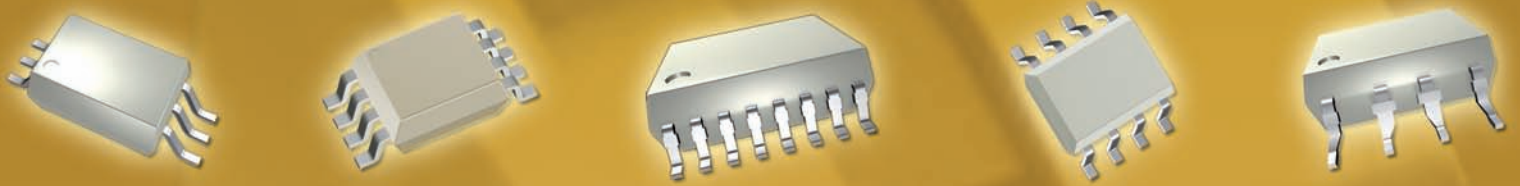


Optocoupler Selection Guide



Datasheet.Live

Introduction

Renesas offers a leading portfolio of high performance optocouplers. Key features enabling customers to develop market leading products include 5KV isolation voltage, minimum CMR of 25KV/us and wide package creepage distances.

Dedicated applications support in Europe allows our experienced engineers to oversee complex designs from concept through to mass production.

With in excess of 500 different optocouplers, Renesas is a market leader in many multimarket applications including industrial, consumer, communication and medical.

Quality and reliability are fundamental elements for the complete Renesas optocoupler product family. Products comply with international safety regulatory agencies including UL, VDE, CSA, BSI, SEMKO, NEMKO, FIMKO and DEMKO.

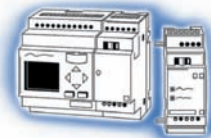
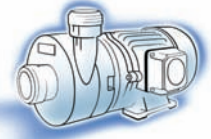
Complementary to the optocouplers, Renesas has a long experience in the design and manufacture of high efficiency IGBT's. A broad portfolio is offered for applications such as induction heating, motor control and solar inverters. The IGBT's consist of optimized Vce(sat) for low static losses. Highly robust designs can be achieved due to fast recovery diode. Current ratings from 10A to 90A are available. The designer can take advantage of the optocoupler and IGBT solution from one source, Renesas.

To complement this optocoupler selection guide more detailed technical documentation including a full opto-isolation selector tool can be found at: www.renesas.eu/opto

Samples can be obtained using the following email address: Sampleorder_Opto-eu@lm.renesas.com



- ▶ **Worlds number one for standard optocouplers***
- ▶ **High quality and reliability – less than 1 ppm**
- ▶ **Large production capacity (>200 Mch/month)**
- ▶ **In-house technologies: Bipolar, CMOS and Bi-CMOS**
- ▶ **No.1 supplier in SSOP and flat lead packages**
- ▶ **World's smallest optocouplers**
- ▶ **Think Renesas for optocouplers!**



* CY2009 market share, source Renesas

Optocoupler Quick Guide

Series	Package	Pin-to-pin distance in mm	Outer creepage/air distance in mm	Internal isolation thickness in mm	Isolation working voltage in V_{IORM}	Isolation voltage in V_{RMS}	
PS95xxL2	DIP (8-pin)	2.54	8	0.4	1130	5000	High-speed optocoupler
PS95xxL3			7				
PS85xxL2			8				
PS85xxL3			7				
PS93xxL2	SDIP (6-pin)	1.27	8	0.4	1130	5000	
PS93xxL			7				
PS83xxL2			8				
PS83xxL			7				
PS91xx	SOP (5-pin)	1.27	4.2	0.2	707	3750	
PS81xx							
PS98xx	SO8 (8-pin)	1.27	4	0.2	566	2500	
PS88xx							
PS95xxL2	DIP (8-pin)	2.54	8	0.4	1130	5000	IGBT-/IPM-drive / Isolation amplifier
PS95xxL3			7				
PS8551L4			8				
PS9302L	SDIP (8-pin) SDIP (6-pin)	1.27	8/7	0.4	1130	5000	
PS93xxL2			8				
PS93xxL			7				
PS9451	SO16 (16-pin)	1.27	8	0.4	1130	5000	
PS9402		1.27	8	0.4	1130	5000	
PS91xx	SOP (5-pin)	1.27	4.2	0.2	707	3750	
PS2381	LSOP	2.54	8	0.4		5000	
PS2581	DIP	2.54	7	8	0.4	5000	
PS256x				0.4			
PS253x				0.4			
PS251x				0.2			
PS250x				0.3			
PS276x				0.4			
PS273x	SOP	2.54	5	0.3	3750		
PS271x				0.3			
PS270x				0.3			
PS286x				0.4		3750	
PS283x	SSOP	1.27	4.5	0.1	2500		
PS281x				0.1	2500		
PS280x				0.1	2500		
PS284x				Ultra SSOP	0.8	4	0.4
PS29xx	Flat lead	1.27	4	0.4		2500	
PS256x	DIP	2.54	7	0.4	5000		
PS250x				0.3			
PS271x	SOP	2.54	5	0.3	3750		
PS270x							
PS281x	SSOP	1.27	4.5	0.1	2500		
PS280x							
PS284x	Ultra SSOP	0.8	4	0.4		1500	
PS29xx	Flat lead	1.27	4	0.4		2500	
PS256x	DIP	2.54	7	0.4	5000		
PS250x				0.3			
PS271x	SOP	2.54	5	0.3	3750		
PS270x							
PS281x	SSOP	1.27	4.5	0.1	2500		
PS280x							
PS284x	Ultra SSOP	0.8	4	0.4		1500	
PS29xx	Flat lead	1.27	4	0.4		2500	

