	60A	2-4/0	Dual A320	US & Canada
	90906-U0241-71	RVX24 24/36/48V 476A 480V	476A	480V	60A	2-4/0	Dual A320	US & Canada
	90906-U0242-71	RVX24 24/36/48V 490A 480V	490A	480V	60A	2-4/0	Dual A320	US & Canada
	90906-U0243-71	RVX24 24/36/48V 510A 480V	510A	480V	70A	2-4/0	Dual A320	US only
	90906-U0244-71	RVX24 24/36/48V 544A 480V	544A	480V	70A	2-4/0	Dual A320	US only
	90906-U0245-71	RVX24 24/36/48V 578A 480V	578A	480V	70A	2-4/0	Dual A320	US only
	90906-U0246-71	RVX24 24/36/48V 600A 480V	600A	480V	70A	2-4/0	Dual A320	US only

- ▶ Chargers include CEC certification (required for chargers used in CA and OR)
- ▶ Chargers can be wall mounted and include wall mounting bracket
- ▶ Toyota lithium chargers model include 6 year warranty which covers parts, labor and travel charges. See warranty page for details.
- ▶ Dual Cable Chargers are for use with Dual Connector Batteries. Charger will not charge two batteries at once.



Indoor Dual-Cable Power Designer Charger

## POWER DESIGNER-DUAL-CABLE SPECIFICATIONS

### STANDARD ACCESSORY KITS

TMH PN	CHARGER STAND AND ACCESSORY KITS	Includes
90906-U0283-71	RX12	Stand, Pogo, Pogo
90905-U0127-71	RX24	Extension Arm, Anchors

### CABINET SPECIFICATIONS

CABINET SIZE	DIMENSIONS L X W X H (IN)
12	26.5 x 9.5 x 21
24	30 x 10 x 48

### OPTIONAL ACCESSORIES

<b>Airborne Particle Environment - Snap On Exterior Filter</b>	Snap on Filter for use at paper companies, corrugated box plants, drywall manufacturing, or anywhere an operator needs to wear a respirator. (exterior filter requires cleaning every 30-90 days)
<b>Freezer and Corrosive Environments - Snap On Exterior Filter and Extra Conformal Coating</b>	Recommended for equipment freezer applications, chargers used near freezers, cross dock applications, ports, meat/fish processing, and humid environments.



