

## i3(F)DM\_RegisterMap\_V1\_72

Permission	Description					
Read Only	Only reading is allowed, writing is not allowed					
R/Wman	Any reading is allowed, but writing is only allowed in the manufacturing mode					
R/W	Any reading or writing is allowed					
R/Woff	Any reading is allowed, but writing is only allowed when the motor is stopped					
R/Whmi	Any reading is allowed, but writing is only allowed through PDM port					
Address	Description	Permission	Unit	Min	Max	Default
45	CPU Usage	Read Only	%	0	100	N/A
46	P2 Clock 0 : 0xMMSS	R/W				N/A
47	P2 Clock 1 : 0xDDHH	R/W				N/A
70	Control unit serial nbr : CCCC = Reference	R/Wman	Word			N/A
71	Control unit serial nbr : YYWWD = Year/Week/Day	R/Wman	Word			N/A
72	Control unit serial nbr : ZZXX = Batch/Running	R/Wman	Word			N/A
73	Control unit serial nbr : RR = Revision	R/Wman	Word	0	99	0
76	nEOCR - Version Number	Read Only	Unsigned Integer			N/A
80	PDM - Version Number	Read Only	Unsigned Integer			N/A
95	CT ratio	R/Woff	1 Uint	1	800	1
97	Current Loop Limit	R/W	0.1(* 0.01) A	5	600	100
119	Total Running Hour : MSB	Read Only	0.1 hour			N/A
120	Total Running Hour : LSB	Read Only	0.1 hour			N/A
150	Fault Number (Trip n-0)	Read Only	Unsigned Integer			N/A
151	Fault Phase (Trip n-0)	Read Only	Unsigned Integer			N/A
155	Fault Threshold (Trip n-0)	Read Only	0.1 A			N/A
156	Fault duration (Trip n-0)	Read Only				N/A
180	Fault Number (Trip n-1)	Read Only	Unsigned Integer			N/A
181	Fault Phase (Trip n-1)	Read Only	0.01 A			N/A
185	Fault Threshold (Trip n-1)	Read Only				N/A
186	Fault duration (Trip n-1)	Read Only				N/A
210	Fault Number (Trip n-2)	Read Only	Unsigned Integer			N/A
211	Fault Phase (Trip n-2)	Read Only				N/A
215	Fault Threshold (Trip n-2)	Read Only				N/A
216	Fault duration (Trip n-2)	Read Only				N/A
302	IL1 Current (Trip n-0) : MSB	Read Only	0.01 A			N/A
303	IL1 Current (Trip n-0) : LSB	Read Only	0.01 A			N/A
304	IL2 Current (Trip n-0) : MSB	Read Only	0.01 A			N/A
305	IL2 Current (Trip n-0) : LSB	Read Only	0.01 A			N/A
306	IL3 Current (Trip n-0) : MSB	Read Only	0.01 A			N/A
307	IL3 Current (Trip n-0) : LSB	Read Only	0.01 A			N/A
332	IL1 Current (Trip n-1) : MSB	Read Only	0.01 A			N/A
333	IL1 Current (Trip n-1) : LSB	Read Only	0.01 A			N/A
334	IL2 Current (Trip n-1) : MSB	Read Only	0.01 A			N/A
335	IL2 Current (Trip n-1) : LSB	Read Only	0.01 A			N/A
336	IL3 Current (Trip n-1) : MSB	Read Only	0.01 A			N/A
337	IL3 Current (Trip n-1) : LSB	Read Only	0.01 A			N/A
362	IL1 Current (Trip n-2) : MSB	Read Only	0.01 A			N/A
363	IL1 Current (Trip n-2) : LSB	Read Only	0.01 A			N/A
364	IL2 Current (Trip n-2) : MSB	Read Only	0.01 A			N/A
365	IL2 Current (Trip n-2) : LSB	Read Only	0.01 A			N/A
366	IL3 Current (Trip n-2) : MSB	Read Only	0.01 A			N/A
367	IL3 Current (Trip n-2) : LSB	Read Only	0.01 A			N/A
451	Fault number	Read Only	Unsigned Integer			N/A
452	Fault Status	Read Only	Bit Field			N/A
455	Global Status register	Read Only	Bit Field			N/A
458	LO Status	Read Only	Bit Field			N/A
465	Thermal Capacity Level	Read Only	% Trip Level	0	100	N/A
471	Unbalance Max Current	Read Only	% imb			N/A
484	Controller Port ID	R/W				N/A
500	Avg Rms Current : MSB	Read Only	0.01 A			N/A
501	Avg Rms Current : LSB	Read Only	0.01 A			N/A
502	IL1 Current : MSB	Read Only	0.01 A			N/A
503	IL1 Current : LSB	Read Only	0.01 A			N/A
504	IL2 Current : MSB	Read Only	0.01 A			N/A
505	IL2 Current : LSB	Read Only	0.01 A			N/A
506	IL3 Current : MSB	Read Only	0.01 A			N/A
507	IL3 Current : LSB	Read Only	0.01 A			N/A
515	Unbalance Max Phases	Read Only	Bit Field			N/A
542	Running Hour : MSB	Read Only	0.1 hour	0	255	0
543	Running Hour : LSB	Read Only	0.1 hour	0	65535	0