Applications Guide

	Isolated Drive	
	IGBT	IPM
A.T.E		
Air Conditioning	PS930X, PS950X	PS9113, PS9313, PS9303, PS9513
Alarm Panels		
Board CPU		
CAN Isolation		
Elevator		
E.P.O.S		
Fitness Equipment	PS930X, PS950X	PS9113, PS9313
Heating Controls		
Induction Cooker	PS930X, PS950X	
Instrumentation		
Lighting (Including LED Lighting)		
Lighting (Fluorescent)		
M.R.I	PS930X, PS950X	
Metering (Including Smart Metering)		
Motor Control (Industrial)	PS930X, PS950X	PS9113, PS9313, PS9303, PS9513
Motor Control (Home Appliances)	PS930X, PS9506	PS9113, PS9313, PS9303, PS9513
MW oven		PS9113, PS9313, PS9303, PS9513
Networking (consumer)		
Networking (industrial)		
Color PDP		
P.O.E		
Power Distribution System	PS930X, PS950X	PS9113, PS9313, PS9303, PS9513
Power Supplies		
UPS		PS9113, PS9313, PS9513
Programmable Logic Controller		
Refrigerator		PS9113, PS9313, PS9303
Robot	PS930X, PS950X	PS9113, PS9313, PS9303, PS9513
Security Panels		
Sewing Machine	PS930X, PS950X	PS9113, PS9313, PS9303, PS9513
Power Inverter (Including Solar Applications)	PS930X, PS950X	
Telephone Switching/ Terminals		
Test & Measurement Equipment		
Welding	PS930X, PS950X	PS9313, PS9513

High Speed Communication	Current & Voltage Sensing	General Purpose Isolation
		PS2501A, PS2561D
		PS2533, PS2535, PS2733
PS9X17A, PS9X21, PS9X51		
PS9115, PS9X17A, PS9X51		
PS9317, PS9587		PS2561D
PS8101, PS8802, PS9X17A, PS9X21, PS9X51		PS29XX
		PS25xx, PS27xx
		PS2381X, PS2501, PS2561D,
		PS25X1, PS27X1
PS9X17A, PS9X21		PS25XX, PS27XX
		PS2381, PS2561D, PS27XX, PS28XX
		PS2381, PS2561D
PS91XX, PS98XX		
PS8XX, PS9X17A		PS2381, PS2501, PS2561, PS2581, PS2701
PS8302, PS85XX, PS9X17A, PS9317, PS9587	PS8551, PS9551	PS25XX, PS27XX, PS28XX
	PS8551, PS9551	PS27X1, PS28X1
		PS27X1, PS28X1
PS8X21, PS9X21, PS9X17A, PS9X51		PS2X11, PS2XX5
PS9X21, PS9X51, PS9X17A		
PS9115, PS9X17A, PS9X51		
PS8802, PS9122, PS9822		PS27X1, PS28X1
PS9X17A, PS9X51		PS2381, PS25X1, PS2X61B
PS9317, PS9587		PS2X61B, PS27X1, PS28X1, PS29XX
		PS2561X, PS2561D
PS9117A, PS9817A		PS2701, PS28XX-1, PS28XX-4
PS8101, PS9117A	PS8551, PS9551	PS27X1, PS28X1
PS8XXX, PS9X17A, PS9X51	PS8551, PS9551	PS25XX, PS27XX, PS28XX, PS29XX
		PS2535, PS2X33
	PS8551, PS9551	
PS8302, PS85XX, PS9317, PS9587		
		PS27X1, PS28X1, PS29X1
PS9X17A, PS9X21, PS9X51		PS25XX, PS27XX, PS28XX, PS29XX
	PS8551, PS9551	

