

IMS2

Flexible Digital Solid State Soft Starter

The IMS2 series advanced starter offers a total motor starting solution, combining high level functionality with flexibility and ease of use. This universal source matched starter can accommodate 200-690VAC 3-phase input supply and is available up to 1500 hp at 575VAC. IMS2 starter input and output power termination bus bars are field configurable by the installer (Top-Top, Top, Bottom, etc.) to suit the wiring requirements at site.



- **Universal Input Voltage (208-690VAC, 45 to 66Hz)**
- **Built-In Motor protection**
- **4 wire start stop control**
- **Local/Remote Reset**
- **Numeric Keypad Display**
- **Flexible bus bar configuration**
- **Modbus and DeviceNet Options**
- **Remote Operator Option**
- **Bypass Contactor Option**
- **Constant Current/Ramp/Torque Start**

The IMS2 series starters are available in Panel Mount, NEMA 1, NEMA 3R, NEMA 4, NEMA 12 enclosures. Ratings & order codes are shown for NEMA 1 & NEMA 12 only. For other configurations consult factory. See the Packaged Soft Starter section for more details.

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IMS2 WEIGHTS & DIMENSIONS (Module, Chassis & NEMA 12)

Model Number	Module Only		NEMA 1		NEMA 1 C/B or NEMA 12 Bypass		NEMA 12 C/B & BP Including Crusher Duty	
	Dimensions HxWxD (in)	Weight (lbs)	Dimensions HxWxD (in)	Weight (lbs)	Dimensions HxWxD (in)	Weight (lbs)	Dimensions HxWxD (in)	Weight (lbs)
IMS20018 to 0047	15 x 7.3 x 7	13.2	24 x 20 x 12	80	24 x 20 x 12	110	30 x 24 x 12	120
IMS20067 to 0125	15 x 7.3 x 10	27			30 x 24 x 12	160		
IMS20141 to 0238	16.75 x 10.7 x 11	40	30 x 24 x 12	180	36 x 30 x 16	200	36 x 30 x 16	180
IMS20253	16.75 x 15.4 x 11	50.6						
IMS20302 to 0405	27.2 x 17 x 11.6	84	36 x 30 x 16	220	48 x 36 x 16	500	48 x 36 x 16	550
IMS20513 to 0585	27.2 x 17 x 11.6	111						
IMS20628 to 0897	27.2 x 17 x 11.6	117	48 x 36 x 16	275	60 x 36 x 16	800	60 x 36 x 16	800
IMS201153 to 1574	33.3 x 22.6 x 14	267			Call Factory for Quote			

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IMS2 OPTIONS

Description	Model Number	Order Code
Remote Keypad Kit	RCM01	870-1380
DeviceNet Interface Module	DCM01	870-1382

Note: Modbus Communications in AP ASCII, Modbus RTU and Modbus ASCII protocols are standard.

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MODULE

IMS2 (NORMAL DUTY RATINGS & ORDER GUIDE)

Normal Duty HP Voltage Code					Module without internal bypass	
1	2	4	5	ND Amps	Model Number	Order Code
208V	230V	460V	575V			
5	5	10	15	18	IMS20018	870-1350
10	10	25	30	34	IMS20034	870-1351
		30	40	41	IMS20041	870-1352
15	15			47	IMS20047	870-1353
20	20	50	60	67	IMS20067	870-1354
30	30	60	75	88	IMS20088	870-1355
		75		96	IMS20096	870-1356
40	40	100	125	125	IMS20125	870-1357
	50			141	IMS20141	870-1358
60	75	150	200	202	IMS20202	870-1359
75				238	IMS20238	870-1360
	100	200	250	253	IMS20253	870-1361
100		250	300	302	IMS20302	870-1362
150	150	300	400	405	IMS20405	870-1363
	200	400	500	513	IMS20513	870-1364
200		450	600	585	IMS20585	870-1365
	250	500		628	IMS20628	870-1366
250	300	600	800	775	IMS20775	870-1367
300	350	700	900	897	IMS20897	870-1368
400	450	900	1100	1153	IMS21153	870-1369
500		1100	1400	1403	IMS21403	870-1370
	600	1300	1500	1574	IMS21574	870-1371

ND = Normal Duty (Fan/Pump Application) verify the motor amps. Then select the starter amps to be equal or greater than motor amps.

IMS2 0018 to 1574 = 300% / 10 sec., 360 Sec., between starts.