Address	Description	Permission	Unit	Min	Max	Default
544	Alert Threshold for running hour	R/W	1-10 hour	0	9999	0
547	Thermal overload trip time for definite TCC	R/W		100	3000	500
554	Auto Reset Limit in 30 minutes	R/W	Unsigned Integer	0	5	0
555	Current phase loss Fault Duration	R/W	0.01 Sec	50	500	200
556	Over current Fault Duration	R/W	0.01 Sec	20	* 3000	500
557	Over current Fault Threshold	R/W	0.1(* 0.01) A	5	600	50
558	Alert Threshold	R/W	% OC	50	100	50
600	HMI Password for change parameters	Read Only		0	999	0
601	Global configuration Register	R/W	Bit Field			2
602	Under current Fault Threshold	R/W	0.1(* 0.01) A	5	600	50
614	Curr imbal Flt duration	R/W	0.001 Sec	1000	10000	5000
615	Current imbalance Fault Threshold	R/W	% imb	10	50	50
617	Jam Fault Duration	R/W	0.01Sec	20	1000	500
618	Jam Fault Threshold	R/W	% OC	150	800	400
620	Under current Fault Duration	R/W	0.01Sec	50	* 3000	500
621	Under current Fault Threshold	R/W	0.1(* 0.01) A	5	OC	5
623	Stall Fault Duration	R/W	1 Sec	5	* 200	5
624	Stall Fault Threshold	R/W	% OC	200	800	400
631	Fault enable status 1	R/W	Bit Field			367
638	Auto Reset Delay	R/W	0.1Sec	5	12000	50
693	Network comm loss time-out	R/W	Sec	1	999	10
694	Network port parity setting	R/W	Unsigned Integer	0	2	1
695	Network communication speed setting	R/W	Word	1200	38400	19200
696	Slave address setting on network	R/W	Word	1	247	1
705	MOP Command register (from IEC61915)	R/Woff	Bit Field			0
1000	PDM Keypad state	R/W/mri				N/A
1001	PDM Display : LSB=digit1 / MSB=digit2	Read Only	Word			N/A
1002	PDM Display : LSB=digit3 / MSB=digit4	Read Only				N/A
1003	PDM Display : LSB=digit5 / MSB=digit6	Read Only				N/A
1004	PDM Display : LSB=digit7 / MSB=reserved	Read Only				N/A
1020	PDM Firmware Version	R/W/mri	Word			N/A
1100	PDM Manufacture mode (1-normal, 0x5A5A-manufacturer)	Read Only	Bit Field			N/A
2000	Calibration - Avg Rms Current : MSB	Read Only	0.01 A			N/A
2001	Calibration - Avg Rms Current : LSB	Read Only	0.01 A			N/A
2002	Calibration - IL1 Current : MSB	Read Only	0.01 A			N/A
2003	Calibration - IL1 Current : LSB	Read Only	0.01 A			N/A
2004	Calibration - IL2 Current : MSB	Read Only	0.01 A			N/A
2005	Calibration - IL2 Current : LSB	Read Only	0.01 A			N/A
2006	Calibration - IL3 Current : MSB	Read Only	0.01 A			N/A
2007	Calibration - IL3 Current : LSB	Read Only	0.01 A			N/A
2100	Unratioed Average Load Current	Read Only	0.01 A			N/A
2101	Unratioed IL1 Current	Read Only	0.01 A			N/A
2102	Unratioed IL2 Current	Read Only	0.01 A			N/A
2103	Unratioed IL3 Current	Read Only	0.01 A			N/A
2105	Raw Over current Fault Threshold	R/W	0.1A	5	600	50
2106	Raw Under current Fault Threshold	R/W	0.1A	5	OC	5
2107	Raw Current Loop Limit	R/W	0.1A	5	600	100
29998	Manufacturing password	R/W	Unsigned Integer			N/A
30000	Manufacturing data	R/W/man	Unsigned Integer			N/A
30040	Manufacturing Command	R/W/man	Word			N/A
30100	L1 Low Current Scale Factor	R/W/man	Unsigned Integer	0	65535	N/A
30101	L2 Low Current Scale Factor	R/W/man	Signed Integer	0	65535	N/A
30102	L3 Low Current Scale Factor	R/W/man	Unsigned Integer	0	65535	N/A
30103	L1 High Current Scale Factor	R/W/man	Unsigned Integer	0	65535	N/A
30104	L2 High Current Scale Factor	R/W/man	Signed Integer	0	65535	N/A
30105	L3 High Current Scale Factor	R/W/man	Unsigned Integer	0	65535	N/A
30108	420 Calibration Factor	R/W/man	Unsigned Integer	0	65535	N/A
30109	L1 Fine Current Scale Factor	R/W/man	Unsigned Integer	0	65535	N/A
30110	L2 Fine Current Scale Factor	R/W/man	Signed Integer	0	65535	N/A
30111	L3 Fine Current Scale Factor	R/W/man	Unsigned Integer	0	65535	N/A
30112	L1 HighFine Current Scale Factor	R/W/man	Unsigned Integer	0	65535	N/A
30113	L2 HighFine Current Scale Factor	R/W/man	Signed Integer	0	65535	N/A
30114	L3 HighFine Current Scale Factor	R/W/man	Unsigned Integer	0	65535	N/A
30116	L1 User Current Scale Factor	R/W	Unsigned Integer	0	65535	N/A
30117	L2 User Current Scale Factor	R/W	Unsigned Integer	0	65535	N/A
30118	L3 User Current Scale Factor	R/W	Unsigned Integer	0	65535	N/A
30119	L1 User Current Calibration Point	R/W	0.01 A	0	65535	N/A
30120	L2 User Current Calibration Point	R/W	0.01 A	0	65535	N/A
30121	L3 User Current Calibration Point	R/W	0.01 A	0	65535	N/A
30200	Menu Customization	Read Only	Unsigned Integer	0	65535	N/A
31000	PDM Keypad state	R/W/man				N/A
31001	PDM Display : LSB=digit1 / MSB=digit2	R/W/man				N/A
31002	PDM Display : LSB=digit3 / MSB=digit4	R/W/man				N/A
31003	PDM Display : LSB=digit5 / MSB=digit6	R/W/man				N/A
31004	PDM Display : LSB=digit7 / MSB=reserved	R/W/man				N/A
31020	PDM Firmware Version	R/W/man				N/A
31100	PDM Manufacture mode (1-normal, 0x5A5A-manufacturer)	R/W/man				N/A

