



platt.com



ACS150 Input Protective Devices

ALL REACTORS AND FUSES ARE SIZED TO THE HP_L RATINGS OF THE VFD

Voltage	Part number	Frame	HP _L	A _L	HP _H	A _H	Reactor	Reactor	Type/Description	Fuses	Fuse	Fuse	Fuse	Fuse	Fuse	Fuse
							Part Number	Frame	Chassis Configuration	Qty	Block	Block	Block	Block	Block	Block
							Open Frame Device (See Table Below For Enclosures)				Open Fuse Blocks (Other Methods of Protection Available Online)					
1Φ	ACS150-01U-02A4-2	R0	0.5	2.4	0.5	2.2	KDRULA25H	E1	5% Input Line Reactor	JLLN-010	2	LFT30030-2C	1	LFT30030FBC	2	
	ACS150-01U-04A7-2	R1	1	4.7	1	4.2	KDRULA26H	E1	5% Input Line Reactor	JLLN-020	2	LFT30030-2C	1	LFT30030FBC	2	
	ACS150-01U-06A7-2	R1	1.5	6.7	1.5	6	KDRULA28H	E1	5% Input Line Reactor	JLLN-025	2	LFT30030-2C	1	LFT30030FBC	2	
	ACS150-01U-07A5-2	R2	2	7.5	2	6.8	KDRULB25H	E1	5% Input Line Reactor	JLLN-030	2	LFT30030-2C	1	LFT30030FBC	2	
	ACS150-01U-09A8-2	R2	3	9.8	2	8.8	KDRULB26H	E1	5% Input Line Reactor	JLLN-035	2	LFT30060-2C	1	LFT30060FBC	2	
3Φ	ACS150-03U-02A4-2	R0	0.5	2.4	0.5	2.2	KDRULA54H	E1	5% Input Line Reactor	JLLN-010	3	LFT30030-3C	1	LFT30030FBC	3	
	ACS150-03U-03A5-2	R0	0.75	3.5	0.75	3.2	KDRULA53H	E1	5% Input Line Reactor	JLLN-010	3	LFT30030-3C	1	LFT30030FBC	3	
	ACS150-03U-04A7-2	R1	1	4.7	1	4.2	KDRULA25H	E1	5% Input Line Reactor	JLLN-015	3	LFT30030-3C	1	LFT30030FBC	3	
	ACS150-03U-06A7-2	R1	1.5	6.7	1.5	6	KDRULA27H	E1	5% Input Line Reactor	JLLN-015	3	LFT30030-3C	1	LFT30030FBC	3	
	ACS150-03U-07A5-2	R1	2	7.5	2	6.8	KDRULA26H	E1	5% Input Line Reactor	JLLN-015	3	LFT30030-3C	1	LFT30030FBC	3	
	ACS150-03U-09A8-2	R2	3	9.8	2	8.8	KDRULA26H	E1	5% Input Line Reactor	JLLN-020	3	LFT30030-3C	1	LFT30030FBC	3	
3Φ	ACS150-03U-01A2-4	R0	0.5	1.2	0.5	1.1	KDRULA6H	E1	5% Input Line Reactor	JLLS-010	3	LFT60030-3C	1	LFT30030FBC	3	
	ACS150-03U-01A9-4	R0	0.75	1.9	0.75	1.7	KDRULA7H	E1	5% Input Line Reactor	JLLS-010	3	LFT60030-3C	1	LFT30030FBC	3	
	ACS150-03U-02A4-4	R1	1	2.4	1	1	KDRULA8H	E1	5% Input Line Reactor	JLLS-010	3	LFT60030-3C	1	LFT30030FBC	3	
	ACS150-03U-03A3-4	R1	1.5	3.3	1.5	1.5	KDRULA9H	E1	5% Input Line Reactor	JLLS-010	3	LFT60030-3C	1	LFT30030FBC	3	
	ACS150-03U-04A1-4	R1	2	4.1	2	2	KDRULA1H	E1	5% Input Line Reactor	JLLS-015	3	LFT60030-3C	1	LFT30030FBC	3	
	ACS150-03U-05A6-4	R1	3	5.6	3	3	KDRULA2H	E1	5% Input Line Reactor	JLLS-015	3	LFT60030-3C	1	LFT30030FBC	3	
	ACS150-03U-08A8-4	R1	5	8.8	5	5	KDRULA3H	E1	5% Input Line Reactor	JLLS-025	3	LFT60030-3C	1	LFT30030FBC	3	