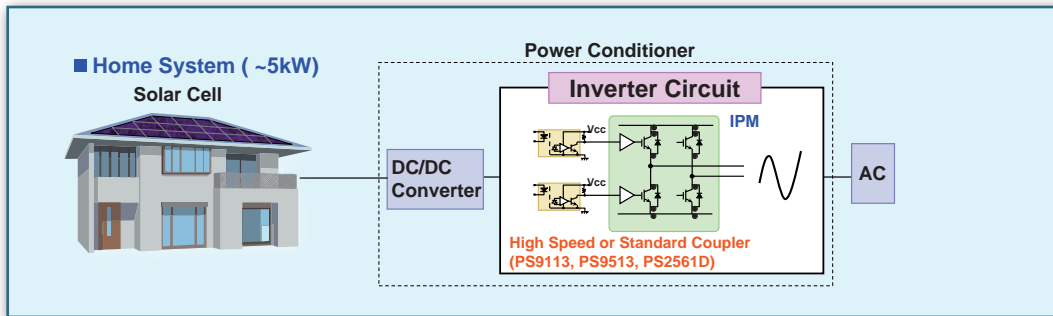
Cross Reference Guide

Avago	Renesas	Toshiba	Renesas	Toshiba	Renesas	Sharp	Renesas	Sharp	Renesas
ACPL-3130	PS9552	TLP121(Y)	PS2701A-1	TLP627	PS2535-1 or PS2533-1	PC123Y	PS2561A-1-V or PS2561D-1-V	PC817X6	PS2501A-1
ACPL-332J	PS9402	TLP121-4	PS2701A-1	TLP627(T)	PS2535-1	PC123Y1	PS2561A-1-V or PS2561D-1-V	PC817X7	PS2501A-1
HCPL-316J	PS9402	TLP127	PS2733-1	TLP627A	PS2535-1	PC123Y2	PS2561A-1-V or PS2561D-1-V	PC817X8	PS2501A-1
ACPL-J313	PS9552-V	TLP180	PS2705A-1	TLP629	PS2521-1	PC123Y5	PS2561-1-V	PC817XF	PS2561AL1-1 or PS2561DL1-1
ACPL-M60L	PS9121	TLP180(GB)	PS2705A-1	TLP651	PS8501	PC123YS	PS2561A-1-V or PS2561D-1-V	PC817XF0	PS2561AL1-1 or PS2561DL1-1
ACPL-P302	PS9306L	TLP180(T)	PS2705A-1	TLP701	PS9306	PC123ZY1	PS2581AL2	PC817XF1	PS2561AL1-1 or PS2561DL1-1
ACPL-P314	PS9306L	TLP181	PS2701A-1	TLP705	PS9306	PC123ZY2	PS2581AL2	PC817XF2	PS2561AL1-1 or PS2561DL1-1
ACPL-P611	PS9317L	TLP181(BL)	PS2703-1	TLP706	PS9303	PC123ZY5	PS2581L2	PC817XF3	PS2561AL1-1 or PS2561DL1-1
ACPL-W302	PS9306L2	TLP181(GB)	PS2701A-1	TLP721	PS2501A-1 or PS2561D-1	PC123ZY8	PS2581AL2	PC817XF5	PS2561AL1-1 or PS2561DL1-1
ACPL-W314	PS9306L2	TLP181(GR)	PS2701A-1	TLP721(BL)	PS2561-1	PC352	PS2701A-1	PC817XF6	PS2561AL1-1 or PS2561DL1-1
ACPL-W611	PS9317L2	TLP181(T)	PS2701A-1	TLP721(GB)	PS2501A-1 or PS2561D-1	PC354N1	PS2715-1	PC817XF7	PS2561L1-1
HCPL-0201	PS9817A-1	TLP181(Y)	PS2701A-1	TLP721(GR)	PS2501A-1 or PS2561D-1	PC354NJ	PS2715-1	PC817XF8	PS2561AL1-1 or PS2561DL1-1
HCPL-0211	PS9817A-1	TLP250	PS9552	TLP721(Y)	PS2501A-1 or PS2561D-1	PC355NJ	PS2702-1	PC817XF9	PS2561AL1-1 or PS2561DL1-1
HCPL-3020	PS9506	TLP250(INV)	PS9552	TLP721F	PS2581AL1	PC355NJT	PS2703-1	PC817XFP	PS2561AL2-1 or PS2561DL2-1
HCPL-3120	PS9552	TLP250F	PS9552L1	TLP721F(GB)	PS2581AL1	PC357N4T	PS2711-1	PC817X10	PS2501AL-1
HCPL-3140	PS9506	TLP250F(INV)	PS9552L1	TLP750	PS8502	PC357N5T	PS2701A-1	PC817X11	PS2501AL-1
HCPL-3150	PS9506	TLP280	PS2805C-1	TLP750F	PS8502L1	PC357N6T	PS2701A-1	PC817X12	PS2501AL-1
HCPL-786J	PS9451	TLP280(GB)	PS2805C-1	TLP751	PS8501	PC357N7T	PS2703-1	PC817X13	PS2501AL-1
HCPL-J312	PS9552-V	TLP280-4	PS2805C-4	TLP751F	PS8501L1	PC357N8T	PS2701A-1	PC817X14	PS2501L-1
HCPL-M453	PS8101	TLP280-4(GB)	PS2805C-4	TLP759	PS8502	PC357N9T	PS2701A-1	PC817X15	PS2501AL-1
HCPL-T251	PS9506	TLP281	PS2801C-1	TLP759F	PS8502L1	PC357NT	PS2701A-1	PC817X16	PS2501AL-1
6N135	PS8501 or PS8501L3	TLP281(GB)	PS2801C-1	TLP759(IGM)	PS9513	PC358	PS2703-1	PC817X17	PS2501AL-1