**"Config" sheet describes register which is used for configuration**

Register	Bit	Name	Description
601	0	Config required	
	1	Reset type	0 - Manual reset, 1 - Electric reset, 2 - Auto reset
	2		
	3	Fail safe mode enabled	0- disable, 1 - enabled
	4	Reserved	
	5	Reserved	
	6		
	7	Alert config	0 - none, 1 - alert-A, 2 - alert-F, 3 - alert-H, 4 - alert-to, 5 - alert - uc
	8		
	9	Reserved	
	10	Reserved	
	11	System Frequency	0 - 60Hz, 1 - 50Hz
	12	Low frequency mode	0 - Nomal, 1 - Low frequency
	13	1 Phase Motor	1 - single phase, 0 - 3 phase motor
	14	Reserved	
15	Reserved		
631	1	失速 Stall Enabled	
	3	過電流 Overload Config	0 - none, 1 - Definite, 2 - Thermal, 3 - Inverse
	4		
	5	馬達鎖死 Jam Enabled	
	6	電流不平衡 Imbalance Enabled	
	7	低電流 Undercurrent Enabled	
	8	欠向 Phase Loss Enabled	
	9	逆向 Reverse Phase Enabled	
	10	Reserved	
	11	Reserved	
	12	Reserved	
	13	Reserved	
	14	Reserved	
	15	Network Comm Loss Enabled	
	30200	0	
1			
2		Max DT	
3		CT Ratio	
4			
5		Max OT	
6			
7		Max UT	
8		reserved	
9		reserved	
10		reserved	
11		reserved	
12		reserved	
13		reserved	
14		reserved	
15		reserved	