NOTES

Input Reactors recommended(not required), Input Fuses Required for proper installation
Line Reactors Used on Single Phase Input, Connect to Terminals A & C, Insulate Terminal B

HP_L = 40°C (104°F) RATING, HP_H = 50°C (122°F) RATING CONTINUOUS

Reactor Enclosures					
Frame	Type		Type		
E1	UL Type 1		E011	UL Type 3R	E3R1
E2	UL Type 1		E012	UL Type 3R	E3R2
E3	UL Type 1		E013	UL Type 3R	E3R3

Note: Suffix E01 = Nema 1, E3R = Nema 3R



platt.com



ACS150 Output Protective Devices

ALL REACTORS AND DV/DT FILTERS ARE SIZED TO THE HP_L RATINGS OF THE VFD

Voltage	Part number	Frame	HP _L	A _L	HP _H	A _H	MAXIMUM MOTOR LEAD LENGTH							
							100' MAX, Open Frame (See Table Below For Enclosures)				>101', <1000', Open Frame		>101', <1000', Nema 1 Enclosure	
							Part Number	Frame	Type/Description	Part Number	Type/Description	Part Number	Type/Description	
1Φ 240VAC	ACS150-01U-02A4-2	R0	0.5	2.4	0.5	2.2	Output Motor Protection Typically not required for 208-240V Motors, Consult Platt Specialist or Factory If Customer Requires							
	ACS150-01U-04A7-2	R1	1	4.7	1	4.2								
	ACS150-01U-06A7-2	R1	1.5	6.7	1.5	6								
	ACS150-01U-07A5-2	R2	2	7.5	2	6.8								
	ACS150-01U-09A8-2	R2	3	9.8	2	8.8								
3Φ 240VAC	ACS150-03U-02A4-2	R0	0.5	2.4	0.5	2.2	Output Motor Protection Typically not required for 208-240V Motors, Consult Platt Specialist or Factory If Customer Requires							
	ACS150-03U-03A5-2	R0	0.75	3.5	0.75	3.2								
	ACS150-03U-04A7-2	R1	1	4.7	1	4.2								
	ACS150-03U-06A7-2	R1	1.5	6.7	1.5	6								
	ACS150-03U-07A5-2	R1	2	7.5	2	6.8								
	ACS150-03U-09A8-2	R2	3	9.8	2	8.8								
3Φ 480VAC	ACS150-03U-01A2-4	R0	0.5	1.2	0.5	1.1	KDRULA1P	E1	Output Reactor	V1K2A00	Dv/DT Filter	V1K2A01	Dv/DT Filter	
	ACS150-03U-01A9-4	R0	0.75	1.9	0.75	1.7	KDRULA1P	E1	Output Reactor	V1K2A00	Dv/DT Filter	V1K2A01	Dv/DT Filter	
	ACS150-03U-02A4-4	R1	1	2.4	1	1	KDRULA1P	E1	Output Reactor	V1K3A00	Dv/DT Filter	V1K3A01	Dv/DT Filter	
	ACS150-03U-03A3-4	R1	1.5	3.3	1.5	1.5	KDRULA1P	E1	Output Reactor	V1K3A00	Dv/DT Filter	V1K3A01	Dv/DT Filter	
	ACS150-03U-04A1-4	R1	2	4.1	2	2	KDRULA1P	E1	Output Reactor	V1K4A00	Dv/DT Filter	V1K4A01	Dv/DT Filter	
	ACS150-03U-05A6-4	R1	3	5.6	3	3	KDRULA2P	E1	Output Reactor	V1K6A00	Dv/DT Filter	V1K6A01	Dv/DT Filter	
	ACS150-03U-08A8-4	R1	5	8.8	5	5	KDRULA3P	E1	Output Reactor	V1K8A00	Dv/DT Filter	V1K8A01	Dv/DT Filter	

NOTES

For proper motor and lead protection we recommend(not required) units specified above, not using these devices can lead to pin holes in the motor leads and/or motor insulation failure

HP_L = 40°C (104°F) RATING, HP_H = 50°C (122°F) RATING CONTINUOUS

Reactor Enclosures					
Frame	Type		Type		
E1	UL Type 1	E011	UL Type 3R	E3R1	
E2	UL Type 1	E012	UL Type 3R	E3R2	
E3	UL Type 1	E013	UL Type 3R	E3R3	