6N136	PS8501 or PS8501L3	TLP281-4	PS2801C-4	TLP759F(IGM)	PS9513L1	PC365N	PS2702-1 or PS2706-1	PC817X18	PS2501AL-1
6N137	PS9587 or PS9587L3	TLP281-4(GB)	PS2801C-4	TLP172A	PS7206-1A	PC367N1	PS2711-1	PC817X19	PS2501AL-1
ACPL-T350	PS9552	TLP320	PS2525-1	TLP172G	PS7241E-1A	PC367N2	PS2711-1	PC817XP	PS2501AL-1
HCPL-0452	PS8802-1	TLP321	PS2501A-1 or PS2561D-1	TLP176A	PS7241E-1A	PC367NJ	PS2711-1	PC817XP0	PS2501AL-1
HCPL-0453	PS8802-1	TLP321(BL)	PS2501A-1 or PS2561D-1	TLP176G	PS7241E-1A	PC3H4	PS2815-1	PC817XP1	PS2501AL-1
HCPL-0530	PS8802-2	TLP321(GB)	PS2501A-1 or PS2561D-1	TLP179D	PS7241E-1A	PC3H410NIP	PS2815-1	PC817XP2	PS2501AL-1
HCPL-0534	PS8802-2	TLP321(GR)	PS2501A-1 or PS2561D-1	TLP202G	PS7241-2A	PC3H411NIP	PS2815-1	PC817XP3	PS2501AL-1
HCPL-0600	PS9817A-1	TLP321(Y)	PS2501A-1 or PS2561D-1	TLP206G	PS7241-2A	PC3H7	PS2811-1 or PS2801C-1	PC817XP4	PS2501AL-1
HCPL-0601	PS9817A-1	TLP321-4	PS2501-4	TLP206GA	PS7241-2A	PC3H710NIP	PS2811-1	PC817XP5	PS2501AL-1
HCPL-060L	PS9821-1	TLP321-4(GB)	PS2501-4	Sharp	Renesas	PC3H711NIP	PS2811-1	PC817XP6	PS2501AL-1
HCPL-0611	PS9817A-1	TLP350	PS9552	6N135	PS8501	PC3H712NIP	PS2811-1	PC817XP7	PS2501AL-1
HCPL-0630	PS9817A-2	TLP350F	PS9552L1	6N136	PS8501	PC3H715NIP	PS2811-1	PC817XP8	PS2501AL-1
HCPL-0631	PS9817A-2	TLP351	PS9506	6N137	PS9587	PC3Q64Q	PS2815-4	PC817XP9	PS2501AL-1
HCPL-063L	PS9821-2	TLP421	PS2501A-1 or PS2561D-1	PC123	PS2561A-1 or PS2561D-1	PC3Q65	PS2802-4	PC826	PS2501-1
HCPL-0661	PS9817A-2	TLP421(BL)	PS2561-1	PC123A	PS2561A-1 or PS2561D-1	PC3Q66Q	PS2811-4	PC845	PS2502-4
HCPL-0661	PS9817A-2	TLP421(GB)	PS2501A-1 or PS2561D-1	PC123B	PS2561A-1 or PS2561D-1	PC40	PS9117A	PC846	PS2501-4
HCPL-0700	PS8802-1	TLP421(GR)	PS2501A-1 or PS2561D-1	PC123C	PS2561-1	PC40LONIP	PS9117A	PC847	PS2501-4
HCPL-0701	PS8802-1	TLP421(Y)	PS2501A-1 or PS2561D-1	PC123F	PS2581AL1	PC411L	PS9151	PC847AB	PS2501-4
HCPL-0708	PS9851-1	TLP421F	PS2581AL1	PC123F1	PS2581AL1	PC417	PS8101	PC847AD	PS2501-4
HCPL-0730	PS8802-2	TLP421F(BL)	PS2581L1	PC123F2	PS2581AL2	PC452	PS2733-1	PC847AC	PS2501-4
HCPL-0731	PS8802-2	TLP421F(GB)	PS2581AL1	PC123FP	PS2581AL2	PC457LONIP	PS8101	PC847BC	PS2501-4
HCPL-0738	PS9851-2	TLP421F(GR)	PS2581AL1	PC123FP1	PS2581AL2	PC457S	PS8802-1	PC847BD	PS2501-4
HCPL-2502	PS8501 or PS8501L3	TLP421F(Y)	PS2581AL1	PC123FP2	PS2581AL2	PC4D10S	PS9817A-2	PC847CD	PS2501-4
HCPL-2601	PS9587 or PS9587L3	TLP521-1	PS2501A-1	PC123FP5	PS2581L2	PC812	PS2501A-1	PC852	PS2535-1