Indoor Dual-Cable Power Designer Charger

ACT SINGLE-CABLE CHARGER SPECIFICATIONS

	TOYOTA P/N	DESCRIPTION	OUTPUT CURRENT (AMPS) NOM	VAC POWER (3-PHASE)	INPUT CURRENT DRAW (AMPS)	OUTPUT CABLE (LENGTH=12')	CONNECTOR TYPE	UL RATING		
<b>BATTERY VOLTAGE 24V/36V</b>	90906-U0247-71	Q4 24/36V 200A 208V A320	200A	208V	25.4	2/0	A320	US and Canada		
	90906-U0248-71	Q4 24/36V 200A 480V A320		480V	11		A320			
	90906-U0249-71	Q4 24/36V 200A 600V A320		600V	8.8		A320			
	90906-U0250-71	Q6 24/36V 250A 208V A320	250A	208V	31.75	2/0	A320			
	90906-U0251-71	Q6 24/36V 250A 480V A320		480V	13.75		A320			
	90906-U0252-71	Q6 24/36V 250A 600V A320		600V	11		A320			
	90905-U0446-71	Q6 24/36V 250A 480V R640	250A	480V	13.75	2/0	REMA 640			
	90905-U0447-71	Q6 24/36V 250A 600V R640		600V	11		REMA 640			
	90906-U0253-71	Q6 24/36V 300A 480V A320	300A	480V	16.5	3/0	A320			
	90906-U0254-71	Q6 24/36V 300A 600V A320		600V	13.2		A320			
	90906-U0255-71	Q12 24/36V 300A 480V A320	300A	480V	16.5	3/0	A320			
	90906-U0256-71	Q12 24/36V 300A 600V A320		600V	13.2		A320			
	90906-U0257-71	Q12 24/36V 350A 480V A320	350A	480V	19.25	4/0	A320			
	90905-U0450-71	Q12 24/36V 350A 480V R640					REMA 640			
	90906-U0258-71	Q12 24/36V 350A 600V A320			600V		15.4		A320	
	90905-U0453-71	Q12 24/36V 350A 600V R640							REMA 640	
	90905-U0451-71	Q12 24/36V 450A 480V R640	450A	480V	24.75	4/0	REMA 640			
	90905-U0454-71	Q12 24/36V 450A 600V R640		600V	19.8	4/0	REMA 640			
	90905-U0294-71	Q12 24/36V 500A 480V R640	500A	480V	27.5	MCM 350	REMA 640			
	90905-U0295-71	Q12 24/36V 500A 600V R640		600V	22	MCM 350	REMA 640			
<b>BATTERY VOLTAGE 24V/36V/48V</b>	90906-U0259-71	Q6 48V 160A 480V A320	168A	208V	25.4	2/0	A320	US and Canada		
	90906-U0260-71	Q6 48V 160A 480V A320		480V	11		A320			
	90906-U0261-71	Q6 48V 160A 600V A320		600V	8.8		A320			
	90906-U0262-71	Q6 48V 240A 208V A320	252A	208V	16.5	3/0	A320			
	90906-U0263-71	Q6 48V 240A 480V A320		480V	16.5		A320			
	90905-U0401-71	Q6 48V 240A 480V R640		480V	13.2		REMA 640			
	90906-U0264-71	Q6 48V 240A 600V A320		600V	13.2		A320			
	90905-U0403-71	Q6 48V 240A 600V R640		600V		REMA 640				
	90906-U0265-71	Q12 48V 280A 480V A320	294A	480V	19.25	3/0	A320			
	90905-U0406-71	Q12 48V 280A 480V R640		480V	19.25		REMA 640			
	90906-U0266-71	Q12 48V 280A 600V A320		600V	15.4		A320			
	90905-U0409-71	Q12 48V 280A 600V R640		600V	15.4		REMA 640			
	90906-U0267-71	Q12 48V 320A 480V A320	336A	480V	22	4/0	A320			
	90906-U0268-71	Q12 48V 320A 600V A320		600V	17.6		A320			
	90906-U0271-71	Q12 48V 360A 480V A320	378A	480V	24.75	4/0	A320			
	90905-U0407-71	Q12 48V 360A 480V R640		480V	19.8		REMA 640			
	90906-U0272-71	Q12 48V 360A 600V A320		600V	19.8		A320			
	90905-U0410-71	Q12 48V 360A 600V R640		600V	19.8		REMA 640			
	90905-U0299-71	Q12 48V 440A 480V R640	462A	480V	30.25	MCM 350	REMA 640			
	90905-U0298-71	Q12 48V 440A 600V R640		600V	24.2		REMA 640			
	90905-U0408-71	Q12 48V 480A 480V R640	504A	480V	33	MCM 350	REMA 640			
	90905-U0411-71	Q12 48V 480A 600V R640		600V	26.4		REMA 640			
	<b>BATTERY VOLTAGE 90V</b>	90905-U0670-71	Indoor Q12 80V 225A 208V	225A	208V	57.15	2/0		A320	US and Canada
		90905-U0673-71	Outdoor Q12 80V 225A 208V						57.15	
90905-U0671-71		Indoor Q12 80V 225A 480V	480V		24.75	A320				
90905-U0674-71		Outdoor Q12 80V 225A 480V	480V		24.75	A320				
90905-U0672-71		Indoor Q12 80V 225A 600V	600V		19.8	A320				
90905-U0675-71		Outdoor Q12 80V 225A 600V	600V		19.8	A320				
90905-U0329-71		Indoor Q12 80V 300A 480V	300A	480V	33	3/0	A320			
90905-U0332-71		Outdoor Q12 80V 300A 480V		480V	33		A320			
90905-U0330-71		Indoor Q12 80V 300A 600V		600V	26.4		A320			
90905-U0333-71		Outdoor Q12 80V 300A 600V		600V	26.4		A320			