Note: Suffix E01 = Nema 1, E3R = Nema 3R



platt.com

Drive to Motor Lead Length Considerations

For motor leads 100' or less, Output (Load) Reactors may be used.
Small Machinery Drives (ACS150, ACS310, ACS355) less than 15HP should be sized to next larger size to accommodate motor cable capacitance charging current requirements in leads longer than 100'

Flexible Armored THHN Cable		Units 35 Amps and below			
Frequency (kHz)	Cable Leads (Feet)				
	100'	101'-500'	501'-1000'	>1000'	
2	V1000-STD	V1000-STD	V1000-STD	V1000-EX	
4	V1000-STD	V1000-STD	V1000-STD	V1000-EX	
6	V1000-STD	V1000-STD	V1000-EX	MotorGuard	
8	V1000-STD	V1000-EX	MotorGuard	MotorGuard	

Flexible Armored THHN Cable		Units 45 Amps to 750 Amps			
Frequency (kHz)	Cable Leads (Feet)				
	100'	101'-500'	501'-1000'	>1000'	
2	V1000-STD	V1000-STD	V1000-STD	V1000-EX	
4	V1000-STD	V1000-STD	V1000-STD	V1000-EX	
6	V1000-STD	V1000-STD	V1000-STD	V1000-EX	
8	V1000-STD	V1000-EX	V1000-EX	V1000-EX	

Flat Cable or VFD Cable		Units 35 Amps and below			
Frequency (kHz)	Cable Leads (Feet)				
	100'	101'-500'	501'-1000'	>1000'	
2	V1000-STD	V1000-STD	V1000-STD	V1000-EX	
4	V1000-STD	V1000-STD	V1000-EX	MotorGuard	
6	V1000-STD	V1000-STD	MotorGuard	MotorGuard	
8	MotorGuard	MotorGuard	MotorGuard	MotorGuard	

Flat Cable or VFD Cable		Units 45 Amps to 750 Amps			
Frequency (kHz)	Cable Leads (Feet)				
	100'	101'-500'	501'-1000'	>1000'	
2	V1000-STD	V1000-STD	V1000-STD	V1000-EX	
4	V1000-STD	V1000-STD	V1000-EX	MotorGuard	
6	V1000-STD	V1000-EX	MotorGuard	MotorGuard	
8	MotorGuard	MotorGuard	MotorGuard	MotorGuard	

Notes:

All ABB drives are factory set @ 4 kHz

V1000 is a T.C.I. DV/DT Output Filter

V1000-EX is a T.C.I. Heavy Duty Rated DV/DT Output Filter

MotorGuard is the T.C.I. KMG High Performance Output Filter

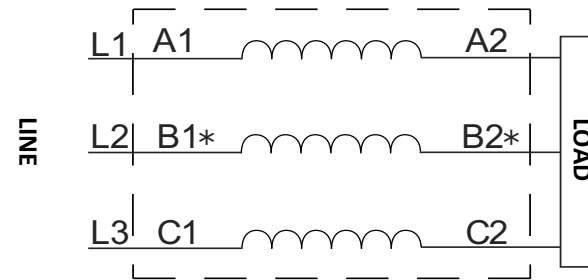
Refer to the Trans-Coil, Inc. catalogs for part numbers, details of product design and their use. <http://www.transcoil.com/>

Field Wiring Information

Below is the typical wiring diagram for the 3-phase reactor applied to the front end of the Variable Frequency Drive (VFD).

Single-phase applications are acceptable, however, it is important to size the unit based on the single phase Full Load Amperage of the VFD. The input and output connections should be on

Wiring Diagram



* For single-phase applications, use coils A and C.
Isolate terminals B1 and B2

For Input Reactors

The VFD will be connected to the load side of the reactor. A2, B2, C2 would be connected to U1, V1, W1 of the VFD. When connecting to a single phase input on a ACS150, ACS310, ACS355, connect A2 to U1, C2 to V1, On an ACS550 connect A2 to U1, C2 to W1. Connect Input Fuses

For Output Reactors & Dv/Dt Filters

The output of the VFD U1, V1, W1 would be connected to A1, B1, C1 of the reactor. The motor would be connected to A2, B2, C2 of the reactor.