HCPL-2611	PS9587 or PS9587L3	TLP521-1(BL)	PS2501A-1	PC123FP8	PS2581AL2	PC812A	PS2501A-1	PC852X	PS2533-1 or PS2535-1
HCPL-4502	PS8502 or PS8502L3	TLP521-1(GB)	PS2501A-1	PC123FS	PS2581AL1	PC812B	PS2501A-1	PC853	PS2535-1
HCPL-4503	PS8502 or PS8502L3	TLP521-1(GR)	PS2501A-1	PC123FY	PS2581AL1	PC812C	PS2501A-1	PC853H	PS2535-1
HCPL-4504	PS9513 or PS9513L3	TLP521-1(T)	PS2501A-1	PC123FY1	PS2581AL1	PC814X	PS2505-1	PC853X	PS2533-1 or PS2535-1
HCPL-4506	PS9513 or PS9513L3	TLP521-4	PS2501-4	PC123FY2	PS2581AL1	PC815	PS2502-1	PC865	PS2533-1 or PS2535-1
HCPL-7510	PS8551L4	TLP521-4(GB)	PS2501-4	PC123FY5	PS2581L1	PC816	PS2501A-1	PC910X	PS9587
HCPL-7520	PS8551L4	TLP523	PS2533-1 or PS2535-1	PC123FY8	PS2581AL1	PC816A	PS2501A-1	PC917X	PS8502
HCPL-7560	PS9551L4	TLP550	PS8502	PC123P	PS2561A-1 or PS2561D-1	PC816AB	PS2501A-1	PC918X	PS8501
HCPL-7840	PS8551L4	TLP551	PS8501	PC123P1	PS2561A-1 or PS2561D-1	PC816AC	PS2501A-1	PC922	PS9552
HCPL-7860	PS9551L4	TLP559	PS8502	PC123P2	PS2561A-1 or PS2561D-1	PC816AD	PS2501A-1	PC925L	PS9552
HCPL-J454	PS9513-V or PS9513L3-V	TLP620	PS2565-1	PC123P5	PS2561L-1	PC816B	PS2501A-1	PC957LONISZ	PS8502
HCPL-J456	PS9513-V or PS9513L3-V	TLP620(T)	PS2565-1	PC123PS	PS2561A-1 or PS2561D-1	PC816BC	PS2501A-1	PH3H5	PS2802-1
HCPL-M452	PS8101	TLP620F	PS2565L1-1	PC123PY	PS2561A-1-V or PS2561D-1-V	PC816BD	PS2501A-1	PH4H520NIP	PS2833-1
HCPL-M454	PS9113	TLP621	PS2501A-1 or PS2561D-1	PC123PY1	PS2561A-1-V or PS2561D-1-V	PC816C	PS2501A-1	Fairchild	Renesas
HCPL-M456	PS9113	TLP621(BL)	PS2561-1	PC123PY2	PS2561A-1-V or PS2561D-1-V	PC816CD	PS2501A-1	6N135	PS8501
HCPL-M600	PS9117A	TLP621(GB)	PS2501A-1 or PS2561D-1	PC123PY5	PS2561L-1-V	PC816D	PS2501-1	6N136	PS8501
HCPL-M601	PS9117A	TLP621(GR)	PS2501A-1 or PS2561D-1	PC123PY8	PS2561A-1-V or PS2561D-1-V	PC817X	PS2501A-1	FOD053L	PS8821-2
HCPL-M611	PS9117A	TLP621(T)	PS2501A-1 or PS2561D-1	PC123S	PS2561A-1 or PS2561D-1	PC817X0	PS2501A-1	FOD3181	PS9552
HCPL-M700	PS9113	TLP621(Y)	PS2501A-1 or PS2561D-1			PC817X1	PS2501A-1	FOD617A	PS2561B-1 or PS2561D-1
HCPL-M701	PS9113					PC817X2	PS2501A-1	FOD617B	PS2561B-1 or PS2561D-1
Toshiba	Renesas					PC817X3	PS2501A-1		
TLP102	PS9113					PC817X4	PS2501-1		
TLP112	PS8101					PC817X5	PS2501A-1		
TLP112A	PS8101								
TLP113	PS9117A								
TLP114A	PS8101								
TLP115	PS9117A								
TLP115A	PS9117A								
TLP116	PS9115								
TLP120	PS2705A-1								
TLP121	PS2701A-1								
TLP121(GB)	PS2701A-1								
TLP121(GR)	PS2701A-1								