# ACT SINGLE-CABLE CHARGER SPECIFICATIONS

## CHARGER ACCESSORY KITS

TOYOTA P/N	CHARGER ACCESSORY DESCRIPTION	NOTES
90906-U0275-71	Q4 Wall Mount Kit	Wall Mount Kit for all Q4 Chargers
90906-U0276-71	Q6 Wall Mount Kit with Pogo	Wall Mount Kit for Q6 Charger with 1/0 or 2/0 cable
90906-U0277-71	Q6 Wall Mount Kit with Cable Retractor	Wall Mount Kit for Q6 Charger with 3/0 cable
90906-U0278-71	Q12 Indoor Wall Mount Kit 1	Indoor Wall Mount Kit for Q12 Charger with 3/0 or 4/0 cable
90906-U0279-71	Q12 Indoor Wall Mount Kit 2	Indoor Wall Mount Kit for Q12 Charger with MCM Cable
90906-U0280-71	Q4/Q6/Q12 Indoor Floor Stand Kit 1	Indoor Floor Stand Kit for ALL Chargers and 2/0 through 4/0 cable
90906-U0281-71	Q4/Q6/Q12 Indoor Floor Stand Kit 2	Indoor Floor Stand Kit for Q12 Chargers with MCM cable
90906-U0282-71	Outdoor Floor Stand Kit	Outdoor Floor Stand Kit

## CHARGER INDIVIDUAL ACCESSORIES

TOYOTA P/N	CHARGER ACCESSORY DESCRIPTION	NOTES
90905-U0464-71	Floor Stand (Q4/Q6/Q12 - Indoor)	Choose Floor Stand OR Applicable Wall Mount
90905-U0474-71	Floor Stand (Q12 - Outdoor)	
90905-U0469-71	Wall Mount Q4 (Indoor)	
90905-U0471-71	Wall Mount Q6 (Indoor)	
90905-U0472-71	Wall Mount Q12 (Indoor)	
90905-U0465-71	Pogo Stick (Indoor)	For chargers with 2/0 cables and smaller
90905-U0466-71	Kane Pole (Indoor & Outdoor)	Used in combination for chargers with 3/0, 4/0, and MCM 350 cables
90905-U0230-71	Cable Retractor (Indoor 4/0 Cable)	
90905-U0476-71	Cable Retractor (Indoor MCM 350 Cable)	
90905-U0473-71	Cable Retractor (Outdoor)	
90905-U0468-71	Q6/Q12 Charger Stacking Brackets (Indoor)	Q4 Chargers can bolt directly together to stack
90905-U0475-71	Stacking Brackets (Outdoor)	
90905-U0233-71	Right side Pogo Bracket (Indoor)	Used when stacking chargers to allow for dual Pogo stick mounting

## CABINET SPECIFICATIONS

CABINET SIZE	DIMENSIONS L X W X H (IN)
Q4	16 x 16 x 24
Q6	24 x 16 x 24
Q12	24 x 16 x 36
ACT Outdoor (GSE)	26 x 25 x 38.7

- ▶ Chargers include CEC certification (required by some states, such as CA and OR)
- ▶ Peak Charge Cycle Efficiency >94%
- ▶ Total Charge Cycle Efficiency >93.5%
- ▶ Operating Temperature Range 0° F - 122° F