IMS2 (HEAVY DUTY RATINGS & ORDER GUIDE)

Heavy Duty HP Voltage Code					Module without internal bypass	
1	2	4	5	HD Amps	Model Number	Order Code
208V	230V	460V	575V			
3	3	7.5	10	12	IMS20018	870-1350
5	7.5	15	20	24	IMS20034	870-1351
	10	20	25	28	IMS20041	870-1352
10			30	33	IMS20047	870-1353
	15	30	40	46	IMS20067	870-1354
15	20	40	50	59	IMS20088	870-1355
20			60	64	IMS20096	870-1356
25	30	60	75	84	IMS20125	870-1357
30				94	IMS20141	870-1358
40	50	100	125	135	IMS20202	870-1359
50	60	125	150	160	IMS20238	870-1360
				167	IMS20253	870-1361
60	75	150	200	205	IMS20302	870-1362
100	100	200	250	274	IMS20405	870-1363
	125	250	350	342	IMS20513	870-1364
125	150	300	400	392	IMS20585	870-1365
150		350	450	424	IMS20628	870-1366
	200	450		521	IMS20775	870-1367
200	250	500	600	604	IMS20897	870-1368
250	300	600	800	791	IMS21153	870-1369
350	400	800	1000	970	IMS21403	870-1370
400	450	900	1100	1091	IMS21574	870-1371

HD = Heavy Duty (Conveyor Application) verify the motor amps. Then select the starter amps to be equal or greater than motor amps.

IMS2 0018 to 1574 = 450% / 30 sec., 360 Sec., between starts.

IMS2 MODULE SPECIFICATIONS:

Operating Conditions

Horsepower	3 thru 1500 hp
Current range	12A-1574A (nominal)
Line Voltage	3 hp, 200 - 690 VAC
Supply Frequency (at start)	50 Hz (±2%) or 60 Hz (±2%)
Supply Frequency (during start)	> 45 Hz (50 Hz supply) or > 55 Hz (60 Hz supply)
Supply Frequency (during run)	> 48 Hz (50 Hz supply) or > 58 Hz (60 Hz supply)
Control Voltage	110 VAC (+10% / -15%) or 230 VAC (+10% / -15%)
Enclosure	IP00 (302-1574A), Open Chassis IP42 (18-253A), NEMA 2
Ambient Temperature	-5 – 60°C (23°F - 140°F) (Operating)
Altitude	1000 m (3,300 ft)
Relative Humidity	5% to 95% Non-condensing
Overload Capacity	See Ratings Table

Standard Features

Rated Short Circuit current	100 KA (with semiconductor fuses)
Rated Insulation Voltage	690V
Surges	2 KV line to earth, 1 KV line to line
Fast Transients	2KV / 5 KHz
Form Designation	Form 1
Electrostatic Discharge	4 KV contact discharge, 8 KV air discharge
Equipment Class (EMC)	Class A
Radio Frequency EM Field	0.15 MHz – 80 MHz; 140 dBµV; 80MHz - 1GHz: 10V/m
Pollution Degree	Pollution Degree 3

Inputs

Voltage Active 24 VDC, 8 mA, approx.

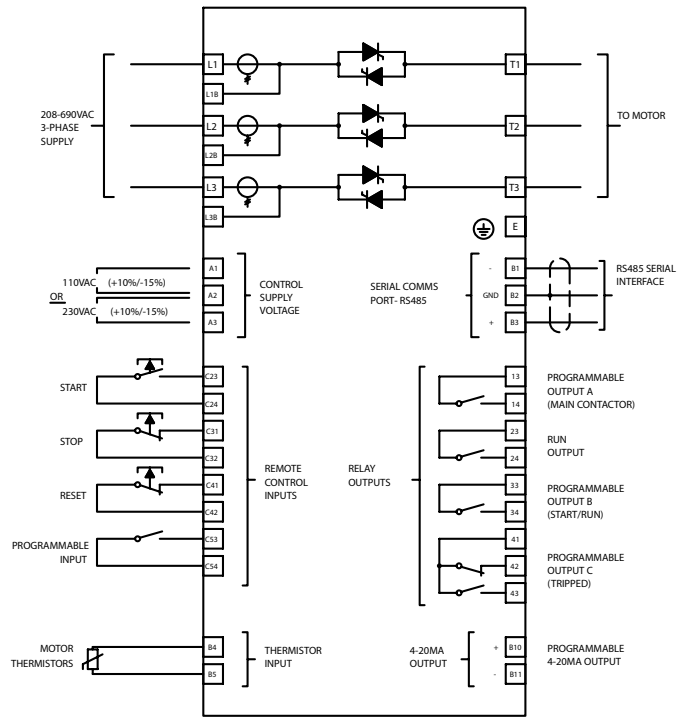
Outputs

Relay Outputs	5A @ 250 VAC / 360 VS, 5A @ 30 VDC resistive
Analog Output (B10, B11)	4-20 mA

Approvals & Listings

CE	IEC 60947-4-2
UL & CUL	UL 508A (size dependant)
C✓	IEC 60947-4-2

IMS2 WIRING DIAGRAM:



Soft Starters

**Please Consult the Factory
for special Soft Starter Solutions**