Fairchild	Renesas	Vishay	Renesas	Vishay	Renesas	Vishay	Renesas	Liteon	Renesas
FOD617C	PS2561B-1 or PS2561D-1	K817P	PS2561A-1 or PS2561D-1	SFH6186-4	PS2503L-1	TCET1114G	PS2561BL1-1 or PS2561DL1-1	LTV355T	PS2702-1
FOD617D	PS2561B-1 or PS2561D-1	K817P1	PS2561A-1 or PS2561D-1	SFH6186-5	PS2503L-1	TCET1115	PS2561B-1 or PS2561D-1	LTV356T	PS2701A-1
FOD817	PS2561B-1 or PS2561D-1	K817P2	PS2561A-1 or PS2561D-1	SFH619A	PS2535-1 or PS2535L-1	TCET1115G	PS2561BL1-1 or PS2561DL1-1	LTV356T-A	PS2701A-1
FOD817A	PS2561B-1 or PS2561D-1	K817P3	PS2561A-1 or PS2561D-1	SFH620-1	PS2565-1	TCET1116	PS2561B-1 or PS2561D-1	LTV356T-B	PS2701A-1
FOD817B	PS2561B-1 or PS2561D-1	K817P4	PS2561A-1 or PS2561D-1	SFH620-2	PS2565-1	TCET1116G	PS2561BL1-1 or PS2561DL1-1	LTV356T-C	PS2701A-1
FOD817C	PS2561B-1 or PS2561D-1	K817P5	PS2561A-1 or PS2561D-1	SFH620-3	PS2565-1	TCET1117	PS2561B-1 or PS2561D-1	LTV357T	PS2701A-1
FOD817D	PS2561B-1 or PS2561D-1	K817P6	PS2561A-1 or PS2561D-1	SFH6206-1	PS2565L-1	TCET1117G	PS2561BL1-1 or PS2561DL1-1	LTV357T-A	PS2701A-1
FOD852	PS2533-1	K817P7	PS2561A-1 or PS2561D-1	SFH6206-2	PS2565L-1	TCET1118	PS2561B-1 or PS2561D-1	LTV357T-B	PS2701A-1
FODM2701	PS2761B-1	K817P8	PS2561A-1 or PS2561D-1	SFH6206-3	PS2565L-1	TCET1118G	PS2561BL1-1 or PS2561DL1-1	LTV357T-C	PS2703-1
FODM2701A	PS2761B-1	K817P9	PS2561D-1	SFH620AA	PS2565-1 or PS2565L-1	TCET1119	PS2561B-1 or PS2561D-1	LTV357T-D	PS2701A-1
FODM2701B	PS2761B-1	SFH1617A-1	PS2561B-1 or PS2561D-1	SFH620AGB	PS2565-1 or PS2565L-1	TCET1119G	PS2561BL1-1 or PS2561DL1-1	LTV357T-E	PS2701A-1
FODM452	PS8101	SFH1617A-2	PS2561B-1 or PS2561D-1	SFH6286-2	PS2565L-1	TCET1120	PS2561B-1 or PS2561D-1	LTV357T-F	PS2701A-1
FODM453	PS8101	SFH1617A-3	PS2561B-1 or PS2561D-1	SFH6286-3	PS2565L-1	TCET1121	PS2561BL1-1 or PS2561DL1-1	LTV358T	PS2703-1
H11A617A	PS2561A-1 or PS2561D-1	SFH1617A-4	PS2561B-1 or PS2561D-1	SFH6286-4	PS2565L-1	TCET1121G	PS2561B-1 or PS2561D-1	LTV358T-A	PS2703-1
H11A617B	PS2561A-1 or PS2561D-1	SFH1690ABT	PS2761B-1	SFH6343T	PS8802-1	TCET1122	PS2561BL1-1 or PS2561DL1-1	LTV358T-B	PS2703-1
H11A617C	PS2561A-1 or PS2561D-1	SFH1690AT	PS2761B-1	SFH6345	PS8802-1 or PS8502L1 or PS8502L3	TCET1123	PS2561B-1 or PS2561D-1	LTV358T-C	PS2703-1
H11A617D	PS2561-1	SFH1690BT	PS2761B-1	SFH6345	PS8802-1 or PS8502L1 or PS8502L3	TCET1124	PS2561BL1-1 or PS2561DL1-1	LTV815	PS2562-1
H11A817	PS2561A-1 or PS2561D-1	SFH1690CT	PS2761B-1	SFH655A	PS2562-1 or PS2562L-1	TCET1125	PS2561B-1 or PS2561D-1	LTV815M	PS2562L1-1
H11A817A	PS2561A-1 or PS2561D-1	SFH612A	PS2562-1	SFH655T	PS9817A-2	TCET1126	PS2561BL1-1 or PS2561DL1-1	LTV815S	PS2562L-1
H11A817B	PS2561A-1 or PS2561D-1	SFH6135	PS8501	SFH6756T	PS9817A-2	TCET1127	PS2561B-1 or PS2561D-1	LTV-816	PS2561A-1 or PS2561D-1
H11A817C	PS2561-1	SFH6136	PS8501	SFH6757T	PS9817A-2	TCET1128	PS2561BL1-1 or PS2561DL1-1	LTV-816-A	PS2561A-1 or PS2561D-1
H11A817D	PS2561-1	SFH615-1	PS2561A-1 or PS2561D-1	SFH690ABT	PS2701A-1	TCET1129	PS2561B-1 or PS2561D-1	LTV-816-B	PS2561A-1 or PS2561D-1
H11B815	PS2502-1	SFH615-2	PS2561A-1 or PS2561D-1	SFH690AT	PS2701A-1	TCET1130	PS2561BL1-1 or PS2561DL1-1	LTV-816-C	PS2561-1
HCPL-0452	PS8802-1	SFH615-3	PS2561A-1 or PS2561D-1	SFH690BT	PS2701A-1	TCET1131	PS2561B-1 or PS2561D-1	LTV-816-D	PS2561-1
HCPL-0453	PS8802-1	SFH615-4	PS2561-1	SFH690CT	PS2701A-1	TCET1132	PS2561BL1-1 or PS2561DL1-1	LTV-816-L	PS2561A-1 or PS2561D-1
HCPL-0530	PS8802-2	SFH6156-1	PS2561AL-1 or PS2561DL-1	SFH690DT	PS2701A-1	TCET1133	PS2561B-1 or PS2561D-1	LTV-816M	PS2561AL1-1 or PS2561DL1-1
HCPL-0534	PS8802-2	SFH6156-2	PS2561AL-1 or PS2561DL-1	SFH6916	PS2801C-4	TCET1134	PS2561BL1-1 or PS2561DL1-1	LTV-816S	PS2562L1-1 or PS2561DL-1
HCPL-062N	PS9821-2	SFH6156-3	PS2561AL-1 or PS2561DL-1	SFH691AT	PS2705A-1 or PS2765-1	TCET1135	PS2561B-1 or PS2561D-1	LTV-817	PS2561A-1 or PS2561D-1
HCPL-0637	PS9817A-2	SFH6156-4	PS2561L-1	SFH692AT	PS2733-1	TCET1136	PS2561BL1-1 or PS2561DL1-1	LTV-817-A	PS2561A-1 or PS2561D-1
HCPL-0638	PS9817A-2	SFH615A-1	PS2561D-1 or PS2561DL-1	TCED1100	PS2562-1	TCET1137	PS2561B-1 or PS2561D-1	LTV-817-B	PS2561A-1 or PS2561D-1