Outdoor ACT Charger



Indoor II ACT Charger

ACT DUAL-CABLE CHARGER SPECIFICATIONS

	TOYOTA P/N	DESCRIPTION	OUTPUT CURRENT (AMPS) NOM	VAC POWER (3-PHAS)	MIN BREAKER SIZE (AMPS)	OUTPUT CABLE (LENGTH=12')	CONNECTOR TYPE	UL RATING
BATTERY VOLTAGE 24V/36V	90906-U0121-71	Q12 24/36V 400A 208VAC	400A	208V	50.8	2-2/0	Dual A320	US & Canada
	90906-U0122-71	Q12 24/36V 400A 480VAC		480V	22.0			
	90906-U0123-71	Q12 24/36V 400A 600VAC		600V	17.6			
	90906-U0124-71	Q12 24/36V 450A 208VAC	450A	208V	57.2	2-3/0	Dual A320	
	90906-U0125-71	Q12 24/36V 450A 480VAC		480V	24.75			
	90906-U0126-71	Q12 24/36V 450A 600VAC		600V	19.8			
	90906-U0127-71	Q12 24/36V 500A 208VAC	500A	208V	63.5	2-3/0	Dual A320	
	90906-U0128-71	Q12 24/36V 500A 480VAC		480V	27.5			
	90906-U0129-71	Q12 24/36V 500A 600VAC		600V	22.0			
	90906-U0131-71	Q12 24/36V 550A 480VAC	550A	480V	30.25	2-3/0	Dual A320	
90906-U0133-71	Q12 24/36V 600A 480VAC	600A	480V	33.0	2-3/0	Dual A320		
BATTERY VOLTAGE 24V/36V/48V	90906-U0134-71	Q12 24/36/48V 360A 208VAC	378A	208V	57.2	2-2/0	Dual A320	US & Canada
	90906-U0135-71	Q12 24/36/48V 360A 480VAC		480V	24.75			
	90906-U0136-71	Q12 24/36/48V 360A 600VAC		600V	19.8			
	90906-U0137-71	Q12 24/36/48V 400A 208VAC	420A	208V	63.5	2-3/0	Dual A320	
	90906-U0138-71	Q12 24/36/48V 400A 480VAC		480V	27.5			
	90906-U0139-71	Q12 24/36/48V 400A 600VAC		600V	22.0			
	90906-U0141-71	Q12 24/36/48V 440A 480VAC	462A	480V	30.25	2-3/0	Dual A320	
	90906-U0142-71	Q12 24/36/48V 440A 600VAC		600V	24.2			
	90906-U0144-71	Q12 24/36/48V 480A 480VAC	504A	480V	33.0	2-3/0	Dual A320	
	90906-U0145-71	Q12 24/36/48V 480A 600VAC		600V	26.4			

- ▶ Chargers include CEC certification (required by some states, such as CA and OR)
- ▶ Peak Charge Cycle Efficiency >94%
- ▶ Total Charge Cycle Efficiency >93.5%
- ▶ Operating Temperature Range 0° F - 122° F
- ▶ Dual Cable Chargers are for use with Dual Connector Batteries. Charger will not charge two batteries at once

## CHARGER ACCESSORY KITS

TOYOTA PART NUMBER	CHARGER ACCESSORY DESCRIPTION
90906-U0278-71	Indoor Wall Mount Kit
90906-U0280-71	Indoor Floor Stand Kit
90906-U0282-71	Outdoor Floor Stand Kit

## CABINET SPECIFICATIONS

CABINET SIZE	DIMENSIONS L X W X H (IN)
Q4	16x16x24
Q6	24x16x24
Q12	24x16x36

## CHARGER INDIVIDUAL ACCESSORIES

TOYOTA PART NUMBER	CHARGER ACCESSORY DESCRIPTION
90905-U0464-71	Floor Stand (Indoor)
90905-U0474-71	Floor Stand (Outdoor)
90905-U0472-71	Wall Mount (Indoor)
90905-U0466-71	Kane Pole (Indoor & Outdoor)
90905-U0230-71	Cable Retractor (Indoor)
90905-U0473-71	Cable Retractor (Outdoor)
90905-U0468-71	Charger Stacking Brackets (Indoor)
90905-U0475-71	Charger Stacking Brackets (Outdoor)



Indoor Dual-Cable ACT Charger



# WORLD-CLASS MATERIAL HANDLING SOLUTIONS

**PARTNER WITH TOYOTA, AND LET US HELP DEVELOP THE RIGHT SOLUTION FOR YOU.**

With access to the world's industry-leading lineup of material handling products, Toyota Dealers are uniquely positioned to help you solve your wide-ranging challenges. Built for every application, Toyota can provide a complete set of solutions for material handling, automation, energy, advanced logistics, and warehouse optimization.

Toyota is here to help optimize your business for maximum efficiency. Utilizing Toyota Lean Management principles, Toyota Dealers can provide insights and develop appropriate plans to tackle your specific operational needs. This unique approach to optimizing and eliminating waste can give you a significant competitive advantage and a sustainable lean culture for lasting process improvement.

**Visit us at: [ToyotaForklift.com](https://ToyotaForklift.com) for more information.**