HCPL-0639	PS9817A-2	SFH615A-2	PS2561D-1 or PS2561DL-1	TCED1100G	PS2562L1-1	TCET1138	PS2561BL1-1 or PS2561DL1-1	LTV-817-C	PS2561-1
HCPL-0708	PS9851-1	SFH615A-3	PS2561D-1 or PS2561DL-1	TCET1100	PS2561A-1 or PS2561D-1	TCET1139	PS2561B-1 or PS2561D-1	LTV-817-D	PS2561-1
HCPL-0738	PS9851-2	SFH615A-4	PS2561D-1 or PS2561DL-1	TCET1100G	PS2581AL1	TCET1140	PS2561BL1-1 or PS2561DL1-1	LTV-817-L	PS2561A-1 or PS2561D-1
HCPL-2502	PS8501	SFH615AA	PS2561D-1 or PS2561DL1	TCET1101	PS2561A-1 or PS2561D-1	TCET1141	PS2561B-1 or PS2561D-1	LTV-817M	PS2561AL1-1 or PS2561DL1-1
HCPL-2503	PS8501	SFH615AB	PS2561D-1 or PS2561DL1	TCET1101G	PS2581AL1	TCET1142	PS2561BL1-1 or PS2561DL1-1	LTV-817S	PS2561AL-1 or PS2561DL-1
HCPL-4502	PS8502	SFH615ABL	PS2561-1 or PS2581L1	TCET1102	PS2561A-1 or PS2561D-1	TCET1143	PS2561B-1 or PS2561D-1	LTV824	PS2565-1
HCPL-500	PS8501	SFH615ABM	PS2561-1 or PS2581L1	TCET1102G	PS2581AL1	TCET1144	PS2561BL1-1 or PS2561DL1-1	LTV-852S	PS2535-1
HCPL-501	PS8501	SFH615AGB	PS2561D-1 or PS2561DL1	TCET1103	PS2561A-1 or PS2561D-1	TCET1145	PS2561B-1 or PS2561D-1	Cosmo	Renesas
HMA121	PS2701A-1	SFH615AGR	PS2561D-1 or PS2561DL1	TCET1103G	PS2581AL1	TCET1146	PS2561BL1-1 or PS2561DL1-1	K1010A	PS2561A-1 or PS2561D-1
HMA121A	PS2701A-1	SFH615AY	PS2561D-1 or PS2561DL1	TCET1104	PS2561-1	TCET1147	PS2561B-1 or PS2561D-1	K1010B	PS2561A-1 or PS2561D-1
HMA121B	PS2701A-1	SFH617A-1	PS2561D-1 or PS2561DL1	TCET1104G	PS2581L1	TCET1148	PS2561BL1-1 or PS2561DL1-1	K1010C	PS2561-1
HMA121C	PS2701A-1	SFH617A-2	PS2561D-1 or PS2561DL1	TCET1105	PS2561A-1 or PS2561D-1	TCET1149	PS2561B-1 or PS2561D-1	K1010D	PS2561-1
HMA121D	PS2701A-1	SFH617A-3	PS2561D-1 or PS2561DL1	TCET1105G	PS2581AL1	TCET1150	PS2561BL1-1 or PS2561DL1-1	K1010E	PS2561A-1 or PS2561D-1
HMA121E	PS2701A-1	SFH617A-4	PS2561D-1 or PS2561DL1	TCET1106	PS2561A-1 or PS2561D-1	TCET1151	PS2561B-1 or PS2561D-1	KP4010A	PS2535-1
HMA2701	PS2701A-1	SFH617G-1	PS2581AL1	TCET1106G	PS2581AL1	TCET1152	PS2561BL1-1 or PS2561DL1-1	KP4010C	PS2535-1
HMA2701A	PS2701A-1	SFH617G-2	PS2581AL1	TCET1107	PS2561A-1 or PS2561D-1	TCET1153	PS2561B-1 or PS2561D-1	KP4010D	PS2533-1
HMA2701B	PS2701A-1	SFH617G-3	PS2581AL1	TCET1107G	PS2581AL1	TCET1154	PS2561BL1-1 or PS2561DL1-1	KP4010E	PS2535-1
HMA2705	PS2705A-1	SFH617G-4	PS2581L1	TCET1108	PS2561A-1 or PS2561D-1	TCET1155	PS2561B-1 or PS2561D-1	KPC6N135	PS8501
HMAA2705	PS2705A-1 or PS2765-1	SFH6186-2	PS2503L-1	TCET1108G	PS2581AL1	TCET1156	PS2561BL1-1 or PS2561DL1-1	KPC6N136	PS8501
HMHA2801	PS2801C-1	SFH6186-3	PS2503L-1	TCET1109	PS2561-1	TCET1157	PS2561B-1 or PS2561D-1	KPC815	PS2535-1
HMHA2801A	PS2801C-1	SFH6186-4	PS2503L-1	TCET1109G	PS2581L1	TCET1158	PS2561BL1-1 or PS2561DL1-1	KPC2801	PS2801C-1
HMHA2801B	PS2801C-1			TCET1110	PS2561B-1 or PS2561D-1	TCET1159	PS2561B-1 or PS2561D-1	KPS2802	PS2802-1
HMHA2801C	PS2801C-1			TCET1110G	PS2561BL1-1 or PS2561DL1-1	TCET1160	PS2561BL1-1 or PS2561DL1-1	KPS2805	PS2805-1
HMHA281	PS2801C-1			TCET1111	PS2561B-1 or PS2561D-1	TCET1161	PS2561B-1 or PS2561D-1	KPS2832	PS2833-1
HMHA280	PS2805C-1			TCET1111G	PS2561BL1-1 or PS2561DL1-1	TCET1162	PS2561BL1-1 or PS2561DL1-1		
MCL2501	PS8501			TCET1112	PS2561B-1 or PS2561D-1	TCET1163	PS2561B-1 or PS2561D-1		
MCL2502	PS8501			TCET1112G	PS2561BL1-1 or PS2561DL1-1	TCET1164	PS2561BL1-1 or PS2561DL1-1		
MCL2503	PS8501			TCET1113	PS2561B-1 or PS2561D-1	TCET1165	PS2561B-1 or PS2561D-1		
MCL2601	PS9587			TCET1113G	PS2561BL1-1 or PS2561DL1-1	TCET1166	PS2561B-1 or PS2561D-1		
Vishay	Renesas			TCET1114	PS2561B-1 or PS2561D-1	TCET1167	PS2561BL1-1 or PS2561DL1-1		
6N135	PS8501 or PS8501L3					TCET1168	PS2561BL1-1 or PS2561DL1-1		
6N135-3054	PS8501					TCET1169	PS2561BL1-1 or PS2561DL1-1		
6N136	PS8501 or PS8501L1 or PS8501L3					TCET1170	PS2561BL1-1 or PS2561DL1-1		
6N136-3055	PS8501					TCET1171	PS2561BL1-1 or PS2561DL1-1		
K814P	PS2565-1					TCET1172	PS2561BL1-1 or PS2561DL1-1		
K815P	PS2562-1					TCET1173	PS2561BL1-1 or PS2561DL1-1		

Industrial Application Examples

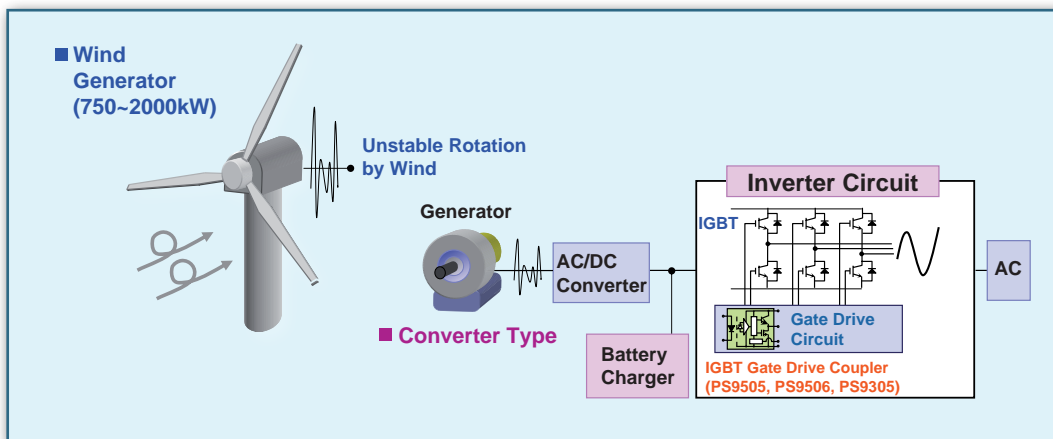
Solar Inverter using Renesas high-speed/standard couplers



PS9X13

- 1 Mbit/s IPM Drive
- High Output Voltage (35 V)
- High Isolation (upto 5 KV)

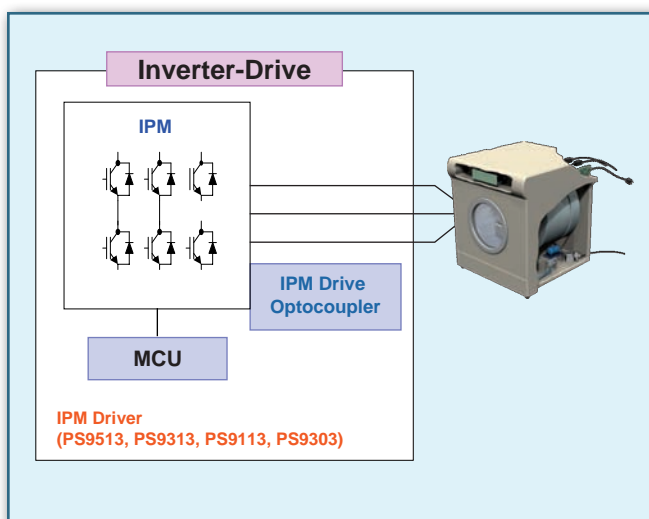
Wind Turbine using Renesas IGBT couplers



PS950X

- IGBT High Speed Gate Drive
- High Isolation (upto 5 KV)
- Creepage distance upto 8 mm

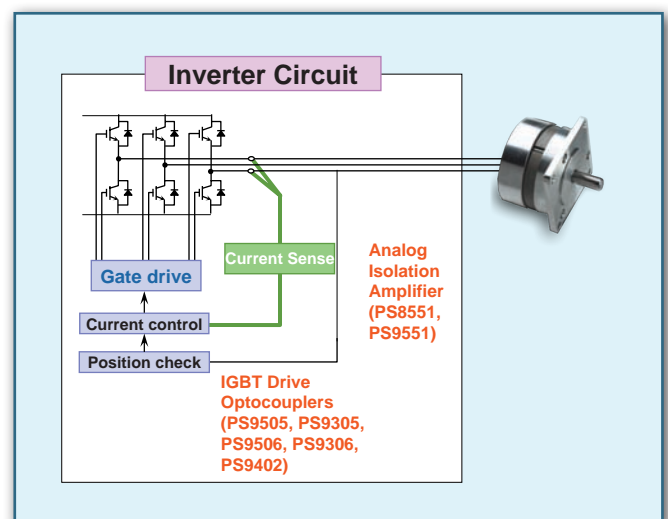
Washing Machine using Renesas IPM driver



PS9XX3

- IPM Driver
- Totem Pole Output
- High Isolation

Industrial Motor using Renesas high-speed couplers



PSX551

- Analog Isolation Amplifier
- High Linearity
- High Accuracy

Glossary

BV	Isolation Voltage	t_{off}	Turn-off Time
CM_{H}	Common Mode Transient Immunity at High Level Output	t_{PHL}	Propagation Delay Time (H → L)
CM_{L}	Common Mode Transient Immunity at Low Level Output	t_{PLH}	Propagation Delay Time (L → H)
CTR	Current Transfer Ratio	$ t_{\text{PHL}} - t_{\text{PLH}} $	Pulse Width Distortion (PWD)
I_{C}	Collector Current	V_{CC}	Supply Voltage
I_{F}	LED forward Current	$V_{\text{CC}} - V_{\text{EE}}$	Supply Voltage (IGBT-Drive Optocoupler)
I_{FHL}	Threshold Input Current	V_{CE}	Collector to Emitter Voltage
I_{O}	Output Current per channel	V_{CEO}	Collector to Emitter Voltage
R_{L}	Load Resistance	V_{DD}	Supply Voltage (CMOS Output Type Optocoupler)
T_{A}	Operating Ambient Temperature	V_{O}	Output Voltage
t_{d}	Delay Time	V_{IORM}	Isolation Working Voltage (with DIN EN60747-5-2 option)
t_{r}	Rise Time		
t_{on}	Turn-on Time		
t_{s}	Storage Time		
t_{f}	Fall Time		

Optocoupler Compass

← The Optocoupler Compass is available via the Attachment area (bottom left-hand corner of the pdf screen)

